A DICTIONARY PRACTICAL, THEORETICAL, AND HISTORICAL OF COMMERCE...

John Ramsay McCulloch



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M'CULLOCH'S

COMMERCIAL DICTIONARY.

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LONDON: PRINTED BY
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A DICTIONARY

PRACTICAL, THEORETICAL, AND HISTORICAL

OF

COMMERCE AND COMMERCIAL NAVIGATION.

BY THE LATE

J. R. M'CULLOCH

OF H. M. STATIONERY OFFICE.





WITH A BIOGRAPHICAL NOTICE BY THE EDITOR.

NEW EDITION,

REVISED AND CORRECTED THROUGHOUT.

(TWO SUPPLEMENTS BEING ADDED TO SHOW THE PROGRESS OF BRITISH COMMERCIAL LEGISLATION DOWN TO 1870 INCLUSIVE.)

EDITED BY

HUGH G. REID

SECRETARY TO MR. M'CULLOCH FOR MANY YEARS.

LONDON:

LONGMANS, GREEN, AND CO.

1871.

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PREFACE

TO

THE EDITION OF 1869.

It has been well observed of M'Culloch's *Commercial Dictionary*, that though it must be continually re-edited, to meet the constant changes of our times, the work is so carefully founded on great principles that the necessity of completely remodelling it can scarcely arise.

The Author, after making the necessary preparations, had actually commenced a new Edition of the book a few months before his death; and in completing this task the Editor has, as far as possible, adhered to the Author's plan and arrangement of the work, and above all has respected, by preserving intact, the expressions of his well-considered and well-known opinions on the various subjects treated of in this Dictionary. For these opinions, however, the Author, and not the Editor, should be held responsible.

A few articles on subjects with regard to which science must necessarily be progressive, such as those on ACIDS and ALKALIES, have been entirely recast; and many subjects, such as PASSPORTS, PETROLEUM, TELEGRAPHS, TRANSIT, &c., are introduced to the reader's notice for the first time, under their appropriate heads.

It will be observed, by those familiar with former issues of this work, that much of the very small type has disappeared from the present impression; and, with a view to facilitate reference, this Edition has been printed throughout in double columns. As indicating the freshness of the new matter given in the following pages, it may be noted that extracts from the Russian Tariff of 1869 will be found under PETERSBURG; and that Mr. Lowe's Resolutions affecting the Customs and Inland Revenue are embodied in the article TARIFF, BRITISH, and referred to under TEA, WHEAT, &c.

In a work of such extent the Editor has necessarily been indebted to very many for aid, and to those more especially who have rendered gratuitous assistance he would offer his best thanks. Though it seems almost invidious to distinguish any, where all have so readily afforded valuable information and efficient help, he cannot refrain from expressing his heavier obligations to Mr. Robert Slater of Fore Street (unfortunately since deceased), Mr. Robin Allen, the Secretary, and Mr. John Inglis, Assistant-Secretary of the Trinity House; Mr. B. C. Stephenson, Secretary of Lloyd's; Mr. W. S. Lindsay, formerly M.P. for Sunderland; Mr. Thomson, of Messrs. Bell, Rannie & Co.; and to the Rev. G. W. Cox, M.A., Editor of Brande's Dictionary of Science, &c.

The Editor is bound also to acknowledge the aid he has derived from the various Commercial Reports of the British Consuls. But it is only just and right that M'Culloch's *Commercial Dictionary* should have the fullest benefit from this source of information—for it would appear that it was at the Author's suggestion that Lord Aberdeen called for these Reports in the form and detail which they now exhibit. And it may not be too much to say here, that the adoption of Mr. M'Culloch's plan has resulted in the production of that series of accurate, business-like, and instructive documents which have been thought worthy of being printed, and laid before Parliament.

The Editor, as son-in-law as well as Secretary to the Author, has had ample opportunities of being familiar with his views on many subjects, and as his Secretary acquired considerable experience in the mode of compiling this work by assisting Mr. M'Culloch more or less, from 1843 downwards, in its tabular and more mechanical portions.

H. G. R.

London: *May* 1869.

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BIBLIOTECA PROVINCIALE DI NAPOLI

PREFACE

TO

THE EDITION OF 1859.

THOUGH in part a reprint, the edition of this Dictionary now laid before the reader, has undergone many alterations, and is, we trust, considerably improved. The extraordinary increase of manufactures and commerce in almost all countries,* and the opening of various new and important channels of intercourse, have rendered changes necessary in most parts of the work. We had, for example, to notice the new arrangements with China and Japan; the abolition of the Sound Duties; the termination of the rule of the East India Company in India; the continued efflux of the precious metals to that continent and China; the introduction of several new articles, such as VEGETABLE WAX and SHEA BUTTER, into the list of imports; with an all but endless variety of other matters.

The rules and regulations, too, under which trade is carried on, have been materially modified within the last four or five years. The United States and Russia passed, in 1857, new and comparatively moderate tariffs. And we are glad to have to state that the greater number of the changes which we have had to notice in the commercial legislation of foreign countries, have been of a liberal character. It seems, also, reasonable to suppose that the freedom of trade and industry will be more and more diffused, according as nations and their rulers become better acquainted with the sound principles on which it is founded, and with the wonderful progress we have made, and are continuing to make, in industrial pursuits, since we shook off the shackles of the protective system.

The greater importance of some of the many topics we have had to discuss, has necessarily required for them the greatest share of our attention. We have not, however, neglected or slurred over the others, but have endeavoured to set the different matters treated of in the clearest point of view that the information at our disposal would permit. This, it is true, has sometimes been neither so ample, so recent, nor so precise, as might have been desired. But we have

* There is, it must be admitted, one great exception to this statement. The fertile, well situated, and extensive countries subjected to Turkish misgovernment and oppression continue sunk in barbarism; or, if there be anywhere any symptoms of improvement, they are only to be found among the subjugated races. The Turks themselves have retrograded; and their religion, and the institutions and opinions to which it has given birth, are insuperable obstacles to anything like real progress. But it is not to be supposed, despite the support it will no doubt receive, that this worthless and superannuated system of misrule should exist much longer. And there can be no doubt that its overthrow, whether it be effected by the righteous rebellion of those it has so long trampled under foot, or by foreign force, will be a vast gain to humanity. It will do more than anything else that can be done to extend the sphere of civilisation and commerce.

done our best to obviate these defects by resorting to the quarters most likely to be well-informed. And on this, as on other occasions, those to whom we applied, have, with but few exceptions, evinced the greatest readiness, and even anxiety, to give us every assistance in their power. We have noticed some gentlemen to whom we have been indebted at the end of the articles to which they especially contributed; and among these and others, we may specify Sir James Emerson Tennent, and W. M. Bucknall, Esq., of the Board of Trade; Alfred Latham, Esq., Deputy Governor of the Bank of England; Andrew Jamieson, Esq., of the firm of Jamieson, Brothers & Co.; R. C. Crosbie, Esq., of Liverpool; Robert Slater, Esq., of Fore Street, London; Marmaduke Hornidge, Esq., of the East India House; W. S. Lindsay, Esq., M.P.; J. A. Messenger, Esq., Inspector-General of Imports and Exports; Dr. Strang, of Glasgow; John Crawfurd, Esq., late of Singapore; and the very learned bookseller, Nicholas Trübner, Esq., of Paternoster Row. It is only by the assistance of individuals having correct information at their disposal, and of those engaged in different lines of business, in different parts of the world, that a work of this sort can be rendered of any considerable value. No diligence of enquiry can acquire satisfactory information respecting most part of the subjects of which we have had to treat from books and statistical returns, even when these exist and are accessible, which is frequently not the case. It can only be acquired by comparing these, or, where they are wanting, supplying their place with the communications of intelligent individuals familiar with the matters referred to.

We would fain hope that there are fewer errors in this than in the previous impressions of this work, and that it will be found to be in various respects more complete and serviceable. No ordinary amount of labour has been expended upon it. And though the details incident to most part of the subjects which it embraces be perpetually changing, the principles by which it is pervaded are, we are well assured, of an enduring character, and will be no less applicable in the ages that are to come than at present.

*** We added to the preface to a former edition of this work the following brief notice of one of the most upright and patriotic statesmen that this country has ever produced. However defective it may be reckoned, the place, at least, was not inappropriate for its introduction. And whatever mutations this book may be destined to undergo, this notice will not, we hope, be displaced, unless it be to make room for one less unworthy of the subject.

'We may, perhaps, be excused, if, before concluding this notice introductory to a work which he honoured with his approbation, we briefly advert to the irreparable loss which the United Kingdom, and the commercial world generally, have sustained since the publication of our last edition, in the premature death of Sir Robert Peel. There are but few of the more important topics treated of in this volume in which we have not had to refer to the enlightened and well-digested measures of that great statesman. The maintenance of our old monetary standard, and the sound and comparatively satisfactory state of our banking system, are mainly a consequence of his exertions. To say that he did more to promote the public well-being, by introducing enlarged and liberal principles into our economical policy, than any other minister, would be to say little or nothing; for he did more to forward these great ends than all our other ministers put together, from the Revolution down to the present times. Not

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that we mean to say that we equally approve of all his measures, or think that some of them might not have been in some respects amended. But we refer to the spirit which pervaded his policy, its object, and its general influence. England was the centre of his solicitude; but the majority of the measures which he supported and carried, and his great example, have redounded, and will continue to redound, not to the advantage of this country only, but of the world. And hence the deep regret which his death excited in all but the most barbarous nations—"*Finis vitæ ejus amicis luctuosus, patriæ tristis, extraneis etiam ignotisque non sine cura fuit.*" *

'Though slow to change an opinion or system of policy, he had none of that miserable pride or partisan bigotry, which so often passes for principle, that disdains to profit by experience, and is above the acknowledgment of an error. He was at all times ready to inquire, and open to conviction. And whenever he had fully satisfied himself that it was necessary, to promote or secure the public welfare, that he should abandon an old or adopt a new course, he did so at once. The moment he was impressed with that conviction, all doubts and difficulties vanished from his mind. His duty to his country absorbed every other consideration. Neither the taunts of opponents nor the desertion of friends could influence his resolution. And he spared no efforts, and shrunk from no sacrifice, however unparalleled, to accomplish his patriotic purposes. Other ministers have equalled, and a few may perhaps have surpassed, Sir Robert Peel in ability. But he stands foremost among British statesmen for disinterestedness; and for a determination to support and advance, at whatever cost to himself, what he believed to be the lasting and real interests of the community.

* Taciti Vit. Agricol. c. 43.

PREFACE

TO

THE SECOND EDITION.

THE first impression of this Dictionary, consisting of 2,000 copies, was entirely sold off in less than nine months from the date of its publication. We feel very deeply indebted to the public for this unequivocal proof of its approbation; and we have endeavoured to evince our gratitude, by labouring to render the work less undeserving a continuance of the favour with which it has been honoured. In the prosecution of this object, we have subjected every part of it to a careful revision; have endeavoured to eradicate the errors that had escaped our notice; to improve those parts that were incomplete or defective; and to supply such articles as had been omitted. We dare not flatter ourselves with the idea that we have fully succeeded in these objects. The want of recent and accurate details as to several important subjects, has been an obstacle we have not, in all cases, been able to overcome; but those in any degree familiar with such investigations will not, perhaps, be disposed severely to censure our deficiencies in this respect.

The changes in the law bearing upon commercial transactions have been carefully specified. Copious abstracts of the late Customs Acts are contained in the articles COLONIES AND COLONY TRADE, IMPORTATION AND EXPORTATION, NAVIGATION LAWS, REGISTRY, SMUGGLING, WAREHOUSING &c.

The abolition of the East India Company's commercial monopoly, and the great and growing interest* that has in consequence been excited amongst all classes respecting the commercial capabilities and practices of India, China, and other Eastern countries, have made us bestow peculiar attention to this department. The articles BANGKOK, BATAVIA, BOMBAY, BUSHIRE, BUSSORAH, CALCUTTA, CANTON, COLUMBO, EAST INDIA COMPANY AND EAST INDIES, INDIGO, MACAO, MADRAS, MANILLA, MAULMAIN, MOCHA, MUSCAT, NAGASAKI, OPIUM, RANGOON, SINGAPORE, TATTA, TEA, &c. contain, it is believed, a greater mass of recent and well-authenticated details as to the commerce of the vast countries stretching from the Arabic Gulf to the Chinese Sea, than is to be found in any other English publication.

The article BANKING is mostly new. Besides embodying the late Act prolonging the charter of the Bank of England, and the more important details given in the Report of the Select Committee on the Renewal of the Bank Charter, this article contains some novel and important information not elsewhere to be met

* The recent events in China have added greatly to this interest, and have made us enter, in this edition, into several additional details.

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with. No account of the issues of the Bank of England has hitherto been published, that extends farther back than 1777. But this deficiency is now, for the first time, supplied; the Directors having obligingly furnished us with an account of the issues of the Bank on February 28 and August 31, of each year, from 1698, within four years of its establishment, down to the present time. We have also procured a statement, from authority, of the mode of transacting business in the Bank of Scotland; and have been able to supply several additional particulars, both with respect to British and to foreign banks.

We have made many additions to, and alterations in, the numerous articles descriptive of the various commodities that form the materials of commerce, and the historical notices by which some of them are accompanied. We hope they will be found more accurate and complete than formerly.

The Gazetteer department, or that embracing accounts of the principal foreign emporiums with which this country maintains a direct intercourse, was, perhaps, the most defective in the old edition. If it be no longer in this predicament, the improvement has been principally owing to official co-operation. The sort of information we desired as to the great sea-port towns could not be derived from books, nor from any sources accessible to the public; and it was necessary, therefore, to set about exploring others. In this view we drew up a series of queries, embracing an investigation of imports and exports, commercial and shipping regulations, port charges, duties &c., that might be transmitted to any port in any part of the world. There would, however, in many instances, have been much difficulty in getting them answered with the requisite care and attention by private individuals; and the scheme would have had but a very partial success, had it not been for the friendly interference of Mr. Poulett Thomson. Alive to the importance of having the queries properly answered, he undertook to use his influence to get them transmitted to the Consuls. This was accordingly done; and answers have been received from the greater number of these functionaries. There is, of course, a considerable inequality amongst them; but for the most part they embody a good deal of valuable information, and some of them are drawn up with a degree of skill, and display an extent of research and a capacity of observation, that reflect high credit on their authors.*

The information thus obtained, added to what we received through other but not less authentic channels, supplied us with the means of describing twice the number of foreign sea-ports noticed in our former edition; and of enlarging, amending, and correcting the accounts of such as were noticed. Besides much fuller details than have ever been previously published of the nature and extent of the trade of many of these places, the reader will, in most instances, find a minute account of the regulations to be observed respecting the entry and clearing of ships and goods, with statements of the different public charges laid on shipping, the rates of commission and brokerage, the duties on the principal goods imported and exported, the prices of provisions, the regulations as to quarantine, the practice as to credit, banking &c., with a variety of other particulars. We have also described the ports; and have specified their depth of water, the course to be steered by vessels on entering, with the rules as to pilotage, and the fees on account of pilots, light-houses &c. As it is very difficult to convey a sufficiently distinct idea of a sea-port by any description, we have given plans, taken from the latest and best authorities, of about a dozen of the principal foreign ports. Whether we have succeeded, is more than we can venture to say; but we hope we have said enough to satisfy

* The returns furnished by the Consuls at Hamburg, Trieste and Venice, Naples, Dantzic, Bordeaux, Christiania, Amsterdam, Elsineur, New York, Charleston, &c. are particularly good.

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the reader, that we have spared no pains to furnish him with authentic information in this important department.

The TARIFF, or Table of Duties on Imports, &c., in this edition, is peculiarly valuable. It is divided into three columns: the first containing an account of the existing duties payable on the importation of foreign products for home use, as the same were fixed by the Act of last year, 3 & 4 Wm. IV. c. 56; the next column exhibits the duties payable on the same articles in 1819, as fixed by the Act 59 Geo. III. c. 52; and the third and last column exhibits the duties as they were fixed in 1787 by Mr. Pitt's Consolidation Act, the 27 Geo. III. c. 13. The duties are rated throughout in Imperial weights and measures; and allowances have been made for differences in the mode of charging, &c. The reader has, therefore, before him, and may compare together, the present customs duties with the duties as they stood at the end of the late war, and at its commencement. No similar Table is to be met with in any other work. We are indebted for it to J. D. Hume, Esq., of the Board of Trade, at whose suggestion, and under whose direction, it has been prepared. Its compilation was a work of much labour and difficulty; and could not have been accomplished by any one not well acquainted with the Customs Acts, and the various changes in the mode of assessing the duties.

On the whole, we trust it will be found that the work has been improved throughout, either by the correction of mistakes, or by the addition of new and useful matter. Still, however, we are well aware that it is in various respects defective; but we are not without hopes that those who look into it will be indulgent enough to believe that this has been owing as much to the extreme difficulty, or rather, perhaps, the impossibility, of obtaining accurate information respecting some of the subjects treated of, as to the want of care and attention on our part. Even as regards many important topics connected with the commerce and manufactures of Great Britain, we have had to regret the want of authentic details, and been obliged to grope our way in the dark. The condition and habits of the English and Scotch are so very different from those of the Irish, that conclusions deduced from considering the trade or consumption of the United Kingdom *en masse*, are frequently of little value; and may, indeed, unless carefully sifted, be the most fallacious imaginable; while, owing to the want of any account of the cross-channel trade between the two great divisions of the empire, it is not possible accurately to estimate the consumption of either, or to obtain any sure means of judging of their respective progress in wealth and industry. As respects manufactures, there is a still greater deficiency of trustworthy details. But the articles relating to them in this work having been submitted to the highest practical authorities, we incline to think they are about as accurate as they can well be rendered.

The statistical Tables published by the Board of Trade embrace the substance of hundreds of accounts, scattered over a vast mass of Parliamentary papers. They seem to be compiled with great care and judgment, and are a very valuable acquisition. We have frequently been largely indebted to them. But their arrangement, and their constantly increasing number and bulk, make them quite unfit for being readily or advantageously consulted by practical men. Most part of the returns relating to the principal articles given in this work go back to a much more distant period than those published by the Board of Trade.

We have seen no reason to modify or alter any PRINCIPLE OF COMMERCIAL POLICY advanced in our former edition. In some instances, we have varied the exposition a little, but that is all. In every case, however, we have separated the practical, legal, and historical statements from those of a speculative nature; so that those most disposed to dissent from our theoretical notions will, we hope,

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be ready to admit that they have not been allowed to detract from the practical utility of the work.

The maps given with the former edition have been partially re-engraved, and otherwise improved. Exclusive of the plans already referred to, the present edition contains two new maps: one, of the completed and proposed canals and railroads of Great Britain and Ireland; exhibiting, also, the coal-fields, the position of the different lighthouses, &c.: the other map exhibits the mouths of the rivers Mersey and Dee, and the country from Liverpool to Manchester, with the various lines of communication between these two great and flourishing emporiums. Care has been taken to render them accurate.

We are under peculiar obligations to many official, mercantile, and private gentlemen in this and other countries, who have favoured us with communications. We hardly ever applied to anyone, however much engaged in business, for any information coming within his department, which he did not readily furnish. We have seldom met with any mystery, concealment, or affectation of concealment. Most individuals seemed disposed to tell us all that they knew; and several gentlemen have taken a degree of trouble with respect to various articles in this work, for which our thanks make but a poor return.

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PREFACE

TO

THE FIRST EDITION.

It has been the wish of the Author and Publishers of this Work, that it should be as extensively useful as possible. If they be not deceived in their expectations, it may be advantageously employed, as a sort of *vade mecum*, by merchants, traders, ship-owners, and ship-masters, in conducting the details of their respective businesses. It is hoped, however, that this object has been attained without omitting the consideration of any topic, incident to the subject, that seemed calculated to make the book generally serviceable, and to recommend it to the attention of all classes.

Had our object been merely to consider commerce as a science, or to investigate its principles, we should not have adopted the form of a Dictionary. But commerce is not a science only, but also an *art* of vast practical importance, in the prosecution of which a very large proportion of the population of every civilised country is actively engaged. Hence, to be generally useful, a work on commerce should combine practice, theory, and history. Different readers may resort to it for different purposes; and everyone should be able to find in it clear and accurate information, whether his object be to make himself familiar with details, to acquire a knowledge of principles, or to learn the revolutions that have taken place in the various departments of trade.

The following short outline of what this Work contains may enable the reader to estimate the probability of its fulfilling the objects for which it has been intended:—

I. It contains accounts of the various articles which form the subject matter of commercial transactions. To their English names are, for the most part, subjoined their synonymous appellations in French, German, Italian, Russian, Spanish &c.; and sometimes, also, in Arabic, Hindoo, Chinese, and other Eastern languages. We have endeavoured, by consulting the best authorities, to make the descriptions of commodities as accurate as possible; and have pointed out the tests or marks by which their goodness may be ascertained. The places where they are produced are also specified; the quantities exported from such places; and the different regulations, duties &c. affecting their importation and exportation, which have been carefully stated, and their influence examined. The prices of most articles have been given, sometimes for a lengthened period. Historical notices are inserted illustrative of the rise and progress of the trade in the most important articles; and it is hoped that the information embodied in these notices will be found to be as authentic as it is interesting.

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II. The Work contains a general article on COMMERCE, explanatory of its nature, principles, and objects, and embracing an enquiry into the policy of restrictions intended to promote industry at home, or to advance the public interests by excluding or restraining foreign competition. Exclusive, however, of this general article, we have separately examined the operation of the existing restrictions on the trade in particular articles, and with particular countries, in the accounts of those articles, and of the great sea-port towns belonging to the countries referred to. There must, of course, be more or less of sameness in the discussion of such points, the principle which runs through them being identical. But in a Dictionary this is of no consequence. The reader seldom consults more than one or two articles at a time; and it is of infinitely more importance to bring the whole subject at once before him, than to seek to avoid the appearance of repetition by referring from one article to another. In this Work such references are made as seldom as possible.

III. The articles which more particularly refer to commercial navigation are AVERAGE, BILLS OF LADING, BOTTOMRY, CHARTERPARTY, FREIGHT, INSURANCE (MARINE), MASTER, NAVIGATION LAWS, OWNERS, REGISTRY, SALVAGE, SEAMEN, SHIPS, TONNAGE, WRECK &c. These articles embrace a pretty full exposition of the law as to shipping: we have particularly endeavoured to exhibit the privileges enjoyed by British ships; the conditions and formalities, the observance of which is necessary to the acquisition and preservation of such privileges, and to the transference of property in ships; the responsibilities incurred by the masters and owners in their capacity of public carriers; and the reciprocal duties and obligations of owners, masters, and seamen. In this department, we have made considerable use of the treatise of Lord Tenterden on the Law of Shipping—a work that does honour to the learning and talents of its noble author. The Registry Act and the Navigation Act are given with very little abridgment. To this head may also be referred the articles on the COD, HERRING, PILCHARD and WHALE fisheries.

IV. The principles and practice of commercial arithmetic and accounts are unfolded in the articles BOOK-KEEPING, DISCOUNT, EXCHANGE, INTEREST AND ANNUITIES &c. The article BOOK-KEEPING has been furnished by one of the official assignees under the new Bankrupt Act. It exhibits a view of this important art as actually practised in the most extensive mercantile houses in town. The tables for calculating interest and annuities are believed to be more complete than any hitherto given in any work not treating professedly of such subjects.

V. A considerable class of articles may be regarded as descriptive of the various means and devices that have been fallen upon for extending and facilitating commerce and navigation. Of these, taking them in their order, the articles BANKS, BROKERS, BUOYS, CANALS, CARAVANS, CARRIERS, COINS, COLONIES, COMPANIES, CONSULS, CONVOYS, DOCKS, FACTORS, FAIRS AND MARKETS, LIGHT-HOUSES, MONEY, PARTNERSHIP, PILOTAGE, POST-OFFICE, RAIL-ROADS, ROADS, TREATIES (COMMERCIAL), WEIGHTS AND MEASURES &c. are among the most important. In the article BANKS, the reader will find, besides an exposition of the principles of banking, a pretty full account (derived principally from official sources) of the Bank of England, the private banks of London, and the English provincial banks; the Scotch and Irish banks; and the most celebrated foreign banks: to complete this department, an account of Savings' Banks is subjoined, with a set of rules which may be taken as a model for such institutions.* There is added to the article COINS, a Table of the assay, weight, and sterling value of the principal foreign gold and silver coins,

* Some of the improvements made on this article are noticed in the Preface to the Second Edition.

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deduced from assays made at the London and Paris Mints, taken, by permission, from the last edition of Dr. Kelly's *Cambist*. The article COLONIES is one of the most extensive in the work: it contains a sketch of the ancient and modern systems of colonisation; an examination of the principles of colonial policy; and a view of the extent, trade, population, and resources of the colonies of this and other countries. In this article, and in the articles CAPE OF GOOD HOPE, COLUMBO, HALIFAX, QUEBEC, SYDNEY, and VAN DIEMEN'S LAND, recent and authentic information is given, which those intending to emigrate will find worth their attention. The map of the British possessions in North America is on a pretty large scale, and is second to none, of those countries, hitherto published in an accessible form. The article COLONIES is also illustrated by a map of Central America and the West Indies. An engraved plan is given, along with the article DOCKS, of the river Thames and the docks from Blackwall to the Tower; and the latest regulations issued by the different Dock Companies here and in other towns, as to the docking of ships, and the charges on that account, and on account of the loading, unloading, warehousing &c. of goods, are given verbatim. The statements in the articles LIGHTHOUSES and PILOTAGE have been mostly furnished by the Trinity House, or derived from papers printed by order of the Admiralty, and may be implicitly relied upon. In the article WEIGHTS AND MEASURES the reader will find tables of the equivalents of wine, ale, and Winchester measures, in Imperial measure.

VI. Besides a general article on the constitution, advantages, and disadvantages of Companies, accounts are given of the principal associations existing in Great Britain for the purpose of conducting commercial undertakings, or undertakings subordinate to and connected with commerce. Among others (exclusive of the Banking and Dock Companies already referred to) may be mentioned the EAST INDIA COMPANY, the GAS COMPANIES, the INSURANCE COMPANIES, the MINING COMPANIES, the WATER COMPANIES, &c. The article on the East India Company is of considerable length; it contains a pretty complete sketch of the rise, progress, and present state of the British trade with India; an estimate of the influence of the Company's monopoly; and a view of the revenue, population &c. of our Indian dominions. We have endeavoured, in treating of insurance, to supply what we think a desideratum, by giving a distinct and plain statement of its principles, and a brief notice of its history; with an account of the rules and practices followed by individuals and companies in transacting the more important departments of the business; and of the terms on which houses, lives &c. are commonly insured. The part of the article which peculiarly respects marine insurance has been contributed by a practical gentleman of much knowledge and experience in that branch.

VII. In addition to the notices of the Excise and Customs regulations affecting particular commodities given under their names, the reader will find articles under the heads of CUSTOMS, EXCISE, IMPORTATION AND EXPORTATION, LICENSES, SMUGGLING, WAREHOUSING &c. which comprise most part of the practical details belonging to the business of the Excise and Customs, particularly the latter. The most important Customs Acts are given with very little abridgment, and being printed in small letter, they occupy comparatively little space. The article TARIFF contains an account of the various duties, drawbacks, and bounties, on the importation and exportation of all sorts of commodities into and from this country.—We once intended to give the tariffs of some of the principal Continental states; but, from the frequency of the changes made in them, they would very soon have become obsolete, and would have tended rather to mislead than to instruct. But the reader will notwithstanding

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find a good deal of information respecting foreign duties under the articles CADIZ, HAVRE, NAPLES, NEW YORK, TRIESTE &c.

VIII. Among the articles of a miscellaneous description, may be specified ALIENS, APPRENTICE, AUCTIONEER, BALANCE OF TRADE, BANKRUPTCY, CONTRABAND, CREDIT, HANSEATIC LEAGUE, IMPORTS AND EXPORTS, IMPRESSMENT, IONIAN ISLANDS, MARITIME LAW, PASSENGERS, PATENTS, PAWNBROKING, PIRACY, POPULATION, PRECIOUS METALS, PRICES, PRIVATEERS, PRUSSIAN OR GERMAN COMMERCIAL UNION, PUBLICANS, QUARANTINE, REVENUE AND EXPENDITURE, SLAVES AND SLAVE TRADE, TALLY TRADE, TRUCK SYSTEM &c.*

IX. Accounts are given, under their proper heads, of the principal emporiums with which this country has any immediate intercourse; of the commodities usually exported from and imported into them; of their moneys, weights, and measures; and of such of their institutions, customs, and regulations, with respect to commerce and navigation, as seemed to deserve notice. There are occasionally subjoined to these accounts of the great seaports, pretty full statements of the trade of the countries in which they are situated, as in the instances of ALEXANDRIA, AMSTERDAM, BORDEAUX, BUENOS AYRES, CADIZ, CALCUTTA, CANTON, COPENHAGEN, DANTZIC, GALACZ, GALVESTON, HAVANNAH, HAVRE, LIMA, MONTEVIDEO, NAPLES, NEW YORK, ODESSA, PALERMO, PETERSBURG, RIO DE JANEIRO, SMYRNA, STOCKHOLM, TRIESTE, VALPARAISO, VERA CRUZ &c.* To have attempted to do this systematically would have increased the size of the Work beyond all reasonable limits, and embarrassed it with details nowise interesting to the English reader. The plan we have adopted has enabled us to treat of such matters as might be supposed to be of importance in England, and to reject the rest. We believe, however, that, notwithstanding this selection, those who compare this work with others, will find that it contains a much larger mass of authentic information respecting the trade and navigation of foreign countries than is to be found in any other English publication.

The reader may be inclined, perhaps, to think that it must be impossible to embrace the discussion of so many subjects in a single octavo volume, without treating a large proportion in a very brief and unsatisfactory manner. But, in point of fact, this single octavo contains about as much letterpress as is contained in two ordinary folio volumes, and more than is contained in Macpherson's Annals of Commerce, in four large volumes quarto, published at 8*l.* 8*s.*! This extraordinary condensation has been effected without any sacrifice of beauty or distinctness. Could we suppose that the substance of the book is at all equal to its form, there would be little room for doubt as to its success.

Aware that, in a work of this nature, accuracy in matters of fact is of primary importance, we have rarely made any statement without mentioning our authority. Except, too, in the case of books in every one's hands, or Dictionaries, the page or chapter of the works referred to is generally specified; experience having taught us that the convenient practice of stringing together a list of authorities at the end of an article is much oftener a cloak for ignorance than an evidence of research.

Our object being to describe articles in the state in which they are offered for sale, we have not entered, except when it was necessary to give precision or clearness to their description, into any details as to the processes followed in their manufacture.

Besides the maps already noticed, the Work contains a map of the world, on Mercator's projection, and a map of Central and Southern Europe and the

* Several of these articles have been inserted for the first time in this (the third complete) edition of the work; but we thought it most convenient to enumerate them with the others.

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Mediterranean Sea. These maps are on a larger scale than those usually given with works of this sort; and have been carefully corrected, and compared with the best authorities.

Such is a rough outline of what the reader may expect to meet with in this Dictionary. We do not, however, flatter ourselves with the notion that he will consider that all that has been attempted has been properly executed. In a work embracing such an extreme range and diversity of subjects, respecting many of which it is exceedingly difficult, if not quite impossible, to obtain accurate information, no one will be offended should he detect a few errors. At the same time we can affirm that neither labour nor expense has been spared to entitle the Work to the public confidence and patronage. The author has been almost incessantly engaged upon it for upwards of five years; and he may be said to have spent the previous part of his life in preparing for the undertaking. He has derived valuable assistance from some distinguished official gentlemen, and from many eminent merchants; and has endeavoured, wherever it was practicable, to build his conclusions upon official documents. But in very many instances he has been obliged to adopt less authentic data; and he does not suppose that he has had sagacity enough always to resort to the best authorities, or that, amidst conflicting and contradictory statements, he has uniformly selected those most worthy of being relied upon, or that the inferences he has drawn are always such as the real circumstances of the case would warrant. But he has done his best not to be wanting in these respects. Not being engaged in any sort of business, nor being under any description of obligation to any political party, there was nothing to induce us, in any instance, to conceal or pervert the truth. We have, therefore, censured freely and openly whatever we considered wrong; but the grounds of our opinion are uniformly assigned; so that the reader may always judge for himself as to its correctness. Our sole object has been to produce a work that should be generally useful, particularly to merchants and traders, and which should be creditable to ourselves. Whether we have succeeded, the award of the public will show; and to it we submit our labours, not with 'frigid indifference,' but with an anxious hope that it may be found we have not misemployed our time, and engaged in an undertaking too vast for our limited means.

The following notices of some of the most celebrated Commercial Dictionaries may not, perhaps, be unacceptable. At all events, they will show that there is at least room for the present attempt.

The *Grand Dictionnaire de Commerce*, begun and principally executed by M. Savary, Inspector of Customs at Paris, and completed by his brother, the Abbé Savary, Canon of St. Maur, was published at Paris in 1723, in two volumes folio: a supplemental volume being added in 1730. This was the first work of the kind that appeared in modern Europe; and has furnished the principal part of the materials for most of those by which it has been followed. The undertaking was liberally patronised by the French government, who justly considered that a Commercial Dictionary, if well executed, would be of national importance. Hence a considerable, and, indeed, the most valuable, portion of Savary's work is compiled from Memoirs sent him, by order of government, by the inspectors of manufactures in France, and by the French consuls in foreign countries. An enlarged edition of the *Dictionnaire* was published at Geneva in 1750, in six folio volumes. But the best edition is that of Copenhagen, in five volumes folio; the first of which appeared in 1759, and the last in 1765.

More than the half of this work consists of matter altogether foreign to its

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proper object. It is, in fact, a sort of Dictionary of Manufactures as well as of Commerce; descriptions being given, which are, necessarily perhaps, in most instances exceedingly incomplete, and which the want of plates often renders unintelligible, of the methods followed in the manufacture of the commodities described. It is also filled with lengthened articles on natural history, the bye-laws and privileges of different corporations, and a variety of subjects nowise connected with commercial pursuits. No one, however, need look into it for any development of sound principles, or for enlarged views. It is valuable as a repertory of facts relating to commerce and manufactures at the commencement of last century, collected with laudable care and industry; but it is pervaded by the spirit of a customs officer, and not of a merchant or a philosopher. '*Souvent dans ses réflexions, il tend plutôt à égarer ses lecteurs qu'à les conduire, et des maximes nuisibles au progrès du commerce et de l'industrie obtiennent presque toujours ses éloges et son approbation.*'

The preceding extract is from the Prospectus, in one volume octavo, published by the Abbé Morellet, in 1769, of a new Commercial Dictionary, to be completed in five or probably six volumes folio. This Prospectus is a work of sterling merit; and from the acknowledged learning and talent of its author, and his capacity for laborious exertion, there can be no doubt that, had the projected Dictionary been completed, it would have been infinitely superior to that of Savary. It appears (Prospectus, pp. 353—373) that Morellet had been engaged for a number of years in preparations for this great work; and that he had amassed a large collection of books and manuscripts relative to national economy, and the commerce, navigation, colonies, arts &c. of France and other countries. The enterprise was begun under the auspices of M. Trudaine, Intendant of Finance, and was patronised by Messrs. L'Averdy and Bertin, Comptrollers General. But whether it were owing to the gigantic nature of the undertaking, to the author having become too much engrossed with other pursuits, the want of sufficient encouragement, or some other cause, no part of the proposed Dictionary ever appeared. We are ignorant of the fate of the valuable collection of manuscripts made by the Abbé Morellet. His books were sold at Paris within these few years.

A Commercial Dictionary, in three volumes 4to., forming part of the *Encyclopédie Méthodique*, was published at Paris in 1783. It is very unequally executed, and contains numerous articles that might have been advantageously left out. The editors acknowledge in their Preface that they have, in most instances, been obliged to borrow from Savary. The best parts of the work are copied from the edition of the *Traité Général du Commerce* of Ricard, published at Amsterdam in 1781, in two volumes 4to.*

The earliest Commercial Dictionary published in England was compiled by Malachy Postlethwayt, Esq., a diligent and indefatigable writer. The first part of the first edition appeared in 1751. The last edition, in two enormous folio volumes, was published in 1774. It is chargeable with the same defects as that of Savary, of which, indeed, it is for the most part a literal translation. The author has made no effort to condense or combine the statements under different articles, which are frequently not a little contradictory; at the same time that many of them are totally unconnected with commerce.

In 1761, Richard Rolt, Esq., published a Commercial Dictionary in one pretty large folio volume. The best part of this work is its Preface, which was contributed by Dr. Johnson. It is for the most part abridged from Postlethwayt; but

* This, when published, must have been a very valuable work. It is now, however, in a great measure obsolete.

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it contains some useful articles purloined from other works, mixed, however, with many alien to the subject.

In 1766, a Commercial Dictionary was published, in two rather thin folio volumes, by Thomas Mortimer, Esq., at that time Vice-Consul for the Netherlands. This is a more commodious and better arranged, but not a more valuable work than that of Postlethwayt. The plan of the author embraces, like that of his predecessors, too great a variety of objects; more than half the work being filled with geographical articles, and articles describing the processes carried on in different departments of manufacturing industry; there are also articles on very many subjects, such as architecture, the natural history of the ocean, the land-tax, the qualifications of surgeons &c., the relation of which to commerce, navigation, or manufactures, it seems difficult to discover.

In 1810, a Commercial Dictionary was published, in one thick octavo volume, purporting to be by Mr. Mortimer. We understand, however, that he had but little, if anything, to do with its compilation. It is quite unworthy of the subject, and of the epoch when it appeared. It has all the faults of those by which it was preceded, with but few peculiar merits. Being not only a Dictionary of Commerce and Navigation, but of Manufactures, it contains accounts of the different Arts: but to describe these in a satisfactory and really useful manner, would require several volumes, and the co-operation of many individuals: so that, while the accounts referred to are worth very little, they occupy so large a space that room has not been left for the proper discussion of those subjects from which alone the work derives whatever value it possesses. Thus, there is an article of twenty-two pages technically describing the various processes of the art of painting, while the general article on commerce is comprised in less than *two* pages. The articles on coin and money do not together occupy four pages, being considerably less than the space allotted to the articles on engraving and etching. There is not a word said as to the circumstances which determine the course of exchange; and the important subject of credit is disposed of in less than *two lines*! Perhaps, however, the greatest defect in the work is its total want of anything like science. No attempt is ever made to explain the principles on which any operation depends. Everything is treated as if it were empirical and arbitrary. Except in the legal articles, no authorities are quoted; so that very little dependence can be placed on the statements advanced.

In another Commercial Dictionary, republished within these few years, the general article on commerce consists of a discussion with respect to simple and compound demand, and simple and double competition: luckily the article does not fill quite a page; being considerably shorter than the description of the kaleidoscope.

Under these circumstances, we do think that there is room for a new Dictionary of Commerce and Commercial Navigation: and whatever may be thought of our Work, it cannot be said that in bringing it into the field we are encroaching on ground already fully occupied.

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BIOGRAPHICAL NOTICE.

JOHN RAMSAY MCCULLOCH, author of *The Commercial Dictionary*, and many other well-known works, economical and statistical, was the eldest son of Mr. William McCulloch, and was born at Whithorn in Wigtownshire on March 1, 1789..

His father, the eldest son of Edward McCulloch of Auchengool, a small landed proprietor in the stewartry of Kirkcudbright, died in Mr. McCulloch's infancy, and the latter having succeeded to his paternal property at a very early age, was reared and partly educated by his maternal grandfather, the Rev. Dr. James Laing, minister of the parish of Glasserton in Wigtownshire. He has described his grandfather, Dr. Laing, as a good classical scholar, and one who had a high relish for the beauties of literature, ancient and modern. In his library, which was extensive and valuable, Mr. McCulloch early acquired that passion for books which remained with him throughout life.

His mother having remarried, Mr. McCulloch resided with her and her husband, Dr. Dempster, at Kinross, and attended a school in that town for a few years. About 1805 he removed to Edinburgh, and commenced his studies at the University in that city. Among other classes, he attended those of Sir John Leslie, and Dr. Thomas Brown the metaphysician. His acquaintance with Leslie ripened into a lasting friendship, and he describes Sir John (in his *Catalogue* afterwards alluded to) as 'liberal in his views, of a social disposition, good-tempered, and without either artifice or pretence;' but of Brown he speaks somewhat disparagingly: 'I attended a course of Brown's lectures, which were nearly identical with those that were afterwards published; and whoever looks into the latter may easily imagine of what use such a course would be to a parcel of young men, who were neither permitted to take notes nor examined to ascertain whether they knew anything of what they had heard. The proceeding, in truth, was little better than a farce. A few students of superior talent, or having a taste for metaphysical research, might perhaps derive some little advantage from their attendance on Brown; but nine-tenths of his hearers would have profited quite as much by the greater number of the lectures, had he delivered them in Greek.' It would seem that Mr. McCulloch was originally intended for, if he did not choose, the profession of the law, and (as is usual in Scotland under such circumstances, whatever may be the branch for which the legal student is in-

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tended) he entered the office of a Writer to the Signet or solicitor, to acquire the necessary practical knowledge of forms and details. But he quickly evinced a distaste for these minutiæ, which generally prove unattractive to the young. Speaking of himself, he confesses, 'I had early the advantage, or disadvantage, I do not venture to say which, of being left to follow those studies, and read those books which I preferred, and to chalk out pursuits for myself.' So he forsook the law for a more congenial study, and eventually gave his almost undivided attention to that branch of science which he has done so much to advance and illustrate.

Mr. McCulloch took an ardent interest in the politics of the day. It may be said of him, as Sydney Smith said of Francis Horner, 'He loved truth better than he loved Dundas, at that time the tyrant of Scotland.' For though Liberalism was by no means so safe or profitable a profession of faith as it has been in our time, and political courage in the North was, in the early part of the century, at a very low ebb, he unhesitatingly joined the party of progress, and was one of the most formidable assailants of the faction which then domineered over that part of the empire. The recollection of the party heat and bitterness prevalent about the commencement of his career, was often a fruitful source of anecdote and amusement to him in his latter days. In 1817 he became a contributor to and shortly afterwards editor of the *Scotsman* newspaper; and in it gave fearless and forcible expression to his views, chiefly in support of measures which, though really necessary for the safety of the country, were little to the taste of those in power at the time. The *Scotsman* soon after that period became famous also for its political economy. The papers on that subject were written by Mr. McCulloch, and were not only new in a provincial newspaper, but gave it fame and character throughout the country.

As the reader will very naturally prefer having this short sketch as autobiographical as possible, we give the following account, in Mr. McCulloch's words, of his connection with the *Scotsman*, which continued till 1827 :—

> At the time when this paper was set on foot, the newspaper press of Scotland was in the most degraded state imaginable—without talent, or even the pretence of independence. And, in truth, it was then no easy matter for a Scottish journalist to be independent, to criticise any act of the general Government, or to hint at a defect in the institutions or administration of Scotland. For, owing to the vicious constitution of the Criminal Court, than which indeed no tribunal could be worse, and the practice of packing juries, a prosecution at the instance of the Lord Advocate against the editor, printer, or proprietor of a paper, was all but certain, whatever might be the nature of the case, to terminate in his imprisonment, or in his being sent on a tour to the antipodes. The *Scotsman*, however, partly by good management and partly by good luck, escaped this danger, and speedily attained to a large circulation and great influence. I believe, indeed, that its establishment did infinitely more to liberalise public opinion north of the Tweed than any other event that has taken place in the course of this century. The overthrow of the Dundas dynasty, and of the abominable caricature of a representative system that formerly existed in Scotland, were greatly facilitated by the vigorous and continued exertions of the *Scotsman*.
>
> I had nothing to do with the establishment of this journal; but I became a contributor to it soon after its commencement, and was for a considerable time

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its editor. I was succeeded in the latter capacity by Mr. Charles Maclaren, one of its projectors, an able writer, and an excellent person. Mr. Wm. Ritchie, a solicitor, one of its projectors, was a ready contributor and most zealous for its success. This has deservedly been very great.

To the *Edinburgh Review* he early became a contributor, and he has often been heard to express the delight with which he saw his first article in 'the Blue and Yellow.' This led to his friendship with Mr. (afterwards Lord) Jeffrey, and among the more intimate friends whose society he enjoyed during his residence in Scotland may be mentioned Leslie, Macvey Napier, Thomas Thomson, Adam Black, and Mr. James Gibson Craig.

From the interesting notices contained in his *Catalogue*, to which further reference will presently be made, is copied his own account of his connection with the *Review*.

I made my *début* in the *Edinburgh Review* in 1818, by contributing to it an article on Ricardo's *Principles of Political Economy*. I was not previously acquainted with Jeffrey, the editor, and as the theories advanced in the article were subversive of many doctrines previously entertained, Jeffrey was a good deal blamed for giving a person, of whom he knew nothing, permission to bring them forward. He, however, being satisfied of their correctness, was in no degree influenced by this petty hostility, and I continued for about twenty years to write pretty regularly for the *Review*. I contributed almost all the economical articles that appeared in it during that period, with a few on other subjects. Jeffrey was an admirable person, and my intercourse with him was of the most satisfactory description, and so, also, was my intercourse with his successor in the editorship, Mr. Macvey Napier. It was not owing to any proceeding on the part of the latter that I finally withdrew from the *Review*. My contributions to it make, when collected, three thick octavo volumes.

In 1825 an Edinburgh professorship seems to have been the height of his ambition, and at this time, with a desire to realise his wishes, an attempt, but a fruitless one, was made by some of his friends to induce the Government to endow a chair of Political Economy in the northern capital.

Lord Cockburn, in his Life of Jeffrey, vol. i pp. 277–78, gives a short account of the attempt and its failure:—

Political Economy is so recent a science that no provision for its being taught could be made by the constitution of old colleges. Accordingly, it was never taught in any Scotch college, except by Professor Mylne at Glasgow, and by Dugald Stewart, in his two short and very general courses, at the beginning of this century. Having now become the most important of all the practical moral sciences, an effort was made during this summer (1825) to obtain a Regius Professorship for it in Edinburgh, and to confer the office on Mr. John R. McCulloch, who had already given excellent lectures on this subject, and was rising into the position he has attained, as the first economist of the age. The scheme was at first warmly patronised by Mr. Wallace, the President of the Board of Trade, by Canning, Huskisson, and Lord Dudley. Mr. Huskisson recommended that a memorial should be got from Edinburgh, respectably, but not numerously signed, offering to endow the chair, and praying the Crown to erect it, which he engaged to lay before the Government. Jeffrey, who took a deep interest in the affair, both from his conviction of its utility, and from his regard for Mr. McCulloch, and his certainty of his friend's fitness, drew up the memorial, which was subscribed by thirty or forty excellent names, including those of five judges and twelve professors, who, 'or some of them,' engaged to secure an adequate endowment. But at this stage an unworthy obstacle was thrown in the way from Edinburgh, and the plan was defeated.

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We find, however, that previously, for three successive years, he had delivered lectures in Edinburgh on a variety of politico-economical subjects; and in 1824, and for some years subsequently, he delivered similar lectures in London. These were numerously attended, and among his auditors were several statesmen since distinguished as Cabinet Ministers, and many of the leading bankers, merchants, and foremost men of the day, of all shades of politics. The celebrity he thus acquired, and his well-established reputation as one of our ablest writers on economical questions, doubtless led to the offer made to him, in 1827, of the Professorship of Political Economy in the University College of London. This offer he ultimately accepted, and towards the end of 1828 he removed with his family to the metropolis; but, not finding the appointment what he expected or could wish, he resigned the chair in 1832.

His articles in the *Edinburgh Review* show how early Mr. McCulloch dealt with some subjects of that class which he afterwards treated so clearly and concisely in his great digest of Trade and Navigation. As will be seen from the annexed list, his contributions were seventy-eight in all; and we find him writing on the Currency in 1818, urging free trade with France in 1819, and attacking the Corn Laws and restrictions on our foreign commerce in 1820; in 1823 denouncing the Navigation Laws, the discriminating duties on East and West India sugar, and the duty on foreign wool; in 1824 exposing the iniquity of the East India Company's monopoly of tea, and so on with regard to many kindred abuses, till 1837, when he finally laid down the pen of a reviewer. They all show, too, how heartily he recommended those commercial and financial reforms which he fortunately lived to see effected.

After spending well-nigh twenty years in accumulating materials, the author, in 1832, produced *The Commercial Dictionary*, one of the greatest boons of a literary kind ever conferred upon the commercial world. In the preface to the first edition of this work, he explains how he arrived at the conclusion that there was room for a new Dictionary of Commerce and Commercial Navigation. The public agreed with him that it was a desideratum, and that he supplied what was really very much wanted. The success of the Dictionary has been almost unexampled. Edition after edition has been called for, and many thousands have been sold. It has been republished in America, and translated into several languages, and is referred to for the adjustment of mercantile disputes in all quarters of the globe. Since its first publication it has greatly increased in bulk, and is, in truth, a gigantic work, for if printed like ordinary books it would make at least thirty volumes octavo. The author was naturally proud of its popularity and reputation; and here we cannot resist the temptation to repeat, by way of illustration, an anecdote told lately at a public meeting by a friend of his, now a learned lord and a Scotch judge.* He said, speaking of Mr. McCulloch, 'He asked me once, "Do you ever quote my *Commercial Dictionary* in Court?" I said, with some emphasis, "Never; we never quote it, and we never mention it. Sometimes," I said, "a set of papers come in upon us at night upon a mercantile

* Lord Neaves.

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question that we know nothing about, and we go up to our shelves and take down the *Commercial Dictionary*, and find all we want there, and next morning we come out, to the astonishment of our clients, with better information upon the subject than they have themselves; but we never mention McCulloch's *Dictionary*." (Laughter and cheers.) And that pleased the old man, who had been rather chilled by my first observation, better than it was easily possible to please him.'

While it may be said, therefore, that the *Commercial Dictionary* is undoubtedly his *opus magnum*, and that by which he is best known, still it would be unjust, even in the most cursory notice of his labours, not to particularise his *Descriptive and Statistical Account of the British Empire*, which first appeared in 1837, and the *Geographical Dictionary*, first published in 1841. Their titles are sufficiently suggestive of enormous toil and research, and if he had done nothing else, these works would afford very remarkable proofs of his untiring industry and vigorous faculties.

In the article 'Whithorn' in his *Geographical Dictionary* he appears to have been unable to repress his strong attachment to his native place, which finds vent in these words: 'We may perhaps be excused, if, towards the close of this lengthened and laborious survey of so many countries and places, we have lingered for a moment over scenes once familiar, and still well remembered. The associations which the mention of this locality calls up are all redolent of joy and youth, and are too soothing and pleasing to be instantly dismissed.'

This *Dictionary*, however, was scarcely out of hand before his thirst for work found vent in another project, to which he alludes in a letter of November 12, 1840, to an intimate friend in Edinburgh. After stating that he was anxious for the conclusion of the *Geographical Dictionary* only that he might plunge into another, he adds:—

> I am resolved, unless some unforeseen event occur, to commence a Dictionary of Politics and Political Economy, the instant I get this one out of the way. I shall not be satisfied with myself if I do not produce this work, and it is necessary I should lose no time in grappling with it, as unfortunately one gets old, and not so fond of or fit for hard work.

This project was never carried out.

Of his minor works the best known are his *Principles of Political Economy*, his *Principles and Practical Influence of Taxation and the Funding System*, and his book on Wages, all of which have gone through several editions; his *Treatises and Essays on Economical Policy*, containing biographies of Quesnay, Smith, and Ricardo, and a work on *Succession to Property vacant by Death*, which treats of the effect of primogeniture and compulsory partition of land &c. on the state of a nation.

Of his editorial labours, the most important is his edition of the *Wealth of Nations*. Francis Horner and Malthus, we believe, had projected editions of Smith, but neither of them realised his intentions. An edition worthy of the subject was thus reserved for Mr. McCulloch, whose studies and pursuits eminently qualified him for this duty. The first edition was published in 1828, in 4 vols. 8vo.; and ten years later it was condensed into one very thick volume. The last edition, published in 1863,

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embodying the editor's Life of Smith, an Introductory Discourse and Supplemental Notes and Dissertations, forms a complete code of Political Economy. Towards the end of his career Mr. McCulloch thus characterised the *Wealth of Nations:* 'It is not in truth a book for one country or one age, but for all countries and all ages; and will always be regarded as a noble monument of profound thinking, various learning, and persevering research, applied to purposes of the highest interest and importance.'

Next to Adam Smith, the father of the science, Mr. McCulloch ranked David Ricardo as having done most to advance it. From 1816 to 1823, the year of Ricardo's death, they had corresponded frequently on subjects connected with Political Economy. In one of his letters Mr. Ricardo thus characterises one of Mr. McCulloch's early papers on Currency: 'It appears to me so able, so clear, so convincing, that I shall be puzzled to account for the obstinate prejudices of those who no doubt will continue to refuse their assent to doctrines so mathematically demonstrated.' In 1846 he published an edition of Ricardo's works, in 1 vol. 8vo. The admiration for that writer's talents, expressed in Mr. McCulloch's first contribution to the *Edinburgh Review*, was apparently never lessened, for in his *Catalogue* he pronounces Ricardo's works 'one of the most valuable volumes, if it be not the most valuable, to be met with in the wide range of Economical Literature;' and he adds, that 'what the researches of Locke and Smith did for the production of wealth, those of Ricardo have done for its value and distribution.' Personal friendship may, perhaps, have slightly tinged this eulogium, which must, at any rate, satisfy the most enthusiastic of Ricardo's admirers.

Mr. McCulloch's advocacy of Liberal measures, and his unquestionable fitness for public employment, gave him strong claims on the Whig Government; yet, while their harvest was being gathered, this sower of good seed was for a time overlooked, and certainly it was not till after many irritating disappointments, and years of hope deferred, that he was, in 1838, appointed by Lord Melbourne to the Comptrollership of the Stationery Office, a situation he held till his death. Here his enlightened and practical views enabled him at an early period to carry out extensive reforms, and to effect, for upwards of a quarter of a century, large annual savings of the public money. His energy in this direction was constant and irrepressible. The nature and extent of his services are recorded in the Parliamentary papers of his time: their value, too, was fully recognised in high quarters, and there are good grounds for saying that Mr. McCulloch was nowhere more respected and appreciated than at the Treasury, where his valuable qualities as a public servant were necessarily well known. The *Times* of May 4, 1861, in an article devoted to the Stationery Office, complimented him by saying, 'It is controlled, fortunately for the country, by Mr. McCulloch, and a sturdier guardian of the public purse it would be hard to find.' But while he did his best to promote economy in the public expenditure, he did not neglect the material interests of those associated with him in official duties. He was always most desirous that those who worked well should be paid well.

No occupation, however, diverted him long from the study of his

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favourite science, and he was even wont to express a wish to return to this world some 300 years hence, to look for the solution of various problems, and see whether his doctrines and anticipations would prove true. Having expressed such a desire in a letter of December 9, 1842, to Jeffrey, we find the latter answering thus on the 12th: 'I quite sympathise with you in your wish that we could be allowed to see more than we are likely to do of the actual working of the causes that are now in operation, and the movements that are visibly begun. I am more modest, however, in my prayer for the gift of prescience than you are, and should be satisfied to have a clear vision of the condition of this country some time about the year 1900, before which, I feel persuaded, the problems we are puzzled about will all be substantially resolved. Indeed (if it were the same thing to the Power who can alone grant such prayers), I should prefer being *allowed to live and see the results* in their actual accomplishment, rather than wonder at them in a prophetic dream. But I should be glad to have either of the boons.'*

The domain of Political Economy was no doubt that which Mr. McCulloch most assiduously cultivated, but he did not by any means give it his undivided attention. He was well read on a great variety of subjects, was possessed of much general information, and his classical attainments were not inconsiderable. He had also an extensive acquaintance with the literature of France, more especially those branches bearing on Political Economy and Biography. In 1843 he was elected a Foreign Associate of the French Institute, in the room of Sismondi, having 16 votes out of 18. As the other nominees were men of such mark as Hugo and Ranke, this unsolicited honour was highly prized by Mr. McCulloch, who did not set much value on literary distinctions that were common or easily attainable.†

By this time he occupied a conspicuous place in the public eye. Some of his doctrines might be disputed, but no one denied his great and unquestionable merits as the reformer of our commercial code. The well-known truths of free trade had been expounded in his writings and in his lectures long before their advocacy became a popular cry. In truth, no other writer had done so much to prepare the way for those memorable commercial reforms which signalised the administration of Sir Robert Peel. And he testified his respect for Mr. McCulloch's services by bestowing on him, in 1846, a pension of 200*l.* a-year. Few events in his life afforded him higher gratification than this. To a man with a numerous family, such an addition to his income was, doubtless, acceptable; but what he valued infinitely more was Sir Robert Peel's mode of giving it, and the high compliment paid to him by one for whom Mr. McCulloch had long entertained the highest regard. When he could not have had the remotest expectation of receiving such an honour from that statesman, Mr. McCulloch, in a pamphlet (*Observations on the State of the Country*), published anonymously in 1830, thus speaks of him:—

* Cockburn's *Life of Jeffrey*.

† On March 4, 1865, Mr. Gladstone was elected Mr. McCulloch's successor in the French Institute.

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Did popularity always attach to merit, Sir Robert Peel would be, at this moment, the most popular man in England. The country never has had, and never will have, a more upright and disinterested minister, and seldom one more able. He has made incomparably greater sacrifices than any man now in Parliament for the sake of the public.

Our author took the earliest opportunity of testifying his gratitude to Sir Robert for the substantial and unexpected benefit just referred to, by dedicating to him the third edition of the *Statistical Account of the British Empire*.

In the course of fifty years Mr. McCulloch amassed a very valuable library, consisting of about 10,000 volumes, and its gradual acquisition afforded him the highest gratification. He makes the following acknowledgment in the preface to his *Catalogue*: 'Their acquisition has been a business in which I have always taken the greatest interest; it has not palled upon me for a single moment; and their possession, besides the gratification it has afforded, has been so far useful that it has enabled me to finish works of much research and labour without either resorting to public libraries or borrowing books.' His love for books, particularly fine books, was certainly very great, and he defended his admiration of well-bound ones (if, indeed, any defence be necessary), by citing the example of his great chief, Adam Smith, who admitted he was a 'beau in his books.' For those that had only rarity to recommend them Mr. McCulloch cared nothing; but an English classic bound in old morocco gave him a delight which only the deeply initiated in such matters can either understand or appreciate. The only alloy to his pleasure seems to have been the belief that his library would be dispersed at his death. But his fears on this head proved to be ill-founded. His fine collection has been fortunately kept together, and acquired in its entirety by Lord Overstone, a friend for whom Mr. McCulloch entertained the very highest regard and respect.

In 1845, he published *The Literature of Political Economy*, a classified catalogue of select publications in the different departments of that science. In the preface he says:—

If we have succeeded in our object, this work will be in some measure a History of Political Economy, as well as a Critical Catalogue of the principal Economical works. It contains short notices of the rise of some of the principal theories, and of the circumstances which appear, at different periods, to have strongly determined public opinion upon economical questions and given birth to classes of books. Without such notices, indeed, no just estimate could be formed of the latter.

In 1856 he printed privately a *Catalogue raisonnée* of the more important part of his library, which he afterwards elaborated and reprinted in 1862, under the title of *Catalogue of the Library of a Political Economist*. This abounds in curious and valuable information, critical, biographical, and bibliographical, but, being unpublished, is known only to his friends, by whom, however, it is much prized. Though some of his estimates of distinguished living writers are not free from prejudice, his critical opinions are generally sound and well-considered, and he has scattered through the work some autobiographical sketches, of which a few have been introduced into this notice.

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He was an original member of the Political Economy Club, and selected for the press and wrote prefaces for two volumes of scarce and curious tracts on Money and Commerce, reprinted by that body in 1856.

His more extensive editorial services for Lord Overstone were performed, we believe, from personal friendship for his Lordship, between whom and Mr. McCulloch there existed complete agreement of opinion on some of the most important Economical questions. It was at Mr. McCulloch's suggestion that Lord Overstone agreed in 1857 to reprint, in a collected form, for distribution among his friends, the various tracts on the currency written by him at different times. It was at Mr. McCulloch's suggestion also that his Lordship reprinted privately in 1857-59 that collection of scarce tracts on trade, finance, currency &c., which, though limited in circulation, is well known to all who take an interest in such subjects. This collection consists of four large octavo volumes, and is of great value. Besides selecting the tracts to be reprinted, Mr. McCulloch wrote a preface and notes to each volume, and his having been instrumental in preserving and putting them into this shape was a source of great pride and satisfaction to him.

Dr. Johnson, in his Life of Roger Ascham, remarks that 'the incidents of a literary life are but seldom observed, and therefore seldom recounted.' While this apothegm is singularly inapplicable to Johnson himself, whose minutest sayings and doings have been so carefully chronicled by Boswell, it is appropriate enough to the subject of this brief memoir. The production of his several works and his literary successes formed the chief epochs of Mr. McCulloch's busy and useful life, which boasted none of those exciting episodes, that would in truth have been unsuitable to the position and studies of a philosopher.

In enumerating some of his more salient and good qualities it may be said, with great truth, that he was a warm and steady friend, and that in him the home affections and attachment to his family were particularly conspicuous. Sydney Smith says, 'Human excellence is so often inverted, and great talents considered as an excuse for the absence of obscure virtues.' This sarcasm, however, could not in the slightest degree be applied to the author of this *Dictionary*, for nowhere did he appear to so much advantage and so perfectly happy as in his own house, with all the members of it around him.

In a notice of his death given in the *Scotsman* (which in various parts bears the impress of his old friend and brother editor, the late Mr. Maclaren), some remarkable features in his character are well described in these terms:—

> Endowed with an enormous capacity for the mastery of facts and figures; of great sagacity, and manly common sense; with a power of continuous application to the most arduous mental labour, that seemed absolutely exhaustless; with a vigour of will that led him readily into dogmatism; and an independence of judgment that occasionally revelled in arbitrary assertion and cherished prejudice, Mr. McCulloch, as compared with the milder literary stamp of our later day, had something almost Johnsonian in his intellectual aspect and style. In all his works this strong individuality of character from time to time asserts itself, sometimes oddly enough by the interjection perhaps of a strongly pronounced opinion in the midst of what seemed to be, and really ought to have been, only an unimpassioned statement of dry facts or abstract principles,

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Mr. McCulloch was not a party politician, but he hailed good measures, especially for the enfranchisement of commerce, however they originated. So far as the Representation of the people in Parliament is concerned, he was not what is called an advanced reformer, inasmuch as he did not in the least sympathise with those who would commit a large share of political power to the million. What he inveighed against in his youth was the election of members of Parliament by the self-chosen town councils of the Scotch burghs, but he disliked and distrusted the opposite extreme quite as much.

We have heard it remarked that Mr. McCulloch possessed in a great degree the inflexibility of the old Roman character. But under an occasionally stern exterior there dwelt great simplicity of character, a good heart, and a most social and hospitable disposition. He was very decided both in his likes and dislikes, and in his expression of them he was pithy and unreserved. Most especially he hated all shams, from an inconvertible paper currency downwards. Very few objects claimed his admiration more than the merchant prince of high honour, who, having achieved a fortune, takes a creditable or distinguished part in the councils of the nation. On the other hand, he as cordially detested the merchant pirate, who under solvent colours preys on his fellows, and brings ruin on the ignorant and confiding. But Mr. McCulloch was quite enthusiastic in his praise of the upright man who strives, by self-denial and self-sacrifice, to do his duty to his neighbour. We have heard him often quote with emphasis and delight the well-known eulogy of Burns the poet on Heron of Kerroughtree, the banker, who, having been unsuccessful in business, gave up all, and lived in a cottage till he had paid every creditor to the utmost farthing.

> And there will be trusty Kerroughtree,
> Whose honour was ever his law;
> If the virtues were pack'd in a parcel,
> His worth might be sample for a'.
>
> *Burns's second Heron Ballad.*

Mr. McCulloch was tall and of strong constitution,* on which, however, frequent attacks of bronchitis had made serious inroads during the last two years of his life.

He married early and most happily, and died at the Stationery Office, Westminster, on November 11, 1864 (the 53rd anniversary of his marriage), in the 76th year of his age. He was interred in the Brompton Cemetery on November 18, and there his widow, Isabella Stewart, was laid by his side in July 1867.

H. G. R.

May 1869.

* Of the various portraits of Mr. McCulloch, those most worthy of notice are a kit-cat by Bewick, dated 1825, and a later full-length portrait by Macnee. There are also two very good marble busts of him, the first by Joseph and the second by Slater.

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2. On Ricardo's Proposals for an Economical and Secure Currency. Art. III. December 1818.
3. On Commercial Embarrassments and Trade with France. Art. III. July 1819.
4. On Taxation and the Corn Laws. Art. IX. January 1820.
5. On Restrictions on Foreign Commerce. Art. III. May 1820.
6. On Plan for Commutation of Tithes. Art. III. August 1820.
7. On Effects of Machinery and Accumulation. Art. VI. March 1821.
8. On Pernicious Effects of degrading the Standard of Money. Art. XI. July 1821.
9. On Agricultural Distress; Causes and Remedies. Art. VI. February 1822.
10. On comparative Productiveness of High and Low Taxes. Art. VIII. February 1822.
11. On Ireland. Art. III. June 1822.
12. On East and West India Sugar. Art. X. February 1823.
13. On Duty on Slate and Stone carried Coastwise. Art. XII. February 1823.
14. On the Navigation Laws. Art. XI. May 1823.
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17. On Combination Laws, Restraints on Emigration, &c. Art. III. January 1824.
18. On East India Company's Monopoly of Tea. Art. VIII. January 1824.
19. On Standard of National Prosperity, Rise and Fall of Profits. Art. I. March 1824.
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25. On Colonial Policy and Value of Colonial Possessions. Art. I. August 1825.
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27. On Progress and present State of the Silk Manufacture. Art. IV. November 1825.
28. On Fluctuations in the Supply and Value of Money; Banking System of England. Art. I. February 1826.
29. On State of the Timber Trade; Duties on Timber. Art. IV. February 1826.
30. On Commercial Revulsions. Art. III. June 1826.
31. On Abolition of the Corn Laws. Art. II. September 1826.
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34. On Revenue and Commerce of India. Art. IV. March 1827.
35. On Complaints of the Shipowners—Reciprocity System. Art. VIII. March 1827.
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37. On Taxation, Retrenchment, Reduction of the Public Debt. Art. V. October 1827.
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A DICTIONARY

OF

COMMERCE AND COMMERCIAL NAVIGATION.

AAM, AUM or AHM. A measure for liquids, used at Amsterdam, Antwerp, Hamburgh, Frankfort, &c. At Amsterdam it is nearly equal to 41 English wine gallons, at Antwerp to 36½ ditto, at Hamburgh to 38½ ditto, and at Frankfort to 39 ditto. It is principally used for wine and oil. The Amsterdam Aam of oil contains about 36 gallons.

ABACA. The Indian name of the hemp of the Philippine Islands. [HEMP MANILLAS.]

ABANDONMENT (Fr. délaissement). In Commerce and Navigation, this term is used to express the abandoning or surrendering of the ship or goods insured to the insurer.

It is held, by the law of England, that the insured has the right to abandon, and to compel the insurers to pay the whole value of the thing insured, in every case 'where, by the happening of any of the misfortunes or perils insured against, the voyage is lost, or not worth pursuing, and the projected adventure is frustrated; or where the thing insured is so damaged and spoiled as to be of little or no value to the owner; or where the salvage is very high; or where what is saved is of less value than the freight; or where further expense is necessary, and the insurer will not undertake to pay that expense,' &c. (Marshall, book i. ch. xiii. s. 1.)

Abandonment is defined by Arnould (*Marine Insurance*) to be 'the act of cession by which in cases where the loss or destruction of the property though not absolute is highly imminent, or its recovery is too expensive to be worth the attempt, the assured, on condition of recovering at once the whole amount of the insurance, relinquishes to the underwriters all his property and interest in the thing insured as far as it is covered by the policy, with all the claims which may arise from its ownership and all the profits which may arise from its recovery.' (3rd edit. p. 852.)

The abandonment of the insured must be of his whole interest, in the thing insured, in so far as that interest is covered by the policy, the extent of the interest covered by the policy determining the maximum quantity which the underwriter can claim to have transferred to him. Hence the insured must discriminate in his policy the different subjects of insurance, for if ship and cargo are jointly insured, there cannot be a total abandonment. This is the law also in the United States, and is so held by Emérigon the French jurist (vol. ii. p. 215). But if different objects be insured for different sums, each may be insured by itself, and each abandoned by itself.

No one can abandon who has not at the time of the loss an absolute right of ownership. Hence one with whom a policy of insurance has been deposited as a security for a loan, has no implied authority to give notice of abandonment. That he should do so, requires the express authority of the owner. In the courts of the United States, it has been held that the assured after abandoning all his interests to one set of underwriters, cannot again make abandonment of the same interest to other underwriters. (13 *Mass. Rep.*)

Abandonment very frequently takes place in cases of capture: the loss is then total, and no question can arise in respect to it. In cases, however, in which a ship and cargo are recaptured *within such a time that the object of the voyage is not lost*, the insured is not entitled to abandon. The mere *stranding* of a ship is not deemed of itself such a loss as will justify an abandonment. If by some fortunate accident, by the exertions of the crew, or by any borrowed assistance, the ship be got off and rendered capable of continuing her voyage, it is not a total loss, and the insurers are only liable for the expenses occasioned by the stranding. It is only where the stranding is followed by *shipwreck*, or the ship is in any other way rendered incapable of prosecuting her voyage, that the insured can abandon.

It has been decided, that damage sustained in a voyage to the extent of forty-eight per cent. of the value of the ship did not entitle the insured to abandon. If a cargo be damaged in the course of a voyage, and it appears that what has been saved is less than the amount of freight, it is held to be a total loss. (Park *On Insurance*, ch. ix.)

When by the occurrence of any of the perils insured against the insured has acquired a right to abandon, he is at liberty either to abandon or not, as he thinks proper. He is in no case bound to abandon; but if he make an election, and resolve to abandon, he must abide by his resolution, and has no longer the power to claim for a partial loss. In some foreign countries specific periods are fixed by law within which the insured, after being informed of the loss, must elect either to abandon or not. In this country, however, no particular period is fixed for this purpose; but the

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rule is, that if the insured determine to abandon, he must intimate such determination to the insurers within a *reasonable period* after he has got intelligence of the loss—any unnecessary delay in making this intimation being interpreted to mean that he has decided not to abandon. As short a period as five days after knowledge that the ship was condemned, was, however, held by Lord Ellenborough as too late a notice. (Hunt *v.* Royal Exch. Assur. Co. 5 *M. and Sel.* 47.)

No particular form or solemnity is required in giving notice of an abandonment. It may be given either to the underwriter himself, or the agent who subscribed for him. But it must be stated, whether orally or in writing, in unequivocal terms. Lord Ellenborough expressed an opinion that the word 'abandon' should be used in order to make it effectual. The notice ought also to contain a statement of the causes which have led to abandonment.

In some cases losses may be cumulative. Lord Ellenborough laid down, that 'there may be cases in which though *a priori* damages may be followed by a total loss, the assured may, nevertheless, have rights or claims in respect of that prior loss which may not be extinguished by any subsequent total loss. Actual payments for repairs made in consequence of injuries suffered at sea, and occurring prior to the total loss are of this character. It has been held by the Court of Common Pleas (Le Cheminant *v.* Pearson, 4 *Taunt.* 367) that a plaintiff might recover, in addition to a total loss, for sums so expended.

The effect of an abandonment is to make the owners trustees for the underwriters. Abandonment does not vest the property. The registry Acts prevent this from passing, except in a certain way. (Lord Truro in the House of Lords, Scottish Mar. Ins. Co. *v.* Turner.) The latter become the legal owners of the ship, and as such are liable for all her future outgoings, and entitled to her future earnings. An abandonment, when once made, is irrevocable.

In case of a shipwreck or other misfortune, the captain and crew are bound to exert themselves to the utmost to save as much property as possible; and to enable them to do this without prejudice to the right of abandonment, our policies provide that, 'in case of any loss or misfortune, the insured, their factors, servants, and assigns, shall be at liberty to sue and labour about the defence, safeguard, and recovery of the goods, and merchandises, and ship, &c., without prejudice to the insurance, to the charges whereof the insurers agree to contribute, each according to the rate and quantity of his subscription.'

'From the nature of his situation,' says Mr. Serjeant Marshall, 'the captain has an implied authority, not only from the insured, but also from the insurers and all others interested in the ship or cargo, in case of misfortune, to do whatever he thinks most conducive to the general interest of all concerned, and they are all bound by his acts. Therefore, if the ship be disabled by stress of weather, or any other peril of the sea, the captain may hire another vessel for the transport of the goods to their port of destination, if he think it for the interest of all concerned that he should do so; or he may upon a capture, appeal against a sentence of condemnation, or carry on any other proceedings for the recovery of the ship and cargo, provided he has a probable ground for doing so; or he may, upon the loss of the ship, invest the produce of the goods saved in other goods, which he may ship for his original port of destination; for whatever is recovered of the effects insured, the captain is accountable to the insurers. If the insured neglect to abandon when he has it in his power to do so, he adopts the acts of the captain, and he is bound by them. If, on the other hand, the insurers, after notice of abandonment, suffer the captain to continue in the management, he becomes their agent, and they are bound by his acts.

As to the sailors, when a misfortune happens, they are bound to save and preserve the merchandise to the best of their power, and while they are so employed they are entitled to wages, so far, at least, as what is saved will allow; but if they refuse to assist in this, they shall have neither wages nor reward.

The policy of the practice of abandonment seems very questionable. The object of an insurance is to render the insurer liable for whatever loss or damage may be incurred. But this object does not seem to be promoted by compelling him to pay as for a total loss, when, in fact, the loss is only partial. The captain and crew of the ship are selected by the owners, are their servants, and are responsible to them for their proceedings. But in the event of a ship being stranded, and so damaged that the owners are entitled to abandon, the captain and crew become the servants of the underwriters, who had nothing to do with their appointment, and to whom they are most probably altogether unknown. It is admitted that a regulation of this sort can hardly fail of leading, and has indeed frequently led, to very great abuses. We, therefore, are inclined to think that abandonment ought not to be allowed where any property is known to exist; but that such property should continue at the disposal of the owners and their agents, and that the underwriters should be liable only for the damage really incurred. The first case that came before the British courts with respect to abandonment was decided by Lord Hardwicke, in 1744. Mr. Justice Buller appears to have concurred in the opinion now stated, that abandonment should not have been allowed in cases where the loss is not total.

For further information as to this subject, see the excellent works of Mr. Serjeant Marshall (book i. ch. xiii.), of Mr. Justice Park (ch. ix.) *On the Law of Insurance*, Arnould *On Marine Insurance*, Pritchard's *Admiralty Digest*, Maude and Pollock's *Law of Merchant Shipping*, and Emérigon's *Traité des Assurances et des Contrats*. For *American Law*, see Duer, Parsons, Phillips.

ABATEMENT or REBATE. The name sometimes given to a discount allowed for prompt payment; sometimes for the difference between the value of an immature bill and the same instrument when arrived at maturity. It is also sometimes used to express the deduction that is occasionally made at the custom-house from the duties chargeable upon such goods as are damaged, and for loss in warehouses. All claims for abatement of customs' duties are regulated by the Customs Consolidation Act, 16 and 17 Vict. c. 107 (1853), ss. 76, 96 and 97. Goods derelict, &c., and droits of the Admiralty are treated as foreign goods. No abatement may exceed three-fourths of the duty to which such goods may be liable; and no abatement is allowed on coculus indicus, nux-vomica, rice, Guinea grains, lemons, spirits, corn, grain meal, flour, opium, sugar, cocoa, oranges, tea, coffee, pepper, tobacco, currants, raisins, wine and figs. The above are nearly all the articles still liable to customs' duty.

ABSINTH. *Wormwood.* Produced from the *Artemisia absinthium*. The plant is indigenous to Southern Europe, is bitter and aromatic, and is used in medicine, but is principally employed for distillation of a liqueur largely used on the Conti-

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nent, and of which the most important manufactories are at Couvet in Switzerland and at Pontarlier in France. The use of absinthe is reputed to be on the increase in France, and to be productive of very mischievous effects.

ACACIA. [GUM ARABIC.]

ACAPULCO. A celebrated sea-port on the western coast of Mexico, in lat. 16° 50′ 29″ N., long. 99° 46′ W.

Before the emancipation of Spanish America, a galleon, richly laden, was annually sent from Acapulco to Manilla, and on her return a fair was held, much resorted to by strangers. This sort of intercourse is no longer carried on, the trade to Manilla and all other places being now conducted by private individuals. Acapulco is extremely unhealthy, and its commerce is inconsiderable. The moneys, weights and measures, are the same as those of Spain. [CADIZ.]

ACIDS. A class of bodies which are distinguished from all others by the following properties. They are generally possessed of a very sharp taste; redden the infusion of litmus and most organic blue or violet colouring matters; are often highly corrosive, and enter into combination with the alkalies, alkaline earths, and metallic oxides: forming compounds in which the characters of the constituents are totally destroyed and new ones produced, differing entirely from those previously existing. The last is the only one of these properties which can be considered essential to acids; indeed comparatively few acids possess them all.

The number of acids known is very great, but it is only those which are largely employed in the arts and manufactures that will be here treated of, as they only form articles of commerce. The most important acids of commerce are: arsenious, acetic, benzoic, boracic, carbolic, carbonic, citric, gallic, hydrochloric, hydrofluoric, hydrocyanic, malic, nitric, oxalic, pyrogallic, sulphurous, sulphuric, tannic, tartaric, uric, and the so-called fatty acids, stearic, margaric and oleic.

Acetic or Pyroligneous Acid—is obtained by the destructive distillation of dry hard woods, such as oak and beech, at a red heat. The distillation is conducted in an iron cylinder of large dimensions, to which a worm or condenser is attached; a sour water, a quantity of tar and much inflammable gas, pass over, leaving charcoal of excellent quality in the retort. The crude product is then purified by a second distillation, the first portion being collected apart for the sake of the methylic alcohol it contains, and the remainder is saturated with lime and concentrated by evaporation. When the acid is required for the fabrication of other compounds used in the arts and manufactures, where great purity is not essential, it is prepared direct from the crude lime-salt by distillation with hydrochloric or sulphuric acid. But when great purity is required, the lime-salt is first submitted to a moderate heat, whereby many of the impurities (oleaginous and tarry matters) are charred, and its solution is subsequently clarified by means of albumen. The lime-salt is then transformed into a soda salt by distillation with sulphuric acid, and saturation of the distillate with soda ash, instead of decomposing it as formerly by mixing it with sulphate of soda. From the acetate of soda, after it has been freed from the last traces of impurity by crystallisation, the pure acetic acid is obtained by distillation with sulphuric acid. The acid thus prepared is now extensively used for fortifying malt vinegar. The most recent improvement in the manufacture of pyroligneous acid, is that of using sawdust, spent dye woods, &c., instead of wood in the process of destructive distillation. This is done by causing these substances to pass in continuous motion through heated retorts by means of suitable machinery. The greater portion of the pyroligneous acid prepared in this country is employed in the manufacture of the acetates, particularly acetate of lead for the use of dyers and calico printers, and only a small portion is purified for household and other purposes. Acetic acid is also extensively employed to preserve animal and vegetable substances, and the acid from wood is preferable for this purpose, on account of the traces of essential oils which it contains, and which increase its antiseptic properties. Vinegar is an impure and dilute acetic acid obtained by exposing either weak wines or infusions of malt to the atmosphere or other oxidising influences and a slow fermentation. In Germany the process is much expedited by allowing the alcholic liquid to flow over wood shavings steeped in a little vinegar in a large cylindrical vessel, through which a current of air is made to pass Pyroligneous or acetic acid is manufactured in England, France, Germany and Sweden on a large scale; also in other civilised countries where wood is abundant and a demand exists for the acetates used in dyeing. The strength or quality of acetic acid is determined by neutralising with a standard alkaline solution, but as the acid itself is volatile, the standard solution ought to be made with a caustic not a carbonated alkali.

Arsenious Acid or *White Arsenic.*—It formerly appeared in commerce in the form of a heavy white glassy looking substance with a smooth conchoidal fracture, but is now generally met with as a white powder. It is a weak acid, and sparingly soluble in cold water but readily soluble in hot hydrochloric acid; also in alkalies, forming arsenites. This substance is obtained as a product of the calcination of arseniferous tin and cobalt ores in Saxony and of certain copper ores in England, and the crude arsenious acid thus produced is purified by sublimation. It is chiefly employed in calico printing, also in glass making, to reduce the sesquioxide of iron to protoxide, and forms one constituent of the substances known as Scheele's or Sweinfurt green. It is a most violent poison and has a feeble sweetish and astringent taste, its antidotes being sesquioxide of iron and magnesia. The price of arsenious acid is very low, being about 1*l.* per ton.

Benzoic Acid—exists naturally, formed in the gum benzoin, and may be procured either by submitting the benzoin in fine powder to repeated sublimations, or by digesting it with lime and water, straining off the clear solution, and adding hydrochloric acid, which enters into combination with the lime, and the benzoic acid, being nearly insoluble in water, falls as a white powder. This may be further purified by a sublimation. Benzoic acid is of a beautiful pearly white colour when pure, has a very peculiar aromatic odour, and an acrid, acid, and bitter taste; it is used in making pastilles and perfumed incense. This acid also occurs in the balsams of Tolu and Peru, and in the putrid urine of the horse and cow.

Boracic Acid—is found in an uncombined state in many of the hot springs of Tuscany, as also at Sesso in the Florentine territory, from whence it received the name of Sessolin. In Thibet, Persia, and South America, it occurs in combination with soda, and is imported from the former place into this country in a crystalline form, under the name of Tincal. These crystals are coated with a rancid, fatty substance, and require to be purified by repeated solutions and crystallisations; after which it is sold under the appellation of borax (bi-borate

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of soda); from a hot solution of this salt the boracic acid is readily obtained, by the addition of sulphuric acid in slight excess; sulphate of soda is formed, and the boracic acid crystallises as the solution cools. When pure, these crystals are white, and have an unctuous greasy feel; they are soluble in alcohol, communicating a green tinge to its flame. When fused the acid forms a transparent glass, and has been found by Mr. Faraday to unite with the oxide of lead, producing a very uniform glass, free from all defects, and well adapted for the purpose of telescopes and other astronomical instruments. Borax is much employed in the arts, particularly in metallurgic operations as a flux; also in enamelling, and in pharmacy. [BORAX.]

Carbolic Acid or *Phenol*—an oily colourless liquid, with a burning taste and the smell of creosote, is found in considerable quantity in coal tar, and is easily extracted therefrom by heating the heavier coal tar oils—those boiling between 300° and 400° Fahr.—with a solution of soda or milk of lime. The aqueous liquid is then separated from the undissolved oil, decomposed by hydrochloric acid, and the oily product obtained purified by cautious distillation. Most of the commercial creosote is simply carbolic acid, mixed with more or less water. Carbolic acid is principally used as an antiseptic disinfectant, either for, or in combination with, lime and sulphite of soda and lime (McDougall's powder), also in the preparation of dyes; viz. phenol blue, or azuline, and picric, or carbazotic acid.

Carbonic Acid.—This acid occurs very abundantly in nature, combined with lime, magnesia, barytes, aerial acid, fixed air, mephitic acid: from any of these it is easily separated by the addition of nearly any of the other acids. In its uncombined form it is a transparent, gaseous fluid, having a density of 1·53, atmospheric air being unity; it is absorbed to a considerable extent by water, and when the water is rendered slightly alkaline by the addition of carbonate of soda, and a large quantity of gas forced into it by pressure, it forms the well-known refreshing beverage soda water. This gas is also formed in very large quantities during combustion, respiration, and fermentation. Carbonic acid gas is destructive of animal life and combustion, and from its great weight accumulates in the bottoms of deep wells, cellars, caves, &c., which have been closed for a long period, and numerous fatal accidents arise frequently to persons entering such places incautiously. The precaution should always be taken of introducing a lighted candle prior to the descent or entrance of anyone; for should the candle be extinguished, it would be dangerous to enter until properly ventilated. The combinations of carbonic acid with the alkalies, earths, and metallic oxides are termed carbonates.

Citric Acid—exists in a free state in the juice of the lemon, lime, and other fruits, combined, however with mucilage, and sometimes a little sugar, which renders it, if required to be preserved for a long period, very liable to ferment; on this account the crystallised citric acid is to be preferred. It is prepared by saturating the lemon juice with chalk; the citric acid combines with the lime, forming an insoluble compound, while the carbonic acid is liberated; the insoluble citrate, after being well washed, is to be acted upon by dilute sulphuric acid, which forms sulphate of lime, and the citric acid enters into solution in the water; by filtration and evaporation the citric acid is obtained in colourless transparent crystals. The chief uses to which it is applied are as a preventive of sea scurvy, and in making refreshing acidulous or effervescing drinks; for which latter purposes it is peculiarly fitted from its very pleasant flavour. Selling price about 2*s.* per lb.

Fatty Acids.—These are certain constituents of fatty bodies, i.e. of oils and fats of different animals, which act the part of acids towards several bases forming salts which bear the generic name of *soaps*. Thus the saponification of oils and fats consists in the combination of the acids they contain with certain bases, chiefly the alkalies, potassa, and soda. These acids are three in number, viz. stearic, margaric, and oleic, and exist in variable proportions in different fatty bodies. Thus oleic preponderates in oils, stearic in the fat of herbivora, and margaric in the grease of carnivora. They are extracted by certain processes more or less complicated, which result in their separation from a neutral principle called glycerine; but the process now most generally adopted is to mix the oil or fat with about one sixth part of oil of vitriol in large copper vessels, and heat the mass to 350° Fahr. by superheated steam. The neutral principle, glycerine, is at this temperature decomposed and the fatty acids set free. The liberated acids are then distilled in a current of steam and heated to 500° or 600°, by transmission through a red-hot pipe, and run into pans to solidify. The acids have then the consistency of butter, and are subjected to pressure to squeeze out the more fluid oleic acid. The decomposition of fats by highly heated steam only has lately been carried to great perfection, and has the advantage of yielding the glycerine in a very pure state. Stearic and margaric acids are white and crystallisable. They are sometimes confounded in commerce with stearine and margarine, which however, differ somewhat from them, being combinations of these acids with glycerine. Oleic acid is liquid at the ordinary temperature, and is separated from the other two by pressure. Of the three acids, stearic is by far the most important, on account of its being the principal constituent of the well-known candles. It has a brilliant white appearance and crystallises in laminæ of pearly lustre. Its point of fusion is 158° Fahr. and it burns with a clear white flame. Stearic acid of commerce contains invariably some margaric acid, and a small quantity of wax is usually added to it to impart a more homogeneous appearance and a pleasant odour. Margaric acid is only used mixed with steam, and in the manufacture of candles. Oleic acid of commerce always contains portions of stearic and margaric acids, and some foreign substances which give it a reddish-brown colour, and in the impure state as extracted in the manufacture of stearic acid, is used for the manufacture of soap. These fatty acids are manufactured in large quantities in England, France, Holland, Belgium, Germany, and Russia.

Gallic Acid.—This acid, together with tannic acid, is obtained from nut-galls, which are excrescences produced on the leaves of a species of oak, the *Quercus infectoria*, by the puncture of an insect. Fresh galls yield very little gallic acid, which is produced by the decomposition of tannic acid, and differs somewhat from it inasmuch as it does not precipitate gelatin. The simplest method of preparing this acid in quantity is to take powdered nut-galls, mix them with water to a thin paste, and expose the mixture to the air in a warm situation for the space of two or three months, adding water from time to time to replace that lost by drying up. The mouldy dark-coloured mass produced is strongly pressed in a cloth and the solid portion boiled. The solution contains abundance of gallic acid, which may be crystal-

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lised if required. When pure, gallic acid has a white and silky appearance, and a highly astringent and slightly acid taste.

The nut galls, which owe their properties to the gallic acid they contain, are employed very extensively in the arts, for dyeing and staining silks, cloths, and woods of a black colour; this is owing to its forming with the oxide of iron an intense black precipitate. Writing ink is made on the same principle: a very excellent receipt of the late Dr. Black's is, to take 3 oz. of the best Aleppo galls in fine powder, 1 oz. sulphate of iron (green vitriol), 1 oz. logwood finely rasped, 1 oz. gum arabic, one pint of the best vinegar, one pint of soft water, and 8 or 10 cloves; in this case the black precipitate is kept suspended by the gum.

The following receipt is taken from the Bursar's roll of New College Oxford, for the year 1418: 3lbs. galls, 3lbs. copperas (sulphate of iron), 1¼lb. gum. This ink has stood for four and a half centuries.

Hydrochloric Acid.—It was formerly called *Muriatic Acid* or *Spirit of Salt.* It is next in importance to sulphuric acid on account of its varied applications in the arts and manufactures, and the large scale on which it is produced as a by-product of the manufacture of soda from common salt. Hydrochloric acid in its anhydrous state is a colourless gas of 1·247 density, having so strong an affinity for water that one volume of that liquid absorbs 480 times its volume of the gas, and when thus saturated the liquid acid has a density of 1·21. The commercial acid, however, generally varies from 1·10 to 1·18 in density, containing from 30 to 36 per cent. of the dry acid. The decomposition of chloride of sodium (common salt) by sulphuric acid in the first stage of the soda manufacture [ALKALI; SODA] evolves hydrochloric acid in enormous quantities, which gas is passed through large towers constructed of stone and filled with coke, through which a stream of water continually percolates. Owing to the great affinity for water above alluded to, this mode of condensation is exceedingly perfect, and of the 13,000 tons evolved per annum in the United Kingdom only 43 tons escape, and in many works not a trace even can be discovered in the exit pipes of the apparatus. The acid thus produced is of a slightly yellow colour, owing to the presence of a small quantity of iron, and may contain traces of sulphuric acid (indicated by chloride of barium) and of arsenic when pyrites has been employed in the preparation of the oil of vitrol. For the majority of the applications these impurities are not of any moment, and may be easily removed when necessary. Most of the acid produced is directly converted into bleaching powder or chloride of lime [BLEACHING POWDER] or bicarbonate of soda [ALKALIES], but it is also used in large quantities in the manufacture of chlorate of potassa, salts of ammonia, gelatine and glue; chloride of tin, oxychloride of lead, chloride of barium, for galvanising iron, and in the extraction of copper from poor silicious copper ores. The quantity produced in England is about 13,000 tons per annum, and the selling price from 10*s.* to 5*l.* per ton, according to the purity of the acid, and the distance from the seat of manufacture. It is produced in most manufacturing countries, but in none to so great an extent as in England.

Hydrocyanic or Prussic Acid.—The kernels of bitter almonds, apricots, plums, cherries; the blossoms of the peach, sloe, and mountain ash, the leaves of the peach, cherry, and laurel; and many other vegetable substances, when soaked in water and distilled, yield hydrocyanic acid together with bitter almond oil. It exists ready formed in the moister parts of these substances, but the greater portion is produced by a fermentation of the amygdalin contained in the plants. There are many methods of preparing this, and for the purposes of medicine and chemistry, but that most usually followed is to pass sulphide of hydrogen through a solution of cyanide of mercury so long as it is absorbed. The solution is separated by filtration from the sulphide of mercury: the excess of sulphide of hydrogen, if any, may be removed by carbonate of lead. Another method is to decompose ferrocyanide of potassium (yellow prussiate) by diluted sulphuric acid, the proportions being 10 parts finely-powdered ferrocyanide; 5 parts of sulphuric acid; and 14 parts of water. The distilled product is collected in a well-cooled receiver. This acid is the most virulent poison known, and may be easily recognised by its characteristic odour.

Hydrofluoric Acid.—It is found in the well-known mineral fluor spar in combination with lime: from which it is procured in the liquid form by distillation with dilute sulphuric acid in a leaden or silver retort; the receiver should be of the same material as the retort, and kept cool by ice or snow.

This acid is gaseous in its pure form, highly corrosive, and intensely acid; it is rapidly absorbed by water, communicating its properties to that fluid. Its chief use is for etching on glass, which it corrodes with great rapidity. For this purpose a thin coating of wax is to be melted on the surface of the glass, and the sketch drawn by a fine hard-pointed instrument through the wax; the liquid acid is then poured on it, and after a short time on the removal of the acid and coating, an etching will be found in the substance of the glass. A very excellent application of this property, possessed by fluoric acid, is in the roughing the shades for table lamps. All the metals, except silver, lead, and platina, are acted upon by this acid.

Nitric Acid or *Aquafortis.*—This, which is one of the most useful acids, was formerly prepared by acting upon nitrate of potassa (saltpetre) with sulphuric acid, but now, owing to its comparative cheapness, and the greater yield of acid, nitrate of soda, or Chilian saltpetre, is generally substituted. The proportions best suited for the purpose, are 100 parts nitrate of potassa to 96 parts of oil of vitriol, or 100 nitrate of soda to 117 oil of vitriol, and 30 parts of water.

The distillation is generally conducted in a cast-iron retort or cylinder, the nitric acid passes over in the form of vapour, and is collected in earthenware vessels connected by tubes, and a bisulphate of potash or soda (Sal nixum) remains in the retort. Nitric acid of commerce has usually a dark, orange-red colour, giving off copious fumes and having a specific gravity of 1·500. It may be obtained perfectly colourless by a second distillation, rejecting the first portion that passes over. It is strongly acid and highly corrosive, attacking energetically all organic substances. It also dissolves most metals, disengaging yellowish red fumes, and is a powerful presiding agent. It is used in the manufacture of gun cotton, nitro-benzol and picric or carbazotic acid. It is much employed in the arts for etching on copper plates, for engraving, also in the assaying and refining of gold and silver. In pharmacy and surgery it is extensively used, and is employed for destroying contagious effluvia. Combined with hydrochloric acid it forms aqua regia, used as a solvent for gold, platina, &c. The price of nitric acid is about 6*d.* per pound.

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Oxalic Acia.—It occurs in combination with potassa as binonalate of potassa in different varieties of sorrel, hence the name salt of sorrel. This acid was formerly prepared by the action of nitric acid on sugar or starch, but it is now manufactured on a large scale, and much more cheaply by treating sawdust with a mixed solution of potassa and soda. The mixture is kept for some hours at a temperature of 400° Fahr., care being taken to avoid charring. The product thus obtained is a grey powder, and is treated with water at about 60° Fahr., which leaves the oxalate of soda undissolved. The supernatant liquor is drawn off, evaporated to dryness, and heated in furnaces to recover the alkalies. The onalate of soda is washed and decomposed by boiling with hydrate of lime, and the resulting onalate of lime, again decomposed by sulphuric acid. The liquor decanted from the sulphate of lime is evaporated to crystallisation in leaden vessels, and the crystals of oxalic acid purified by recrystallisation.

It is sold in small transparent colourless prisms of a strongly acid taste. It is intensely poisonous. In cases of poisoning by this acid, lime, or chalk mixed with water to form a cream, should be immediately administered, the combination of oxalic acid with this substance being perfectly inert. It is employed principally in calico printing, and woollen dyeing, straw bleaching, also for whitening leather, removing ink stains, iron moulds, &c. from wood and linen, and for making binoxalate of potassa or salt of lemon. Oxalic acid may be very readily detected by adding sulphate of lime to its solution previously neutralised by ammonia. A white cloud is produced in a few minutes. Since the introduction of the new process the manufacture of oxalic acid has become nearly a monopoly of this country owing to the quantity of coal required, and its price has been very materially reduced. This ranges now from 10*d.* to 13*d.* per lb.

Pyrogallic Acid.—When gallic acid is heated at a temperature of 420° Fahr., or thereabouts, it is resolved into carbonic acid, and a volatile product which is termed pyrogallic acid. It is a powerful reducing or deoxidising agent, and on this account is much used in photography for the purpose of reducing the salts of gold and silver to a metallic state.

Sulphuric Acid.—Of all the acids this is the most extensively used in the arts, and consequently the most important; and of commerce, indeed, Baron Liebig very justly remarks that it is no exaggeration to say we may judge with great accuracy of the commercial prosperity of the country from the amount of sulphuric acid it consumes.

For many centuries sulphuric acid was manufactured from green vitriol or sulphate of iron, particularly at Nordhausen, in Germany; but since about the middle of the last century, it is directly prepared from the oxidation of sulphurous acid by means of water or steam and nitrous acid. If one views the gigantic scale on which the manufacture is carried on at the present day he must smile on looking back at the puny operations of former times. The sulphurous acid which used to be obtained exclusively by the burning of sulphur is now made by the calcination of various ores and compounds, containing sulphur, more particularly pyrites. For this purpose suitable apparatus, kilns or calciners for pyrites and iron plates, when sulphur is used, are employed. Once kindled the heat generated is sufficient to keep up the combustion, and a constant evolution of sulphurous acid gas takes place. This gas, together with nitrous acid (prepared by the decomposition of nitrate of soda by sulphuric acid), is introduced into large leaden chambers the bottoms of which are covered with an inch or more of water. Into these chambers steam is introduced by a suitable arrangement of pipes connected with an ordinary steam boiler. Whatever may be the precise change that takes place in the chambers, all chemists agree that the nitrous acid serves simply as a carrier of the oxygen between the air and the sulphurous acid forming sulphuric acid which falls in a liquid state to the bottom of the chamber. This liquid acid, which usually has the density 1·50 and 1·55 is daily run into leaden pans, where it is concentrated by evaporation till it attains the density of 1·75. For many purposes this degree of concentration is sufficient, and the acid, called from its colour Brown vitriol, is run for sale into carboys or large globular bottles of green glass, protected by basket-work. If a further concentration is required, the brown acid is drawn off into retorts made of glass or platinum and evaporated until it has a density of 1·84 to 1.85. It has now the appearance of a white oily liquid, hence the name 'oil of vitriol,' and is transferred into carboys, in which form it is sold as rectified sulphuric acid. The sulphuric acid of commerce invariably contains lead, also, generally, nitrous compounds and traces of hydrochloric acid. When it has been prepared from pyrites, arsenic is nearly always present, but for many purposes to which it is applied these impurities are of no moment, and when it is requisite they may be easily removed. The quantity of sulphuric acid now manufactured may be roughly estimated, from the quantity of sulphur and sulphur ores consumed, at about 375,000 tons of 1·50 specific gravity. The greater portion produced, about 300,000 tons, is used in the manufacture of alkali, a very much greater and largely increasing quantity to the manufacture of superphosphate of lime for manure. The remainder is applied to the most various purposes in the manufacture of stearic, tartaric, acetic and other acids, in the preparation of sulphate of indigo, the purification of oils of every kind, and many other manufactures, for it is, as it were, the very key to most other chemical operations.

The selling price of the rectified sulphuric acid, specific gravity 1·84 and 1·85, varies from ¾*d.* to 1*d.* per lb., that of the brown acid from 3*l.* 10*s.* to 5*l.* per ton.

Sulphurous Acid.—It is formed whenever sulphur is burnt in atmospheric air; it is a suffocating and pungent gas, strongly acid, bleaches vegetable colours with great rapidity, and is a powerful antiseptic. These properties render it useful in bleaching woollen goods and straws, and in arresting the process of vinous fermentation. Owing to its volatility and pungent odour, it is usually employed in combination with potassa and soda, or with lime.—These compounds are called sulphites. Its principal use, however, is in the manufacture of sulphuric acid.

Tannic Acid or *Gallotannic Acid.*—Tanning principle is contained in gall nuts of the *Quercus infectoria*, sumach, &c. Many other plants contain substances which resemble tannic acid, i. e. they precipitate albumen and gelatin from solution, and unite with animal membrane, forming a substance which resists putrefaction. It is on this principle that leather is manufactured, and the process is called tanning. All these substances are called tannic acids or tannin, although more exact investigations have shown them to differ in some essential properties from the gallotannic acid obtained from gall nuts.

Tartaric Acid.—This acid is procured from the cream of tartar (bitartrate of potassa), obtained

by purifying the crust, which separates during fermentation of wines by solution and crystallisation. The purified bitartrate is dissolved in boiling water, and powdered chalk added as long as effervescence is excited, or the liquid exhibits an acid reaction; tartrate of lime and neutral tartrate of potassa result; the latter is separated from the former by filtration. The solution of tartrate of potassa is then mixed with excess of chloride of calcium, which throws down all the remaining acid in the form of a lime salt. The tartrate of lime thus obtained is treated with dilute sulphuric acid, sulphate of lime is then formed, and the tartaric acid enters into solution, and may be obtained by evaporation and crystallisation. This acid is manufactured largely in Austria and France, as well as in England, and is much employed in calico printing, also in making effervescing draughts and powders in pharmacy. Its selling price is about 1*s.* 5*d.* per lb.

Uric Acid.—It is found in the excrements of serpents and birds, and in guano as urate of ammonia. It is extracted from guano, by means of hot dilute hydrochloric acid. The principal use of this acid is for the purpose of making murexide, a beautiful purple dye, which some years since was manufactured on a large scale, but owing to the introduction of the aniline colours, the manufacture has gradually decreased.

For the above exhaustive account of commercial acids, we are indebted to the distinguished chemist and manufacturer Edmund Muspratt, Esq., of Liverpool.

ACORNS (Ger. eicheln, eckern; Fr. glands; Ital. ghiande; Span. bellotas; Russ. schedudii; Lat. glandes). The seed or fruit of the oak. Acorns, which are said to have formed part of the food of man in early ages (Virgil, *Georg.* i. 8, Ovid, *Met.* i. 106), are still used in some countries, in periods of scarcity, as a substitute for bread. With us they are now rarely used except for fattening hogs and poultry. They are said to make, when roasted, with the addition of a little fresh butter, one of the best substitutes for coffee. Their taste is astringent and bitter.

ACRE. A measure of land. The Imperial or standard English acre contains 4 roods, each rood 40 poles or perches, each pole 272¼ square feet; and consequently each acre = 43,560 square feet. Previously to the introduction of the new system of weights and measures by the act 5 Geo. 4. cap. 74, the acres in use in different parts of England varied considerably from each other and from the standard acre; but these customary measures are now abolished. The Scotch acre contains 4 roods, each rood 40 falls, and each fall 36 ells; the ell being equal to 37·06 Imperial inches. Hence the Imperial is to the Scotch acre nearly as 1 to 1¼, one Scotch acre being equal to 1·261 Imperial acres. The Irish acre is equal to 1 acre, 2 roods, and $10\frac{21}{121}$ poles; 30¼ Irish being equal to 49 Imperial acres. [Weights and Measures.]

ADELAIDE. A city of S. Australia, cap. of the British colony of that name, about 7 m. S.S.E. from its port, an inlet on the E. side of St. Vincent's Gulf, lat. 34° 57′ S., long. 138° 38′ E. Though founded so recently as 1844, and not well situated, this is a well-built, prosperous town. Some of the houses, and most part of the principal buildings, are of brick and stone. Pop. in 1855, 18,259; in 1861, 18,303.

The river Torrens, on which Adelaide is built, loses itself in a marsh before reaching the sea, so that the city is about 7 m. distant from its port, an inlet of St. Vincent's Gulf. This inland situation is a serious drawback on the trade of the city; and it would seem that a mistake was committed in not building it on, or much nearer to, the coast. This, we are aware, has been denied, though, as we think, upon very unsatisfactory grounds. There appears, indeed, to be but little doubt that in no very lengthened period most part of the commerce of the town will be transferred to the port; and that it will be preferred as a residence by all commercial people. In the rainy season the Torrens is much flooded, though it seldom overflows its banks, which are steep and lofty; but in the dry season it has no current, its bed being then formed into a series of pools or tanks.

Port Adelaide, 7 m. N.N.W. from the city, in a low and marshy situation, consists of a number of dwelling-houses and warehouses, some of which are of stone with wharves, partly belonging to government, and partly to the South Australian Company. The inlet of the sea, forming the harbour, opposite the entrance to which a light vessel is moored, stretches from the gulf, from which it is separated by a narrow neck of land, for about 8 m. southward, surrounding Torrens Island. At its mouth is a sandy bar with 8 ft. water at ebb and 16 ft. at flood tide; this depth being considerably increased during S. and S.W. winds. Ships of 400 or 500 tons may, consequently, pass the bar in safety, and once over, there is depth enough for the largest ships to the head of the harbour. (Dutton, *S. Australia*, p. 112.) Large vessels are, however, obliged to lie in mid-channel: but projects were recently on foot for improving the harbour, either by carrying out piers into the deep water, or by establishing a new port about 2 m. nearer to the harbour's mouth, where the water in-shore is deeper, and the situation affords greater facilities for the accommodation of shipping. Port Adelaide has a custom-house; but vessels are exempted from all port charges in this and in the other ports of the colony.

Sailing directions for Port Adelaide.—After making Kangaroo Island, steer E. ½ N. through Investigator's Straits, between that island and Althorp Island. Should the wind be from the eastward, you will find no difficulty in beating through the straits, nor anything in the way more than is pointed out in Flinder's chart. If bound up Gulf St. Vincent, great care is requisite to avoid Troubridge shoal, situate on the west side of the entrance, as the flood tide through Backstairs passage sets strong (particularly on the change and fall of the moon) directly upon the shoal; therefore coming from the westward the course should not be altered until Point Marsden bears S.W. by W. ½ W.; when you will be about 10 miles from the highland, inside Cape Jervis, named in Flinder's chart North-West Bluff, when you may shape your course for the light-vessel N.N.E. 40 miles distant. For about six leagues up the gulf the land is high and bold, but above that the shore becomes very low with hummocks of sand upon it, and the same description of coast prevails to the head of the gulf. After passing the high coast land, the water shoals far out, and in some instances, when within the distance of 10 miles from the light, five fathoms will be found at a distance of four miles from the beach. Be careful of your soundings, particularly at night, and in running up to the light, keep as nearly as you can in between five and six fathoms water, not approaching inside five, as within that depth the water shoals suddenly; and if you keep outside six fathoms, you may pass to the westward of the light and not see it. In these soundings you will make the light ahead, which may be seen 12 miles from the deck of a ship. The shoal—called

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the Bar—at the entrance of the port, bears N.E. one mile from the light-vessel. When you are within a proper distance, a boat will be sent to you from the light-vessel with a pilot and to receive all mails and letters. Should you sight the light in the early part of the night, you may anchor anywhere to the southward of it in six fathoms, or keep underweigh until daylight, taking care to be to the southward of the light, and as near it as possible in the morning, as the tide answers early. Where the light-vessel is moored, in lat. 34° 44′ S., there anchorage is safe, but a good full scope of chain is required, never less than 50 fathoms, and, if it blow, a full chain. Never let go the second anchor if you can avoid it; rather give more chain, as your vessel will ride much easier with one anchor down than two.

When bound down the gulf steer from the light-vessel S.S.W., which will keep you in sight of the land on the east side of the gulf, and out of the influence of the tide through Backstairs passage, until you are to the southward of Troubridge shoal; but on no account shape a course that you may fancy will enable you to weather the shoals, thereby laying the ship's broadside exposed to a rapid tide running directly upon it, until you are sufficiently to the southward to shape your course down the strait.

In beating down the gulf never exceed a distance of 10 miles from the larboard shore (as the opposite side is shoal), and be careful when standing in to have a cast of the lead, as it is shoal a considerable distance off until you get down to the highland. In some places to the northward of Holdfast Bay there are not more than five fathoms, at a distance of four miles from the beach, and the water shoals very quickly within that depth; but where the highland fronts the sea the shore is steep except a reef that lies a mile off, about three miles to the southward of Holdfast Bay. The flag-staff at Holdfast Bay is in lat. 34° 58′ 28″ S. In moderate weather endeavour to be as close to the land as possible by sunset, when you will be certain of the wind off the land, which will lead you down the coast. Do not allow yourself to be thrown off until you are well down with Cape Jervis, and to the southward of Troubridge shoal, which is an extensive flat, and only in the middle shows a patch of about 200 yards at high water.

Ships bound down Investigator's Straits, meeting a strong westerly wind, and wishing to anchor, will find good holding ground close in on the east side of Point Marsden, in six fathoms of water. Vessels coming from the eastward through Backstairs passage, and bound up the gulf, should night be approaching, must keep on the north side of the passage, and haul round Cape Jervis, all that coast being quite bold. When the gulf is open shape a course N. by E. ½ E. for the light-vessel.

The trade of Adelaide is already extensive; and will continue to increase with the increase of the population and trade of the colony, of which it is the grand emporium. The colony is better suited for tillage than any other portion of the continent, and the exports of flour and grain are become of the first importance. The mines of copper, lead, &c., discovered in the vicinity of Adelaide, are of the richest description, and the ores furnished by them form a principal article of export. In 1852 the imports of copper ore into this country from South Australia, chiefly from the Burra-Burra mine, amounted to 8,582 tons. The discovery of the gold fields, by attracting many of the labourers from the copper mines, gave a serious check to the progress of the latter.

Harbour Dues.

	£	s.	d.
Vessels under 100 tons	0	10	0
above 100 and under 200 tons	0	15	0
200 „ 300	1	5	0
300 „ 400	1	15	0
400 „ 500	2	5	0
500 and upwards	3	0	0

Vessels registered in the province of under 50 tons, or whilst employed in the coasting trade, are exempt.

Rates of Pilotage; Port Adelaide.—For every vessel taking a Pilot: in, 3*l.* 5*s*; out, 3*l.* 5*s.*

Light Dues.—On vessels in Port Adelaide or in any of the outports in St. Vincent's Gulf, Nepean Bay, and the other anchorages in Kangaroo Island to and from Great Britain and Foreign ports, 3*d.* per ton in and 3*d.* per ton out.

On vessels in Port Adelaide and above outposts to and from Victoria, Van Diemen's Land and other Australian Colonies 1½*d.* per ton in and 1½*d.* per ton out.

On vessels coastwise above 100 tons 1*d.* per ton in and 1*d.* per ton out.

Steam Tug Dues.

	£	s.	d.
From the Light-ship anchored at the Inner Harbour, Port Adelaide:—			
Vessels not exceeding 200 tons	3	0	0
For every ton over 200 tons	0	0	6
From the Light-ship Anchorage to Light's Passage, below Snapper Point; or from Light's Passage to North Arm:—			
Vessels not exceeding 200 tons	3	0	0
For every ton above 200	0	0	2
From Light-ship Anchorage to the North Arm:—			
Vessels not exceeding 200 tons	6	0	0
For every additional ton	0	0	4
From North Arm to the Port:—			
Vessels not exceeding 200 tons	3	0	0
For every additional ton	0	0	2

The same rates outwards.

Disabled steamers to pay on gross tonnage.

When two tugs are employed the above rates are to be increased by one third and the amount as augmented to be equally divided between the tugs employed, according to distance.

When two vessels are towed the rates are reduced one-third, and when more than two vessels are towed one-half, according to distance for each vessel towed.

Fees to Licensed Marine Surveyors.

	£	s.	d.
For surveying a ship's hatches and cargo, including attendance as required by the master	3	3	0
For each set of certificates as required by consignees or merchants, in triplicate	0	10	6
Survey of a ship for insurance, including report as required by underwriters or agents	2	2	0
Survey of a ship for repairs, including attendance during the process of such repairs, and drawing up of report on repairs being completed	4	4	0

Wharves.—Lay days allowed at wharves at Port Adelaide. All vessels under 100 tons are allowed 6 days for the purpose of discharging, and all vessels above 100 tons the following number of days, Sundays not included: vessels from 100 to 300 tons, 10 days; 300 to 600 tons, 16 days; above 600 tons, 21 days. Vessels discharging cargo have preference at the wharves. Vessels exceeding the time allowed and remaining on berth without permission to be charged one penny per ton for every week such lay days shall be exceeded. Vessels loading or discharging at the wharves will be charged 3*d.* per ton register.

Wharfage Dues on Goods landed at or shipped from the Company's Wharf, Port Adelaide.

	s.	d.
Arrowroot and Sago, per box of cwt. (Other sizes in proportion.)	0	3
Bacon, per cwt.	0	2
Ballast and Stone, per ton	1	0
Bark, per ton of 20 cwt.	2	0
Beef, per tierce	0	4
per barrel	0	3
Bellows (blacksmith's) per pair	0	6

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	s.	d.
Beer, Wines, Spirits, Cordials, Vinegar, Oil, &c., per tun.		
butt	1	6
Ditto per pipe or puncheon	0	9
per hogshead	0	6
per barrel	0	4
per quarter-cask	0	3
per octave	0	2
bottled (in case or cask), per dozen quarts	0	1
Boots and shoes, per trunk	0	4
Bran and pollard, per 100 lbs.	0	1
Bread, per cwt.	0	2
Bricks, slate, and large tiles, per short 1000	2	6
Small tiles	1	6
Butter, per cwt.	0	2
Candles, per box	0	1
in large packages, per cwt.	0	2
Carriages (4-wheel each)	4	0
(2-wheel each)	2	0
Carrots per cwt.	0	1
Casks (empty) per tun	0	6
(in shooks), per bundle	0	2
Cement, per barrel	0	3
Chalk, per cwt.	0	1
Cheese, per cwt.	0	2
Cigars, per 1,000	0	1
Coals, coke, and firewood, per ton	1	3
Cocoa nuts, per 100	0	6
Coffee, per cwt.	0	2
Confectionery, per box, measuring from 4 feet to 7 feet	0	3
under 4 feet	0	2
Large packages, per 40 feet	1	6
Copper, per cwt.	0	1
Corks, per 100 gross	0	9
Earthenware, per crate	1	6
per half-crate	1	0
Flour, per 100 lbs.	0	1
per barrel	0	3
Furniture, per ton measurement	1	6
Fish (dry or salt), per bale	0	4
per barrel	0	4
per half barrel	0	2
per keg firkin, or kit	0	1
per cwt.	0	2
Fruits (fresh), per butt	1	6
per carroel	0	9
per box	0	1
per case or barrel	0	6
(dried), per cwt.	0	2
Fringepans, per bundle	0	2
Ginger, per cwt.	0	2
Glass (window), per box	0	2
per crate	0	6
(plate), in packages per 40 feet	1	6
Groceries (see Confectioners).		
Grain of all kinds, per bushel	0	0½
Grindstones, each	0	1
Hams or cheeks, per cwt.	0	2
Harrows, each	0	4
Hay, per ton of 20 cwt.	0	6
Hides (loose), per 100	5	0
Hops, per pocket or bale	0	6
Horses and cattle, per head	1	0
Horns and hoofs, per ton	2	6
Iron, per cwt.	0	1
Iron tanks, 600 gallons, each	1	0
Other sizes, in proportion.		
Lead, per cwt.	0	1
Machinery, per cwt.	0	1
in light packages, per 40 feet	1	6
Winnowing machines, each	1	6
Thrashing and reaping machines, each	3	0
Chaff cutters, each	0	6
Millstones, each	0	9
Nails, shot, and ironmongery, per bag, or keg of 1 cwt.	0	2
in heavy packages, per cwt.	0	1
Oatmeal, per barrel	0	1
Oils, turps, &c., per tin or basket	0	2
Oilmen's stores (see Confectionery).		
Onions per cwt.	0	1
Oars, per 100 feet	0	4
Oven, per ton	1	3
Ovens, each	0	1
Paint, per cwt.	0	1
Pepper, per cwt.	0	2
Pianofortes, each	1	6
Pitch, per barrel	0	3
Ploughs, each	0	4
Pork, per tierce	0	5
per barrel	0	3
Potatoes, per cwt.	0	1
Pots, each	0	1
Rattans, per 100 bundles	0	9
Rice, per cwt.	0	2
Rope, twine, cordage, per cwt.	0	2
Resin, per barrel	0	3
Sago (see Arrowroot).		
Salt, per cwt.	0	1
Sardines, per case	0	3
Skins (sheep), per dozen	0	2
Sheep, pigs, and goats, per head	0	1
Soap, per box of less than 1 cwt.	0	1
in large packets per cwt.	0	2
Soda, per barrel	0	3
Spades, shovels, per bundle	0	3
Spice, per cwt.	0	2
Spirits (vide Beer).		
Sugar, per cwt.	0	2
Tar, per barrel	0	3
Tea, per chest	0	4
Tea, per half-chest	0	2
per box	0	1
Tobacco pipes, per 5 gross	0	1
Tin plates, per box	0	1
Timber: Dray poles, each	0	2
Deals, battens, spars, logs, and sawn timber, per load of 60 cubic feet	1	6
Pellocs, per 100	0	6
Laths and shingles, per 1000	1	0
Palings, per 100	0	4
Timber: Posts and rails, per 100	2	6
Spokes, per 100	0	4
Tallow, per cwt.	0	1
Tobacco, per tierce	0	9
per half-tierce	0	6
per keg or case	0	3
per basket or roll	0	1
Vinegar (vide Beer).		
Whalebone, per cwt.	0	2
Wheelbarrows, each	0	3
Wheels (cart or carriage) per pair	0	5
Whiting, per barrel	0	3
other packages, per 40 feet	1	6
Wool, per bale	0	4
Merchandise, not enumerated in the foregoing, say drapery, apparel, &c., per ton of 40 cubic feet	1	6
Hardware, and other heavy goods, per cwt.	0	4
per ton of 40 feet	1	6

Where the measurement or weight cannot be obtained, the goods to be estimated at a fair average rate.

Wharfage Regulations.

No gunpowder, rubbish, or filth to be landed on the wharf.

No boats or casks to be placed, ballast landed, spars made, wood cut, or casks coopered on the wharf without permission.

No goods to be deposited on the wharf within fifteen feet from the Front Line.

Goods will be allowed to remain on the wharf 48 hours, after which time they will be liable to rent, and removed at the owner's expense.

The company will not be answerable for any goods that may be damaged whilst lying on the wharf, or what may be stolen from or plundered thereon.

Vessels loading or discharging coals, &c. must use tarpaulins to prevent them falling overboard.

No fires allowed on the wharf.

The line of rail must be kept sufficiently clear to allow the free passage of the truck.

Banking.—Five banks carried on business in Adelaide during 1864, and their operations were further extended by the opening of several new branches and agencies throughout the country districts. The increase in wealth and the soundness of the financial position of traders will be manifest on a comparison of the following statements of the aggregate assets and liabilities of the several banks for the three half years ending December, 1862, 1863, and 1864 respectively :—

Liabilities.

	1862	1863	1864
	£	£	£
Notes in circulation	228,766	232,481	315,126
Bills in circulation	2,851	7,852	12,700
Balances due to other banks	17,171	24,904	11,715
Deposits	703,033	787,104	1,158,931
Total average liabilities	956,823	1,052,321	1,498,472

Assets.

	1862	1863	1864
	£	£	£
Coin and bullion	270,433	336,875	411,710
Government securities	4,600	4,600	4,600
Landed property and bank premises	56,461	55,185	60,806
Notes and bills of other banks	9,268	7,170	8,109
Balances due from other banks	47,244	82,561	151,312
Notes and bills discounted, and other debts due to banks not enumerated	1,542,906	1,603,564	1,724,759
Total average assets	1,930,912	2,079,955	2,361,298

Total Value of Imports and Exports, 1855-64.

Years	Total Exports	Total Imports
	£	£
1855	988,215	1,370,934
1856	1,665,740	1,366,989
1857	1,958,572	1,623,052
1858	1,572,182	1,769,351
1859	1,635,876	1,507,494
1860	1,783,716	1,639,591
1861	2,092,311	1,976,018
1862	2,145,796	1,870,656
1863	2,358,817	2,078,279
1864	3,305,545	2,412,931

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Decennial Return of the Total Value of Exports from the Province, distinguishing the Countries to which Exported, during the Years 1856–65; *also the Total Value of Exports, the Produce of the Colony.*

Years	To Great Britain	To British Possessions: New South Wales	Victoria	Tasmania	Western Australia	East Indies and China	Mauritius	Other British Possessions	To Foreign States	Totals	Of which Exports, Produce, &c., of the Colony
	£	£	£	£	£	£	£	£	£	£	£
1856	663,380	—	—	—	—	—	—	—	2,504	1,665,740	1,598,567
1857	666,136	143,126	1,002,159	4,111	18,556	71,415	34,847	14,961	3,468	1,958,679	1,744,184
1858	590,491	113,941	811,039	1,090	12,516	13,140	3,288	495	1,485	1,547,185	1,355,041
1859	577,793	150,115	853,516	3,325	7,704	25,929	17,190	1,271	3,992	1,655,876	1,502,165
1860	783,898	190,226	710,251	1,527	8,690	66,788	15,583	6,453	250	1,783,716	1,576,346
1861	821,869	202,713	825,795	3,753	19,742	40,016	32,760	35,157	—	2,031,511	1,838,639
1862	943,607	323,994	586,122	2,514	13,178	148,100	40,633	113,580	3,678	2,115,796	1,920,187
1863	935,880	337,478	588,001	2,440	18,034	208,000	27,664	286,147	4,075	2,358,817	2,095,356
1864	918,523	652,127	1,264,654	5,226	12,224	138,783	21,364	275,792	52,855	3,305,545	3,015,537
1865	964,894	557,685	1,244,643	10,611	28,190	77,155	3,571	242,244	522	3,129,846	2,774,657

* The Returns do not give this information, in detail, prior to 1857.

Decennial Return of the Quantity and Value of Metals, Minerals, &c., the Produce of the Colony, Exported during the Years 1856–65.

Years	Copper: Quantity	Copper: Value	Lead: Quantity	Lead: Value	Copper Ore: Quantity	Copper Ore: Value	Lead Ore: Quantity	Lead Ore: Value	Regulus: Quantity	Regulus: Value	Total Values
	cwts.	£	cwts.	£	tons	£	tons	£	tons	£	£
1856	44,980	248,160	—	—	9,468	156,351	35	377	71	2,554	408,042
1857	56,893	290,739	—	—	8,036	141,385	1,422	27,855	79	2,960	463,839
1858	47,795	250,012	—	—	6,697	104,780	853	14,200	151	4,260	373,252
1859	56,745	289,841	1,261	5,710	7,306	101,745	262	8,068	141	5,651	411,018
1860	65,129	331,775	1,524	8,275	7,097	89,130	65	2,480	535	14,877	446,537
1861	61,017	295,572	1,256	4,426	7,817	133,749	15	300	390	19,125	452,172
1862	85,872	400,591	426	981	6,216	124,263	97	2,266	418	19,518	547,619
1863	96,039	447,944	271	525	5,313	83,262	450	9,407	39	1,955	542,393
1864	134,055	637,791	63	121	4,545	38,125	566	13,107	52	2,480	691,624
1865	100,196	433,795	82	133	16,176	184,677	864	1,507	—	—	620,112

Return relative to Lighthouses on the Coasts and Harbours of South Australia, for the Years 1860-65.

Light-house or Light-ship where situated	Names	Nature of the Light	By whom managed	Expense of Management and Stores: Year	Expense of Management and Stores: Amount	Amount of Light-dues received: Year	Amount of Light-dues received: Amount
					£ s. d.		£ s. d.
Port Adelaide	Light-ship	Two fixed bright lights	3 keepers	1860	4,033 19 8	1860	1,812 9 7*
Troubridge Shoal	Troubridge Lighthouse	Intermittent bright light	,,				
Cape Borda, Kangaroo Island	Flinders	Revolving—white and red (½ min.)	,,	1861	3,842 16 6	1861	—
Cape Willoughby, Kangaroo Island	Sturt	Revolving—white (1½ min.)	,,	1862	4,414 13 4	1862	334 5 1†
Cape Northumberland	MacDonnell	Revolving—white, red, and green (1-min.)	,,	1863	4,262 17 4	1863	2,255 15 3
Glenelg Jetty	Glenelg	Fixed—green	1 keeper	1864	4,711 15 11	1864	2,740 9 8
Semaphore Jetty	Semaphore	Fixed—red	,,	1865	4,989 13 2	1865	3,369 7 6
Tipara Shoal	Tipara Light-ship	Fixed—white and red	3 keepers				

* Light Dues abolished October 31, 1860. † Light Dues re-established on November 1, 1862.

Population of S. Australia on Dec. 31, 1865, 156,605.
Revenue in 1864, 775,837*l.*
Expenditure in 1864, 626,688*l.*

The revenue derived from the customs, the only source of taxation, the remainder having been acquired by land sales, &c., was in the same year 203,349*l.*, being at the rate of 1*l.* 7*s.* 8*d.* per head of the population.

The governor of South Australia, in his report for the year 1864, mentions as indicative of the purchasing power of the community of that colony, that the sum paid per head for imported goods amounted in that year to 14*l.* 8*s.* per head of the whole population. Of British goods alone the consumption per head was 8*l.* 5*s.*

The value of the imports and exports from and to the United Kingdom were in the same years respectively:—

	Imports	£		Exports	£
1860		939,346	1860		783,898
1861		1,104,252	1861		821,869
1862		1,178,963	1862		943,607
1863		1,177,706	1863		935,880
1864		1,217,568	1864		918,523

With regard to the amount of the export it is necessary to bear in mind that large quantities of South Australian produce, chiefly wool and minerals are shipped to the other Australian colonies for transhipment to the United Kingdom.

The principal produce of the colony consists in breadstuffs, wool and minerals (copper and copper ore); the table appended will show the percentage ratio of the exports of each of these during the years specified.

Five Years ending with	Ratio of Average of Five Years' Exports of each Class to total Exports = 100: Breadstuffs	Wool	Minerals	Miscellaneous
	per cent.	per cent.	per cent.	per cent.
1855	32·3	28·4	32·9	6·4
1856	37·1	29·0	28·5	5·4
1857	40·4	30·8	24·6	4·2
1858	40·6	30·7	25·4	3·3
1859	39·3	31·5	27·1	2·1
1860	38·2	31·6	27·6	2·6
1861	38·0	33·5	26·7	2·8
1862	36·5	33·4	27·2	2·9
1863	38·2	33·9	27·0	2·9
1864	38·8	31·8	25·7	3·7

The relative values of the exports of each of these articles during the same year was as follows:—

Year	Breadstuffs, Grain, &c.	Minerals and Metals	Wool: Quantity	Wool: Value
	£	£	lbs.	£
1855	236,400	155,557	5,590,171	215,479
1856	556,371	408,042	8,236,221	412,163
1857	755,840	458,939	9,695,203	501,580
1858	525,398	373,282	7,775,225	420,253
1859	554,765	411,018	9,496,715	484,977
1860	499,102	446,537	11,731,371	573,368
1861	712,789	452,172	13,164,391	623,007
1862	853,241	547,619	13,229,009	635,270
1863	747,116	542,393	15,666,787	715,936
1864	1,464,593	691,624	16,092,080	775,656

Wheat Crop.—The important character of this large item of South Australian produce will amply

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justify the following valuable extract from the colonial *blue book* for the year 1864 in regard to the extent and nature of the crop.

The acreage of the wheat crop amounted to 390,836 acres, or two thirds of the total cultivated land. In 1863–4 there were 335,758 acres under wheat, or sixty per cent. of the tilled land; the increase this season has therefore amounted to six per cent. The total produce of the harvest was 4,252,949 bushels, compared with 4,691,919 bushels in the yield of the previous harvest; showing a decrease of 438,970 bushels—the average yield per acre being only eleven bushels as against fourteen bushels, and one bushel less than the average production of the past seven seasons.

On one occasion only during that period has the harvest been less productive, viz. in the year 1859–60, when only 9 bushels 38 lbs. per acre were reaped. The yield for each season, and other particulars respecting the cultivation of wheat during the septennial period just closed, is given in the following table. It will be seen that, in that short space of time, the growth of wheat has more than doubled.

Season	Acres cultivated	Acres under Wheat	Produce, Wheat	Average per Acre
			bushels	b. lbs.
1858–59	264,462	188,705	2,109,544	11 11
1859–60	367,881	218,216	2,103,411	9 38
1860–61	428,816	273,672	3,576,593	13 4
1861–62	486,667	310,656	3,410,756	10 59
1862–63	491,511	320,160	3,841,824	12 0
1863–64	555,968	335,758	4,691,919	14 0
1864–65	587,775	390,836	4,252,949	11 0

Seven-eighths of the wheat crop was reaped by machine, the area hand-reaped being less than last year, notwithstanding the increased cultivation. Out of 390,836 acres, 339,518 acres were gathered by machine, being an increase of 57,021 acres secured in that manner, whilst the quantity reaped by manual labour only amounted to 51,095 acres altogether. One, if not the most important advantage the farmers possess over those of the sister colonies is the expedition and economy with which their crops can be secured, owing to the successful working of the reaping machines now universally used on all but hilly land, permitting of the grain being reaped, winnowed, cleaned, and bagged on the harvest field, and removed into store ere the day is closed.

Minerals.—The annexed table affords a comparison of the amounts of copper and copper ore exported from the colony during the periods indicated. The most important copper mines are those of Kapunda and Burra Burra.

Periods	Copper	Copper Ore
	cwts.	tons
In the year 1855	12,255	4,059
1859	56,745	7,506
1864	134,055	4,545
Total in five years, 1855–59	218,669	35,516
1860–64	442,442	31,018
Average of five years, 1855–59	43,734	7,109
1860–64	88,488	6,204

The annexed is a statement of the shipping and tonnage entered at and cleared from South Australian ports since the year 1855.

Years	Inwards		Outwards	
	Number	Tonnage	Number	Tonnage
1855	361	114,982	350	110,941
1856	450	113,661	437	116,739
1857	486	140,325	484	141,995
1858	374	98,802	367	93,589
1859	402	111,436	390	101,692
1860	324	100,681	338	108,355
1861	401	103,196	387	96,135
1862	374	105,231	392	111,290
1863	440	127,667	446	147,826
1864	617	160,095	619	161,893

The following is a summary of the tonnage entered and cleared respectively in the foreign trade in 1863–4, from the various ports of South Australia, of which there are eight in addition to Adelaide.

Ports	Inwards				Outwards			
	Ships		Tonnage		Ships		Tonnage	
	1863	1864	1863	1864	1863	1864	1863	1864
Port Adelaide	335	435	105,774	124,256	341	448	107,333	128,313
Augusta	1	3	298	479	3	6	2,496	3,038
Elliot	8	11	1,539	1,681	18	15	3,405	1,943
Macdonnell	21	35	1,717	4,751	25	38	1,890	4,355
Robe	5	12	2,255	3,213	6	15	3,226	4,038
Wallaroo	35	69	10,733	17,765	10	30	2,647	8,031
Willunga	23	23	3,818	3,884	28	38	4,624	6,197
Venkatilla	9	15	1,553	2,736	13	18	2,207	3,409
Victor	—	9	—	1,332	—	15	—	1,943
Total	440	617	127,667	160,095	446	619	127,826	161,344

In addition to the above upwards of 4000 tons cleared at ports on the Murray, engaged in the river trade.

The entries and clearances from and to Great Britain, Victoria, and New South Wales, constitute the most important item of the tonnage. They were in the years 1863–4 as follow:—

	1863	1864
	tons	tons
Great Britain, entered	28,265	29,948
cleared	14,465	11,677
Victoria, entered	35,951	56,111
cleared	54,469	59,473
New South Wales, entered	30,903	45,595
cleared	24,873	38,008

The immense progress the colony has made during the past ten years is very clearly shown in the above statement. In that period produce has been exported of the value of over 17,000,000*l.* sterling; and, during the latter half of the period, the exports amounted to 10,500,000*l.*, as compared with 6,750,000*l.*, in the preceding five years, showing an increase of one-third, or 3,750,000*l.* nearly. The *average* of the quinquennial period ending 1859, was 1,337,342*l.* per annum, and during that ended in 1864 2,089,269*l.* annually. In 1855 the exports of produce amounted to 686,953*l.*; in 1859, to 1,502,165*l.*; and in 1865 they reached 3,015,537*l.*—an advance of 100 per cent. during the last five years. In 1855 the exports of produce averaged 8*l.* per head of the population; in 1859, 12*l.* 3*s.* per head; and in 1866, at the rate of 20*l.* 9*s.* per head of a population numbering about 150,000 souls.

Customs Tariff, 1866.

		£.	d.
Beer, in wood	gall.	0	6
bottle, reputed quarts	doz.	1	0
pints	,,	0	6
Coffee, chicory, cocoa, and chocolate	lb.	0	1
Hops	,,	0	2
Spirits, all sorts	gall.	10	0
Sugar	cwt.	5	0
Molasses and treacle	,,	2	0
Tea	lb.	0	3
Tobacco, manufactured	,,	1	6
sheepwash	,,	0	3
cigars and snuff	,,	4	0
Wine, in wood	gall.	2	0
bottle, reputed quarts	doz.	6	0
pints	,,	3	0

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		£.	d.
Dried fruits, nuts, and almonds	cwt.	10	0
Wood: posts, rails, handspikes, and poles	„	1	6
Palings	100	0	6
Shingles and laths	1,000	0	6
Trenails and spokes	100	0	2
Oars	100 feet	2	0
Square timber and balks, spars, deals, battens, quarterings, planks, boards—sawn, hewn, or split timber	40 cubic feet	2	6
Cedar	„	5	0

N.B.—For changes in tariff, see *Colonial Possessions, Tariff of*, annually presented to parliament.

All imported goods not included in the above mentioned list, to which duties are attached, and not specified in the free list will pay an ad valorem duty of 5 per cent.

Free List.—Animals (living), baggage of passengers, bags and sacks, viz. corn sacks, ore bags, wool-packs; books (printed), bullion and coin, coals, coke, and other fuel; corn and flour, manures, plants and trees, green fruit, seeds and roots, potatoes, garden seeds, viz. lucern, clovertares, and such like; skins and hides (raw), specimens of natural history, tallow, wool, unsmelted ores, shooks, and staves.

Customs Tariff on Exports by the Murray River. Proclamations dated December 3, 1857, and November 17, 1858, fix the subjoined tariff and drawbacks on goods intended for consumption in Victoria or New South Wales, and which have been agreed on by the governments of the said colonies. It is prescribed that the duties specified in the tariff shall be levied upon any goods imported into South Australia, and intended for consumption in either of the said colonies, or waterborne upon the river Murray for exportation into either of the said colonies. The drawbacks will be allowed for any duties which may have been paid on any such goods in accordance with any tariff for the time being in force in South Australia.

		£.	d.
Beer, &c. in bulk	gall.	0	1
bottled	„	0	½
Coffee and chicory	lb.	0	2
Brandy and gin, Sykes's proof	gall.	10	0
Old Tom	„	10	0
Rum, whisky, and other spirits	„	7	0
Sweetened liqueurs	„	10	0
Sugar, refined and candy	cwt.	6	8
unrefined	„	5	0
Treacle and molasses	„	3	4
Tea	lb.	0	3
Tobacco and snuff	„	2	0
Cigars	„	3	0

Return showing the Number and Tonnage of Vessels Built and Registered according to Law, in the Province of South Australia, to the year 1865, *inclusive.*

Period	Vessels Built		Vessels Registered		Registers Cancelled		Vessels belonging to Port Adelaide	
	Number	Tons	Number	Tons	Number of Vessels	Tons	Number on December 31	Tons
Previous to 1850	19	483	79	6,222			—	—
1850	7	190	3	500			—	—
1851	5	146	26	1,667			—	—
1852	3	50	24	2,276	120	10,561	—	—
1853	1	7	35	4,026			—	—
1854	3	77	19	2,612			66	6,692
1855	7	552	17	2,143	8	1,501	75	7,334
1856	7	474	18	1,850	13	1,821	80	7,363
1857	—	—	10	2,271	12	2,341	78	7,293
1858	9	505	20	1,860	19	2,647	79	6,506
1859	2	105	6	344	12	1,397	73	5,493
1860	4	268	12	1,935	10	1,125	75	6,303
1861	4	432	14	2,157	9	871	80	7,689
1862	1	218	8	1,978	7	691	81	8,876
1863	1	19	15	2,235	16	1,715	80	9,586
1864	4	151	25	4,966	9	1,410	94	12,942
1865	8	400	28	4,386	9	1,379	113	15,946

Number, Tonnage, and Crews of Vessels of each Nation entered at Ports in the Colony of South Australia in the year 1865.

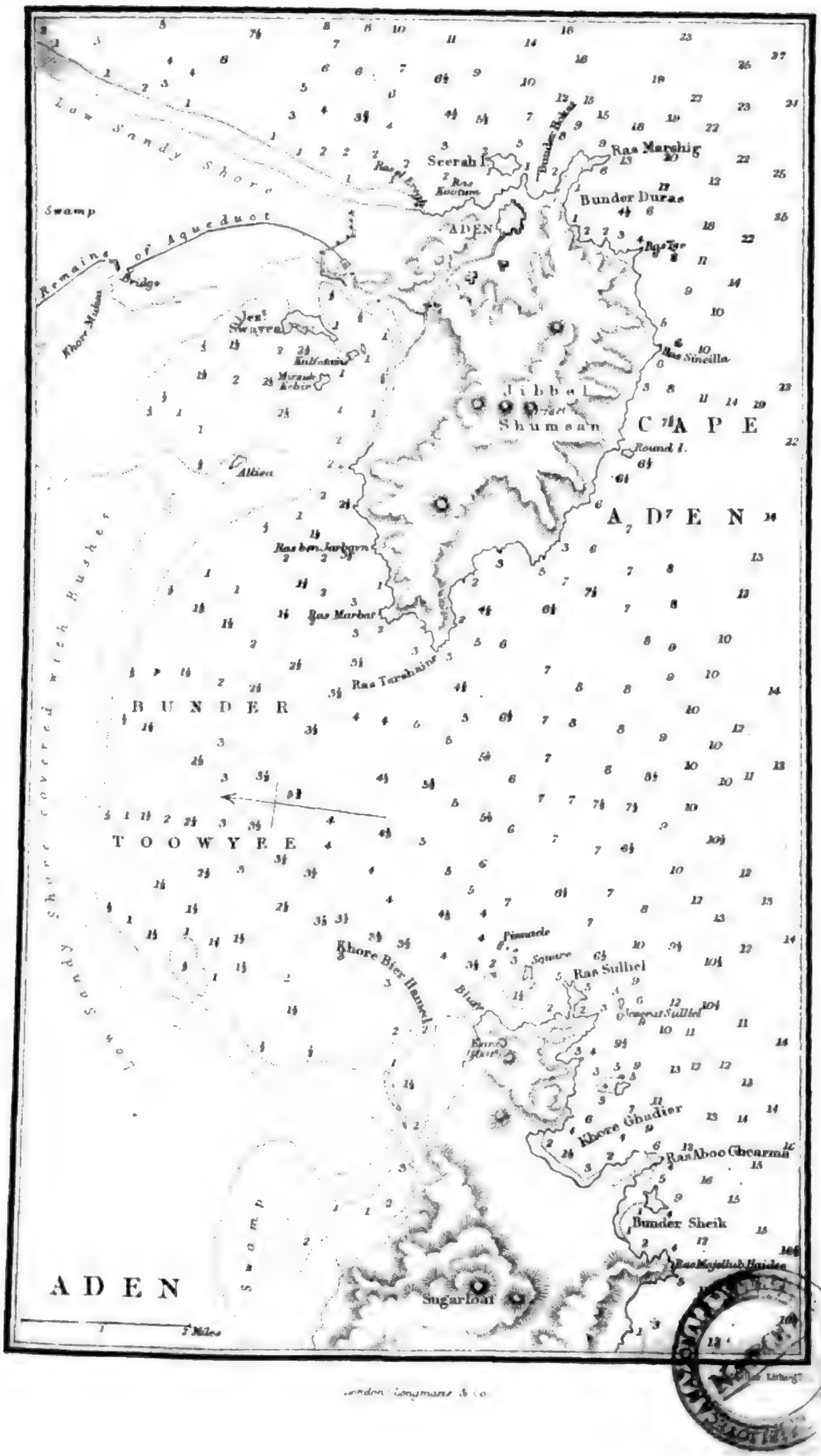
Nationality of Vessels	Entered								
	With Cargoes			In Ballast			Total		
	Vessels	Tons	Crews	Vessels	Tons	Crews	Vessels	Tons	Crews
Gt. Britain	563	164,925	8,443	25	3,639	183	588	168,564	8,626
Bremen	1	296	10	—	—	—	1	296	10
France	2	592	22	—	—	—	2	592	22
Hamburg	6	1,808	65	—	—	—	6	1,808	65
Mecklenbg.	1	214	8	—	—	—	1	214	8
Norway	1	598	18	—	—	—	1	598	18
Sweden	10	5,611	155	—	—	—	10	5,611	155
U. States	10	5,619	137	—	—	—	10	5,619	137
	594	179,463	8,858	25	3,639	183	619	183,102	9,041
Gt. Britain River Murray	36	4,536	309	—	—	—	36	4,536	309
Total	630	183,999	9,167	25	3,639	183	655	187,638	9,350

Number, Tonnage, and Crews of Vessels of each Nation cleared at Ports in the Colony of South Australia, in the year 1865.

Nationality of Vessels	Cleared								
	With Cargoes			In Ballast			Total		
	Vessels	Tons	Crews	Vessels	Tons	Crews	Vessels	Tons	Crews
Gt. Britain	479	128,656	7,051	87	29,190	1,029	566	157,846	8,080
Bremen	1	296	10	—	—	—	1	296	10
France	1	223	10	1	369	11	2	592	21
Hamburg	8	2,041	84	3	511	14	9	2,552	98
Mecklenbg.	2	460	17	—	—	—	2	460	17
Norway	1	598	18	—	—	—	1	598	18
Sweden	2	1,110	30	9	5,477	147	11	6,587	183
U. States	3	1,735	45	6	3,524	81	9	5,257	129
	497	135,117	7,274	104	39,071	1,282	601	174,188	8,556
Gt. Britain River Murray	39	4,620	327	—	—	—	39	4,620	327
Total	536	139,737	7,601	104	39,071	1,282	640	178,808	8,883

ADEN. A town and seaport of Arabia Felix, in the province of Yemen. Lat. 12° 45′ N.; long. 45° 3′ E. It was captured in 1849, and has been attached ever since as an outlying possession under the government of Bombay. The territory consists of a mountainous peninsula connected with the main land by a narrow isthmus nearly covered in spring tides. There is a splendid harbour, and the port is free, there being no customs levied. The site is unrivalled as an entrepôt for commerce. Light-vessel, south side of channel, inner harbour, moored in 24 feet. Lat. 12° 47′ N., long. 45° 1′ 15″ E. The light is fixed, it is seen seven miles in clear weather, and is 35 feet above high water. It fires a gun and burns a blue light on a vessel entering. It is said to be a very bad light. The trade has considerably increased under British management. Its military position is one of great importance, and the fortifications are unassailable by any native force. The climate may be considered healthy and agreeable, the seasons are divided into hot and cold, the former prevailing from April to October and the latter during the remainder of the year. Rain falls occasionally during December, January, February, and April. The trade of Aden amounted in 1863–64 to 1,478,988*l.*, and in 1864–65 to 1, 538,293*l.*, showing an increase of 59,305*l.* This is nothing taking into consideration the article coal, which is supplied exclusively for the steamers plying at this port. The principal articles of import appear to be cotton, cotton and silk piece goods, grain, live-stock, metals, provisions, seeds, and tobacco. The chief articles of export are coffee, dyes, ostrich feathers, gum, hides and skins, ivory, pearls. The principal external trade is carried on with Africa, Arabia, and Persia, America, China, Calcutta, and

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London: Longmans & Co.

Bombay. The export trade to Arabia amounted to 394,298*l.*, and the value of imports from the same source, to 159,778*l.*

Shipping, 1864–6.

1862-5	Arrivals		Departure	
	ships	tons	ships	tons
British	182	190,550	174	180,580
French	41	47,822	40	46,784
Other foreign	5	2,510	5	2,510
Total	228	240,782	219	229,878
Country craft	745	27,014	686	25,502
Grand total	973	267,796	905	255,180

The principal places with which the country craft trade is carried on are Bombay, and Malabar, Africa, Red-Sea ports, Arabian and Persian Gulf.

ADJUSTMENT. In Commercial Navigation, the settlement of a loss incurred by the insured.

In the case of a total loss, if the policy be an *open* one, the insurer is obliged to pay the goods according to their *prime cost*; i. e. the invoice price, and all duties and expenses incurred till they are put on board, including the premium of insurance. Whether they might have arrived at a good or a bad market, is held by the law of England to be immaterial. The insurer is supposed to have insured a constant and not a variable sum; and in the event of a loss occurring, the insured is merely to be put into the same situation in which he stood before the transaction began. If the policy be a *valued* one the practice is to adopt the valuation fixed in it in case of a total loss, unless the insurers can show that the insured had a colourable interest only, or that the goods were greatly over-valued. In the case of all partial losses, the value of the goods must be proved.

'The nature of the contract between the insured and insurer is,' says Mr. Justice Park, 'that the goods shall come safe to the port of delivery; or, if they do not, that the insurer will indemnify the owner to the amount of the value of the goods stated in the policy. Wherever then the property insured is lessened in value by damage received at sea, justice is done by putting the merchant in the same condition (relation being had to the prime cost or value in the policy) in which he would have been had the goods arrived free from damage; that is, by paying him such proportion of the prime cost or value in the policy as corresponds with the proportion of the diminution in value occasioned by the damage. The question then is, how is the proportion of the damage to be ascertained? It certainly cannot be by any measure taken from the prime cost; but it may be done in this way: Where anything, as a hogshead of sugar, happens to be spoiled, if you can fix whether it be a third, a fourth, or a fifth worse, then the damage is ascertained to a mathematical certainty. How is this to be found out? Not by any price at the port of shipment, but it must be at the port of *delivery*, when the voyage is completed and the whole damage known. Whether the price at the latter be high or low, it is the same thing; for in either case it equally shows whether the damaged goods are a third, a fourth, or a fifth worse than if they had come sound; consequently, whether the injury sustained be a third, fourth, or fifth of the value of the thing. And as the insurer pays the whole prime cost if the thing be wholly lost, so if it be only a third, fourth, or fifth worse, he pays a third, fourth, or fifth, not of the value for which it is sold, *but of the value stated in the policy*. And when no valuation is stated in the policy, the invoice of the cost, with the addition of all charge, and the premium of insurance, shall be the foundation upon which the loss shall be computed.'

Thus, suppose a policy to be effected on goods, the prime cost of which, all expenses included, amounts to 1,000*l.*; and suppose further, that these goods would, had they safely reached the port of delivery, have brought 1,200*l.*, but that owing to damage they have met with in the voyage, they only fetch 800*l.*; in this case it is plain, inasmuch as goods that would otherwise have been worth 1,200*l.* are only worth 800*l.*, that they have been deteriorated *one third*; and hence it follows, conformably to what has been stated above, that the insurer must pay one-third of their *prime cost* (1,000*l.*), or 333*l.* 6*s.* 8*d.*, to be insured.

In estimating the value of goods at the port of delivery, the *gross* not the *net* proceeds of the sales are to be taken as the standard.

A ship is valued at the sum she is worth at the time she sails on the voyage insured, including the expenses of repairs, the value of her furniture, provisions, and stores, the money advanced to the sailors, and, in general, every expense of the outfit, to which is added the premium of insurance.

When an adjustment is made, it is usual for the insurer to indorse upon the policy 'adjusted this loss at (so much) per cent.,' payable in a given time, generally a month, and to sign it with the initials of his name. This is considered as a note of hand, and as such is *primâ facie* evidence of the debt not to be shaken, but by proving that fraud was used in obtaining it, or that there was some misconception of the law or the fact upon which it was made. See, for a further discussion of this subject, the article MARINE INSURANCE. Park *On the Law of Insurance*, ch. vi.; Marshall, book i. ch. xiv.

ADMEASUREMENT. [TONNAGE.]

ADMIRALTY COURT. This court is strictly that of the lord high admiral of England. The judge is styled his lieutenant. Since, however, the office of lord high admiral has been in commission, the judge has been appointed by the crown, and possesses jurisdiction in all maritime cases, both of a civil and criminal nature.

The high court of admiralty was formerly held at St. Margaret's Hall in Southwark. During the plague of London it was held at Jesus College, Oxford, the principal of this society, Sir Leoline Jenkins, having been judge of the court. But at, or about, that time it was transferred to the common hall of Doctors' Commons. It is a court of great antiquity, and is said as early as 26 Edw. I. to have existed time out of mind. The rules by which it was governed were the ancient laws, customs, and usages of the seas, including such selections from the laws of Rhodes and Oleron, the Waterrecht of Wisbuy, the Hanseatic ordinances, the Consolato del Mare, the marine ordinances of Louis XIV. (1681), and others which from their natural justice and sound policy obtained generally in the admiralty courts of Europe. (Pritchard's *Digest*, Preface.)

In ordinary cases, the Court of Admiralty is said to be general, in prize cases it is known by the name of Instance Court, and is called into existence from time to time, and as occasion arises, by a special commission under the great seal, at the commencement of each year. Appeals in prize cases are by a recent Act referred to the Judicial Committee of Privy Council. [NAVAL COURTS.]

ADVANCE—implies money paid before goods are delivered, or upon consignment. It is usual with merchants to advance from a half to two-thirds of the value of goods consigned to them, on being required, on their receiving invoice, bill of lading, orders to insure them from sea risk, &c.

ADVERTISEMENT. In its general sense, any information as to any fact or circumstance that has occurred, or is expected to occur; but, in

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a commercial sense, it is understood to relate only to intimations with respect to the sale of articles, the formation and dissolution of partnerships, bankruptcies, meetings of creditors, &c.

Previously to 1833 a duty of 3*s.* 6*d.* was charged upon all advertisements, long or short, inserted in the *Gazette*, or in any newspaper, or literary work published in parts or numbers. This duty added about 100 per cent. to the cost of ordinary advertisements, and having been in consequence much objected to, it was reduced in the above-mentioned year to 1*s.* 6*d.* We ventured, at the time, to predict that this reduction would not be productive of any very serious injury to the revenue, and the result did not disappoint our expectations. In 1832, the last year of the high duty, the advertisement duty amounted to 170,650*l.*, whereas in 1852 it amounted to 181,196*l.*; and though a large portion of this increase must be ascribed to the increase of population and of the demand for advertisements in the interval, still there is no room or ground for supposing that it would have been nearly so great but for the reduction of the duty. But notwithstanding its diminution, the tax was a serious obstruction to the diffusion of information useful to all classes, and especially indispensable to commercial men. And it was, at the same time, unfair and unjust. What could be more partial and oppressive than to impose the same duty on the notice of the publication of a sixpenny pamphlet, or of a servant out of place, as on the intimation of the sale of a valuable estate? And as it was quite impossible to obviate this injustice while the duty was maintained, its repeal, in 1853, was at once a wise and a popular measure.

The best evidence of the enormous increase of advertising since that year, will be found in the increase of newspapers, the advertisements in which are one of the main sources of their profits. It was estimated by a writer in the *English Encyclopædia* in 1859, that the number of advertisements in the United Kingdom amounted to upwards of 4,000,000 annually. Since that period, however, owing to the vast increase in the number of newspapers, periodicals, and other vehicles for advertisement, the numbers must be considerably in excess of that estimate. To these advertisements in newspapers and other printed publications should be added, the numerous notices at Railway stations, and other places of public resort.

ADVICE. It is usually given by one merchant or banker to another *by letter*, informing him of the bills or drafts drawn on him, with all particulars of date, or sight, the sum, to whom made payable, &c. Where bills appear for acceptance or payment, they are frequently refused to be honoured for *want of advice*. It is also necessary to give advice, as it prevents forgeries: if a merchant accept or pay a bill for the honour of any other person, he is bound to advise him thereof, and this should always be done under *an act of honour* by a notary public.

AGAR-AGAR (Ch. hái tsái, *sea vegetable*). This term includes all sorts of edible seaweed, the prepared agar-agar is called *liáng tsái* or cooling vegetable; *shih huá tsái* is the name of large sorts of seaweed. Agar-agar is the Malay name for the marine algæ (*Plocaria* [*Fucus*] *tenax*) growing on the rocky shores of the Malayan islands, from which a glutinous jelly is prepared for the table by boiling; the name is likewise given to the jelly, and something very similar to it is also made from other species of seaweed, and applied to many useful purposes. The bamboo framework of lanthorns is covered with paper saturated with this gum, which when dried is semi-transparent; it is also used by the paper and silk manufacturers as an ingredient in sizing some varieties of their goods. It is incomparable as a paste, and is, moreover, not liable to be eaten by insects. Over 150,000 piculs were imported into Shanghai alone in 1859, and the amount at other ports is not small; the average price there was 6 dollars per picul, but it is got for 1½ to 2 dollars at the south. Its cheapness and admirable qualities as a paste render it worthy the attention of manufacturers in other countries. (Williams's *Chinese Com. Guide.*)

AGATE, popularly CORNELIAN (Ger. achat; Dutch, achaat; Fr. agate; Ital. agata; Russ. agat; Lat. achates). A genus of semi-pellucid gems, so called from the Greek ἀχάτης, because originally found on the banks of the river of that name in Italy. It is never wholly opaque like jasper, nor transparent as quartz-crystal: it takes a very high polish, and its opaque parts usually present the appearance of dots, eyes, veins, zones, or bands. Its colours are yellowish, reddish, bluish, milk-white, honey-orange, or ochre-yellow, flesh-blood, or brick-red, reddish brown, violet blue, and brownish green. It is found in irregular rounded nodules, from the size of a pin's head to more than a foot in diameter. The lapidaries distinguish agates according to the colour of their ground: the finer semi-transparent kinds being termed oriental. The most beautiful agates found in Great Britain are commonly known by the name of *Scotch pebbles*, and are met with in different parts of Scotland, principally on the mountain of Cairngorm; whence they are sometimes termed Cairngorms. The German agates are the largest. Some very fine ones have been brought from Siberia and Ceylon. They are found in great plenty at the eastern extremity of the settlement of the Cape of Good Hope; and are still met with in Italy. But the principal mines of agate are situated in the little principality of Rajpepla, in the province of Gujrat, fourteen miles distant from the city of Broach, where they are cut into beads, crosses, snuff-boxes, &c. They are exported in considerable quantities to other parts of India, and to this country: and hence, perhaps, the jewellers' term *brooch*.

The German agates are principally obtained from the mines of Oberstein, at Galgenberg. There are several varieties of the agate, the principal of which known in commerce are chalcedony, the colours of which are in parallel bands, the onyx, the cornelian, the mocha stone, which is procured from the East, the moss agate, the jasp and opal agates, the plasma or heliotrope, or blood stone, the chrysoprase, the sardonyx, and the chrysolite or peredox, or olwin. This stone being porous, its colours are frequently heightened by artificial means; the process was long kept a secret in the East, but is now commonly known in Germany and elsewhere. Chalcedony is capable of being coloured to imitate the turquoise.

AGENT. [FACTOR.]

AGIO. A term used to express the difference, in point of value, between metallic and paper money; or between one sort of metallic money and another.

AL ROOT (*Morinda citrifolia*). The varieties of the *Morinda* grow freely throughout India, Malacca, Burmah, and Java. The bark and root of the *Morinda citrifolia* are used in dyeing, and furnish the dye used principally in dyeing the Madras red turbans. The colours thus obtained are very permanent, and are of three shades, bright red, pink red, and light red. Mr. Dashwood states, 'The al root is cultivated in the Banda Purgunnah. The Hummerpoor district is the great producing country for al, probably from there being facilities for irrigation. The plants come to maturity in

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three years. The roots are then dug up and sorted into three kinds, according to the fineness of the fibres. The fibres are then cut, beaten down well, and then ground to powder, which latter is used for the dye. The proportion of prepared fibre is equal to the raw material. The cost of the prepared fibre is 1 rupee per manud. The *Morinda umbellata* produces one of the commonest red dyes of India, called *mungkudu*. The best dye is procured from the bark of roots three years old. It is one of the commonest red dyes of India; though the colour is dull yet it is considered faster than the brighter tints obtained from other substances. (*Catalogue of Indian Department of Exhibition of* 1862.)

ALABASTER (Ger. alabaster; Ital. alabastro; Fr. albâtre; Russ. alabastr; Lat. alabastrites). A kind of stone resembling marble, but softer. Under this name are confounded two minerals, the *gypseous* and *calcareous* alabasters; they are wholly distinct from each other when pure, but in some of the varieties are occasionally mixed together. The former, when of a white or yellowish or greenish colour, semi-transparent, and capable of receiving a polish, is employed by statuaries. It is very easily worked, but is not susceptible of a polish equal to marble. Calcareous alabaster is heavier than the former; it is not so hard as marble, but is notwithstanding susceptible of a good polish, and is more used in statuary. The statuaries distinguish alabaster into two sorts, the common and oriental. Spain and Italy yield the best alabaster. That produced at Montania, in the papal states, is in the highest esteem for its beautiful whiteness. Inferior sorts are found in France and Germany. Alabaster is wrought into tables, vases, statues, chimney-pieces, &c.

ALBANY. The capital of the state of New York, and the second most important city of that state. Albany is situated on the west bank of the Hudson, and is distant about 145 miles north of New York city. Pop. in 1860, 62,367. Its position is well adapted for commerce, more particularly that of the lakes, with which it communicates by means of canals. It has also communications with New York, New England, Canada, and the west, by 6 railways. It is the seat of an immense timber trade, and also possesses a large commerce in wool, corn, barley, and manufactured tobacco. The Erie canal enters the city at the north end, where a capacious basin has been formed by erecting a pier more than a mile in length, which cuts off and encloses a part of a bend in the river, forming a basin having an area of 32 acres, which affords a safe winter harbour for boats and vessels navigating the river and canals, and also commodious wharfage.

Table showing the Official Receipts by the Canals at Tide-Water during the Years named.

Years	Boards and Scantling	Shingles	Timber	Staves
	feet	m.	cubic feet	lbs.
1859	352,329,600	177,000	1,454,400	280,926,000
1860	377,658,600	63,400	1,299,800	282,910,000
1861	301,607,000	45,200	1,190,000	264,228,000
1862	412,105,800	49,800	2,506,800	367,050,000
1863	466,301,600	36,100	5,560,600	282,478,000
1864	495,287,100	50,832	4,121,000	286,250,000

Table showing the Official Receipts by the Canals at Albany during the Years named.

Years	Boards and Scantling	Shingles	Timber	Staves
	feet	m.	cubic feet	lbs.
1859	291,771,762	48,756	70,381	114,070,503
1860	301,022,600	41,522	46,858	148,785,369
1861	162,952,500	31,782	41,751	143,784,500
1862	223,899,100	32,687	148,217	210,212,109
1863	243,611,500	21,325	307,700	146,746,300
1864	255,418,130	24,004	314,995	185,759,493

The value of the lumber, shingles, and staves received in 1864 exceeded 8,500,000 dollars.

ALBANY. The port of West Australia. [PERTH.]

ALCOHOL. *Ardent Spirit* (Fr. esprit de vin; Ger. weingeist; Ital. spirito ardente, spirito di vino, alcool). The name given to the *pure spirit* obtainable by distillation, and subsequent rectification, from all liquors that have undergone the vinous fermentation, and from none but such as are susceptible of it. It is light, transparent, colourless; of a sharp, penetrating, agreeable smell; and a warm stimulating taste. It is quite the same, whether obtained from brandy, wine, whisky, or any other fluid which has been fermented. The specific gravity of alcohol when perfectly pure is nearly ·838 at 30° Fahr., that of water being 1,000; but spirit of this strength cannot be obtained by mere distillation. Alcohol has not been frozen by any known degree of cold. It boils at 174°. It is the only dissolvent of many resinous substances; and is extensively used in medicine and the arts. (Drs. A. T. Thomson, Ure, &c.)

ALDER. The *Betula alnus* of botanists, a forest-tree abundant in England and most parts of Europe and N. America. The charcoal made from its wood is of an excellent quality, and is esteemed for the manufacture of gunpowder. The bark is sometimes used for tanning, and by the addition of copperas and other ingredients forms a dye for several colours. It thrives best in marshy grounds and on the banks of rivers. It rarely attains to a very great size; its wood is extremely durable in water or in wet ground; and hence it is much used for piles, planking, pumps, pipes, sluices, and generally for all purposes where it is kept constantly wet. It soon rots when exposed to the weather or to damp; and when dry, it is much subject to worm. The colour of the wood is reddish yellow, of different shades, and nearly uniform. Texture very uniform, with larger septa of the same colour as the wood. It is soft, and works easily. (Tredgold's *Principles of Carpentry.*)

ALE AND BEER. Well-known and extensively used fermented liquors, the principle of which is extracted from several sorts of grain, but most commonly from barley, after it has undergone the process termed malting.

1. *Historical Notice of Ale and Beer.*—The manufacture of ale or beer is of very high antiquity. Herodotus tells us, that owing to the want of wine, the Egyptians drank a liquor fermented from barley (lib. ii. c. 77). Xenophon during his retreat from Central Asia found it in use among the inhabitants of the Armenian Mountains. Mead, or metheglin, was probably the earliest intoxicating liquor known in the North of Europe. Ale or beer was, however, in common use in Germany in the time of Tacitus (*Morib. Germ.* c. 23). 'All the nations,' says Pliny, 'who inhabit the West of Europe have a liqueur with which they intoxicate themselves, made of corn and water (*fruge madida*). The manner of making the liquor is somewhat different in Gaul, Spain, and other countries, and it is called by many various names; but its nature and properties are everywhere the same. The people of Spain, in particular, brew this liqueur so well that it will keep good for a long time. So exquisite is the ingenuity of mankind in gratifying their vicious appetites, that they have thus invented a method to make water itself intoxicate.' (*Hist. Nat.* lib. xiv. ch. xxii.) The Saxons and Danes were passionately fond of beer; and the drinking of it was supposed to form one of the principal enjoy-

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ments of the heroes admitted to the hall of Odin. (Mallet's *Northern Antiquities*, ch. vi., &c.) The manufacture of ale was early introduced into England. It is mentioned in the laws of Ina, King of Wessex; and is particularly specified among the liquors provided for a royal banquet in the reign of Edward the Confessor. It was customary in the reigns of the Norman princes to regulate the price of ale; and it was enacted, by a statute passed in 1272, that a brewer should be allowed to sell two gallons of ale for a penny in cities, and three or four gallons for the same price in the country.

The use of hops in the manufacture of ale and beer seems to have been a German invention. They were used in the breweries of the Netherlands, in the beginning of the fourteenth century; but they do not seem to have been introduced into England till 200 years afterwards, or till the beginning of the sixteenth century. In 1530, Henry VIII. enjoined brewers not to put hops into their ale. It would, however, appear that but little attention was paid to this order; for in 1552 hop plantations had begun to be formed. (Beckmann's *Hist. Invent.* vol. iv. pp. 336—341. Eng. ed.) The addition of hops render ale more palatable, by giving it an agreeable bitter taste, while, at the same time, it fits it for being kept much longer without injury. Generally speaking, the English brewers employ a much larger quantity of hops than the Scotch.

The manufacture of malt liquors is by no means peculiar to this country. In 1865, a committee of three of the Brewers' Association of Philadelphia, inspected the breweries of Europe, and found that the consumption of beer was largely on the increase in, besides the United kingdom, Belgium, Hesse Darmstadt, Nassau, Baden, Würtemburg, Bavaria, Austria, Saxony, Prussia, Switzerland, France, Russia, Denmark, Sweden and Norway.

2. *Distinction between Ale and Beer or Porter.*—This distinction has been well elucidated by Dr. Thomas Thomson, in his article on Brewing, in the *Encyclopædia Britannica*: 'Both ale and beer are in Great Britain obtained by fermentation from the malt of barley; but they differ from each other in several particulars. Ale is light-coloured, brisk, and sweetish, or at least free from bitter; while beer is dark-coloured, bitter, and much less brisk. What is called *porter* in England is a species of beer; and the term 'porter' at present signifies what was formerly called *strong beer*. The original difference between ale and beer was owing to the malt from which they were prepared. Ale malt was dried at a very low heat, and consequently was of a pale colour; while beer or porter malt was dried at a higher temperature, and had of consequence acquired a brown colour. This incipient charring had developed a peculiar and agreeable bitter taste, which was communicated to the beer along with the dark colour. This bitter taste rendered beer more agreeable to the palate, and less injurious to the constitution than ale. It was consequently manufactured in greater quantities, and soon became the common drink of the lower ranks in England. When malt became high-priced, in consequence of the heavy taxes laid upon it, and the great increase in the price of barley which took place during the war of the French revolution, the brewers discovered that a greater quantity of wort of a given strength could be prepared from pale malt than from brown malt. The consequence was that pale malt was substituted for brown malt in the brewing of porter and beer. We do not mean that the whole malt employed was pale, but a considerable proportion of it. The wort, of course, was much paler than before: and it wanted that agreeable bitter flavour which characterised porter and made it so much relished by most palates. The porter brewers endeavoured to remedy these defects by several artificial additions. At the same time various substitutes were tried to supply the place of the agreeable bitter communicated to porter by the use of brown malt. Quassia, cocculus indicus, and we believe even opium, were employed in succession; but none of them was found to answer the purpose sufficiently. Whether the use of these substances be still persevered in we do not know; but we rather believe that they are not, at least by the London porter brewers.'

3. *Adulteration of Ale and Beer—Substitution of Raw Grain for Malt.*—The use of the articles other than malt, referred to by Dr. Thomson, has been expressly forbidden, under heavy penalties, by repeated Acts of Parliament. The Act 56 Geo. III. c. 58 has the following clauses:—

'No brewer or dealer in or retailer of beer shall receive or have in his possession, or make, or use, or mix with, or put into any worts or beer, any liquor, extract, calx, or other material or preparation for the purpose of darkening the colour of worts or beer; or any liquor, extract, calx, or other material or preparation other than brown malt, ground or unground, as commonly used in brewing; or shall receive, or have in his possession, or use, or mix with, or put into any worts or beer, any molasses, honey, liquorice, vitriol, quassia, cocculus indicus, grains of paradise, Guinea pepper, or opium, or any extract or preparation of molasses, honey, liquorice, vitriol, quassia, cocculus indicus, grains of paradise, Guinea pepper, or opium, *or any article or preparation whatsoever for or as a substitute for malt or hops*, upon pain that all such liquor, extract, calx, molasses, honey, vitriol, quassia, cocculus indicus, grains of paradise, Guinea pepper, opium, extract, article, and preparation as aforesaid, and also the said worts and beer, shall be forfeited, together with the casks, vessels, or other packages, and may be seized by any officer of excise; and such brewer of, dealer in, or retailer of beer, so offending, shall for each offence forfeit 200*l*.

'No druggist or vender of or dealer in drugs, or chemist, or other person whatever, shall sell, send, or deliver to any licensed brewer of, or dealer in, or retailer of beer, knowing him to be so licensed, or reputed to be so licensed, or to any other person for, or on account of, or in trust for, or for the use of such brewer, dealer, or retailer, any colouring, from whatever material made, or any other material or preparation other than *unground brown malt*, for the purpose of darkening the colour of worts or beer; or any liquor or preparation heretofore or hereafter made use of for darkening the colour of worts or beer, or any molasses or other articles, as mentioned in the first section, for or as a substitute for malt or hops respectively; and if any druggist, or vender of or dealer in drugs, or any chemist, or other person whatever, shall so do, all such liquor called colouring, and material or preparation for the purpose aforesaid, and liquor and preparation used for darkening the colour of worts or beer, molasses, and articles or preparation to be used as a substitute for malt or hops, shall be forfeited, and may be seized by any officer of excise; and the druggist, vender, dealer, chemist, or other person so offending, shall forfeit 500*l*.

By the Act 1 Wm. IV. c. 51, for the repeal of the ale and beer duties, it is enacted (s. 17) that no brewer shall have in his brewery, or in any part of his entered premises, or in any mill connected with

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such brewery, any raw or unmalted corn or grain; and all unmalted corn or grain which shall be found in such brewing premises or mill, and all malted corn or grain with which such unmalted corn or grain may have been mixed, shall be forfeited, and may be seized by any officer, together with all vessels or packages in which such raw or unmalted corn or grain shall be contained, or in which such unmalted corn or grain, and the malted corn or grain with which the same may have been mixed, shall be contained; and every brewer shall for every such offence forfeit 200*l.*

4. *Description of Ale and Beer.*—Previously to 1823 there were only two sorts of beer allowed to be brewed in England, viz. *strong beer*, that is, beer of the value of 16*s.* and upwards the barrel, exclusive of the duty; and *small beer* or beer of the value of less than 16*s.* a barrel, exclusive of the duty. In 1823, however, an Act was passed, (4 Geo. IV. c. 51) authorising the brewing, under certain conditions, of an *intermediate* beer. But this sort of beer was either not suited to the public taste, or, which is more probable, the restrictions laid on the brewers deterred them from engaging extensively in its manufacture.

This limitation and classification of the different sorts of ale and beer, according to their strength, originated in the duties laid upon them; and now that these duties have been repealed, ale and beer may be brewed of any variety or degree of strength.

The brewing of ale has long constituted a principal, or rather, perhaps, we might say the principal, manufacturing employment carried on in Edinburgh. The best Edinburgh ale is of a pale colour, mild, glutinous and adhesive. It is much stronger and more intoxicating than porter, from 4 to 5 bushels of malt being generally used in brewing a barrel of ale, with about 1 lb. of hops to a bushel of malt. At present (1853) the produce of the ale breweries of Edinburgh may be estimated at above 201,000 barrels a year. Very good ale is also made at Preston Pans, Alloa, and other Scotch towns. Considerable quantities of Edinburgh ale are sent to London; though this trade has latterly been decreasing. Very good ale may be produced by brewers on a small scale, but it is doubtful whether this be the case with porter; at all events the best porter is all produced in very large establishments.

Formerly it was not supposed that really good porter could be made anywhere except in London. Of late years, however, Dublin porter has attained to high and not unmerited reputation; though we certainly are not of the number of those who consider it as nearly approaching to the best London porter.

Large quantities of a light, pale, and highly-hopped variety of ale have been for some considerable time past exported to the East Indies, where it is in high estimation; and it is now also very extensively used in summer in this country.

5. *Regulations as to the Manufacture of Ale and Beer.*—Since the abolition of the beer duties these regulations are very few and simple; and consist only in taking out a licence, entering the premises, and abstaining from the use of any article, other than malt, in the preparation of the beer. A brewer using any place, or mash-tun, for the purpose of brewing, without having made an entry thereof at the nearest excise office, forfeits for every such offence 200*l.*; and all the worts, beer, and materials for making the same together with the mash-tun, are forfeited, and may be seized by any officer.—Brewers obstructing officers for every offence forfeit 100*l.* (1 Wm. IV. c. 51, ss. 15, 16.)

6. *License Duties.—Number of Brewers.*—The license duties payable by brewers of ale and beer, and the numbers of such licenses granted during the year 1864-5 were as follows:—

Account showing the Number of Licenses issued to Brewers in the Year 1864-5, *with the Rates of Duty charged thereon (supplied by the Excise).*

Common Brewers in the United Kingdom paying for Licenses			Amount Charged on each Class			The Supplementary Charge on the Licenses expiring on September 30, 1865			The Supplementary Diminution on the Licenses expiring on September 30, 1865		
Exceeding	Not exceeding	Number	£	s.	d.	£	s.	d.	£	s.	d.
barrels	barrels										
—	1,000	31,032	91,866	17	6	17,918	16	6	8,154	4	0
1,000	10,000	1,517	78,449	18	0	10,285	5	6	3,803	7	0
10,000	20,000	178	34,368	18	0	3,[illegible]	16	0	872	18	0
20,000	30,000	61	22,125	0	0	2,193	4	6	324	16	0
30,000	50,000	34	17,525	16	0	2,[illegible]	9	0	250	5	0
50,000	100,000	20	18,428	2	6	1,[illegible]	5	0	254	7	6
100,000	150,000	7	10,957	7	6	1,098	5	0	—		
150,000	200,000	1	2,172	15	0	6	8	0	—		
200,000	250,000	4	11,643	10	0	999	7	6	—		
250,000	300,000	3	11,186	7	6	360	12	6	21	17	6
300,000	350,000	—	—			—			—		
350,000	400,000	1	4,645	5	0	101	17	6	—		
400,000	450,000	1	5,262	15	0	—			298	2	6
450,000	500,000	1	5,997	2	6	—			35	0	0
500,000	550,000	—	—			—			—		
550,000	600,000	1	7,009	0	0	745	0	0	—		
600,000	—	1	7,584	0	0	163	2	6	—		
Beginners at 12*s.* 6*d.*		4,718	2,967	10	0	—			—		
		37,743	332,190	4	6	42,096	6	6	13,994	17	6
						13,994	17	6			
Net supplementary charge			28,101	9	0	28,101	9	0			
Total amount paid by all classes			360,291	13	6						

N.B.—The barrel contains 36 gallons or 4 firkins of 9 gallons each, imperial measure. It is enacted (1 Wm. IV. c. 51, s. 7), that brewers shall pay their license duty according to the malt used by them in brewing, and that every brewer shall be deemed to have brewed *one* barrel of beer for every *two* bushels of malt used by such brewer.

It is enacted (1 Wm. IV. c. 51), that every person who shall sell any beer or ale in less quantities than four and a half gallons or two dozen reputed quart bottles, to be drunk elsewhere than on the premises where sold, shall be deemed a dealer in beer.

7. *Progressive Consumption of Ale and Beer.*—Malt liquor early became to the labouring classes of England what the inferior sorts of wine are to the people of France, at once a necessary of life and a luxury; the taste for it was universally diffused. There are, however, no means by which an estimate can be formed of the quantity actually consumed previously to the reign of Charles II. But duties, amounting to 2*s.* 6*d.* a barrel on strong, and to 6*d.* a barrel on small ale or beer, were imposed, for the first time, in 1660. These duties being farmed until 1684, the amount of the revenue only is known; and as there are no means of ascertaining the proportion which the strong bore to the small beer, the quantities that paid duty cannot be specified. But since the collection of the duty was entrusted to officers employed by government accurate accounts have been kept of the quantities of each sort of beer on which duty was paid, as well as the rate of duty and its amount. Now it appears, that at an average of the ten years from 1684 to 1693 inclusive, the amount of ale annually charged with duty was as follows:—

Strong ale	4,567,223 barrels.
Small do.	2,376,278 do.

Soon after the Revolution, several temporary duties were imposed on ale and beer; but in 1694 they were consolidated, the established duties being then fixed at 4*s.* 9*d.* a barrel on the strong, and at 1*s.* 3*d.* on the small beer, instead of 2*s.* 6*d.*

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Account of the Brewers, Licensed Victuallers, Persons Licensed for the Sale of Beer to be Drunk on and off the Premises, &c.. with the Quantities of Malt used by such Brewers, &c. in England, Scotland, and Ireland, during the Year 1864-5.

	Number of				Number who brew their own Beer			Bushels of Malt consumed by each Class			
			Persons Licensed to sell Beer			Persons Licensed to sell Beer				Persons Licensed to sell Beer	
	Brewers	Victuallers	To be drunk on the Premises	Not to be drunk on the Premises	Victuallers	To be drunk on the Premises	Not to be drunk on the Premises	Brewers	Victuallers	To be drunk on the Premises	Not to be drunk on the Premises
England - - -	2,235	66,835	42,660	2,859	21,451	9,978	515	30,886,616	7,794,353	3,300,269	351,037
Scotland - - -	110	12,182	—	—	88	22	—	1,932,345	282,651	—	—
Ireland - - -	90	15,409	—	—	—	—	—	2,748,772	419	—	—
United Kingdom -	2,435	94,426	42,660	2,859	21,519	10,000	515	35,567,735	8,077,423	3,300,269	351,037

and 6*d.*, which had been the rates previously to 1690. This increase of duty had an immediate effect on the consumption, the quantity brewed during the ten years from 1694 to 1703 being as follows:—

Strong ale - - - - -	3,574,604 barrels.
Small do. - - - - -	2,180,764 do.

The whole of this decrease must not, however, be ascribed to the increase of the beer duties only, the duty on malt and hops having been, at the same time, considerably increased, operated partly no doubt to produce the effect.

During the five years ending with 1750 the ale brewed amounted, at an average, to 3,803,580 barrels of strong, and 2,162,540 barrels of small. (Hamilton's *Principles of Taxation*, p. 255.)

The ale brewed in private families for their own use has always been exempted from any duty; and it may, perhaps, be supposed that the falling off in the consumption, as evinced by the statements now given, was apparent only, and that the decline in the public brewery would be balanced by a proportional extension of the private brewery. But though there can be no doubt that the quantity of beer brewed in private families was increased in consequence of the peculiar taxes laid on the beer brewed for sale, it is abundantly certain that it was not increased in anything like the ratio in which the other was diminished. This is established beyond all dispute, by the fact of the consumption of malt having continued *very nearly stationary*, notwithstanding the vast increase of population and wealth, from the beginning of the last century down to 1750, and, indeed, to 1830. [Malt.] Had the fact as to malt been different, or had the demand for it increased proportionally to the increase of population, it would have shown that the effect of the malt and beer duties had not been to lessen the consumption of beer, but merely to cause it to be brewed in private houses instead of public breweries; but the long continued stationary demand for malt completely negatives this supposition, and shows that the falling off in the beer manufactured by the public brewers had not been made up by any equivalent increase in the supply manufactured at home.

During the years 1787 to 1830 the tax levied on the barrel of strong beer varied. It was 8*s.* at the first mentioned date, was varied to 9*s.* 5*d.* in 1802, and to 10*s.* in 1804. It varied between 9*s.* to 9*s* 10*d.* in 1826, and was finally repealed in 1830.

The gross amount of revenue received by the excise, varied little between 1804 and 1830, being about 3,000,000*l.* per annum.

The stationary consumption of malt and beer during the greater part of last century is, most probably, in great part ascribable to the introduction and rapid diffusion of a taste for tea and coffee, and to the consequent change that was effected in the mode of living of the middle and upper classes. No doubt, however, the oppressive duties with which malt and beer were loaded in the latter part of last century and down to 1830 narrowed their consumption in an extraordinary degree. After various previous additions the duty on malt was raised in 1804 to 4*s.* 5¾*d.* per bushel, or 35*s.* 10*d.* a quarter, the beer duties being then also raised to 10*s.* per barrel (old measure); and as a quarter of malt produced about three or three and a half barrels of beer, it follows that the duty on malt used in breweries really amounted at that period to from 65*s.* 10*d.* to 70*s.* 10*d.* a quarter, making the duty on strong beer, exclusive of that on hops, about 20*s.* a barrel. The duty on malt continued at this exorbitant rate till 1816; and to show its influence it is only necessary to state that during the 12 years ending with 1816 the consumption of malt amounted to no more than 23,197,754 bushels a year, being, notwithstanding the vast increase of wealth and population in the interval, less than it had been a century previously, the consumption having amounted to 24,191,304 bushels a year during the twelve years ending with 1720! [Malt.] The duties had, in fact, been completely overdone; and besides hindering the consumption of malt and malt liquors, they had the mischievous effect of vitiating the public taste and stimulating the consumption of ardent spirits, especially of those made from raw grain. In 1816, however, the duty on malt was reduced to 2*s.* 5*d.* a bushel, and since 1823 it has amounted to 2*s.* 7*d.* a bushel, or 20*s.* 8*d.* a quarter; and the beer duty having been abolished in 1830, this has been the only duty with which malt liquor has since been affected. And though we are unable, from the want of subsequent returns, to state how much the consumption of beer has increased since 1830, the increase in the consumption of malt shows that it must be very considerable.

We subjoin—

An Account of the Quantities of Malt brewed by the Fourteen principal London Porter and Ale Brewers, during the 7 *Years ending with* 1852.

[Unit 000 omitted: thus 112=112,000.]

	1846	1847	1848	1849	1850	1851	1852
	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.
Truman, Hanbury, and Co.	112	101	103	105	106	118	112
Barclay, Perkins, and Co.	127	113	105	115	113	126	124
Meux and Co.* - - -	57	61	60	59	60	65	66
Reid and Co.* - - -	67	62	54	56	56	59	60
Whitbread and Co. - -	55	43†	51	51	51	52	53
Combe and Co. - - -	51	42	44	43	45	48	47
Hoare and Co. - - -	32	—	—	—	—	31	33
Elliot, Watney, and Co. -	33	30	31	29	30	32	36
Calvert and Co. - - - -	32	31	28	28	33	35	32
Mann, Crossman, and Co.	19	19	21	24	25	28	30
Charrington, Head, and Co.	23	21	21	22	22	23	26
Taylor, Walker, and Co. -	17	18	17	15	15	16	17
Goding and Co. - - -	19	17	15	13	15	16	16
Courage and Co. - -	13	13	13	14	14	15	16

Those marked thus * brew porter only. † 627,188 lb. sugar.

The duties on beer were even more indefensible from the mode in which they were charged than

from their amount. They affected only that description of beer which was *brewed for sale*; and as all the higher classes brewed their own beer, the duty fell only on the lower and middle ranks of the community, and particularly the former. It is singular that a tax so grossly unequal and oppressive should have been so long submitted to.

But besides the obstacles to the consumption of beer arising from the oppressive duties with which it was burdened, the system formerly in force for granting licenses for its sale opposed obstacles that were hardly less formidable. Previously to 1830 no one could open a house for the sale of beer without first obtaining a license renewable annually from the magistrates; and as these functionaries were accustomed only to grant licenses to the occupiers of *particular houses*, the brewers naturally endeavoured, in order to ensure the sale of their beer, either to buy up those houses or to lend money upon them; and in many extensive districts a few large capitalists succeeded in engrossing most of the public houses, so that even the appearance of competition was destroyed, and a ready market and good prices secured for the very worst beer. We, therefore, look upon the abolition of the beer duties, and the granting of leave to all persons to retail beer on their taking out proper licenses, as highly advantageous measures. The conditions under which such licenses are taken out, and the sale of beer conducted, are fixed by the Acts 1 Wm. IV. c. 64. and the 4 & 5 Wm. IV. c. 85. Under the former the commissioners of excise, or other persons duly authorised, were bound to grant licenses, costing 2*l.* 2*s.* a year, to all persons not excepted in the act, empowering them to sell ale, beer, porter, cider, &c. to be drunk *indifferently either on or off the premises*. But in consequence of the complaints (whether well or ill founded it is now needless to inquire) of the increase and bad character of beer shops, the Act 4 & 5 Wm. IV. c. 85 makes the obtaining of a license to retail beer to be drunk on the premises contingent on the applicant being able to produce a certificate of good character, subscribed by certain persons rated at a certain amount to the poor; it also raised the cost of such license to 3*l.* 3*s.*, and reduced the cost of a license to sell beer not to be drunk on the premises to 1*l.* 1*s.* These licenses are now (1853) 66*s.* 1¾*d.* and 22*s.* 0½*d.* We subjoin an abstract of the Acts.

Persons applying for a License to sell Beer to be drunk on the premises, to deposit a Certificate of good Character, &c.—Every person applying for a license to sell beer or cider by retail, to be drunk in the house or on the premises, shall annually produce to and deposit with the commissioners of excise, collector, or other person authorised to grant such license within the parish or place in which the person applying intends to sell beer or cider by retail, a certificate signed by 6 persons residing in and being and describing themselves to be inhabitants of such parish, place, &c., and respectively rated therein to the poor at not less than 6*l.*, or occupying a house therein rated to the poor at not less than 6*l.*, none of whom shall be maltsters, common brewers, or persons licensed to sell spirituous liquors or beer or cider by retail, nor owners or proprietors of any houses licensed to sell liquors, beer, or cider by retail, stating that the person applying for the license is of good character; and at the foot of such certificate one of the overseers of the parish, township, or place shall certify (if the fact be so) that such 6 persons are inhabitants respectively rated as aforesaid; and such certificate shall respectively be in the form of the schedule annexed to this Act: provided always, that in any parish, township, or district maintaining its own poor, in which there are not 10 inhabitants rated to their relief to the amount of 6*l.* each or not occupying houses respectively rated to the poor at 6*l.* each (not being maltsters, common brewers, or persons licensed to sell spirituous liquors or beer or cider by retail), the certificate of the majority of the inhabitants of such parish, township, or district maintaining its own poor, as are rated to the amount of 6*l.* each, shall be deemed to be a sufficient certificate for the purposes of this Act. (4 & 5 Wm. IV. s. 2.)

Penalty on Overseers.—Any overseer who shall, without due cause, refuse to certify that the persons who have signed the certificate are respectively rated to the poor's rate as aforesaid to forfeit not more than 5*l.* (Sec. 3.)

Beer drunk in sheds.—Any person licensed under the Act 1 Wm. IV. c. 64 to sell beer, cider, &c. not to be consumed on the premises, who shall employ, permit, or suffer any person or persons to take or carry any beer, &c. from his house or premises, to be drunk or consumed for his benefit or profit, in any other house, tent, shed, &c. belonging to, or hired, used, or occupied by such licensed person, such beer, &c. shall be held to have been consumed on the premises, and the person selling the same shall be subject to the like forfeitures and penalties as if it had been actually drunk or consumed in a house or upon premises licensed only for the sale thereof. (Sec. 4.)

Billeting. — Provisions for billeting soldiers under Mutiny Acts to extend only to those licensed to sell beer or cider to be drunk in the house or on the premises, and not to extend to those licensed to sell beer not to be consumed on the premises. (Sec. 5.)

Justices to regulate the Opening and Closing of Houses.—Justices in petty sessions are authorised to fix the hours at which houses and premises licensed to sell beer under this Act shall be opened and closed; but any person thinking himself aggrieved by any such order may appeal at any time, within 4 months from its date, to the justices in quarter sessions, on giving the justices making the order 14 days' notice of his intention; and the decision of the justices in quarter sessions shall be final: provided, however, that the hour to be fixed for opening any house shall not in any case be earlier than 5 o'clock in the morning, nor for closing the same later than 11 o'clock at night, or before 1 o'clock in the afternoon on Sunday, Good Friday, Christmas Day, or any day appointed for a public fast or thanksgiving; and the hours so fixed by the justices, with reference to the districts within their jurisdictions, shall be taken to be the hours to be observed and complied with under this Act as fully as if the same had been specially appointed by it. (Sec. 6.)

Constables, &c. to visit licensed Houses.—All constables and officers of police are authorised to enter into all houses licensed to sell beer or spirituous liquors to be consumed upon the premises whenever they shall think proper; and if any person licensed as aforesaid, or any servant or person in his employ or by his direction, shall refuse to admit such constables, &c. into such house or premises, the person having the license shall for the first offence forfeit and pay any sum not exceeding 5*l.*, together with the costs of conviction, to be recovered within 20 days before 1 or more justices; and it shall be lawful for any 2 or more justices, upon any person being convicted of such offence for the second time, to adjudge (if they think fit) that such offender be disqualified from selling beer, ale, porter, cider, or perry, by retail, for 2 years after such conviction, or for such shorter space as they may think proper. (Sec. 7.)

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Penalty for making or using false certificates.—Persons certifying any matter having reference to this Act as true, who know the same to be false, or using any certificate, knowing the same to be forged, shall, on conviction of such offence before 2 or more justices, forfeit and pay the sum of 20*l.*; and every license granted to any person making use of any certificate to obtain the same, such persons knowing such certificate to be forged, or the matters certified therein to be false, shall be void to all intents and purposes; and any person using such certificate shall be disqualified for ever from obtaining a license to sell beer or cider by retail. (Sec. 8.)

No License to be granted without a Certificate.—No license for the sale of beer or cider by retail to be consumed or drunk in the house or on the premises shall be granted, except upon the certificate hereby required: provided, that in all extra-parochial places the certificate required by this Act may be signed and given by inhabitants rated in the poor at 6*l.* in any adjoining parish or parishes. (Sec. 9.)

Retailers to produce their Licenses on Requisition of 2 Magistrates.—In case any complaint be laid before 2 justices against any licensed person for an offence against the tenor of his license, or against this Act or the Act 1 Wm. IV. c. 64, the said justices may require such person to produce his license before them for their examination; and if he wilfully neglect or refuse so to do, he shall forfeit for such offence any sum, not exceeding 5*l.*, the said justices shall think proper; and such person may be convicted, proceeded against, and dealt with for such offence in the same manner, *mutatis mutandis*, as is directed by the Act 1 Wm. IV. c. 64, with regard to persons guilty of a first offence against said Act; and the penalty imposed for such offence is to be applied in the manner that a penalty for a first offence against said Act is directed to be applied. (Sec. 10.)

Continuance of Powers, &c.—The powers, provisions, and penalties of 1 Wm. IV. c. 64, to apply to persons licensed under this Act, and to their sureties, &c. (Sec. 11.)

Duties on Beer Licenses.—There shall be paid upon the licenses hereby authorised to be granted the duties following; viz.

For and upon every license to be taken out by any person for the sale of beer by retail, not to be drunk or consumed in or upon the house or premises where sold, the annual sum of 1*l.* 1*s.*

For and upon every license to be taken out by any person for the sale of beer by retail, to be drunk or consumed in or upon the house or premises where sold, the annual sum of 3*l.* 3*s.* (Sec. 13.)

The duties to be under the management of commissioners of excise, and to be recovered and accounted for under the provisions of the Act 1 Wm. IV. c. 64. (Sec. 14.)

Not to affect Duty on Licenses to retail Cider and Perry.—Nothing in this Act shall affect the amount of duty payable under the 1 Wm. IV. c. 64, on licenses to retail cider and perry; but every such license shall specify whether it be granted for the sale of cider and perry by retail not to be drunk in the house or premises where sold, or for the retail of the same to be drunk in the house or premises where sold. (Sec. 15.)

Licenses under this Act not to authorise Persons to sell Wine.—No license granted under the Act 1 Wm. IV. c. 64 and this Act, shall authorise any person to take out or hold any license for the sale of wine, spirits, or sweets or made wines, or mead or metheglin; and if any person licensed under the Act 1 Wm. IV. c. 64 and this Act, shall permit or suffer any wine, spirits, &c. to be brought into his house or premises to be drunk or consumed there, or shall suffer them to be drunk or consumed in his house or premises, he shall, over and above any excise penalties to which he may be subject, forfeit 20*l.* (Sec. 16.)

Penalty on unlicensed Persons.—Such persons selling beer and cider by retail to be drunk off the premises, 10*l.*; to be drunk on the premises, 20*l.* (Sec. 17.)

Board over the Door.—Every person licensed to sell beer, cider, or perry, by retail, under the authority of the Act 1 Wm. IV. c. 64 and this Act, shall, on the board required by the former Act to be placed over his door, paint and keep thereon, after the words 'licensed to sell beer or cider by retail,' the additional words, 'not to be drunk on the premises,' or 'to be drunk on the premises,' as the case may be, on pain of forfeiting the penalty imposed by such Act for not having such board over the door. (Sec. 18.)

What is retailing of Beer, &c.—Every sale of beer or of cider or perry, in any less quantity than 4½ gallons shall be deemed and taken to be a sale by retail. (Sec. 19.)

Penalties for selling Spirits or Wine without a License.—Persons licensed to sell beer or cider under the Act 1 Wm. IV. c. 64 and this Act, who sell spirits or wine, sweets, &c. without being licensed, are liable to the penalties imposed by the laws of excise for selling spirits or wine, sweets, &c. without license. (Sec. 20.)

Certificate not to be required for Houses in certain Situations, if Population exceed 5,000.—The beforementioned certificate shall not be required as to any house situated within the cities of London and Westminster, or within any parish or place within the bills of mortality, nor within any city or town corporate, nor within the distance of 1 mile from the place used at the last election as the place of election or polling place of any town returning a member to parliament, provided that the population, determined according to the last parliamentary census taken in such city, town, &c. shall exceed 5,000, provided that no license for the sale of beer, ale, porter, cider, or perry by retail on the premises in the cities of London and Westminster, or in any parish within the bills of mortality, or in any such city or town corporate, or town returning a member to parliament as before mentioned, shall be granted after the 5th day of April, 1836, unless the house or premises specified as those in which beer or cider is intended to be sold shall be of the value of 10*l.* per annum. (Sec. 21.)

Form of Certificate referred to in Sec. 2.

We, the undersigned, being inhabitants of the parish [*or* township *as the case may be*] of
and respectively rated to the poor at not less than 6*l.* per annum, and none of us being maltsters, common brewers, or persons licensed to sell spirituous liquors, or being licensed to sell beer or cider by retail, do hereby certify, That *A. B.*, dwelling in street, [*here specify the street, lane, &c.*] in the said parish [*or* township, &c.] is a person of good character.

[*Here insert the day of signing the certificate.*]

(Signed) *E. F.*
G. H.
I. K.
L. M.
N. O.
P. Q.
[*Here state the residence of each of the persons signing.*]

I do hereby certify, that all the above-mentioned persons whose names are subscribed to this certificate are inhabitants of the parish [*or* township,

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&c.] of rated to 6*l.* to the relief of the poor of the said parish.

C. D.

[Overseer of the parish *or* township, &c.]

Date

In addition to the above the following clauses of the Act 1 Wm. IV. c. 64, are still in force:—

Persons trading in partnership and in one house shall not be obliged to take out more than one license in any one year, provided also, that no one license shall authorise any person to sell beer, in any other than the house mentioned in such license. (Sec. 10.)

In cases of riot or expected riot or tumult, every person licensed under this Act, and keeping any house situate within their jurisdictions, shall close his house at any time which the justice or justices shall direct; and every such person who shall keep open his house at or after any hour at which such justices shall have so ordered or directed such house to be closed, shall be deemed to have not maintained good order and rule therein, and to be guilty of an offence against the tenor of his license. (Sec. 11.)

Every person licensed to sell beer by retail, shall sell (except in quantities less than a half pint) by the gallon, quart, pint, or half-pint measure, sized according to the standard; and in default thereof, he shall for every such offence forfeit the illegal measure, and pay not exceeding 40*s.*, together with the costs of the conviction, to be recovered within thirty days next after that on which such offence was committed, before two justices; such penalty to be over and above all penalties to which the offender may be liable under any other Act. (Sec. 12.)

Every seller of beer by retail, having a license under this Act, who shall permit any person to be guilty of drunkenness, or disorderly conduct, in the house mentioned in such license, shall forfeit the sums following: for the first offence, not less than 40*s.* nor more than 5*l.*, as the justices, before whom such retailer shall be convicted, shall adjudge; and for the second offence, any sum not less than 5*l.* nor more than 10*l.*; and for the third offence, any sum not less than 20*l.* nor more than 50*l.*; and it shall be lawful for the justices, before whom any such conviction for such third offence shall take place, to adjudge, if they shall think fit, that such offender shall be disqualified from selling beer by retail for the space of two years next ensuing such conviction, and also that no beer shall be sold by retail by any person in the house mentioned in the license of such offender; and if any person so licensed shall, knowingly, sell any beer, ale, or porter, made otherwise than from malt and hops, or shall mix, or cause to be mixed, any drugs or other pernicious ingredient with any beer sold in his house, or shall fradulently dilute, or in any way adulterate, any such beer, such offender shall for the first offence forfeit not less than 10*l.* nor more than 20*l.*, and for the second such offence such offender shall be adjudged to be disqualified from selling beer, ale, or porter, by retail, for the term of two years, or to forfeit not less than 20*l.* nor more than 50*l.*, and shall be subject to a like penalty at every house where he shall commit such offence; and if any person shall during any term in which it shall not be lawful for beer to be sold by retail on the premises of any offender, sell any beer by retail on such premises knowing that it was not lawful to be sold, such offender shall forfeit not less than 10*l.* nor more than 20*l.*; every person suffering the conditions of the license to be infringed to be deemed guilty of disorderly conduct. (Sec. 13.)

Retailers' houses not to be open before four in the morning, nor after ten in the evening: nor between the hours of ten in the forenoon and one in the afternoon, nor at any time between the hours of three and five in the afternoon on any Sunday, Good Friday, Christmas-day, or any day appointed for a public fast or thanksgiving: and any person offending herein shall forfeit 40*s.* for every offence; every separate sale to be deemed a separate offence. (Sec. 14.)

All penalties under this Act, except for selling beer by any person not duly licensed, shall be recovered, upon the information of any person before two justices in petty sessions; and every such penalty shall be prosecuted for within three calendar months next after the offence; and every person licensed under this Act, who shall be convicted before two justices, shall, unless proof be adduced to the satisfaction of such justices that such person had been theretofore convicted before two justices, within the space of twelve calendar months next preceding, be adjudged by such justices to be guilty of a first offence against this Act, and to forfeit and pay any penalty by this Act imposed for such offence, or if no specific penalty be imposed, then any sum not exceeding 5*l.*, together with the costs of the conviction; and if proof be adduced to the satisfaction of such justices that such person had been previously convicted, within the space of twelve calendar months next preceding, of one such offence only, such person to be adjudged guilty of a second offence against this Act, and to forfeit and pay any penalty by this Act imposed for such offence, or if no specific penalty be so imposed, then any sum not exceeding 10*l.* together with the costs of conviction; and if proof shall be adduced that such person had been previously convicted, within the space of eighteen calendar months next preceding, of two such separate offences, and if proof be adduced that such person so charged is guilty of the offence charged against him, such person shall be adjudged to be guilty of a third offence against this Act, and to forfeit and pay any penalty imposed by this Act, in respect of such offence, or if no such specific penalty shall be imposed, then to forfeit and pay the sum of 50*l.*, together with the costs of conviction. (Sec. 15.)

The party, convicted of any such third offence, may appeal to the general sessions, or quarter sessions then next ensuing, unless held within twelve days after conviction, and in that case, to the then next subsequent sessions; and, in such case, the party convicted shall enter into a recognisance, with two sureties personally to appear at the said general or quarter sessions, to abide the judgment of the court; and to pay such costs as shall be by the court awarded; or, in failure of the party convicted entering into such recognisance, such conviction shall remain good and valid; and the said justices who shall take such recognisance are also required to bind the person who shall make such charges to appear at such general or quarter sessions, then and there to give evidence against the person charged, and, in like manner, to bind any other person who shall have any knowledge of such offence; and it thall be lawful for the said general or quarter sessions to adjudge such person to be guilty of such third offence against this Act, and such adjudication shall be final; and it shall be lawful for such general or quarter sessions to punish such offender by fine, not exceeding 100*l.* together with the costs of such appeal, or to adjudge the license to be forfeited, or that no beer be sold by retail in the house for the term of two years, and if such license shall be adjudged to be forfeited, it shall henceforth be void; and whenever, in such case, the license of such offender shall be adjudged to be void, such offender shall be deemed incapable

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of selling beer, ale, or porter, by retail, in any house, kept by him, for the space of two years, to be computed from the time of such adjudication; and any license granted to such person during such term shall be void. (Sec. 16.)

In default of payment of penalties, proceedings may be had against the sureties. (Sec. 19.)

Any person summoned as a witness who shall neglect or refuse to appear, and not make such reasonable excuse for such neglect, &c., as shall be admitted by such justices of sessions, or who, appearing, shall refuse to be examined, shall, on conviction, forfeit not exceeding 10*l.* (Sec. 20.)

Offenders refusing or neglecting, within seven days after conviction, to pay the penalty imposed, and any costs assessed, such justices may issue their warrant to levy the amount by distress and sale, together with the costs of distress and sale; and in every such case, such offenders, if in custody, shall be forthwith discharged; but if the goods and chattels are not sufficient, such justices may commit the offender to the common gaol or house of correction for not exceeding one calendar month, if the penalty shall not be above 5*l.*; for not exceeding three calendar months, if the penalty shall be above 5*l.* and not more than 10*l.*; and for not exceeding six calendar months, if the penalty shall be above 10*l.*: provided, that whenever such offender shall pay to the gaoler or keeper, or to whomsoever such justices shall have appointed, the penalty and costs, together with all the costs of apprehension and conveyance to gaol, at any time previous to the expiration of the time for which such offender shall have been committed, such offender shall be forthwith discharged. (Sec. 21.)

No conviction under this Act, nor any adjudication made upon appeal therefrom, shall be quashed for want of form, nor removed by *certiorari*. (Sec. 27.)

Every action against any justice, constable, or other person, for anything done in execution of his duty under this Act, to be commenced within three calendar months, and not afterwards; and if any person be sued, he may plead the general issue, and give the special matter in evidence. (Sec. 28.)

This Act not to affect the two universities, nor the vintners' company in London; nor to prohibit the sale of beer at fairs, as heretofore.

11. *Scotch Ale and Beer Duties.*—The duties on ale and beer in Scotland have been for a lengthened period the same as in England.

At the union in 1707, the English duties on ale and beer were introduced into Scotland. But besides strong and small beer, the Scotch had an intermediate species, which they called *two-penny*, and which was their favourite beverage. The duty on this description of beer was fixed at the union at 2*s.* 1½*d.* a barrel. For *thirty* years after its imposition, the quantity of two-penny that paid duty was always above 400,000, and sometimes exceeded 500,000, barrels a year. But in 1760 the duty on two-penny was increased to 3*s.* 4½*d.*, and the consumption immediately fell off to between 100,000 and 200,000 barrels! The quantity that paid duty in 1800 amounted to 149,803 barrels. The manufacture of this species of beer ceased entirely in 1802.

The Exportation of Beer and Ale—has increased very rapidly of late years, and has become an important branch of our foreign trade. It was checked for a while by the difficulty of fixing a drawback proportioned to the duty on the malt and sugar employed in the manufacture. Down to 1847 only two rates of drawback were allowed, viz. 5*s.* per barrel if 2 bushel malt had been used to the barrel, and 7*s.* 6*d.* if 3 bushels were used. But since this epoch the mode of ascertaining the drawback has been greatly improved, and no fewer than *seven* different rates, varying by ½ bushel each, are now allowed. The result of these and other changes has been, that whereas only 177,999 barrels were exported in 1850, the exports amounted in 1864–5 to 582,583 barrels, of the declared value of 2,148,326*l.* We subjoin

An Account of the Exports of Ale and Beer, in Barrels, for the ten years 1856–65.

1856	-	-	410,392	1861	-	-	378,461
1857	-	-	436,334	1862	-	-	464,827
1858	-	-	533,528	1863	-	-	491,631
1859	-	-	614,136	1864	-	-	498,981
1860	-	-	534,827	1865	-	-	561,366

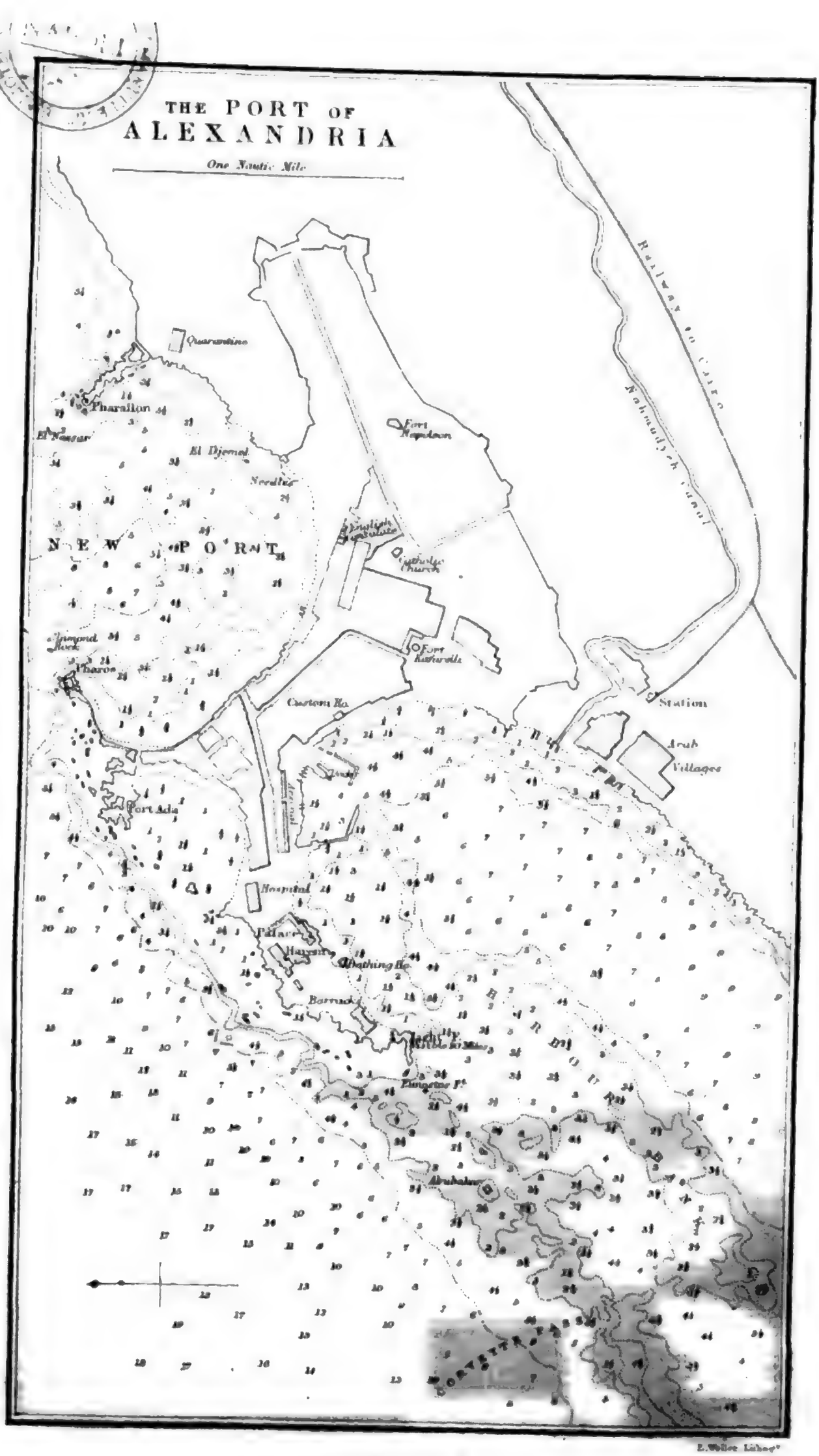
The chief consumption of British ale and beer is in Australia and British India, to which countries more than 60 per cent. of the exports are sent.

ALEXANDRIA. So called from its illustrious founder, Alexander the Great. The principal seaport of Egypt, on the coast of the Mediterranean, about 14 miles W.S.W. of the Canopic mouth of the Nile; the lighthouse being in lat. 31° 11′ 43″ N., long. 29° 51′ 40″ E. The light, which is fixed, is visible 20 miles in clear weather. The situation of this famous city was admirably chosen. Until the discovery of the route to India by the Cape of Good Hope, Egypt formed the centre of the commerce between the eastern and western worlds; and Alexandria was placed in the most favourable position in Egypt for an emporium, being the only port on its northern coast where there is, at once, deep water, and security for shipping throughout the year. The ports of Rosetta and Damietta, the former on the west, and the latter on the eastern arm of the Nile are both difficult of entrance, each having a bar, upon which there is always a dangerous surf. Ships bound for Alexandria avoid this serious inconvenience; and by means of an artificial navigation, stretching from the city to the western branch of the Nile, it has almost the same facilities for internal navigation that are enjoyed by the cities referred to.

It may be proper, however, to mention that this artificial communication with the Nile has not always been open. It existed in antiquity, but fell into decay during the barbarism of more modern times. After being shut up for some centuries, it was reopened by Mehemet Ali, who dug the Mahmoudieh canal from Alexandria to Atfeh on the Nile, about 27 miles above Rosetta. This important work is 44 miles in length, 90 feet in breadth, and from 15 to 18 feet deep. It was opened in 1819, but owing partly to the nature of the ground, partly to some defects in its construction, and partly to the mud deposited by the water of the Nile, it is difficult to keep in repair; and can only be navigated by boats that draw little water, and are not suitable for the navigation of the Nile. But, with all its defects, the construction of this canal has been of great advantage, not to Alexandria only, but to Egypt and even Europe. Now (1859), however, that a railway has been constructed from Alexandria to Cairo, the canal has become of less importance.

Ports, &c.—The ancient city was situated a little more inland than the modern one, opposite to the small island of Pharos, on which was erected the lighthouse, so celebrated in antiquity. (Cæsar, *De Bello Civili*, lib. iii. c. cxii.) This island was, partly by artificial means, and partly by natural causes, gradually joined to the land by a mound, and on this the modern town is principally built. The isthmus and island have now the form of a T, its head being N.E. and S.W. A square castle or tower, built on a small islet or

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rock, at the extremity of a mole projecting from the north-east angle of the city, is still called the Pharos, and may, perhaps, occupy the site of the ancient lighthouse: a light was exhibited on it down to 1842, when it ceased. On each side of which there is a port. That on the western, or African side, called the Old Port, the *Eunostos* of the ancients, is by far the larger and better. It stretches from the town westwards to Marabout about 6 miles, and is about 1½ mile in width. It is bounded on the north partly by the western tongue or angle of the island on which the city is partially built, at the extremity of which is the new lighthouse, and partly by rocks and sand banks. It has three entrances. The first, or that nearest the city, having 17 feet water, is about 1¾ miles S.W. from the lighthouse; but it is too narrow and difficult to be attempted by any one not thoroughly acquainted with the port. The *eastern* side of the second or middle entrance is marked by buoys which lie about 2½ miles S.W. from the lighthouse; it is about a quarter of a mile wide, and has, where shallowest, 27 feet water. The third or western entrance has its *western* boundary within about three-eighths of a mile from the east end of Marabout island; it is about half a mile wide, and has from 25 to 27 feet water in its shallowest places. This last is the best entrance. Ships, when in, may anchor close to the town in from 22 to 40 feet water, and there is good anchorage in deep water all along the shore. Foreigners were formerly excluded from this port; but this prohibition no longer exists, and it is now principally resorted to by the shipping frequenting the port.

What is called the New (though it be really the oldest) or Asiatic harbour is on the eastern side of the town. A rock called the Diamond lies a little to the east of the Pharos tower; and ships entering the port ought to have this rock about a cable's length on the right. If they get much further to the left they will come in contact with a shoal which stretches westward from the Pharillon, or little tower, on the east side of the port. The water immediately within the port S.W. from the Pharos is from 30 to 40 feet deep; but the space for anchorage is very limited, and is exposed to the northerly gales; and the ground being foul and rocky, hempen cables are very apt to chafe, and several accidents have happened in consequence to ships unprovided with iron cables. Ordinary tides rise 2 feet; but during the overflow of the Nile the rise is 4 feet. Variation 13° west. (See *Plan of Alexandria*, by Lieut. Falbe.)

Lighthouse.—The new lighthouse, on the most westerly point of the island (an. *Pharos*), on which the city is partly built, was erected in 1842. It exhibits a fixed light, elevated 180 feet above the level of the sea, and is visible in clear weather at a distance of nearly 20 miles. This light must, of course, be kept on the left by those entering the great or western harbour, and on the right by those entering the small or eastern harbour. We may mention that a British vessel was totally lost in attempting to enter the W. harbour by night, in December 1844. The captain trusted to a chart which identified the lighthouse with the old tower at the entrance to the E. harbour. But the light on the latter has, as already stated, ceased to be exhibited since 1842, and all charts should be corrected accordingly.

Ancient and Modern City.—Under the Ptolemies and Romans, Alexandria was the first commercial city in the world. It suffered greatly by its reduction by the Saracens in 640; but it continued to be a place of considerable commercial importance till the despotism of the Mamelukes and Turks, and the discovery of the route to India by the Cape of Good Hope, completed its ruin. Under the Ptolemies, the population is believed to have amounted to about 300,000, and the city was adorned by a vast number of magnificent structures. The population in 1863, including troops and artisans in the arsenal, was estimated at 150,000. The rapid increase, which is still going on, dates from the opening of the Mahmoudieh canal. The appearance of the modern town used to be most unpromising. 'It may be justly said, that in the new city of Alexandria we find a poor orphan, whose sole inheritance has been the venerable name of his father. The vast extent of the ancient city is contracted in the new to a little neck of land between the two ports. The most superb temples are changed into plain mosques; the most magnificent palaces into houses of a bad structure; the royal seat is become a prison for slaves; an opulent and numerous people have given way to a small number of foreign traders, and to a multitude of wretches, that are the servants of those on whom they depend: a place, formerly so famous for the extent of its commerce, is no longer anything more than a mere place of embarking; in fine, it is not a phœnix that revives from its own ashes; it is, at most, a reptile, sprung from the dirt, the dust, and corruption with which the Alcoran has infected the whole country.' (Norden's *Travels*, Eng. trans. 8vo. ed. p. 87.) But this striking description, though accurate at the time when it was written (1737), is quite inapplicable to the present state of the city. The vigorous government of Mehemet Ali and his successors, by introducing comparative security and good order into Egypt, revived the commerce of Alexandria, which has again become a place of great importance in the trading world. Many new warehouses and other buildings have been constructed; and its appearance much improved.

Trade of Alexandria.—The imports consist of cotton stuffs and yarn, iron and hardware, copper, plate and plated ware, machinery, coal, ammunition, books, &c. principally from England; with woollen and silk manufactures; timber, cordage, indigo and other dyeing materials, sugar, glass, &c. The exports consist principally of raw cotton; wheat, beans, barley and maize; linseed and flaxseed; gum arabic and other gums; wool; senna, and other drugs; ivory and tortoiseshell; nitre; with opium, pearls, dates, soda, ostrich feathers, linen cloth, coffee, and a great variety of minor articles. It may be necessary to bear in mind that the nominal greatly exceed the real exports and imports, on account of the many articles, especially bullion and silk, that pass through Egypt *in transitu*, from the W. to the E. and conversely. The exports of grain and pulse declined for a while in consequence of the superior encouragement given by the government to the raising of cotton; but they still largely increased. Latterly, again, the impulse given to the cultivation of cotton, consequent on the American war, and the extension of corn supply to America, have reduced the Egyptian corn trade to a minimum. At present the chief exports of Egypt are cotton and silk. On the whole the trade has considerably increased of late years, and may be said to be in a flourishing condition.

Cotton has been grown in Egypt from a very remote period; previously, however, to the ascendency of Mehemet Ali it was but little cultivated, and that little was of inferior quality, short-stapled, and closely resembled 'Surats,' under which name the small quantities exported from the country were usually sold. But, in 1820, a Frenchman

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of the name of Jumel accidentally observed a very valuable variety of long-stapled cotton, raised from seeds brought from Dongola and Senaar, growing in the garden of Mahè Bey at Cairo. Jumel having represented its superiority to the Pacha, its cultivation was undertaken on a large scale on account of the latter; and has succeeded so well, that Mahè or Makko cotton has been for a lengthened period by far the principal article of export from Egypt. At a later period seeds of the Sea-island cotton were introduced; and for a while it also answered remarkably well; its produce, which in Egypt was called Senaar, and in England 'Egyptian Sea-island,' ranking next in the estimation of the manufacturers to genuine 'sea-island.'

The course of the Egyptian cotton trade has been peculiar. The reader will find the amount imported from Egypt in the following page. In 1866, the supply from Egypt fell to 636,000 cantars, after a fluctuation from 365,108 cwts. in 1861, to 1,578,912 cwts. in 1865.

N.B.—The gross weight of a bale of Egyptian cotton at Alexandria averages 230 rottoli or 228·07 lbs.; and allowing 12 rottoli as tare for sacking and cordage, the net weight of the bale will be about 219 lbs. The cantar of cotton was fixed in 1836 at 100 rottoli. Exclusive of the cotton shipped from Egypt, about 30,000 cantars a year are supposed to have been annually wrought up in the Pacha's cotton factories at an average of the 10 years ending with 1838: but owing to the failure of most of these establishments, the quantity is now much less. (See the valuable Tract of George R. Gliddon, Esq. *On the Cotton of Egypt.*)

We doubt, however, whether the encouragement given to the culture of cotton has not been really injurious to Egypt. At all events, we apprehend that the cotton of that country will have great difficulty in finding a profitable vent in the European markets in competition with American cotton, considering the extremely low price at which the latter can be sold. We have alluded to the degeneracy of the Sea-island cotton in Egypt, and it is alleged that the Mahè is also degenerating. But in the culture of wheat, beans, barley, and rice, Egypt has nothing to fear from any rivalry. In this department of industry she is, if not superior to every other country, inferior to none. In 1858 we imported 341,360 cwts. of cotton from Egypt; our imports being usually about two-thirds of the entire exports.

The fact that any great change in that which has been the staple product of Egypt, viz. wheat and other kinds of grain, for cotton, a precarious crop, to be sent to a precarious market, would be a serious evil, has been anticipated by the viceroy, when he told Dr. Forbes, who was sent on the part of the Cotton Supply Association to beg the viceroy to further the cultivation of cotton, that prices would be a sufficient stimulus, and that he deprecated the change. The anticipation was verified, for of late years, Egypt has had to import grain, &c. for the subsistence of her people.

We subjoin an account which shows the principal articles, and their estimated values, exported from Alexandria in 1866.

Exports from Alexandria, 1866.

Description of Merchandise		To England		To other countries		Total			Value in 1865
		Quantity	Value	Quantity	Value	English Weights where possible		Value, 1866	
			£		£			£	£
Barley	ardebs	1,750	1,140	—	—	qrs.	1,004	1,140	—
Beans	,,	249,500	281,100	—	—	,,	162,175	281,100	—
Buffalo horns	packages	25	380	25	360	packages	50	740	4,100
Coffee	cantars	2,800	8,500	25,800	78,160	cwt.	24,500	86,660	112,400
Cotton	,,	946,000	5,825,000	207,000	1,271,500	bales	209,000	7,096,500	15,839,100
Cotton seed	ardebs	656,000	339,200	50,176	26,970	tons	79,631	366,170	619,100
Dates	cantars	1,560	1,100	27,070	24,600	cwt.	24,100	26,000	5,400
Drugs	cantars	—	6,400	—	75,350		—	81,750	31,400
		622	10,600	21	360	cwt.	610	10,960	15,170
Flax	,,	1,228	2,200	558	1,000	lbs.	179,670	3,200	2,800
Gum	,,	46,861	108,150	60,400	139,500	cwt.	91,200	247,650	104,200
Incense	,,	525	1,100	5,290	10,850	,,	4,900	11,950	15,680
Lentils	ardebs	1,020	1,030	—	—	qrs.	663	1,030	—
Manufactures	packages	—	— 0	1,500	51,300	packages	1,500	51,300	92,250
Mother of pearl	cantars	2,100	2,200	11,800	12,100	cwt.	11,800	14,300	14,200
Ostrich feathers	rottoli	16,500	33,900	22,900	59,300	lbs.	38,500	93,800	49,500
Rags	cantars	75,350	23,180	6,400	2,000	bales	11,690	25,180	13,650
Rice	ardebs	232	720	11,900	36,700	qrs.	7,800	37,120	41,900
Salted hides	no.	13,800	5,100	71,240	25,200	no.	85,040	30,300	30,700
Seeds	ardebs	900	850	520	1,350	qrs.	888	2,230	2,230
Sundries		—	13,800	—	116,400		—	130,200	156,000
Wheat	ardebs	11,200	11,800	2,800	3,050	qrs.	8,750	14,850	—
Wool	cantars	22,600	60,200	1,960	5,030	bales	4,390	65,230	113,000

Constantinople and the islands of the Archipelago are great markets for the wheat and other grain exported from Egypt. The supplies are, however, extremely uncertain. Everything in Egypt depends on the Nile; and when it does not rise to the usual height, the crops are very much below an average. Beans are extensively cultivated, and have sometimes been brought to England, but rarely, if ever, with advantage to the importers. They are inferior to English beans, and are peculiarly subject to the worm. No oats are raised in Egypt, the horses being entirely fed upon barley. Silk is grown to some extent. The date-palm thrives in every part of Egypt, and the fruit is largely exported. It is singular, that notwithstanding the luxuriance of many of its vegetable productions, Egypt should be entirely destitute of timber.

Money.—Here, as at Constantinople, the current money consists in part of new gold and silver coins of 100, 50, 20, 10, and 5 piastres; and in part also of a great variety of European coins. Accounts are kept in piastres of 40 paras or medinis. Considerable sums are reckoned by the *kis* or purse of 500 piastres. The exchange with England is generally about 100 piastres to 1*l.*

Weights and Measures.—The yard, or *pik*, = 26·8 English inches; hence 100 piks = 74·438 English yards. The measures for corn are the *rhebebe*, and the *quillot* or *kisloz*; the former = 4·364 English bushels, the latter = 4·729 ditto. The *cantar* or *quintal* = 100 *rottoli*, but the rottolo has different names and weights: 1 *rottolo forforo* = 9·347 lb. avoirdupois; 1 *rottolo zaidino* = 1·335 lb. ditto; 1 *rottolo zauro* or *zaro* = 2·07 lbs. ditto; 1 *rottolo mina* = 1·67 lb. ditto. (*Manuel Universel de Nelkenbrecher.*)

Duties.—With the exception of the arbitrary principles on which the government sometimes fixes the prices of commodities, there is nothing objectionable in their policy as to commerce. The duties on imports are only 3 per cent. We believe, however, that a small increase of the customs duty would compensate the government for the

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An Account of the Quantities and Computed Values of the Principal Articles imported into the United Kingdom from Egypt in 1861–5.

Principal and Other Articles		Quantities					Computed Real Value				
		1861	1862	1863	1864	1865	1861	1862	1863	1864	1865
							£	£	£	£	£
Coffee	lbs.	597,714	571,605	131,366	24,827	80,892	24,107	14,665	3,072	931	5,019
Corn: Wheat	cwts.	1,472,514	3,289,156	2,719,500	360,808	10,065	675,588	1,315,858	940,527	153,328	4,295
Barley	,,	313,671	491,580	426,700	72,000	—	113,103	166,651	130,333	10,347	—
Beans	,,	1,606,329	1,466,160	1,368,373	281,241	—	646,987	514,650	480,464	99,171	—
Maize or Indian Corn	,,	266,019	235,693	451,491	9,858	—	95,571	79,998	135,653	2,962	—
Cotton, raw	,,	366,108	526,807	835,286	1,120,178	1,578,917	1,510,398	3,725,349	8,841,597	14,900,567	13,906,641
Flax, dressed	,,	2,647	2,855	1,957	1,235	—	6,381	7,020	5,504	4,095	—
tough or undressed	,,	15,641	18,217	14,185	3,580	112	23,313	33,091	27,940	8,886	202
Gum, arabic	,,	33,236	40,028	47,958	28,672	23,108	58,117	78,796	110,270	88,786	81,446
Gedda	,,	6,268	14,725	6,941	1,165	1,024	8,528	19,431	9,192	2,253	3,773
Hair of wool, goats', manufactures of	value	—	—	—	—	—	337,103	381,647	218,943	209,928	198,767
Indigo	cwts.	3	569	651	106	64	115	17,978	13,281	2,380	1,311
Jewels, precious stones (except diamonds), unset	value	—	—	—	—	—	15,047	4,270	21,629	5,780	4,300
Musk	ounces	50,649	16,562	10,350	22,545	9,437	42,771	14,684	12,566	27,313	12,196
Opium	lbs.	2,984	6,831	4,637	4,459	1,815	1,162	3,717	2,289	2,749	1,176
Pearls	value	—	—	—	—	—	68,220	68,100	47,660	17,000	12,100
Rags and other materials for making paper	tons	3,091	4,640	2,653	1,771	845	53,916	53,728	35,578	26,156	13,920
Seed: Lentils	bushels	124,161	316,920	291,500	65,548	—	29,891	65,304	58,300	14,762	—
Linseed and Flaxseed	grs.	10,962	10,153	7,177	2,491	1,280	26,598	28,786	6,858	7,555	3,392
Cotton	tons	19,374	33,959	61,718	84,918	113,701	147,249	276,051	499,456	613,078	828,208
Senna	lbs.	336,235	230,732	251,668	38,401	4,655	7,191	4,348	4,765	594	92
Silk, raw	,,	1,899,921	5,474,780	4,779,547	5,401,116	5,054,534	1,221,565	5,099,561	4,637,155	3,715,139	6,102,521
Silks of India: Corahs, choppas, bandannas, and tussore cloths and other silk handkerchiefs	pieces	21,080	19,935	14,162	21,015	11,730	19,965	18,485	15,965	21,010	11,830
Crape shawls, scarfs, and handkerchiefs; and crape in pieces	lbs.	10,252	6,598	9,779	15,620	18,568	23,284	14,667	25,415	26,599	48,912
Pongees and pongee handkerchiefs	pieces	4,592	8,584	4,167	2,925	2,210	4,074	6,979	4,079	1,564	3,071
Manufactures of other sorts	value	—	—	—	—	—	10,967	6,050	4,712	4,834	16,695
Teeth, elephants'	cwts.	1,049	2,150	1,744	2,759	600	28,830	56,189	34,376	75,042	21,567
Tortoiseshell or turtle-shell unmanufactured	lbs.	1,997	958	5,853	3,471	1,191	1,474	671	3,517	1,933	645
Wool, sheep and lambs'	,,	1,427,993	2,626,429	1,562,827	1,259,081	1,807,782	79,924	144,561	87,318	75,896	109,274
All other articles	value	—	—	—	—	—	109,222	101,880	78,984	77,367	99,902
Total		—	—	—	—	—	5,328,493	12,200,283	16,633,487	19,662,235	21,773,250

In Transit from India, China, and Japan.

Account of the Quantities and Declared Values of the Principal Articles of British and Irish Produce Exported from the United Kingdom to Egypt in 1861–65.

Principal and Other Articles		Quantities					Declared Real Value				
		1861	1862	1863	1864	1865	1861	1862	1863	1864	1865
							£	£	£	£	£
Apparel and haberdashery	value	—	—	—	—	—	240,778	236,700	269,130	283,256	338,414
Arms and ammunition: Fire-arms (small)	no.	1,955	5,190	4,997	4,698	14,712	13,741	19,907	24,905	18,601	49,219
Gunpowder	lbs.	53,570	149,550	134,695	183,303	264	1,101	4,473	3,697	5,009	16
Books, printed	cwts.	3,984	4,429	5,166	5,851	5,460	65,555	78,704	84,760	91,064	88,127
Carriages, of all sorts	no.	55	249	309	678	444	5,512	31,397	25,317	77,354	65,585
Coals, cinders, and culm	tons	118,492	156,051	264,958	356,816	388,828	58,456	78,831	123,138	168,651	206,091
Copper, wrought and unwrought	cwts.	15,144	21,463	32,249	74,591	44,935	81,611	110,096	266,482	403,337	237,918
Cotton Yarn	lbs.	1,061,229	934,257	1,311,405	1,397,539	2,566,538	43,384	33,930	122,960	146,658	211,802
Cottons, entered by the yard	yards	77,246,797	55,531,063	97,404,531	106,087,199	111,017,175	367,668	719,818	1,410,980	2,492,997	2,330,165
Cottons, entered at value	value	—	—	—	—	—	10,456	11,221	20,429	35,954	15,733
Drugs and chemical products	,,	—	—	—	—	—	7,737	12,538	16,117	24,223	19,933
Earthenware and porcelain	,,	—	—	—	—	—	7,725	9,304	13,804	17,482	18,917
Hardwares and cutlery, unenumerated	cwts.	3,212	3,768	7,085	11,797	8,951	31,411	37,000	53,116	67,620	59,285
Iron, wrought and unwrought	tons	7,850	11,357	15,986	26,305	57,629	68,261	88,914	161,689	236,090	331,498
Linens, entered by the yard	yards	818,300	493,291	1,761,662	6,712,974	3,267,391	27,458	15,639	49,949	151,151	88,201
Machinery: steam engines	value	—	—	—	—	—	9,208	39,540	161,195	312,684	369,717
All other sorts	,,	—	—	—	—	—	62,362	74,854	252,021	402,071	341,974
Mathematical instruments	,,	—	—	—	—	—	13,741	14,843	21,790	13,588	16,836
Paper of all sorts (including paper hangings	cwts.	860	674	639	891	294	6,527	4,235	3,791	3,098	1,180
Plate, plated ware, jewellery, and watches	value	—	—	—	—	—	176,859	217,165	153,431	132,512	141,764
Provisions (not otherwise described)	,,	—	—	—	—	—	8,429	13,163	17,462	19,153	25,704
Silk manufactures	,,	—	—	—	—	—	179,647	224,810	258,418	271,830	314,813
Stationery, other than paper	,,	—	—	—	—	—	28,201	36,800	44,749	46,794	52,834
Telegraphic wire, &c.	,,	—	—	—	—	—	—	2,915	570	30,547	7,470
Woollens, entered by the yard, (including those formerly entered by the piece)	yards	196,801	151,716	363,581	602,251	633,620	23,531	15,369	55,615	90,554	82,561
Woollens entered at value	value	—	—	—	—	—	3,665	1,839	6,877	10,922	7,779
All other articles	,,	—	—	—	—	—	250,562	237,978	392,244	493,178	402,053
Total		—	—	—	—	—	2,278,848	2,405,984	4,406,291	6,061,680	5,920,948

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abolition of other oppressive charges, and there can be little doubt that the country would be materially benefited by the change.

Pilotage.—The pilotage paid by ships of war for being brought into the W. harbour is 5 dollars, and 4 dollars for being taken out of do. Merchant-vessels pay 3 dollars both on entering and clearing. The pilot-service, though not exempted from defects, is tolerably well conducted. It would be convenient were pilots stationed nearer the entrance of the port, at Marabout Island for example, or at the watering-place.

Quarantine.— Merchant-vessels coming with foul bills of health perform 15 days' quarantine, whether with or without cargo. When the bills are 'suspected,' the quarantine is 15 days, if with cargo, and 10 days if in ballast. But a vessel may be admitted to free-pratique 10 days after the total discharge of her cargo. The period of quarantine for goods is 20 days. Ships of war, bringing foul bills, perform 12 days: with 'suspected' bills, 7 days.

The quarantine charges are—

For 2 guards, 10 piast. each per diem, and board.
For guard boat, 15 piast. per diem.
For disinfecting goods, 1 to 15 piast. per bale, according to size.
For dues, 1 to 35 piast. per diem, according to tonnage.
For the interrogatory, from 2 to 20 piast. according to tonnage.
Bills of health for vessels bound to the Levant, 1 to 24 piast. according to size of vessel.

Travellers in Lazaretto pay for the guard 10 piast. per day, and 15 piast. for the whole term, as rent of room, and price of fumigations.

Usages of the Port.—The general usage of the port in loading and unloading vessels, when no clause of the charterparty exists to the contrary, is that Inward cargoes are landed into the Custom-house, at the ship's expense. As regards outward cargoes, cotton is taken from the Shoona (warehouse) at the cost of the merchant, and is delivered to the shipmaster on the quay. The charges for porterage, marking, sacking and commission, come to 1½ piast. per bale. The ship's subsequent outlay for pressing, lighterage, stowage, &c. is 7½ or 8 piast. per bale.

Corn seeds, &c. are shipped at the charge of the merchant, at the cost of 27 paras per ardeb.

Flax is delivered by the merchant on the quay, and his outlay is much the same as on cotton. This article is not pressed, and the ship's expenses for lighterage and stowage are about 2 piast. per bale.

The charge of lighters is 9 or 10 piast. per diem. Arabs working on board in stowing, &c. are paid 6 piast. per do.

It often occurs that lighters left in the charge of vessels whilst loading meet with injury. In that case the Arab owners apply against the master, and recover.

Most cargoes of corn, &c. are taken from the Pacha's Shoona, and a clause in the charterparties generally obliges the ship to conform to its distribution. That is effected by the receivers being classed and drawing lot for priority.

There is a fine claimed against vessels that discharge their ballast into the harbour, instead of causing it to be taken on to a place appointed.

The following are the charges on business at Alexandria :—

On Selling.

	per cent.
Freights, 20*s.* to 30*s.* per ton of 40 feet, and 10*s.* primage, say	2 3
Customs duties	5
Porterage and camel hire, piast. 12 to 15 per package.	
Shroffage	1
House and street brokerage	½
Commission for effecting sale	3
Ditto for attempting sale	2
Ditto if proceeds are remitted by bill or in specie exclusively of 1 per mil. brokerage)	½
Del Credere, if required	3
Warehouse rent	½

On Buying.

Customs duties	12
House and street brokerage	½–1
Commission on purchasing	3
Commission on drafts	½
Brokerage 1 per mil. on ditto	

Warehouse rent never incurred on government produce, which is shipped from the Shoona. When other produce is stored, the rent depends on the time and on the bulk of the goods.

Shipping charges:—

On Government cotton, piast. 1½ per bale.
Private ditto, 1 piast. 30 paras, do.
Government corn, 27 paras per ardeb.
Private ditto, piast. 2 per ardeb.
Government flax, piast. 1½ per cant.
Private ditto, piast. 2 per cant.
Gums, barrels, 18 to 19 piast.
Other charges, 4 piast. 20 paras.

Policy of Mehemet Ali.—It is much to be regretted Mehemet Ali, who was in many respects one of the most extraordinary men of his age, should have had no just conception of the principles by the adoption of which his plans of improvement might have been perpetuated, and industry established on a solid foundation. He interfered with everything, and left as little as possible to the discretion and enterprise of individuals. He may, indeed, be said to have been the sole proprietor, manufacturer, farmer-general, and wholesale merchant in his dominions. It was no doubt stipulated in the treaty concluded between this country and the Turkish government in 1838, the provisions of which extend to Egypt, that the monopolies which previously existed in the different parts of the Turkish empire should all be abolished, and that, in future, all parties should be at liberty to buy and sell all descriptions of produce at such prices and in such a way as they thought fit. This stipulation has, however, been of little consequence in Egypt; for as the largest and best portion of the land has become the property of the Pacha or his dependents, and the taxes are mostly all paid in produce, the government continues, in effect, in possession of its old monopoly of the produce of the country, and has power to determine the price at which it shall be sold. A system of this sort is injurious alike to the interests of the producers and merchants; inasmuch as they are both liable to have their plans and speculations deranged by the caprices and regulations of those in authority. It is difficult, however, to suggest any means by which this inconvenience might be avoided; and it is much to be regretted that, when the European powers dictated the terms on which the Pacha and his family should hold the country, they did not make some stipulations in favour of the rights of the population; which, had they been properly devised, would have been as much for the advantage of the Pachas as of their subjects.

Ancient Trade of Alexandria.—As already remarked, Alexandria was, for a long series of years—first under the Greek successors of Alexander, and subsequently under the Romans—the principal *entrepôt* of the ancient world. Most part of the traffic between Asia and Europe that had at a more early period centred at Tyre, was gradually diverted to this new emporium. An intercourse

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between the ports on the eastern coast of Egypt, and those on the opposite coast of Arabia, had subsisted from a very early period. That between Egypt and India was more recent. It was at first carried on by ships, which having sailed down the Red Sea from Myos Hormos and Berenice, coasted along the Arabian shores till they reached Cape Rasselgate, whence a short course brought them to India near the mouth of the river Indus. This was the course followed during the dynasty of the Ptolemies: but about 80 years after Egypt had been annexed to the Roman empire, Hippalus, the commander of an Egyptian ship trading to India, having observed the regular shifting of the trade winds, ventured to sail with the western monsoon from the Straits of Babelmandeb right across the Atlantic Ocean; and was fortunate enough, after a prosperous voyage, to arrive at Musiris, in that part of India now known by the name of the Malabar coast. Having taken on board a cargo of Indian produce, Hippalus returned in safety with the eastern monsoon to Egypt. This discovery was deemed of so much importance, that the name of the discoverer was given to the wind which had carried him across the Ocean to India; and how trifling soever this voyage may now appear, those who consider that Hippalus had no compass by which to direct his course, and that, owing to this circumstance, and the otherwise imperfect state of the art of navigation, the ancients seldom ventured out of sight of land, even in seas with which they were well acquainted, will be forward to admit that his enterprise and daring were no wise inferior to his success; and that he was well entitled to the gratitude of his contemporaries, and the respect of posterity.

From the epoch of this discovery, fleets traded periodically from Egypt to Musiris, conveying the products of Europe to India, and conversely. The Indian goods having been landed at Myos Hormos and Berenice were thence conveyed by caravans to Coptos (the modern Kenné), on the Nile, where they were put on board lighters and sent to Alexandria, whence they were distributed all over the western world. The goods sent to India were conveyed to Myos Hormos and Berenice by the same route. Myos Hormos was situated on the shore of the Arabian gulph, about a degree to the north of the modern port of Cosseir. The distance from it to Coptos, in a straight line, is about 70 miles. Berenice was situated a good way farther south, being nearly under the tropic. It was built by Ptolemy Philadelphus. Its distance from Coptos is stated by Pliny at 258 Roman miles; the different resting-places on the road were determined by the wells, and the journey occupied about 12 days. Ptolemy seems to have preferred this station to Myos Hormos, though the land carriage to Coptos was so much farther, from its greater proximity to the Straits of Babelmandeb, and its lessening the voyage up the Red sea.

Pliny says that the cost of the Indian commodities brought to Rome through Alexandria was increased a hundred fold (*centuplicato vencant*) by the expense of carriage, &c. We suspect however, that this is a rhetorical exaggeration, meaning merely that their price was very materially enhanced. If the increase was anything like that mentioned, it must have been owing to the imposition of oppressive tolls and duties, for it could not possibly have been occasioned by the mere expenses of conveyance. (Plin. *Hist. Nat.* lib. vi. cap. xxiii.; Ameilhon, *Commerce des Egyptiens*, pp. 161—176, &c.; Robertson's *Ancient India*, note 20, &c.) In the sixteenth century, the cost of Indian commodities brought to Western Europe by way of Alexandria and Aleppo was about *three* times the cost of those brought by the Cape of Good Hope. [East India Company.] But Egypt was then occupied by the Mamelukes and Turks, who threw every sort of obstacle in the way of commerce, and loaded it with the most oppressive exactions.

Besides this important traffic, which supplied Rome and the western world with the silks, spices, precious stones, and other products of Arabia and India, a great trade in corn was carried on from Alexandria to Rome. Egypt, for a lengthened period, constituted the granary from which Rome, and afterwards Constantinople, drew the principal part of their supplies; and its possession was, on that account, reckoned of the utmost consequence. Augustus employed merchantmen of a larger size than any that had previously traded in the Mediterranean to convey the corn of Egypt to Ostia. They were escorted by ships of war. The fleet received the names of *sacra* and *felix embole*; and enjoyed several peculiar privileges. The ships belonging to it were the only ones authorised to hoist the small sail called *supparum*, when they drew near the coasts of Italy. Some of the fast-sailing vessels attached to the fleet were sent on before, to give notice of its approach; and a deputation of senators went down to Ostia to receive the ships, which anchored amid the acclamations of an immense number of spectators. The captains were obliged to make oath that the corn on board their ships was that which had been delivered to them in Egypt, and that the cargoes were entire as shipped. (Huet, *Commerce et Navigation des Anciens*, cap. xlviii.; Seneca *Epist.* cap. lxxvii.; and the chapter on the Commerce of the Romans in the volume of *Treatises* by the author of this work, 2nd ed. 1859.)

Intercourse with India through Alexandria.—These few details will, perhaps, serve to give a faint idea of the importance of Alexandria in the commerce of antiquity. It is impossible, indeed, for any one to glance at a map of the world, or of the ancient hemisphere, and not to perceive that Egypt is the natural *entrepôt* of the commerce between Europe and all the vast countries stretching E. from Arabia to China. The discovery of the route to India by the Cape of Good Hope, in 1498, must, no doubt, have, under any circumstances, diverted a considerable portion of the trade with the western states of Europe, and in the heavier and bulkier class of articles, into a new channel. It is, however, abundantly certain, that had the same facilities for conducting the trade with the East existed in Egypt in the sixteenth and seventeenth centuries that existed in it in antiquity, she would have continued to be the centre of the trade for all the lighter and more valuable products, and the route of the greater number of the individuals passing between Europe and Asia. But the lawless and arbitrary dominion of the Mamelukes, who loaded all individuals passing through the country with oppressive exactions, at the same time that they treated all foreigners, and especially Christians, with insolence and contempt, put an entire stop to the intercourse so long carried on by this shortest, most direct, and most convenient route. Happily, however, a new era has begun, and Egypt has once more become the grand thoroughfare of the eastern and western worlds. After good order and a regular government had been introduced into Egypt by Mehemet Ali, it was seen that it might be again made the channel of communication with India: and the importance of facilitating the intercourse with that continent forcibly attracted the attention of the British government and the East India Company. The establishment of a

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steam communication between Europe and Southern Asia, by way of Alexandria and Suez, and the construction of a railway between these towns, are among the most striking and important events in recent times. They have shortened the journey to India from England more than a half, and rendered it comparatively safe and expeditious.

Steam-ships conveying the mails leave Southampton for Gibraltar, Malta, and Alexandria, on the 4th, 12th, 20th, and 27th of every month. They generally arrive at Gibraltar in about 5 days; and after a few hours' stay proceed to Malta, which they reach in about 4 days more, arriving at Alexandria in about 13 days from Southampton. Those passengers who proceed by Marseilles, embark at that port on board steamers which convey them to Malta, where they join the steamers for Alexandria. On arriving at the latter, passengers are now (1868) conveyed by railway to Cairo, where they usually remain over night, and thence by railway to Suez. From the latter they are conveyed by steam-ships to Bombay, Ceylon, Madras, and Calcutta, or to Singapore and China. Another line of steamers sail from Aden to the Mauritius, and thence to Melbourne and other ports in Australia.

The existing (1868) rates of charge in the ships of the Peninsular and Oriental Steam Packet Company are as follow, viz.:—

I. *Rates from Southampton.*

To	1st class, single passage	Children, 3 years and under 10	2nd class, and passengers' servants
	£	£ s.	£
Gibraltar - - -	13	6 10	9
Malta - - - -	20	10 0	12
Alexandria - - -	30	15 0	19

One child under three years of age, if with the parent, free.

II. *Rates of Passage, including the amount paid by the Company to the Egyptian Transit Administration, for Conveyance of Passengers through Egypt.*

From England to	Aden	Bombay	Ceylon	Madras	Calcutta	Penang	Singapore	Hong Kong	Shanghai	Manilla	Mauritius	King George's Sound, Kangaroo Island, (for Adelaide) Melbourne and Sydney
	£	£	£	£	£	£	£	£	£	£	£	£
Gentlemen or ladies travelling singly, for one berth in a general cabin - - - - - -	70	95	95	100	105	105	110	130	150	150	100	120
Married couples, occupying a reserved cabin -	200	240	240	250	270	270	290	335	375	375	240	300
Children with the parent, 3 years and under 10 -	35	45	45	50	50	50	55	60	70	70	50	60
One child under 3 years (no berth provided) * -	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Servants, European native } in fore cabin - - - -	35	45	45	50	50	50	55	60	70	70	50	60
	20	25	25	30	30	30	40	45	50	50	50	—

* Except transit expenses through Egypt, if above 2 years.

First-class passengers are allowed 3 cwt. of personal baggage free of freight, and children (above three years) and servants 1½ cwt. each.

A passenger taking a whole cabin will be entitled to take in the steamers, free of freight, 4½ cwt.; and a married couple, paying for reserved accommodation, will be entitled to take 9 cwt.

The charge for conveyance of extra baggage, should there be room in the vessel, will be at the rate of 1*l.* per cwt. between Southampton, Gibraltar, Malta, or Alexandria; 2*l.* per cwt. between Suez and India, and 3*l.* per cwt. between Suez, Mauritius, Australia, the Straits, and China.

Passengers passing through Egypt will have to pay the Egyptian Transit Administration, 14*s.* per cwt., for conveyance of baggage through, should it exceed, for first-class passengers, 3 cwt. each, and children and servants, 1½ cwt. each. This amount is collected on board the company's steamers for the convenience of passengers.

Canal between the Nile and the Red Sea.—It is affirmed, that had it not been for the hostilities in which the late Pacha was almost always engaged, he would have attempted to reopen the famous canal that formerly connected the Red Sea and the Nile. According to Herodotus, this canal was commenced by Nechos, king of Egypt, and finished by Darius (lib. ii. s. 158, iv. s. 39). Under the Ptolemies, by whom, according to some authorities, it was completed, this canal became an important channel of communication. It joined the E., or Pelusiac branch of the Nile at Bubastis, the ruins of which still remain; it thence proceeded E. to the bitter or natron lakes of Temrah and Cheik-Aneded, whence it followed a nearly S. direction to its junction with the Red Sea at Arsinoe, either at or near where Suez now stands. It is said by Strabo (lib. xvii. p. 805) to have been 1000 stadia (122 m.) in length; but if we measure it on the best modern maps, it could hardly have exceeded from 85 to 95 miles. Herodotus says that it was wide enough to admit two triremes sailing abreast. This great work having fallen into decay after the downfall of the Ptolemaic dynasty, was renovated either by Trajan or Adrian; and it was finally renewed by Amrou, the general of the caliph Omar, the conqueror of Egypt, anno 639 (Hérodote, par Larcher, iii. 450). The French engineers traced the remains of this great work for a considerable distance; and but for the construction of a railway from Suez to Cairo, it would probably have been reopened.

The project of cutting a canal between the Red Sea and the Mediterranean has been seriously attempted by M. de Lesseps. Undoubtedly the success of this experiment would be of great commercial value. In addition to this, it would be a matter of the highest political significance to the government of this country, because it would expedite the access to Hindostan; provided of course always that large ships could easily pass such a canal, and the navigation of the Red Sea (now better known perhaps than that of any other sea) was artificially improved. At present indeed we are far from arriving at the results which the projectors of the canal propose, we are not satisfied that the entrance from the Mediterranean could be kept clear, that the canal could be maintained, or that the difficulties attending the Red Sea passage could be permanently obviated. On the whole it seems, that just as the philosopher's stone was the delusion which occupied the minds of the mediæval chemists, so the Suez canal and Red Sea passage is a similar *ignis fatuus* to continental engineers. No one we are convinced would be better pleased than the English would be to see the plan successful, and none could be more willing to acknowledge themselves in error than English engineers would be, if the result corresponded to the sanguine theories of M. de Lesseps.

ALFA. [Esparto.]

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ALGIERS. A city and port, the capital of the French territory of Algeria. Pop. in 1862, 58,315, of whom 37,145 were Europeans. This city is situated 36° 47′ 20″ N. lat., long. 3° 4′ 32″ E. The bay, of a regular crescent shape, is exposed and somewhat dangerous in winter. A port in course of construction has already cost upwards of 20,000,000 francs, it consists of a sheltered sheet of about 220 acres of water. The lighthouse on the Islet de la Marine has a revolving light visible at 15 miles. Its partial eclipses being at intervals of half a minute, and total eclipse every two minutes, the light is catoptric, of the third order. There are besides two fixed lights on the mole head; that on the N. is red, and that on the S. green.

The value of the exports from Algerian ports to France in 1858 amounted to 28,464,697 francs, and in 1863 to 52,710,176. The value of the imports from France into Algeria was, in 1858, nearly 94,000,000 francs, and in 1863, 139,323,993, almost all the trade consisting of national produce. The articles exported from Algeria to France are chiefly minerals (copper, lead, iron ore, and cast-iron), casks, wool, tobacco, cereals, skins, animals, cotton, wool, and coral. The French government are making great efforts artificially to stimulate the production of the latter article. The principal commodities exported from France to Algeria in return consist of textile goods, wines, and general articles of consumption.

The cultivation of tobacco in Algeria, since 1851, has made very great progress, as may be seen from the following table, which exhibits the quantity bought on account of the imperial manufacturers in France, viz.:—

Years	Quantity	Value
	cwts.	£
1851	5,979	8,146
1852	17,798	30,064
1853	32,289	57,906
1854	57,838	102,499
1855	67,845	119,499
1856	57,621	100,958
1857	90,468	170,532
1863	65,700	200,000

in addition to tobacco consumed annually in Algeria.

Minerals, such as copper, iron, lead, zinc, antimony, and mercury, are found in Algeria. The most considerable are those of copper, near Tenes, and of mouzaia, near Blidah, in the province of Algiers, from which a considerable quantity is exported annually to Swansea; but it may be well to observe, that all other exports are almost exclusively for France. 82,777 cwt. of iron, of the value of 8,410*l.*; 27,861 cwt. of copper, of the value of 5,661*l.*; and 136,782 cwt. of lead, of the value of 67,493*l.*, were exported during 1857.

There exists near Tlemcin, in the province of Oran, a quarry of translucid marble, which has been much admired, and another near the Cap de Fer, betwixt Philippeville and Bona, which resembles the white Ferrara marble. Specimens of this article, and of ornamental statuary manufactured from it, were exhibited at the International Exhibition of 1862, and attracted great attention. Since that period it has been considerably employed. It sells at from 1,500 to 5,000 francs per cubic metre.

The cultivation of cotton has not been attended with the same success in the province of Algiers as in the province of Constantina, and more especially in the province of Oran at the Sig, where the situation is particularly favoured by climate and soil, so that nearly four-fifths of the cotton raised in Algeria is the produce of that province.

The south of Algeria and the Ziban would produce, with proper irrigation, cotton as good, in every respect, as any grown in America, but water is rare in these districts. However, Artesian wells have been made of late, with invariable success, in these parts of the country, and luxuriant vegetation is the necessary consequence. Some fine specimens of cotton grown in Algeria were shown at the International Exhibition of 1862, but judging from its cost of production as compared with the cotton of India and of other countries, there is little probability of Algerian cotton being able to stand competition with the cotton of India. (See *Rapports du Jury International*, tom. ii. p. 55 *et seq.*)

The most important ports of Algeria are Algiers, Mers-el-Kebir, Oran, Dona, Stora and Philippeville, Mostaganem and Tenez.

The following table exhibits the total amount of shipping, French and foreign, which entered and cleared at Algerian ports in 1863.

	Number	Tonnage
Entered		
French Cargoes	332	62,380
Ballast	27	2,729
Foreign Cargoes	1,174	61,452
Ballast	323	17,510
Total	1,856	144,081
Cleared		
French Cargoes	210	49,806
Ballast	218	21,338
Foreign Cargoes	1,058	50,078
Ballast	384	30,495
Total	1,870	151,717

The number of vessels which entered the United Kingdom from Algerian ports in 1863 was 69 and the tonnage 11,630 tons; in the same year, 92 vessels, 13,978 tons, cleared.

The commerce between France and Algeria is regarded as a coasting trade, and is still reserved to vessels of French register only.

Port Dues.—The treaties of commerce at present existing between Great Britain and France do not apply to Algeria. Thus, when British ships arrive in the ports of this colony, loaded with any cargoes, except grain or dry provisions, they are subjected to a fixed duty of 4 francs per ton, from whatever country they arrive or load their cargo; but if the unloading takes place in more than one port of the colony, the duty is only paid once for cargoes of this description.

British ships, as well as all others, enjoy the privilege of exemption from the payment of a duty of 4 francs a ton, if they come from northern ports loaded with timber, and depart with a cargo of French or Algerine produce. Should the cargo, however, not be a full cargo, but not less than three-quarters, tonnage dues will be exacted from the amount of tonnage not employed; and the like regulations exist in leaving with a cargo of not less than half of French or Algerine produce.

French ships arriving in Algeria are completely exempted from tonnage dues, and the duties on some articles imported in French vessels are less than those on British or foreign vessels.

Art. 18 of the treaty of January 23, 1860, provides that the stipulations of that treaty, both for the exportation of produce, and the importation of British goods, shall be applicable to Algeria. Consequently, in the direct trade, British commerce enjoys the same privileges as that of France.

British vessels are, however, still subject to the navigation dues, and, if occasion should arise, to the additional flag taxes; it is to be hoped, however, that the contemplated reforms in the French navigation laws will abolish or greatly reduce these charges. See *Lajoukaire Tarif des Douanes de France* (*Algérie*, pp. 74, 89).

The Droits de reconnaissance, corresponding to

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dock or port dues, is 5 centimes per ton for French vessels, and 10 centimes per ton for all other vessels, unless coming from ports out of Europe, when it is fifteen centimes.

Pilotage.—The charge for piloting all vessels in and out of port is 16 centimes per ton.

Quarantine.—A charge of 3 centimes per ton a-day is made on vessels in quarantine.

Cooking of Provisions.—A regulation was promulgated on March 30, 1857, prohibiting the cooking of provisions, or the melting of tar, on board merchant vessels, or on the quays, except in the public kitchens or fire-places established on shore. The charge is 15 centimes, or 1½*d.* for each fire-place used for each meal, and 50 centimes, or 5*d.*, for each cauldron of pitch, tallow, or tar melted in the fire-place.

Merchant, steam or sailing vessels, are now allowed to have provisions cooked on board by having a guard, at the rate of 3 francs a-day.

Ballast is furnished at the rate of 1 franc and 45 centimes a ton to all vessels.

No dues are charged for lighthouses.

In obtaining the immunities of the French flag for foreign vessels in Algeria, it was necessary formerly to pay one-fourth of the value of the vessel; now one-tenth only is required.

All materials, as iron and wood, for the construction of vessels, are admitted free of duty.

Brokers' charge for clearing out a British, American, or Swedish vessel, fifty francs on account of interpretation, and sixty and one hundred francs have been charged in clearing out very large British steam ships.

Brokerage is at the rate of four per cent. per ton for obtaining a cargo, and one-half per cent. for collecting freight.

The following Tables represent the trade of Great Britain with Algiers for the five years 1861–5 :—

Imports.

Principal and Other Articles	Quantities					Computed Real Value				
	1861	1862	1863	1864	1865	1861	1862	1863	1864	1865
						£	£	£	£	£
Coir (fibre) - - - - - - - tons	—	—	—	—	120	—	—	—	—	3,135
Copper ore and regulus - - - - ,,	—	178	—	—	23	—	2,136	—	—	806
Corn: Wheat - - - - - - cwts.	—	—	—	25,188	17,775	—	—	—	8,750	7,155
Barley - - - - - - ,,	4	179	150,254	238,392	107,024	1	67	49,666	69,347	27,691
Peas and beans - - - - - ,,	2,979	1,507	643	48,288	49,102	1,253	523	228	19,212	19,974
Wheat flour - - - - - ,,	4,945	—	—	—	—	4,270	—	—	—	—
Iron, ore of - - - - - - - tons	—	—	276	1,090	3,295	—	—	201	788	2,801
Oil, olive - - - - - - - tons	—	92	—	107	61	—	5,181	—	5,714	2,890
Rag and other materials for making paper, viz.: vegetable fibre - - - - tons	—	73	1,253	1,500	4,224	—	291	5,012	7,136	22,335
Seeds, Canary - - - - - - cwts.	450	1,189	852	4,042	1,205	326	764	626	3,125	861
Cotton - - - - - - - tons	—	—	—	27.3	—	—	—	—	2,129	—
Tobacco, unmanufactured - - - - lbs.	804,511	87,918	461,344	411,146	14,964	19,700	2,403	9,338	9,191	312
Wool, Goats' wool or hair - - - - ,,	8,600	70,099	3,550	—	—	1,131	11,038	500	—	—
Sheep and lambs' - - - - - ,,	14,500	630,129	1,177,400	190,250	—	483	23,488	37,365	6,341	—
All other articles - - - - - value	—	—	—	—	—	3,096	1,572	1,470	6,545	2,427
Total - - - - - - -	—	—	—	—	—	30,332	47,264	101,201	137,467	90,505

Exports.

Principal and Other Articles	Quantities					Declared Real Value				
	1861	1862	1863	1864	1865	1861	1862	1863	1864	1865
						£	£	£	£	£
Coals, cinders, and culm - tons	20,456	18,297	21,554	18,826	21,343	8,794	7,879	9,048	8,626	10,284
Iron, wrought and unwrought ,,	496	5,599	256	186	157	1,991	33,836	1,022	915	580
All other articles - - - value	—	—	—	—	—	10,170	4,538	5,662	2,688	1,559
Total - - - - -	—	—	—	—	—	20,955	46,253	15,732	12,229	12,363

ALICANTE. This city gives its name to the province. According to the report of Colonel Barre, the British consul at Alicante, it contained 31,200 inhabitants in 1863. The harbour is formed by a mole projecting into the sea, of 720 metres, and a countermole is in construction, of which 250 metres are laid down. In April 1863, a fixed white light was established at Altea in lat. 38° 33′ 30″ *N.*; long. 6° 8′ 18″ E., which is raised 112 metres above the sea, and is seen at 9 miles' distance. The work of deepening the harbour has been carried on for the last few years, in which operation two large steam dredges and a small one are employed. Those works and the deepening of the harbour will, it is hoped, be concluded this year (1867). The depth of water alongside the mole varies from 1 metre to 5·30 metres in the first third part, and to 6·40 metres in the last two thirds, so that vessels from 800 to 1,000 tons are enabled to discharge their cargoes there. Pilots are required in order to bring in and to moor the vessels.

The following are the port charges paid by Spanish and foreign vessels :—

Anchorage dues	2 rials per Castilian ton.
Light dues	1 ,, ditto.
Sanitary dues	½ ,, from Europe and 1½ from America.
Discharge of cargo	½ rial for every quintal or cwt.
Landing of cargo	1 ,, ditto.
Captain of port	from 2 to 8 rials according to tonnage.

Since 1852 no differential dues are levied on British ships in Spanish ports.

The shipping dues, which were formerly anchorage dues, 1 rial per ton; light dues, ditto; health dues, ½ rial per ton; cargo loaded or discharged, 5 rials per ton, were doubled from January 1, 1861, in order to defray expenses of improving the port.

Pilotage dues.

Vessels not exceeding 300 tons in and out	3 dollars.
Vessels beyond 300 tons	4½ ,,
Each movement up to 300 tons	1 ,,
beyond 300 tons	1½ ,,

In 1864 the imports, in 163 British vessels, amounted to 261,830*l.* and, in 848 foreign vessels, to 529,722*l.* Those in steamers under Spanish flag cannot be computed, as all goods for Madrid are forwarded from the mole in sealed waggons, to be there examined and the duties imposed; and it is calculated that about two-fifths of those landed here are thus sent to Madrid. The principal articles of importation in British and foreign vessels are coals, iron and railway material, which are free from duty, and timber from the Baltic,

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most other articles of commerce being brought in Spanish vessels in order to avoid the differential duties imposed on foreign shipping.

The exportation at this port, in British and foreign vessels, amounted to 207,888*l.* in the same year, consisting of wine, almonds, liquorice, lead, and latterly esparto (9,000 tons of which were exported in the same year to Great Britain). The trade, however, in 1866, fell to 57,781*l.* The change is ascribed to the superior advantages of land carriage by the northern railway. In 1866, the number of ships visiting the port was 673, with a tonnage of 156,710 against 1069 ships of 247,222 tons in 1864. In the immediate ports of Denia and Jávea raisins and almonds to the value of 179,544*l.* were exported in 1864, and to the same extent in 1866; and from Torrevieja the exportation of salt, principally for the Baltic, and fruits and wine for Algeria, was valued at 83,437*l.*

The ordinary wine of this province is of good sound quality, and remarkably cheap, being shipped in the year 1865 at from 4*l.* 4*s.* to 4*l.* 10*s.* per pipe of 100 imperial gallons, free on board, pipe included. Of late years large tracts of land were planted with vines, in consequence of the prospect of a great opening of trade by the reduction of duties on wine in England, but these being imposed according to the strength, and not *ad valorem*, the duties amount nearly to prohibition.

The only manufactory of any importance is that of cigars, a government monopoly, in which upwards of 4,000 women are employed, the tobacco used being from the United States, Cuba and the Philippine Islands. A branch of the Bank of Spain has been established here for some years, affording considerable facilities to commerce.

The exportation of esparto grass is one of the most notable in the returns of Alicante. The plant has long been used for making rope, matting and baskets. Fifteen miles from Alicante, at the town of Crevillente, there are 40 manufactories of matting and imitation carpets, which are sent to all parts of Spain, which give employment to 4,000 persons, consume annually 10,000 tons of esparto, and produce 175,000 pieces each of 40 to 50 yards in length. About 8,000 tons of this grass are annually exported from Alicante, and more could be carried if freights were lower.

After the opening of the railway to Madrid in 1857, the trade of Alicante was immensely increased, and the population, which was, twenty years ago, 17,000, has nearly doubled; but the opening of several other railroads to the capital having caused the monopoly to cease, it is found that the amount of commerce is proportionally diminishing, though, from the excellence of the harbour, and the railway being the shortest and cheapest, this port will always be preferred for heavy goods.

An electric telegraph has been for some years in operation between this and all the towns of importance of Spain, and consequently of Europe.

Custom House Regulations.—A manifest of the cargo, the ship's tonnage and number of crew, must be presented within twenty-four hours after *pratique* is given, together with a sealed register of cargo from the Spanish consul at the port of loading, when one or two officers are occasionally put on board to prevent smuggling. The consignees then make entry of the articles consigned to them, and obtain an order to discharge from the collector. To load the whole or part of an outward cargo, the master reports his intention to the collector, who gives his order permitting goods to be shipped, and the shippers make their specific entries. When the vessel is loaded the waiting officers make their return to the collector, who on receiving the port, sanitary, and consumption dues, grants his clearance, upon which a bill of health is obtained and the vessel is clear for sea.

Alicante is not a favourable place for repairing ships.

Warehousing System.—The permission of the government to bond or deposit goods for one year, not having been taken advantage of by merchants, and a useless expense incurred, the order was rescinded after a trial of two years.

Vessels with foul bills of health, or coming from an infected or suspected place, though with clean bills, are usually ordered to the Lazaretto of Puerto Mahon; but vessels coming with clean bills obtain under ordinary circumstances immediate *pratique*.

Accounts are kept in rials vellon of twenty to the dollar, and in centimes of a rial. The official nomenclature for taxes and expenditure has recently been changed into escudos of ten rials or half a dollar.

Weights and Measures.—The cargo 2½ quintals or 10 arrobas; the Valencian arroba contains 24 lbs. of 18 ozs. or 36 of 12 ozs. At the custom house the Castilian quintal, containing 4 Castilian arrobas of 25 lbs. of 16 oz. each, which is nearly 10 per cent. less than the English cwt., and the new metrical system, are alone admitted.

The wine measure is the cantaro of 16 michetas. A pipe contains 40 cantaros or 100 imperial gallons.

The yard or vara divided into 4 palms is 29·96, or very nearly 30 English inches.

(We are indebted for the above article to Colonel Barrie, H.M. consul at Alicante.)

ALIENS. According to the strict sense of the term, and the interpretation of the common law, all individuals born out of the dominions of the crown of England (*alibi natus*) are aliens or foreigners.

It is obvious, however, that this strict interpretation could not be maintained without very great inconvenience; and the necessity of making exceptions in favour of the children born of native parents resident in foreign countries was early recognised. The 25 Edw. III. stat. 2, enacts, that all children born abroad, provided *both* the parents were at the time of their birth in allegiance to the king, and the mother had passed the seas by her husband's consent, might inherit as if born in England. And this relaxation has been carried still further by several modern statutes; so that all children born out of the king's ligeance, whose fathers, or grandfathers by the father's side, were natural-born subjects, are now deemed to be themselves natural-born subjects; unless their ancestors were outlawed, or banished beyond sea for high treason, or were, at the birth of such children, in the service of a prince at enmity with Great Britain.

Naturalisation of Aliens.—Aliens may be naturalised by Act of Parliament, which puts them in exactly the same condition as natural-born subjects, except that they are incapable of being members of the privy council, of being elected to serve in parliament, or of holding any office of trust under the crown.

A *denizen* is an alien born, who has obtained letters patent, *ex donatione regis*, to make him an English subject. He occupies a kind of middle station between a natural-born subject and an alien. He may acquire lands by purchase or devise, but not by inheritance; and may transmit such lands to his children born after his denization, but not to those born before. (Blackstone's *Com.* book i. ch. x.)

An alien may also be naturalised by serving on board any of his Majesty's ships of war, in time of war, for three years, or, if a proclamation has been issued to that effect, for two years. (6 Geo. IV. c. 109, ss. 16, 17.)

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Influence of the Residence of Aliens.—There can be no doubt that, generally speaking, the resort of foreigners to a country, and their residence in it, are highly conducive to its interests. Those who emigrate in order to practise their calling in an old settled country are pretty uniformly distinguished for activity, enterprise, and good conduct. The native inhabitants have so many advantages on their side, that it would be absurd to suppose that foreigners should ever come into anything like successful competition with them, unless they were acquainted with some branch of trade or manufacture of which the others were ignorant, or possessed superior skill, industry, or economy. But whether aliens practise new arts, or introduce more perfect processes into the old, or display superior economy, &c., their influx cannot fail to be of the greatest advantage. They practically instruct those among whom they reside in what it most concerns them to know, that is, in those departments of art and science in which they are inferior to others; and enable them to avail themselves of whatever foreign sagacity, skill, or practice has produced that is most perfect. It is not easy, indeed, to overrate the benefits conferred on most countries by the resort of aliens. Previously to the invention of printing, there was hardly any other way of becoming acquainted with foreign inventions and discoveries; and even now it is far easier to learn any new art, method, or process, from the example and instruction of those familiar with its details, than from the best possible descriptions. The experience, indeed, of every age and country shows that the progress of nations in the career of arts and civilisation depends more on the freedom of commerce, and on the liberality with which they have treated foreigners, than on almost anything else.

English Legislation as to Aliens.—But, notwithstanding what has been stated above, an antipathy to resident foreigners seems to be indigenous to all rude and uncivilised nations. Whatever is done by them appears to be so much taken from the employment, and, consequently, from the subsistence of the citizens; while the advantages resulting from the new arts or improved practices they introduce, for the most part manifest themselves only by slow degrees, and rarely make any impression on the multitude. Hence the jealousy and aversion with which foreigners are uniformly regarded in all countries not far advanced in civilisation. The early Greeks and Romans looked upon strangers as a species of enemies, with whom, though not actually at war, they maintained no sort of friendly intercourse. 'Hostis,' says Cicero, 'apud majores nostros is dicebatur, quem nunc peregrinum dicimus.' (*De Off.* lib. i. c. xii.) It may, therefore, be considered as a striking proof of the good sense and liberality of those by whom it was framed, that a clause is inserted in Magna Charta which has the encouragement of commerce for its object; being to the effect, that 'all merchants (if not openly prohibited before) shall have safe and sure conduct to depart out of and to come into England, to reside in and go through England, as well by land as by water, to buy and sell without any manner of evil tolls, by the old and rightful customs, except in time of war; and if they be of a land making war against us, and such be found in our nation at the beginning of the war, they shall be attached without harm of body or goods, until it be known unto us, or our chief justice, how our merchants be entreated in the land making war against us; and if our merchants be well entreated there, shall be so likewise here.'

But until the era of Edward I. the stipulation in the Great Charter as to foreign merchants seems to have been little attended to. It is doubtful whether, previously to his reign, they could either hire houses of their own, or deal except through the medium of some Englishman. But this intelligent prince saw the advantage that would result to the trade and industry of his subjects from the residence and intercourse of Germans, Flemings, Italians, and other foreigners, who, at that time, were very superior to the English in most branches of manufactures and commerce. He, therefore, exerted himself to procure a repeal of some of the more oppressive restrictions on aliens, and gave them a charter which conveyed considerable privileges. This charter was confirmed by Edward III. in 1328. Among other clauses, it has the following: viz. 1. That on any trial between foreigners and Englishmen the jury shall be half foreigners; 2. That a proper person shall be appointed in London to be justiciary for foreign merchants; and 3. That there shall be but one weight and measure throughout the kingdom. (Anderson, *anno* 1302.) Down, however, to the reign of Edward III., it continued to be customary to arrest one stranger for the debt, and even to punish him for the crimes and misdemeanours of others! It may appear extraordinary that the gross injustice of this barbarous regulation ever permitted it to be adopted; and yet it was probably, at one period, the common law of most European states. As soon, however, as the foundations of good order and civilisation began to be laid its operation was seen to be most pernicious. In 1325, Edward II. entered into a convention with the Venetians, in which it was expressly stipulated that they should have full liberty to come to England to buy and sell commodities, without being liable for the debts or crimes of others. Conventions to the same effect were entered into with other foreigners. At length, in 1353, this disgraceful practice was put an end to by 27 Edw. III. st. 2, c. 17; it being provided in this statute, not only that no stranger shall be impeached for the trespass or debt of another, but that, in the event of a war breaking out with any foreign power, its subjects, residing amongst us, shall be warned thereof by proclamation, and be allowed forty days to arrange their affairs, and to depart out of the kingdom; and that, under special circumstances, this term may be extended. There are few acts in the statute-book that reflect more credit on their proposers, or that have been more advantageous than this.

In consequence of the encouragement given by Edward III. to such of the woollen manufacturers of Flanders as chose to immigrate to England, a good many came over; and it is from their immigration that we may date the improvement and importance of the woollen manufacture in this country. [Woollen Manufacture.] But this policy, however wise and judicious, was exceedingly unpopular. The foreigners were openly insulted, and their lives endangered, in London and other large towns; and a few of them in consequence returned to Flanders. Edward, however, was not to be driven from his purpose by an unfounded clamour of this sort. A proclamation was issued, in which every person accused of disturbing or attacking the foreign weavers was ordered to be committed to Newgate, and threatened with the utmost severity of punishment. In a parliament held at York, in 1335, an Act was passed for the better protection and security of foreign merchants and others, by which penalties were inflicted on all who gave them any disturbance. This seems to have had the effect, for a while at least, of preventing any outrages.

The corporations of London, Bristol, and other

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great towns, have been at all times the principal enemies to the immigration of foreigners. Perhaps, indeed, they were not more hostile to them than to such of their own countrymen, belonging to another part of the kingdom, as should have attempted to settle amongst them without being free of their corporation. But in denouncing foreigners they had the national prejudice on their side; and their attempts to confirm and extend their monopolies by their exclusion were regarded as the noblest efforts of patriotism! Edward III. was fully aware of the real motives by which they were actuated, and steadily resisted their pretensions. But in the reigns of his successors they succeeded better: some of these were feeble and unfortunate, whilst others enjoyed the crown only by a disputed title, and in defiance of powerful competitors. The support of the great towns was of the utmost consequence to such princes, who, whatever might be their own opinion as to its policy, could hardly venture to resist the solicitations of such powerful bodies to exclude strangers, and to impose restrictions on commerce. From the death of Edward III. to the reign of Elizabeth, the progress made by the country was not inconsiderable, but it was little promoted by legislative enactments. Throughout the whole of this period, the influence of corporations seems to have predominated in all matters relating to trade and the treatment of foreigners; and our legislation partook of the selfish, monopolising character of the source whence it was principally derived. Were the Acts and proceedings as to aliens the only memorials of our policy from 1377 to 1560, we should certainly seem to have retrograded materially during the interval. Some of these Acts were passed with so little consideration, and were so very absurd, that they had to be immediately repealed. Of this sort was the statute of the 8 Henry VI. c. 24, to the effect 'that no Englishman shall within this realm sell, or cause to be sold, hereafter, to any merchant alien any manner of merchandises, but only for ready payment in hand, or else in merchandises for merchandises, to be paid and contented in hand, upon pain of forfeiture of the same.' But as an enactment of this sort was very speedily found to be more injurious to ourselves than to the foreigner, it was repealed in the following session.

The more tyrannical their conduct in other respects, the more were our princes disposed to humour the national prejudice against foreigners. If not a cheap, it was, at least, an easy method of acquiring popularity. In the very first parliament after the accession of Richard III., a statute was passed full of the most ridiculous, contradictory, and unfounded allegations as to the injury sustained by the influx of foreigners, and laying them under the most oppressive restraints. Considering, indeed, the sort of treatment to which aliens were then exposed, it may excite surprise that they should ever have thought of visiting the country; and, in point of fact, it appears that the resort of foreign merchants to our ports was materially impaired by the statutes referred to, and others of the same description. This is evident from the Act 19 Henry VII. c. 6, where it is stated that 'woollen cloth is not sold or uttered as it hath been in divers parts,' and that 'foreign commodities and merchandises are at so dear and exceeding high prices that the buyer cannot live thereon.' But in despite of this authoritative exposition of the mischiefs arising from the restraints on aliens, and on trade, they were both increased in the reign of Henry VIII. And it was not till the reign of Elizabeth that the pretensions of the corporations seem to have been disregarded, and an attempt made to act, not by starts, but consistently, on the policy of Edward III.

The influx of foreigners during the reign of Elizabeth was occasioned chiefly by the persecutions of the Duke of Alva and the Spaniards in the Low Countries. The friends of the reformed religion, which, at the time, was far from being firmly established, and the government, were glad to receive such an accession of strength; and from the superiority of the Flemings in commerce and manufactures, the immigrants contributed materially to the improvement of arts in England. It would seem, however, that the ministers of Elizabeth contented themselves, perhaps that they might not excite the public prejudice, with declining to enforce the laws against aliens, without taking any very active steps in their favour.

In the reign of James I. the corporation of London renewed with increased earnestness their complaints of aliens. In 1622 a proclamation was issued, evidently written by James himself, in which, under pretence of keeping 'a due temperament' between the interests of the complainants and those of the foreigners, he subjects the latter to fresh disabilities.

Since the revolution, more enlarged and liberal views as to the conduct to be followed with respect to aliens have continued to gain ground: several of the restraining statutes have fallen into disuse, while others were so much modified by the interference of the courts, which have generally been inclined to soften their severity, that their more offensive provisions became inoperative. In 1708, an Act was passed, notwithstanding the strenuous opposition of the corporations, for the general naturalisation of all foreign protestants; but the prejudice against them was still so powerful that it was repealed within about three years. Some attempts were afterwards made to carry a similar measure. One of these, about the middle of last century, occasioned the publication by Dr. Tucker of two excellent pamphlets, in which the policy of a Naturalisation Act is ably vindicated and the arguments against it successfully exposed. (Historical Remarks on the late Naturalisation Bill, 1751; Queries occasioned by the late Naturalisation Bill, 1752.)

But, notwithstanding these efforts, nothing effectual was done to relieve aliens from the disabilities under which they laboured till 1844, when the 7 & 8 Vict. c. 66 was passed. This Act authorises the secretary of state for the home department, on his receiving such evidence as he may think necessary in regard to any application by an alien for a certificate of naturalisation, to grant, if he think fit, such certificate. If granted, the certificate conveys to the alien (unless some special reservation be made in it) all the rights and privileges of a natural born British subject, except that he cannot be a member of either house of parliament, or a privy councillor. Probably this is as good a law as could be enacted in regard to this matter.

The following regulations have been issued by the secretary of state in reference to the grant of certificates in pursuance of stat. 7 & 8 Vict. c. 66.

1. Upon an application to the secretary of state for the grant of a certificate of naturalisation, it will be necessary that the applicant should present to one of her Majesty's principal secretaries of state a memorial praying for such grant, stating the age, profession, trade, or other occupation of the memorialist, the duration of his residence within the United Kingdom, and of what friendly state he is a subject; whether he intends to continue to reside within this kingdom, and all other grounds on which he seeks to obtain any of

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the rights and capacities of a natural-born British subject.

2. That the memorialist should make an affidavit before a magistrate, or other person authorised by law to administer an oath, verifying all the statements in his memorial.

3. That a declaration should be made and signed by four householders at least, vouching for the respectability and loyalty of the memorialist, verifying also the several particulars stated in the memorial as grounds for obtaining such certificate; and that this declaration should be made in due form, before a magistrate, or other person authorised by law to receive such declaration, in pursuance of the Act 5 & 6 Wm. IV.

Policy of the Laws as to Aliens.—The reason assigned by Mr. Justice Blackstone and others for preventing aliens from acquiring fixed property seem to be very unsatisfactory. In small states there might be grounds, perhaps, for fearing lest the easy admission of aliens to the rights of citizenship should give them an improper bias; but in a country like England such apprehensions would be quite futile. In this respect the example of Holland seems quite decisive. Notwithstanding the comparatively limited population of that country, it was 'the constant policy of the republic to make Holland a perpetual, safe, and secure asylum for all persecuted and oppressed strangers; no alliance, no treaty, no regard for, no solicitation of, any potentate whatever has at any time been able to weaken or destroy, or make the state recede from protecting, those who have fled to it for their own security and self-preservation.' (*Proposals for amending the Trade of Holland*, printed by authority. Lond. 1751.)

A short residence in the country, and a small payment to the state, was all that was required in Holland to entitle a foreigner to every privilege enjoyed by a native. And it is of importance to remark, that it has not been so much as insinuated that this liberal conduct was in any instance productive of a mischievous result. On the contrary, all the highest authorities consider it as one of the main causes of the extraordinary progress made by the republic in wealth and commerce. It is said in the official paper just quoted, that 'throughout the whole course of all the persecutions and oppressions that have occurred in other countries, the steady adherence of the republic to this fundamental law has been the cause that many people have not only fled hither for refuge, with their whole stock in ready cash, and their most valuable effects, but have also settled and established many trades, fabrics, manufactures, arts, and sciences in this country; notwithstanding the first materials for the said fabrics and manufactures were almost wholly wanting in it, and not to be procured but at a great expense from foreign parts.' (*Ibid.*)

With such an example to appeal to, we are warranted in affirming that nothing can be more idle than to suppose that any number of foreigners which it is at all likely should ever come to England under the most liberal system for industrial purposes, or to escape religious or political persecutions in their own countries, should occasion any political inconvenience. But it should always be understood that their residence here is to depend on the propriety of their conduct. If they abuse the privileges accorded to them, and come among us not for the sake of an asylum, or for the prosecution of industrious pursuits, but that they may make this country a theatre for carrying on plots and hatching conspiracies against the governments of countries with which we may be in amity, in such case they forfeit all claim to hospitality, and cannot justly complain if they be (as they ought to be) deprived of their certificates and compelled to quit our shores. The 10 & 11 Vict. c. 83 refers to aliens in British colonies and dependencies.

ALKALI (derived from the Hebrew Kalah, *to burn*, similar to Arabic, to fry; Arabic, al kala, *the burnt*). The term *alkali* originally applied to the ashes of the burnt plants. The plant most used was then called after the name of the burnt ash. The name has now become generic, and is used in commerce to designate potash, soda, and ammonia, which are respectively distinguished by the terms vegetable, mineral, and volatile alkali. Lithia, cæsia and rubidia are also alkalies. The distinguishing characteristics of these bodies are, a strong acrid and powerfully caustic taste, and a corrosive action upon all animal matter, destroying its texture with considerable rapidity. Exposed to the atmosphere when in their caustic state, they rapidly absorb carbonic acid, and become carbonated or mild, and by passing carbonic acid over them, they become bicarbonated or milder. Their action upon vegetable colours affords us means by which the presence of an uncombined or carbonated alkali may be detected; the yellow colour of turmeric is changed to brown; the blue colour of litmus, after being reddened by an acid, is restored; the violet infusion of red cabbage is changed to green, as also many other purple vegetable colours. Litmus paper, reddened by carbonic acid, is, however, the most delicate test of the presence of alkalies: they combine with acids, neutralising their acid properties, and forming a very important and extensive class of compounds called *salts*; a salt being any compound formed by the union of an acid with an alkali or other metallic oxide. The most important of the alkaline salts will be noticed below. Lime, magnesia, baryta and strontia have a similar action on vegetable colours, and are called *alkaline earths*.

The fixed alkalies are all oxides of metals, lighter than water. The caustic alkaline earths are oxides of metals still light, but heavier than water; the names of the metals ending in *um*, that of the caustic bodies chiefly in *a sodium soda*.

Soda or Mineral Alkali.—In part, the nitrum or natrum of the ancients, terms also applied to potash; the two alkalies, potash and soda, not being then recognised as distinct substances. Soda is believed to be mentioned by Solomon in Proverbs xxv. 20, 'as vinegar upon nitre,' and by Jeremiah, ch. ii. 22, 'although thou wash thee with nitre.' Soda was formerly prepared from barilla and kelp; 'barilla' being the name given to the ashes of plants which grew on the sea shore, and 'kelp' being the ashes of sea-weeds. These ashes are not now of any importance as sources of soda, however, they are of great value on account of the iodine salts they contain. Soda and its salts are now almost entirely manufactured directly or indirectly from common salt.

Sodium, the metal, is prepared by exposing to a white heat, in iron cylinders or retorts, a mixture of dry carbonate of soda and charcoal dust, a little chalk being added to keep the mixture in a pasty condition. The metal sodium distils over, and is condensed in a copper receiver, which must be well rolled and should be surrounded with ice, and must contain rock oil or naphtha. Sodium has a bluish white colour exposed to the air, it is quickly oxidised, when dropped into cold water it decomposes a portion of it, extricating hydrogen, and if the water be previously heated, the gas takes fire and burns with a bright yellow flame.

Sodium is manufactured on a commercial scale, and is extensively used in the preparation of aluminum or aluminium.

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Chloride of Sodium, muriate of soda or *common soda*—is found in immense quantities in the earth as rock salt. The mines of Cheshire and Worcestershire in this country, and those of Poland, Hungary, Spain, and many other places, may be said to be inexhaustible. Actual mining of salt is little practised with us. The water near the salt is saturated brine, which is purified up and evaporated in pans 30 to 60 feet long. The soil around Northwich is in many places much depressed by this, and the town itself is a constant succession of risings and fallings. It is also obtained in large quantities by the evaporation of sea water. In warm countries this is carried on in pits dug in the beach by the heat of the sun's rays, leaving the common salt, mixed with various salts of magnesia and lime, as a white incrustation. In colder climates the evaporation is conducted in iron pans on the sea shore, by the aid of fuel. The salt crystallises out, the crystals are then drained from the mother liquor, which is called *bittern*, and are ready for the market. Basket salt is made by placing the crystals obtained in the above process in conical baskets, and washing them with a saturated solution of salt, which dissolves and carries off any magnesia or lime salts.

In Cheshire, the mine salt has been sold, in 1863, at the pit mouth at even less than half-a-crown per ton. The large crystals used for soda are obtained from the pans at 4s. a ton. That salt which is rapidly evaporated with the fire is fine, and sold as salt. It contains a little sulphate of lime. The coarser salt is formed less rapidly, and the very large crystals, which appear ornamental rather than useful, are formed singly in quiet portions of the pan. They are in reality the purest.

Pure salt should not become sensibly moist on exposure to the air; it decrepitates when suddenly heated. Salt is employed extensively in the production of sulphate of soda, to be afterwards converted into carbonate of soda by Le Blanc's process. At the present time (1865), 350,000 tons of salt are annually consumed in this country in this one branch of industry. It is also largely used in many other chemical and metallurgical operations, and for the preservation of animal food. Common salt is an excellent antiseptic.

Sulphate of Soda or *Glauber's Salts.*—This is prepared by heating together a mixture of sulphuric acid and common salt; muriatic or hydrochloric acid is evolved and condensed in Wolfe's bottles on a small scale, or in vessels filled with coke or bricks on a large scale, while sulphate of soda remains in the retort. Sulphate of soda is also obtained as a residue in the preparation of nitric acid from nitrate of soda, and is found pretty extensively in various parts of the world, more particularly in Spain and South America. It exists in almost all waters; the mineral springs of Cheltenham and Leamington owe their purgative properties to its presence. Crystallised sulphate of soda is often found as an efflorescence upon plaster and brick-work in damp situations.

Sulphate of soda, when in crystals, is remarkably efflorescent, losing the whole of its water of crystallisation, at ordinary temperatures, on mere exposure to the atmosphere.

A convenient freezing mixture may be made by pouring five parts commercial hydrochloric acid upon eight parts of the crystallised sulphate.

Carbonate of Soda.—This is found native in several localities; in some places, Egypt, and for instance Hungary, being left as an incrustation when the so-called 'soda lakes' dry up in the summer; in other places, Hungary &c. it exudes from the ground. A considerable quantity of carbonate of soda was formerly, and indeed still is, obtained from *Barilla*, the ashes of plants growing on the seashore; the ashes of the *Salsola clavifolia* yielding about 46 per cent., and the *Salsola soda* about 41 per cent. of their weight of this salt. *Kelp*, the ashes of sea-weeds, contains a notable proportion of carbonate of soda, but is valuable only as a source of iodine and potash. However, the quantity annually derived from these sources is very trifling when compared with the quantity manufactured from common salt.

The process now generally employed for the manufacture of carbonate of soda from common salt is substantially that recommended by Le Blanc in 1792, and consists first in the decomposition of the salt by sulphuric acid, as described above, and afterwards roasting the sulphate of soda so obtained in reverberatory furnaces with a mixture of lime or chalk and small coal, the proportions being two parts of sulphate of soda, two parts limestone or chalk, and one part small coal; the mixture melts into a pasty mass termed 'black ash,' which on being withdrawn from the furnace, cooled, and lixiviated with cold water, yields a solution containing principally carbonate of soda. The insoluble residue consists of a sulphate of calcium mixed with carbonate of lime &c., and is known as *blue waste, vat refuse*, or *soda waste*.

The solution containing carbonate of soda is evaporated to dryness, mixed with a small proportion of sawdust, and calcined at a moderate temperature. The product thus obtained is called *soda ash*, and contains from 44 to 50 per cent. of alkali.

Soda Crystals or Washing Soda.—This is obtained by dissolving the soda ash in water, evaporating, and crystallising in iron pans.

Carbonate of soda is also manufactured from *Cryolite*, a mineral found in West Greenland and also in the Ural mountains; it is a double fluorite of aluminium and sodium. The mineral is ground to powder, mixed with its own weight of lime, and either calcined, or mixed with as much water as will form a milk, and boiled for some time. Fluoride of calcium remains insoluble while aluminate of soda is dissolved by the water. On passing carbonic acid gas through the liquid the alumina is precipitated, and carbonate of soda is formed and may be obtained in crystals on evaporation. One ton of cryolite will yield from 1½ to 2 tons of soda crystals. The quantity of cryolite annually obtained from Greenland is stated to be about 3,000 tons, the greater portion of which is sent to Copenhagen, and the remainder to Boston, U. S.; at both of which places the above processes are carried on.

Carbonate of soda has also been obtained from soda felspar, but not to any considerable extent.

Soda ash and soda crystals are both very largely used in many industrial and chemical operations, more particularly in the manufacture of soap, and in dyeing and scouring.

In this country upwards of 300,000 tons of carbonate of soda are annually made. It is exported largely.

Bi-carbonate of Soda.—This is procured by exposing the crystallised carbonate to an atmosphere of carbonic acid. The crystals absorb the carbonic acid, and at the same time lose their water of crystallisation, crumbling down into a white powder. It is used in medicine, in the production of effervescing drinks, baking powders &c. On being subjected to a red heat it loses half of its carbonic acid, and is converted into the anhydrous simple carbonate.

Caustic Soda.—This may be prepared from the soda ash of commerce by boiling with an excess of fresh slaked lime. Insoluble carbonate of lime is formed, and caustic soda remains in solution; the

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clear liquid is decanted, evaporated, fused, and, while still liquid, is run into iron casks, and when cold is ready for market.

The mother liquors from the manufacture of soda crystals are now generally used for the production of caustic soda. As they always contain a considerable amount besides carbonate, they are well suited for the purpose.

Caustic soda is daily becoming of more importance in the arts; large quantities are used for making soap, and for bleaching, scouring, dyeing. The commercial product generally contains from 60 per cent. to 70 per cent. of alkali.

Nitrate of Soda, Cubic Nitre, or *Chili Saltpetre*—is largely imported into this country, and is used as a source of nitric acid, also in the manufacture of nitrate of potash by double decomposition with chloride of potassium, and in manure. It is somewhat deliquescent. When heated to 591° Fahr. it fuses, and on exposure to a higher temperature suffers decomposition.

The following interesting account of the production of the nitrate beds in South America is extracted from the report of Mr. Salidan, late her Majesty's consul at Lima:—

'Iquique is the centre of the nitrate of soda trade, and to this article alone it owes its present position. The population of the province is estimated at 15,000, four-fifths of whom are more or less interested in it. Large and apparently inexhaustible beds of this and other salts are found in the pampa or plain of Iamarugal, say between the Valley of Camarones on the north, and the river Lox (the boundary line of Peru and Bolivia) on the south, a distance of over 150 miles, lying principally towards the Western side, distant from the shipping port from 6 to 12 leagues. The beds of nitrate, or calisheras, are insulated deposits, very irregular, some on the plain, others on the rising ground, varying much in size and shape, and in depth, beneath the surface crust of earth and clay, from 1 inch to many feet, and in thickness from 6 inches to as many feet. Amongst the other salts found in their vicinity may be enumerated carbonate and sulphate of soda, biborates of lime and soda, magnesium-alum, chlorate of sodium. Traces of iodine exist in the nitrate, and in most of the waters in the plain have been discovered traces of boracic acid.

'Its cost at the works varies from 6¼ reales to 8¼ reales per quintal, according to the aptitude of the labourers, and the distance they may have to send for water and fuel. The rate of carriage to the coast also varies from 5½ to 7½ reales per quintal.

'The average rate now paid for nitrate placed on the beach is 14 reales, and this would give the makers ¾ reale per quintal profit. Nitrate of soda is always sold deliverable alongside the ship's launch outside the surf. The merchant has to bag and embark it, which costs him about 1¾ reale per quintal, therefore selling at 17 reales would yield him 1¼ per quintal profit.

'The wages now given are, to the barretero (miner) and fondeador (boiler of the nitrate) 1 real of the quintal produced, each; to the acendrador (who breaks the nitrate and separates the refuse) ½ real per 2 quintals; to other labourers from 1 dollar 4 cents. to 2 dollars per day.

'The principal shipping places are Iquique, Patillos, Mexillones, and Pisagua.

'The total amount exported since the year 1830, when the trade was commenced, is:—

	quintals
1830–1834, inclusive	361,585
1835–1839 ,,	761,549
1840–1844 ,,	1,502,506
1845–1849 ,,	2,060,595
1850–1854 ,,	3,260,473
Total	8,056,108

'The amount of exports in British ships, in 1864, were, 31,098 tons, of the value of 865,465 dollars.'

Sulphite of Soda or *Antichlor*. It is prepared by passing sulphurous acid gas, obtained by the combustion of sulphur in air, into a solution of carbonate of soda, and crystallising. This salt was formerly used for removing the last traces of chlorine from the bleached pulp in the manufacture of paper, but is now to a great extent superseded by byposulphate of soda.

Hyposulphite of Soda.—This may be readily prepared by digesting the above-mentioned salt with flowers of sulphur, evaporating, and crystallising. It may also be prepared from the *soda waste* produced in the manufacture of soda ash. Hyposulphite of soda is largely used by photographers for dissolving the undecomposed salts of silver. It is calculated that the quantity used in England alone for this purpose is not less than 200 tons per annum, while a far larger quantity is used by the paper manufacturers.

Phosphate of Soda.—Common tribasic phosphate of soda is prepared on a scale of some magnitude by treating powdered bone ash with dilute sulphuric acid, rendering slightly alkaline with carbonate of soda, filtering from the insoluble carbonate, phosphate and sulphate of lime, and crystallising. This salt is used in medicine. It also enters into the composition of the *dunging liquors*, used by calico printers. There are several other phosphates of soda, but they are of no importance in commerce.

Bi-borate of Soda or *Borax* (Sohaga, Tincal, Indian names)—obtained in large quantities in the valley of Puga, in Ladahk, and at Thibet, is collected on the borders of the lakes as the water dries up; it is then smeared with fat to prevent loss by exportation, and transferred across the Himalayas on the backs of sheep and goats. It is refined at Umritsur and Lahore by washing with lime water. It is employed medicinally by the natives as a tonic, deobstruent, and diuretic. It is also obtained in California. It is obtained in the crude state by the evaporation of the waters of the lake whence it is derived, and is purified by dissolving in water, rendering slightly alkaline with carbonate of soda (to precipitate earthy salts), filtering and crystallising. Artificial borax is prepared largely by dissolving the boracic acid obtained from the lagoons of Tuscany in carbonate of soda or caustic soda, filtering, and crystallising slowly. In some works the crude boracic is mixed with soda potash and calcined at a low heat; the fritted mass is then lixiviated with water, and the clear solution evaporated and crystallised.

A native borate of lime and soda is found in large quantities in Peru; it is used for the preparation of boracic acid and borax.

Borax is obtained crystallised in two varieties, octahedral and prismatic, the former containing 30·8 per cent. water, and the latter 47·2 per cent. Both varieties, when exposed to the action of heat, lose the whole of their water, and melt below redness to a transparent colourless glass, which possesses the property of dissolving many of the metallic oxides, often with characteristic colours; hence it is much used in the laboratory as a blowpipe reagent. Borax is used in the arts as a flux, and by the refiner in the melting of gold and silver; it is also valuable for facilitating the soldering and welding of metals. In making enamels it is frequently added for the purpose of rendering the compound more fusible, and it is largely employed in fixing colours on porcelain; borax is also used in medicine

Silicate of Soda or Water Glass—is prepared by igniting 45 lbs. powdered quartz with 28 lbs.

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anhydrous carbonate of soda and 3 lbs charcoal; or, according to Buchner, it may be prepared more cheaply from sulphate of soda, and in the proportion of 100 parts quartz, 60 parts anhydrous sulphate of soda, and 15 to 20 parts charcoal dust. After cooling, the vitreous mass is broken up and boiled with water for three or four hours, the water being replaced as it evaporates. When the whole is dissolved the solution is concentrated till it attains the specific gravity of from 1·24 to 1·26. In this state it is sufficiently liquid to be used for some purposes, for others it may be evaporated to a syrupy consistence.

The most important uses of silicate of soda are for hardening and preserving stones, preparing artificial stones, cement, &c. and for the preparation of colours for mural painting; it is also used by calico printers and paper makers, and in the preparation of printing ink, &c.

Aluminate of Soda.—This is used as a mordant for fixing madder colours in calico printing. It is generally prepared by adding caustic soda to a solution of alum until the precipitate at first formed is re-dissolved; prepared in this manner it contains a large quantity of sulphate of soda. It is obtained tolerably pure as an intermediate product in the manufacture of carbonate of soda from cryolite.

Stannate of Soda.—It is extensively used in dyeing and calico printing: it is prepared in a great variety of ways, generally by fusing tin or tin-ore with soda or a salt of soda.

Arseniate of Soda.—This is also used largely in calico printing 'dunging liquor.' One method is to heat arsenic with nitrate of soda.

Tungstate of Soda.—Prepared by fusing the ore with carbonate or sulphate of soda. Tungstate of soda is used in dyeing, as a mordant, in the same manner as stannate of soda: it has lately acquired considerable importance as a medium for rendering linen, cotton and other fibrous substances non-inflammable; for this purpose it is used in solution, either alone or in conjunction with phosphate of soda.

Fluoride of Sodium and Aluminium.—This is found native as *Cryolite* in Greenland, and in the Ural mountains; used as a source of carbonate of soda, also of aluminium.

Acetate of Soda—is prepared in large quantities during the purification of acetic acid; the crude acid obtained by the distillation of wood is neutralised by carbonate of soda or soda ash, and the salt thus obtained purified by crystallisation.

Potash or *Vegetable Alkali.*—Extensively distributed in the vegetable and mineral kingdoms; it is also present in animal juices, and in all fertile soils.

Potassium.—The metal of which potash is an oxide is prepared precisely in the same manner as sodium, substituting for the carbonate of soda the corresponding salt of potash. This metal is not nearly of as great importance in commerce as sodium, and is much more expensive. The properties of both are very similar.

Chloride of Potassium.—Large beds of this salt have been lately discovered at Stassfurt in Prussia, along with common salt and chloride of magnesium. It is also extracted in considerable quantity from 'kelp,' the ashes of sea-weeds, and is used largely in the manufacture of potash alums, in the preparation of the other salts of potash, and in manure.

Bi-Sulphate of Potash.—Obtained on a large scale as a residuary product in the manufacture of nitric acid from nitrate of potash; it is the *sal enixum* of the older writers. It is very soluble in water, the crystals fuse below a red heat, and on prolonged ignition are converted into the simple sulphate. The bisulphate is sometimes used as a flux in cases where the action of an acid at a high temperature is required.

Potash alum—is a double sulphate of potash and alumina.

Carbonate of Potash, Potashes, and Pearlashes.—Carbonate of potash is obtained in large quantities for commercial purposes by lixiviating wood ashes, evaporating and crystallising; the mother liquor, containing the carbonate of potash, is evaporated to dryness, yielding the *potashes* of commerce, and these when calcined constitute what is known as *pearlash*. Commercial potashes generally contain from 50 to 60 per cent. of alkali. Carbonate of potash is also obtained by decomposing the chloride and sulphate, as in the preparation of carbonate of soda from common salt; and from felspar, by exposing an intimate mixture of 100 parts, with about 150 parts lime, to a white heat, boiling the mass with water, and saturating the solution so obtained with carbonic acid, to precipitate silica and alumina; the clear liquid contains the mixed carbonates of potash and soda; on evaporation the carbonate of soda crystallises out, leaving the carbonate of potash in solution. Mr. F. O. Ward heats the felspar with fluorspar and lime. It has been found remunerative to extract potash from the grease taken from the wool of sheep; 1000 lbs. of wool yield about 80 lbs. carbonate of potash free from soda; also from the juice of the sugar beet in France.

Carbonate of potash is largely used in the arts, particularly in the manufacture of soap and glass, and for preparing caustic potash and its salts.

Bi-carbonate of Potash is prepared by passing a current of carbonic acid gas through a strong solution of the carbonate of potash; crystals of the bicarbonate are deposited. This salt is consumed medicinally in considerable quantities.

Caustic Potash is procured from its carbonate in precisely the same manner as caustic soda.

Nitrate of Potash, Saltpetre, or *Nitre.*—The principal supply of this important salt is derived from various districts in the East Indies, where it occurs sometimes as an efflorescence, at other times disseminated through the soil itself. For its formation it is necessary that the soil should contain felspar or other mineral yielding much potash. The nitre is extracted from the soil by lixiviation with water; evaporating the solution so obtained, removing any common salt which may fall, and crystallising; the crystals being purified by repeated re-crystallisations.

Nitre may be also made artificially in beds of decaying vegetable or animal substances, mixed with old mortar, or other refuse calcareous earth; these are watered occasionally, too much moisture being hurtful; after a certain period, depending on the rapidity with which the process has gone on, the whole is submitted to lixiviation together with wood-ashes; which contain carbonate of potash, and which decompose any nitrate of lime formed, of which there is generally a considerable quantity. After the lixiviation is complete, which takes some time, the solution is separated and boiled down; the common salt separates as in the other process, and the nitre is then crystallised. It was from this source that the whole of the nitre, nearly, employed by the French during the long protracted war with the continental powers was obtained, as in former times in this country when the obnoxious Petremen collected it.

Nitre is now manufactured largely from nitrate of soda, by double decomposition with chloride of potassium; chloride of sodium and nitrate of potash are formed, and are separated by crystallisation. 85 of nitrate of soda are mixed with 74 of chloride of potassium.

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Nitre has a cold, penetrating, and nauseous taste; enters into igneous fusion at a gentle heat, and is then moulded into round cakes called sal prunella. It is employed in the manufacture of gunpowder, which is composed of 75 parts by weight of nitre, 16 of charcoal, and 9 of sulphur (the nitre for this purpose should be of great purity); as a flux it is one of the most powerful we possess; it is also used for the preservation of animal food, and in making frigoritic mixtures; 1 oz. of nitre dissolved in 5 oz. of water lowers its temperature 15 degrees of Fahrenheit's thermometer. It was formerly used for procuring nitric acid and for giving nitrous fumes to the vitriol chambers, but the nitrate of soda has now taken its place in these operations. [SALTPETRE.]

Chlorate of Potash—is generally prepared by passing chlorine gas into a mixture of 300 parts caustic lime, 154 parts chloride of potassium, and 100 parts water, the operation being conducted in close leaden tanks, heated by steam, and provided with agitators; when the mixture is saturated with chlorine, the liquid is filtered off and evaporated nearly to dryness, and the resulting mass redissolved in hot water, and set aside to crystallise, the crystals being afterwards slightly washed and drained. In this process 154 parts chloride of potassium yield fully 200 parts chlorate of potash. The chlorate of potash of the best makers is a nearly pure product.

Chlorate of potash is extensively used in the preparation of lucifer matches, and in pyrotechnical mixtures. It enters into the composition used for filling percussion caps, &c., and is a convenient source of oxygen gas; 1 oz. of the salt yielding nearly 2 gallons of oxygen.

As an oxidising agent, chlorate of potash is used by the calico printer for heightening the intensity of 'steam colours;' and in the laboratory it is in constant request. Finally, it is of value in pharmacy, being sometimes administered in considerable doses by the physician.

Hyposulphite of Potash, Silicate of Potash, Aluminate of Potash, Stannate of Potash, Tungstate of Potash.—These salts are prepared exactly in the same manner as the corresponding salts of soda, substituting for the salt of soda, used in the preparation, a similar salt of potash. Their uses are also identical with the corresponding soda salts.

Bichromate of Potash.—A great many processes have been devised for the preparation of this salt. When the native chrome-iron ore is calcined with an alkaline hydrate or carbonate, in presence of an oxidising agent, the oxide of chromium in the ore is converted into chromic acid and unites with the alkali; thus by fusing the chrome-iron ore with half its weight of nitre for several hours, with frequent stirring, a mass is obtained which, on lixiviation with water and evaporation, yields crystals of neutral chromate of potash. By dissolving the chromate of potash so obtained in water, and adding a strong mineral acid, generally nitric acid, it is converted into the bichromate; and by evaporating the solution to the crystallising point, mechanically separating the crystals of bichromate from those of the nitrate (or other potash salt), formed at same time, and recrystallising several times, the bichromate is obtained pure — large orange-red rectangular tables.

The above process of preparing the chromate may be rendered more economical by substituting carbonate of potash for a portion of nitre, and still more by dispensing with the nitre altogether, and effecting the oxidation by means of air admitted into the furnace. The addition of lime is found to facilitate the oxidation. Some manufacturers dispense with potash in the calcination altogether, using only lime, and afterwards decomposing the chromate of lime formed by carbonate of potash.

Bichromate of potash is extensively used in dyeing and calico-printing, in preparing pigments, and in bleaching tallow, palm oil, &c. It is soluble in ten times its weight of cold water.

Iodide of Potassium—is obtained by dissolving iodine in caustic potash, evaporating to dryness, gently igniting the mass, to decompose iodate of potash, redissolving in water or alcohol, and crystallising. It may also be obtained by digesting 2 parts iodine and one part iron filings in a stoppered vessel with ten parts water; under these circumstances iodide of iron is formed by the direct union of the metal with the iodine: the liquid is then boiled, and a solution of carbonate of potash is added in small quantities so long as a precipitate is formed, the solution is filtered from the insoluble carbonate of iron and set aside to crystallise.

Liebig has recently proposed the following process for the preparation of iodide of potassium: 1 part of phosphorus is placed in a basin with 40 parts hot water, to which 20 parts iodine are gradually added, with frequent agitation. The resulting colourless liquid, containing phosphoric and hydriodic acids, is poured off, and milk of lime added till the mixture is alkaline; it is then filtered and boiled down to half its bulk with 12 parts sulphate of potash, and allowed to cool. A small quantity of pure carbonate of potash is then added to precipitate any lime, and the filtered solution yields on evaporation crystals of pure iodide of potassium.

Some manufacturers employ an excess of caustic alkali in order to give the crystals a certain degree of opacity; others dip the crystals into a solution of carbonate of soda, and afterwards dry them in a stove.

Bromide of Potassium.—This is prepared in a precisely similar manner to iodide of potassium. Both salts are employed in photography to a considerable extent, and in medicine.

Ferrocyanide of Potassium or *Yellow Prussiate of Potash.*—This important salt is formed when azotised matters are heated to redness with carbonate of potash and iron. It is manufactured on a large scale by heating dried blood, horns, parings of hides, and other animal matters containing nitrogen, with an equal weight of carbonate of potash, and about one-third their weight of iron filings stirred in an iron pot. The mass when treated with water yields a solution containing ferrocyanide of potassium. On evaporation the salt is obtained in large lemon-yellow crystals, which are soluble in about 4 parts of cold water and in 2 parts of boiling water.

Ferrocyanide of potassium is manufactured in large quantities for use in dyeing and calico-printing. It produces a beautiful bright blue colour, which, however, will not bear washing with alkalies or soap. It is also used in the preparation of Prussian blue. It is the source from which prussic acid, and other compounds of cyanogen, are usually obtained, but is not itself poisonous. It has a saline, bitter taste.

Ferridcyanide of Potassium or *Red Prussiate of Potash.*—Obtained by passing chlorine gas through a solution of the preceding salt, until the liquid ceases to give a blue precipitate with perchloride of iron. The solution on evaporation yields magnificent ruby-red crystals, which are soluble in 2½ parts cold water, and in 1¼ part of boiling water. Red prussiate may also be obtained by exposing powdered yellow prussiate to the action of a current of chlorine gas. Red prussiate is

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used by dyers and calico printers for discharging the blue colour of indigo from calico; also for dyeing blue colours.

Cyanide of Potassium—may be prepared by heating to dull redness, in a covered iron crucible, a mixture of 8 parts dry yellow prussiate with 3 parts dry carbonate of potash, until the fused mass has lost its yellow colour, and ceases to give off bubbles of gas. After the particles of iron have subsided to the bottom of the crucible, the fused cyanide is poured on a cold slab, and solidifies on cooling to a milk-white mass. This salt is very deliquescent, has an alkaline reaction, and when moist emits the odour of hydrocyanic (prussic) acid. It is very poisonous. Cyanide of potassium is a powerful reducing agent, and as such is constantly used in the laboratory. Large quantities are used for the purpose of dissolving the salts of gold and silver in the processes of electrotyping; also in photography.

Tartrate and Bitartrate of Potash.—Bitartrate of potash, or cream of tartar, is, when in its crude and impure state, called argol, and is deposited in the interior of wine casks during fermentation, and from this source the whole of the cream of tartar is obtained. It is generally of a very dark brown colour, but may be purified and rendered perfectly white by solution and crystallisation. It is employed very extensively in dyeing, hat-making, and in the preparation of tartaric acid, and many of the compounds of tartaric acid, as tartar emetic, soluble tartar, boro-tartrate of potash; when heated to redness it is converted into carbonate of potash and charcoal; mixed with half its weight of nitre and thrown into a red hot crucible it forms the black flux, and with its own weight of nitre the white flux, both of which are very much employed in metallurgic operations. The tartrate is made by the addition of carbonate of potash to a solution of the bitartrate until perfectly neutral: it is used in medicine as a mild purgative.

Rochelle Salt.—A double tartrate of potash and soda.

Binoxalate of Potash or *Salt of Sorrel.*—Abundant in the juice of the common sorrel (*Rumex acetosa*), of the wood sorrel (*Oxalis acetosella*), and in the leaf stalks of the common rhubarb. It is principally used for removing ink spots and iron stains from cloth.

Ammonia, Spirits of Hartshorn, or *Volatile Alkali*—in its uncombined form, an elastic gaseous body, having a very pungent and suffocating odour, destroys animal life, converts the yellow of turmeric paper to a brown, which, from the volatility of the alkali, is again restored by a gentle heat to its original colour. This gas is rapidly absorbed by water, which takes into solution 727 times its volume at 59° Fahr., and 1050 times its volume at 32° Fahr., forming the *liquor ammoniæ* of commerce.

Chloride of Ammonium or *Sal Ammoniac.*—So called from the circumstance of its first having been procured near the temple of Jupiter Ammon in Libya, from the soot produced by burning camels' dung (there used as fuel). It is now, however, prepared in this country from the ammoniacal liquor of the gas-works, by saturating it with muriatic acid, evaporating and crystallising; or by distilling the liquor, and conducting the distillate into muriatic acid. The crystals are purified by sublimation. Sublimed chloride of ammonium forms semi-transparent fibrous masses, very soluble in water, with great reduction of temperature; hence it is a common ingredient in freezing mixtures. Used in soldering and galvanising iron, with iron filings as cement for iron, &c.

Sulphate of Ammonia.—It is procured from gas liquor in same manner as the chloride, by substituting sulphuric acid for muriatic. It cannot be purified by sublimation, but may be purified by recrystallisation. It is soluble in twice its weight of cold water. Sulphate of ammonia is sometimes applied to muslins and other fabrics for the purpose of preventing them from burning with flame, should they accidentally take fire. The finished goods are dipped into a solution containing 10 per cent. of the crystallised salt, and dried in a centrifugal machine.

Liquor Ammoniæ.—This is prepared from either of the two preceding salts by mixing them with slaked lime, heating the mass in iron retorts, and conducting the gas evolved into water. The most concentrated solution of ammonia has a specific gravity of ·875, water being equal to 1·000.

Carbonate of Ammonia.—This is prepared by mixing the chloride, or sulphate, with twice its weight of chalk, and heating the mass in iron retorts. The vapours of carbonate of ammonia are conducted into large leaden chambers, termed *baloons*, where they are condensed; the salt thus obtained is purified by slow sublimation in iron pots having conical leaden covers. As met with in commerce carbonate of ammonia is a semi-transparent, fibrous mass, having the pungent odour of ammonia. It is used largely by confectioners in the preparation of light pastry. It is entirely dissipated during the baking, so no ill effect can arise from its use. It is also used for smelling-salts.

Tungstate of Ammonia.—It is used for rendering linen, cotton, and other fabrics non-combustible.

All the salts of ammonia are characterised by the following properties; viz. they are volatile at most at a low red heat; the fixed alkalies and alkaline earths decompose them, uniting with the acid and liberating the ammonia, which may be recognised by its odour and by its alkaline reaction on vegetable colours.

Ammonia is always formed when organic matters containing nitrogen are submitted to destructive distillation; a considerable quantity is formed during the distillation of bones in the preparation of *Dippel's oil.*

The salts of ammonia are valuable as ingredients in manures, but their chief use is in the production of *ammonia alum*, which is a double sulphate of ammonia and alumina.

Ammonia, being a highly elastic gas, has been used in place of steam or compressed air to give motion to portable machinery; the compressed gas not only gives motion to the piston by virtue of its elastic force, but after passing the cylinder, may be absorbed by water, thus causing a partial vacuum, and assisting the piston on its return stroke. Owing to these properties it may also be used as a refrigerator, and water frozen by it. To effect this, two strong closed metallic vessels are connected by a pipe. One of these is partly filled with a strong solution of ammonia in water, the other is empty. If now heat be applied to the former, while the latter is kept cool, the ammonia is driven from the water which dissolved it and compressed in the cooler vessel. On the removal of the heat the ammonia returns, to be with great rapidity dissolved in the water again, and in so doing causes a sudden evaporation in the other vessel, and so great an absorption of heat as to freeze a vessel of water in which it may be immersed.

Lithia.—Until very lately supposed to exist only in four minerals, but, by the aid of spectrum analysis, it is now proved to be very extensively distributed in nature in small quantities. It is found

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in many minerals, as *lepidolite*, *spodumene*, *petalite*, &c., in the ashes of plants, particularly the tobacco plant, and in mineral waters, and in some of the pits of Cornwall in considerable quantity.

Carbonate of Lithia.—The only salt of this alkali of any commercial importance: it is used in the preparation of artificial mineral waters and in medicine for gout.

Cæsia and *Rubidia.*—Lately discovered and very rare alkalies; they occur in minute quantities in some mineral waters, and in a very few minerals, *lepidolite* for instance. They are of no commercial importance.

Richardson and Watts's *Chemical Technology*—the principal store of information on alkalies—has been freely used.

Alkaloids or *Vegeto-Alkalies*—may be divided into two classes, natural and artificial, the former being found ready formed in plants; the latter known only as the result of chemical manipulation.

Amongst the natural alkaloids the following are the principal:—aconitine, atropine brucine, cinchonine, codeine, conine, daturnine, digitaline, hyoscyamine, meconine, morphine, narcotine, nicotine, quinine, strychnine, theine, veratrine, &c.

The artificial alkaloids are too numerous to mention here; amongst those known to commerce are aniline, toluidine, naphthylamine, &c.

We are indebted to Dr. Angus Smith, the eminent chemist, and the government inspector of alkali works, for the above article.

ALKANET or ANCHUSA (Ger. orkanet; Dutch, alkanna; Fr. orcanette; Ital. ancusa; Span. alcaneta). A species of bugloss (*Anchusa tinctoria*, Linn.; *Lithospermum tinctorium* (Dec.). It has been cultivated in England; but is found of the finest quality in Siberia, Spain, and more particularly in the South of France, in the vicinity of Montpelier. The roots of the plant are the only parts that are made use of. When in perfection, they are about the thickness of the finger, having a thick bark of a deep purplish red colour. This, when separated from the whitish woody pith, imparts a fine deep red to alcohol, oils, wax, and all unctuous substances. To water it gives only a dull brownish hue. It is principally employed to tint wax, pomatum, and unguents, oils employed in the dressing of mahogany, rose-wood, &c. The alkanet brought from Constantinople yields a more beautiful but less permanent dye than that of France. (Lewis's *Mat. Med.*; Magniem, *Dictionnaire des Productions.*)

The duty, which was previously very oppressive, was reduced in 1832 to 2*s.* a cwt.; was reduced (1842) to 1*s.* a cwt. and is now repealed. The imports are inconsiderable. The price varies from 27*s.* to 32*s.* a cwt.

ALLOWANCES, TARES, &c. In selling goods, or in paying duties upon them, certain deductions are made from their weights, depending on the nature of the packages in which they are inclosed, and which are regulated in most instances by the custom of merchants, and the rules laid down by public offices. These allowances, as they are termed, are distinguished by the epithets, *Draft*, *Tare*, *Tret*, and *Cloff*.

Draft is a deduction from the original or gross weight of goods, and is subtracted before the tare is taken off.

Tare is an allowance for the weight of the bag, box, cask, or other package, in which goods are weighed.

Real or *open tare* is the actual weight of the package.

Customary tare is, as its name implies, an established allowance for the weight of the package.

Computed tare is an estimated allowance agreed upon at the time.

Average tare is when a few packages only among several are weighed, their mean or average taken, and the rest tared accordingly.

Super-tare is an additional allowance, or tare where the commodity or package exceeds a certain weight.

When tare is allowed, the remainder is called the nett weight: but if tret be allowed, it is called the *suttle weight.*

Tret is a deduction of 4 lbs. from every 104 lbs. of suttle weight.

This allowance, which is said to be for dust or sand, or for the waste or wear of the commodity, was formerly made on most foreign articles sold by the pound avoirdupois; but it is now nearly discontinued by merchants, or else allowed in the price. It is wholly abolished at the East India warehouses in London; and neither tret nor draft is allowed at the Custom House.

Cloff, or *Clough*, is another allowance that is nearly obsolete. It is stated in arithmetical books to be a deduction of 2 lbs. from every 3 cwt. of the *second suttle*; that is, the remainder after tret is subtracted; but merchants, at present, know cloff only as a small deduction, like draft, from the original weight, and this only from two or three articles. (Kelly's *Cambist*, art. 'London.')

For an account of the tares and allowances at London, see TARE; for the tares and allowances at the great foreign trading towns, see their names.

ALMONDS (Ger. mandeln; Dutch, amandelen; Fr. amandes; Ital. mandorli; Span. almendras; Port. amendons; Russ. mindal; Lat. amygdalæ amaræ, dulces). A kind of medicinal fruit, contained in a hard shell, that is enclosed in a tough sort of cotton skin. The tree (*Amygdalus communis*) which produces this fruit nearly resembles the peach both in leaves and blossoms; it grows spontaneously only in warm countries, as Spain, and particularly Barbary. It flowers early in the spring, and produces fruit in August. Almonds are of two sorts, sweet and bitter. They are not distinguishable from each other but by the taste of the kernel or fruit. 'The Valentia almond is sweet, large, and flat-pointed at one extremity, and compressed in the middle. The Italian almonds are not so sweet, smaller, and less depressed in the middle. The Jordan almonds come from Malaga, and are the best sweet almonds brought to England. They are longer, flatter, less pointed at one end and less round at the other, and have a paler cuticle than those we have described. The sweet almonds are imported in mats, casks, and boxes; the bitter arrive in boxes.' (Thomson's *Dispensatory.*)

Previously to 1832 almonds were grossly overtaxed; but the duties were then considerably reduced, and they were also still further reduced in 1842 and 1853. The duty on all varieties (inc. Jordan) of sweet almonds was fixed in the last mentioned year at 10*s.* a cwt., that on bitter almonds having been previously repealed. That on sweet almonds was repealed in 1860. In 1865, 32,037 cwts. were imported chiefly from Spain and Morocco, valued at 103,909*l.* The Morocco almonds are mostly shipped at MOGADORE.

ALMONDS, BITTER OIL OF. [OILS.]

ALMONDS, DIKA. The fruits of the *Mangifera gabonensis*, which grows on the west coast of Africa. They yield on pressure from 65 to 70 per cent. of a grease resembling the butter of cocoa, which is stated to be fitted for the manufacture of soap.

ALMONDS, SWEET OIL OF. [OILS.]

ALOES (Dutch aloe; Fr. aloés; Ger. and Lat. aloe; Russ. sabir; Sp. aloè; Arab. mucibar). A bitter, gummy, resinous, inspissated juice, obtained

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from the leaves of the plant of the same name. There are four sorts of aloes met with in commerce; viz. *Socotrine*, *Hepatic*, *Caballine*, and *Cape*.

1. *Socotrine.*—So called from the island of Socotra, in the Indian Ocean, not very distant from Cape Guardafui, where the plant (*aloe spicata*), of which this species is the produce, grows abundantly. It is in pieces of a reddish brown colour, glossy as if varnished, and in some degree pellucid. When reduced to powder it is of a bright golden colour. Its taste is extremely bitter; and it has a peculiar aromatic odour, not unlike that of the russet apple decaying. It softens in the hand, and is adhesive, and yet is sufficiently pulverulent. It is imported by way of Smyrna and Alexandria, in chests and casks, but is very scarce in England.

2. *Hepatic.*—The real hepatic aloe, so called from its liver colour, is believed to be the produce of the *Aloe perfoliata*, which grows in Yemen in Arabia, from which it is exported to Bombay, whence it finds its way to Europe. It is duller in the colour, bitterer, and has a less pleasant aroma than the Socotrine aloes, for which, however, it is sometimes substituted. Barbadoes aloes, which is often passed off for the Hepatic, is the produce of the *Aloe vulgaris*. It is brought home in calabashes, or large gourd shells, containing from 60 to 70 lbs. It is duskier in its hue than the Bombay, or real hepatic aloes, and the taste is more nauseous, and intensely bitter. The colour of the powder is a dull olive yellow.

3. *Caballine* or *Horse Aloes.*—This seems to be merely the coarsest species or refuse of the Barbadoes aloes. It is used only in veterinary medicine, and is easily distinguished by its rank fœtid smell.

Cape Aloes.—The produce of the *Aloe spicata*, which is found in great abundance in the interior of the Cape Colony, and in Melinda. The latter furnishes the greater part of the extract sold in Europe under the name of Socotrine aloes. The odour of the Cape aloes is stronger and more disagreeable than that of the Socotrine: they have, also, a yellower hue on the outside; are less glossy, softer, and more pliable; the colour of the powder is more like that of gamboge than that of the true Socotrine aloes. (Ainslie's *Mat. Indica*; Thomson's *Dispensatory and Mat. Medica.*)

975,456 lbs. of aloes, chiefly from the Cape and Bombay, were imported in 1865. Duties repealed in 1845.

ALOES-WOOD (Ger. aloeholz; Dutch, aloë-hout, paradyshout; Fr. bois d'aloès; Ital. legno di aloe; Span. aloè chino; Sans. aguru; Malay, agila; Siam. kisna). The produce of a large forest-tree, to be found in most of the countries between China and India, from the 24th degree of north latitude to the equator.

Dr. Mason says with relation to this subject (see Mason's *Burmah*. London, Trübner 1860): 'It is imported into Mergui by the Selungs, who, as they profit from the trade, endeavour to keep all in ignorance of the tree from which they obtain it.'

Sir J. Bowring states that only one species of the tree possesses the odorous element, and that the dark wood, which alone is valuable, is sold at about 10*s.* per lb. Every Christian family in the district where it grows is bound to pay to the King of Siam a tribute of 2 lbs. of *eagle wood*. It is principally found in the islands situated in the Gulf of Cambodia. (Bowring's *Siam*, p. 204.)

It seems to be the result of a diseased action confined to a small part of a few trees, of which the rest of the wood is wholly valueless. It appears to be more or less frequent according to soil and climate, and from the same causes to differ materially in quality. It is produced both in the greatest quantity and perfection in the countries and islands of the east coast of the Gulf of Siam. This article is in high repute for fumigations, and as incense, in all Hindu, Mohammedan, and Catholic countries. It formerly brought a very high price, being at one time reckoned nearly as valuable as gold. It is now comparatively cheap, though the finest specimens are still very dear. The accounts of this article in most books, even of good authority, are singularly contradictory and inaccurate. This is more surprising, as La Loubère has distinctly stated that it consisted only of 'certains endroits corrumpus dans des arbres d'une certaine espèce. Toute arbre de cette espèce n'en a pas; et ceux qui en ont, ne les ont pas tous en même endroit.' (*Royaume de Siam*, t. i. p. 45. 12mo. ed.) The difficulty of finding the trees which happen to be diseased, and of getting at the diseased portion, has given rise to the fables that have been current as to its origin. The late Dr. Roxburgh introduced the tree which yields this production into the Botanical Garden at Calcutta, from the hills to the eastward of Sylhet, and described it under the name of *Aquilaria Agalocha*.

ALPACA, LLAMA, AND VICUNA WOOLS. These wools are derived from various quadrupeds of the genus llama inhabiting the Cordillera of the Andes, below the line of perpetual snow. They are found principally in Peru and Chili, and exist also, but rarely, in Columbia and Paraguay. The race represents the camel of the new world (*Auchenia camelus paco*, Cuv.), and constitutes, according to Dr. Gray and others, four varieties, the guanaco, llama, alpaca, and vicuna. The wool of the two former animals is principally used in the manufacture of coarse native fabrics; that of the latter is fine and beautiful, and is rapidly becoming employed in Europe in the manufacture of dress. The first references to these animals are in *Garcilasso*, quoted by John de Laet (folio, Leyden, 1633), and the manufacture of their wool is mentioned by Acosta (*Historia Natural y Moral de las Indias*), 'This wool the barbarians clean, spin, and weave into garments.' According to Hill (*Travels in Mexico and Peru*, vol. i. p. 104), the guanaco, or huanacu, the largest of the llama species, is about 3 feet 6 inches in height, and its wool, which is of a light brown colour, is inferior to that of the llama.

The llama is about three feet in height: the male is usually employed in carrying burdens, and is able to perform a day's journey with a weight varying from 100 to 150 lbs. Its wool is generally of a dirty brown colour, and occasionally a speckled grey. The wool of the female is finer than that of the male.

The vicuna, which is most highly prized for its wool, is smaller than the llama, and is about 2 feet 9 inches high. The wool is fine, short, and curly. The colour of the greater part of the body is reddish-yellow with a white breast. Their skins are worth, according to Mr. Hill, about 4 dollars each, and are stated to belong to the priests.

Various unsuccessful attempts have been made to introduce these animals into Europe. It was considered possible to introduce them into the Australian colonies; and recently Mr. Charles Ledger (notwithstanding the Peruvian edict intended against their exportation) succeeded, after immense difficulties, in shipping a flock from Copiapo in Chili for Sydney. For some time the experiment was thought likely to be successful, but later accounts are unfavourable. See an able paper read by Mr. C. Ledger before the Society of Arts (*Jour. of Soc. of Arts*, vol. ix. p. 212).

The number of hands employed by Mr. Salt, of

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Saltaire, near Bradford, is about 3,000, and of these about two-thirds are engaged in the various processes by which alpaca and mohair are made into cloth.

Some of the goods supplied by this great manufactory are woven from pure alpaca and mohair yarns; some have mixed alpaca, mohair, and wool. Mohair and alpaca cloths have always a warp of either cotton or silk, never of wool. In some instances mohair yarns are mixed with silk, in others with a vegetable substance called *Rhea fibre*. The yarn made for the Velours and Utrecht trade is mostly pure mohair.

Alpaca Imports.

1836-1840	553,000 lbs.
1851	2,180,480 ,,
1864	2,968,100 ,,

Price 10*d.* per lb. in 1836—3*s.* 4*d.* per lb. in 1862.

Mohair Imports.

1841	1,011,780 lbs.
1851	1,937,280 ,,
1864	3,760,000 ,,

Price 1*s.* 10*d.* per lb. in 1854—3*s.* 6*d.* per lb. in 1863.

Weight.—In many districts the packages have to be carried by mules, in which case they are generally from 60 to 80 lbs. each. In other districts, where better roads or railways are available, the packages vary from 125 to 200 lbs., but few are so heavy as the greater weight.

Quality.—The indications of the best qualities are, length of staple, fineness and evenness of quality, softness and brilliancy of colour. The colours are black, white, brown, grey, and particolours. These colours are packed separately, each shipment containing a proportion of all; but no difference is made in the price of the respective colours. The average weight of a fleece of alpaca is from 3lbs. to 4lbs., that of a llama from 5lbs. to 6lbs.

Length.—The ordinary length of a staple of good alpaca is about 6 inches. The average length of a staple of llama is about 7 to 8 inches, and the fibres of the wool are not so regular, and are mixed with a coarse hair which renders it much less valuable than the true alpaca.

Price.—The average value of alpaca may be quoted about 2*s.* 6*d.* per lb., and of llama 1*s.* per lb.

ALUM (Ger. alaun; Dutch, alnin; Fr. alun; Ital. allume; Span. allumbre; Russ. kwasszŭ; Lat. alumen; Arab. sheb). A salt of great importance in the arts, consisting of a ternary compound of *alumina*, or pure argillaceous earth, potass, and sulphuric acid. Alum is sometimes found native; but by far the greater part of that which is met with in commerce is artificially prepared. The best alum is the Roman, or that which is manufactured near Civita Vecchia, in the Papal territory. It is in irregular, octahedral, crystalline masses, about the size of a walnut, and is opaque, being covered on the surface with a farinaceous efflorescence. The Levant, or Roch alum, is in fragments, about the size of the former, but in which the crystalline form is more obscure; it is externally of a dirty rose-colour, and internally exhibits the same tinge, but clearer. It is usually shipped for Europe from Smyrna; but it was anciently made at Roccha, or Edessa, in Syria; and hence its name Roch alum. English alum is in large, irregular, semi-transparent, colourless masses, having a glassy fracture; not efflorescent, and considerably harder than the others. It is very inferior to either the Roman or Roch alum. The principal use of alum is in the art of dyeing, as a mordant for fixing and giving permanency to colours which otherwise would not adhere at all, or but for a very short time; but it is also used for a great variety of other purposes.

Beckmann has shown (*History of Inventions*, vol. i. art. 'Alum') that the ancients were unacquainted with alum, and that the substance which they designated as such was merely vitriolic earth. It was first discovered by the Orientals, who established alum works in Syria in the thirteenth or fourteenth century. The oldest alum works in Europe were erected about the middle of the fifteenth century. Towards the conclusion of the reign of Queen Elizabeth, Sir Thomas Chaloner established the first alum work in England, in the vicinity of Whitby, in Yorkshire, where the principal works of the sort in this country are still carried on; the shipments of alum from Whitby in 1841 amounted to 3,237 tons. There is, also, a large alum work at Hurlett, near Paisley, the produce of which may be estimated at about 1,200 tons a-year. Alum is largely manufactured in China, and is thence exported to all the western Asiatic countries.

Of alum and vitriolic schist the produce in Austria is about 40,000 cwts.; it is chiefly procured from Bohemia, Styria, and Moravia. In Spain about 80,000 kilogrammes are obtained from the province of Murcia. In Prussia about 425,000 cwts. of alum ore were produced in 1861.

Alum is both largely produced in, and exported from, China to India, and other Eastern countries. As an indication of the extent of this branch of Chinese industry and commerce, we extract the following from the sixth edition of Dr. Williams's valuable *Chinese Commercial Guide*: 'Alum is exported to India and the Archipelago, where it is regarded as superior to the native product. About 75,000 piculs have been annually exported. It is found in argillaceous schist, or, *alum shale*, in the provinces of Ngánhwi, Húnán, and Chekiáng, and finds its way chiefly to Ningpo and Shanghai; the markets of Swatow and Amoy also furnish large quantities drawn from neighbouring districts.

The mineral is extensively worked in the Sungyang hills in the district of Pingyang in Wanchau fú, near the borders of Fuhkien, and not far from Pihkwan harbour. The supply seems to be inexhaustible, and the daily product was estimated by a visitor, in 1853, at 18 tons of alum, which would amount to not less than 6,000 tons per annum. This alum is equal to the best Roman. It is chiefly employed by the Chinese for bleaching purposes.

In 1862 there were exported from the port of Tien-tsin 951 piculs (1 pic=133⅓ lbs. avoir.), valued at 1,902 taels (1 tael=6*s.* 2*d.* sterling). From the port of Tamsuy the exports in the same year were 1000 piculs, and from the port of Amoy 186,666 lbs., and 891 piculs from the port of Han-Kow. The Chinese market price in the same year was from 9*s.* 10*d.* to 10*s.* per picul.

The imports of alum into Great Britain are not large; they amounted in 1863 to 10,335 cwts., value 3,007*l.*

AMBER (Ger. bernstein; Dutch, barnsteen: Dan. bernsteen, Rav.; Fr. ambre jaune; Ital. ambra gialla; Span. ambar; Russ. jantar; Pol. bursztyn; Lat. succinum, electrum). A brittle, light, hard substance usually nearly transparent, sometimes nearly colourless, but commonly yellow, or even deep brown. It has considerable lustre. Specific gravity, 1·065. It is found in nodules or rounded masses, varying from the size of coarse sand to that of a man's hand. It is tasteless, without smell, except when pounded or heated, when it emits a fragrant odour. It is highly electric. Amber is undoubtedly of vegetable origin, and, as is clear from the insects, &c. often preserved in it, was originally exuded in a fluid state from some extinct species of pine.

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On the Prussian coast of the Baltic, between Konigsberg and Memel, amber is more abundant than in any other known locality, and the Prussian government are stated to derive a revenue of about 3,500*l.* per annum from its collection. The chief amber beds in the north of Prussia are near New Kechren, Brusterort and Lapöhnen. In the United States it is found principally at Amboy, New Jersey; at Gayhead and at Cape Sable in Maryland.

Amber is used in the manufacture of various kinds of varnish, dissolved with drying linseed oil, asphaltum, and resin; it is used as a coach-maker's varnish, and the spirit varnishes, which are prepared from the solution of amber in alcohol or ether, are used for photographic purposes. (Ure's *Dict. of Arts &c.* by Hunt.)

The quantities of amber imported into the United Kingdom in 1863 were:

	Cwts.	Value.
Amber, rough	50	625*l.*
Manufactures not enumerated		571*l.*

Amber has been recently discovered in the Lake of Anserche, in the duchy of Courland, and in other parts of the district. It is mostly transparent, and some pieces have been discovered of considerable size.

Amber is also found in considerable quantities on the shores of several islands of the Indian Archipelago and on the eastern shores of Africa, and at one period constituted a considerable article of export from Aden. It is largely in demand for court beads in China, where the transparent lively yellowish brown variety is most prized, foul and opaque pieces being almost valueless. The price in China varies from 8 dollars to 14 dollars per catty. False amber, brought from India, is also largely used, and is sold at Canton for prices nearly equal to those of the genuine article. (Dr. Williams's *Chinese Guide.*) See an interesting account of the ideas entertained by ancient Eastern nations, in *Asiatic Researches.*

AMBER GRIS or AMBER GREASE (Ger. amber; Dutch, amber; Fr. ambergris; Ital. ambragrigia; Span. ambar gris; Lat. ambra, *ambra grisea*). A solid opaque, generally ash-coloured fatty, inflammable substance, variegated like marble, remarkably light, rugged, and uneven in its surface, and has a fragrant odour when heated; it does not effervesce with acids, melts freely over the fire into a kind of yellow resin, and is hardly soluble in spirits of wine. It is found on the sea-coast, or floating on the sea near the coasts of India, Africa and Brazil, usually in small pieces, but sometimes in masses of 50 or 100lbs. weight. 'Various opinions have been entertained respecting its origin; but it is now well established that it is a concretion formed in the stomach or intestines of the *Physeter macrocephalus*, or spermaceti whale.' (Thomson's *Chemistry.*) Ambergris ought to be chosen in large pieces, of an agreeable odour, entirely grey on the outside, and grey with little black spots within. The purchaser should be very cautious, as this article is easily counterfeited with gums and other drugs.

'Persons engaged in the whale fishery look for Ambergris in the intestines of the spermaceti whale, and are most successful in finding it in those that appear torpid, sick, and lean; from whence it would appear that it is the product of disease. The lumps of it are from 3 inches to a foot in diameter, and from 1 lb. to 30 lbs. in weight; its value in this country is about 16*s.* per oz.

AMETHYST (Ger. eisenkeisel; Fr. amethyste; Ital. amatista; Span. ametisto; Lat. amethystus). A precious stone, of which there are two species differing widely in quality and value.

According to Mr. Emanuel (*Diamonds and Precious Stones*), 'the Oriental amethyst is a ruby or sapphire possessing an amethyst colour, which may be distinguished from the ordinary amethyst by its superior brilliancy and play, as well as by its hardness,' &c. It is a gem of rare occurrence, and even jewellers frequently confound it with the ordinary amethyst. There are some fine specimens in the Grüne Gewölbe at Dresden, and there are also in the Vatican one or two engraved intaglios of this stone of very early date.

The common or Occidental amethyst is a violet coloured quartz. It is, according to the same authority, found in India, Ceylon, the Brazils, Persia, Silesia, Hungary, Saxony, Spain, and also at Reboy in Ireland. 'Many years ago,' says Mr. Emanuel, 'such amethysts were of considerable value, ranking next to the sapphire, and worth as much as 30*s.* the carat when very fine. Large quantities, however, were sent from Brazil, and the stone declined in public estimation. The taste, however, is still reviving. A fine deep-coloured amethyst of the size of a two-shilling piece is worth from 10*l.* to 15*l.*; smaller pieces and in poorer qualities are sold from 2*s.* to 5*l.* The best cutting of amethyst is in a brilliant form, with the table slightly domed. Most amethysts are cut in Germany, owing to the price of labour being cheaper in that country than in England.' (Emanuel *On Diamonds &c.* 114, 156, *sqq.*)

AMIANTHUS, ASBESTOS or MOUNTAIN FLAX (Lat. amianthus-abestinum; Ger. asbest; Fr. amiante; Span. asbesto, alumbre de pluma; Port. asbestos; Ital. asbesto). A mineral of which there are several varieties, all more or less fibrous, flexile, and elastic. It is inconsumable by a high degree of heat; and in antiquity the art was discovered of drawing the fibres into threads, and then weaving them into cloth. Pliny says that he had seen napkins made of this substance, which, when soiled, were thrown into the fire, and that they were better cleaned by this means than they could have been by washing! Hence it obtained from the Greeks the name of Ἀμίαντος (*undefiled*). Its principal use, as stated by Pliny, was to wrap round the bodies of the dead previously to their being exposed on the funeral pile, that the ashes of the corpse might not be mixed with those of the wood. And in corroboration of this statement we may mention, that in 1702 a skull, some calcined bones, and a quantity of ashes were found at Rome, in a cloth of amianthus nine Roman palms in length by seven in width. Its employment in this way was, however, confined to a few of the very richest families, incombustible cloth being very scarce, and bringing an enormously high price. Rarum inventu, difficile textu propter brevitatem. Cùm inventum est, æquat pretia excellentium margaritarum. (Pliny, *Hist. Nat.* lib. xix. ch. 1.) The disuse of the practice of cremation, or of burning the dead, caused the manufacture of amianthine cloth to be neglected.

In the Tarentaise of Savoy a variety of amianthus exists, of which the threads are entirely separated and of a brilliant whiteness, and capable of being elongated to upwards of ten times their original length. Cloths and even lace have been prepared from the amianthus derived from this locality, and there exists in the Institute of France a work printed entirely on paper made from this material.

There are several varieties of amianthus: the twisted asbestos, which is of a dirty grey or whitish yellow colour, sometimes exists in thick spongy pieces, and is then vulgarly called *fossil flesh*; sometimes it resembles and is called *fossil cork*; occasionally, when of a hard mem-

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branous character, it is called *fossil leather*, and the thinner and more flexible kinds of the same character are termed *fossil paper*. The woody asbestos is of a reddish brown colour, and resembles splinters of wood.

Asbestos is now employed to a considerable extent for burning in gas stoves. (*Bulletin du Musée de l'Industrie.*)

According to M. Bezon (*Dictionnaire général des Tissus*), the art of making cloth from amianthus was, in modern times, revived by Madame Candida Lena Perponti (*Journal de la Société d'Encouragement des Arts et des Sciences*, Milan, No. 30). She attempted to render the fibre flexible by treating it with oil and water, but finding the former means not so efficacious as the latter, she made her future experiments with water, and succeeded in getting filaments of such length and tenacity as were available for spinning and weaving. Her first successful attempt was the manufacture of a pair of gloves. The amianthus was supplied from the Vulteline. She also made paper of excellent quality, and, in order to supply an ink which should be equally indestructible, used a fluid containing ½ sulphate of iron to ¼ black oxide of manganese.

Latterly, however, the manufacture of this article into a fabric has been revived; a M. Aldini having succeeded in manufacturing it without the aid of any foreign substance: the cloth is made loose in its fabric, and the threads are about the fifteenth part of an inch in diameter. Asbestos is found in Piedmont, Savoy, Saltzburg, the Tyrol, Dauphiné, Hungary, Silesia, Corsica, at Staaten Island in New York Harbour, St. Kevern in Cornwall, and in various parts of the north of Scotland, the Cape of Good Hope, and at Metchursk in Siberia.

AMMONIAC, SAL. [ALKALIES (*Muriate of Ammonia*).]

AMMONIACUM (Fr. gomme ammoniaque; Ital. gomma ammoniaco; Span. goma ammoniaco; Lat. ammoniacum; Arab. feshook). A concrete resinous juice obtained from the *Dorema ammoniacum*, a plant resembling fennel, found in the north of Africa, Arabia, Persia, the East Indies, &c. The name is supposed to be corrupted from Armeniacum, and to indicate the route by which the drug was originally imported into Europe. Pliny says that it derived its name from its being produced in the vicinity of the temple of Jupiter Ammon in Africa. (*Hist. Nat.* lib. xii. c. xxiii.) It has a faint but not ungrateful smell, and a bitter, nauseous, sweet taste. The fragments are yellow on the outside and white within, brittle, and break with a vitreous fracture; their specific gravity is 1·207. The best ammoniacum is brought from Persia by Bombay and Calcutta, packed in cases and chests. It is in large masses, composed of small round fragments or tears; or in separate dry tears, which is generally considered a sign of its goodness. The tears should be white internally and externally, and free from seeds or other foreign substances. Reject that which is soft, dark-coloured, and foul. It is used principally in the materia medica, and the quantity imported is but small. (*United States Dispensatory.*)

AMMUNITION. A term expressive of the various implements used in war.

Sec. 45 of the Customs Consolidation Act of 1854 (16 & 17 Vict. c. 107) provides that the importation of arms, ammunition, gunpowder or any other goods, may be prohibited by proclamation or order in council, and by sec. 150, that by the same means such articles, and all military and naval stores may be prohibited to be exported or carried coastwise under penalty of forfeiture; and sec. 159 declares that 'gunpowder, ammunition, arms, or utensils of war, except from the United Kingdom or any British possession, are hereby absolutely prohibited to be imported or brought either by sea or inland carriage, or navigation, into the British possessions in America and the Mauritius.'

The exportation of ammunition and arms has largely increased since the American Civil war.

Since the year 1859 the number of small fire arms exported from Great Britain has been—

1859	-	-	171,529	1863	-	-	457,818
1860	-	-	272,948	1864	-	-	254,151
1861	-	-	315,502	1865	-	-	291 035
1862	-	-	702,204	1866	-	-	268,094

[GUNPOWDER.]

AMOY. A Chinese port open to commerce with the United Kingdom, situated in the Fuhkien province, lat. 24° 40′ N., long. 118° E. The town, which contains about 300,000 inhabitants, is on an island called Hia Mun.

The town of Amoy was visited soon after the Europeans became acquainted with China. In 1544, the Portuguese resorted thither, but were forcibly expelled by the authorities, in consequence, it is said, of their misconduct towards the native traders. The Dutch traded at the port in 1624. Up to 1730 it appears that the English visited Amoy; but at this time the Spaniards were alone permitted to make use of this port, all other foreign trade having been centred at Canton. Amoy was captured in 1841 by Gough and Parker, and was thrown open to foreign trade by the treaty of Nanking.

According to Dr. Williams, Amoy is the most accessible of all the consular ports in China, no pilots being required on entering or departing, though boatmen often board the ship to offer assistance. Some regulations were once issued requiring British merchantmen to engage pilots to and from the Chan Chat rocks, but their use is now optional. The water communication with the interior is not, however, equal to that enjoyed by the other ports.

The harbour is a bay, and an inner harbour. The inner harbour is one of the best on the coast. There is good holding ground in the outer harbour, and vessels can anchor in the inner, within a short distance of the beach, and be perfectly secure. The tide rises and falls from 14 to 16 feet. The western side of the harbours, from 675 to 840 yards wide, is formed by the island of Kulangsu.

The channel round the island of Amoy is so narrow and winding that directions would be useless, the chart being the best guide. Besides the excellent shelter that this harbour affords, the Chinese have docks for repairing and building their largest junks.

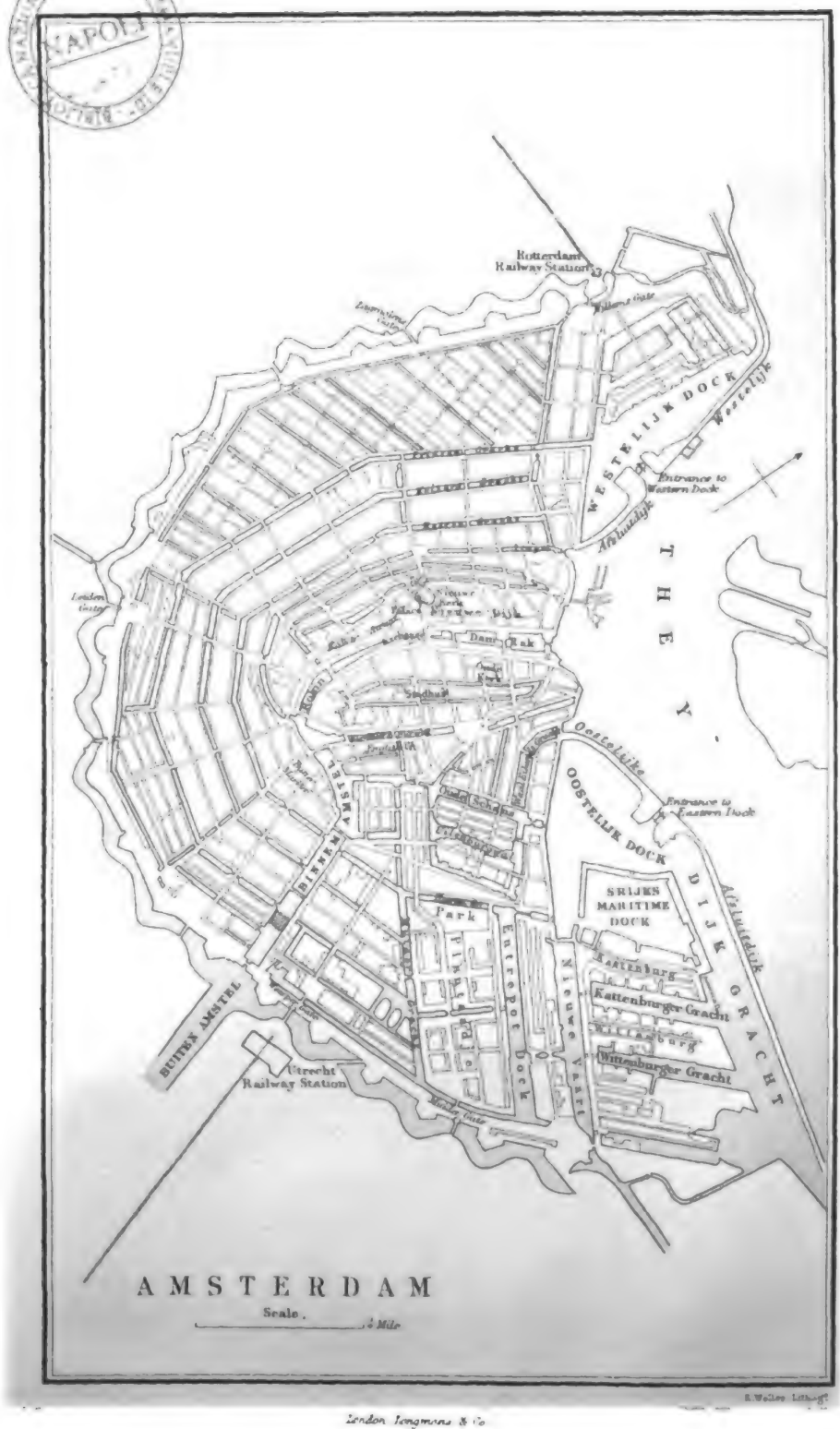
Native emigration from Amoy is considerable. The arrangements are under the management of the British West Indian Emigration Agency, and the official supervision of the British consul.

The docks of Amoy are worthy of notice. Vessels of almost any size can obtain anything necessary for repairs. The company's large granite dock is 286 feet long on the blocks, and at average springs can take vessels drawing from 16 to 17 feet. The dock is fitted with a caisson gate, and with a centrifugal steam pump of great power, ensuring despatch at all states of the tide.

Customs Regulations.—The limits of the port are defined within lines drawn from the southernmost point of Amoy island, south-eastward to the nearest island, and thence, in the direction of the high pagoda, to the point of Lam-tai-hoo hill, and from the northernmost point of Amoy island to the opposite point on the mainland.

The shipment and discharge of cargo can be

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only carried on in the inner harbour between Kulang-su and Amoy, northern and southern limits. The authorised customs' jetties for the examination, landing, and shipment of goods, are those known as the Taou-mei-ma-tau, Kang-ah-kow, Sin-lo-tow, and Sai-hong wharves.

Masters of merchant vessels must deposit their ships' papers and import manifest with their consul (if they have no consul, with the customs) within 48 hours after entering the port.

The import manifest must contain a true account of the cargo on board, and must be handed to the customs before any application to break bulk can be attended to.

The landing and discharging of cargo must be carried on within the limits of the inner-anchorage, and can only take place between sunrise and sunset, and cannot go on, without special provision, on Sundays and holidays. Cargo boats employed for the shipment and landing of merchandise cannot make use of other jetties than those specified above.

When ready to discharge cargo, the consignee must send to the customs an application in Chinese and English, giving full particulars of the cargo to be discharged, when he will be furnished with a permit to insure his consignment from the ship by which imported, and to place the same in a cargo boat. The cargo boat must then repair to one of the authorised jetties, in order that the goods may be examined and assessed for duty. A customs 'memo.' will thereupon be issued, to be taken to the bank by the consignee, who, upon payment of the duty therein noted, will be supplied with a 'duty receipt:' upon the presentation at the office of customs of the duty receipt, a duty-paid order will be issued. The goods imported may be removed from the customs jetty, and placed in the merchants' godown.

In the case of goods to be shipped, the shipper must send to one of the authorised jetties for examination, with an application in Chinese and English for a permit to ship, containing all necessary particulars. The goods will then be examined, and a customs memo. issued, and on the production at the office of the 'duty receipt,' a 'duty-paid order' will be issued authorising the shipment.

Cargo for which a shipment permit has been issued, but which cannot be received on board, must be brought to one of the authorised jetties for examination before being relanded.

No transhipment can take place without special written permission.

Drawback exemption, or coast-trade duty certificates will be issued simultaneously with the permit for the shipment of goods covered by them; exemption or coast-trade duty certificates for goods imported must be presented simultaneously with the consignee's application for the permit to land.

Before application is made for the 'customs clearance,' the export manifest must be handed in. All dues and duties having been paid, the clearance will be issued.

Cargo boats must be registered at the customs, and must have their respective numbers conspicuously painted on them in English and Chinese characters. No cargo can be transhipped, shipped, or landed, without special permission, except in duly registered cargo boats.

For further particulars on the trade, &c. of Amoy, see Dr. Williams's *Chinese Commercial Guide* (1863) and Messrs. Mayers, Dennys, and Kings' *Treaty Ports of China and Japan* (1867). Both these works are published at Shanghae.

AMSTERDAM. The principal city of Holland, situated on the Y, an arm of the Zuyder Zee, in lat. 52° 22′ 17″ N., long. 4° 53′ 15″ E. From 1580 to 1750, Amsterdam was, perhaps, the first commercial city of Europe; and though her trade has experienced a great falling off since the last-mentioned epoch, it is still very considerable. In 1785, the population is said to have amounted to 235,000; in 1815 it had declined to 180,179; but in December 1863 it had risen, according to the *Almanach de Gotha*, to 266,679. The harbour is spacious and the water deep; and it has recently been much improved by the construction of docks, two of which are already completed, and a third in a very advanced state. Owing, however, to a bank (the Pampus) where the Y joins the Zuyder Zee, large vessels going or coming by that sea are obliged to load and unload a part of their cargoes in the roads. The navigation of the Zuyder Zee is also, by reason of its numerous shallows, very intricate and difficult; and as there were no hopes of remedying this defect, it became necessary to resort to other means for improving the access to the port. Of the various plans suggested for this purpose, the preference was given to the scheme for cutting a canal capable of admitting the largest class of merchantmen, from the north side of the port of Amsterdam to Newdiep, opposite to the Texel, and a little to the east of the Helter. This canal has fully answered the views of the projectors, and has proved of signal service to Amsterdam, by enabling large ships to avoid the Pampus, as well as the difficult navigation of the Zuyder Zee, where they were frequently detained for three weeks, and to get to and from Newdiep without any sort of risk in less than 24 hours. The canal was begun in 1819, and completed in 1825. It has 5 sluices large enough to admit ships of the line; the dues and charges on account of towing, &c. being at the same time very moderate. At Newdiep the water is deeper than in any other port on the coast of Holland, and ships are there in the most favourable position for getting expeditiously to sea. This canal having been found insufficient in depth of water for large steamers, it was resolved to make a more direct communication between Amsterdam and the North Sea at Wky aau Zee, by draining a portion of the river Y, and cutting a canal through the sandhills. This was begun by the Amsterdam Canal Company in 1865, and its completion is expected in about seven years. [CANALS.] The imports principally consist of sugar, coffee, spices, tobacco, cotton, tea, indigo, cochineal, wine and brandy, wool, grain of all sorts, timber, pitch and tar, hemp and flax, iron, hides, linen, cotton and woollen stuffs, hardware, rock salt, tin plates, coal, dried fish, &c. The exports consist partly of the produce of Holland, partly and principally of the produce of her possessions in the East and West Indies, and other tropical countries, and partly of commodities brought to Amsterdam, as to a convenient *entrepôt* from different parts of Europe. Of the first class are cheese and butter (very important articles), madder, clover, rape, hemp, and linseeds, rape and linseed oils, Dutch linen, &c. Geneva is principally exported from Schiedam and Rotterdam; oak bark and cattle principally from the latter. Of the second class are spices, coffee, and sugar, principally from Java, but partly also from Surinam, Brazil, and Cuba; indigo, cochineal, cotton, tea, tobacco, and all sorts of Eastern and colonial products. And of the third class, all kinds of grain, linens from Germany, timber and all sorts of Baltic produce; Spanish, German, and English wools; French, Rhenish, and Hungarian wines, brandy, &c. The trade of Amsterdam may, indeed, be said to comprise

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every article that enters into the commerce of Europe. Her merchants were formerly the most extensive dealers in bills of exchange, and though London be now, in this respect, far superior to Amsterdam, the latter still enjoys a respectable share of this business.

The Bank of the Netherlands was established at Amsterdam in 1814. It is not, like the old Bank of Amsterdam, which ceased in 1796, merely a bank of deposit, but a bank of deposit and circulation formed on the model of the Bank of England. Its capital, which originally amounted to 5,000,000 fl., was doubled in 1819. It has the exclusive privilege of issuing notes. Its original charter, which was limited to 25 years, was prolonged in 1838 for 25 years more, and again in 1863 for an additional period of 25 years.

Public Works.—Many steps have been taken for the important project of cutting a canal through the narrowest part of North Holland for the purpose of having a shorter and more direct communication between Amsterdam and the North Sea. The great difficulty from first to last has been to convince capitalists of the feasibility of the undertaking.

Happily in the latter end of November 1864, after much exertion, the required sum was subscribed.

On August 16, 1857, a permanent exhibition building (Palace of Industry) was opened in the city with great ceremony.

It is contemplated to enlarge Amsterdam, as the population has been of late on the increase. Unlike most European towns, it has no suburbs, and is girded around by a canal, the overstepping of which has been dreaded on account of polder malaria. As house-rent is exorbitant, the proposed enlargement would be a great boon. New hotels have been designed on the principle now adopted in other parts of the continent, and one has been commenced. The present establishments are anything but good. As Holland is about the most heavily taxed country in Europe, the cost of living is high, and to the inhabitants of a city like Amsterdam it is more so through the local or town dues. The duty on coal and turf was excessive, and, though recently reduced, calls still for reduction. The duties on other articles of consumption are proportionately high, excepting colonial produce, such as tea, coffee, sugar &c. coming from the Netherlands East Indian possessions, and Dutch tobacco, the only really cheap article in Holland.

The average rate of wages for carpenters, masons, painters, plumbers &c. is about 2*s.* per day of nine hours in summer, and 1*s.* 6*d.* per day of seven hours in winter.

The rate of exchange on London during 1864 has varied from 11 florins 68 cents to 11 florins 95 cents, and for bills at two months from 11 florins 53 cents to 11 florins 77 cents per 1*l.* sterling.

The *Almanach de Gotha* gives the population, on the 31st of December 1863, as 266,679.

For an account of the Dutch fisheries, see the arts. Herring Fishery and Whale Fishery.

About 311 ships with a tonnage of 115,440 belong to Amsterdam; they are employed in the East and West India trades, and in trading to the Baltic, the Mediterranean &c. There is comparatively little coasting trade at Amsterdam, the communication with most other ports in the vicinity being principally kept up by canals, and that with Friesland by regular packets.

There belonged to Holland on January 1, 1865, 1,837 ships, of the aggregate burden of 388,684 tons, ex river craft and small coasters.

The total imports into Holland in 1863 were estimated at 442,438,906 florins, and the exports at 374,730,947. The United Kingdom, the German Customs Union, Belgium, Java, France, and Russia, are the countries with which she carries on the most extensive trade.

Dutch Commercial Policy.—The policy of Holland, civil, religious, and commercial, has long been of the most liberal and enlightened description (see *post*); and she was the first country to follow the example we set in repealing the navigation laws in 1849. The Dutch law on this subject was passed in 1850. Previously to that period discriminating duties were imposed on most articles imported on foreign bottoms; and also on those imported by foreigners into Java and her other colonies. But these preferences no longer exist. The following is an extract from the law relative to these matters:—

Differential duties are abolished on the vessels of those states which

a. Place the Dutch flag on the same footing with their national flag trading to and from their own ports (coasting trade and fisheries excepted);

b. Which place the Dutch flag on the same footing with their national flag trading to and from their colonies, if they possess any; and

c. Which do not levy other differential duties to the disadvantage of the produce of the Netherland colonies, or to the prejudice of produce imported from other parts of the world, from Netherland ports, than those which are levied in favour of the produce of their own colonies, when imported direct.

The fisheries and the coasting trade of Holland and of her colonies are reserved to Dutch ships. But it is no longer necessary that the latter should be of Dutch build. Foreign-built ships have, however, to pay on being registered an ad valorem duty of 2 per cent. over and above the fee charged on the registration of Dutch-built ships. Several important reductions were at the same time made in the tariff of import duties.

The navigation dues or tolls that were formerly charged on vessels or goods passing through Holland by the Rhine and the Yssel, and transit duties of kinds, have also been repealed. And though it may be said, and truly, that these wise and liberal measures will be much more advantageous to the Dutch than to any other people, still they are of the greatest importance to all commercial nations, and especially to those who, like ourselves, have an extensive intercourse with them.

We are glad to have to state that this liberal policy has in Holland, as in England, had its appropriate reward. Commerce has been largely extended. The mercantile marine is in a highly prosperous state, and is daily receiving large additions. Many Dutch ships have latterly been chartered by English merchants.

Besides these exports, a considerable amount of foreign and colonial produce is exported by Great Britain to Holland. During the years 1861–5, these amounted to 4,554,830*l.*, 4,594,861*l.*, 6,339,322*l.*, 7,168,223*l.*, and 6,823,196*l.*, respectively. Of these commodities the largest in value was cotton, representing on an average two-fifths of the whole amount. Coffee, indigo, oils, ice, silk, wool, and seeds were also considerable objects of trade. Tea is also becoming an important article of export from Great Britain to Holland.

The greater portion, however, of the trade between the United Kingdom and Holland is carried on with Rotterdam, which is much more conveniently situated for such intercourse than Amsterdam. But the latter continues to engross by far the larger share of the commerce with the flourishing colony of Java and the other Dutch

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Account of Quantities and Values of the principal Articles, the Growth and Produce of Great Britain and Ireland, exported from the United Kingdom to the Netherlands during the 5 years ending with 1865

Principal and Other Articles		Quantities					Declared Real Value				
		1861	1862	1863	1864	1865	1861	1862	1863	1864	1865
							£	£	£	£	£
Alkali, soda	cwt.	136,891	154,149	167,957	165,915	173,111	46,635	47,829	49,323	55,535	65,948
Apparel and haberdashery	val.	—	—	—	—	—	76,960	76,840	76,624	89,719	102,193
Coals, cinders, & culm	tons	209,923	254,311	216,202	211,352	257,602	111,698	106,932	92,735	104,329	108,669
Copper, wrought and unwrought	cwt.	26,480	20,467	41,698	52,852	45,224	130,168	93,279	181,731	154,613	199,266
Cotton yarn	lbs.	37,576,580	18,595,427	11,213,155	13,113,916	20,853,690	2,075,120	1,246,758	1,179,185	1,585,027	2,055,216
Cottons, entered by the yard	yds.	37,700,094	26,366,371	15,498,101	17,399,180	28,140,778	692,170	515,228	456,264	536,480	784,951
Cottons, entered at val.	val.	—	—	—	—	—	41,040	74,919	63,571	76,770	74,865
Drugs and chemical products	,,	—	—	—	—	—	19,170	39,584	40,558	55,505	42,720
Earthenware and porcelain	,,	—	—	—	—	—	22,510	20,112	22,705	21,812	22,222
Grease	cwt.	1,817	7,640	5,513	4,558	4,701	2,994	11,046	7,768	5,590	6,007
Hardwaresandcutlery, unenumerated	,,	20,171	13,422	16,585	14,355	15,650	92,423	74,060	90,455	85,551	69,662
Iron, wrought and unwrought	tons	93,436	127,575	97,041	88,510	135,585	518,813	675,925	533,038	548,340	741,794
Jute yarn	cwt.	38,151	33,450	28,567	24,802	24,773	45,227	39,650	48,705	41,987	36,813
Lead and shot	tons	144	126	147	135	32	3,086	2,512	3,207	3,522	784
Leather, wrought and unwrought	val.	—	—	—	—	—	90,117	76,534	66,910	66,565	72,333
Linen yarn	lbs.	2,817,567	3,656,092	3,812,507	3,688,771	4,165,551	142,924	187,315	253,345	273,871	255,196
Linens, entered by the yard	yds.	1,875,949	2,191,643	1,173,529	724,498	632,530	41,346	51,784	37,304	36,131	30,572
Linens, entered at val.	val.	—	—	—	—	—	13,721	15,609	17,638	19,582	20,069
Machinery:											
Steam engines	,,	—	—	—	—	—	13,166	21,954	51,646	57,066	121,000
All other sorts	,,	—	—	—	—	—	219,033	162,905	163,835	207,170	228,594
Oil, seed	gals.	1,168,704	1,111,610	654,362	1,203,568	1,718,457	140,717	136,321	107,114	170,723	231,107
Painters' colours (not otherwise described)	val.	—	—	—	—	—	25,095	22,862	13,884	12,198	14,175
Salt	tons	24,743	26,001	25,617	23,220	21,215	10,000	8,742	8,861	8,420	6,321
Silk, yarn	lbs.	65,205	150,578	118,773	109,492	73,780	80,260	94,149	76,106	72,357	60,529
,, thrown	,,	176,519	284,531	214,887	180,151	151,708	165,095	314,192	210,612	208,082	174,727
,, manufactures	val.	—	—	—	—	—	50,275	51,110	37,075	30,124	30,811
Tin plates	,,	—	—	—	—	—	20,056	21,501	22,875	32,935	26,734
Wool, sheep and lambs'	lbs.	452,143	678,486	725,675	659,957	745,811	52,850	55,161	58,876	57,419	67,059
Woollen and worsted yarn	,,	5,866,536	5,610,205	7,285,709	7,069,297	7,983,446	647,982	790,127	1,218,405	1,571,821	1,273,353
Woollens, entered by the yard (including those formerly entered by the piece)	yds.	7,781,175	7,864,111	8,623,661	8,180,719	8,747,966	452,505	477,840	527,977	511,854	577,440
Woollens, entered at value		—	—	—	—	—	3,782	11,382	7,696	8,040	12,947
All other articles	,,	—	—	—	—	—	424,854	490,771	574,669	580,667	649,330
Total		—	—	—	—	—	6,451,219	6,016,212	6,521,696	6,884,955	8,137,753

possessions in the East; and is, consequently, the principal continental mart for Eastern produce.

The following is a memorandum of expenses on a ship of 360 register, or about 400 Dutch tons, drawing 12 feet English, or 36 palms, from and to the East Indies, with a full cargo, inwards and outwards,

	fl.	cts.
Pilotage from sea to Nieuwediep (in winter 45 fl. 20 cts.)	33	60
Nieuwediep to Amsterdam	18	60
Steamboat entering Nieuwediep (if used)	42	
through the North Holland canal, 45 cents per ton	180	
Inward clearance at Nieuwediep	4	
Nieuwediep harbour dues, 1¾ cents per ton and regulations	7	40
Inward canal dues, 20 cents per ton	80	
Measurement and measure bill	14	30
Inward lights and beacons, 20 cents per ton	80	
	fl.	cts.
Outward lights and beacons, 10 cents per ton	40	
Custom house officers for clearance	15	
Dock and sluice dues, 13 cents per ton	52	
Harbour master	1	50
Outward canal dues, 12 cents per ton	48	
Pilotage from Amsterdam to Nieuwediep	18	60
Nieuwediep to sea (in winter 22fl. 60ct.)	19	60
Steamboat from Amsterdam to Nieuwediep	180	
Nieuwediep to sea	65	
Outward clearance at Nieuwediep	5	
Nieuwediep harbour dues	7	30
Noting and extending protest	27	
Attendance of custom house officers during lading	40	
Petty expenses, stamps, permits, &c.	15	
Steamboat service across the river	48	
Total	1,011	90

Equivalent to about 87*l.* at 12 fl. per *l.*

Ships are also towed by horses through the canal, which is far cheaper, but the wear and tear of ropes make the steamer preferable.

If a ship clear in ballast, and does not draw more than 9½ or 10 feet water, she can depart through the Zuyder Zee, and in that case her expenses from Amsterdam to sea would amount to about 4*l.* or 5*l.* Ballast costs in Amsterdam 70 cents per ton, and 15 to 20 cents per ton for putting it on board.

Taking in ballast whilst in the canal, and putting it on board, cost 50 cents per ton.

Loading and stowing a general cargo cost from 55 to 60 cents per ton; discharging the same, from 35 to 40 cents per ton.

Ships laden from Great Britain, the Baltic, and north of the Canaries pay 9½ cents per ton for lights and beacons, and 3 cents per ton outward bound; ships in ballast pay half of the dues for lights and beacons, and half of the canal dues inward and outward bound, and in these two instances (when laden and in ballast) the clearance at the custom-house is reduced to 3 fls.

Ships laden with timber or coals pay only half of the canal dues, and 8 cents per ton for dock and sluice dues, and half the towage dues across the river.

Pilotage is likewise a little less when steam tugs are employed.

No ships are exempted from pilotage.

Quarantine.—The quarantine station is at the island of Wierengen, near the Helder.

Commission.—The usual rate of the commission or factorage on the purchase or sale of goods is 2 per cent., and on bill transactions ½ and ¾ per cent. according to their nature.

Provisions of all sorts are abundant at Amsterdam, and reasonably cheap. The wages of ships' carpenters vary from 1 flor. 20 cents to 1 flor. 80 cents; that is, from about 2*s.* to 3*s.* a day.

For an account of the corn trade of Amsterdam, see CORN TRADE AND CORN LAWS.

Custom-house Regulations.—Captains of ships are bound to make, within 24 hours of their arrival at Amsterdam, or any Dutch port, a declaration in writing of the goods of which their cargo consists. If the captains be not acquainted with the goods of which the cargo consists, they must make their declaration under the general term of *merchandise*, and exhibit the bills of lading along with the declaration. The custom-house officers are instructed to inform the captains of almost all formalities required by law.

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Account of the Quantities and Computed Values of the Principal Articles Imported from the Netherlands into the United Kingdom during each of the 5 Years ending with 1865.

Principal and Other Articles	Quantities					Computed Real Value				
	1861	1862	1863	1864	1865	1861	1862	1863	1864	1865
						£	£	£	£	£
Animals: Oxen and bulls no.	19,363	18,551	43,276	77,838	68,744	348,741	312,933	696,563	1,283,979	1,308,305
Cows and calves ,,	31,667	29,631	44,881	68,185	68,191	243,475	165,897	282,620	596,217	534,118
Sheep and lambs ,,	198,877	209,970	225,145	261,206	323,272	436,802	407,178	583,375	471,105	791,595
Swine and hogs ,,	23,353	16,562	14,890	41,581	40,895	29,190	15,761	29,735	100,665	125,103
Arms: swords, bayonets, cannons, muskets, &c. value	—	—	—	—	—	44,216	43,801	21,812	26,138	19,087
Bacon - - - cwts.	5,103	872	1,518	1,261	6,690	2,854	2,142	3,303	3,473	21,181
Bark, for tanners' or dyers' use - - - - ,,	44,363	55,160	47,278	49,802	52,971	15,618	17,361	13,674	16,277	18,398
Bones of animals and fish (except whale fins) - tons	3,908	3,510	3,084	2,797	3,475	19,006	18,952	16,140	16,310	19,486
Bran and Pollard - cwts.	96,516	68,165	93,715	52,963	121,190	24,129	17,041	23,429	13,242	30,373
Butter - - - - ,,	367,994	312,610	295,118	336,221	345,020	1,822,597	1,558,111	1,370,816	1,774,462	1,586,485
Candles, stearine - - ,,	2,599	2,082	3,349	10,902	13,790	12,517	10,080	32,608	40,589	49,725
Caoutchouc - - - ,,	797	4,209	3,683	1,472	3,070	5,573	52,496	26,595	9,226	22,292
Cheese - - - - ,,	316,059	298,387	321,015	336,851	386,962	809,258	688,542	831,036	881,972	1,100,037
Clocks - - - - no.	48,141	40,758	51,381	55,787	25,192	12,509	9,011	10,725	11,463	8,719
Corn: Wheat - - cwts.	48,451	8,493	11,002	14,511	49,240	31,976	5,270	5,540	6,530	22,647
Barley - - ,,	105,715	46,189	85,636	13,176	30,749	51,323	18,875	32,212	4,782	12,066
Oats - - - ,,	516,115	496,119	356,668	298,414	721,071	129,222	166,420	120,420	97,545	253,489
Peas and beans - ,,	24,295	20,437	30,322	34,179	92,560	11,147	8,248	11,640	13,177	37,514
Other kinds of corn and grain - - ,,		(Not computed).			48	9	25	40	—	19
Cotton: Raw - - - ,,	8,307	6,337	1,047	761	2,926	41,008	31,141	11,294	10,634	29,169
Manufactures value	—	—	—	—	—	89,020	143,665	184,292	165,758	174,043
Yarn and cotton yarn waste - lbs.	591,233	579,143	601,200	593,253	604,647	72,407	48,007	52,048	84,641	85,954
Fish (except eels) - cwts.	55,502	58,039	50,124	55,912	52,535	19,407	23,108	23,967	29,607	33,468
eels - - - - ,,	11,958	11,430	9,596	11,890	13,090	35,814	34,290	28,188	35,670	39,270
Flax: Dressed - - ,,	16,322	13,067	26,830	22,812	14,821	67,761	56,784	130,238	108,022	65,274
Rough or undressed ,,	80,579	98,271	90,354	130,855	139,663	298,919	360,257	374,829	524,861	512,533
Tow and codilla of ,,	17,703	28,162	18,681	21,358	15,203	40,719	71,156	51,723	58,800	35,842
Flower roots - - value	—	—	—	—	—	19,193	21,353	24,918	27,100	26,355
Fruit, raw, unenumerated ,,	—	—	—	—	—	25,053	30,939	35,195	42,808	41,386
Garancine - - cwts.	15,559	12,972	13,942	15,264	14,449	105,264	85,434	96,896	106,848	101,143
Gutta percha - - - ,,	343	1,736	875	1,579	4,682	3,650	18,130	8,763	13,737	25,828
Hair: cow, ox, bull, or elk - - - - ,,	2,701	5,124	4,853	9,342	7,501	12,829	14,600	22,877	45,639	36,767
Hides: not tanned - - ,,	7,285	13,856	22,706	29,433	44,916	22,841	33,368	63,499	89,573	111,623
tanned, tawed, curried, or dressed lbs.	493,780	544,988	652,190	587,246	603,775	133,093	147,829	138,473	115,509	96,209
Hops - - - - cwts.	17,044	8,161	9,789	9,518	4,593	64,067	41,795	47,161	60,155	32,867
Iron: steel, unwrought - tons	323	216	1,814	4,282	1,994	6,057	3,380	29,570	69,687	29,833
Iron and steel, wrought or manufactured - value	—	—	—	—	—	40,815	33,265	47,431	82,247	89,092
Lead, pig or sheet - - tons	496	437	1,573	1,865	2,446	9,520	8,574	30,679	36,984	46,862
Madder - - - cwts.	6,512	6,896	13,508	9,215	8,416	14,992	15,557	29,944	20,736	18,936
Root - - - ,,	840	134	8,267	5,808	362	1,848	268	16,514	7,616	724
Manganese, Ore of - - tons	7,703	9,625	12,331	32,795	22,528	25,705	33,687	52,408	114,786	78,848
Nutmegs - - - - lbs.	35,283	133,148	218,220	324,622	432,691	1,841	7,131	9,160	16,593	22,465
Oil, Seed - - - - tons	1,672	3,167	3,122	1,292	4,074	74,262	155,012	134,867	54,487	190,856
Paper and pasteboard cwts.	12,392	40,972	31,903	35,547	41,617	34,652	74,724	71,291	100,546	61,664
Potatoes - - - - ,,	28,435	195,070	140,025	134,512	139,632	8,946	70,371	44,152	54,120	36,551
Potato flour - - - ,,	5,321	11,332	37,075	42,425	47,445	5,699	8,499	26,722	28,888	32,064
Seeds: Carraway - - ,,	9,224	6,744	11,722	8,212	13,507	14,317	10,116	14,702	10,212	17,299
Clover - - ,,	10,184	7,139	6,101	14,055	6,541	26,752	18,909	16,094	37,791	22,269
Linseed and Flax-seed - - qrs.	9,832	19,045	10,239	39,181	19,791	26,539	57,093	31,786	114,043	61,985
Mustard - - cwts.	13,406	15,563	25,184	14,352	29,486	14,512	15,206	18,582	14,247	29,710
Seeds of other sorts - value	—	—	—	—	—	43,711	28,103	40,801	33,215	45,566
Silk: Raw - - - lbs.	21,522	37,835	36,647	19,550	46,121	29,064	52,518	46,216	27,420	89,152
Waste, knubs, and husks - - cwts.	576	981	740	125	89	9,038	14,853	8,288	1,649	1,847
Thrown - - - lbs.	13,950	6,652	7,040	5,416	2,797	23,785	11,017	11,057	9,185	5,846
Manufactures: stuffs and ribbons - - ,,	18,961	42,135	63,101	61,332	85,857	47,934	108,514	147,988	147,026	207,998
Manufactures: unenumerated - value	—	—	—	—	—	9,533	16,772	25,663	74,975	57,153
Spelter or zinc - - - tons	2,677	3,172	3,550	3,278	3,672	60,626	68,291	75,815	79,820	86,132
Spirits: Geneva - galls.	145,561	134,865	187,517	207,376	207,165	14,682	14,011	18,246	19,175	17,760
Sugar: Unrefined - cwts.	25,492	72,071	2,020	16,102	34,581	29,988	83,039	2,459	22,467	42,020
Refined, and candy ,,	134,095	158,295	119,195	563,764	502,101	236,255	270,753	207,981	1,003,232	790,591
Tea - - - - - lbs.	635,808	240,073	42,568	224,238	554,544	50,778	19,333	3,319	17,161	47,458
Tin - - - - cwts.	9,199	12,572	12,449	29,529	10,191	56,160	73,337	77,948	149,659	48,762
Tobacco, unmanufactured lbs.	7,899,288	8,651,421	7,785,921	6,050,109	6,347,851	272,728	358,363	363,390	275,299	375,534
Toys - - - - value	—	—	—	—	—	19,088	19,139	20,395	29,853	30,219
Ultramarine - - cwts.	14,151	13,821	14,141	12,772	15,637	62,574	59,652	58,645	49,823	59,534
Wine - - - galls.	281,620	314,235	363,857	410,341	466,952	152,782	133,423	154,972	176,830	205,027
Wood hoops - - loads	4,652	4,982	6,002	7,152	8,139	27,912	29,890	36,011	46,460	56,299
Wool, sheep and lambs' lbs.	268,775	329,902	572,912	744,591	406,136	23,802	30,503	50,133	70,286	39,105
Woollen rags torn up to be used as wool - - ,,	3,338,160	3,821,888	4,922,960	4,524,464	3,818,640	55,636	63,698	90,494	100,293	80,352
Woollen manufactures value	—	—	—	—	—	62,944	60,368	91,306	114,504	119,893
Yeast, dried - - cwts.	87,469	97,612	99,766	108,704	105,727	176,844	195,224	200,855	218,480	213,388
All other articles - value	—	—	—	—	—	810,967	949,531	1,129,678	1,363,162	1,351,896
Total - -	—	—	—	—	—	7,692,895	7,863,031	8,661,119	11,660,180	12,413,404

The *warehousing system* has been long established in Amsterdam; and all goods, whether for home consumption or transit, may be deposited in bonded warehouses. Speaking generally, goods can only be kept in bonded warehouses for 2 years: but grain of all kinds may be kept for an unlimited period. The warehouse rent chargeable per month on a quarter of wheat is, on an upper loft, 1⅔*d.*; on an under loft 1½*d.* On a ton (Eng.) of sugar in casks the charge is 8*d.*; in bags, 6*d.*

The dock and its adjacent warehouses, belonging to the *Entrepôt Général*, or establishment for warehousing goods imported by sea or intended to be re-exported by sea or by the Rhine, are large and commodious. The dock has water to float the largest ships, and the dues and other charges are exceedingly moderate. Merchants may employ their own men or those of the dock in loading or unloading; and may either place their property in separate vaults or floors of which they keep the key, or entrust it to the care of the dock officers.

Dutch Trading Company, or *Netherlands Trading Society*, *Nederlandsche Handel Maasschappij*.—The general opinion as to the trade of the Dutch

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East Indian possessions being a government monopoly is erroneous. As landlord of the greater part of Java the Dutch government obtains a tare proportion and in some articles the whole of the produce of the crown lands. The whole of the government produce, except the very small portion sold in the island, is exclusively exported by the Netherlands Trading Society. This company having the monopoly of the export of the crown produce has been erroneously considered a government institution, but has had no concern in the government of the colony or any other connection with the state than as a mere agent of the Dutch government. It is in fact nothing but a chartered joint stock company with limited liability. It has its head office in Amsterdam and its principal factory in Batavia, with agencies at the chief-ports in Java, and in other parts of Netherland India.

The company was established at Amsterdam in 1824. Its original capital was 37,000,000 florins, or 3,000,000*l.* sterling. This capital was reduced in 1827 to 24,000,000 florins, and in 1835 to 23,000,000. The company's first charter was for a term of 25 years, and an interest of 4½ per cent. per annum was guaranteed by King William I. of Holland, who was himself one of the largest shareholders. The early adventures of the company appear not to have been successful. In 1827 part, and in 1830 the whole, of the guaranteed interest had to be paid by the King. It was in this year that the new Java culture system was introduced by General Van den Bosch, and from this period dates the prosperity of the company.

In return for the advances made by the society, the company was appointed the sole agent of the government in buying and importing into Java all government supplies, and in exporting the government produce from Java and selling it in Holland. (The above is abridged from ch. viii. vol. i. of Mr. Money's excellent work on *Java*.) [BATAVIA.]

An abridged and clearly defined tariff has long been wanting, and has at length been obtained. The law of August 15, 1862, unites the dispositions necessary for a tariff of duties, and all former laws are annulled.

The new tariff is so far distinct that almost all duties are made ad valorem. Only those articles are excepted which cannot be taxed as by measure, the duty on these being calculated so as not to surpass 5 per cent., the maximum fixed in the tariff. The articles not mentioned are duty free, and those articles which are not classed, but which are of use for manufacture, have to pay from 2 to 3 per cent. Only a few articles of luxury are higher charged. The 13 additional cents on the duty are abolished.

In the new tariff all the export-duties are repealed, except 5 guilders per 100 lbs. of rags. The fee for registering to naturalise foreign ships, before 4 per cent., is reduced to 2 per cent.

The difference of duties on importation of some tropical products from the Dutch colonies is annulled, likewise the distinction of flags, fixed by the law of August 8, 1850, relative to the navigation between the colonies and the Dutch harbours.

It is known that in 1850 the duty on transit was abolished. In 1851 (Law of September 2) the navigation taxes on the Maese were abolished; and a royal resolution of February 7, 1852, decreases the rates of pilotage. These liberal measures were followed by the suppression of the tonnage-taxes for sea-ships (Law of July 14, 1855).

The Dutch government also assimilates foreign ships with national ships, as well for direct as for indirect navigation. They have only to pay in Dutch harbours the common duty, for lighthouses, buoys, &c.

[The above has been taken from an English translation of the Dutch tariff published at the Hague in 1862, and the *London Gazette*.]

The following are the principal articles of the Netherlands Customs law above referred to:—

Art. 2.—No duty is to be paid on articles not mentioned in the tariff, except that they could be classed, according to their nature or destination, under one of the articles of merchandise mentioned in the list.

Art. 3.—No import-duty is to be paid on:

a. Merchandise, re-landed within two years from Dutch colonial possessions, after being exported from the Netherlands.

b. Merchandise of certified Dutch origin, re-landed within two years, after being exported to foreign markets.

c. Merchandise re-landed, after being exported from the Netherlands to places where they cannot be imported in consequence of prohibition or augmentation of import-duty, which could not be known when exported.

Art. 4.—When merchandise mentioned by Art. 3 is exported from the Netherlands, with drawback allowed, it cannot be re-landed before the drawback is repaid.

Art. 5.—No import-duty is to be paid on provisions and victuals for consumption on board of inward-bound ships, save merchandise are declared as such, and this must not surpass the quantity fixed by the Law.

When they exceed the fixed quantity, freedom of import-duty will be granted, when they are to be exported in the same ship. In this case they must remain, until the exportation, under the care of the custom-house.

These articles are free of excise.

Art. 6.—No import-duty is to be paid on:

a. Utensils and cordages belonging to and used on rafts of wood descending the rivers, save that this use must be duly stated by an inventory when imported;

b. Goods belonging to ambassadors of Foreign States in the Netherlands, but only for those States where the goods of Dutch ambassadors are also exempted from duty;

c. Carriages wherewith Dutchmen return from a journey, or wherewith foreigners enter the country to make a journey;

d. Luggage for the use of travellers;

e. Furniture in use;

g. Empty bags, barrels, baskets, and objects used for the transport of merchandise when exported;

Art. 8.—For the calculation of the import-duty, the parts of the pound, the litre, the cubic ell or the florin, shall be counted for the whole.

Fractions of cents are counted for whole cents.

Art. 9.—The import-duty is at least five cents for every declaration, however trifling the quantity or value may be.

Art. 10.—For merchandise, of which the tare is not fixed by the tariff, the following tare may be subtracted from the gross weight:

a. For merchandise packed in barrels, or wooden boxes, fifteen per cent.;

b. For merchandise packed in leather, mats, baskets, canisters, linen, or such objects, eight per cent.

Art. 11.—When the importers are not content with the tare, as fixed by the preceding article, then they may pay the import-duty of the net weight, which shall be determined by the custom-officers at the expense of the importers.

Art. 12.—When there is a great number of barrels, casks, baskets, canisters, bales or packets

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of the same size and sort, then the tare may be determined by weighing the empty objects, which shall be indicated by the custom-officer. The tare shall be fixed then according to the result.

Art. 13.—When ad-valorem goods are packed with those whereof duty is to be paid according to the weight, then the net weight can be determined by the custom-officers at the expense of the importer.

Art. 14.—For the determination of the import-duty for liquids which do not pay excises, the following deduction will be allowed for leakage.

a. When imported by sea, from the harbours of the North Sea and Baltic, of France, Portugal and Spain, from this side of the Strait of Gibraltar six per cent.; *b.* when imported from elsewhere twelve per cent.

Art. 15.—When the importer is not content with the deduction as fixed by the preceding article, he may pay duty for the real quantity, to be determined at his own expense.

Art. 16.—When liquids which do not pay excise, and which are charged according to the measure, are imported by land or by the rivers, no deduction will be allowed.

The duty is to be paid for the whole contents of barrels, except when the importer should prefer to have the real contents determined by the custom-officers, at his own expense.

Art. 19.—Importations prohibited are:

a. Reprints of books, the copyright of which exists in the Netherlands or in foreign states with which they have concluded copyright treaties.

b. Copper coin and plates for copper coin.

Copper-plates for coin, however, may be imported for the use of the mint, by paying the import duty as fixed by the tariff for beaten copper, leaves or plates.

Art. 20.—An export duty of 5 guilders per 100 lbs. shall be paid on linen and cotton rags, including old useless paper, torn or not, linen and cotton, worn clothes of linen and cotton, sold by weight, likewise pulp for paper, and all those objects when they are mixed with woollen rags.

An export duty of 5 guilders 50 cents per 100 lbs. shall be paid on unmixed woollen rags.

The following is the Royal resolution of October 6, 1862, for the execution of the Law of August 15, 1862, concerning the freedom of import-duty for ships' victuals and provisions.

Art. 1.—The quantity of ship-victuals and provisions for the consumption on inward-bound ships, which are, according to Art. 5 of the said Law, free of import duty or excises, is fixed:

a. For sailing-ships arriving along sea-side or by the rivers and for rafts per head of the crew: 5 ounces salt, 1 litre wine, ¼ litre spirits, 2 litres beer, 5 ounces soap, ½ litre vinegar, 5 ounces sugar, 10 pounds pit-coals, 1 pound meat.

b. For every sea and river-steamer at once: 5 pounds salt, 10 litres wine, 20 litres beer, 5 pounds soap, 3 litres vinegar, 5 pounds sugar, 20 pounds meat, 5 pounds pit-coals per horse-power of the engine and per hour distance from the first office or the first expedition-office till the unloading place;

c. For other goods, which are imported by sailing-vessels, steamers, or rafts, at a quantity whereof the duty is no more than one guilder.

Art. 2.—The captain has to give a declaration at the first office of the quantity and sort of the victuals and provisions which are on board, with indication of the barrels, chests, and other packages.

Art. 3.—The captain has the disposal of the quantity of victuals and provisions, as said by Art. 1.

Art. 4.—When the victuals or provisions surpass the quantity fixed by Art. 1, then the custom-officers may apply such measures, either by mentioning on the general declaration, or by guarding or sealing, that the arrival on the unloading-place is secured.

When the goods arrive along the rivers, and no general declaration is made, then the captain is obliged to follow the prescriptions as fixed by Art. 1 of this resolution for the surpassing quantity. In that case shall be mentioned on the documents that those goods belong to victuals or provisions.

Art. 5.—The captain when arrived on the unloading place is obliged to put the victuals and provisions which he has not at his disposal, under the management of the custom-officers. The goods can be sealed by them on board of the ship or in bond, till they are exported again. When this cannot be done the captain is obliged to submit the goods to the usual formalities of the in and export or transito.

Art. 6.—This resolution takes effect on the 1st November 1862.

The business of insurance is extensively practised at Amsterdam: the premiums are moderate, and the security unexceptionable. The high duty formerly imposed in this country on policies of insurance contributed to the increase of this business in Holland.

Credit, Discount, &c.—The credit allowed on most articles is 3 months; some articles, however, are always sold for ready money; a discount is generally given in prompt payments; but the terms of credit on most articles and the discount allowed for ready money have been fixed by usage, and are regarded as essential conditions in every bargain. Some of the more important of these terms and discounts are specified in the following table. In consequence of the preference given in Holland to ready-money transactions, it is not a country in which adventurers without capital have much chance of speedily making a fortune. 'Rien, en effet, de plus facile que de s'établir à Amsterdam; mais *rien de plus difficile que s'y soutenir sans des grandes ressources.* Dans cette ville, où l'argent abonde, où on le prête contre des sûretés à si bon marché, *il est pourtant impossible de s'en procurer à crédit*; et sans argent il n'y a plus de possibilité d'y travailler, que de trouver quelqu'un qui veuille de se charger d'un papier nouveau qui ne seroit pas appuyé d'un crédit que l'opinion, la protection, ou des effets réels feroient valoir à la bourse. Les Hollandois suivent là-dessus des maximes très-austères, même à l'égard des maisons d'une certaine considération.' (*Encyclopédie Méthodique de Commerce*, t. ii. p. 650.) But this *austerity* is not a disadvantage, but the reverse. It prevents commerce from degenerating, as it has too often done in other places, into gambling adventures, and puts it on a comparatively solid foundation. And it should be mentioned to the honour of the Dutch, and as a proof of the excellence of this system, that notwithstanding the distress and loss of trade occasioned by the invasion and occupation of their country by the French, the bankruptcies in 1795 and subsequent years were not, comparatively, so numerous as in England in ordinary seasons! The regulations in the Code Napoléon as to bankruptcy are enforced in Holland.

It has long been the practice in Holland to make, on selling articles, considerable deductions from their weight, particularly from those of large bulk, as compared with their value. These tares and drafts, as they are termed, are now fixed by ancient usage, and the most important amongst them are here specified.

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Tares and Allowances on the principal Articles sold at Amsterdam.

Articles	Tares and Allowances	Discount
Coffee	3 per cent.	cash 1 per cent.; Neth. Trading Comp., 1½ per cent.
Rice: in bales	3 kilos. per bale, 1½ per cent, and 2 per cent.	2 per cent. and 1 per cent. for cash.
casks	2½ kilos. per cask, and 1·5 per cent.	ditto.
half casks	2½ kilos. per half cask, and 1·4 per cent.	ditto.
Tobacco: Maryland	nett weight, 1 per cent., 2 per cent., 3 per cent., and 8 per cent.	1 per cent. and 1 per cent. for cash.
Virginia	3 per cent.	ditto.
Kentucky	ditto	ditto.
Java	2 kilos. per bale	1 per cent. for cash.
other kinds	according to agreement	
Butter: Friesland	7 kilos. per firkin	none.
N. & S. Holland	8 kilos. per firkin, and 4½ kilos. per half firkin	none.
Cheese: Gouda and Leyden	1 per cent.	1 per cent for cash.
Edam	2 per cent.	ditto.
Cocoa	3 per cent.	ditto.
Indigo	1 per cent. and 2 per cent.	ditto.
Cochineal	real tare	2 per cent. and 1½ per cent. for cash.
Pastic	12 kilos. per mille, 2 per cent. and 3 per cent.	2 per cent. and 1 per cent. for cash.
Logwood	ditto	ditto.
Gums	real tare, 1 per cent. and 2 per cent.	ditto.
Madder	real tare, and 5 kilos. per cask. Casks are charged in account at about 5s. each	ditto.
Raw sugar: casks	15 per cent.	1½ per cent. for cash.
cases	18 per cent.	ditto.
mats	8 per cent.	ditto.
bags	ditto	ditto.
baskets	1 per cent. and 1·2 per cent.	1 per cent. and 1½ per cent. for cash.
Molasses	1 per cent., 2 per cent., and 18 per cent.	2 per cent. and 1 per cent. for cash.
Tin plates	—	1 per cent. for cash.
Herrings	—	ditto.
Cotton: Surat, Bengal, American, and Surinam	6 per cent.	ditto.
Japan and Chinese	nett weight	ditto.
Gin	—	cash.
Flax	—	ditto.
Hemp	2 per cent.	1 per cent. and 1 per cent for cash.
Liquorice	nett tare, 1 kilo. for rope, and 1 per cent.	2 per cent., 1 per cent., and 1 per cent. for cash.
Pepper	5 kilos. per bale	2 per cent. for cash.
Cinnamon	1½ kilos per bale, and 1 per cent.	1½ per cent. for cash.
Cloves, pimento, mace, and nutmegs	nett weight	ditto.
Ginger	9½ kilos. per case	1 per cent. for cash.
Saltpetre	nett weight and 1 per cent.	2 per cent., 1 per cent., and 1 per cent. for cash.
Wool: Cape	3 per cent.	1 per cent.
Buenos Ayres	6 kilos. per bale	ditto.
Kurrachee	4½ per cent.	ditto.

The above are the customary tares and other allowances made by the merchants in their transactions with each other. But in paying the import-duties at the custom-house, the tare upon goods paying duty by weight is, with the exception undermentioned, fixed at 15 per cent. for such as are in casks or cases made of wood, and at 8 per cent. for such as are in packages, canisters, mats, baskets, leather, linen, &c.

Exception: Tea.—Of ordinary tea-chests weighing 55 kilos or more, 18 per cent.; ordinary tea-chests weighing less than 55 kilos, 25 per cent.

In case the importers are not satisfied with the tare fixed as above by the law of 1862, they can pay the duty according to the nett weight of the goods, in such a way as it shall be settled by the custom-house authorities, at the expense of the importers.

In case there are a great number of casks, cases, or packages of the same kind and size, the tare can be fixed by weighing a part of the empty casks &c., to be pointed out by the custom-house officers, and the tare for the whole quantity will then be reckoned according to the average weight.

When goods on which the duty is to be paid according to their weight, are packed together with goods taxed according to their value, the nett weight of the first can be taken by the custom-house officers at the expense of the importers.

For all liquids free or excisable, rated by the measure, on importation by sea, a reduction is granted for leakage as follows:—

Coming from ports in the North and Baltic Sea, France, Portugal, and Spain on this side of the Straits of Gibraltar, 6 per cent.; from other ports, 12 per cent.

If the importers think that this reduction for leakage is insufficient, or if they should assert a claim to a reduction in those cases in which the law does not grant it, they will be at liberty to pay duty according to the actual quantity, which is to be determined by the custom-house officers at the expense of the importers.

Money.—Accounts are kept in *guldens* and *cents*, of which 5 cents are equivalent to 1 *stiver*, and 100 cents, or 20 stivers, to 1 gulden or florin. The florin is equal to 1s. 8*d*. sterling par of exchange. Generally speaking, however, the rate of exchange is below par, varying from 11 florins 65 cents to 11·95. The coins in circulation are the *rijksdaalder*, or 250 cents, the *gulden*, or 100 cents, the *halve gulden*, or 50 cents, the *kwart gulden*, or 25 cents, the *dubbeltje*, or 10 cents, the *stuiver*, or 5 cents, the *cent* and the *halve cent*, all of which are of silver excepting the two last named, which are of copper. The bank notes in circulation are those of 1,000, 300, 200, 100, 60, 50, 40, 25 and 10 gulden. There is no gold coinage. Formerly gold and a great variety of silver coins were in circulation, but these have been called in.

Weights and Measures.—In 1820 the French system of weights and measures was introduced into the Netherlands, the names only being changed.

The *pond* is the unit of weight, and answers to the French *kilogramme*. Its divisions are the ons, lood, wigtje, and korrel. 1·015 kilogrammes, or Netherlands' lbs., are equal to 2·240 English lbs., or 50¾ kilogrammes are equal to 1 cwt.

The *elle*, which is the unit or element of long measure, equals the French *mètre*. Its decimal divisions are the palm, duim, and streep; and its decimal multiples, the roede and mijle.

The *vierkante elle*, or square ell, is the unit of superficial measure; and answers to the *centiare* or *mètre carré* of France. Its divisions are the vierkante palm, vierkante duim, and the vierkante streep; and its multiples, the vierkante roede and vierkante bunder.

The *kubieke elle* is the unit of measures or capacity; and equals the French *stère*. Its divisions are the kubieke palm, kubieke duim, and kubieke streep.

The term *wisse* is given to a kubieke elle of firewood.

The *kop* is the unit of measures for dry wares, and is the cube of the palm; answering to the French *litre*. Its division is the maatje, and its multiples the schepel and mudde; the latter is also called the *zak*, and equals the French hectolitre. 30 mudden make 1 last.

The *kan* is the unit for liquid measure, and is the cube of the palm; it corresponds to the French *litre*. Its divisions are the maatje and vingerhoed, and 100 kans make a vat or cask, which equals the French hectolitre.

The apothecary's new lb. is 12 oz., 96 dr., 288 scr., or 5,760 gr.; and answers to 375 gram., or 5,787 English grains.

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By the old method of calculating, which is not yet entirely superseded, the lb. of Amsterdam was = to 1·09 lbs. avoirdupois, or 100 lbs. Amsterdam = 108·923 lbs. avoirdupois.

The *last* or measure for corn = 30 mudden = 10 11-40ths quarters Winchester measure. The *aam* 1 quid measure = 4 ankers = 8 steckans = 21 viertels = 64 stoops or stoppen = 281 mingles = 256 pints = 41 English wine gallons.

The stoop contains 5⅛ pints English measure.

100 mingles are equal to 32 English wine gallons, or 26 1-5th English beer gallons, or 26¾ imperial gallons.

French wine is sold per hogshead of 180 mingles.
Spanish and Portuguese wine per pipe of - - - - - - 349 ditto.
French brandy, per hogshead of - 30 viertels.
Beer, per barrel (equal to the aam) of - - - - - - - 128 mingles.
Vegetable oils, per aam, of - - 120 ditto.
Whale oil, per ditto - - 16 ditto.

Rum is sold per *anker* of 2 steckan = 10¼ English wine gallons.

The foot of Amsterdam = 11 1-7th English inches.
The Rhineland foot = 12 ditto.
The ell, cloth measure = 27 1-12th ditto.

Rock salt is sold per hondert of 404 maaten, making 20 tons, or 4,000 lbs. Dutch.

Pit coal is sold per hoed of 38 maaten; 9 hoeds are 5 chaldrons of Newcastle, or 6 hoeds are 5 chaldrons of London.

Butter is sold per barrel; the barrel of Leyden is 320 lbs. nett—that of Friesland 28 lbs. nett—and the common Dutch barrel 336 lbs. gross.

A *last of herrings* is reckoned at 12, 13, or 14 barrels.

A *last of pitch* is 12 barrels.

A *last of tar*, 13 barrels.

A bag of seed = 2½ Winchester quarters.

8 hogsheads (or oxhofts) of wine 12 barrels of pitch 13 barrels of tar 20 chests of lemons, &c. 4,000 lbs. of iron, copper, and colonial produce 4,000 lbs. of almonds 2,000 lbs. of wool or feathers	are reckoned as one last in settling the freight of ships.

A last of wheat is considered 10 per cent. higher than one of rye, and the latter 20½ per cent. higher than oats, and 12 per cent. higher than seed. A last of ballast is only 2,000 lbs.—These details have been derived from the answers by the British consul to the circular queries; the *Dictionnaire du Commerce* (*Ency. Méthod.*), tom. ii. pp. 554–650; Kelly's *Cambist, private information, &c.*

A last for freight is 2,000 kilogrammes, equivalent to about 1 ton, 19 cwts. 1 qr. 18 lbs. English.

According to the tariff of the Netherlands' Trading Company the last, in settling freights from the Netherlands' East Indies, varies as follows:—

For		it equals	kilos.
	Arrack		
	Cochineal	,,	1,500
	Sugar	,,	2,000
	Coffee, in bags	,,	1,800
	Coffee, old in bags	,,	1,650
	Coffee, in casks	,,	1,550
	Coffee, sweepings	,,	2,000
	Mace	,,	1,200
	Copper	,,	2,000
	Turmeric root	,,	1,800
	Cloves	,,	1,000
	Nutmegs, unsound	,,	1,320
	Nutmegs, sound	,,	1,500
	Nutmeg soap	,,	1,500
	Mother of pearl	,,	2,000
	Pepper	,,	1,500

For		it equals	kilos.
	Gum benzoin		1,250
	Gum copal	,,	1,500
	Gold dust	,,	2,000
	Gutta percha	,,	1,100
	India rubber	,,	1,400
	Hemp	,,	900
	Hides	,,	1,300
	Indigo	,,	1,500
	Camphor	,,	1,100
	Cinnamon	,,	950
	Rice	,,	2,000
	Sago	,,	1,500
	Tortoise shell	,,	1,000
	Tobacco	,,	800
	Tea, Java	,,	950
	Tin	,,	2,000
	Flax	,,	900
	Wax	,,	1,000
	Wool	,,	650

Magnitude of the Commerce of Holland in the Seventeenth Century: Causes of its Prosperity and Decline.—We believe we need make no apology for embracing this opportunity to lay before our readers the following details with respect to the commerce and commercial policy of Holland. It forms one of the most instructive topics of investigation; and it is to be regretted that so little attention should have been paid to it in this country.

Previously to the commencement of the long-continued and glorious struggle made by the Dutch to emancipate themselves from the blind and brutal despotism of Old Spain, they had a considerable marine, and had attained to distinction by their fisheries and commerce; and the war, instead of being injurious to the trade of the republic, contributed powerfully to its extension. After the capture of Antwerp by the Spaniards, in 1585, the extensive commerce of which it had been the centre was removed to the ports of Holland, and principally to Amsterdam, which then attained to the distinction she long enjoyed, of the first commercial city of Europe.

In 1602 the Dutch East India Company was formed; and notwithstanding the pernicious influence of that association, the Indian trade increased rapidly in magnitude and importance. Ships fitted either for commercial or warlike purposes, and having a considerable number of soldiers on board, were sent out within a few years of the establishment of the company. Amboyna and the Moluccas were first wrested from the Portuguese, and with them the Dutch obtained the monopoly of the spice trade. Factories and fortifications were in no long time established, from Bussorah, near the mouth of the Tigris, in the Persian Gulf, along the coasts and islands of India as far as Japan. Alliances were formed with several of the Indian princes; and in many parts, particularly on the coasts of Ceylon, and in various districts of Malabar and Coromandel, they were themselves the sovereigns. Batavia, in the large and fertile island of Java, the greater part of which had been conquered by the Dutch, formed the centre of their Indian commerce; and though unhealthy, its port was excellent, and it was admirably situated for commanding the trade of the Eastern Archipelago. In 1651 they planted a colony at the Cape of Good Hope, which had been strangely neglected by the Portuguese.

Every branch of commerce was vigorously prosecuted by the Dutch. Their trade with the Baltic was, however, by far the most extensive and lucrative of which they were in possession. Guicciardini mentions that the trade with Poland, Denmark, Prussia, &c., even before their revolt was so very great, that fleets of 300 ships arrived twice a year at Amsterdam from Dantzic and Livonia only; but it increased prodigiously during the latter part of the sixteenth and the beginning of the seventeenth centuries. The great population of Holland, and the limited extent and unfruitful nature of the soil, render the inhabitants dependent on foreigners for the greater part of their supplies of corn. The countries round the Baltic have always furnished them with the principal of those supplies; and it is from them that they have been in the habit of bringing timber, iron, hemp and flax, pitch and tar, tallow, ashes, and other bulky articles required in the building of their houses and ships, and in various manufactures. Nothing, however, redounds so much to the credit of the Dutch, as the policy they have invariably followed with respect to the trade in corn. They have, at all times, had a

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large capital embarked in this business. The variations which are perpetually occurring in the harvests, early led them to engage very extensively in a sort of speculative corn trade. When the crops happened to be unusually productive, and prices low, they bought and stored up large quantities of grain, in the expectation of profiting by the advance that was sure to take place on the occurrence of an unfavourable year. Repeated efforts were made, in periods when prices were rising, to prevail on the government to prohibit exportation; but they steadily refused to interfere. In consequence of this enlightened policy, Holland has long been the most important European *entrepôt* for corn; and her markets have on all occasions been furnished with the most abundant supplies. Those scarcities which are so very disastrous in countries without commerce, or where the trade in corn is subjected to fetters and restraints, have not only been totally unknown in Holland, but became a copious source of wealth to her merchants, who then obtained a ready and advantageous vent for the supplies accumulated in their warehouses. 'Amsterdam,' says Sir Walter Raleigh, 'is never without 700,000 quarters of corn, none of it of the growth of Holland; and a dearth of only one year in any other part of Europe enriches Holland for seven years. In the course of a year and a half, during a scarcity in England, there were carried away from the ports of Southampton, Bristol, and Exeter alone, nearly 200,000*l.*; and if London and the rest of England be included, there must have been 2,000,000*l.* more.' (*Observations touching Trade and Commerce with the Hollander*, Miscel. Works, vol. ii.)

The very well-informed author of the *Richesse de la Hollande*, published in 1778, observes in allusion to these circumstances, 'Que la disette de grains règne dans les quatre parties du monde; vous trouverez du froment, du seigle, et d'autres grains à Amsterdam; *ils n'y manquent jamais.*' (Tome i. p. 376.)

The Bank of Amsterdam was founded in 1609. The principal object of this establishment was to obviate the inconvenience and uncertainty arising from the circulation of the coins imported into Amsterdam from all parts of the world. The merchants who carried coin or bullion to the Bank obtained credit for an equal value in its books: this was called bank-money; and all considerable payments were effected by writing it off from the account of one individual to that of another. This establishment continued to flourish till the invasion of the French in 1795.

Between the years 1651 and 1672, when the territories of the republic were invaded by the French, the commerce of Holland seems to have reached its greatest height. De Witt estimates its increase from the treaty with Spain, concluded at Munster in 1643, to 1669, at fully a half. He adds, that during the war with Holland, Spain lost the greater part of her naval power; that since the peace, the Dutch had obtained most of the trade to that country, which had been previously carried on by the Hanseatic merchants and the English; that almost all the coasting trade of Spain was carried on by Dutch shipping; that Spain had even been forced to hire Dutch ships to sail to her American possessions; and that so great was the exportation of goods from Holland to Spain, that all the merchandise brought from the Spanish West Indies was not sufficient to make returns for them.

At this period, indeed, the Dutch engrossed, not by means of any artificial monopoly, but by the greater number of their ships, and their superior skill and economy in all that regarded navigation, almost the whole carrying trade of Europe. The value of the goods exported from France in Dutch bottoms, towards the middle of the fourteenth century, exceeded 40,000,000 livres; and the commerce of England with the Low Countries was, for a very long period, almost entirely carried on in them.

The business of marine insurance was largely and successfully prosecuted at Amsterdam; and the ordinances published in 1551, 1563, and 1570 contain the most judicious regulations for the settlement of such disputes as might arise in conducting this difficult but highly useful business. It is singular, however, notwithstanding the sagacity of the Dutch, and their desire to strengthen industrious habits, that they should have prohibited insurance upon lives. It was reserved for England to show the advantages that might be derived from this beautiful application of the science of probabilities.

In 1690 Sir William Petty estimated the shipping of Europe at about 2,000,000 tons, which he supposed to be distributed as follows: viz. England, 500,000; France, 100,000; Hamburg, Denmark, Sweden, and Dantzic, 250,000; Spain, Portugal, and Italy, 250,000; that of the Seven United Provinces amounting according to him, to 900,000 tons, or to nearly one half of the whole tonnage of Europe! No great dependence can, of course, be placed upon these estimates; but the probability is, that, had they been more accurate, the preponderance in favour of Holland would have been greater than it appears to be; for the official returns to the circulars addressed in 1701 by the commissioners of customs to the officers at the different ports, show that the whole mercantile navy of England amounted at that period to only 261,222 tons, carrying 27,196 men. (Macpherson's *Annals of Commerce*, anno 1701.)

It may, therefore, be fairly concluded that during the seventeenth century the foreign commerce and navigation of Holland was greater than that of all Europe besides; and yet the country which was the seat of this vast commerce had no native produce to export, nor even a piece of timber fit for ship-building. All had been the fruit of industry, economy, and a fortunate combination of circumstances.

Holland owed this vast commerce to a variety of causes: partly to her peculiar situation, the industry and economy of her inhabitants, the comparatively liberal and enlightened system of civil as well as of commercial policy adopted by the republic; and partly also to the wars and disturbances that prevailed in most European countries in the sixteenth and seventeenth centuries, and prevented them from emulating the successful career of the Dutch.

The ascendency of Holland as a commercial state began to decline from about the commencement of last century. After the war terminated by the treaty of Aix-la-Chapelle, the attention of the government of Holland was forcibly attracted to the state of the shipping and foreign commerce of the republic. The discovery of the means by which their decline might be arrested, and the trade of the republic, if possible, restored to its ancient flourishing condition, became a prominent object in the speculations of everyone who felt interested in the public welfare. In order to procure the most correct information on the subject, the Stadtholder, William IV., addressed the following queries to all the most extensive and intelligent merchants, desiring them to favour him with their answers:—

'1. What is the actual state of trade? And if

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the same should be found to be diminished and fallen to decay, then, 2. To enquire by what methods the same may be supported and advanced, or, if possible, restored to its former lustre, repute, and dignity?'

In discussing these questions, the merchants were obliged to enter into an examination, as well of the causes which had raised the commerce of Holland to the high pitch of prosperity to which it had once attained, as of those which had occasioned its subsequent decline. It is stated that, though not of the same opinion upon all points, they, speaking generally, concurred as to those that were most important. When their answers had been obtained, and compared with each other, the Stadtholder had a dissertation prepared from them, and other authentic sources, on the commerce of the republic, to which proposals were subjoined for its amendment. Some of the principles advanced in this dissertation apply to the case of Holland only; but most of them are of universal application, and are not more comprehensive than sound. We doubt, indeed, whether the benefits resulting from religious toleration, political liberty, the security of property, and the freedom of industry, have ever been more clearly set forth than in this dissertation. It begins by an enumeration of the causes which contributed to advance the commerce of the republic to its former unexampled prosperity: these the authors divide into three classes, embracing under the first those that were natural and physical; under the second, those they denominated moral; and under the third, those which they considered adventitious and external; remarking on them in succession as follows:—

'I. The natural and physical causes are the advantages of the situation of the country on the sea and at the mouth of considerable rivers; its situation between the northern and southern parts, which, by being in a manner the centre of all Europe, made the republic become the general market, where the merchants on both sides used to bring their superfluous commodities, in order to barter and exchange the same for other goods they wanted.

'Nor have the barrenness of the country, and the necessities of the natives arising from that cause, less contributed to set them upon exerting all their application, industry, and utmost stretch of genius, to fetch from foreign countries what they stand in need of in their own, and to support themselves by trade.

'The abundance of fish in the neighbouring seas put them in a condition not only to supply their own occasions, but with the overplus to carry on a trade with foreigners, and out of the produce of the fishery to find an equivalent for what they wanted, through the sterility and narrow boundaries and extent of their own country.

'II. Among the moral and political causes are to be placed, the unalterable maxim and fundamental law relating to the free exercise of different religions; and always to consider this toleration and connivance as the most effectual means to draw foreigners from adjacent countries to settle and reside here, and so become instrumental to the peopling of these provinces.

'The constant policy of the republic to make this country a perpetual, safe, and secure asylum for any persecuted and oppressed strangers. No alliance, no treaty, no regard for or solicitation of any potentate whatever, has at any time been able to weaken or destroy this law, or make the state recede from protecting those who have fled to it for their own security and self-preservation.

'Throughout the whole course of all the persecutions and oppressions that have occurred in other countries, the steady adherence of the republic to this fundamental law has been the cause that many people have not only fled hither for refuge, with their whole stock in ready cash and their most valuable effects, but have also settled, and established many trades, fabrics, manufactories, arts, and sciences in this country, notwithstanding the first materials for the said fabrics and manufactories were almost wholly wanting in it, and not to be procured but at a great expense from foreign parts.

'The constitution of our form of government, and the liberty thus accruing to the citizen, are further reasons to which the growth of trade, and its establishment in the republic, may fairly be ascribed; and all her policy and laws are put upon such an equitable footing, that neither life, estates, nor dignities depend on the caprice or arbitrary power of any single individual; nor is there any room for any person, who, by care, frugality, and diligence, has once acquired an affluent fortune or estate, to fear a deprivation of them by any act of violence, oppression, or injustice.

'The administration of justice in the country has, in like manner, always been clear and impartial, and without distinction of superior or inferior rank, whether the parties have been rich or poor, or were this a foreigner and that a native; and it were greatly to be wished we could at this day boast of such impartial quickness and despatch in all our legal processes, considering how great an influence it has on trade.

'To sum up all, amongst the moral and political causes of the former flourishing state of trade may be likewise placed the wisdom and prudence of the administration, the intrepid firmness of the councils, the faithfulness with which treaties and engagements were wont to be fulfilled and ratified, and particularly the care and caution practised to preserve tranquillity and peace, and to decline instead of entering on a scene of war, merely to gratify the ambitious views of gaining fruitless or imaginary conquests.

'By these moral and political maxims were the glory and reputation of the republic so far spread, and foreigners animated to place so great a confidence in the steady determinations of a state so wisely and prudently conducted, that a concourse of them stocked this country with an augmentation of inhabitants and useful hands, whereby its trade and opulence were from time to time increased.

'III. Amongst the adventitious and external causes of the rise and flourishing state of our trade may be reckoned—

'That at the time when the best and wisest maxims were adopted in the republic as the means of making trade flourish, they were neglected in almost all other countries; and anyone reading the history of those times may easily discover that the persecutions on account of religion, throughout Spain, Brabant, Flanders, and many other states and kingdoms, have powerfully promoted the establishment of commerce in the republic.

'To this happy result, and the settling of manufacturers in our country, the long continuance of the civil wars in France, which were afterwards carried on in Germany, England, and divers other parts, has also very much contributed.

'It must be added, in the last place, that during our most burdensome and heavy wars with Spain and Portugal (however ruinous that period was for commerce otherwise), these powers had both neglected their navy; whilst the navy of the re-

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public, by a conduct directly the reverse, was at the same time formidable, and in a capacity not only to protect the trade of its own subjects, but to annoy and crush that of their enemies in all quarters.' (The Dissertation was translated into English, and published at London in 1751. We have quoted from the translation.)

We believe our readers will agree with us in thinking that these statements reflect the greatest credit on the merchants and government of Holland. Nothing, as it appears to us, could be conceived more judicious than the account they give of the causes which principally contributed to render Holland a great commercial commonwealth. The central situation of the country, its command of some of the principal inlets to the Continent, and the necessity under which the inhabitants have been placed, in consequence of the barrenness of the soil and its liability to be overflowed, to exert all their industry and enterprise, are circumstances that seem to be in a great degree peculiar in Holland. But though there can be no doubt that their influence has been very considerable, no one will pretend to say that it is to be compared for a moment with the influence of those free institutions which, fortunately, are not the exclusive attributes of any particular country, but have flourished in Phœnicia, Greece, England, and America, as well as in Holland.

Many dissertations have been written to account for the decline of the commerce of Holland. But, if we mistake not, its leading causes may be classed under two prominent heads: viz. first, the natural growth of commerce and navigation in other countries; and, second, the weight of taxation at home. During the period when the republic rose to great eminence as a commercial state, England, France, and Spain, distracted by civil and religious dissensions, or engrossed wholly by schemes of foreign conquest, were unable to apply their energies to the cultivation of commerce, or to withstand the competition of so industrious a people as the Dutch. They, therefore, were under the necessity of allowing the greater part of their foreign, and even of their coasting trade, to be carried on in Dutch bottoms, and under the superintendence of Dutch factors. But after the accession of Louis XIV. and the ascendency of Cromwell had put an end to internal commotions in France and England, the energies of these two great nations began to be directed to pursuits of which the Dutch had hitherto enjoyed almost a monopoly. It was not to be supposed that when tranquillity and a regular system of government had been established in France and England, their active and enterprising inhabitants would submit to see one of their most valuable branches of industry in the hands of the foreigners. The Dutch ceased to be the carriers of Europe, without any fault of their own. Their performance of that function necessarily terminated as soon as other nations became possessed of a mercantile marine, and were able to do for themselves what had previously been done for them by their neighbours.

Whatever, therefore, might have been the condition of Holland in other respects, the natural advance of rival nations must inevitably have stripped her of a large portion of the commerce she once possessed. But the progress of decline seems to have been considerably accelerated, or rather, perhaps, the efforts to arrest it were rendered ineffectual, by the extremely heavy taxation to which she was subjected, occasioned by the unavoidable expenses incurred in the revolutionary struggle with Spain, and the subsequent wars with France and England. The necessities of the state led to the imposition of taxes on corn, on flour when it was ground at the mill, and on bread when it came from the oven; on butter, and fish, and fruit; on income and legacies; the sale of houses; and, in short, almost every article of either necessity or convenience. Sir William Temple mentions that in his time—and taxes were greatly increased afterwards—one fish sauce was in common use, which directly paid no fewer than *thirty* different duties of excise; and it was a common saying at Amsterdam, that every dish of fish brought to table was paid for *once* to the fisherman, and *six* times to the state.

The pernicious influence of this heavy taxation has been ably set forth by the author of the *Richesse de la Hollande*, and other well-informed writers; and it has also been very forcibly pointed out in the Dissertation already referred to, drawn up from the communications of the Dutch merchants. 'Oppressive taxes,' it is there stated, 'must be placed at the head of all the causes that have co-operated to the prejudice and discouragement of trade; and it may be justly said, that it can only be attributed to them that the trade of this country has been diverted out of its channel and transferred to our neighbours, and must daily be still more and more alienated and shut out from us, unless the progress thereof be stopped by some quick and effectual remedy: nor is it difficult to see, from these contemplations on the state of our trade, that the same will be effected by no other means than a *diminution of all duties*.

'In former times this was reckoned the only trading state in Europe; and foreigners were content to pay the taxes, as well on the goods they brought hither, as on those they came here to buy; without examining whether they could evade or save them, by fetching the goods from the places where they were produced, and carrying others to the places where they were consumed: in short, they paid us our taxes with pleasure, without any further enquiry.

'But, since the last century, the system of trade is altered all over Europe: foreign nations, seeing the wonderful effect of our trade, and to what an eminence we had risen only by means thereof, they did likewise apply themselves to it; and, to save our duties, sent their superfluous products beside our country, to the places where they are most consumed; and in return for the same, furnished themselves from the first hands with what they wanted.'

But, notwithstanding this authoritative exposition of the pernicious effects resulting from the excess of taxation, the necessary expenses of the state were so great as to render it impossible to make any sufficient reductions. And, with the exception of the transit trade carried on through the Rhine and Meuse, which is in a great measure independent of foreign competition, and the American trade, most of the other branches of the foreign trade of Holland, though still very considerable, continue in a comparatively depressed state.

In consequence principally of the oppressiveness of taxation, but partly, too, of the excessive accumulation of capital that had taken place, while the Dutch engrossed the carrying trade of Europe, profits in Holland were reduced towards the middle of the seventeenth century, and have ever since continued extremely low. This circumstance would of itself have sapped the foundations of her commercial greatness. Her capitalists, who could hardly expect to clear more than 2 or 3 per cent. of net profit by any sort of undertaking carried on

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at home, were tempted to vest their capital in other countries, and to speculate in loans to foreign governments. There are the best reasons for thinking that the Dutch were, until very lately, the largest creditors of any nation in Europe. It is impossible, indeed, to form any accurate estimate of what the sums owing them by foreigners previously to the late French war, or at present, may amount to; but there can be no doubt that at the former period the amount was immense, and that it is still very considerable. M. Demeunier (*Dictionnaire de l'Economie Politique*, tom. iii. p. 720) states the amount of capital lent by the Dutch to foreign governments, exclusive of the large sums lent to France during the American war, at *seventy-three* millions sterling. According to the author of the *Richesse de la Hollande* (ii. p. 292), the sums lent to France and England only, previously to 1778, amounted to 1,500,000 livres tournois, or 60,000,000*l.* sterling. And besides these, vast sums were lent to private individuals in foreign countries, both regularly as loans at interest, and in the shape of goods advanced at long credits. So great was the difficulty of finding an advantageous investment for money in Holland, that Sir William Temple mentions, that the payment of any part of the national debt was looked upon by the creditors as an evil of the first magnitude. 'They receive it,' says he, 'with tears, not knowing how to dispose of it to interest with such safety and ease.'

Among the subordinate causes which contributed to the decline of Dutch commerce, or which have, at all events, prevented its growth, we may reckon the circumstance of the commerce with India having been subjected to the trammels of monopoly. De Witt expresses his firm conviction, that the abolition of the East India Company would have added very greatly to the trade with the East; and no doubt can now remain in the mind of anyone, that such would have been the case. (For proofs of this, see the article on the commerce of Holland in the *Edinburgh Review*, No. CII., from which most of these statements have been taken.) The interference of the administration in regulating the mode in which some of the most important branches of industry should be carried on, seems also to have been exceedingly injurious. Every proceeding with respect to the herring fishery, for example, was regulated by the orders of government, carried into effect under the inspection of officers appointed for that purpose. Some of these regulations were exceedingly vexatious. The period when the fishery might begin was fixed at five minutes past twelve o'clock of the night of June 24! and the master and pilot of every vessel leaving Holland for the fishery were obliged to make oath that they would respect the regulation. The species of salt to be made use of in curing different sorts of herrings was also fixed by law; and there were endless regulations with respect to the size of the barrels, the number and thickness of the staves of which they were to be made; the gutting and packing of the herrings; the branding of the barrels, &c. &c. (*Histoire des Pêches &c. dans les Mers du Nord*, tom. i. ch. xxiv.) These regulations were intended to secure to the Hollanders that superiority which they had early attained in the fishery, and to prevent the reputation of their herrings from being injured by the bad faith of individuals. But their real effect was precisely the reverse of this. By tying up the fishers to a system of routine, they prevented them from making any improvements; while the facility of counterfeiting the public marks opened a much wider door to fraud than would have been opened had government wisely declined interfering in the matter.

In despite, however, of the East India monopoly, and the regulations now described, the commercial policy of Holland has been more liberal than that of any other nation. And in consequence, a country not more extensive than Wales, and naturally not more fertile, conquered, indeed, in great measure from the sea, from the irruptions of which it is defended by immense dykes, constructed and kept up at a vast expense, had accumulated a population of upwards of two millions; has maintained wars of unexampled duration with the most powerful monarchies: and, besides laying out immense sums in works of utility and ornament at home, has been enabled to lend hundreds of millions to foreigners. To those who consider what intelligence, industry, and perseverance have done for Holland, the ingenious epigram of Pitcairn will not appear extravagant:—

> Tellurem fecere Dii, sua littora Belgæ.
> Immensæque fuit molis uterque labor.
> Dii vacuo spersos glomerârunt æthere terras,
> Nil ubi quod captis possit obesse fuit.
> At Belgæ maris, et cœli, naturæque rerum
> Obstitit; obstantes hi domuêre Deos.

(*Selecta Poemata Pitcairni*, Edinburgi, 1727, p. 3. Though he has not copied, Pitcairn, no doubt, had in his recollection the famous epigram of Sannazarius on Venice: see the article on that city.)

During the occupation of Holland by the French, first as a dependent state, and subsequently as an integral part of the French empire, her foreign trade was almost entirely destroyed. Her colonies were successively conquered by England; and, in addition to the loss of her trade, she was burdened with fresh taxes. But such was the vast accumulated wealth of the Dutch, their prudence, and energy, that the influence of these adverse circumstances was far less injurious than could have been imagined; and, notwithstanding all the losses she had sustained, and the long interruption of her commercial pursuits, Holland continued, at her emancipation from the yoke of the French in 1814, to be the richest country in Europe! Java, the Moluccas, and most of her other colonies were then restored, and she is now in the enjoyment of a large foreign trade. Her connection with Belgium was an unfortunate one for both countries. The union was not agreeable to either party, and was injurious to Holland. Belgium was an agricultural and manufacturing country; and was inclined, in imitation of the French, to lay restrictions on the importation of most sorts of raw and manufactured produce. A policy of this sort was directly opposed to the interests and the ancient practice of the Dutch. But though their deputies prevented the restrictive system from being carried to the extent proposed by the Belgians, they were unable to prevent it from being carried on to an extent that materially affected the trade of Holland. Whatever, therefore, may be the consequences as to Belgium, there can be little doubt that the separation of the two divisions of the kingdom of the Netherlands will redound to the advantage of Holland. It must ever be for the interest of England, America, and all trading nations, to maintain the independence of a state by whose means their productions find a ready access to the great continental markets. It is to be hoped that the Dutch, profiting by past experience, will adopt such a liberal and conciliatory system towards the natives of Java, as may enable them to avail themselves to the full of the various resources of that noble island. And if

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they do this, and freely open their ports, with as few restrictions as possible, to the ships and commodities of all countries, Holland may still be the centre of a very extensive commerce, and may continue to preserve a respectable place among mercantile nations. Even at this moment, after all the vicissitudes they have undergone, the Dutch are, beyond all question, the most opulent and industrious of European nations. And their present, no less than their former state, shows that a free system of government, security, and the absence of restrictions on industry, can overcome almost every obstacle; 'can convert the standing pool and lake into fat meadows, cover the barren rock with verdure, and make the desert smile with flowers.'

ANCHORAGE or ANCHORING GROUND. Good anchoring ground should neither be too hard nor too soft; for, in the first case, the anchor is apt not to take a sufficient hold, and in the other to drag. The best bottom is a stiff clay, and next to it a firm sand. In a rocky bottom the flukes of the anchor are sometimes torn away, and hempen cables are liable to chafe, and be cut through. It is also essential to a good anchorage that the water be neither too deep nor too shallow. When too deep, the pull of the cable, being nearly perpendicular, is apt to jerk the anchor out of the ground; and when too shallow, the ship is exposed to the danger, when riding in a storm, of striking the bottom. Where a ship is in water that is land-locked, and out of the tide, the nature of the ground is of comparatively little importance.

In most harbours and roadsteads the places where ships may anchor are pointed out, and all masters are bound, except when compelled by stress of weather to act otherwise, to obey the directions that may be given them in respect to anchoring by the harbour-master or other parties in authority. In some roadsteads a peculiar locality is appropriated for the use of Her Majesty's ships, and merchant ships are generally prohibited, under considerable penalties, from anchoring in such locality.

Anchorage also means a duty laid on ships for the use of the port or harbour.

ANCHORS AND CABLES (Fr. ancre; Lat. anchora; Gr. ἄγκυρα; Ger. anker; Span. ancla-ancora; Port. ancora; Ital. ancora). Are used in mooring ships. The common anchor consists of a *main piece* or *shank* crossed at the lower end by the *arms*, and at the upper end by the *stock*. The stock and the arms are placed at right angles to each other, and a *ring* is *shut* or riveted to the upper end of the stock. To this ring the cable is attached. This instrument is of great antiquity. The old Admiralty anchor differs but little from the anchor described by Pliny. *Swivel* anchors, such as Porter's and Trotman's, are of comparatively recent date.

Law and practice respecting anchors.—Every manufacturer of anchors shall, in case of each anchor which he manufactures, mark in legible characters on the crown and also on the shank under the stock his name and initials, with the addition of a progressive number and the weight of such anchor; and if he makes default in doing so he shall for each offence incur a penalty not exceeding 5*l*. (*Merchant Shipping Act*, 1845, s. 483.)

No ship is deemed seaworthy unless she be provided with suitable anchors and cables; and any deficiency in this respect has the same legal effect as if it were in the hull or rigging.

Vessels anchoring in a river or other narrow channel are bound to mark the situation of their anchors by buoys; for if they do not, and other vessels be injured by coming in contact with them, they will have to make good the damage.—(Abbott by Shee, p. 307, ed. 1854.)

When cables are cut or anchors cast away to avoid imminent danger, they become the subjects of general average.

The most important provisions of the Chain Cables and Anchors Act, 1864, 27 & 28 Vict. c. 27, are the following:

Sec. 2. Licenses to be granted by Board of Trade to persons called testers.

Sec. 7. Testers to subject such anchors, &c. to the same trials as those to which similar implements in the navy are put, and stamp them.

Sec. 8. Certain charges for the service.

Sec. 11. From July 1, 1865, anchors, &c. must be tested before sale. Penalty, 50*l*.

Sec. 12. Penalties on fraud not more than 2 years, with or without hard labour, or with or without solitary confinement.

The following are the general conditions to be complied with by owners of proving establishments in order to obtain licenses under the Act.

1. The machine shall be constructed to test not more than 15 fathoms at one time.

2. In hydraulic machines the cylinder shall be sufficiently long to allow of 15 fathoms of chain being tested without the necessity for taking a fresh hold to complete the strain.

3. The apparatus shall be provided with levers and dead weight sufficient to test the accuracy of the machine and the strain actually applied to the cable. In hydraulic machines these levers and dead weight shall range to 25 per cent. of the full power of the machine, and shall be fitted in addition to the gun metal plunger and pressure gauges ordinarily fitted. In other than hydraulic machines the levers and dead weight shall range to the full power of the machine.

4. In hydraulic machines an indicator shall be fitted to show the strain at which a chain breaks.

5. An examining bench of proper height shall be provided in a light place for the purpose of examining the chains after they are tested, and before they are blacked.

6. The machine shall be so arranged that the workmen employed at and near to it shall be in no danger from the fragments of links that fly about when a cable breaks.

7. Where there is more than one machine in an establishment, the whole of them must be licensed if one of them is.

Although the Board of Trade will not refuse to license any machine simply on account of the proportions of the levers and knife edges named below not being observed, they recommend that in all future machines those proportions should be adopted.

8. The leverage of the lever apparatus to be attached to hydraulic machines (referred to in paragraph 3 above) should not exceed the proportion of 100 to 1.

9. In the lever apparatus to be attached to hydraulic machines (referred to in paragraph 3 above) the distance between the two centres of each lever should not be less than 4 inches in machines for testing up to 100 tons, and not less than 8 inches in machines for testing up to 200 tons, and not less than 12 inches in machines for testing up to 300 tons.

10. The length of the knife edges should not be less than at the rate of one inch for every five tons of pressure upon them, and the form of the knife edge should be in conformity with a pattern approved by the Board of Trade.

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Scale of Proofs showing the Tensile Strain to which Chain Cables are subjected before being received for the use of her Majesty's Naval Service.

Diameter of Iron of Common Links	Common Links: Mean Length, 6 Diameters of the Iron; not to be over more than 1 10th of a Diameter	Common Links: Mean Width 3·6 Diameters of the Iron; not to be over or under more than 1-10th of a Diameter	Stay Pins. Weight of each not to exceed	Weight of 100 Fathoms of Cable in 8 Lengths, including 4 Swivels, and 8 Joining Shackles, not to be exceeded by more than 1-20th part.*			Weight by which to be proved equal to 650 lbs. per circular inch
inches	inches	inches	ozs.	Cwts.	qrs.	lbs.	tons
2⅞	16½	9·9	72	563	0	0	136½
2¾	15	9·0	54·69	500	0	0	112½
2⅝	14¼	8·55	47·5	270	3	0	101¼
2½	13½	8·1	40	243	0	0	91½
2⅜	12¾	7·65	33·384	216	3	0	81¾
2	12	7·2	28	192	0	0	72
1⅞	11¼	6·75	23	168	3	0	63¾
1¾	10½	6·3	18·76	147	0	0	55⅛
1⅝	9¾	5·85	15	126	3	0	47¼
1½	9	5·4	11·81	108	0	0	40½
1⅜	8¼	4·95	9	90	3	0	34
1⅜	7½	4·5	6·836	75	0	0	28⅛
1⅛	6¾	4·05	4·983	60	3	0	22½
1	6	3·6	3·5	48	0	0	18
⅞	5¼	3·15	2·344	36	3	0	13½
¾	4½	2·7	1·475	27	0	0	10⅛
11-16	4	2·475	1·137	22	2	21	8½
⅝	3¾	2·25	·854	18	3	0	7
9-16	3½	2·025	·622	15	0	21	5⅝
½	3	1·8	·437	12	0	0	4½
7-16	2⅝	1·575	·293	9	0	21	3⅜

* The tensile strain is applied to each of the 8 lengths separately, and not to the whole length of 100 fathoms at one time.

The law as to wrecked or cast-away anchors and cables, &c., is stated in the articles SALVAGE and WRECK, to which we beg to refer.

Scale of Proofs showing the Tensile Strain to which Anchors are subjected before being received for the use of her Majesty's Naval Service. Test of Anchors in Tons, proportioned to their Weight in Cwts.

Weight	Test	Weight	Test	Weight	Test	Weight	Test	Weight	Test
cwt.	tons	cwt.	tons	cwt.	tons	cwt.	tons	cwt.	tons
100	67¼	80	58½	60	48½	40	35½	20	20½
99	66½	79	58	59	47½	39	35	19	19½
98	66	78	57½	58	47	38	34½	18	19
97	66	77	57	57	46½	37	33½	17	18½
96	65½	76	56½	56	46	36	33	16	17½
95	65	75	56	55	45½	35	32	15	16½
94	65	74	55½	54	44½	34	31	14	15½
93	64½	73	55	53	44	33	30½	13	14½
92	64	72	54½	52	43½	32	30	12	13½
91	63½	71	54	51	43	31	29½	11	12½
90	63½	70	53½	50	42½	30	28½	10	12
89	62½	69	53	49	41½	29	27½	9	11½
88	62½	68	52½	48	41	28	27	8	10½
87	61½	67	52	47	40½	27	26	7	9½
86	61½	66	51½	46	39½	26	25	6	8½
85	61	65	51	45	39	25	24	5	7½
84	60½	64	50½	44	38½	24	23	4	6½
83	60	63	50	43	37½	23	22	3	5½
82	59½	62	49½	42	37	22	22	2	4½
81	59	61	48½	41	36½	21	21	1	3½

Note.—The strain is applied on the arm or on the palm at a spot which, measured from the extremity of the bill, is one-third of the distance between it and the centre of the crown.

It is worthy of remark that chain cables and anchors do not appear under the head of exports, and are consequently almost lost sight of as an article of manufacture exported in great quantities from this country. The anchor and cable manufacture represents a most important branch of British trade.

Lloyd's Table showing the Minimum Weights (ex. Stock) of Anchors of unobjectionable form and proportions; Sizes and Lengths of Chain Cables; and the Proof Strain to which they are to be tested; and Sizes and Lengths of Hawsers and Warps.

Ship's Tonnage	Anchors: Number: Bowers	Anchors: Number: Stream	Anchors: Number: Kedges	Anchors: Weight: Bowers * Ex. Stock	Anchors: Weight: Bowers * Admiralty Test	Anchors: Weight: Including Stock: Stream	Anchors: Weight: Including Stock: Kedge	Anchors: Weight: Including Stock: 2nd Kedge	Stud Chain Cables †: Minimum Size	Stud Chain Cables †: Proved to Admiralty Test	Stud Chain Cables †: Length	Hawsers and Warps: Stream: Chain	Hawsers and Warps: Stream: Rope	Hawsers and Warps: Hawser	Hawsers and Warps: Warp
tons				cwts.	tons	cwts.	cwts.	cwts.	inches ‡	tons	fathoms		inches	inches	inches
50	2	1	1	2¾	4 7-10	1	¾		11-16	8½	120	7-16	5	3	
75	2	1	1	3¾	5 2-10	1½	¾		12-16	10 1-10	120	7-16	5	3	
100	2	1	1	4¾	6 4-10	1¾	1		13-16	11 9-10	150	8-16	5½	3	
125	2	1	1	5½	7 6-10	2	1		14-16	13½	180	8-16	5½	3½	
150	2	1	1	6	8 2-10	2¼	1¼		15-16	15½	180	9-16	6	4	
175	2	1	1	7¼	9 5-10	2¾	1¼		1	18	180	9-16	6	4	
200	3	1	1	8¼	10 4-10	3	1½		1 1-16	20 3-10	180	10-16	6½	4	
250	3	1	2	10	12	4¼	2¼	1	1 2-16	22½	210	10-16	7	5	
300	3	1	2	12	13 9-10	5	2½	1¼	1 3-16	25½	210	11-16	7½	5½	
350	3	1	2	13½	15 2-10	6	3	1½	1 4-16	28 1-10	240	11-16	7½	5½	
400	3	1	2	15¼	16 7-10	6½	3¼	1½	1 5-16	31	240	12-16	8	6	
450	3	1	2	16¾	18	7	3½	1¾	1 6-16	34	270	12-16	8½	6½	
500	3	1	2	18	19	8	4	2	1 7-16	37 2-10	270	13-16	9	7	
600	3	1	2	21	21 6-10	9	4½	2¼	1 8-16	40½	270	13-16	9½	7	
700	3	1	2	23½	23 5-10	10	5	2½	1 9-16	44	300	14-16	10	8	
800	3	1	2	25¾	25 2-10	10½	5¼	2½	1 10-16	47½	300	14-16	10	8	
900	3	1	2	27¾	26 9-10	11	5½	2¾	1 11-16	51 2-10	300	15-16	10	9	
1,000	3	1	2	30	28 6-10	12	6	3	1 12-16	55 1-10	300	15-16	10	9	
1,200	3	1	2	32	30 1-10	13	6½	3¼	1 13-16	59 1-10	300	1	10	9½	
1,400	3	1	2	34	31 6-10	13½	6¾	3¼	1 14-16	63½	300	1	10	10	
1,600	3	1	2	36½	33 4-10	14	7	3½	1 15-16	67½	300	1 1-16	11	10½	
1,800	3	1	2	38	34 5-10	14½	7¼	3½	2	72	300	1 1-16	11	11	
2,000	4	1	2	40	35 7-10	15	7½	3¾	2 1-16	76½	300	1 2-16	11	11	
2,500	4	1	2	42	37 1-10	17	8½	4¼	2¼	81 3-10	330	1 2-16	12	12	
3,000	4	1	2	45	39 2-10	19	9½	4¾	2½	91 1-10	360	1 3-16	12	12	

The Length of them to be 90 fathoms each.

Mem.—For steamers the anchors and cables will not be required to exceed in weight and length those of a sailing vessel of two-thirds their total tonnage.

* Two of the bower anchors must not be less than the weight set forth above, but in the third a reduction of 15 per cent. will be allowed. All anchor stocks must be of acknowledged and approved description.

† Unstudded close-link chains of 1 inch in diameter and under, will be admitted as cables, if proved to two-thirds the test required for stud chains. But in all such cases a short length, not less than twelve links, must be tested up to the full strain for stud-link chains.

‡ In cases where parties are desirous of using or supplying chains of smaller size than is set forth above, a reduction will be allowed not exceeding 1-16th of an inch in chains of 1 inch to 1¼ inch diameter, and 1 8th of an inch in chains above 1¼ inch diameter, provided they be subjected to the Admiralty strain for the size for which they are to be substituted; and, further, that a few links, not less than twelve, to be selected by the tester, shall be proved to the breaking strain, and show a margin of at least 10 per cent. beyond the Admiralty proof for a chain of the full size required by the table.

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Table showing the correct proportions and dimensions of an Admiralty Anchor.

	Ft.	In.
Shank.		
Length	9	9¼
Size of Throat		8 3·8×7 7-16
Trend		7 11-16×6 13-16
Small		6¼×5¼
Square.		
Length	2	9¾
Size at the nuts		6 1-16×5 1-8
Hole from the end		4 1-8
Diameter of hole		3 5-8
Arms.		
Length	3	7½
Size of Throat		8 3·8×7 7-16
Small		6¼×5¼
Blades, size at Head of the palm		5 ×5¼
Point of the palm		2 7-16×3 5-16
Length of the point		3 7-8
Palms.		
Length	1	7
Breadth	1	5¼
Thickness close to the blade		1½
At the edge		1 3-16
Shackle.		
Diameter of Iron		3 5-16
Out to out	1	6¼

ANCHOVY (Fr. anchois; Ital. acciughe; Lat. encrasicolus). A small fish (*Clupea encrasicolus*, Lin.), common in the Mediterranean, resembling the sprat. Those brought from Gorgona in the Tuscan Sea are esteemed the best. They should be chosen small, fresh pickled, white outside and red within. Their backs should be round. The sardine, a fish which is flatter and larger than the anchovy, is frequently substituted for it. About 120,000 lbs. were entered for consumption in 1852. But being then subject to a duty of 2*s.* 10*d.* per lb., repealed in 1853, the imports have increased to 783,419 lbs. in 1865.

ANGELICA (Lat. *Archangelica officinalis*). A large umbelliferous plant, with hollow jointed stalks, of which there are several varieties. It grows wild, and is cultivated in moist places near London, and in most European countries from Lapland to Spain. Its roots are thick, fleshy, and resinous, have a fragrant agreeable smell, and a bitterish pungent taste, mixed with a pleasant sweetness glowing on the lips and palate for a long time after they have been chewed. To preserve them they must be thoroughly dried, and kept in closely stopped bottles. The other parts of the plant have the same taste and flavour as the roots, but in an inferior degree. The leaves and seeds do not retain their virtue when kept. The London confectioners make a sweetmeat of the tender stems. The faculty used to direct that none but the root of Spanish angelica should be kept by the druggists. In Norway the roots are sometimes used as bread, and in Iceland the stalks are eaten with butter. Here the plant is used only in confectionary and the materia medica. (Lewis's *Mat. Med.*; Rees's *Cyclopædia*, &c.)

A duty of 4*s.* per cwt. on angelica was repealed in 1845.

In Commerce, the wild angelica (*Angelica sylvestris*) is sometimes substituted for the cultivated variety, which has much more taste and odour.

ANILINE, formerly called Crystalline. A derivative from coal tar, largely used in the preparation of mauve and magenta dyes. It is a colourless oil-like liquid, of a strong odour and hot aromatic flavour. The value of the exports of aniline in 1865 was, however, but 1,914*l.* (Watt's *Dictionary of Chemistry*; Ure's *Dictionary of Manufactures.*)

ANISEED (Fr. anis; Ital. anise; Lat. anisum). A small seed of an oblong shape. It is cultivated in Germany, but the best comes from Alicant in Spain. It is also a product of China, whence it is exported. It should be chosen fresh, large, plump, newly dried, of a good smell, and a sweetish aromatic taste.

A duty of 5*s.* per cwt. on aniseed was repealed in 1845. In 1865, 2,257 cwts. were imported, the exports during the same year being 1,503 cwts.

ANISEED STARS (Fr. badiane; Chinese syn. tá hurie and páh-kioh, i.e. *eight horns*; the broken is known as páh-kioh-chá). This name is given to the fruit of a small evergreen tree, *Illicium anisatum*, which grows in Fuhkien and the neighbouring provinces, in Japan and the Philippines. They are prized for their aromatic taste resembling anise. The name of *star* is applied to them on account of the manner in which they grow, the pods being in small clusters formed together at one end and diverging in six or seven rays. The husks have a more aromatic flavour than the seeds, but are not so sweet. Those which are bruised or mouldy should be rejected. They are chiefly exported to England and the continent of Europe. The average value in China is 15 dollars per picul.

Oil of Aniseed (Chinese, páh-kioh-yú).—This is made by distilling the pods and seeds. A picul of the raw material produces about 7 catties of oil. It is put up in tin cases inclosed in wood, and exported chiefly to Europe and the United States. The average export is about 250 piculs annually, and the value 150 dollars per picul. It is used in perfumery, medicine, and confectionary. (Extracted from 6th edit. of Dr. Williams's *Chinese Guide*.)

ANKER. A liquid measure at Amsterdam. It contains about 10¾ gallons English wine measure.

ANNATTO or ARNATTO (Fr. rocou; Ger. orlean; Ital. oriana). A species of red dye formed of the pulp enveloping the seeds of the *bixa orellana*, a plant common in South America and the East and West Indies; but dye is made, at least to any extent, only in the first.

It is prepared by macerating the pods in boiling water, extracting the seeds, and leaving the pulp to subside; the fluid being subsequently drawn off, the residuum, with which oil is sometimes mixed up, is placed in shallow vessels and gradually dried in the shade. It is of two sorts, viz. *flag* or *cake*, and *roll* annatto. The first, which is by far the most important article in a commercial point of view, is furnished almost wholly by Cayenne. It is imported in square cakes, weighing 2 lbs. or 3 lbs. each, wrapped in banana leaves. When well made, it should be of a bright yellow colour, soft to the touch, and of a good consistence. It imparts a deep but not durable orange colour to silk and cotton, and is used for that purpose by the dyers. Roll annatto is principally brought from Brazil. The rolls are small, not exceeding 2 oz. or 3 oz. in weight; it is hard, dry, and compact, brownish on the outside, and of a beautiful red colour within. The latter is the best of all ingredients for the colouring of cheese and butter; and is now exclusively used for that purpose in all the British and in some of the continental dairies. In Gloucestershire it is the practice to allow 1 oz. of annatto to 1 cwt. of cheese; in Cheshire, 8 dwts. are reckoned sufficient for a cheese of 60 lbs. When genuine, it neither affects the taste nor the smell of cheese or butter. The Spanish Americans mix annatto with their chocolate, to which it gives a beautiful tint. (Gray's *Supplement to the Pharmacopœias*; Loudon's *Ency. of Agriculture*, and *Private Information.*)

Previously to 1832 the duty on flag annatto was 18*s.* 8*d.* a cwt., and on other sorts 5*l.* 12*s.* The duty was then reduced to 1*s.* a cwt. on the former

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and to 4*s.* on the latter, and was finally repealed in 1845.

In 1865, 3,647 cwts. were imported chiefly in the form of flag annatto. Of this the greater part came from France. The average value of roll was 4*l.* 5*s.*, of flag 8*l.* 3*s.* per cwt.; 722 cwts. were exported.

ANNUITIES. [Interest and Annuities.]

ANTIGUA. [Colony Trade; St. John's; Sugar.]

ANTIMONY (Ger. and Dutch spiesglas; Fr. antimoine; Ital. antimonio; Russ. antimonia; Lat. antimonium). A metal which, when pure, is of a greyish white colour, and has a good deal of brilliancy, showing a radiated fracture when broken; it is converted by exposure to heat and air into a white oxide, which sublimes in vapours.

It is found in Saxony and the Hartz, also in Cornwall, Spain, France, Mexico, Siberia, the Eastern Islands, and Martaban in Pegu. We are at present wholly supplied with this metal from Singapore, which receives it from Borneo.

It is also said to exist in considerable quantities in the province of Victoria, and in Tulare county, California. It is found in large quantities in the territory of Sarawak in Borneo, from which about 6,500*l.* worth was exported in 1863.

It is imported in the shape of ore, and commonly as ballast. It is about as hard as gold; its specific gravity is about 6·7; it is easily reduced to a very fine powder; its tenacity is such that a rod of $\frac{1}{10}$th of an inch diameter is capable of supporting 10 lbs. weight. Antimony is used in medicine, and in the composition of metal types for printing. The ores of antimony are soft, and vary in colour from light lead to dark lead grey; their specific gravity varies from 4·4 to 6·8; they possess a metallic lustre, are brittle, and occur in the crystallised massive forms. (Thomson's *Chemistry*, and *Private Information*.)

The imports into the United Kingdom of antimony in 1863, were, ore of antimony 1,948 tons, crude 1,171 cwts. and regulus 295 cwts. The value of the whole was about 23,500*l.* Antimony is also found in Tuscany at Pereta in the Maremme and also at Castagneto Mecciano in the Volterrano. The mines at Pereta yielded in 1845 according to Pilla 48½ tons. A small amount (about 800 quintals) is annually produced in Spain. The production of the French antimony mines amounted in 1858 to 6,729 quintals, the total value of which was 144,759 francs. The mines from which these supplies were principally drawn were those of Corsica (3,750 quintals) and the Department of Cantal (2,000 quintals).

ANTOL. A Hungarian wine-measure containing about 116 imp. gallons.

ANTWERP. The principal seaport of Belgium, lat. 51° 13′ 16″ N., long. 4° 24′ 10″ E. A large, well-built, and strongly fortified city, on the Scheldt. Pop. in 1861, 114,669.

Previously to its capture by the Spaniards, under Farnese, in 1585, Antwerp was one of the greatest commercial cities of Europe; but it suffered much by that event. In 1648, at the treaty of Westphalia, it was stipulated by Spain and Holland that the navigation of the Scheldt should be shut up; a stipulation which was observed till the occupation of Belgium by the French, when it was abolished. In 1803, Napoleon I., who intended to make Antwerp a great naval establishment, undertook the construction of docks on a grand scale, for the accommodation of ships of war; and of late years new and convenient docks and warehouses have been opened for the use of the steamers and other vessels connected with the trade of the port. Down to 1863 the port charges of Antwerp were extremely high. This was in consequence of the Belgians having charged themselves with a payment to indemnify the Dutch for consenting to abolish the duties they had been in the habit of levying on the vessels and goods ascending the Scheldt. To reimburse themselves, the Belgians imposed heavy tonnage, pilotage, and other duties on vessels entering Antwerp (which has more than three-fourths of the entire shipping trade of the country), Ostend, and other ports, and these, of course, were much objected to by the foreigners on whom they fell. At length, after a great deal of negotiation, the precedent set in the case of the Sound Duties was followed; the different powers agreeing to pay the Belgian Government certain sums proportioned to the extent of their trade with this city, &c., stipulating per contra that the tonnage duty should be abolished, and the charges for pilotage reduced at from 25 to 30 per cent. (Treaty of July 16, 1863, Art. 3). And though the trade of Antwerp has more recently been accidentally depressed, there can be no doubt that this effectual reduction of the charges on vessels entering her port will powerfully contribute to its advancement. Our contribution to the purchase, which was much the largest, amounted to 8,782,320 fr. Ships of the largest burden come up to the town, and goods destined for the interior are forwarded with the greatest facility by means of canals and railways.

From the principal part of the commerce of Belgium carried on by sea centring in Antwerp, it has again become a place of much commercial importance. The great articles of export are corn, especially wheat; flax, butter, cattle, sheep, and pigs; cast and wrought iron; muskets, fowling-pieces, and small arms, vast quantities of which are produced at Liége; woollen fabrics; linen ditto; clover and other seeds; coal, spelter, books, &c.

The great articles of import are raw cotton, sugar, coffee, and other colonial products; indigo and all sorts of dyewoods; spices, wine, machinery, rice, ashes, fish, oils, &c.

Goods may be warehoused in Antwerp, *en entrepôt*, at the rates of charge specified in a fixed tariff.

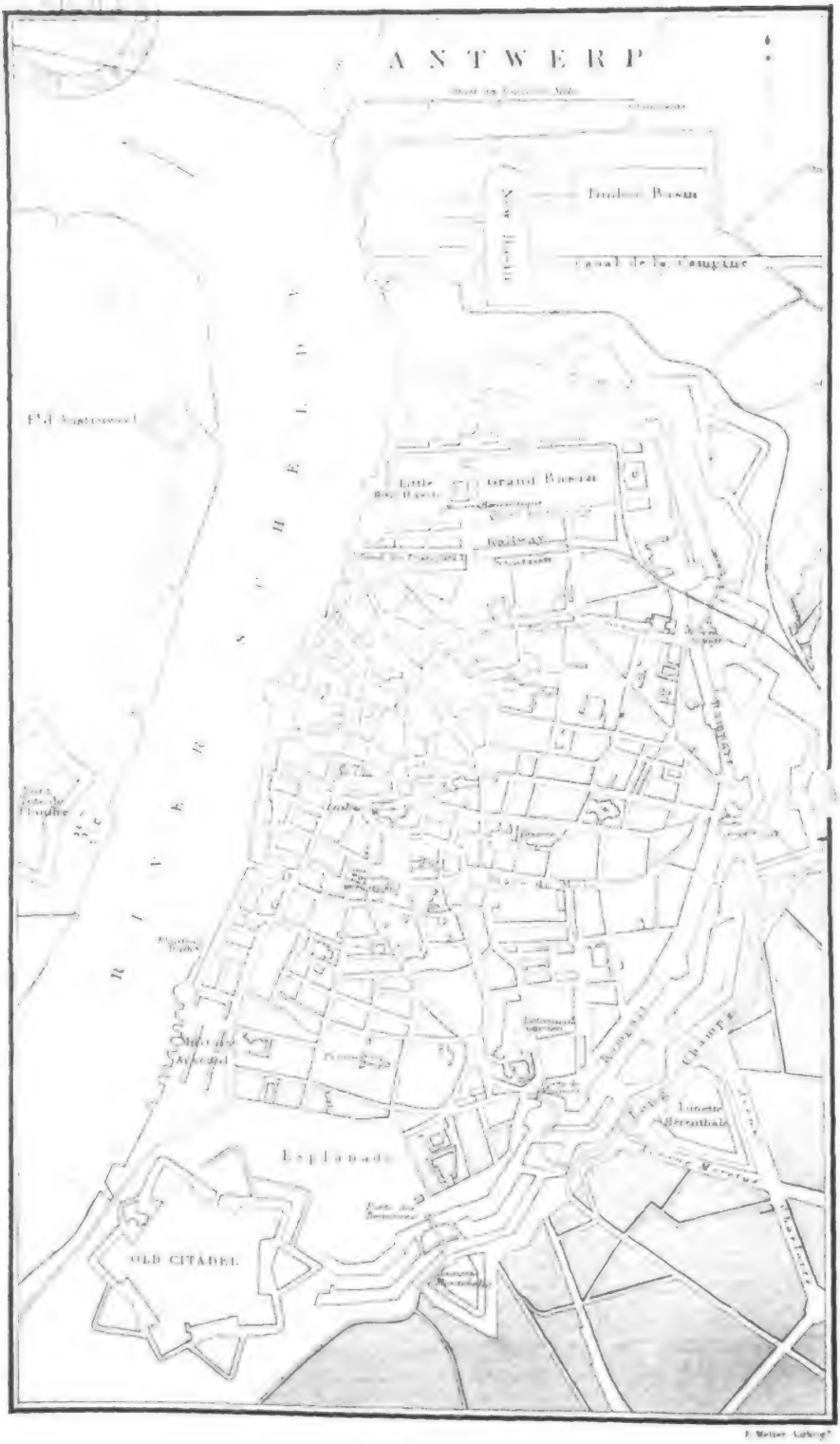
In 1864 the values of the imports into Belgium amounted to 688,878,101 francs, and those of the exports to 596,892,863 francs. The trade with England is the most extensive carried on with Belgium by sea, and next to it that with the Baltic, the United States, France, Holland, &c. The trade of France with Belgium generally is, however, much greater than that of any other country. But it is principally carried on by land, across the frontier between the two countries. A considerable proportion of the imports into Antwerp not being intended for home consumption, but for transit to other countries, their amount is commonly a good deal better than that of the exports.

The value of our imports from Belgium amounted in 1866 to 7,906,867*l.*, and of the exports of British productions to 2,861,665*l.* In the same year we exported to Belgium 3,920,908*l.* value of foreign and colonial merchandise.

Conditions under which Goods are sold.—On goods generally 2 per cent. is allowed for payment in twenty days, and 1½ per cent. on credit of six weeks or two months. On cottons at twenty days' credit, 3 per cent. are allowed, and 1½ per cent. on a credit of two or three months. On ashes, hides, and sugar, 3 per cent. for twenty days, and 1½ per cent. for three months' credit.

On May 1, 1861, a Treaty of Commerce and

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London, Longmans & Co.

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Navigation was concluded between France and Belgium, securing mutually to each country reduced tariff rates and other concessions. All the advantages thus obtained by France were conceded to Great Britain by our treaty with Belgium of July 23, 1863. On November 13 of the same year a convention was signed between the two countries giving to joint stock companies in either of the two countries the right of appearing before the tribunals of the other. [TREATIES (*Belgium*).]

Money, Weights, and Measures.—The French system of moneys, weights, and measures has been adopted in Belgium. Formerly accounts were kept in florins, worth 1*s.* 8¾*d.* sterling. The quintal formerly in use, and still sometimes referred to, = 103½ lbs. avoirdupois. In 1837, the Commercial Bank, a joint-stock association, was founded in Antwerp. It has a capital of 25,000,000 fr. (1,000,000*l.* sterling), divided into 25,000 shares of 1,000 fr. each, and transacts all sorts of banking business. Here, also, are two considerable insurance companies. The railway from Antwerp to Brussels, 28½ miles in length, has been signally successful, and has been of great advantage to both cities, but especially to Antwerp.

Custom-house Regulations.—Captains of ships arriving at Antwerp, or any of the Belgian ports, must make, within 24 hours, a declaration in writing of the goods of which their cargo consists, specifying the marks and numbers of the bales, parcels, &c., their value, according to the current price at the time when the declaration is made, the name of the ship or vessel, as well as that of the captain, and of the country to which she belongs, &c.

The following is a pro formâ account of port charges at Antwerp, for a vessel measuring 200 tons, under the new system :—

	frs. cts.
To pilotage from sea to Flushing on 38 palms	79 58
To ditto from Flushing to Antwerp, 38 ditto	82
To ditto from Antwerp to Flushing, 28 ditto	54
To ditto from Flushing to sea, 28 ditto	27 09
To the pilot for night on board and gratuity	
Pilots for moving the vessel in and out the dock	4 2
Sea Protest and extending same at Tribunal of Commerce	25
Tribunal of Commerce for appointing surveyors inwards	15
Surveyor's fees inwards	20
Harbour dues on 200 tons at 80 centimes and 15 per cent.	115
For manifest, provision list, stamps, &c.	
Water bailiff's mustering of the crew and certificate	11 10
Brokerage on 200 tons at 75 centimes per ton	150
Light dues at 18 70-100 centimes per ton	37 40
Custom-house clearance papers, cancelling bonds	
Bill of Health and visa, according to circumstances	
Consul's fees	
Total	620 29
at florins, 189 per francs 100 — Florins	292 95
at 25 francs per pound sterling — £	24 16
at francs 5·20 per American dollar — Dollars	119 5

In addition to the above, the following dues are charged, by regulation of July 22, 1863, to vessels using the basins, &c. :—

tons	centimes
Vessels below 100 (Belgian measure)	40 per ton
from 100 to 150	45 "
151 to 200	50 "
201 to 250	55 "
251 to 300	65 "
above 300	70 "

These dues are reduced as follows on vessels making more than two voyages in the year—

3rd voyage, reduction of one-fourth
4th voyage, reduction of one-half
5th and succeeding voyages, reduction of three-quarters

Steam-vessels lading or discharging in harbour or at the quays will pay per ton, for the first ten voyages in one year 22 centimes, for the second ten voyages 15 centimes, and for each following voyage 10 centimes.

Previously to the abolition of the Scheldt duties, the shipping charges were more than double what they are now.

Entry at Lillo.—(Lillo, the first Belgian custom-house, opposite Doel.) Here the custom-house officers come on board, and the master has to hand them :—

1. A manifest of the cargo, with the exact number of boxes, bales, casks, cases, packages, &c., with the marks, number and contents as exact as possible.

2. A specification of the provisions, such as salt, beef, pork, bread, flour, groats, peas, fish, butter, wine, brandy, gin, beer, coals, firewood and planks for dunnage, pigs, canvas, new ropes, iron-ballast, &c. &c., also the number of the crew.

The vessel then proceeds for Antwerp with or without a custom-house officer, as may be prescribed.

The custom-house laws being very severe, every master of a vessel is recommended to be most particular in making this entry; but should a mistake have taken place, or there be goods in dispute, he should inform his broker at Antwerp on his arrival, so as to be enabled immediately to take the needful steps to obtain a rectification.

Draft of Water.—On the arrival of a vessel before the town, the pilot-boat goes alongside, to ascertain the draft of water in palms or decimeters; it is therefore advisable for the master or the mate to be present at the hooking, to convince himself of the real draft of water, according to which the sea and river pilotage are settled.

Vessels remaining in the River.—These must ride with two anchors or have a pilot on board, which costs from 4 francs 24 cents. per every twenty-four hours.

Docking the Vessel.—Every vessel must have a Belgian pilot, to bring her into the dock, as well as going out. The harbour-master assigns to each vessel her place in the dock, and no hauling can be done without his permission.

Fire and Light.—Vessels lying in the docks are prohibited to have fire and light on board, except during the winter season, when permission is usually granted by the police.

Water Bailiff.—A list containing the names of the crew, passengers and their passports, is handed to him on arrival. Sailors are paid off and engaged before this officer, who also orders the arresting of sailors on written demand of the master.

Flag.—On Sundays and holidays it is customary to have the colours hoisted.

Cleanliness.—Lying alongside the quay, the crew must take care that the place before the vessel be swept every day, and the rubbish put up against the poles, it being forbidden to throw any rubbish into the docks.

Ballast.—Sand ballast is brought alongside in lighters, and costs 2 francs 25 cents. per last of about 2 tons in the dock and 2 francs 10 cents. in the river. The lighters are discharged by the ship's crew or by labourers paid by the master. A tarpaulin or sail must be put between the vessel and the lighter, to prevent the sand from falling into the dock. Discharging ballast into lighters, costs in the dock 1 franc 55 cents.—in the river 1 franc 40 cents. per last. Fifteen per cent. additional on all these rates.

Brokerage.—Fixed by law at 75 centimes per ton measurement, which include reporting and clearing at the custom-house.

Survey inwards.—For the whole time of discharging, a vessel under 100 tons, 12 francs. 100 to 200 tons, 20 francs. 201 to 300 tons, 30 francs. 301 to 400 tons, 45 francs. 401 to 800 tons, 55 francs. 800 to 1,200 tons, 82 francs 25 cents. above 1,200 tons, 110 francs.

Mooring.—Masters must be particular, in mooring

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their vessels, to have the chains or hawsers well secured with chafing gear so as not to injure the quays.

Cooking-house charges.—For vessels of all nations under 36 tons 1 franc, 36 to 100 tons 2 francs, 101 to 200 tons 3 francs, 201 to 300 tons 4 francs, 301 or above 5 francs, all with 15 per cent. additional.

A part of a week is reckoned as a whole. Vessels laid up in the dock pay after the first 2 months only ½ of the tax until they fit out again.

Careening dues.—Vessels of all nations under 100 tons 16 francs per day, 100 to 149 tons 14 cents. per ton a day, 150 to 199 tons 13 cents., 200 to 249 tons 12 cents., 250 to 299 tons 11 cents., 300 to 349 tons 10 cents., 350 to 399 tons 9 cents., 400 and above 8 cents. per ton a day.

N.B.—All vessels leaving Antwerp must be provided with a surveyor's certificate that they are sea-worthy. When in ballast, this certificate costs from 6 francs to 13 francs 50 cents.; when loaded, from 10 francs to 30 francs, according to the burden of the vessel, besides 11 francs 40 cents. for certificate of tribunal. The cooking-house duties depend on the size of the vessel, and must be paid whether the house be used or not.

About 85 ships of from 11,000 to 12,000 tons burden belong to Antwerp; and from 4,000 to 5,000 passengers arrive annually at the city by the steam-packets from England.

In 1863, 2,553 vessels of 608,353 tons arrived at Antwerp; of these, 917 vessels of 236,758 tons were British. The number of vessels which arrived at all the Belgian ports in the same year was 3,893, the tonnage of which amounted to 712,373: of these, 597 of 62,525 tons were Belgian; 1,581 of 281,510 tons British; and the remainder Swedish, French, Dutch, &c.

The total number of vessels entering from Belgium into ports of the United Kingdom in 1866 was 2,916, with a tonnage of 674,956.

The commerce of Belgium is almost exclusively confined to European countries; the trade with those countries being about 95 per cent. of the whole.

Fisheries.—In 1863 there were 275 smacks measuring 9,579 tons engaged in the Belgian Fisheries.

Value of Belgian Imports and Exports in 1863.

	francs
Imports.	
Home consumption	616,300,000
From Great Britain	452,100,000
Total	1,068,400,000
Exports.	
Belgian produce	553,700,000
From Great Britain	105,500,000
	991,700,000

The general condition of Belgium is singularly prosperous, and her public revenue is almost annually in excess of the expenditure. In addition to great and well-developed agricultural resources she possesses in her mineral and metallurgic industries a large source of wealth. Of these last we subjoin a table compiled by Mr. Barron, her Majesty's secretary of legation at Brussels, from an original source, and which exhibits their condition and progress during recent years.

Table and Number of the Belgian Merchant Marine, 1837–63.

Years	Number			Tonnage		
	Sailing Vessels	Steamers	Total	Sailing Vessels	Steamers	Total
1837	151	4	155	21,620	1,477	23,097
1838	146	5	151	21,557	1,988	23,545
1839	151	5	156	22,417	1,988	24,405
1840	155	6	161	21,762	1,048	22,610
1841	139	5	144	21,056	1,277	23,233
1842	145	7	152	22,957	4,904	27,861
1843	134	8	142	21,971	5,054	27,025
1844	134	—	—	22,511	—	—
1845	136	5	141	23,817	1,960	25,777
1846	137	6	143	24,796	2,160	26,956
1847	140	3	143	25,458	1,718	27,176
1848	151	4	155	28,589	1,928	30,517
1849	149	5	154	30,527	2,048	32,575
1850	156	5	161	33,515	1,604	34,919
1851	157	6	163	34,816	1,377	36,193
1852	155	5	160	33,700	1,512	35,012
1853	152	5	157	34,375	907	35,282
1854	151	7	158	36,763	1,541	38,107
1855	150	8	158	37,957	5,592	43,549
1856	140	8	148	36,263	6,471	42,734
1857	142	5	147	40,597	2,050	42,447
1858	136	6	142	38,851	3,317	42 148
1859	131	4	135	35,632	1,459	37,191
1860	108	8	116	28,857	4,254	33,111
1861	103	8	111	27,252	4,184	31,736
1862	96	7	103	25,663	3,284	28,947
1863	91	6	97	24,533	2,714	27,247

Comparative Statement of the Mineral and Metallurgic Produce of Belgium during the following years; in metrical tons of 1,000 kilogrammes, each weighing 36 lbs. less than an English ton.

Produce		1851	1853	1855	1857	1859	1860
Coal	tons	6,233,517	7,172,687	8,409,330	8,387,002	9,160,702	9,610,895
	francs	49,709,181	62,192,019	103,855,780	100,470,383	101,006,201	107,127,282
Iron ore, washed	tons	361,284	660,277	852,174	651,903	883,031	800,176
	francs	1,171,187	6,296,203	9,229,517	6,852,031	8,215,956	7,748,033
Pyrites	tons	6,442	7,643	21,607	14,620	31,982	42,513
	francs	72,935	119,857	179,219	162,904	881,072	1,253,109
Blende	tons	14,185	17,040	10,605	10,486	15,751	17,281
	francs	437,192	809,881	562,315	725,171	721,037	834,263
Calamine	tons	66,085	66,152	70,568	85,749	56,639	48,857
	francs	1,856,720	3,107,515	3,142,165	4,823,592	2,803,153	2,125,969
Galena, lead ore	tons	3,598	4,581	5,200	10,776	6,993	9,940
	francs	539,958	1,045,062	904,923	944,110	1,440,119	1,606,228
Total value of minerals	francs	57,787,173	73,628,550	117,871,459	113,976,781	118,067,958	120,695,484
Tax on mines	francs	236,599	228,512	512,550	665,172	546,860	495,844
Iron, cast and wrought	tons	269,775	379,251	466,283	527,239	536,977	591,633
	francs	31,350,096	55,097,826	77,585,518	86,412,105	77,319,947	81,075,867
Steel	tons	—	—	47	1,500	1,871	3,172
	francs	—	—	63,000	1,500,000	616,000	849,000
Lead	tons	1,691	2,316	2,753	3,182	4,736	4,153
	francs	638,057	1,165,586	1,507,343	1,696,785	2,280,056	1,801,987
Copper	tons	723	—	984	916	1,255	1,004
	francs	1,187,000	—	2,740,850	2,886,000	3,790,200	2,691,380
Zinc	tons	22,421	27,445	29,802	34,393	41,136	45,457
	francs	9,707,196	14,865,360	18,523,520	24,192,700	22,752,970	24,534,673
Alum	tons	200	1,000	912	1,839	1,020	1,172
	francs	45,000	190,800	145,920	371,800	193,505	233,206
Glass	francs	8,146,520	12,814,850	12,799,700	16,494,000	17,275,200	18,512,000
Total mineralurgical produce	tons	51,070,469	85,027,422	113,567,891	133,313,688	121,807,878	129,699,113
Mineral and mineralurgical total value	francs	108,857,942	158,650,772	231,239,350	247,530,469	239,275,816	240,292,597

APPLES. The fruit of the *Pyrus malus*, or apple-tree. It is very extensively cultivated in most temperate climates.

An immense variety and quantity of excellent apples are raised in England, partly for the table and partly for manufacturing into cider. Those employed for the latter purpose are comparatively harsh and austere. The principal cider counties

Amount of Belgian Customs and Duties, 1858–63.

	1858	1859	1860	1861	1862	1863
	francs	francs	francs	francs	francs	francs
Import duties	15,592,976	14,960,294	15,760,794	15,890,898	15,780,952	15,310,212
Export duties	63,047	37,471	42,041	15,591	9,327	26,596
Transit duties	2,186	10	4	—	—	—
Navigation dues	730,812	678,302	836,099	1,010,995	857,450	876,358
Total	16,389,001	15,676,077	16,638,938	16,881,484	16,647,729	15,912,966

Account of the Declared Values of the Principal Articles the Produce and Manufacture of the United Kingdom exported to Belgium in each of the 3 Years ending with 1866.

Principal and other Articles		Quantities			Declared Real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Alkali, soda	cwts.	85,987	97,963	115,240	50,244	48,069	60,157
Apparel, slops, and haberdashery	value	—	—	—	59,897	58,274	51,964
Caoutchouc, manufactures of	,,	—	—	—	18,005	16,972	17,913
Coals, cinders, and culm	tons	25,082	21,810	46,141	14,017	12,180	26,503
Copper, wrought and unwrought	cwts.	13,045	18,747	17,092	68,192	87,918	76,102
Cotton yarn	lbs.	706,101	1,681,135	1,898,277	101,501	253,680	229,015
Cottons, entered by the yard	yards	7,715,602	6,505,893	13,548,682	197,185	180,085	286,711
at value	value	—	—	—	40,000	55,000	68,132
Drugs and chemical products	,,	—	—	—	21,034	21,023	23,005
Fish: oysters	bushels	14,124	10,288	6,253	34,115	30,880	20,777
Hardwares and cutlery, unenumerated	cwts.	7,498	8,805	8,872	51,724	54,158	47,786
Hops	,,	2,176	2,449	3,063	5,477	7,651	9,780
Horses	no.	1,437	1,018	1,071	37,979	39,216	44,570
Iron, wrought and unwrought	tons	11,780	34,080	45,883	130,855	247,487	316,965
Leather, wrought and unwrought	value	—	—	—	74,029	61,186	54,934
Linen yarn	lbs.	687,657	1,552,019	1,037,932	54,195	125,672	109,423
Linens, entered by the yard	yards	316,172	414,650	325,580	20,750	28,692	19,062
at value	value	—	—	—	4,167	5,494	3,040
Machinery: steam engines	,,	—	—	—	10,288	50,150	50,175
all other sorts	,,	—	—	—	130,429	159,295	152,173
Naphtha, paraffine oil, petroleum, &c.	gallons	281,023	408,511	2[illegible],516	34,121	49,858	30,382
Oil, seed	,,	197,542	516,246	201,004	25,259	57,051	20,901
Painters' colours (not otherwise described)	value	—	—	—	11,722	13,028	12,780
Salt	tons	28,581	26,112	24,911	7,800	7,254	7,005
Silk, yarn	lbs.	7,172	8,505	15,175	4,999	9,178	11,858
thrown	,,	42,185	40,071	17,582	52,845	57,558	24,003
manufactures	value	—	—	—	60,740	65,640	31,887
Wool, sheep and lambs'	lbs.	662,004	2,031,978	684,149	65,238	216,141	64,206
Wool: flocks and rag wool	cwts.	14,041	18,756	11,876	60,196	83,295	53,935
Woollen and worsted yarn	lbs.	52,097	481,860	570,778	21,205	80,360	7,850
Woollens entered by the yard (including those formerly entered by the piece)	yards	4,964,711	4,783,443	4,954,665	512,577	516,299	542,601
entered at value	value	—	—	—	10,849	9,482	8,363
All other articles	,,	—	—	—	787,156	148,927	105,987
Total	—	—	—	—	3,351,291	3,055,875	2,804,665

Account of the Quantities and Computed Values of the Principal Articles imported from Belgium into the United Kingdom in each of the 3 years ending with 1866.

Principal and Other Articles		Quantities			Computed real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Animals: Oxen and Bulls	no.	3,679	11,164	3,792	62,801	215,426	74,202
Cows and calves	,,	4,665	4,328	9,647	24,192	25,564	51,305
Horses	,,	173	169	91	4,514	4,490	2,055
Sheep and lambs	,,	7,131	167,531	290,560	14,261	406,773	709,583
Arms: swords, bayonets, cannon, muskets, &c.	val.	—	—	—	117,372	192,441	58,938
Bark, for tanners' or dyers' use	cwts.	153,626	202,106	203,504	44,756	71,077	71,155
Butter	,,	81,525	70,619	76,667	470,167	433,179	426,712
Candles, stearine	,,	28,135	17,084	26,364	115,579	61,510	89,782
Chicory, raw or kiln-dried	,,	121,074	87,635	90,455	50,906	38,691	40,000
Corn: Wheat	,,	69,651	110,541	261,858	31,026	53,002	136,335
Other kinds of corn and grain	,,	34,939	40,696	7,028	12,947	15,930	3,061
Cotton, Raw	,,	1,899	922	756	28,054	9,227	5,357
Manufactures	value	—	—	—	84,483	48,233	72,579
Cotton yarn, and cotton yarn waste	lbs.	847,197	406,391	418,366	85,624	39,012	18,662
Eggs	gt. 100	217,067	171,853	151,733	66,699	56,172	47,547
Embroidery and needlework	value	—	—	—	4,859	8,891	5,851
Flax, Dressed	cwts.	5,556	13,754	4,209	20,691	61,521	19,995
Rough or undressed	,,	115,220	144,073	108,823	474,949	569,862	436,292
Tow and codilla of	,,	55,218	41,779	35,558	97,129	105,820	90,353
Fruit: apples, raw	bushels	296,251	189,261	254,276	54,079	46,641	73,957
Glass, Window	cwts.	228,350	252,634	258,916	182,688	202,107	207,054
Plate	,,	9,533	9,466	15,758	45,684	44,307	65,541
Flint, cut and uncut	,,	21,910	27,569	31,964	42,755	67,242	81,938
Hides, not tanned	,,	6,654	19,937	28,360	15,391	41,212	55,502
Tanned, tawed, curried or dressed	lbs.	60,176	59,900	46,159	6,167	5,917	3,384
Hops	cwts.	11,389	21,669	25,525	66,198	100,125	130,773
Iron: Bars, unwrought	tons	2,615	1,590	1,721	30,097	17,541	17,616
Iron and steel, wrought or manufactured	value	—	—	—	72,250	128,049	85,673
Lace, of all kinds	,,	—	—	—	59,887	84,819	78,202
Lead, pig or sheet	tons	1,683	2,240	675	34,060	42,776	13,228
Leather manufactures, viz. gloves	pairs	411,948	393,049	466,068	44,628	42,580	52,431
Oil, seed	tuns	484	489	412	20,011	21,017	17,998
Oil seed cake	tons	6,128	11,060	7,947	33,084	58,342	39,576
Paper and pasteboard	cwts.	128,940	151,786	166,367	295,483	340,515	348,682
Pork, fresh	,,	27,938	20,973	12,328	91,497	68,687	40,374
Potatoes	,,	5,300	10,681	1,750	779	2,783	474
Poultry and game	value	—	—	—	77,268	70,655	97,082
Seed, clover	cwts.	28,547	31,068	19,193	77,777	101,916	61,436
Silk, Raw	lbs.	2,977	1,571	3,575	4,144	2,854	6,627
Waste, knubs, and husks	cwts.	226	59	118	2,562	1,333	2,409
Thrown	lbs.	1,555	2,309	410	2,596	4,769	870
Silk manufactures: Scuffs and ribbons	,,	498,340	486,096	486,540	1,218,719	1,195,851	1,229,020
Unenumerated	value	—	—	—	27,933	56,906	58,554
Spelter or zinc	tons	5,549	7,580	8,056	90,282	182,463	203,659
Sugar, Unrefined	cwts.	61,815	133,595	184,187	84,473	178,423	212,312
Refined, and candy	,,	32,164	46,178	60,577	61,071	68,138	100,715
Wool, sheep and lambs'	lbs.	892,185	1,436,169	1,097,165	83,741	126,749	75,598
Woollen rags torn up, to be used as wool	,,	4,650,048	3,412,511	3,840,592	97,262	72,087	68,791
Wool on manufactures	value	—	—	—	196,978	120,124	110,718
Yarn, worsted, not dyed, and not fit for embroidery	lbs.	2,822,392	3,115,705	4,756,247	634,039	701,034	1,065,668
All other articles	value	—	—	—	852,181	788,871	774,698
Total	—	—	—	—	6,410,904	7,554,845	7,408,[illegible]

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are Hereford, Monmouth, Gloucester, Worcester, Somerset, and Devon. Mr. Marshall estimated the produce of the first four at 30,000 hogsheads a year, of which Worcester is supposed to supply 10,000; but it is now probably much greater. Half a hogshead of cider may be expected, in ordinarily favourable seasons, from each tree in an orchard in full bearing. The number of trees on an acre varies from 10 to 40, so that the quantity of cider must vary in the same proportion, that is from 5 to 20 hogsheads. The produce is, however, very fluctuating; and a good crop seldom occurs above once in three years. (Loudon's *Ency. of Agriculture*, &c.)

Besides the immense consumption of native apples, we import, for the table, large supplies of French and other foreign apples. In 1842, the duty, which had previously been an ad valorem one of 5 per cent., was fixed at 6*d.* per bushel on raw, and 2*s.* per bushel on dried apples; and in 1853 the duties were further reduced to 3*d.* per bushel on raw, and 1*s.* per bushel on dried apples. This duty is now repealed. During 1865 the entries for consumption amounted to 515,732 bushels. The apples produced in the vicinity of New York are universally admitted to be the finest of any; but unless selected and packed with care, they are very apt to spoil before reaching England. The exports of apples from the United States during the year ended June 30, 1864, amounted to 183,697 barrels, valued at 487,140 dollars. Of these, 50,606 barrels besides 3,164 bushels of dried fruit were shipped for the United Kingdom. (*Papers laid before Congress.*)

APPRAISER. By the 13 & 14 Vict. c. 97, every person except a licensed auctioneer, who for hire exercises the occupation of an appraiser to value property, repairs and labour, must take out an annual 40*s.* license, under a penalty of 50*l.* for non-compliance.

Appraisers omitting to write and set down in figures every valuation made by them, with the full amount on paper duly stamped, and within 14 days deliver the same to their employers, are subject to a penalty of 50*l.* No person may pay for or receive an appraisement unless the same be written on stamped paper under penalty of a fine of 20*l.* One stamp only is required for the whole appraisement. The amount received in 1865–6 for appraisers' licenses granted in the United Kingdom was 7,502*l.*

APPRENTICE. A person of either sex, bound by indenture to serve some particular individuals, or company of individuals, for a specified time, in order to be instructed in some art, science, mystery, or trade.

According to the common law of England, everyone has a right to employ himself at pleasure in every lawful trade. But this sound principle was almost entirely subverted by a statute, passed in the fifth year of the reign of Queen Elizabeth, commonly called the Statute of Apprenticeship. It enacted that no person should, for the future, exercise any trade, craft, or mystery, at that time exercised in England and Wales, unless he had previously served to it an apprenticeship of *seven* years at least; so that what had before been a bye-law of a few corporations, became the general and statute law of the kingdom. Luckily, however, the courts of law were always singularly disinclined to give effect to the provisions of this statute; and the rules which they established for its interpretation served materially to mitigate its injurious operation. But though its impolicy had been long apparent, it was continued till 1814, when it was repealed by the 54 Geo. III. c. 96. This Act did not interfere with any of the existing rights, privileges, or bye-laws of the different corporations; but wherever these do not interpose, the formation of apprenticeships, and their duration, are left to be adjusted by the parties themselves.

Merchant ships of 80 tons and upwards were formerly obliged to carry a certain number of apprentices in proportion to their tonnage (7 & 8 Vict. c. 112). But this obligation was suppressed in 1849, by the 12 & 13 Vict. c. 29. And as the obligation to have a certain proportion of the crew British subjects has also been put an end to (16 & 17 Vict. c. 131 s. 31), the manning of ships is now quite free.

The Merchant Shipping Act of 1854 regulates, by the following sections, apprenticeships to the Sea Service.

Apprenticeships to the Sea Service. Sec. 141.—All shipping masters appointed under this Act shall, if applied to for the purpose, give to any board of guardians, overseers, or other persons desirous of apprenticing boys to the sea service, and to masters and owners of ships requiring apprentices, such assistance as is in their power for facilitating the making of such apprenticeships, and may receive from persons availing themselves of such assistance such fees as may be determined in that behalf by the Board of Trade, with the concurrence, so far as relates to pauper apprentices in *England*, of the Poor Law Board in *England*, and so far as relates to pauper apprentices in *Ireland*, of the Poor Law Commissioners in *Ireland*.

Sec. 142. In the case of every boy bound apprentice to the sea service by any guardians or overseers of the poor, or other persons having the authority of guardians of the poor, the indentures shall be executed by the boy and the person to whom he is bound in the presence of and shall be attested by two justices of the peace, who shall ascertain that the boy has consented to be bound, and has attained the age of twelve years, and is of sufficient health and strength, and that the master to whom the boy is to be bound is a proper person for the purpose.

Sec. 144. Subject to the provisions hereinbefore contained, all apprenticeships to the sea service made by any guardians or overseers of the poor, or persons having the authority of guardians of the poor, shall, if made in *Great Britain*, be made in the same manner and be subject to the same laws and regulations as other apprenticeships made by the same persons, and if made in *Ireland* shall be subject to the following rules; (that is to say,)

1. In every union the guardians of the poor, or other persons duly appointed to carry into execution the Acts for the relief of the destitute poor, and having the authority of guardians of the poor, may put out and bind as an apprentice to the sea service any boy who or whose parent or parents is or are receiving relief in such union, and who has attained the age of twelve years, and is of sufficient health and strength, and who consents to be so bound:
2. If the cost of relieving any such boy is chargeable to an electoral division of a union, then (except in cases in which paid officers act in place of guardians) he shall not be bound as aforesaid unless the consent in writing of the guardians of such electoral division or of a majority of the guardians (if more than one) be first obtained, such consent to be, when possible, indorsed upon the indentures:
3. The expense incurred in the binding and outfit of any such apprentice shall be charged to the union or electoral division (as the case

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may be) to which the boy or his parent or parents is or are chargeable at the time of his being apprenticed:

4. All indentures made in any union may be sued upon by the guardians of the union or persons having the authority of guardians therein for the time being, by their name of office, and actions brought by them upon such indentures shall not abate by reason of death or change in the persons holding the office: but no such action shall be commenced without the consent of the *Irish* Poor Law Commissioners:
5. The amount of the costs incurred in any such action, and not recovered from the defendant therein, may be charged upon the union or electoral division (as the case may be) to which the boy or his parent or parents was or were chargeable at the time of his being apprenticed.

AQUA FORTIS. [Acids (*Nitric Acid*).]

AQUAMARINE. [Beryl.]

AQUA VITÆ (Ger. aquavit; Fr. eau de vie; Ital. acqua vite; Span. agua de vide; Russ. wodka; Lat. aqua vitæ). A name familiarly applied to all native distilled spirits; equivalent to the *eau de vie*, or brandy, of the French, the *whisky* of the Scotch and Irish, the *geneva* of the Dutch, &c. In this way it is used in the excise laws relating to the distilleries.

ARANGOES. A species of beads made of rough cornelian.

They are of various forms, as barrel, bell, round, &c., and all drilled. The barrel-shaped kind cut from the best stones, are from two to three inches long, and should be chosen as clear as possible, whether red or white, having a good polish and free from flaws. The bell-shaped are from one to two inches long, being in all respects inferior. Considerable quantities were formerly imported from Bombay, for re-exportation to Africa; but since the abolition of the slave trade, the imports and exports of arangoes are comparatively trifling. (Milburn's *Orient. Com.*)

ARCHANGEL. The principal commercial city of the north of Russia, in lat. 64° 32′ 8″ N., long. 40° 33′ E., on the right bank of the Dwina, about 35 English miles above where it falls into the White Sea. The growth of the town is steady. The harbour is at the island of Sollenbole, about a mile from the town. The bar at the mouth of the Dwina has from 13 to 14½ feet water; so that ships drawing more than this depth must be partially loaded outside the bar from lighters. The Dwina being a navigable river, traversing a great extent of country, and connected by canals with the Wolga on the one hand, and the Neva on the other, Archangel is a considerable *entrepôt*. It was discovered in 1554, by the famous Richard Chancellor, the companion of Sir Hugh Willoughby in his voyage of discovery; and from that period down to the foundation of Petersburg, was the only port in the Russian empire accessible to foreigners. Though it has lost its ancient importance, it still enjoys a pretty extensive commerce. The principal articles of export are wheat and oats, rye and rye-flour, tallow, flax, hemp, timber, linseed, potash, mats, tar, &c. Deals from Archangel, and Onega in the vicinity of Archangel, are considered superior to those from the Baltic. Hemp not so good as at Riga, but proportionally cheaper. Tallow is also inferior. Iron, which is sometimes exported, same as at Petersburg, sometimes cheaper and sometimes dearer. The quality of the wheat exported from Archangel is about equal to that from Petersburg. The imports, which are not very extensive, consist principally of sugar, coffee, spices, salt, woollens, hardware, &c.

The following Tables exhibit the principal features of the trade of Archangel. Its most important trade is, as will be seen, with this country.

Value of Exports from Archangel.

	£
1859	1,297,879
1860	906,851
1861	1,157,345
1862	1,128,965
1863	796,898

Whereof to Great Britain—

1859	1,007,796
1860	552,268
1861	738,682
1862	762,869
1863	556,173

These amounts represent the official values (based on the market value) with the addition of shipping charges.

The quantities of the principal exports in each of same years, distinguishing the quantities shipped to Great Britain, in 1863, were as follow:—

Articles		1859	1860	1861	1862	1863	Great Britain 1863
Linseed	qrs.	56,740	60,419	61,497	87,065	8,680	4,684
Oats	,,	234,558	207,078	255,849	197,415	89,249	88,920
Rye	,,	58,081	94,363	100,724	41,129	1,381	—
Wheat	,,	10,526	1,800	5,477	4,995	—	—
Barley	,,	—	1,115	4,914	6,225	—	—
Flax	tons	8,168	3,588	4,951	4,305	4,134	3,341
Flax tow	,,	8,063	3,218	4,907	4,114	4,432	3,275
Train oil	,,	299	725	369	296	701	20
Tallow	,,	199	79	99	—	68	51
Rye Flour	,,	8,622	6,138	8,967	5,581	6,010	—
Tar	brls.	83,177	73,105	103,009	115,594	126,773	120,905
Pitch	,,	4,799	9,146	7,169	6,958	11,571	4,424
Mats	pieces	284,787	348,011	325,815	785,244	307,555	243,120
Deals std.	hund.	8,085	7,903	7,043	13,398	10,958	8,710

Table of Shipping cleared at the Port of Archangel and including coasters.

Years	Total		Total of British		British in Indirect Trade	
	Number of Vessels	Tonnage	Number of Vessels	Tonnage	Number of Vessels	Tonnage
1859	537	102,256	202	43,614	4	1,194
1860	444	86,989	191	40,618	10	2,129
1861	527	97,997	230	49,785	20	4,186
1862	516	102,023	217	45,084	8	1,085
1863	344	68,870	187	35,989	3	939

Imports into Archangel.

Articles	1859	1860	1861	1862	1863
	£	£	£	£	£
Coals	1,248	255	822	705	198
Coffee	2,467	953	2,102	3,226	2,240
Tea	—	—	—	4,324	5,305
Sugar	2,514	4,125	2,533	—	2,243
Lead	872	12	284	747	905
Oil	2,256	5,299	3,125	3,385	3,449
Salt	2,268	1,280	1,677	3,949	3,100
Logwood	781	349	—	—	30
Wine	5,536	7,373	5,171	4,568	5,144
Champagne	245	1,079	157	112	460
Furs	8,033	5,731	6,372	7,230	5,374
Fish	34,754	36,478	31,257	31,376	41,928
Fruit	417	445	555	752	1,062
Machinery	226	862	985	4,037	6,098
Iron	—	—	1,461	—	—
Tin	—	—	1,549	—	—
Other goods	6,134	5,468	3,332	5,097	2,946
Total	67,771	67,709	61,180	69,508	80,480
From Great Britain	11,760	12,553	13,233	20,407	21,749

Highest and lowest rates of Freight to Great Britain in 1863.

		Highest		Lowest	
		£. d.		£. d.	
Linseed	qr.	5 9	to	4 6	
Oats	,,	5 0	to	3 9	
Flax	ton	52 6	to	45 0	
Tar	barrel	6 0	to	5 0	
Deals	per 100	120 0	to	85 0	

Bank.—There is a branch of the Imperial Bank of Russia at Archangel. Exporters generally pay cash for produce. The money is generally obtained from the Archangel bank on bills drawn on St. Petersburg at 40 days' date. The discount charged on these bills is 1½ per cent. (equal

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to 10½ per cent. per annum). Sums payable at inland places have to be sent by post insured for ¼ per cent. Rates of Exchange, same as at St. Petersburg.

Lighthouses.—A lighthouse was erected in 1864 at Sviatoi Noss, lat. 68° 9′ 50″ N., long. 39° 47′ 40″ E. Fixed white light, visible 20 miles; the light is kept burning from August 1 to November 1. The lighthouse for the port of Archangel is at Moudinga, near the Berezov bar at the entrance of the principal channel of the Dwina on the W. coast of Moudinga Island, lat. 64° 55′ 30″ N., long. 40° 16′ 0″ E. Fixed white light. Archangel pilots are to be found here: they meet vessels 4 miles outside the shoals of the bar.

Telegraphs.—There is a telegraphic communication between Archangel and St. Petersburg and from thence to London. A message of 20 words, including address and signature, to London costs 6 roubles 83 copecs, equal to about 1*l.* sterling.

[Principally derived from Mr. Renny's excellent *Consular Reports.*]

The trade of Archangel is much influenced by the demand from the more southerly parts of Europe, and especially from England, for corn. When a brisk demand is anticipated, oats are brought in large quantities from the interior, sometimes even from a distance of 1,500 miles, in covered barks capable of holding several hundred quarters. But as there are few extensive mercantile establishments here, the supplies are scanty, except when a large demand is expected for some time previously to the season for bringing them down. (Oddy's *European Commerce*, and *private information.*)

Moneys, Weights, and *Measures,* same as at Petersburg.

ARCHIL. [Orchella.]

ARECA PALM (*Areca catechu*). [Betel Leaf; Betel Nut.]

ARGOL, ARGAL, or TARTAR (Ger. weinstein; Dutch wynsteen; Fr. tartre; Ital., Span., and Port. tartaro; Russ. winnui kamen; Lat. tartarus). A hard crust formed on the sides of the vessels in which wine has been kept; it is red or white according to the colour of the wine, and is otherwise impure. On being purified, it is termed *cream* or *crystals of tartar.* It consists principally of bitartrate of potash.

White argol is preferable to red, as containing less drossy or earthy matter. The marks of good argol of either kind are, its being thick, brittle, hard, brilliant, and little earthy. That brought from Bologna is reckoned the best, and fetches the highest price. Argol is of considerable use among dyers, as serving to dispose the stuffs to take their colours the better. Pure argol, or cream of tartar, is extensively used in medicine. It has an acid and rather unpleasant taste. It is very brittle, and easily reduced to powder: specific gravity 1·95.

The duty on argol, of 6*d.* per cwt., was repealed in 1845.

The imports and exports of argol in 1866 amounted to 18,250 cwts., of the value of 57,967*l.*

Argol is chiefly produced in France, from which country there were exported in 1863, 2,636,852 kilos. valued at 3,410,797 francs.

ARISTOLOCHIA (Fr. serpentaire; Ger. schlangenwurzel; Ital. serpentaria; Lat. aristolochia serpentaria). The dried root of Virginia snake-root, or birthwort: it is small, light and bushy, consisting of a number of fibres matted together, sprung from one common head, of a brownish colour on the outside, and pale or yellow within. It has an aromatic smell something like that of valerian, but more agreeable; and a warm, bitterish, pungent taste, very much resembling camphor.—(*Ency. Metrop.*)

ARMS. [Fire-arms.]

ARRACK or RACK (Fr. arac; Ger. arrack, rack; Dutch arak, rak; Ital. araco; Span. arak; Port. araco; Russ. arak), a spirituous liquor manufactured at different places in the East.

Arrack is a term applied in most parts of India, and the Indian islands, to designate every sort of spirituous liquor; a circumstance which accounts for the discrepancy in the statements as to the materials used in making it, and the mode of its manufacture. The arrack of Goa and Batavia is in high estimation; that of Columbo or Ceylon has been said to be inferior to the former; but this is doubtful. Goa and Columbo arrack is invariably made from the vegetable juice *toddy*, which flows by incision from the cocoa-nut tree (*Kocos nucifera*). After the juice is fermented, it is distilled and rectified. It usually yields about an *eighth* part of pure spirit. Batavia or Java arrack is obtained by distillation from molasses and rice, with only a small admixture of toddy. When well prepared, arrack is clear and transparent; generally, however, it is slightly straw-coloured. Its flavour is peculiar; but it differs considerably, no doubt, in consequence of the various articles of which it is prepared, and the unequal care taken in its manufacture. In England, arrack is seldom used except to give flavour to punch; formerly the imports were quite inconsiderable; but they have recently been a good deal greater, though as they are mixed up in the official returns with rum from India, it is impossible to state their exact amount. In the East its consumption is immense. It is issued to the soldiers in India as part of the established rations; and it is supplied, instead of rum, to the seamen of the royal navy employed in the Indian seas. It is one of the principal products of Ceylon. It is sold in Ceylon by the legger of 150, and in Java by the legger of 160 gallons. The duty on arrack, &c. is 10*s.* 5*d.* per gallon.

Its average value in Ceylon varies from 12*l.* to 8*l.* per legger, but it fell to 6*l.* 10*s.* in 1862. The exports of arrack from Java were in 1859, 12,673 leggers, valued at about 49,000*l.*; the principal exports were to Holland; it is subject to an export duty of 6 per cent. unless exported in Dutch ships, when it is free.

Pariah-arrack is a phrase used to designate a spirit distilled in the peninsula of India, which is said to be often rendered unwholesome by an admixture of *ganga* (*Cannabis sativa*), and a species of *Datura*, in the view of increasing its intoxicating power. But it is not clear whether the term pariah-arrack be meant to imply that it is an inferior spirit, or an adulterated compound. This liquor is sometimes distilled from cocoa-nut toddy, and sometimes from a mixture of jaggery, water, and the barks of various trees. (Milburn's *Oriental Com.*; Mr. Marshall's valuable *Essay on the Cocoa-Nut Tree*, p. 18.)

ARROBA. A Spanish and Portuguese measure of weight and capacity. It is still in general use in Spain and Portugal and in the Central and South American Republics. The standard Spanish arroba for wine is 981 cubic inches or 3·54 gallons, and for oil 771 cubic inches or 2·78 gallons. The Spanish arroba of weight equals 25·36 lbs. avoird., and the Portuguese 32·38 lbs. The Central American and Hungary arroba equals 25·35 lbs. avoird.; that of Brazil 32·38 lbs. The weight arroba of Chili equals 25·36 lbs., and the liquid arroba 6·70 Imp. gallons.

ARROW-ROOT. The pith or starch of the root *Maranta arundinacea.* It has received its common name from its being supposed to be an

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antidote to the poisoned arrows of the Indians. The powder is prepared from roots of a year old. It is reckoned a very wholesome, nutritious food; it is often adulterated, when in the shops, with the starch or flour of potatoes. It is a native of South America; but has been long introduced into the West Indies, where it forms a pretty important article of cultivation. An excellent kind of arrow-root, if it may be so called, is now prepared in India from the root of the *Curcuma angustifolia*. The plant is abundant on the Malabar coast, where the powder is made in such quantities as to be a considerable object of trade. Some of it has been brought to England. The *Maranta arundinacea* has been carried from the West Indies to Ceylon, where it thrives extremely well, and where arrow-root of the finest quality has been manufactured from it. A very finely prepared meal of Indian corn is now largely used as a substitute for this ingredient. (Ainslie's *Mat. Indica.*)

Imports, &c., of arrow-root in 1864, were 15,440 cwts., of the value of 41,661*l.*

Large quantities of Canna arrow-root (*Canna edulis*) or 'tous les mois' are produced in Queensland and manufactured in the neighbourhood of Brisbane. Queensland also produces the true white arrow-root of a quality fully equal to the best kinds of Bermuda arrow-root. The canna arrow-root is of comparatively little value at present in the English market on account of the abundant supply. (*Jury Report, Exhibition* 1862.) The extensive consumption of the finely-prepared flours of maize, no doubt, tends considerably to check any great progress in the consumption of arrow-root.

ARSENIC (Ger. arsenik; Fr. arsenic; Ital. and Span. arsenico; Russ. müschjah; Lat. arsenicum). This metal has a bluish white colour not unlike that of steel, and a good deal of brilliancy. It has no sensible smell while cold, but when heated it emits a strong odour of garlic, which is very characteristic. It is the softest of all the metallic bodies, and so brittle that it may easily be reduced to a very fine powder by trituration in a mortar. Its specific gravity is 5·76. (Thomson's *Chemistry.*) Arsenic is chiefly obtained from Cornwall and South Wales.

Metallic arsenic is not used in the arts, and is not, therefore, extracted from the ore, except for the purposes of experiment or curiosity. The arsenic of commerce is the white oxide, or *arsenious acid* of chemists. It is a white, brittle, compact substance, of a glassy appearance; is inodorous; has an acrid taste, leaving on the tongue a sweetish impression; and is highly corrosive. In its metallic state arsenic exerts no action on the animal system; but when oxidised, it is a most virulent poison. The arsenic of the shops is sometimes adulterated with white sand, chalk, or gypsum; the fraud may be detected by heating a small portion of the suspected powder; when the arsenic is dissipated, leaving the impurities, if there be any, behind. Though the most violent of all the mineral poisons, the white oxide of arsenic, or the arsenic of the shops, is yet, when judiciously administered, of great efficacy. It is also used for various purposes in the arts. It is principally imported from Saxony and Bohemia.

White arsenic is extensively used in the preparation of various pigments, and also in the mineral gums used by paper-stainers and others. It is employed in the manufacture of glass and porcelain, a small portion making the glass transparent, a larger quantity opalescent. (Hunt's Ure's *Dictionary of Arts, &c.*)

ARTIFICIAL FLOWERS (Ger. künstliche blumen; Dutch, kunstbloemen; Swed. blommor artificiella; Dan. kunst blomster; Fr. fleurs artificielles; Ital. fiori finti or contrafatti; Span. flores de mano; Chinese, chí-hwa). Artificial flowers are made from feathers, shells, papers, insects' wings, cambric, &c. Their manufacture forms an important branch of industry, particularly in France and the United Kingdom. This manufacture is of very ancient date. According to Pliny, they were used in Rome 350 years B.C., and they are said to have been known to the Chinese in the third century. In Spain and Italy they were made at a very early period from silk, cambric, and gauze, and are reported to have been introduced from the latter country into France towards the end of the 15th century, when the manufacture was carried on at Lyons, and subsequently at Paris. Such flowers however appear to have been used not for personal, but for church adornments. The real progress of the manufacture in France began in the last century. In 1738 Seguin de Mendes at Paris commenced the manufacture of artificial flowers of a natural character, and in 1770 a Swiss improved it. Since that period the trade has been constantly developed and is fast progressing. The value of the artificial flowers produced in Paris in 1847 was upwards of 11,000,000 francs, and in 1858 was estimated at 16,000,000 francs.

In the former period there were 622 manufacturers employing 6,153 hands, of whom the larger proportion were women, at an average rate of wages of 3 francs 77 cents. for the men and 1 franc 94 cents. for the women. In 1860 the number of manufacturers in Paris was altogether 1,317, and the value of their productions 28,082,013 francs. The number of hands employed was 7,831. Average rate of wages for men 3 francs 75 cents., for women 2 francs 50 cents. The annual production of artificial flowers in the French provinces is estimated at about 1,000,000 francs.

The following table exhibits the declared values of the exports of this article from France:—

	1847	1857
	fr.	fr.
United States	435,000	1,393,000
Great Britain	336,500	1,186,000
Zollverein	115,000	286,000
Belgium	57,000	487,500
Italian States	30,000	86,500
Brazil	32,000	85,500
Other countries	237,000	619,500
Total	1,240,500	4,146,000

The manufacture of artificial flowers in Great Britain is carried on principally in the metropolis.

Exports of Artificial Flowers from France in 1864.

	fr.		fr.
Zollverein	723,331	United States	85,530
Belgium	166,337	Mexico	37,593
Great Britain	4,212,572	Brazil	89,795
Spain	104,921	Peru	51,156
Italy	160,439	Other countries	253,035
Switzerland	175,163	Total	5,087,772

ASAFŒTIDA (Ger. teufelsdreck, stinkasant; Dutch, duivelsdreck; Fr. assa-fetida; Sp. asafetida; Lat. asa-fœtida; Arab. hiltect; Pers. ungoozen). A gum resin, consisting of the inspissated juice of a large umbelliferous plant, the Narthex asafœtida. It is produced in the southern provinces of Persia, and in the territory of Sinde, or country lying at the mouth of the Indus, flourishing abundantly in the mountainous provinces of Laar and Khornssan. It is exported from the Persian Gulf to Bombay and Calcutta, whence it is sent to Europe. It has a nauseous, somewhat bitter, biting taste, and an excessively strong, fœtid, alliaceous smell: the newer it is, it possesses its smell and other peculiar properties in the greater perfection. It is imported, packed in

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irregular masses, in mats, casks, and cases; the last being in general the best. It should be chosen clean, fresh, strong-scented, of a pale reddish colour, variegated with a number of fine, white tears: when broken, it should somewhat resemble marble in appearance; and, after being exposed to the air, should turn of a violet red colour. That which is soft, black, and foul, should be rejected. The packages should be carefully examined, and ought to be tight to prevent the smell from injuring any other article. The imports are at present so trivial, that they are not distinguished separately in the returns of imports and exports. Here, indeed, it is only used in the Materia Medica; but in France, it is used both in that way, and to some extent also as a condiment. It is worth in the London market from 12*s.* to 4*l.* per cwt.

In India the price of asafœtida is about 2*s.* per pound.

ASH (COMMON). The *Fraxinus excelsior* of botanists, a forest tree of which there are many varieties. It is abundant in England, and is of the greatest utility.

The ash is of very rapid growth; and, unlike most other trees, its value is rather increased than diminished by this circumstance. Like the chestnut, the wood of young trees is most esteemed. It grows on a great variety of soils, but is best where the growth has been most vigorous. It is inferior to the oak in stiffness, and is more easily split; but in toughness and elasticity it is far superior to the oak, or to any other species of timber. Hence its universal employment in all those parts of machinery which have to sustain sudden shocks, such as the circumference, teeth, and spokes of wheels, ship-blocks, &c., and in the manufacture of agricultural implements; in the latter it is employed almost exclusively. So important indeed is the use of ash in these implements, and so large has been the development of this branch of manufacturing industry, that the price of ash timber has *more than doubled* during the last ten or fifteen years. The want of prolonged durability is its greatest defect; and it is too flexible to be employed in building. The wood of old trees is of a dark brown colour, sometimes beautifully figured; the wood of young trees is brownish white, with a shade of green. The texture is alternately compact and porous: where the growth has been vigorous, the compact part of the several layers bears a greater proportion to the sponge, and the timber is comparatively tough, elastic, and durable. It has neither taste nor smell; and when young, is difficult to work. (Tredgold, *Principles of Carpentry.*)

ASHES (Fr. vedasse; Ger. waidasche; Dutch, weedas; Dan. veedaske; Ital. feccia bruciata; Span. alumbre de hez; Russ. weidasch; Lat. cineres infectorii). The residuum or earthy part of any substance after it has been burnt. In Commerce, the term is applied to the ashes of vegetable substances; from which are extracted the alkaline salts called Barilla, Kelp, Pearl-ash, Potash, &c.

ASPHALTUM. [Bitumen.]

ASSETS. In Commerce, a term used to designate the stock in trade, and the entire property of all sorts, belonging to a merchant or to a trading association. It is also applied to goods or property placed, for the discharge of some particular trust or obligation, in the hands of executors, assignees, &c. [Bankruptcy.]

ASSIENTO. A Spanish word signifying a contract. In commercial history, it means the contract or agreement by which the Spanish government ceded first to a company of French, and afterwards (by the treaty of Utrecht) to a company of English merchants, the right to import, under certain conditions, a specified number of slaves into the Spanish colonies. (For full particulars with respect to this contract, see Mr. Bandinel's valuable work on the Slave Trade.)

ASSIGNEE. A person appointed by competent authority to do, act, or transact some business, or exercise some particular privilege or power, for or on account of some specified individual or individuals.

Assignees may be created by deed, or by law: by deed, where the lessee of a farm assigns the same to another; by law, where the law makes an assignee, without any appointment of the person entitled, as an executor is assignee in law to the testator, and administrator to an intestate. The term is most commonly applied to the official assignees appointed to manage bankrupt estates. [Bankrupt.]

ASSIZE. [Bread.]

ASSURANCE. [Insurance.]

ATOCHA GRASS. A name sometimes given to Esparto Fibre.

AUCKLAND. The principal town and seat of government in the British colony of New Zealand. Population in 1861, 7,989.

The colony of New Zealand consists of three islands, called New Ulster, New Munster, and New Leinster. The islands lie between 34° and 48° S. latitude, and 166° and 179° E. longitude. They were discovered and partially explored by Tasman in 1642, and still more fully by Cook in 1777. The first settlement of New Zealand took place in 1814; the colony was constituted in 1839; and gifted with a separate constitution in 1840.

The chief exports of New Zealand are gold and gold dust, wool, and Kowrie gum. In the three years 1863–5, the value of gold and specie exported amounted to 2,529,479*l.*, 2,081,347*l.*, and 2,293,017*l.*; of wool to 830,295*l.*, 1,070,397*l.*, 1,141,761*l.* The total exports were 3,485,405*l.*, 3,401,667*l.*, 3,713,218*l.* The imports during the same years were 7,024,674*l.*, 7,000,655*l.*, 5,594,977*l.*; the chief articles being drapery, wines and spirits, and provisions. Of these quantities 2,197,473*l.*, 2,071,229*l.*, and 1,720,587*l.* represent British trade.

The tonnage of Auckland in 1865 was 13,094, the vessels registered in the port 300, and the imports and exports of the town were in the same year 1,842,416*l.*, and 234,410*l.* The imports and exports of Otago, or Dunedin, are far larger; but this town is situated in the gold district.

AUCTION. A public sale of goods to the highest bidder. Auctions are generally notified by advertisement, and are held in some open place. The biddings may be made either by parties present, or by the auctioneer under authority given to him: the sale is usually terminated by the fall of a hammer.

The duties on property sold by auction were repealed in the year 1845.

The auction duties, which were first imposed in 1777, consisted of duties proportioned to its value, charged on certain descriptions of property when sold by auction. They amounted to 7*d.* per pound sterling on the value of estates, houses, annuities, shares in public companies, ships, funds, and some other articles; and to 1*s.* per pound on the value of household furniture, books, horses, carriages, and all other goods and chattels. The exemptions were, however, very numerous, comprising various descriptions of movable property, with all sorts of property sold by order of the courts of chancery and exchequer, or for behoof of creditors, or under distress for rent, &c.

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Account of the Produce of the Auction Duties in each of the 3 years ending the 5th of January, 1843, distinguishing the Amount paid under separate Heads.

	Amount of Auction Duties on the Sale of												Total Produce		
	Estates, Houses, Annuities, Ships, Plate, Jewels, &c.			Household Furniture, Horses, Carriages, and all other Goods and Chattels			Sheep's Wool			Foreign Produce (First Sale thereof)					
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
England	127,445	12	10	156,189	13	0½	21	8	6½	2,965	14	9½	306,620	9	2½
Scotland	5,830	4	2	14,024	3	1½	2	4	7½	204	4	9½	20,080	16	7½
Ireland	2,585	4	10	10,791	11	6½	0	6	5½	—			13,377	5	8½
Year ended January 5, 1841	135,859	1	10	181,005	10	8½	23	19	5½	3,169	19	6½	340,058	11	6½
England	121,080	8	4	155,956	1	7½	19	13	8	2,792	11	6	79,848	14	8½
Scotland	5,857	12	1½	14,901	19	7½	3	2	1½	137	10	6½	20,883	4	5½
Ireland	3,016	16	5½	10,518	8	0½	—			—			13,535	6	5½
Year ended January 5, 1842	129,954	18	11	181,179	9	3½	22	15	4½	2,930	2	0½	314,267	5	7½
England	101,536	13	9	155,859	16	6	17	10	6	2,865	16	2½	260,259	16	11½
Scotland	5,067	5	10	14,697	2	6½	1	19	7½	74	12	3½	19,841	0	3½
Ireland	6,727	10	1½	10,124	9	5	0	5	5	11	1	5	16,863	6	7½
Year ended January 5, 1843	113,331	9	8½	180,681	8	5½	19	15	6½	2,951	9	9	296,964	3	5½

AUCTIONEER. A person who conducts sales by auction. It is his duty to state the conditions of sale, to declare the respective biddings, and to terminate the sale by *knocking down* the thing sold to the highest bidder. An auctioneer is held to be lawfully authorised by the purchaser to sign a contract for him, whether it be for lands or goods. And his writing down the name of the highest bidder in his book is sufficient to bind any other person for whom the highest bidder purchased even though such person be present, provided he do not object *before entry*. The following provisions with respect to auctioneers are embodied in the 8 Vict. c. 15.

Every auctioneer must take out a license (renewable annually on July 5), for which he is to be charged 10*l*. The duty collected in the United Kingdom in 1865–6 amounted to 49,080*l*.

The statute then goes on to enact—

Auction License not necessary in certain Cases.—It shall not be necessary for any person selling any goods or chattels by auction in any of the cases hereinafter mentioned to take out the license by this Act required, viz. any person selling any goods or chattels by auction under a distress for nonpayment of rent or tithes to less amount than 20*l*.; or under authority of the Act 6 Geo. IV. c. 48, 'For the Recovery of Small Debts in Scotland;' or under authority of the Act 6 & 7 Wm. IV. c. 75, intituled 'An Act to extend the Jurisdiction and regulate the Proceedings of the Civil Bill Courts in Ireland,' and the Act 7 Wm. IV. & 1 Vict. c. 43, intituled 'An Act to amend the Laws for the Recovery of Small Debts by Civil Bill in Ireland;' or under authority of the Act 7 Wm. IV. & 1 Vict. c. 41, intituled 'An Act for the more effectual Recovery of Small Debts in the Sheriff Courts, and for regulating the Establishment of Circuit Courts for the Trial of Small Debt Causes by the Sheriffs in Scotland;' or under authority of any other Act or Acts of parliament now in force in which the like exemption as by the Act specified is given to the proper officer of court executing the process of such court to sell the effects seized by him by auction, without taking out or having any license as an auctioneer, provided the sum for which such process is enforced is under 20*l*.—Sec. 5.

6 Geo. IV. c. 81 s. 8 repealed, and 1 Excise License to be sufficient.—So much of the Act 6 Geo. IV. c. 81 as enacts 'that every person exercising or carrying on the trade or business of an auctioneer or selling any goods or chattels, lands, tenements, or hereditaments by auction, shall, over and above any license to him or her granted as an auctioneer, take out such license as is required by law to deal in or retail, or to vend, trade in, or sell, any goods or commodities, for the dealing in or retailing or vending, trading in or selling of which an excise license is specially required, before he or she shall be permitted or authorised to sell such goods or commodities by auction, and if any such person shall sell any such goods or commodities as aforesaid by auction without having taken out such license as aforesaid for that purpose, he or she shall be subject and liable to the penalty in that behalf imposed upon persons dealing in or retailing, vending, trading, or selling any such goods or commodities without license, notwithstanding any license to him or her before granted as aforesaid for the purpose of exercising or carrying on the trade or business of an auctioneer, or selling any goods or chattels, lands, tenements, or hereditaments by auction, anything herein contained to the contrary notwithstanding,' together with the proviso thereto attached, and so much of any other Act or Acts of parliament by which it is required that a separate and distinct license shall be taken out by any auctioneer selling by auction gold or silver plate or patent medicines, or any other articles, are hereby repealed; and any auctioneer having at the time in force a license on which the duty under the provisions of this Act has been paid may sell by auction any such property, goods, or commodities, without taking out any other license in such respect, any other Act or Acts to the contrary thereof notwithstanding.—Sec. 6.

Clause 7 orders that every auctioneer, before he shall commence any sale, shall suspend or affix a ticket or board containing his full Christian name and surname and place of residence in large letters to some conspicuous part of the room or place where the auction is held, under a penalty of 20*l*.

Clause 8 enacts that every person acting as auctioneer shall produce his license, or make a deposit of 10*l*. on pain of 1 month's imprisonment, on the demand at the time of any sale by auction of any officer of excise, customs, or stamps and taxes.

An auctioneer who declines to disclose the name of his principal at the time of sale makes himself responsible. But if he disclose the name of his principal, he ceases to be responsible, either for the soundness of or title to the thing sold, unless he have expressly warranted it on his *own* responsibility.

If an auctioneer pay over the produce of a sale to his employer, after receiving notice that the goods were not the property of such employer, the real owner of the goods may recover the amount from the auctioneer.

It has long been a common practice at certain

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auctions (called for that reason *mock* auctions) to employ *puffers*, or mock bidders, to raise the value of the articles sold by their apparent competition, and many questions have grown out of it. It was long ago decided, that if the owner of an estate put up to sale by auction employ puffers to bid for him, it is a fraud on the real bidder, and the highest bidder cannot be compelled to complete his contract. (6 *T. Rep.* p. 642.) But it would seem as if the mere employment of puffers under any circumstances were now held to be illegal. 'The inclination of the courts at the present time is, that a sale by auction should be conducted in the most open and public manner possible; that there should be no reserve on the part of the seller, and no collusion on the part of the buyers. Puffing is illegal, according to a late case, even though there be only one puffer; and it was then decided that the recognised practice at auctions, of employing such persons to bid upon the sale of horses, could not be sustained.' (Woolrych *On Commercial Law*, p. 262.)

A party bidding at any auction may retract his offer at any time before the hammer is down. Another clearly established principle is, that verbal declarations by an auctioneer are not to be suffered to control the printed conditions of sale; and these, when pasted up under the box of the auctioneer, are held to be sufficiently notified to purchasers.

Auctioneers, like all other agents, should carefully observe their instructions. Should those who employ them sustain any damage through their carelessness or inattention, they will be responsible. They must also answer for the consequences, if they sell the property intrusted to their care for less than the price set upon it by the owners, or in a way contrary to order.

An auctioneer who has duly paid the license duty is not liable, in the city of London, to the penalties for acting as a *broker* without being admitted agreeably to the 6 Anne c. 16.

The establishment of mock auctions is a common practice among swindlers in London. Persons are frequently placed at the doors of such auctions, denominated *barkers*, to invite strangers to come in; and puffers are in wait to bid up the article much beyond its value. A stranger making an offer at such an auction is almost sure to have the article knocked down to him. Plated goods are often disposed of at these auctions; but it is almost needless to add, they are of very inferior quality. Attempts have sometimes been made to suppress mock auctions, but hitherto without much success.

AUSTRALIA. [ADELAIDE; BRISBANE; COLONIES AND COLONY TRADE; MELBOURNE; SYDNEY; &c.]

AVERAGE (Fr. avarie; Ital. germinamento. For an elaborate dissertation on the origin of this term, see Arnould's *Marine Insurance*, 3rd edit. with Mr. Maclachlan's note, p. 738). A term used in Commerce and Navigation to signify a contribution made by the individuals, when they happen to be more than one, to whom a ship, or the goods on board it, belong, or by whom it or they are insured; in order that no particular individual or individuals amongst them, who may have been forced to make a sacrifice for the preservation of the ship or cargo, or both, should lose more than others. 'Thus,' says Mr. Serjeant Marshall, 'where the goods of a particular merchant are thrown overboard in a storm to save the ship from sinking; or where the masts, cables, anchors, or other furniture of the ship, are cut away or destroyed for the preservation of the whole; or money or goods are given as a composition to pirates to save the rest; or an expense is incurred in reclaiming the ship, or defending a suit in a foreign court of admiralty, and obtaining her discharge from an unjust capture or detention; in these and the like cases, where any sacrifice is deliberately and voluntarily made, or any expense fairly and *bonâ fide* incurred, to prevent a total loss, such sacrifice or expense is the proper subject of a general contribution, and ought to be rateably borne by the owners of the ship, freight, and cargo, so that the loss may fall equally on all, according to the equitable maxim of the civil law—no one ought to be enriched by another's loss: "Nemo debet locupletari aliena jactura."'

Upon this fair principle is founded the doctrine of average contributions; regulations with respect to which having been embodied in the Rhodian law, were thence adopted into the Roman law; and form a prominent part of all modern systems of maritime jurisprudence. The rule of the Rhodian law is, that 'if, for the sake of lightening a ship in danger at sea, goods be thrown overboard, the loss incurred for the sake of all, shall be made good by a general contribution.'—(*Dig.* lib. xiv. tit. 2, s. 1; Schomberg, *On the Maritime Laws of Rhodes*, p. 60.)

Formerly it was a common practice to ransom British ships when captured by an enemy, the ransom being made good by a general average. But this practice having been deemed disadvantageous, it was abolished by stat. 22 Geo. III. c. 25, which declares, 'That all contracts and agreements which shall be entered into, and all bills, notes, and other securities, which shall be given by any person or persons, for ransom of any ship or vessel, merchandise, or goods, captured by the subjects of any state at war with his Majesty, or by any person committing hostilities against his Majesty's subjects, shall be absolutely void in law, and of no effect whatever;' and a penalty of 500*l.* is given to the informer, for every offence against this Act.

Average is either *general* or *particular*; that is, it either affects all who have any interest in the ship and cargo, or only some of them. The contributions levied in the cases mentioned above, come under the first class. But when losses occur from ordinary wear and tear, or from the perils naturally incident to a voyage, without being *voluntarily* encountered, such as the accidental springing of masts, the loss of anchors, &c., or when any peculiar sacrifice is made for the sake of the *ship only*, or of the *cargo only*, these losses, or this sacrifice, must be borne by the parties immediately interested, and are consequently defrayed by a *particular* average.

There are also some small charges called *petty* or *accustomed* averages; it is usual to charge one third of them to the ship and two thirds to the cargo.

No general average ever takes place, except it can be shown that the danger was imminent, and that the sacrifice made *was indispensable, or supposed to be indispensable, by the captain and officers for the safety of the ship and cargo.* The captain, on coming on shore, should immediately make his protests; and he, with some of the crew, should make oath that the goods were thrown overboard, masts or anchors cut away, money paid, or other loss sustained, for the preservation of the ship and goods, and of the lives of those on board, and for no other purpose. The average, if not settled before, should then be adjusted, and it should be paid before the cargo is landed; for the owners of the ship have a *lien* on the goods on board, not only for the freight, but also *to answer all averages and contributions that may be due.* But though the captain should neglect his duty in this respect, the sufferer would not be without

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a remedy, but might bring an action either against him or the owners.

The laws of different states, and the opinions of the ablest jurists, vary as to whether the loss incurred in defending a ship against an enemy or pirate, and in the treatment of the wounded officers and men, should be made good by general or particular average. The Ordinance of the Hanse Towns (art. 35), the Ordinance of 1681 (liv. iii. tit. 7, s. 6), and the *Code de Commerce* (art. 400, s. 6), explicitly declare that the charges on account of medicine and for attendance upon the officers and seamen wounded in defending the ship, shall be general average. A regulation of this sort seems to be founded on reason. But other codes are silent on the subject; and though the contrary opinion had been advanced by Mr. Serjeant Marshall, and by Mr. Justice Park in the earlier editions of his work, the Court of Common Pleas has unanimously decided that in England neither the damage done to a ship, nor the ammunition expended, nor the expense of healing sailors wounded in an action with an enemy or pirate is a subject of general average. (Abbott, *On the Law of Shipping*, pt. iii. ch. viii.)

The general safety of the whole adventure must also be a motive for the sacrifice, for if a captain of a ship, on the point of capture, threw overboard a quantity of dollars, not to save the ship and cargo, but merely to prevent the dollars from getting into the enemy's hand; this is not such a jettison as would entitle the owner of the dollars to a general average contribution. (Arnould, p. 773.)

Some goods are excepted, giving no claim to contribution, as those of which there is no bill of lading; those taken on board by the captain contrary to the charter-party; and especially those carried on deck, unless there is a usage and custom for such carriage. Thus timber cast overboard is held to be entitled to average, as were also some pigs carried between Waterford and London.

Much doubt has been entertained, whether expenses incurred by a ship in an intermediate port in which she has taken refuge, should be general average or fall only on the ship. But on principle at least, it is clear, that if the retreat of the ship to port be made in order to obviate the danger of foundering, or some other great and imminent calamity, the expenses incurred in entering it, and during the time she is forced by stress of weather, or adverse winds, to continue in it, ought to belong to general average. But if the retreat of the ship to port be made in order to repair an injury occasioned by the unskilfulness of the master, or in consequence of any defect in her outfit, such, for example, as deficiencies of water, provisions, sails, &c., with which she ought to have been sufficiently supplied before setting out, the expenses should fall wholly on the owners.

When a ship (supposed to be *seaworthy*) is forced to take refuge in an intermediate port, because of a loss occasioned by a peril of the sea, as the springing of a mast, &c., then, as the accident is not ascribable to any fault of the master or owners, and the retreat to port is indispensable for the safety of the ship and cargo, it would seem that any *extraordinary expense* incurred in entering it should be made good by general average.

Supposing, however, that it could be shown that the ship was not, at her outset, seaworthy, or in a condition to withstand the perils of the sea; that the mast, for example, which has sprung, had been previously damaged; or supposing that the mischief had been occasioned by the incapacity of the master; the whole blame would, in such a case, be ascribable to the owners, who besides defraying every expense, should be liable in damages to the freighters for the delay that would necessarily take place in completing the voyage, and for whatever damage might be done to the cargo.

These, however, are merely the conclusions to which, as it appears to us, those must come who look only to principles. The law with respect to the points referred to differs in different countries, and has differed in this country at different periods. 'A doubt,' says Lord Tenterden, 'was formerly entertained as to the expenses of a ship in a port in which she had taken refuge, to repair the damage occasioned by a tempest; but this has been removed by late decisions. And it has been held, that the wages and provisions of the crew during such a period must fall upon the ship alone. But if a ship should necessarily go into an intermediate port for the purpose only of repairing such a damage as is in itself a proper object of general contribution, possibly the wages, &c. during the period of such detention, may also be held to be general average, on the ground that the accessory should follow the nature of its principal.' (*Law of Shipping*, pt. iii. ch. viii.)

Perhaps the reader who reflects on the vagueness of this passage will be disposed to concur with Lord Tenterden's remark in another part of the same chapter, 'That the determinations of the English courts of justice furnish less of authority on this subject (average) than on any other branch of maritime law.'

The question, whether the *repairs* which a ship undergoes that is forced to put into an intermediate port ought to be general or particular average, has created a great diversity of opinion: but the principles that ought to regulate our decision with respect to it seem pretty obvious. Injuries voluntarily done to the ship, as cutting away masts, yards, &c., to avert some impending danger, are universally admitted to be general average. It seems, however, hardly less clear, and is, indeed, expressly laid down by all the great authorities, that injuries done to the ship by the violence of the winds or the waves should be particular average, or should fall wholly on the owners. The ship, to use the admirable illustration of this principle given in the civil law, is like the tool or instrument of a workman in his trade. If in doing his work he break his hammer, his anvil, or any other instrument, he can claim no satisfaction for this from his employer. (*Dig.* lib. xiv. tit. 2, s. 2.) The owners are bound, both by the usual conditions in all charter-parties, and at common law, to carry the cargo to its destination; and they must consequently be bound, in the event of the ship sustaining any accidental or natural damage during the voyage, either to repair that damage at their own expense, or to provide another vessel to forward the goods. In point of fact, too, such subsidiary ships have often been provided; but it has never been pretended that their hire was a subject of general average, though it is plain it has quite as good a right to be so considered as the cost of repairing the damage done to the ship by a peril of the sea. Hence when a ship puts into an intermediate port for the common safety, the charges incurred in entering the port, and *down to the earliest time that the wind and weather become favourable for leaving it*, ought to be general average; but the repair of any damage she may have sustained by wear and tear or by the mere violence of the storm, or an accidental peril, and the wages of the crew, and other expenses incurred after the weather has moderated, should fall wholly on the owners.

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A recent decision in the case of a British ship that had been obliged to put into port in consequence of an injury resulting from her accidentally coming into collision with another, affirmed that so much of the repair she then underwent as was *absolutely necessary to enable her to perform her voyage* should be general average. The Judges, however, spoke rather doubtfully on the subject; and it is exceedingly difficult to discover any good grounds for the judgment. (Plummer and another *v.* Wildman, 3 *M. & S.* 482.) It seems directly opposed to all principle, as well as to the authority of the laws of Rhodes (*Dig.* 14, tit. 2), of Oleron (art. 9), of Wisby (art. 12), and to the common law with respect to freight. Lord Tenterden has expressed himself as if he were hostile to the judgment. It is, indeed, at variance with all the doctrines he lays down; and the terms in which he alludes to it, '*yet in one case*,' appear to hold it forth as an exception (which it certainly is) to the course of decisions on the subject.

This rule has been adopted in the United States, but in this country (Arnould, 792) the case must either be considered as overruled or at all events not to be an authority for the rule thus deduced from it. Indeed, Lord Ellenborough himself afterwards refers to it as decided on the ground that the repairs were rendered necessary by a sacrifice of part of the ship for the general safety, and held on the case then before him (Power *v.* Whitmore) that the expense of repairs can only be a subject of general contribution when rendered necessary by a general average loss. This is accordingly the received rule of law in this country upon the subject.

It is now usual in this country, when a vessel puts into port on account of a damage belonging to particular average, which requires to be repaired before she can safely proceed on her voyage, to allow in general average the expense of entering the port and unloading, to charge the owners of the goods or their underwriters with the warehouse rent and expenses attending the cargo, and to throw the expense of reloading and departure on the freight.

Considerable doubts have existed in regard to the policy of making the loss of goods stowed upon the deck and thrown overboard the subject of general average. The French Ordinance of 1681, proceeding on the assumption that deck stowage is in all cases improper, has expressly excluded goods so stowed from the benefit of such average (Liv. iii. tit. 8, s. 13.) This, however, is plainly a matter in regard to which no invariable rule can be safely laid down; for though, speaking generally, stowage on the deck be improper and dangerous in most distant voyages, it may not be so, at least in certain seasons of the year, and in certain descriptions of vessels, in the coasting or cross-channel trades, or in over-sea voyages to contiguous countries. And such being the case, the preferable plan would seem to be to leave cases of the jettison of the deck cargo to be decided according to the practice of the peculiar trade in which they may happen to take place. This, too, we infer, though the point has not been judicially determined, is, in fact, the law of England at this moment. Primâ facie, deck goods are excluded from the benefit of general average; but if it can be shown that stowage on deck is the usage of the trade in which a jettison takes place, and the custom of the parties engaged in it, the general presumption against the practice would be defeated, and the goods would be admitted to the benefit of general average. (Shee's valuable edition of Lord Tenterden's work on the *Law of Shipping*, pp. 481—489.)

A late statute, the 5 Vict. 2 sess. c. 17, makes it illegal for ships laden with timber and clearing out from any port in British North America between November 1 and May 1 to have any portion of the cargo on deck. But, with this exception, the propriety of stowing goods on the deck must be determined by the opinions of those engaged in the particular trade in which it may have occurred.

According to the law of England, when a ship is injured by coming into collision with, or *running foul* of another, if the misfortune has been accidental, and no blame can be ascribed to either party, the owners of the damaged ship have to bear the loss. In cases where a collision has taken place through the fault of one party only, he, of course, is responsible for the consequences; but where both parties are to blame, without its being possible to discriminate the precise culpability of each, the loss or damage is to be defrayed equally by both parties. And this, also, is the rule laid down by the laws of Oleron and Wisby, and the famous French Ordinance of 1681, in reference to accidental collisions. The *Code de Commerce* (art. 407), however, throws the loss resulting from accidental collisions on the suffering party, harmonising in this respect with the law of England. [Collision.]

The ship and freight, and everything on board, even jewels, plate, and money, except wearing apparel, contribute to general average. But the wages of seamen do not contribute; because, had they been laid under this obligation, they might have been tempted to oppose a sacrifice necessary for the general safety.

Different states have adopted different modes of valuing the articles which are to contribute to an average. In this respect the law of England has varied considerably at different periods. At present, however, the ship is valued at the price she is worth on her arrival at the port of delivery. The value of the freight is held to be the clear sum which the ship has earned after seamen's wages, pilotage, and all such other charges as come under the name of petty averages, are deducted. It is now the settled practice to value the goods lost, as well as those saved, at the price they would have fetched in ready money, *at the port of delivery*, on the ship's arrival there, freight, duties, and other charges being deducted. Each person's share of the loss will bear the same proportion to the value of his property that the whole loss bears to the aggregate value of the ship, freight, and cargo. The necessity of taking the goods lost into this account is obvious; for otherwise their owner would be the only person who would not be a loser.

When the loss of masts, cables, and other furniture of the ship, is compensated by general average, it is usual, as the new articles will, in all ordinary cases, be of greater value than those that have been lost, to deduct *one-third* from the value of the former, leaving two-thirds only to be contributed.

But the mode of adjusting an average will be better understood by the following example, extracted from Chief Justice Tenterden's valuable work on the *Law of Shipping*, pt. iii. ch. viii.:—

'The reader will suppose that it became necessary, in the Downs, to cut the cable of a ship destined for Hull; that the ship afterwards struck upon the Goodwin, which compelled the master to cut away his mast, and cast overboard part of the cargo, in which operation another part was injured; and that the ship being cleared from the sands, was forced to take refuge in Ramsgate harbour, to avoid the further effects of the storm.

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Amount of Losses	£
Goods of A. cast overboard	500
Damage of the goods of B. by the jettison	200
Freight of the goods cast overboard	100
Price of a new cable, anchor, and mast 300*l.* Deduct one third 100*l.*	200
Expense of bringing the ship off the sands	50
Pilotage and port duties going into the harbour and out, and commission to the agent who made the disbursements	100
Expenses there	25
Adjusting this average	4
Postage	1
Total of losses	1,180
Value of Articles to contribute.	
Goods of A. cast overboard	500
Sound value of the goods of B., deducting freight and charges	1,000
Goods of C.	500
D.	2,000
E.	5,000
Value of the ship	2,000
Clear freight, deducting wages, victuals, &c.	800
Total of contributory values	11,800

Then, 11,800*l.* : 1,180*l.* :: 100*l.* : 10*l.*

That is, each person will lose 10 per cent. upon the value of his interest in the cargo, ship, or freight. Therefore, A. loses 50*l.*, B. 100*l.*, C. 50*l.*, D. 200*l.*, E. 500*l.*, the owners 280*l.*; in all, 1,180*l.* Upon this calculation, the owners are to lose 280*l.*; but they are to receive from the contribution 380*l.* to make good their disbursements, and 100*l.* more for the freight of the goods thrown overboard; or 480*l.*, minus 280*l.*

	£
They, therefore, are actually to receive	200
A. is to contribute 50*l.*, but has lost 500*l.*; therefore A. is to receive	450
B. is to contribute 100*l.*, but has lost 200*l.*; therefore B. is to receive	100
Total to be actually received	750
On the other hand, C., D., and E. have lost nothing, and are to pay as before; viz. C.	50
D.	200
E.	500
Total to be actually paid	750

which is exactly equal to the total to be actually received, and must be paid by and to each person in rateable proportion.

'In the above estimate of losses, I have included the freight of the goods thrown overboard, which appears to be proper, as the freight of the goods is to be paid, and their supposed value is taken clear of freight, as well as other charges. In this country, where the practice of insurance is very general, it is usual for the broker, who has procured the policy of insurance, to draw up an adjustment of the average, which is commonly paid in the first instance by the insurers without dispute. In case of dispute, the contribution may be recovered either *by a suit in equity*, or by an action at law, instituted by each individual entitled to receive, against each party that ought to pay, for the amount of his share. And in the case of a general ship, where there are many consignees, it is usual for the master, before he delivers the goods, to take a bond from the different merchants for payment of their portions of the average when the same shall be adjusted.'

The subject of average does not necessarily make a part of the law of insurance; though as insurers, from the terms of most policies, are liable to indemnify the insured against those contributions which are properly denominated *general* average, its consideration very frequently occurs in questions as to partial losses. But in order to confine assurances to that which should be their only object, namely an indemnity against real and important losses arising from a peril of the sea, as well as to obviate disputes respecting losses arising from the perishable quality of the goods insured, and all trivial subjects of difference and litigation, it seems to be the general law of all maritime states, and is expressly, indeed, provided by the famous Ordinance of 1681 (see liv. iii. tit. 6, s. 47, and the elaborate commentary of M. Valin), that the insurer shall not be liable to any demand on account of average, unless it exceed *one* per cent. An article (No. 408) to the same effect is inserted in the *Code de Commerce*; and by stipulation, this limitation is frequently extended in French policies to *three* or *four* per cent. A similar practice was adopted in this country in 1749. It is now constantly stipulated in all policies, that upon certain enumerated articles of a quality peculiarly perishable, the insurer shall not be liable for any partial loss whatever; that upon certain others liable to partial injuries, but less difficult to be preserved at sea, he shall only be liable for partial losses above *five* per cent.; and that as to all other goods, and also the ship and freight, he shall only be liable for partial losses above *three* per cent. This stipulation is made by a memorandum inserted at the bottom of all policies done at Lloyd's, of the following tenor: 'N.B. Corn, fish, salt, fruit, flour, and seeds are warranted free from average, unless general, or the ship be stranded; sugar, tobacco, hemp, flax, hides, and skins are warranted free from average under 5*l.* per cent.; and all other goods free from average under 3*l.* per cent., unless general, or the ship be stranded.'

The form of this memorandum was universally used, as well by the Royal Exchange and London Assurance Companies as by private underwriters, till 1754, when it was decided that a ship having run aground, was a stranded ship within the meaning of the memorandum; and that although she got off again, the underwriters were liable to the average or partial loss upon damaged corn. This decision induced the two companies to strike the words *or the ship be stranded* out of the memorandum; so that now they consider themselves liable to no losses which can happen to such commodities, except general averages and total losses. The old form is still retained by the private underwriters. [JETSAM; STRANDING.]

The reader is referred for the further discussion of this important subject, to the article MARINE INSURANCE; and to Mr. Stevens's *Essay on Average*; Abbott *On the Law of Shipping*, pt. iii. ch. viii.; Marshall *On Insurance*, book i. ch. xii. s. 7; Park *On Insurance*, ch. vii.; and Mr. Benecke *On the Principles of Indemnity in Marine Insurance*; Arnould *On Marine Insurance*; Pritchard's *Admiralty Digest*; Smith's *Mercantile Law*.

International General Average.—It is clear that there is a tendency for the rules of commercial law, and especially that portion which deals with shipping and marine assurance, to become identical in all civilised communities. Hence all admiralty and naval courts take into account decisions which have been given in foreign tribunals, quote cases which have been adjudicated on, and treat commercial law with greater or less exactness as part of the law of nations.

The reader is referred especially to the *Report of the Social Science Association for* 1864, containing the resolutions arrived at by representatives from Belgium, France, Holland, the Hanse Towns, Russia, and the United States.

AVOIRDUPOIS. A weight used in determining the gravity of bulky commodities.

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BABOOL BARK. The bark of the *Acacia arabica* is almost exclusively used by the natives of India for tanning purposes, being the only bark which can be obtained throughout the Peninsula in large quantities, and cheap. The price varies from ½ to 2 rupees per maund, about 80 lbs. avoir.

BACON AND HAMS. The former is made from the sides and belly of the pig, and the latter from its hind legs. The process of curing may be effected indifferently by the employment of salt or sugar, or both; but the first is by far the most commonly used. After being impregnated with salt or sugar, and allowed to remain a certain time in the solution, the bacon and hams are taken out, dried and smoked. The counties of England most celebrated for bacon and hams, are York, Hants, Berks, and Wilts. Ireland produces great quantities of both; but they are coarse, not so well cured as the English, and much lower priced. Of the Scotch counties, Dumfries, Wigton, and Kirkcudbright are celebrated for the excellence of their bacon and hams, of which they export large quantities, principally to the Liverpool and London markets. [PORK.]

BAGGAGE. In Commercial Navigation, the wearing apparel and other articles destined for the sole use or accommodation of the crews and passengers of ships. The following are the principal custom-house regulations with respect to baggage:

Baggage and apparel accompanied by the proprietor, worn and in use (not made up for the purpose of being introduced into this country), exempted from all duty on importation.

Baggage, containing no article liable to duty, and arriving by continental steam vessels, may be examined between Gravesend and London, provided the proprietor be present, and see the packages reclosed and labelled by the officer. Such baggage is landed before any other, provided the label be not removed or torn. (*Customs Order*, Aug. 3, 1853.)

At the outports those passengers having but *single packages* landed, will have these first examined.

Articles in baggage (not merchandise) subject to duty, will be delivered to passengers, if the duties thereon, and a small fee for passing the entry, be deposited with the person authorised to receive the same.

If unaccompanied, and examined by sight entry, baggage may be delivered on a proper indorsement being made and certified by the examining officer.

If not cleared at the expiration of six months from the date of landing, it is liable to be sold for duty and charges, the residue (if any) to be paid to the right owner on proof being adduced to the satisfaction of the Board.

One rifle or fowling-piece, and one pair of pistols accompanying the party, for private use, free per Customs Order, Sept. 23, 1829. Now duty free.

Trifling articles of silk, and leather gloves in small quantities, found in passengers' baggage, landed from the continent, admitted for entry for private use on the usual declaration. (*Customs Order*, August 7, 1833.) Now duty free.

One pint of drinkable spirits of whatever strength, or half a pint of cordial or Cologne water, in baggage, for private use—free. (*Treasury Order*, October 25, 1820.)

Half a pound of cigars or manufactured tobacco in the baggage of passengers delivered *duty free*.

Passengers from short voyages may enter 3 lbs., and those from long voyages may enter 7 lbs., of cigars. (*Customs Order*, January 14, 1837.)

Books, plate, or other articles *on which drawback might have been received*, free, on declaration that no drawback has been received.

Drawings and sketches made for amusement, and not for sale, by the proprietor, and accompanied by him, *duty free*. (*Treasury Order*, August 5, 1817.)

Foreign newspapers unbound, duty free. (*Customs Order*, April 29, 1829.)

Passengers denying having Foreign Goods in their Possession.—The following clause in the Act 16 & 17 Vict. c. 107, has reference to this subject: 'If any passenger or other person, on board any ship or boat, or who may have landed from the same, shall, upon being questioned by any officer whether he has any foreign goods upon his person, or in his possession, deny the same, and any such goods shall, after such denial, be discovered to be, or to have been, upon his person, or in his possession, such goods shall be forfeited, and such person shall forfeit treble the value of such goods.' Sec. 229.

Any *Licensed Agent* overcharging parties for customs duties or other disbursement, will have his license withdrawn, and be prosecuted. (*Customs Order*, Dec. 24, 1847.)

A customs officer taking any fee, perquisite, or reward for anything done or omitted to be done by him in discharge of his duty, is to be dismissed.—(16 & 17 Vict. c. 107 s. 3.)

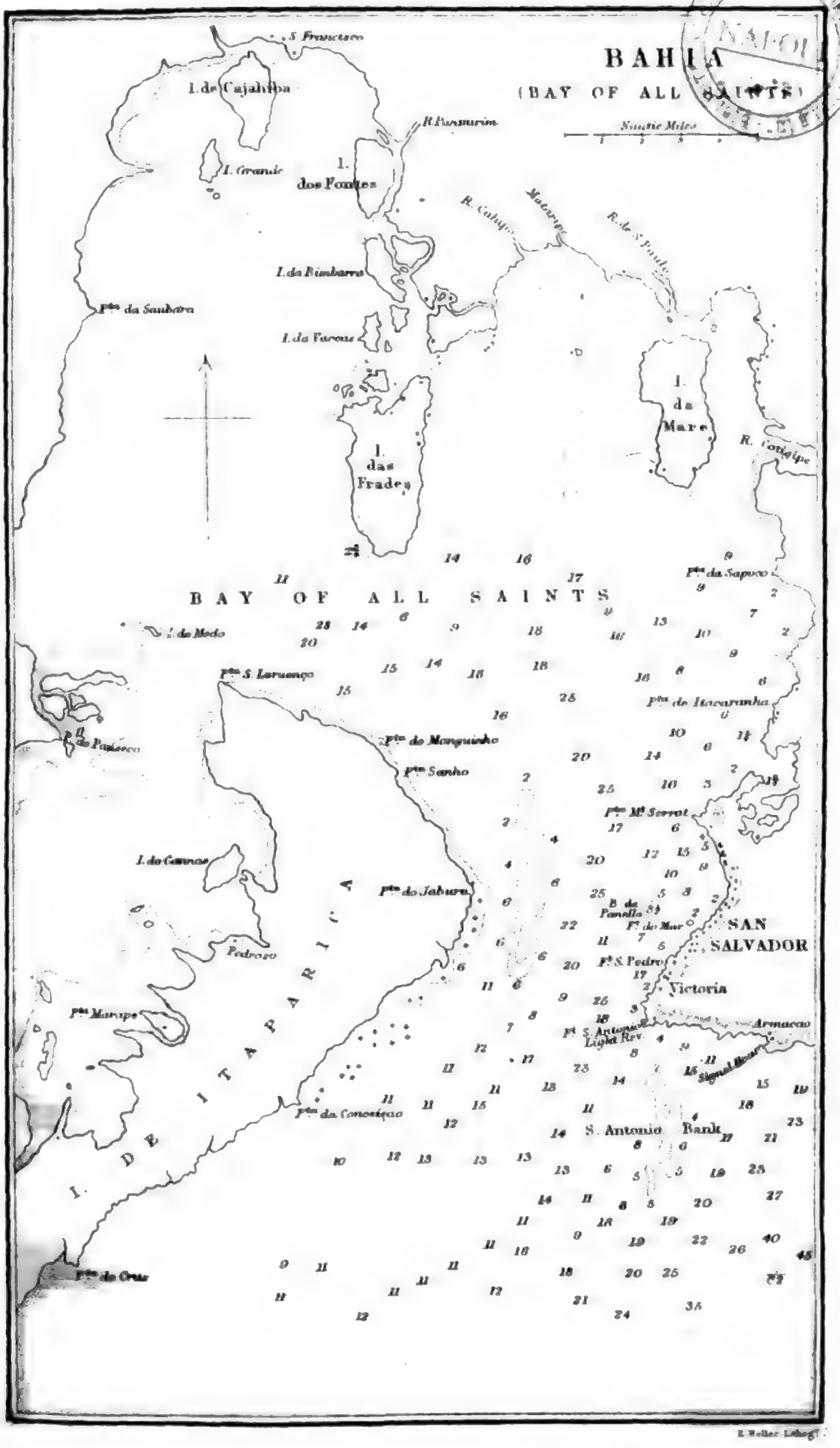
BAHIA or SALVADOR. A large city (formerly a capital) of Brazil, contiguous to Cape St. Antonio, which forms the right or eastern side of the entrance of the noble bay of Todos os Santos, or All-Saints.

The map conveys a clearer and better idea of this celebrated bay than could be acquired from any description.

According to the observations of M. Roussin, the lighthouse on the Cape is in lat. 13° 0′ 30″ S., long. 38° 30′ W. The opposite side of the entrance to the Bay is formed by the island of Taporica, distant from Cape St. Antonio about 2½ leagues. But a bank along the shore of the island narrows the passage for large ships to about two-thirds this distance. Another bank runs S.S.W. from Cape St. Antonio about 1½ league. Within, the bay expands into a capacious basin, having several islands and harbours, the depth of water varying from 8 and 10 to 40 fathoms, affording ample accommodation and secure anchorage for the largest fleets.

There is another entrance to the bay, on the west side of the island of Taporica; but it is narrow, intricate, and at its mouth has not more than 6 feet water. Several rivers have their embouchure in the bay, which generally occasions a current to set

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BAHIA
(BAY OF ALL SAINTS)
Nautic Miles
S. Francisco
I. de Cajahiba
R. Paramirim
I. Grande
I. dos Pontes
R. Cahype
Matarippe
R. de S. Paulo
I. da Bimbarra
Pta da Saubara
I. da Vacca
I. da Mare
R. Cotelipe
I. das Frades
BAY OF ALL SAINTS
Pta da Sapoco
I. do Medo
Pta S. Lourenço
Pta do Itacaranha
Pta do Mangueiro
Pta do Padroco
Pta Sanho
Pta M.e Serrot
I. da Gamoa
Pta do Jaburu
Pedroso
B. da Pamella
Ft. do Mar
SAN SALVADOR
Pta S. Pedro
Victoria
Pta Maripe
Armaceo
Light Rev.
Signal Beacon
Pta da Conceiçao
S. Antonio Bank
I. DE ITAPARICA
Pta do Ortac
E. Walker Lithogr.
London. Longmans & Co.

from the north end of the island by Cape St. Antonio; when the rivers are flooded, this current is sometimes very strong. The lighthouse at the extremity of the Cape has no great elevation, and cannot be seen at a distance of more than 8 or 8½ leagues. The usual place of anchorage is abreast of the city north and south of Fort do Mar.

The city is partly built on the beach, but principally on pretty high ground immediately contiguous. The public buildings, particularly the churches, are numerous, and some of them magnificent; but the streets are narrow, ill paved, and filthy. Population estimated at from 125,000 to 160,000. The city is defended by several forts, but none of them are of great strength. We subjoin—

An Account specifying the Quantities and the Destination of the Principal Articles of Native Produce shipped from Bahia in 1866.

	Sugar	Cotton	Coffee	Cocoa	Hides	Rum	Tobacco	Piassava	Rosewood
	tons	bales	bags *	bags		pipes		bundles	logs
Great Britain	36,000	40,500	13,700	2,100				280,000	—
France	1,200	5,200	33,700	9,900				—	2,200
Sweden	2,700	—	—	—				—	—
Portugal	2,750	—	2,700	1,400			504 rolls	49,000	—
United States	5,000	—	1,200	—	72,000	5,274	40,077 mangoles	—	3,000
Spain	—	1,600	—	—			108,277 bales	—	1,250
Germany	—	600	4,800	600				—	1,200
Gibraltar	—	—	9,400	—				—	—
Genoa	—	—	4,500	—				—	580
Other countries	2,800	—	—	500				155,716	1,570
Total	49,050	47,900	69,100	14,100				484,716	9,800

The diamonds exported were 4,672 oitavas, valued at 250,000*l.*, to which may be added more than double the quantity sent away clandestinely.

* The Bahia bag of coffee contains only 4 arrobas, 128 lbs., instead (as at Rio Janeiro) of 5 arrobas.

The value of the above articles may be estimated at about 1,500,000*l.* Bahia has long been the principal mart for the sale of diamonds. And the late discovery of a new and highly productive diamond-field in the interior has led to a great increase in the exports of the gem, the value of which is believed to amount to from 450,000*l.* to 550,000*l.* [DIAMOND.] Tapioca and other articles are also exported. In 1866, 228 British vessels, of the burden of 182,991 tons, entered at, and 207, of 125,402 tons, cleared out from, Bahia. See, for some remarks on the trade with Brazil, the art. on RIO DE JANEIRO.

The imports consist principally of cottons and other manufactured goods, provisions, flour, salt, salt fish, iron, hardware, coals, soap, wines, &c.

The exports from Bahia have rather increased of late years, notwithstanding the greater obstructions thrown in the way of importing slaves, and the greater scarcity and high price of labour.

No articles are prohibited to be imported, nor are there any privileges in favour of ships belonging to any country. The coasting trade is exclusively carried on by Brazilian vessels.

There is no difference made in the duty on goods, whether imported in native or foreign vessels.

Vessels putting into Bahia in distress pay no tonnage dues. Those which discharge or take in cargo pay 30 reis per ton, per day, Brazilian measurement; but should a vessel remain in port more than 50 days, this payment ceases to be enforced.

Port Dues on Vessels.

	reis
Brazilian hospital for each man specified in muster-rolls	640
Bill of health	5,200
English, Portuguese, and Brazilian vessels pay lighthouse, &c.	6,720
Vessels of other nations pay lighthouse, &c.	10,240

Bahia has not been affected, according to Mr. Consul Morgan, by the total abolition of the slave traffic.

Bahia is the only port of this province where goods may be warehoused on importation, and afterwards exported. A duty is charged thereon at the rate of 4 per cent. on tariff valuation.

The duty of 15 per cent. formerly levied on chronometers and other nautical instruments in use on board vessels has been recently abolished.

Average Exchange, 30*d.* per 1000 reis.

Weights and Measures.

1 quintal=4 arrobas. 1 arroba=32 lbs.
1 Canada=2 imperial gallons. 1 alqueire=¾ of a bushel.

[PERNAMBUCO.]

BALACHONG. An article consisting of pounded or bruised fish. It consists principally of small fish, with prawns and shrimps. Though fœtid and offensive to strangers, this substance, used as a condiment to rice, is largely consumed in all the countries to the east of Bengal, including the southern provinces of China, and the islands of the Eastern Archipelago. Its distribution gives rise to an extensive internal traffic.

BALANCE. In Accounts, the term used to express the difference between the debtor and creditor sides of an account.

BALANCE. In Commerce, the term commonly used to express the difference between the value of the exports from and imports into a country. The balance used to be said to be favourable when the value of the exports exceeded that of the imports, and unfavourable when the value of the imports exceeded that of the exports. And in this country this was long believed to be the case, and down to a late period we were annually congratulated by our finance ministers on the excess of the exports over the imports.

The attainment of a favourable balance was formerly regarded as an object of the greatest importance. The precious metals, in consequence of their being used as money, were long considered as the only real wealth that could be possessed either by individuals or nations. And as countries without mines could not obtain supplies of these metals except in exchange for exported products, it was concluded, that if the value of the commodities exported exceeded that of those imported, the balance would have to be paid by the importation of an equivalent amount of the precious metals; and conversely. A very large proportion of the restraints imposed on the freedom of commerce during the last three centuries grew out of this notion. The importance of having a favourable balance being universally admitted, every effort was made to attain it; and nothing seemed so effectual for this purpose as the devising of schemes to facilitate exportation, and to hinder the importation of almost all products, except gold and silver, that were not intended for future exportation. But the gradual though slow

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growth of sounder opinions with respect to the nature and functions of money, showed the futility of a system of policy having such objects in view. It is now conceded on all hands that gold and silver are nothing but commodities; and that it is in no respect necessary to interfere either to encourage their importation or to prevent their exportation. In Great Britain they may be freely exported and imported, whether in the shape of coin or bullion. [Coin.]

The truth is, however, that the theory of the balance of trade was not erroneous merely from the false notions which its advocates entertained with respect to money, but proceeded on radically mistaken views as to the nature of commerce. The mode in which the balance was usually estimated was, indeed, completely fallacious. But had it been correctly ascertained, it would have been found, in opposition to the common opinion, that the imports into commercial countries must, speaking generally, exceed the exports; and that a balance, whether on the one side or the other, is but rarely cancelled by a bullion payment.

1. The proper business of the wholesale merchant consists in carrying the various products of the different countries of the world from the places where their value is least to those where it is greatest; or, which is the same thing, in distributing them according to the effective demand. It is clear, however, that there could be no motive to export any species of produce, unless that which it was intended to import in its stead were of greater value. When an English merchant commissions a quantity of Polish wheat, he calculates on its selling for so much more than its price in Poland, as will be sufficient to pay the expense of freight, insurance, &c., and to yield, besides, the common and ordinary rate of profit on the capital employed. If the wheat did not sell for this much, its importation would obviously be a loss to the importer. It is plain, then, that no merchant ever did or ever will export, but in the view of importing something more valuable in return. And so far from an excess of exports over imports being any criterion of an advantageous commerce, it is directly the reverse; and the truth is, notwithstanding all that has been said and written to the contrary, that unless the value of the imports exceeded that of the exports, foreign trade could not be carried on. Were this not the case—that is, were the value of the exports always greater than the value of the imports—merchants would lose on every transaction with foreigners, and the trade with them would be speedily abandoned.

In England, the rates at which all articles of export and import are officially valued were fixed so far back as 1696. But the very great alteration that has since taken place, not only in the value of money, but also in the cost of by far the greater number of the commodities of this and other countries, long ago rendered the official valuation of no use whatever, either as a means of learning the values or the quantities of the exports or imports. In so far, however, as respects the former, this defect was unintentionally remedied in 1798, when the 'convoy duty,' being an ad valorem tax laid on the exports, furnished the means of ascertaining their amount. And the importance of the information so obtained was such, that, whether articles of export have or have not been charged with duties, exporters have since been made to declare, in every case, the *real* value of the articles which they export.

It has been alleged, and apparently with some probability, that merchants have not unfrequently been in the habit of exaggerating the value of articles entitled to drawbacks on exportation. But the extension and improvement of the warehousing system, and the diminution of the number of drawbacks, have materially lessened whatever fraud or inaccuracy may have arisen from this source. So long, indeed, as the greater number of articles were charged with an ad valorem duty of 10*s.* per cent. on exportation, it may be presumed that their value was rather under than overrated. But since the repeal of that duty (5 & 6 Vict. c. 47, s. 40), their declared value is believed to come very near the truth; at least, sufficiently so for all practical purposes.

But until very recently no authentic information was obtained in regard to the value of the imports. In 1848, however, the Board of Customs having approved a plan suggested by Mr. Messenger, inspector-general of imports and exports, for ascertaining the value of the former, it was submitted by them to the Treasury. And its advantages having been fully appreciated by Mr. James Wilson, M.P., then secretary to their Lordships, it was carried into effect in 1854. It is needless to enter into any minute details with respect to the mode of computing the values of the imports. It is sufficient to state that it is effected by ascertaining the current prices of imported articles from price-currents, mercantile circulars, &c., and from these deducing the aggregate value of each. It would be idle to suppose that results derived from a process of this sort should be altogether exact; but the errors it involves are of no great moment, and for statistical purposes it may be reckoned quite correct, and most valuable.

In a former edition of this work, we ventured to say that, though we had no means of comparing the real values of the imports with those of the exports, we had no doubt that the former very considerably exceeded the latter. It could hardly, indeed, be otherwise. The value of an exported commodity is estimated at the moment of its being sent abroad, and *before* its cost is increased by the expense of transporting it to the place of its destination; whereas the value of the commodity imported in its stead is estimated *after* it has arrived at its destination, and, consequently, after its cost has been enhanced by the expense of freight, insurance, importers' profits, &c.

	1863	1864	1865	1866
	£	£	£	£
Value of imports	248,919,020	274,962,172	271,072,285	295,101,553
Value of exports	196,902,409	212,619,614	218,831,576	238,805,900
Excess of imports	52,016,611	62,332,558	52,240,709	56,295,653

To measure, therefore, the advantage of commerce by the excess of the exports over the imports is a proceeding false alike in fact and principle. The value of the imports, in all but anomalous and extremely rare instances, invariably exceeds that of the exports. And it is plain that this excess, whatever it may be, forms the only fund whence the expenses and profits of the merchants can be derived. The larger, consequently, it becomes, the more will it be for their advantage.

In the United States, the value of the imports, as ascertained by the custom-house returns, has usually exceeded the value of the exports. And although our practical politicians were in the habit of considering the excess of the former as a certain proof of a disadvantageous commerce, 'it is nevertheless true,' says Mr. Pitkin, 'that the real gain of the United States has *been nearly in proportion as their imports have exceeded their exports.*' (*Commerce of the United States*, 2nd edit. p. 280.) The excess of American imports has in part been occasioned by the Americans generally

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exporting their own surplus produce, and, consequently, receiving from foreigners not only an equivalent for their exports, but also for the cost of conveying them to the foreign market. 'In 1811,' says the author just quoted, 'flour sold in America for *nine dollars and a-half* per barrel, and in Spain for *fifteen dollars*. The value of the cargo of a vessel carrying 5,000 barrels of flour would, therefore, be estimated at the period of its exportation at 47,500 dollars; but as this flour would sell, when carried to Spain, for 75,000 dollars, the American merchant would be entitled to draw on his agent in Spain for 27,500 dollars more than the flour cost in America; or than the sum for which he could have drawn, had the flour been exported in a vessel belonging to a Spanish merchant. But the transaction would not end here. The 75,000 dollars would be vested in some species of Spanish or other European goods fit for the American market; and the freight, insurance, &c., on account of the return cargo, would probably increase its value to 100,000 dollars; so that, in all, the American merchant might have imported goods worth 52,500 dollars more than the flour originally sent to Spain.' It is as impossible to deny that such a transaction as this is advantageous, as it is to deny that its advantage consists entirely in the excess of the value of the goods imported over the value of those exported. And it is equally clear that America might have had the real balance of payments in her favour, though such transactions as the above had been multiplied to any conceivable extent.

2. In the second place, when a balance is due by one country to another, it is but seldom that it is paid by remitting bullion from the debtor to the creditor country. If the sum due by the British merchants to those of Holland be greater than the sum due by the latter to them, the balance of payments will be against Britain; but this balance will not, and indeed cannot, be discharged by an exportation of bullion, *unless bullion be, at the time, the cheapest exportable commodity*; or, which is the same thing, *unless it may be more advantageously exported than anything else*. To illustrate this principle, let us suppose that the balance of debt, or the excess of the value of the bills drawn by the merchants of Amsterdam, on London over those drawn by the merchants of London on Amsterdam, amounts to 100,000*l.*: it is the business of the London merchants to find out the means of discharging this debt with the least expense; and it is plain, that if they find that any less sum, as 96,000*l.*, 97,000*l.*, or 99,900*l.*, will purchase and send to Holland as much cloth, cotton, hardware, colonial produce, or any other commodity, as will sell in Amsterdam for 100,000*l.*, no gold or silver will be exported. The laws which regulate the trade in bullion are not in any degree different from those which regulate the trade in other commodities. It is exported only when its exportation is advantageous, or when it is more valuable abroad than at home. It would, in fact, be quite as reasonable to expect that water should flow from a low to a high level, as it is to expect that bullion should leave a country where its value is great, to go to one where it is low! It is never sent abroad to destroy, but always to find its level. The balance of payments might be 10 or 100,000,000 against a particular country, without causing the exportation of a single ounce of bullion. Common sense tells us that no merchant will remit 100*l.* worth of bullion to discharge a debt in a foreign country, if it be possible to invest any smaller sum in any species of merchandise which would sell abroad for 100*l.* exclusive of expenses. The merchant who deals in the precious metals is as much under the influence of *self-interest*, as he who deals in coffee or indigo; and what merchant would attempt to extinguish a debt, by exporting coffee which cost 100*l.*, if he could effect his object by sending abroad indigo which cost only 99*l.*?

The argument about the balance of payments is one of those that contradict and confute themselves. Had the apparent excess of exports over imports, as indicated by the British Custom-house books for the hundred years down to 1853, been always paid in bullion, as the supporters of the old theory contend is the case, there should at this moment be some 500,000,000 or 600,000,000 of bullion in the country, instead of 80,000,000 or 100,000,000, which it is supposed at most to amount to! Nor is this all. If the theory of the balance were good for anything—if it had not been a mere idle delusion—it follows, as every country in the world, with the single exception of the United States, has had its favourable balance, that they must have been paid by an annual importation of bullion from the mines corresponding to their aggregate amount. But it is certain that the entire produce of the mines, great as it is, though it were increased in a *fivefold* proportion, would be insufficient for this purpose! This reductio ad absurdum is decisive of the degree of credit that should be attached to conclusions respecting the flourishing state of the commerce of any country drawn from the excess of the exports over the imports!

Not only, therefore, is the theory with respect to the balance of trade erroneous, but the very reverse of that theory is true. In the *first* place the value of the commodities imported by every country which carries on an advantageous commerce (and no other will be prosecuted for any considerable period), invariably exceeds the value of those which she exports. Unless such were the case, there would plainly be no fund whence the merchants and others engaged in foreign trade could derive either a profit on their capital, or a return for their outlay and trouble; and in the *second* place, whether the balance of debt be for or against a country, that balance will neither be paid nor received in bullion, unless it be at the time the commodity by the exportation or importation of which the account may be most profitably settled. Whatever the partisans of the doctrine as to the balance may say about money being a preferable product, or *merchandise par excellence*, it is certain it will never appear in the list of exports and imports while there is anything else with which to carry on trade, or cancel debts, that will yield a larger profit, or occasion a less expense to the debtors.

It is difficult to estimate the mischief which the absurd notions relative to the balance of trade have occasioned in almost every commercial country;—here they have been particularly injurious. It is principally to the prevalence of prejudices to which they have given rise, that the restrictions on the trade between this country and France are to be ascribed. The great or rather the only argument insisted upon by those who prevailed on the legislature, in the reign of William and Mary, to declare the trade with France a *nuisance*, was founded on the statement that the value of the imports from that kingdom considerably exceeded the value of the commodities we exported to it. The balance was regarded as a *tribute* paid by England to France, and it was sagaciously asked, what had we done, that we should be obliged to pay so much money to our natural enemy? It never occurred to those who so loudly abused the French trade, that no

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merchant would import any commodity from France, unless it brought a higher price in this country than the commodity exported to pay it; and that the profit of the merchant, or the national gain, would be in exact proportion to this excess of price. The very reason assigned by these persons for prohibiting the trade affords the best attainable proof of its having been a lucrative one; nor can there be any doubt that an unrestricted freedom of intercourse between the two countries would be of the greatest service to both.

BALE. A pack, or certain quantity of goods or merchandise; as a *bale* of silk, cloth, &c.

Bales are always marked and numbered, that the merchants to whom they belong may know them, and the marks and numbers correspond to those in the bills of lading, &c. Selling under the *bale*, or under the *cords*, is a term used in France and other countries for selling goods wholesale, without sample or pattern, and unopened.

BALKS. Large pieces of timber.

BALLAST (Dutch, ballast; Fr. lest; Ger. ballast; Ital. savorra; Span. lastre; Swed. ballast). A quantity of iron, stones, sand, gravel, or any other heavy material laid in a ship's hold, in order to sink her deeper in the water, and to render her capable of carrying sail without being overset. All ships clearing outwards, having no goods on board other than the personal baggage of the passengers, are said to be in ballast.

The quantity of ballast required to fit ships of equal burden for a voyage, is often materially different; the proportion being always less or more, according to the sharpness or flatness of the ship's bottom, called, by seamen, the *floor*.

The proper ballasting of a ship deserves peculiar attention, for, although it be known that ships in general will not carry sufficient sail till they are laden so that the surface of the water nearly glances on the extreme breadth midships, more than this general knowledge is required. If the ship have a great weight of heavy ballast, as lead, iron, &c., in the bottom, the centre of gravity will be too low in the hold; this no doubt will enable her to carry a press of sail, but it will, at the same time, make her sail heavily, and roll so violently as to run the risk of being dismasted.

The object in ballasting a ship is, therefore, so to dispose of the ballast or cargo, that she may be duly poised, and maintain a proper equilibrium on the water, so as neither to be too *stiff*, nor too *crank*, qualities equally pernicious. If too stiff, she may carry much sail, but her velocity will not be proportionally increased; whilst her masts are endangered by sudden jerks and excessive labouring. If too crank, she will be unfit to carry sail without the risk of oversetting.

Stiffness in ballasting is occasioned by disposing a too great quantity of heavy ballast, as lead, iron, &c., in the bottom, which throws the centre of gravity very near the keel; and this being the centre about which the vibrations are made, the lower it is placed, the more violent is the rolling.

Crankness, on the other hand, is occasioned by having too little ballast, or by disposing the ship's lading so as to raise the centre of gravity too high: this also endangers the masts when it blows hard; for when the masts cease to be perpendicular, they strain on the shrouds in the nature of a lever, which increases as the sine of their obliquity: and it is superfluous to add, that a ship that loses her masts is in great danger of being lost.

Hence the art of ballasting consists in placing the centre of gravity to correspond with the trim and shape of the vessel, so as to be neither too high nor too low; neither too far forward nor too far aft; and to lade the ship so deep, that the surface of the water may nearly rise to the extreme breadth midships: she will then carry a good quantity of sail, incline but little, and ply well to windward. (Falconer's *Marine Dict.*)

The mischievous consequences of not attending to the circumstances now mentioned are often experienced by ships loading barilla, brimstone, and such heavy articles on the coast of Sicily and Spain. The habit there is to cut large quantities of brushwood and faggots, and to spread them in the hold, to hinder the cargo from sinking the centre of gravity too low, and causing the ship to labour violently; but it very frequently happens that the pressure of the cargo on this sort of dunnage is so great as to squeeze it into a much smaller space than could at first have been supposed; so that ships after getting to sea are sometimes obliged to return to port to unload a part of their cargo, to prevent their foundering. In such cases firm dunnage, such as oak staves, should, if possible, be always employed. (Jackson's *Commerce of Mediterranean*, pp. 125–128.)

Ships that have cargoes of light goods on board require a quantity of ballast, increasing, of course, according to the greater lightness of the goods.

By the Thames Conservancy Act, 27 & 28 Vict. cap. 113, ss. 41–48, ballast in the Thames is vested in the Thames Commissioners, who are empowered to grant licenses to have ballast in the form and under the conditions annexed. The Act takes away all previous Acts, charters and grants, and thus causes the rights of the Trinity House to cease.

The charge made for ballast is 6*d.* the entire yard.

'*Ballast License, eastward of London Bridge.*—We, the conservators of the river Thames, by virtue of the powers granted to us by the Act of Parliament entitled "The Thames Conservancy Act, 1864," do hereby grant our license to of to raise ballast, gravel, or sand, in his called the of the burthen of tons, from the bed of the river Thames, from the to the on payment of the sum of and subject to the conditions hereafter specified.

'Given under our hand and seal this

(Signed)

'Secretary.

'41, Trinity Square, Tower Hill, E.C.'

'*Conditions referred to in this License.*—That the space in the river within which dredging under this license will be allowed, extends from London Bridge to Yantlet Creek, except as hereinafter mentioned, viz. in that part of the said river situate and being between the marsh wall and low-water mark, in front of certain land or lands belonging to the War Department, on the north side of the said river, and nearly opposite the Royal Arsenal at Woolwich, and also save and except in that other part of the river situate and lying between Pageant's Wharf and Cuckold's Point therein.

'No dredging with a bag and spoon will be allowed within 100 yards of any wharf or of the river bank, nor will any gravel, sand, or other material be allowed to be dug or procured from the foreshore within 100 feet of any wharf, or of the bank of the river.

'The dredging authorised by this license is to be carried on under the inspection of the harbour-master of the district, and the person to whom this license is granted, and the men employed by

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him in the dredging, are to obey all orders given to him or them by the said harbour-master, with respect to the mooring or placing, or mode of working the barge or vessel having this license.

'That the license be kept on board the vessel for which it is granted, and produced whenever required by the officers of the conservancy.

'That the name of the vessel, and the name and address of the owner, be painted in white letters of at least 2½ inches in length, and of proportionate thickness (say ½-inch) on a black ground, and in such a position as to be fairly seen when the vessel is fully laden.

'That all applications for licenses be made in writing, addressed to the secretary.

'That this license be forfeited on the infraction or evasion of any of the above conditions.'

Rates.—For every ton of ballast delivered in or unladen from the inward West India Dock, the further sum of 10*d.*; and for every ton of ballast delivered in or unladen from the outward West India Dock, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the London Docks, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the inward East India Dock, the further sum of 10*d.*; and for every ton of ballast delivered in or unladen from the outward East India Dock, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the Commercial Dock, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the East Country Dock, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the City Canal the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the Surrey Canal, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the Regent's Canal, the further sum of 4*d.*

Which further rates or prices shall be payable and paid over and above the respective rates first mentioned.

The ballast of all ships or vessels coming into the Thames, is to be unladen into a lighter, at the charge of 6*d.* a ton. If any ballast be thrown or unladen from any ship or vessel into the Thames, the captain, master, &c., shall for every such offence forfeit 20*l.* No ballast is to be received on board otherwise than from a lighter. By the stat. 54 Geo. III. c. 149, it is enacted, that no person shall, under a penalty of 10*l.* over and above all expenses, discharge any ballast, rubbish, &c. in any of the ports, harbours, roadsteads, navigable rivers, &c. of the United Kingdom; nor take ballast from any place prohibited by the Lords of the Admiralty.

Heaving of Ballast.—The men employed in this laborious occupation have, for a lengthened period, been held in a sort of thraldom by what are called the 'Long shore publicans,' who have paid them according to a truck system of the very worst kind. To emancipate the labourers from this degrading subjection, and place them on a more independent footing, the Trinity House offers to heave ballast as follows, viz.:—

'Trinity House, London, November 11, 1853.

'Her Majesty having, as provided by s. 14 of the Act 16 & 17 Vict. c. 131, been pleased by order in council, dated October 24, 1853, to approve a scale of rates, to be established and paid to this corporation by the owners or masters of, or agents for, any ships, who may be desirous that the Trinity House should undertake to place ballast on board, or unload it from, such ships, in addition to the rates already payable under the Act 6 & 7 Vict. c. 57, for placing the ballast alongside the same. The said scale so approved is hereby made public for the information of all persons who may be desirous to avail themselves of this regulation, viz.:—

'"For vessels having ports, 4*d.* for every ton of ballast placed on board or unladen;

'"For vessels not having ports, 6½*d.* for every ton of ballast placed on board or unladen."

'And notice is given, that on and after the 1st day of December, 1853, this corporation will cause ballast to be placed on board of, or unladen from, all ships or vessels, the owners, masters, or agents of which may be desirous that it shall be so placed or unladen, on payment of the rates above specified, at the time of making entry and payment for the quantity of ballast required to be put on board, or unladen, as the case may be.

'By order, J. Herbert,

'Secretary.'

The Act 16 & 17 Vict. c. 107 s. 145 enacts that before any ship shall depart in ballast from the United Kingdom for parts beyond seas, not having any goods on board, except stores from the warehouse borne upon the victualling bill of such ship, nor any goods reported inwards for exportation in such ship, the collector or comptroller shall clear such ship in ballast, by notifying such clearance and the date thereof of the victualling bill, and deliver the same to the master of such ship as the clearance thereof; and the master of such ship shall answer to the collector or comptroller such questions touching her departure and destination as shall be demanded of him; and ships having only passengers with their baggage on board, and ships laden only with chalk or slate, shall be deemed to be in ballast; and if any such ship, whether laden or in ballast, shall depart without being so cleared, if she have any such stores on board, the master shall forfeit and pay the sum of 100*l.*

Ballast is not part of a ship's furniture.

Ship owners are bound to ballast a ship properly, but they may put merchandise on board as ballast, if it occupy no more room than ballast would have.

No passenger ship shall be (18 & 19 Vict. c. 119 s. 19) allowed to clear out or proceed to sea with any horses, cattle, gunpowder, vitriol, lucifer-matches, guano, or green hides, or any other article on board whether as cargo or *ballast*, which may be deemed by the emigration officer at the point of clearance likely to endanger the health or lives of passengers.

BALSAM (Ger. balsam; Dutch, balsem; Fr. baume; Ital. and Span. balsamo; Lat. balsamum). Balsams are vegetable juices, either liquid, or which spontaneously become concrete, consisting of a substance of a resinous nature, combined with benzoic acid, or which are capable of affording benzoic acid by being heated alone, or with water. The liquid balsams are copaiva, opobalsam, balsam of Peru, storax, and Tolu; the concrete are benzoin, dragon's blood, and red or concrete storax. (Ure.)

1. *Copaiva* (Fr. baume de copahu; Ger. kopaiva balsam; Span. copayva).—This is obtained from the *Copaifera multijuga*, and other trees growing in South America and the West India Islands. The largest quantity is furnished by the province of Para in Brazil. It is imported in small casks, containing from 1 to 1½ cwt. Genuine good copaiva or copaiba balsam has a peculiar odour, and a bitterish, hot, nauseous taste. It is clear and transparent; its consistence is that of oil; but when exposed to the action of the air it becomes solid, dry, and brittle, like resin.

Copaiba is said to be frequently adulterated

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with castor oil, and turpentine. No test other than the quantity of essential oil obtainable by distillation appears to be conclusive.

2. *Opobalsam* (Fr. balsamier de la Mecque; Ital. opobalsamo; Lat. balsamum verum album, ægyptiacum; Egypt. balessan).—The most precious of all the balsams, commonly called Balm of Gilead. It is the produce of a tree (*Amyris Gileadensis*), indigenous to Arabia and Abyssinia, and transplanted at an early period to Judea. It is obtained by cutting the bark with an axe at the time that the juice is in the strongest circulation. The true balsam is of a pale yellowish colour, clear and transparent, about the consistence of Venice turpentine; of a strong, penetrating, agreeable, aromatic smell, and a slightly bitterish pungent taste. By age it becomes yellower, browner, and thicker; losing by degrees, like volatile oils, some of its finer and more subtile parts. It is rarely if ever brought genuine into this country; dried Canada balsam being generally substituted for it. It was in high repute among the ancients; but it is now principally used as a cosmetic by the Turkish ladies. (Drs. Ure and Thomson.)

The Canada balsam, now referred to, is merely *fine turpentine*. It is the produce of the *Pinus balsamea*, and is imported in casks, each containing about 1 cwt. It has a strong, but not a disagreeable odour, and a bitterish taste; it is transparent, whitish, and has the consistence of copaiva balsam. [TURPENTINE.]

'Szafra and Beder are the only places in the Hedjaz where the balsam of Mecha, or balessan, can be procured in a pure state. The tree from which it is collected grows in the neighbouring mountains, but principally upon Djebel Sobh, and is called, by the Arabs, Beshem. I was informed that it is from 10 to 15 feet high, with a smooth trunk, and thin bark. In the middle of summer small incisions are made in the bark; and the juice, which immediately issues, is taken off with the thumb-nail, and put into a vessel. The gum appears to be of two kinds, one of a white, and the other of a yellowish white colour; the first is the most esteemed. I saw here some of the latter sort in a small sheep-skin, which the Bedouins use in bringing it to market: it had a strong turpentine smell, and its taste was bitter. The people of Szafra usually adulterate it with sesamum oil and tar. When they try its purity, they dip their finger into it and then set it on fire: if it burn without hurting or leaving a mark on the finger, they judge it to be of good quality; but if it burn the finger as soon as it is set on fire, they consider it to be adulterated. I remember to have read, in Bruce's *Travels*, an account of the mode of trying it, by letting a drop fall into a cup filled with water; the good balsam falling coagulated to the bottom, and the bad dissolving and swimming on the surface. I tried this experiment, which was unknown to the people here, and found the drop swim upon the water; I tried also their test by fire upon the finger of a Bedouin, who had to regret his temerity; I therefore regarded the balsam sold here as adulterated; it was of less density than honey. I wished to purchase some; but neither my own baggage nor any of the shops of Szafra could furnish anything like a bottle to hold it; the whole skin was too dear. The Bedouins, who bring it here, usually demand 2 or 3 dollars per pound for it when quite pure; and the Szafra Arabs resell it to the hadjeys of the great caravan at between 8 and 12 dollars per pound in an adulterated state. It is bought up principally by Persians.' (Burckhardt's *Travels in Arabia*, vol. ii. p. 123.)

3. *Balsam of Peru* (Fr. baume de Peru; Ger. Peruvianischer balsam; Span. balsamo de quinquina; Lat. balsamum peruvianum).—The produce of a tree (*Myroxylon peruiferum*) growing in the warmest parts of South America.

The balsam of Peru was first mentioned by Monasdes, under the name of *balsamum*. From the tree which was named by Dr. Royle, *Myrospermum Pereiræ*, two kinds of balsam are obtained, the black balsam (balsam of Peru of commerce), gained by incisions into the stem, and the white balsam (Sonsonate or San Salvador white balsam), obtained by pressure of the fruit after removal of the outer fibrous portions.

Both of these products are procured exclusively from the balsam coast of San Salvador, between the ports of Libertad and Acajutla. The principal market for its sale is Sonsonate. The native Indian population collect and bring it to Sonsonate for sale, in gourds. It is usually sold by the pound, and is paid for in silver pillar dollars. The average annual production of black balsam is about 25,000 lbs. According to M. Saravia, of Sonsonate, it is obtained by inserting rags in incisions in the tree. These rags, when well soaked, are boiled in water, and the balsam allowed to subside; the water is then poured off and the impure balsam packed in gourds; and M. Victor le Nouvel corroborates this account.

The tree is also an inhabitant of Peru, New Granada, Columbia, and Mexico. Black balsam of Peru is a transparent, deep reddish-brown or black liquid, about the consistence of treacle, and possesses an odour similar to that of vanilla or benzoin. It is soluble in alcohol.

There is another balsamic substance which bears the name of balsam of Peru; it is of a deep brown colour, and has an odour similar to that of Tolu; it is called by Professor Gurbourt *baume de Perou en cocos*, from being ordinarily collected in cocoa-nut shells.

The white balsam of Peru is supposed to be the product of the oleoresinous matter contained in the pericarp and the fatty and other constituents of the seed. It is imported in globular earthen jars, containing about 20 lbs. each. It closely resembles Bordeaux turpentine, is semi-fluid and somewhat granular.

Balsamelo is another product of the same tree, procured by digesting the fruit in rum. (Pereira's *Materia Medica*, and *Private information*.)

Our imports of balsam of Peru amounted in 1863 to 25,508 lbs., four-fifths of which were imported from New Granada; but in 1866 the imports from the latter had fallen to 5,859 lbs. The total value of the imports was 6,699*l*., and the average value per lb. 5*s*. 3*d*.

4. *Storax* (Fr. storax; Ger. storaxbaum; Ital. storace; Span. azumbar; Lat. styrax; Arab. usteruk). The produce of a tree (*Liquidambar orientale*) growing in the south of Europe and the Levant.

The purest kind is storax in grains. Another kind is called *Styrax calamita*, so named from being brought in masses, wrapped up in the leaves of a kind of calamus. Both these kinds have the odour of vanilla, and are rarely found in the market. A third variety is light, pliable, and imported in brown or reddish-brown masses. A fourth is semi-fluid, the liquid storax of the shops. Storax is employed in medicine and perfumery, but it is very liable to adulteration. Its odour appears to be due to a volatile oil. (*United States Dispensatory*.)

5. *Tolu, Balsam of* (Fr. baume de Tolu; Ger. Tolutanischer balsam; Span. balsamo de Tolu). The juice of the *Myrospermum toluiferum*, a tree found

in Carthagena. The wood of this tree, according to Humboldt, is of a dark red colour, and of an agreeable odour, and is much used for building.

The balsam is obtained by making incisions in the trunk, and is brought from Carthagena in calabashes, earthenware jars, and glass vessels. The test of its purity is its solution in sulphuric acid, from which no sulphurous acid gas should be disengaged in the process, and which should completely dissolve it. Balsam of Tolu contains cinnamic acid. Balsam of Tolu is not, as has been believed, a variety of balsam of Peru, but is the produce of a different tree and a different region. (*United States Dispensatory.*)

6. *Benzoin* or *Benjamin* (Fr. benzoin; Ger. benzoe; Span. benguí; Ital. belzuino; Lat. benzoinum; Arab. liban; Hind. luban; Jav. menian; Malay, caminyan). This is an article of much greater commercial importance than any of those balsams previously mentioned. It is obtained from a tree (*Styrax benzoin*) cultivated in Sumatra and Borneo, but particularly the former. The plants produce in the seventh year. The balsam is obtained by making incisions in the bark, when it exudes, and is scraped off. During the first 3 years the balsam is of a clear white colour, after which it becomes brown. Having borne 10 or 12 years, the tree is cut down, a very inferior article being obtained by scraping the wood. The balsams procured in these different stages are distinguished in commerce, and differ widely in value. Benzoin has a very agreeable, fragrant odour, but hardly any taste. It is imported in large masses, packed in chests and casks. It should be chosen full of clear, light-coloured, and white spots, having the appearance of white marble when broken: it is rarely, however, to be met with in so pure a state, but the nearer the approach to it the better.

Subjoined is a table of the imports, &c. of benzoin in 1863:—

	cwts.	Value £	Average value per cwt. £ s. d.
From Holland	287	1,313	4 5 4
Siam	75	1,341	18 7 6
India, Singapore, and Ceylon	2,880	25,030	8 14 0
Other parts	102	812	8 5 1
Total	3,344	29,615	

About 480 cwts. of this amount were exported to France in 1863.

The exports of this article from Siam are not the produce of that country, according to Sir R. Schomburgk, who states that 'it is all brought from the Laos country.' The tree is destroyed to procure the gum, the bark is clipped all over, and after the gum has all exuded and hardened, it is found between the stem and bark, which is then stripped off. The tree is called Kanyan by the Siamese. The gum, which exudes naturally, has a much stronger perfume than that procured by cutting, but from dropping on the ground it is a good deal mixed with earth and other impurities; it is not white, but of a clear brownish colour. From the manner in which it is brought down the country, it is much destroyed, being broken into dust often from the rough usage which it receives before arriving at the navigable parts of the Meinam. The common way of bringing it to the river is in small baskets strapped in pairs across bullocks' backs. It sells at Bangkok for about 30 ticals per picul. Sir Robert Schomburgk subsequently discovered in his journey to Laos that the benzoin imported into Siam was brought not from Laos, but from the Western provinces of China.

Benzoic acid is prepared chiefly from the Sumatra kind of benzoin, the average yield from good samples being about 10 or 12 per cent. A kind of benzoin, from Penang, having a smell like storax, does not contain benzoin, but chiefly cinnamic acid, which has no commercial value.

The benzoic acid prepared from gum benzoin has an agreeable odour of the benzoin, but an inferior kind is in the market prepared from the urine of the herbivora. It has a different smell, indicating its origin. Most of the benzoin imported into London and sold at the public sales is re-exported to Russia, Greece, and Roman Catholic countries.

The Siam benzoin fetches the highest price, but the 'tear' benjamin has almost disappeared from the market. The best Siam is now generally met with in small flat pieces.

Dragon's Blood (Fr. sang-dragon; Lat. sanguis draconis; Arab. damulākhwain; Hind. heraduky; Ger. drachenblut; Dan. dragoblod; Span. and Port. sangue de drago; Ital. sangui di drago). The produce of a large species of rattan palm (*Palma juncus draco rumphius; Calamus draco; Willd.*), a native of the islands of the Indian Archipelago, but principally produced in Sumatra and Borneo.

The berry of the *Calamus draco*, which is round pointed and about the size of a cherry, yields a resinous substance, the dragon's blood of commerce.

Dr. Pereira describes the following kinds:—

1. Dragon's blood in the reed, dragon's blood in sticks, occurs in dark reddish-brown sticks, of from 12 to 18 in. long, and from ¼ in. to ½ in. in diameter, enveloped with the leaf of the Talipat palm and bound round with slender slips of cane. Supposed to be obtained from a species of *Calamus*, perhaps *C. draco*.

2. Dragon's blood in oval masses, in drops, occurs in reddish-brown lumps of the size and shape of an olive, enveloped with the leaf of the Talipat palm, which connects them together in a row, like beads of a necklace. This kind is rare in England.

3. Dragon's blood in powder is a reddish powder of very fine quality, imported from the East Indies. Is probably the dust of the fruit of the *C. draco*.

4. Dragon's blood in the tear occurs in irregular pieces, some as large as the fist.

5. Lump dragon's blood varies in quality from fine to ordinary, and occurs in pieces of all sizes and shapes.

6. Dragon's blood in cakes occurs in flat oblong pieces, half the size of a brick, and mostly fine in quality. (Pereira's *Materia Medica*; Guillaumin's *Diction. de Commerce.*)

The following are the imports in 1865:—Copaiba, 230,508 lbs.: Peru, 17,626 lbs.; others unenumerated, 46,240 lbs.

BALTIMORE. A large, opulent, and commercial city of the United States, in Maryland, on the north side of the Patapsco river, about 14 miles above its entrance into Chesapeake Bay, lat. 39° 17′ N., long. 76° 36′ W. Population in 1850, 169,054; in 1860, 212,418. It is now, 1867, estimated at 300,000. The harbour is spacious, convenient, and the water deep. The exports principally consist of wheat-flour and wheat, tobacco (of which it furnishes a larger supply than any other port in the Union, with, perhaps, the single exception of Richmond, in Virginia), Indian corn and meal; bacon, pork, rice, beef, lard, butter, cheese, and other articles of provision; with candles, soap, refined sugar, &c. The imports principally consist of cottons and woollens, sugar, coffee, tea, iron, wine, brandy, silk

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goods, spices, rum, &c. The registered, enrolled, and licensed tonnage, belonging to Baltimore, June 30, 1866, amounted to 69,555 tons, of which a large portion was employed in the coasting trade. In 1857, 57 vessels of the burden of 12,410 tons were built at Baltimore, but this is above the average of late years. In 1865 only 2 were built. The total value of the articles imported into Baltimore in the year ending June 30, 1866, was 10,010,000 dollars; the total value of the exports during the same year being 11,094,693 ditto. (*Consular Reports*, 1867.) In Maryland the dollar is worth 7*s.* 6*d.* currency, 1*l.* sterling being = 1*l.* 13*s.* 4*d.* currency. For an abridged tariff of the United States showing the rates of customs duties imposed since 1861, see NEW YORK; and to it also the reader is referred for an account of the foreign trade of the United States. Weights and measures same as those of England.

The trade of Baltimore was severely crippled by the civil war, and is now adversely affected by the high tariffs and protective duties of the United States. This is especially the case with the trade between this port and the British West Indies, and with the export of tobacco. In 1866 it imported 180,870 bags of coffee, chiefly from Rio, while among its receipts were 33,680 bales of cotton; of which 7,499 bales were exported. The Maryland crop of wheat was small in 1866, but that of maize was the largest ever known, amounting to 4,479,033 bushels. The most important export, however, was petroleum, of which 1,982,368 gallons were sent to foreign countries in 1866. There are thirteen or fourteen refineries engaged in distilling this product. The price fluctuates enormously, varying from a dollar per gallon, at which it stood in July 1864, to 32 cents, its price in December 1866. Baltimore also exports large quantities of provisions—beef, pork, butter, lard, bacon. In 1866, 527,680 lbs. of bacon were exported. The stock of tobacco in 1866 was 73,308 hhds. The largest exports of Maryland tobacco were to Bremen, Rotterdam, and France. The imports of coal, once a large trade in this town, have been seriously checked by the enormous duties imposed on them. In some cases, as might be expected, these excessive imposts have been evaded by wholesale smuggling. (*Consular Reports*, 1867.)

There is a lighthouse on Lazaretto Point, on the N. side of Baltimore island, lat. 39° 15′ 42″ N., long. 76° 33′ 59″ W., and visible for 10 miles.

Oysters.—Baltimore is one of the principal places in the Union for the supply of oysters. In 1866 the entire produce of the fishery amounted to 7,000,000 bushels, valued at 5,300,000 dollars. The vessels engaged in this trade were no less than 1,100, some of 50 tons each, and nearly 600 other vessels were employed in bringing them to market. (*Consular Report*, 1866.)

Commercial Regulations adopted by the Board of Trade, in June 1857: to obtain where no express agreement to the contrary exists.

Commissions on General Business.

	per cent.
On sales of foreign merchandise	5
On sales of domestic merchandise, not otherwise provided for	2½
On guarantee	2½
On selling flour and meal	barl. 12½
On selling grain received by vessels	bus. 1
" railroad or steamboat, exclusive of the expense of delivery	" 2
On purchase and shipment of merchandise, on costs and charges with funds in bond	2½
On effecting marine insurance, 2½ per cent. on premium for domestic and 5 per cent. on foreign. No charge to be made for effecting insurance on property consigned or shipped.	
On collecting delayed and litigated accounts	5
On landing, re-shipping, or delivering goods from vessels in distress, on value of invoice	2½
On procuring or obtaining money on Bottomry or Respondentia Bond on Vessels	2½
Landing and re-shipping on specie and bullion	½
Receiving and forwarding merchandise entered at Custom House, on invoice value 1 per cent., and on expenses incurred	2½

On consignments of merchandise withdrawn or re-shipped full commissions are to be charged, to the extent of advances or responsibilities incurred, and one-half commission on the residue of the value.

The risk of loss by robbery, fire (unless insurance be ordered), theft, popular tumult, and all other unavoidable occurrences is in all cases to be borne by the owners of the goods, provided due diligence has been exercised in the care of them.

Shipping.

	per cent.
On purchase or sale of vessels	2½
On disbursements and outfit of vessels	2½
On procuring freight and passengers	5
On collecting freight	2½
On collecting insurance losses of all kinds	2½
Chartering vessels on amount of freight, actual or estimated, to be considered as due when the charter-parties are signed	2½
No charter to be considered binding till a memorandum or one of the copies of the charter has been signed.	
On giving bonds for vessels under attachment in litigated cases, on amount of liability	2½

The foregoing commissions are exclusive of auction duty, and commissions, brokerage, storage, and every other charge actually incurred.

Freight and Freighting.

If a vessel is freighted by the ton, and no special agreement is made respecting the proportions at which each article shall be computed, the following shall be the standard of computation, viz.:—

2,240 lbs.	pig and bar iron, lead, copper, coal, logwood, fustic, and other heavy dye-woods	Shall be deemed equal to a ton.
2,000 "	Nicaragua and Brazilletto wood	
2,240 "	nett sugar and rice in casks	
1,835 "	coffee in bags	
1,900 "	in casks	
1,500 "	cocoa in bags or bulk	
1,120 "	in casks	
1,110 "	pimento in bags	
952 "	in casks	
800 "	ship bread in bags	
700 "	in casks	
1,120 "	dried hides	
900 "	wt. green teas and China raw silk	
1,120 "	Bohea and other black tea	
1,500 "	Virginia tobacco in hhds.	
1,300 "	Kentucky "	
1,000 "	Maryland "	
8 brls.	flour of 196 nett	
6 "	beef, pork, and tallow	
7 "	naval stores and pickled fish	
200 gals.	wine measure—estimating the full contents of the cask of oil, wine, brandy, &c.	
22 bush.	grain, peas, beans, &c. in casks	
40 "	in bulk	
40 "	Liverpool blown salt in bulk	
34 "	ground "	
31 "	St. Ubes, Cape de Verds, &c. in bulk	
30 "	West India salt in bulk	
50 "	sea coal in bulk	
40 cubic feet	of plank, boards, timber, bale goods, packages and boxes	

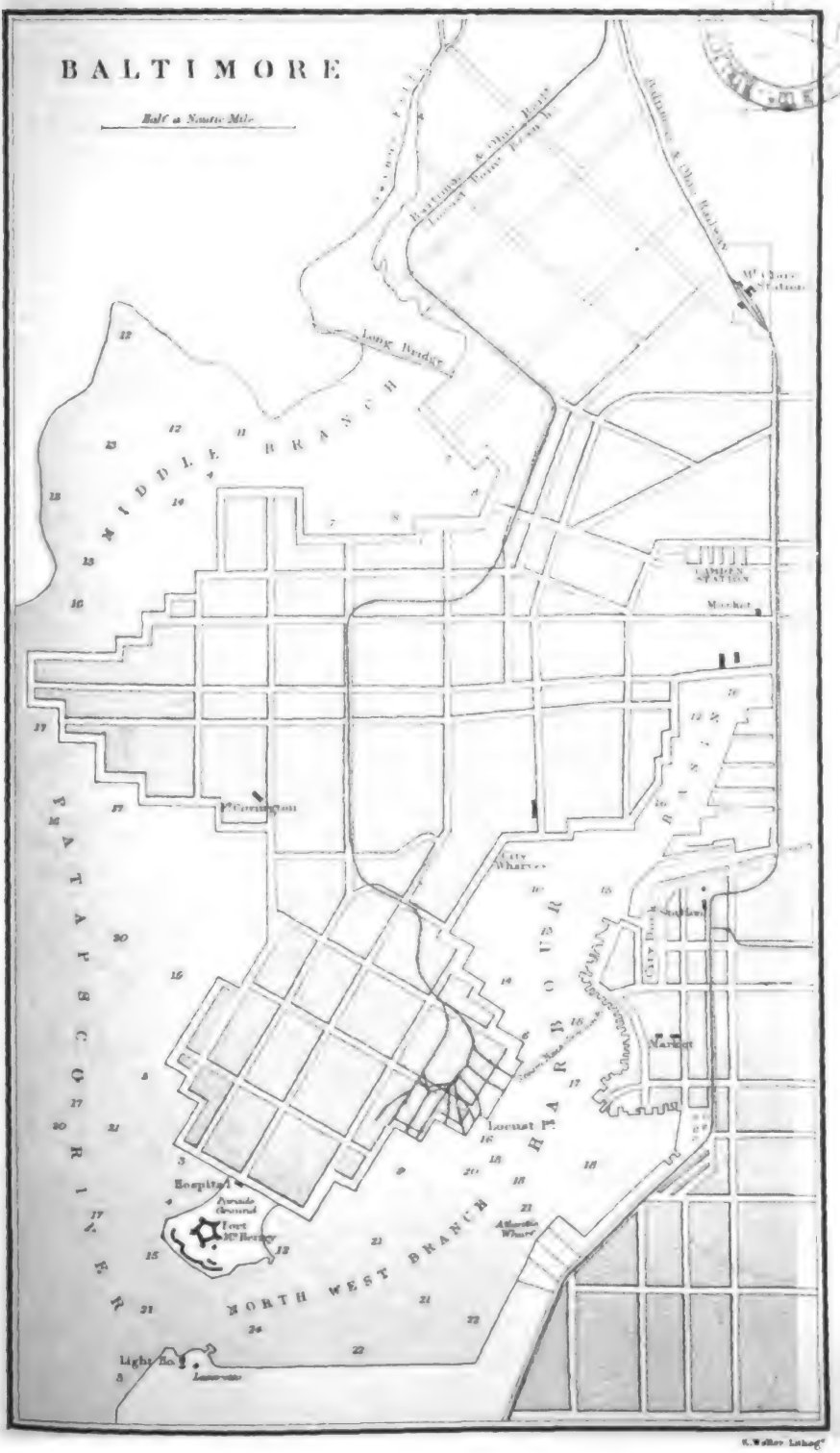
In estimating the contents in cubic feet, of various packages and goods, the following shall be the standard:

	feet
A flour barrel	5
A tierce of rice	15
A hhd. of flaxseed	12
Virginia tobacco	45
Kentucky, Georgia, and Carolina	40
Maryland and Ohio	35
5 bushels of grain in bulk	5

In computing boxes of candles and soap, kegs of butter and lard, hams and bacon, and generally all similar articles, 200 lbs. nett weight shall be considered equal to a barrel of 5 cubic feet.

All goods brought to this port on freight must be delivered on a wharf, at the expense of the vessel bringing the same; a delivery, after due notice, on any good wharf at Fell's Point during business hours, is a delivery in the city and port of Baltimore. Hides and articles *prohibited* to be landed in the city at certain periods, may be landed where the public authorities may direct.

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London. Longmans & Co.

In all cases when vessels are obliged (by the quarantine regulations or city authorities) to discharge their cargo in the stream, the expense of delivering the same *east* of Jones' Falls will be borne by the carrier only. But when requested by the consignee to be delivered *west* of Jones' Falls, then the expense shall be equally borne by the carrier and consignee (each one-half).

If a vessel is chartered for a voyage out and home, each shipper shall be entitled to his fair proportion of the whole homeward freight, pro rata, of the bulk or space occupied by each shipper on the outward voyage.

In all cases where a vessel is chartered or freighted for a voyage out and home, the freighter or charterer is bound to furnish sufficient cargo or ballast at the port of discharge of the outward cargo, to enable said vessel to return safely home, and the same from port to port, where the charter provides for more than one port; provided no agreement to the contrary is made by the parties.

Weights and Tares.

Sugar, copperas, alum, brimstone, shot, lead, iron, steel, hemp, dye-woods, and all other articles heretofore sold by the cwt. of 112 lbs. or ton of 2,240 lbs., shall in future be sold by the decimal hundred of 100 lbs., or ton of 2,000 lbs.

Tares shall be allowed as follows:—

Sugar, in hhds. or tres., 12 per cent.; in brls. 10 per cent.; in boxes, 15 per cent.; do. in linen bags 3, and mats 5 per cent.; and in all other packages, the actual tare.

Coffee in linen, single gunny and grass bags, 2 per cent.; in flour brls., 20 lbs. each; in all other packages the actual tare.

Cocoa in bags, 2 per cent.

Pepper in linen or single gunny bags, 3 per cent.; in other packages, the actual tare.

Pimento in linen or single gunny bags, 3 per cent.; in other packages, the actual tare.

Rice in tres. and half tres., 10 per cent.

Copperas in hhds. or brls., actual tare.

Teas, green, whole chests 20 lbs., and in all other packages, Canton tare.

Cassia in mats, 10 per cent.; boxes and other packages, the actual tare.

Indigo in ceroons, in single hides, 11 per cent.; in all other cases, the actual tare.

Ginger 2 per cent., and cloves 9 lbs. per bale.

Alum, brimstone, nutmegs, mace, almonds, figs, cheese, soap, candles, chocolate, currants, prunes, starch, and all other articles not before mentioned, the actual tare.

For a sack of ground alum salt, 216 lbs. gross shall be considered as fair average weight.

No charge shall be made for casks, barrels, boxes, or other packages whatever.

Drafts as follows: On all weights *even beam*—¼ per cent. to be allowed for draft.

Storage.

	cts. per month
Hogsheads of sugar, tobacco, molasses, rum, oil, and pipes of wine, brandy, and gin	25
Hogsheads of coffee, copperas, codfish, and tallow	20
Tierces of sugar, rum, molasses, and half pipes	16
Tierces of rice, coffee, flaxseed, alum, &c.	12½
Barrels of rum, whiskey, sugar, fish, cheese, oil, and qr. casks wine	6
Barrels of molasses	8
Barrels of flour and coffee, and other dry articles	3
Boxes of Cuba sugar	3
Boxes of fish, wine, oil, lemons, and oranges	3
Boxes of soap, candles, cheese, tin, raisins, and drums of figs	1
Bags of coffee, cocoa, pepper, and pimento	2
Bales of cotton and hempen yarn, about 300 lbs.	12½
Bales of India piece, and other similar goods	10
Indigo in ceroons	4
in cases	10
Tea in chests	3
in half chests	2
in boxes	1
Kegs of butter, tobacco, nails, and raisins	3
Hides, dried	1
Hemp, per ton	50
Iron and lead, per ton	20
Crates of earthenware	20
Salt, per bushel	0½

All goods stored to be subject to one month's storage if in store ten days—if less than ten days half a month's storage.

The owners of goods to be at the expense of putting them in store and delivering them.

Rates of Charges adopted by the Provision Trade, to obtain except in cases of special agreement.

On *Storage per Month*, viz.

	cts.
Bacon or bulk meats in hhds.	15
Pickled meats in hhds.	20
in tres.	6
Bacon in tres.	5
Lard, pork, or beef in brls.	4
Lard, in tres.	5
in kegs	2
Bulk meats, in cellar, per 1,000 lbs.	15
For receiving or delivering, per hhd.	5
per tre.	3
per brl.	2
per keg	0½
loose meat, per 1,000 lbs.	15
For salting or re-salting (salt extra) loose meat, per 1,000 lbs.	37½
For packing meat in slack casks, including cooperage	25
in tight casks	37½
For weighing loose meat per 1,000 lbs.	15
For weighing meat in casks	7½
For smoking shoulders or hams — No extra charge for receiving and delivering	2½
sides — No extra charge for receiving and delivering	3½
joles or tongues — No extra charge for receiving and delivering	2
For inspecting and repacking beef & pork per brl. — No extra charge for receiving and delivering	50

Including all charges except storage.
For inspecting bacon or bulk meat, per 1,000 lbs 12½ cts.
Scalage on bacon, ½ per cent.; on bulk meat, 1 per cent.
Tares on bulk meat, actual.

Pork or beef to be packed or repacked in accordance with existing city ordinances.

The tonnage dues are 30 cents a ton. Vessels to and from the British provinces pay this tax once a year. The harbour dues are 2 cents a ton for all vessels of 60 tons and upwards. There are no light-house dues. There are no public wharves. The pilots are organised, and chartered under a state law, but it is optional to use them or not. The rates are—vessels drawing 15 feet and over, inward 5 dollars per foot, outward 4 dollars; from 12 to 15 feet, inward 4 dollars, outward 3; less than 12 feet, inward 3·50 dollars, outward 2·50 dollars. If the master does not take a pilot, he is required to take out a pilot license. This license, for which he pays 6 cents per ton, permits him to pilot his own vessel, and is in force for a year. If he chooses afterwards, holding such a license, to employ a pilot, a deduction on the above charges is made to the amount of 20 per cent.

Vessels drawing 22 feet can enter the port and those drawing 18 feet can come up to the wharves. (*Private information.*) For further particulars, see Edwards' *British Shipmasters' Guide.*

BAMBOO (Fr. bambou, bambouches; Ger. indianischer rohr; Ital. bambu; Hind. rans; Malay, bûlûh; Jav. Preng). A species of cane, the *Bambos arundinacea* of botanists. It grows everywhere within the tropics, and is of the greatest utility: strictly speaking it is a gigantic grass with a ligneous stem. It often rises to the height of 40 or 50 feet, and sometimes to even double those heights. Like most plants long and extensively cultivated, it diverges into many varieties. Some of these are dwarfish, while others, instead of being hollow canes, are solid. The bamboo is of rapid growth, and in four or five years is fit for many uses, but does not bear fruit or grain till it be 25 years old, after which it perishes. The grain makes tolerable bread. The young, but gigantic shoots, as they spring from the earth, make a tender and good esculent vegetable. The mature bamboo is employed in an immense variety of ways, in the construction of houses, bridges, boats, agricultural implements,

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&c. Some varieties grow to such a size as to be, in the largest part, nearly two feet in circumference, and single knees of these are used as pails or buckets. The Chinese fabricate their cheap and useful paper of macerated bamboo, and use it in the manufacture of ropes, which are of great strength and solidity, for the rigging of their junks. The canes used in Europe as walking sticks are not bamboos, but rattans—a totally distinct class of plants. Bamboos are never used for that purpose. (*Private information.*)

BANCO. A word borrowed from the Italian, and used in certain commercial towns to distinguish real or ideal bank values from currency values. It is a term rarely used except at Hamburg.

BANDANAS. Silk handkerchiefs, generally red spotted with white. They were formerly manufactured only in the East Indies; but they are now manufactured of the very best quality at Glasgow and other places.

BANGKOK. The capital of the kingdom of Siam, situated about 20 miles direct distance, but about 30 by water, from the sea on both sides the river Meinam, but chiefly on its left or eastern bank, in lat. 13° 40′ N., long. 101° 10′ E. The Meinam opens in the centre nearly of the bottom of the Gulf of Siam. There is a bar at its mouth, consisting, for the most part, of an extensive mud flat. The outer edge of this flat, which is little more than 200 yards broad, is sandy and of harder materials than the inner part; which is so soft that when a ship grounds on it during the ebb, she often sinks 5 feet in the mud and clay, which supports her upright, so that she is but little inconvenienced. The highest water on the bar of the Meinam, from February to September, is about 13½ feet; and in the remaining 4 months, somewhat more than 14 feet—a difference probably produced by the accumulation of water at the head of the bay after the south-west monsoon and by the heavy floods of the rainy season. On account of the deficiency of water on the bar, vessels sent to Bangkok had better, perhaps, not exceed 200 or 250 tons burden. In all other respects, the river is extremely safe and commodious. Its mouth is no sooner approached, than it deepens gradually; and at Paknam, two miles up, there are 6 and 7 fathoms water. This depth increases as you ascend, and at Bangkok is not less than 9 fathoms. The only danger is, or rather was, a sandbank off Paknam, bare at low water; but a battery has been erected within the last few years, affording at all times a distinct beacon. The channel of the river is so equal, that a ship may range from one side to another, approaching the banks so closely that her yards may literally overhang them. The navigation is said to be equally safe all the way up to the old capital, Yuthia, 80 miles from the mouth of the river.

The city of Bangkok extends along the banks of the Meinam to the distance of about 2½ miles, but is of no great breadth, probably not exceeding 1½ mile. On the left bank there is a long street or row of floating houses: each house or shop, for they are in general both, consisting of a distinct vessel, which may be moored anywhere along the banks. Besides the principal river, which at the city is about a quarter of a mile broad, the country is intersected by a great number of tributary streams and canals, so that almost all intercourse at Bangkok is by water. The population has been variously computed at from 50,000 to 400,000; but, though probably in excess, the latter is no doubt the nearest to the mark. Half the population consists of Chinese settlers.

The common necessaries of life at Bangkok are exceedingly cheap. A cwt. of rice may always be had for 2*s* and very often for 1*s*. Other necessaries, such as salt, palm-sugar, spices, vegetables, fish, and even flesh, are proportionally cheap. The price of good pork, for example, is 2½*d*. per lb. A duck may be had for 7*d*. and a fowl for 3*d*. The neighbourhood of Bangkok is one of the most productive places in the world for fine fruits; here are assembled, and to be had in the greatest perfection and abundance, the orange and lichi of China, the mangoe of Hindostan, and the mangostein, durian, and shaddock of the Malay countries.

The area of the kingdom of Siam has been estimated at about 200,000 square miles, and its population at from nearly 3,000,000 to 6,000,000; both estimates being by the highest authorities, viz., Mr. Crawfurd, one of the most intelligent Englishmen that has ever visited the country, and the other by M. Pallegoix, bishop of Siam. Sir John Bowring reckons the population at between 4,000,000 and 5,000,000; but it is evident that no dependence can be safely placed on any of these estimates. From a quarter to a third part of the population are supposed to be Chinese. Sir John Bowring says: 'There is no class of settlers, who, under proper control, are so likely to be useful as the Chinese. That passion for acquiring wealth, which leads them to dare all danger and difficulty, is a most valuable recommendation. Their habits of subordination, their inbred respect for authority, their gregarious spirit, which drives them into associations of every sort, private and public, praiseworthy and pernicious, only require a thorough knowledge of their character to be turned to the best account.' (*The Kingdom and People of Siam*, i. 243.) The Chinese are, in truth, by far the best and most valuable part of the population.

Trade.—Being near the mouth of a great navigable river, which runs through the whole extent of the country, Bangkok is well situated for commerce, and formerly she possessed a considerable trade. This, however, gradually fell off, in consequence of the monopolies and other injudicious measures of the government. But latterly a more liberal spirit has prevailed; and since 1855, when the commercial treaty negotiated by Sir John Bowring (see *post*) came into operation, trade has been largely extended; and the capacities of the country are so very great that, were they at all developed, Bangkok could not fail to become one of the principal emporiums of the East.

The trade which is centred at Bangkok is principally carried on with China, Cochin-China, and the neighbouring countries, and with Singapore, Java, &c. But vessels direct from England and other European countries and the United States, occasionally arrive at the port. Pallegoix has given (tom. i. p. 327) a list of the articles, with their quantities and prices, that are usually shipped from Siam; but we prefer laying before the reader an account of the articles, &c., that were really imported into and exported from Bangkok in 1864–65.

A large part of the imports consist of English cotton stuffs and twist, copper, iron and nails, shipping stores, &c. The imports from China comprise coarse earthenware and porcelain, spelter, quicksilver, tea, lacksoy (vermicelli), dried fruits, raw silk, crapes, satins, and other silk fabrics, nankeens, shoes, fans, umbrellas, writing paper, sacrificial paper, incense rods, and many other minor articles. Not the least valuable part of the importations are immigrants.

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Total Quantities and Values of the Principal Articles Imported, including Bullion and Specie, at the Port of Bangkok, in each of the Years 1864 *and* 1865.

Principal Articles		1864 Quantities	1864 Value	1865 Quantities	1865 Value
			£		£
White shirtings	corges	2,180	42,330	—	25,301
	pieces	—		32,106	
Grey ,,	bales	2,007	76,746	—	57,106
	pieces	—		96,902	
Figured ,,	corges	421	9,067	—	5,777
	pieces	—		7,478	
Chowls	bales	541	27,891	—	—
Miscellaneous piece goods	packages	767	20,179	—	14,934
	pieces	—		52,643	
White, yellow, and red twist	bales	761	33,895	923	26,721
Machinery	packages	484	16,432	—	—
Crockery	,,	39,273	25,133	12,002	10,556
Coal	tons	4,738	10,512	2,167	2,515
Brass and copper ware	cases	1,504	38,656	1,366	16,337
Mat bags	pieces	4,090,933	29,687	1,634,576	10,298
Opium	chests or cases	364	44,739	205	21,957
Tin	piculs	3,765	16,869	1,500	6,238
China goods	packages	64,496	84,011	—	43,513
Silk chowls	pieces	24,954	25,398	—	—
Crapes	,,	19,833	29,206	5,512	6,689
Silk manufactures	,,	39,995	59,493	23,557	34,050
Gold leaf	value	—	100,496	—	12,624
Mexican dollars	,,	—	273,203	—	55,074
Total		—	1,107,697	—	519,795

Opium has become an extensive article of consumption. It was formerly prohibited; but, to use the words of Sir John Bowring, 'The influence of the Chinese, the wants of the treasury, the impotency of prohibitions and punishments to prevent its importation, have led to the legalisation of the drug, and the establishment of an opium farm, for which a large sum is annually paid by an opulent Chinese contractor.' (Bowring's *Siam*, i. 255.)

The tonnage engaged in the trade with China formerly consisted almost entirely of junks; but latterly these have been to a considerable extent superseded by the employment of square-rigged vessels built in Siam after European models.

The supplies of many of the above articles, especially of sugar, pepper, rice, &c., may be indefinitely increased. The principal sugar growing districts are situated in the immediate vicinity of the capital; and nothing is wanted but the application of skill and capital to the culture of the cane and the manufacture of the sugar to increase the produce of the latter to any amount. Pepper is mostly grown near, and is brought from Martaban, on the east side of the Gulf.

Total Quantities and Value of the Principal Articles Exported (exclusive of Bullion and Specie) at the Port of Bangkok, in each of the Years 1864 *and* 1865.

Principal Articles	1864 Quantities	1864 Value	1865 Quantities	1865 Value
	piculs	£	piculs	£
Rice	2,409,748	905,630	56,718	21,801
Sugar	89,261	111,576	81,966	102,458
Sapan wood	97,490	21,372	90,117	39,426
Paddy	40,678	13,876	10,324	5 485
Silk	927	31,575	947	31,961
Tea-seed	26,927	13,463	32,016	22,011
Salt	148,121	10,099	252,119	45,212
Fish, salt	126,136	56,534	87,512	120,329
Mussels	4,929	6,161	10,985	17,851
Teak	9,806	15,116	—	16,115
Cardamoms	1,265	11,859	1,300	12,118
Pepper	25,752	44,810	26,281	36,136
Sticklac	13,331	28,328	4,744	11,860
Total	—	1,317,922	—	529,276

M. Pallegoix states that the main obstacles to the extension of trade at Bangkok consist: 1. In the difficulty of disposing of goods within a limited period; 2. In the dilatoriness with which they are paid for; and 3. In the delay which attends the getting on board of a return cargo: and to obviate these he suggests that foreigners trading with Siam should have agents and warehouses in the country, to whom they might consign their goods, to be sold according to the demand, and who might purchase and accumulate, as occasion served, articles of export. Those who act thus, he says, generally succeed. (Pallegoix, i. 326.)

Account of the British and Foreign Shipping cleared from the Port of Bangkok in 1864 *and* 1865, *specifying the Value of their Cargoes.*

	Cleared 1864 Vessels	1864 Tons	1864 Value of Cargoes	Cleared 1865 Vessels	1865 Tons	1865 Value of Cargoes
			£			£
British	118	54,771	616,814	37	10,535	90,012
Danish	31	8,010	69,591	1	168	—
Dutch	6	3,284	6,775	19	9,210	15,090
French	9	2,578	—	2	9 9	3,139
Hanoverian	14	3,699	—	2	571	6,341
Hanseatic	75	21,124	—	7	2,540	11,030
Norwegian and Swedish	12	3,896	22,334	—	—	—
Oldenburg	4	1,293	8,618	1	300	900
Prussian	1	256	1,825	—	—	—
American, U.S.	11	7,323	48,350	1	305	612
Siamese	101	62,348	362,500	79	30,816	102,109
Other Countries	10	2,723	1,625	—	—	—
Total	422	171,535	—	149	55,870	329,276

Port Dues and Duties.—Previously to 1855 British ships arriving at Bangkok were subject to certain port dues, but these were abolished by the treaty of that year. Duties on imports were at the same time fixed at 3 per cent. The duties on exports and trade regulations are specified in the tariffs, &c., annexed to the treaty. [TREATIES, COMMERCIAL.]

European pilots are always in attendance outside the bar. As soon as the river is entered, all difficulties cease. Vessels are obliged to anchor at Paknam, a town situated about 3 miles from the entrance on the eastern bank. They there land their guns and ammunition, and take on board a customs officer before proceeding to Bangkok.

Paklat Lang, on the west bank of the river, 5 miles above Paknam, is the entrance to a canal which saves a circuit of nearly 10 miles to boats proceeding to or from Bangkok. Ships must take the circuitous route by the river. The canal re-enters the river at the small village of Paklat Bon.

On arrival at Bangkok, vessels can, in any state of the tide, either lie alongside the wharves of their consignees, or, if preferred, anchor in the main stream, where every facility for unloading exists in the abundance of cargo-boats always at

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hand at a reasonable charge. There are no port dues on European bottoms. On ships reporting at their respective consulates importers have to enter particulars of their merchandise at the Siamese custom-house, which thereon grants the customary order to the landing waiter in charge to permit the landing of the goods.

All merchandise (with the exception of specie) pays the uniform ad valorem duty of 3 per cent. Produce not directly taxed on its production or transit to Bangkok from the interior, pays various export duties.

Moneys, Weights, and Measures.—Gold and copper are not used as money in Siam, and the currency consists only of cowrie shells and silver. The denominations are as follows:—200 bia or cowries make 1 p'hai-nung; 2 p'hai-nungs, 1 sing-p'hai; 2 sing-p'hais, 1 fuang; 2 fuangs, 1 salung; 4 salungs, 1 bat or tical; 80 ticals, 1 cattie; 100 catties, 1 picul.

The standard coin is the bat, which Europeans have called a *tical*; but there are also coins, though less frequently, of the lower denominations. These are of a rude and peculiar form. They are, in fact, nothing more than small bits of a silver bar bent, and the ends beaten together. They are impressed with two or three small stamps, not covering the whole surface of the coin. The cattie and picul are, of course, only used in speaking of large sums of money. Gold and silver are weighed by small weights, which have the same denominations as the coins. The p'hai-nung, the lowest of these, is in this case subdivided into 32 sagas, or red beans, the *Abrus precatorius* of botanists.

The bat, or tical, was assayed at the mint of Calcutta; it was found to weigh 236 grains; its standard, however, was uncertain, and the value of different specimens varied from 1 rupee 3 anas and 3 pice, to 1 rupee 3 anas and 7 pice. The value, therefore, in sterling money, is about 2*s.* 6*d.*, and it is so considered.

The denominations of the smaller coins are as follows:—

2 Lots	=1 At.	These are flat pewter coins, the latter about the size of a halfpenny, and replacing the 100 cowrie shells, which were until lately the only medium of exchange for values under the 'Fuang.'
2 At	=1 Song Péis.	A flat copper coin of the same disc, but thicker than the above.
2 Song Péis	=1 Fuang.	Flat silver coins.
2 Fuangs	=1 Salung.	
4 Salungs	=1 Bat or Tical.	
80 Ticals	=1 Chang or Cattie.	
50 Catties	=1 Hap or Picul or 4000 Ticals	equal in weight to the Chinese.

There is no gold money used in general, and the largest silver coin is the tical. The cattie and picul represent merely weights of silver, and are only used for the calculation of large sums as in India is used the term *lac*.

In respect to ordinary measures, the Siamese cattie is double the weight of the Chinese cattie, which, as is well known, is equal to 1⅓ lb. avoirdupois. The picul, however, is of the same weight, consisting in the one case of 50 catties only, and in the other of 100. In weighing rice and salt, a large measure is used, consisting, in respect to the first of 22 piculs, and of the last of 25 piculs. Rice is also measured by the basket, of which 100 go to the large measure above mentioned.

The long measures are as follow:—12 finger breadths make 1 span; 2 spans, 1 cubit; 4 cubits, 1 fathom; 20 fathoms, 1 sen; and 100 sen, 1 yuta, or, as it is more commonly pronounced by the Siamese, yut. The fathom is the measure of most frequent use, and the Siamese have a pole of this length divided into its fractional parts. This, as nearly as can be ascertained, is equal to about 6 feet 6 inches. The sen appears to be also used in the admeasurement of land, and to be the name of a square measure of 20 fathoms to the side.

For the treaty between Great Britain and Siam, see TREATIES, COMMERCIAL.

This article has been compiled from information procured on the spot, and communicated to us by our friend John Crawfurd, Esq.; from the *Description du Royaume Thai ou Siam*, 2 tomes, Paris, 1854, de M. Pallegoix; Sir John Bowring's *Account of the Kingdom and People of Siam*; information supplied by T. G. Knox, Esq., H.M. consul at Bangkok; *Consular Reports*; the *Gulf of Siam 'Pilot'*; and *Parliamentary Papers*.

BANK—BANKING. Banks are establishments intended to serve for the safe custody and issue of money; for facilitating its payment by one individual to another; and sometimes for the accommodation of the public with loans.

I. GENERAL PRINCIPLES IN REGARD TO PAPER MONEY AND BANKING.
II. BANKS OF DEPOSIT AND BANKS OF ISSUE.
III. BANK OF ENGLAND (ACCOUNT OF).
IV. PRINCIPLE AND OPERATION OF THE ACT OF 1844.
V. MANAGEMENT OF THE BANK OF ENGLAND.
VI. CIRCULATION, ETC., OF THE BANK OF ENGLAND, AND OF THE ENGLISH PROVINCIAL BANKS.
VII. BANKS (SCOTCH).
VIII. BANKS (IRISH).
IX. BANKS OF VENICE, AMSTERDAM, ETC.
X. BANKS OF FRANCE, BELGIUM, AUSTRIA.
XI. BANKING IN UNITED STATES.
XII. BANKS FOR SAVINGS.

SEC. I. GENERAL PRINCIPLES IN REGARD TO PAPER MONEY AND BANKING.

Substitution of Notes for Coins.—Notwithstanding the precious metals are in many respects admirably fitted to serve as media of exchange, they have two very serious drawbacks, viz., their cost, and the difficulty and expense of carrying them from place to place. If no bank notes circulated in the United Kingdom, it might be fairly assumed that from 35,000,000 to 40,000,000 more sovereigns would be required for the public accommodation than at present, including in those now employed the reserves held by the bankers: and the expense of such a currency, taking it at 37,500,000*l.* and the rate of profit at 6 per cent., with an allowance of 1 per cent. for wear and tear and loss of coins, would be at least 2,625,000*l.* a-year. But the inconvenience attending the use of a currency consisting wholly of gold would be a much greater drawback on its employment than its cost. The weight of 1,000 sovereigns exceeds 21 lbs. troy; so that were there nothing but coins in circulation, the conveyance of large sums from place to place to discharge accounts would be a very laborious process, and even small sums could not be conveyed without considerable difficulty. Hence it is that most commercial and civilised nations have fabricated a portion of their money of less costly and heavy materials, and resorted to various devices for economising the use of coin. Of the substitutes for the latter hitherto suggested, paper is in all respects the most eligible. When governments are sufficiently powerful and intelligent to enforce the observance of contracts, individuals possessed of written promises from others that they will pay certain sums at specified periods

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begin to assign them to those to whom they are indebted; and when those by whom such obligations are subscribed are persons of whose solvency no doubt can be entertained, they are readily accepted in payment of the debts due by one individual to another. But when the circulation of obligations or bills in this way has continued for a while, individuals begin to perceive that they may derive a profit by issuing them in such a form as to fit them for being readily used as a substitute for money in the ordinary transactions of life. Hence the origin of bank notes or paper money. An individual in whose wealth and discretion the public have confidence being applied to for a loan, say of 5,000*l.*, grants the applicant his bill or note payable on demand for that sum on his receiving adequate security for its repayment with interest. Now, as this note passes, in consequence of the confidence placed in the issuer, currently from hand to hand as cash, it is quite as useful to the borrower as if he had obtained an equivalent amount of gold; and supposing that the rate of interest is 4 per cent., it will yield, so long as it continues to circulate, a revenue of 200*l.* a year to the issuer. A sense of the advantages that might, in this way, be derived from the circulation of bills or notes led to the formation of banks for their regular issue. Those who issue such notes, coin as it were their credit. They derive the same revenue from the loan of their written promises to pay certain sums that they would derive from the loan of the sums themselves; and while they thus increase their own income, they at the same time contribute to increase the wealth of the society. Besides being incomparably cheaper, bank notes are also incomparably more commodious than a metallic currency. A bank note for 1,000*l.* or 100,000*l.* may be carried about with as much facility as a single sovereign. It is of importance, too, to observe, that its loss or destruction, whether by fire, shipwreck, or otherwise, would be of no greater importance, in a public point of view, than the loss or destruction of as much paper. No doubt it might be a serious calamity to the holder; but to whatever extent it injured him, it would proportionally benefit the issuer, whereas the loss of coin is an injury to the holder without being of service to anyone else; it is, in fact, so much abstracted from the wealth of the community.

Regulations in regard to the Issue of Notes.—To obviate the endless inconveniences that would arise from the circulation of coins of every weight and degree of purity, were there no restrictions on their issue, all governments have forbidden the circulation of coins not of a certain specified or standard weight and fineness. And the recurrence of similar inconveniences from the issue of notes for varying sums, and payable under varying conditions, has led, in most countries in which paper money is made use of, to the enacting of regulations forbidding the issue of notes below a certain amount, and laying down rules for their payment. In England at this moment no note payable to bearer on demand can be issued for less than 5*l.*, and they must all be paid the moment they are presented. In Scotland and Ireland the minimum value of bank notes is fixed at 1*l.*, the regulations as to payment being the same as in England. In order to preserve the monopoly of the London circulation to the Bank of England, no notes payable to bearer on demand are allowed to be issued by individuals or associations, other than the Bank of England, within 65 miles of St. Paul's. But beyond these limits they may be issued by certain banks, under the provisions of the Act 7 & 8 Vict. c. 32 &c.

Distinction between Bills of Exchange and Paper-Money.—Under the phrase paper-money or paper-currency, we do not include bills of exchange, or bills issued by bankers, merchants, and others, and payable some time after date. Such bills perform, in some respects, the same functions as money; and have, in consequence, been frequently regarded in the same light as bank notes. But this is quite improper: for though there are many points in which a bill of exchange and a bank note closely resemble each other, there are others in which there is a distinct and material difference between them. A note bears to be payable on demand; it is not indorsed by a holder on his paying it away; the party receiving has no claim on the party from whom he received it, in the event of the failure of the issuers. Practically speaking, this is the fact; but a person paying away a bank note is liable to be called upon for repayment, should the bank fail before it was in the power of the party to whom it was paid, using ordinary diligence, to present it. The responsibility seldom exceeds a couple of hours, and can hardly in any case exceed a couple of days. In practice it is never adverted to; and everyone is thus encouraged, reckoning on the facility of passing it to another, to accept bank paper, '*even though he should doubt the ultimate solvency of the issuer.*' (Thornton *On Paper Credit*, p. 172.) Bills, on the contrary, are almost all drawn payable at some distant period; and those into whose hands they come, if they be not in want of money, prefer retaining them in their possession, in order to get the interest that accrues upon them. But the principal distinction between notes and bills is, that every individual, in passing a bill to another, has to indorse it, and by doing so makes himself responsible for its payment. 'A bill circulates,' says Mr. Thornton, 'in consequence chiefly of the confidence placed by each receiver of it in the last indorser his own correspondent in trade; whereas the circulation of a bank note is owing rather to the circumstance of the name of the issuer being so well known as to give it an universal credit.' (*Ibid.* p. 40.) Nothing, then, can be more inaccurate than to represent bills and notes in the same point of view. If A pay to B 100*l.* in satisfaction of a debt, there is an end of the transaction; but if A pay to B a bill of exchange for 100*l.*, the transaction is not completed; and in the event of the bill not being paid by the person on whom it is drawn, B will have recourse upon A for its value. It is clear, therefore, that a great deal more consideration is always required, and may be fairly presumed to be given, before anyone accepts a bill of exchange in payment, than before he accepts a bank note. The note is payable on the instant, without deduction—the bill not until some future period; the note may be passed to another without incurring any risk or responsibility, whereas every fresh issuer of the bill makes himself responsible for its value. Notes form the currency of all classes, not only of those who are, but also of those who are not engaged in business, as women, children, labourers, &c., who in most instances are without the power to refuse them, and without the means of forming any correct conclusion as to the solvency of the issuers. Bills, on the other hand, pass only, with very few exceptions, among persons engaged in business, who are fully aware of the risk they run in taking them. There is plainly, therefore, a wide and obvious distinction between the two species of currency; and it cannot be fairly argued, that because Government interferes to regulate the issue of the one, it should also regulate the issue of the other. To

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use the words of Lord Mansfield, 'Bank notes are not, like bills of exchange, mere securities or documents for debts, nor are so esteemed, but are treated as money in the ordinary course and transactions of business, by the general consent of mankind; and on payment of them, whenever a receipt is required, the receipts are always given as for money, not as for securities or notes.' (Chitty *On Bills*, 8th ed. p. 555.)

Necessity of insuring the Conversion of Bank Notes into Coin.—The taking of measures to insure the convertibility of bank notes into coin is a matter which cannot safely be left to the discretion or judgment of individuals, but which must be settled by Government. No bank notes should be permitted to circulate, about the equivalency of which to the coins they profess to represent there can be the smallest room for doubt. It is alleged, indeed, that in this, as in most other things, we may safely trust to the prudence and sagacity of those who deal with banks; and that, if left to themselves, the public will very rarely be deceived. But the widest experience shows that little, if any, dependence can be placed on this doctrine. The public is very apt to be misled, in the first instance, in giving confidence to or taking the paper of individuals or associations; and though that were not the case, the condition of an individual or company may change from bad or expensive management, improvident speculation, unavoidable losses, and fifty other things of which the public know nothing, or nothing certain. The fact that any particular banker who issues paper enjoys the public confidence, is, at best, a presumption merely, and no proof that he really deserves it. The public may believe him to be rich and discreet; but this is mere hypothesis; the circumstances which excite confidence at the outset, and which preserve it, are often very deceptive; and in the vast majority of instances the public has no certain knowledge, nor the means of obtaining any, as to the real state of the case. But it is unnecessary to argue this point speculatively. There have, unfortunately, been innumerable instances in which it has turned out that bankers who have long been in the highest credit, and whose notes had been unhesitatingly accepted by the public, have been found to be, on the occurrence of anything to excite suspicion, quite unable to meet their engagements.

The issue of notes is of all businesses that which seems to hold out the greatest prospect of success to the schemes of those who attempt to get rich by preying on the public. The cost of engraving and issuing is nothing compared with the sums for which they are issued; and provided they be got into anything like extensive circulation, they become at once considerably productive. They are not issued, except, as previously explained, on the deposit of bills or other securities, yielding a considerable rate of interest; so that if an individual, or set of individuals, with little or no capital, should contrive by fair appearances, promises, and similar devices, to insinuate himself or themselves into the public confidence, and succeed in getting 20,000*l.*, 50,000*l.*, or 100,000*l.* into circulation, he or they would secure a good income in the meantime; and on the bubble bursting, and the imposture being detected, they would be no worse off than when they set up their bank. On the contrary, the presumption is, that they would be a great deal better off; and that they would take care to provide, at the cost of the credulous and deceived public, a reserve stock for their future maintenance. Hence, seeing that the facilities for committing fraud are so very great, the propriety or rather necessity of providing against them.

It is sometimes, no doubt, contended that the grand principle of the freedom of industry should be universally respected; that it can in no case be departed from with impunity; and that it is not only injurious, but unjust, to lay any restrictions upon the business of banking. But we are not to be led astray by a cuckoo-cry of this description. The business of banking—that is of keeping and dealing in money—is one thing, while the manufacture and issue of notes, intended to be substituted for and to serve as money, is another and a totally different thing. And though everybody may perhaps be allowed to undertake the former, it by no means follows that the same license is to be extended to those who make and issue notes. It is to be recollected that in matters of this sort, neither freedom nor restriction is, abstractly considered, just or unjust, good or bad, expedient or inexpedient. It is by their respective influence upon society that they are to be judged; and though a free and liberal course of policy be in general most for the public advantage, there are very many cases in which it is necessary to impose restrictions. It is admitted on all hands that governments are bound to suppress or regulate every business or pursuit which is likely otherwise to become publicly injurious. And does anyone doubt that the issue of notes payable on demand is in the foremost class of these businesses? The experience of all ages and nations is conclusive as to this point. It has been everywhere regulated, in the most democratical as well as in the most despotical states, in England and Russia, Holland and France, the United States and Austria. The reasonableness of the practice accords with its uniformity. Le droit d'émettre des billets est très-avantageux; mais aussi il est si dangereux que l'Etat doit ou s'en réserver l'exercice, ou le régler de manière à en prévenir les abus. (Report on the Extension of the Privilege of the Bank of France in 1840.)

It may perhaps be said that bank notes are essentially private paper; that the accepting of them in payment is optional; and that as they may be rejected by everyone who either suspects or dislikes them, there is no room or ground for interfering with their issue! But vague generalities of this sort are entitled to very little attention. Everybody knows that, whatever notes may be in law, they are, in most parts of the country, practically and in fact legal tender. The bulk of the people are without power to refuse them. The currency of many extensive districts consists in great part of country notes, and such small farmers or tradesmen as should decline taking them would be exposed to the greatest inconveniences. Everyone makes use of, or is a dealer in, money. It is not employed by men of business only, but by persons living on fixed incomes, women, labourers, minors, and in short by every class of individuals; very many of whom being necessarily, from their situation in life, quite unable to form any estimate of the solidity of the different banks whose paper may be in circulation, are uniformly severe sufferers by their failure. And as the notes which come into their hands make a part of the currency or money of the country, it is evidently quite as much the duty of Government, in the view of preventing these losses and the ruin they occasion, to take such steps as may be required to make bank notes truly and substantially what they profess to be, as that it should take measures to prevent

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the issue of spurious coins, or the use of false or deficient weights and measures.

Banks afford great facilities to the public in the negotiation of bills of exchange, or in the making of payments at distant places. Many of the banking companies established in different districts have a direct intercourse with each other, and they have all correspondents in London. Hence an individual residing in any part of the country, who may wish to make a payment in any other part, however distant, may effect his object by applying to the bank nearest to him. Thus, suppose A of Penzance has a payment to make to B of Inverness: to transmit the money by letter would be hazardous; and if there were fractional parts of a pound in the sum, it would hardly be practicable: how then will A manage? He will pay the sum to a banker in Penzance, and his creditor in Inverness will receive it from a banker there. The transaction is extremely simple: the Penzance banker orders his correspondent in London to pay to the correspondent of the Inverness banker the sum in question on account of A, and the Inverness banker, being advised in course of post of what has been done, pays B. A small commission charged by the Penzance banker, and the postages, constitute the whole expense. There is no risk whatever, and the whole affair is transacted in the most commodious and cheapest manner.

Recently, however, the facilities given to the transmission of money by means of post-office orders have materially interfered with this branch of banking business, especially in the transmission of small sums, and are a great convenience to the public. [POST OFFICE.]

Legal Description of Bank Notes.—Bank notes are merely a species of promissory notes. They are subscribed either by the parties on whose account they are issued, or by some one in their employment, whose signature is binding upon them. A Bank of England note for 5*l.* is as follows:—

Bank of England.

I promise to pay the Bearer on Demand

the Sum of Five *Pounds.*

1858 *Dec*r 14 *London* 14 *Dec*r 1858.

*For the Gov*r *and Comp*y *of the*

£Five. BANK OF ENGLAND.

A. B.

No particular form of words is necessary in a bank note. The essential requisites are, that it should be for a definite sum (in England and Wales not less than 5*l.*, and in Scotland and Ireland not less than 1*l.*), that it should be payable to bearer on demand, and that it should be properly stamped. Promissory notes, though issued by bankers, if not payable to bearer on demand, do not come under the denomination of bank notes; they are not, like the latter, taken as cash in all ordinary transactions, nor are they, like them, assignable by mere delivery. By the provisions of 27 & 28 Vict. c. 78, the signature of bank notes may be impressed by machinery. The Act was passed in order to remove any doubt as to the validity of such notes, &c.

The circulation of notes for less than 5*l.* was restrained by law (stat. 15 Geo. III. c. 51) from 1766 to 1797. In 1808, it was enacted by stat. 48 Geo. III. c. 88, that all bank notes, promissory notes, or other negotiable instruments for less than 20*s.*, should be absolutely void: a penalty of from 20*s.* to 5*l.*, at the discretion of the justices, being imposed on their issuers. It was enacted by the 7 Geo. IV. c. 6, that the issue of all bank notes or promissory notes for less than 5*l.* by the Bank of England, or by any licensed English bankers, and stamped February 5, 1826, or previously (after which period such notes were not stamped), should terminate on April 5, 1829.

The stamp duties on bank notes or promissory notes payable on demand are—

	£	s.	d.		£	s.	d.		£	s.	d.
Not exceeding	1	1	0	. . . . .	.	.	.	.	0	0	5
Exceeding	1	1	0	and not exceeding	2	2	0	.	0	0	10
,,	2	2	0	,,	5	5	0	.	0	1	3
,,	5	5	0	,,	10	0	0	.	0	1	9
,,	10	0	0	,,	20	0	0	.	0	2	6
,,	20	0	0	,,	30	0	0	.	0	3	0
,,	30	0	0	,,	50	0	0	.	0	5	0
,,	50	0	0	,,	100	0	0	.	0	8	6

Which notes may be reissued after payment, as often as shall be thought fit, provided they be issued by a banker or person who has taken out a license, renewable annually, and costing 30*l.*, to issue notes payable to bearer on demand. Any banker or other person issuing such reissuable notes, without being duly licensed, shall forfeit 100*l.* for every offence. (55 Geo. III. c. 184 s. 27.)

These conditions do not apply to the Bank of England. The stamp duties on the notes of that establishment were formerly compounded for at the rate of 3,500*l.* per million of those in circulation; but the Act 7 & 8 Vict. c. 32, has wholly exempted them from all charge on account of stamp duties.

Notes or bills *not* payable to bearer on demand are not reissuable, under a penalty of 50*l.* For the stamp duties affecting them, see EXCHANGE.

By the 9 Geo. IV. c. 23, English bankers not in the city of London, or within three miles thereof, are authorised to issue promissory notes, and to draw and issue bills of exchange, on unstamped paper, for any sum of 5*l.* or upwards, expressed to be payable to the bearer on demand, or to order at any period not exceeding 7 days after sight (*bills* may also be drawn at any period not exceeding 21 days after date), upon obtaining licenses, costing 30*l.*, to that effect; provided such bills of exchange be drawn upon bankers in London and Westminster, or Southwark; or provided such bills be drawn by any banker or bankers at the place where he or they shall be licensed to issue unstamped notes and bills, upon himself or themselves, or his or their copartner or copartners, payable at any other place where such banker or bankers shall be licensed to issue such notes and bills. Bankers having such licenses are to give security, by bond, that they will keep a true account of all promissory notes and bills so issued, and account for the duties on them at the rate of 3*s.* 6*d.* for every 100*l.*, and also for the fractional parts of 100*l.* of the average value of such notes and bills in circulation. Persons postdating unstamped notes or bills shall, for every such offence, forfeit 100*l.*

Legal Effect of the Payment of Bank Notes.—Notes of the Bank of England were not, previously to the Act 3 & 4 Wm. IV. c. 98, like bills of exchange, mere securities or documents of debt, but were treated as money or cash in the ordinary course or transactions of business: the receipts given upon their payment being always given as for money. Now, however, they are legal tender, everywhere except at the Bank, for all sums above 5*l.* All notes payable to bearer are assignable by delivery. The holder of a bank note is prima facie entitled to its prompt payment, and cannot be affected by the previous fraud of any former holder in obtaining it, unless evidence be given to show that he was privy to such fraud. Such privity may, however, be inferred from the circumstances of the case. To use the words of Lord

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Tenterden, 'If a person take a bill, note, or any other kind of security, under circumstances which *ought to excite suspicion* in the mind of any reasonable man acquainted with the ordinary affairs of life, and which ought to put him on his guard to make the necessary enquiries, and he do not, then he loses the right of maintaining possession of the instrument against the lawful owner.' (Guildhall, October 25, 1826.)

Country bank notes are usually received as cash. But though taken as such, if they be presented *in due time* and not paid, they do not amount to a payment, and the deliverer of the notes is still liable to the holder. It is not easy to determine what is a due or reasonable time, inasmuch as it must depend in a great measure on the circumstances of each particular case. On the whole, the safest rule seems to be to present all notes or drafts payable on demand, if received in the place where they are payable, on the day on which they are received, or as soon after as possible. When they have to be transmitted by post for payment, no unnecessary delay should be allowed to intervene. (Chitty's *Commercial Law*, vol. iii. p. 590.) [CHECK.]

Among the schemes devised to secure the convertibility of notes into coin, the following are, perhaps, the most prominent, viz.—

1. *Measures suggested to insure the conversion of Notes into Coin. Inadequacy of these Measures.*—To confine the issue of notes to joint-stock banks, or associations with large numbers of partners, each of which should be indefinitely liable for the debts of the association. At the time when this description of banks was established by the 7 Geo. IV. c. 46, it was supposed that they would prove to be of the greatest advantage, and afford that complete security to the holders of their notes, and those who entrusted them with money, that is so desirable. But everybody knows that these anticipations have been entirely disappointed, and that the history of the joint-stock banks founded under the above statute discloses some of the most flagrant instances to be met with of recklessness, imposture and fraud. And this, after all, is only what might have been expected. The shares in many joint-stock banks are small, few being above 100*l.* the greater number not exceeding 50*l.*, whilst many are only 25*l.*, and some not more than 10*l.*, if so much. Generally, too, it is understood, or rather it is distinctly set forth in the conditions of partnership, that not more than ten, twenty, or fifty per cent. of these shares is to be called for; so that an individual with a few pounds to spare may become a shareholder in a bank. And owing to a practice or rather a flagrant abuse, introduced into the management of various banks, of making large advances or discounts on the credit of the stock held by shareholders, not a few individuals in doubtful or even desperate circumstances take shares in them, in the view of obtaining loans, and bolstering up their credit! The great danger arising from such banks is obvious, and when one of them stops payment, the claims on it, if ultimately made good, can be so only at the cost, and perhaps ruin, of such of its proprietors as have abstained from the abusive practices resorted to by others.

At the same time, however, it is quite plain that a joint-stock bank, provided it possess adequate capital, and is discreetly managed, may afford ample security to its shareholders and the public. And it is further plain, in the event of its shareholders being a numerous body, comprising, as is sometimes the case, hundreds of individuals, many of whom have large fortunes, that its creditors, though exposed to immediate injury, may in the end have little or nothing to fear, even from gross mismanagement. But it is very difficult to discriminate between one variety of joint-stock banks and another. A bank may have a considerable body of proprietors; but, though the contrary opinion may prevail, few of them may be wealthy, and many mere men of straw, so that the security afforded by such a bank may be worth little or nothing. Neither is there any foundation for the notion, that because a bank has fifty or a hundred partners, it will be either richer or better managed than if it had only five or ten. In truth, the presumption seems to be quite the other way. The petty subscriptions of many may amount in the aggregate to a considerable sum, which, however, may be greatly inferior to the fortunes of a few wealthy individuals. And when the latter engage in banking, or any other sort of business, they must, if they would protect themselves from ruin, pay unremitting attention to their concerns, and act in a discreet and cautious manner. But the partners and managers of a great joint-stock company act under no such direct and pressing responsibility. 'I think,' said the highest authority on such subjects, 'that joint-stock banks are deficient in everything requisite for the conduct of banking business, except extended responsibility; the banking business requires peculiar persons attentive to all its details, constantly, daily, and hourly watchful of every transaction, much more than mercantile or trading businesses. It also requires immediate, prompt decisions upon circumstances when they arise—in many cases a decision that does not admit of delay for consultation; it also requires a discretion to be exercised with reference to the special circumstances of each case. Joint-stock banks, being, of course obliged to act through agents, and not by a principal, and therefore under the restraint of general rules, cannot be guided by so nice a reference to degrees of difference in the character or responsibility of parties; nor can they undertake to regulate the assistance to be granted to concerns under temporary embarrassment by so accurate a reference to the circumstances, favourable or unfavourable, of each case.' (*Evidence of Lord Overstone, before Committee on Bank Charter, in* 1840.)

In fact, more than nine-tenths of the partners in joint-stock banks are wholly ignorant of banking business, and have nothing better to trust to than the supposed honesty and intelligence of the directors; and, even if they were acquainted with the business, the result would be nearly the same, as it would not be possible for anyone, by a cursory inspection of the books of a bank (if such were permitted), to form an accurate estimate of its condition, or of the mode in which it transacted business. And hence the directors in these establishments are practically all but absolute. If they be carefully selected, and be worthy of the confidence placed in them, all goes on smoothly; and this also is the case when they are most unworthy, till they have involved the concern in inextricable difficulties! The history of the Norwich Bank, of the Northern and Central Bank, the Marylebone Bank, the Manchester Bank, the London and Eastern Bank, the Royal British Bank, the Borough Bank of Liverpool, the Western Bank of Glasgow, and a host of others, sufficiently attests the truth of what has now been stated. The responsibility of the directors to the shareholders has not been found, in any of these instances, to have been any check whatever over their frauds and improvidence. The whole paid-up capital of the Western Bank, amounting to 1,500,000*l.*, had been wasted in the most improvi-

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dent speculations and a vast debt incurred; while that of the Royal British Bank and of the London and Eastern Bank had been seized upon by the directors or their dependents, and additional debts contracted, before the great body of the shareholders had the least suspicion that the companies were otherwise than prosperous!

We may observe, by the way, that the mischief occasioned by an establishment of this sort, when perverted from its proper objects and mismanaged, is not to be estimated by the ruin it entails on its partners, and probably also on its customers. It becomes, in fact, a public nuisance, and entails privations on many who might be supposed to be beyond the sphere of its influence. Within the ten years ending with 1842 it was estimated that about 1,500,000*l.* of banking capital was wholly dissipated in Manchester and its immediate vicinity. And as nine-tenths of this enormous loss was occasioned by advances made to manufacturers who had little or no capital of their own, it is not easy to imagine what a ruinous stimulus it must have given to reckless competition, and how very injurious it must have been to parties trading on their own capital.

It is clear, therefore, that the institution of joint-stock banks affords no security that their affairs will be properly administered, and their notes uniformly paid on their being presented.

2. To insure the convertibility of bank notes into coin, it has been proposed that they should not be issued except upon security being previously given for their payment. That, for example, an individual or company intending to issue 100,000*l.*, 200,000*l.*, or other sum of notes, should be obliged previously to deposit in the hands of a functionary appointed for the purpose, approved securities over lands, houses, stocks or other available property for an equal amount. And it is plain that this would be in many respects an efficient measure. Under a system of this sort, adventurers without capital, and sharpers anxious to become indebted to the public, would find that the issue of notes was not a business by which they could expect to profit, and that it must be exclusively reserved for parties possessed of adequate capital.

But though a plan of this sort would effect to a considerable extent the objects in view, it has, notwithstanding, two cardinal defects, viz.—

In the first place, though it were fitted to secure the ultimate payment of notes, it would not secure their immediate payment, which is essential to their advantageous employment as money. The stoppage of a bank which had deposited securities would have to be officially ascertained before any steps could be taken for their sale; and after this had been done, some considerable time would have to elapse before they could be disposed of, and their produce made available for the liquidation of the notes. Most securities, too, are of fluctuating and uncertain value, and might not, even under the most favourable circumstances, realise the sums for which they were pledged. And in the event of the occurrence of a panic, or disturbed state of credit, it might be impossible immediately to convert the securities into cash, or possible only at a heavy loss. This plan is, therefore, very far from giving that effectual security for the conversion of notes into coin, which, on the first blush of the matter, it appears to afford. Latterly, it has been extensively acted upon in most parts of the United States; and there, when a bank stops payment, its notes are always sold at a discount, which, of course, varies according to the peculiar circumstances affecting each case. (See *post.*)

But supposing that this plan were effectual, which it is not, to insure the immediate convertibility of notes into coin, it is defective from its not preventing their over-issue. A paper currency is not in a sound or wholesome state, unless —1. Each particular note or parcel of such currency be paid immediately on demand; and, 2. Unless the whole currency vary in amount and value exactly as a metallic currency would do were the paper currency withdrawn and coins substituted in its stead. The last condition is quite as indispensable to the existence of a well-established currency as the former; and it is one that cannot be realised otherwise than by confining the supply of paper to a single source.

The issues of paper money should always be determined by the exchange, or rather by the influx and efflux of bullion, increasing when the latter is flowing into a country, and decreasing when it is being exported. And when the issue of paper is in the hands of a single body, a regard to its interests will make it regulate its amount with reference to this principle. But when the power to issue notes is vested in different bodies, some of which may be little, if at all, affected by variations of the exchange, this is no longer the case. And instances have repeatedly occurred, as will afterwards be seen, of the country banks having increased their issues when the exchange was unfavourable and the currency redundant. Hence the plan of exacting securities is doubly defective, inasmuch as it neither insures the immediate conversion of notes into coin, nor prevents their over-issue.

3. The only other plan for insuring the conversion of notes into coin, or rather for keeping them on a level therewith, to which it is at present necessary to allude—consists in providing for the publicity of the affairs of the banks by which they are issued. The issues of banks, under this system, are usually made to bear some fixed proportion to their capital; the whole, or some considerable share, of which is to be paid up before the bank begins business; and monthly, quarterly, half-yearly, or annual returns are thereafter to be published, exhibiting the state of the bank, and enabling, as it is said, the public to judge whether it be safe to deal with it. But it is almost needless to say that such regulations are no protection against fraudulent dealings; and that, in reality, they are good for little, unless it be to deceive and mislead the public. It is impossible, if the managers of a bank or other association wish to make a deceptive or unintelligible return, to hinder them. And even when they wish to make a really accurate return, they must frequently make one that is false, from their inability to estimate their bonds, bills, and other assets at their just value. But it is useless to insist on what is so very obvious. The 'cooking of returns,' as it has been called, is an art that is well understood and extensively practised. Long after the capital of the British Bank had been wholly lost, and it had been precipitated into the abyss of bankruptcy, its directors did not hesitate to put forth statements, in which it was represented to be in a prosperous condition, and a division of profits recommended! And this, unhappily, is not a solitary instance. It is only one example, and that not the worst, of a very large class of cases. But such as it is, it is more than sufficient to show that it would be childish to place any confidence in the returns referred to.

Act of 1857 *against fraudulent Returns by Bankers.*—It may, however, be supposed that the late Act, the 20 & 21 Vict. c. 54 (1857), for the punishment of frauds committed by trustees,

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bankers, and others, will put an end to the practices hitherto complained of. But though it were much to be wished that such should be the case, and though, no doubt, it will have considerable influence, it will not suffice to repress the evil. Besides making bankers and others who embezzle, appropriate, or make away with property entrusted to their care, guilty of a misdemeanour, the statute goes on to enact, 'That if any director, manager, or public officer of any body corporate, or public company, shall make, circulate, or publish, or concur in making, circulating, or publishing, any written statement or account which he shall know to be false in any material particular, with intent to deceive or defraud any member, shareholder, or creditor of such body corporate or public company, or with intent to induce any person to become a shareholder or partner therein, or to intrust or advance any money or property to such body corporate, or public company, or to enter into any security for the benefit thereof, he shall be guilty of a misdemeanour.' (Sec. 8.)

And it is further enacted, 'That every person found guilty of a misdemeanour under this Act shall be liable, at the discretion of the court, to be kept in penal servitude for the term of three years, or to suffer such other punishment, by imprisonment, for not more than two years, with or without hard labour, or by fine, as the court shall award.' (Sec. 10.)

It is difficult to see how, under a law of this sort, such flagrantly false statements as those put forth by the Royal British and other banks, after they were in a state of utter bankruptcy, should not subject their authors to the full penalties of the statute. But villany is fertile in resources; and no severity of punishment has ever been found to be effectual for the suppression of crime. Though it may be fairly presumed that the 'cooking of returns' will be less frequent, and less glaring, in time to come than formerly, it would be idle to expect that it should ever be wholly put down. And, as already seen, even when the directors of a bank are so disposed, it will frequently be out of their power to lay before the public a really true statement of their affairs. It is plain, then, that this so-called publicity affords nothing approaching to that undoubted and unquestionable guarantee which should be required from all parties and associations empowered to issue notes.

But the difficulties in the way of insuring the conversion of the latter into coins, though great, are not insuperable. A plan originally suggested by Lord Overstone, and adopted and carried into effect by Sir Robert Peel, has been found to be quite effectual to secure this grand object. And it has the additional and important recommendation, of having done this without subjecting the public to any sensible inconvenience.

But before entering into an exposition of the plan referred to, it will be necessary to premise some details with regard to the constitution and action of the existing banks.

Sec. II. Banks of Deposit and Banks of Issue.

Principles on which they are established.—Banks are commonly divided into *banks of deposit* and *banks of issue*: i. e. banks that take care of other people's money, and banks that issue money of their own. But there are few banks of issue that are not at the same time banks of deposit; and the latter are further divisible into two great classes: viz. those who do and those who do not issue the money of their customers. The banking companies established in this country belong to the first class; while the old Bank of Amsterdam did, and the existing Bank of Hamburg does, belong to the second class.

Advantages of Bankers.—Instead of keeping money in their own houses, where it would be exposed to various accidents, and to the attacks of thieves and robbers, most people wisely commit it to the care of a banker, and avail themselves of his services in receiving and making payments on their account. They send to their banker such sums of money as they may happen to receive, and all bills and drafts payable to them; and he becomes responsible for their amount, for the regular presentation of the bills for acceptance and payment, and for their proper noting, if not accepted or paid. It is also the practice for parties who have an account at a banker's to make all considerable payments by cheques payable by him. As the discharge of these functions involves considerable risk and expense, it is usual for bankers either to charge a percentage for their trouble, or to stipulate that the parties dealing with them shall keep an average balance of cash in their hands corresponding to the amount of business transacted in their behalf. In this way business is carried on with safety, ease, and despatch; and at much less expense than it would be if individuals kept their own money, and made their own payments.

Of the sums paid into banks, some are intended to meet the cheques and orders drawn against them in the ordinary course of business; while others are sent rather for safe custody, to be retained, till opportunities be found for their investment. The former are generally placed under what are called *drawing*, and the latter under *deposit* accounts; but there is no difference between the two, except that the sums in deposit accounts are usually permitted to lie for longer periods without being operated upon or called up. Such portions of the one or the other as the bankers do not retain in their coffers to meet the usual demands of their customers, they employ in the discount of bills, or in making advances of one sort or other, generally at short dates, to those who require them, and in whom they think they may confide.

This last is one of the most important functions performed by banks of deposit. They become, as it were, receptacles or reservoirs into which the surplus or unemployed capital of the surrounding districts is collected, and from which it is again distributed to those who want it. And it may be proper to observe, that the bankers do not always, nor perhaps even most commonly, confine their advances to those who can give security for their repayment. On the contrary, they are often more influenced in making loans by their knowledge of the conduct, the intelligence, and the pursuits of the parties, than by anything else. And it frequently happens that industrious, frugal, and enterprising young men, who have no guarantee to offer save their character, obtain advances that would be denied to wealthier, but otherwise less trustworthy parties.

On this, as on most other points, the late evidence of Lord Overstone is highly instructive.

Q. But, generally speaking, persons who have no capital, have very little opportunity of raising money, have they? *Ans.* That certainly is not so. The whole principle of banking is to afford capital—to transfer it from the inactive accumulator to the active and energetic person who wants the capital. The banker is the go-between, who receives deposits on the one side, and on the other applies those deposits, intrusting

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them, in the form of capital, to the hands of active, energetic persons, who, he thinks, will make a good use of it.

Q. Who have no security to give? *Ans.* Who have in many instances no security to give, except their character, and skill, and talent, of which the banker forms his judgment.

Q. To persons of character who have no other security to give? *Ans.* To persons of character who, in some cases, have no security to give: but who, in all cases, have no security to give equal to the amount advanced to them, except that best form of security, their character, their energy, and their prudence. (*Minutes of Evidence*, p. 348.)

But without insisting on these considerations, which, however, are not a little important, it is manifest that those who have capital to lend, and those who wish to borrow, are equally indebted to the agency of the bankers, who, while they enable these great classes mutually to assist each other, contribute to increase the public wealth by facilitating the flow of capital into the most productive channels.

Credit, Definition of.—But, however great, this advantage is not to be exaggerated. Though banks afford valuable assistance in the collection and distribution of capital, it must not be supposed, as is often done, that they have any direct influence over its formation. That is the joint effect of industry and economy—the former in producing convenient and desirable articles, and the latter in saving and preserving them for future use. Credit is neither more nor less than the transfer of money or other valuable produce from one set of individuals called lenders, to another set called borrowers—a transfer which is greatly facilitated by the establishment of banks. And as there can be no reasonable doubt that those who borrow have, in the majority of instances, better means of employing capital with advantage than those by whom it is lent, its transference from the one to the other will, in so far as this presumption is realised, be publicly advantageous. But this is the entire extent of the beneficial influence of what is called *credit*; and when it happens, as is too often the case, to divert capital into the pockets of knaves and gamblers it is disadvantageous. No doubt we frequently hear of great undertakings being carried on by means of credit; but such statements are entirely false and misleading. They will, indeed, be uniformly found, when analysed, to mean only that the undertakings are carried on by means of borrowed capital. Credit is impotent to effect anything whatever. It is, in fact, a mere name for the trust reposed by a lender in a borrower. To call it capital is as much an abuse of language as it would be to call weight colour, or colour weight. It may transfer money or produce from A to B, or from C to D, but that is *all* that it either does or can do. When credit is said to be high, nothing is really meant save that those who have money or capital to lend have great confidence in the borrowers, and conversely when credit is said to be low.

Banks sometimes encourage Gambling and Overtrading.—Banks, when not conducted by men of probity, skill, and caution, are very apt to excite and inflame a spirit of speculation and gambling. They do this by furnishing speculators with loans and discounts, by means of which they are not enabled merely, but tempted, to engage in hazardous enterprises. And for a time, or while the process is going on, everything wears an air of prosperity; and those old-fashioned houses, as they are called, that carry on a legitimate business on capital of their own are frequently undersold and driven from the market by the competition of adventurers trading on the funds of others, ready to encounter any risk, and living in the greatest splendour. But at length the thing is overdone, the bubble bursts, the worthless machinery of fictitious bills, rediscounts, and so forth, is exposed, and the tragi-comedy is wound up by the offer of a composition of some 1*s.* or 2*s.* per pound. Bankers and money dealers who employ the money entrusted to their care in so reckless a manner, are fitter for Newgate than for the situations they so unworthily fill. It would be a great stretch of charity to suppose that advances of the kind now alluded to can be wholly the result of imprudence. Bankers have peculiar means at their disposal by which to become acquainted with the character, position, and capabilities of those who apply to them for advances. And it is their duty to avail themselves of these means to distinguish between the careful and the improvident or reckless trader—between the man who may and the man who may not be trusted. It is difficult to believe, provided they make the necessary enquiries, that they should be often or greatly deceived in their judgment of individuals; and, provided they act with due caution, they will never so far commit themselves, even with the most respectable firms, as to endanger their own establishment in the event of the failure of the latter. Bankers may risk their private fortunes, if they have any, as they please, but they are not entitled to risk the money of their constituents by making advances to equivocal parties, and especially to those who are notoriously overtrading. It is impossible, perhaps, to bring an abuse of this sort within the meshes of the penal law, but it cannot be too strongly condemned in the opinion of the public. There is nothing about which people should be so cautious as the employment of bankers; and high character, experience, and reputation for prudent management, ought always to have the preference over fair promises and prospectuses, even when the latter are backed by offers of high interest.

Interest on Deposits.—The private bankers of London have not been, until recently, in the habit of allowing interest on deposits, though in special cases it was sometimes done. But in Scotland, and also in many parts of England, it has been long the practice to pay an interest on deposits of from one to two per cent. less than the market rate at the time. And the joint-stock banks set on foot in the metropolis since 1826, having introduced the practice of giving interest on deposits, provided a certain notice (generally from three to eight days) be given before they are withdrawn, very large sums have been deposited in these establishments. Most private banks have been compelled, in order to maintain their position, to adopt in a greater or less degree the same system. There can, indeed, be little doubt that it will, in no very lengthened period, become universal, and that the amount of deposits will be progressively and largely augmented.

By bringing, as it were, the advantages of savings' banks, without any of their limitations, within reach of all classes, of the middle and upper as well as of the lower, this system is, in many respects, highly advantageous. It may, indeed, be doubted whether any means could be devised more likely to generate and diffuse a spirit of economy. Unhappily, however, its advantages are alloyed by the formidable disadvantage of its involving a great amount of insecurity and hazard.

Dangers incident to the Deposit System.—Banks that give interest on deposits must employ

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the balance at their disposal so as to realise that interest, plus a profit to themselves. Investment is not optional with them, it is indispensable; and they cannot, in seeking investments, look to security only. Profit must be in their estimation as great, or even a greater consideration. But profit and risk are inseparable, and are always directly proportioned to each other; and hence it is, that in periods of discredit, or when a revulsion occurs, suspicions may be expected to arise in regard to the solidity of deposit banks, especially of those that pay high rates of interest on the sums committed to their custody. These suspicions may frequently, no doubt, be very ill-founded; but, if they be entertained, the result will be nearly the same. This was exemplified by what took place in 1866, when these banks were seriously affected by the deposit system.

It is difficult to know how to ward off such contingencies; but it nevertheless seems to be indispensable that something should be done in that view, otherwise we may be said to be always exposed to the most tremendous risks. It may not be practicable to form an accurate estimate of the amount now held as deposits by bankers and money dealers in Great Britain only; but if we take the entire sum at about three hundred millions, we shall probably be within and not beyond the mark. And of this vast sum more than half is payable *at call*, and more than three-fourths within ten days. But everybody knows that such payments are practically impossible. And hence it is plain, that in the event, which may any day occur, of a bank with a large amount of deposits getting into difficulties, or of any circumstance occurring that should occasion a distrust of the system and a general panic, the whole fabric would fall to pieces, and we should have a universal smash.

This appears to be as unsatisfactory a state of things as can well be imagined. But *de republica nil desperandum*. Though formidable, the evil is not insuperable; and the dangers referred to are so great and imminent, that no time should be lost in adopting measures by which they may be either obviated or mitigated. Explosions of the credit system are, in the commercial and financial, what explosions of gunpowder are in the physical world. And it would seem to be quite as necessary to endeavour to lessen the frequency and violence of the former as of the latter. Hence we think it would be good policy to enact, that all sums *bearing interest*, in the hands of bankers, discount-brokers, and money-dealers generally, should not be legally demandable without a month or six weeks' notice. A regulation of this sort would not interfere with anything that is valuable in the existing system, while it would confer on it some portion of that solidity of which it is at present so miserably deficient. It would protect all classes against the effects of sudden and unreasonable fears and panics. It would give time to the borrowers to collect their resources; and to the depositors calmly to enquire into the character and situation of those to whom they had entrusted their money. This may not be enough; but some such measure as this appears to be indispensable for the security and protection of the public.

Notes deposited in Banks not the Property of the Depositors.—It has sometimes been contended that the notes and moneys deposited in banks by private parties continue to be their property, and are as really a portion of their money as the notes or sovereigns which they retain in their tills or their pockets. The place where it is kept is different; but, except in this respect, the money which they have lodged in and that which they have out of banks, is said to be, to all intents and purposes, identical. But though specious, this statement is entirely fallacious. The money which depositors lodge in banks forms a part of the money of the country; but after its lodgment in them it ceases to belong to, or to make a part of, the property or money of the depositors. They have consigned it to banking establishments, and acquired credits in its stead; i.e. they have acquired the *right* to draw upon and receive equal sums of money from these establishments. But everybody knows that the right to a thing is not the thing itself, but something altogether different. A banker who owes a million or other sum to depositors might regard himself as being in a sufficiently secure state, if, according to circumstances, he had a third, a fourth, or a fifth part of that sum in notes and gold in his till to answer the demands of the depositors, while he employed the reserve in advances to others. Hence it is plain that bank credit and money have nothing in common. Those who confound things that are so very different can have no clear apprehension of either the one or the other.

It is on the distinction between money and deposits or credits, that the business of banking really depends. It is a business by which a small amount of money is made to supply a large amount of credit, the profits of the bankers arising from the use of the money so economised. The Bank of England, for example, often holds more than twenty millions of public and private deposits, while she is considered to be in a perfectly safe and sound position if she have in the till of her banking department five millions, or even less, in notes and coins.

It is hardly necessary, after these statements, to observe that the profit made by bankers in employing part of the money committed to their custody is extrinsic to, and independent of, any profits which they may realise on capital of their own. 'Such banks,' to use the words of Mr. Ricardo, 'would never be established if they obtained no other profits than those derived from the employment of their own capital. Their real advantage commences only when they begin to employ the capital of others.' (*Economical and Secure Currency*, p. 87.)

Necessity of Capital to the Security of Banks.—But we are not thence to conclude that it is indifferent whether such banks have or have not independent capitals of their own. That would be the greatest of errors. Unless it have a command of capital proportioned in some degree to the extent of its business, those who deposit their money in a bank have but slender security for its payment. For if bankers make improvident or injudicious advances, if the securities in their possession be discredited, or difficulties of any kind arise in the conduct of their business, those who have no capital, or but little of their own, may be obliged to stop payment, when more opulent firms may be but little affected by the like circumstances. Much, no doubt, must always depend on the character and knowledge of the parties; but no amount of skill or caution can ever fully compensate for the want of adequate capital. It is the sheet-anchor of security, the only real and substantial guarantee to which the ordinary creditors of a bank have to look. When such capital has been accumulated by the bank, it shows that its affairs have been well managed, and raises a strong presumption in its favour; and when it has devolved on the partners by inheritance, or been bequeathed to them in legacies, the fair inference would seem to be, that they will not (unless they be mere fools, unworthy of any kind of confidence)

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rashly compromise its security by engaging in questionable proceedings.

Limited Liability, Disadvantages of.—By a late Act, the 20 & 21 Vict. c. 49, banks may be constituted with limited liability. But this is a vicious principle, lessening the natural responsibility under which every man ought to act, and tempting parties to engage in all manner of desperate adventures. In banking, such a principle must be especially mischievous; for it is a business that requires great caution and prudence—the very virtues with which the principle of limited liability is most at variance. It may, indeed, be said that the numerous instances of mismanagement and embezzlement that now prevail, show that even the principle of indefinite liability is not enough to make joint-stock banks be conducted prudently and honestly. But, however defective, still it is the only principle on which any stress can be safely laid, and the instances referred to, bear, after all, but a small proportion to those of an opposite description. The great majority of banks are discreetly and faithfully managed. And if knavery and folly be sometimes found to prevail where every partner is deeply interested in their prevention, and is liable to the last farthing he possesses for the consequences, the fair presumption is, that they would be much more prevalent were the parties liable only for the amount of their shares in the bank. To suppose the contrary would be a contradiction; it would be equivalent to supposing that a man is to be as much interested in the safety of 10*l.* or 100*l.*, as of 1,000*l.* or 10,000*l.*, or of his entire fortune, however great it may be.

Whatever else may be the effect of the late disclosures of mismanagement, fraud, and robbery, on the part of the directors and secret ries of joint-stock banks, it can hardly fail to make the partners in those associations more alive to the dangers of their situation, and to convince them, that if they would provide for their own safety, they must be more cautious than hitherto in regard to the persons they elect to fill these situations, and less disposed to take their statements for granted. Such, however, is the carelessness of most people, even in regard to those matters which most nearly concern them, that these anticipations, though reasonable, may not be fully realised. But, in the case of banks with limited liability, they must be sanguine indeed who look for any improvement. The partners in these associations have no sufficient interest in their prosperity to make them take any unusual trouble about the way in which they are conducted, and they neither fear ruin, nor even any considerable inconvenience, from their failure. The chances, consequently, are ten to one that their managers will be left without let or hindrance to pursue their own schemes; and, when such is the case, what but abuse can be expected to be the result?

But it is argued, whatever may be the influence of unlimited liability on the partners of the banks in which it is established, that the depositors in banks with limited liability will be on their guard, and will not trust them with their money, unless they were well assured of their solidity. But, in truth and reality, they never can have any assurance of the sort on which it would be safe to rely. A bank with limited liability might have, or pretend to have, a large capital. And supposing it really had such a capital in the current year, that may not be the case in the next, or in any subsequent year. And yet as the public can know nothing certain of the bank's losses, its credit may not be impaired, and deposits may be pressed upon it after it is really insolvent. In such cases the public is helpless; and if the indefinite responsibility of the partners in banks be not enough to make them look to their proper management, it would be worse than idle to depend in any degree on the fears or interests of the depositors. This is not a matter about which there needs be any speculation. The experience of the United States is decisive of the question. In the Union, the banks are all, or nearly all, established under a system of limited liability, and, notwithstanding their insecurity, and their perpetually recurring insolvency, they always hold large sums in deposit. Promises, professions, the bait of high interest, and the confidence placed by everyone in his superior sagacity and good fortune, fill the coffers even of the establishments least worthy of credit. And such, no doubt, would be the case in England, were a like system established amongst us. But what, under such circumstances, would be the situation even of a well-managed bank, were any suspicions to be entertained of its credit? The rush would be tremendous; for everybody would reasonably conclude, that if he did not succeed by pressing forward with 'hot haste' in getting payment of his deposit, the chances were ten to one he would get little or nothing. He has no proprietary body to which to look for payment of his claims; and if the doors were once shut against him, he could hardly expect more than some miserable dividend at some distant term.

During the crisis of 1857, when the Western and City Bank of Glasgow stopped payment, there was comparatively little agitation, the holders of their notes and of deposit receipts being well assured that, whatever inconvenience they might be subjected to in the meantime, in the end they would be fully paid. But had the liability of the partners been limited, such would not have been the case, and the panic would have been so great that it is not believed that a single bank would have weathered the storm.

Introduction of Banking into London.—The business of banking was not introduced into London till the seventeenth century. It was at first conducted by the goldsmiths, who lent the money lodged in their hands for security to Government and individuals. In the course of time, the business came to be conducted by houses who confined themselves to it only, and nearly in the mode in which we now find it. From 1708, as already stated, down to 1826, with the exception of the Bank of England, no company with more than six partners could be established, either in London or anywhere else in England and Wales, for conducting banking business; and a very large portion of that business is still conducted in the metropolis by firms with a small number of partners, or by what are called *private banks.*

Clearing House.—By far the largest proportion of the inland bills in circulation in the country, and of the foreign bills drawn upon Great Britain, are made payable in London, the grand focus in which all the pecuniary transactions of the empire are ultimately adjusted. And in order to facilitate this adjustment, and to economise the use of money, the principal bankers of the metropolis established, in 1775, the *clearing house.* This is a house to which each banker who deals with it is in the habit of daily sending a clerk, who carries with him the various bills and cheques in the possession of his house that are drawn upon other bankers; the practice formerly being to exchange them for the bills and cheques in the possession of those others that were drawn upon his constituents, and to pay the balance on

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the one side or the other in cash or Bank of England notes. By this means the bankers connected with the clearing house were enabled to settle transactions to the extent of several millions a day, by the employment of not more, at an average, than from 200,000*l.* to 500,000*l.* in cash or Bank of England notes.

Latterly, however, the arrangements connected with the clearing house have been so much simplified and improved, that neither notes nor coins are any longer required in settling the largest transactions. The clearing house itself, and the various banking firms connected with it, have accounts at the Bank of England; and the balances that were formerly settled by a money payment are at present settled by transfers from one account to another. The saving of money in the adjustment of large transactions occasioned by this and other contrivances, accounts for the fact that the proportion of notes of 20*l.* and upwards issued by the Bank has considerably declined of late years, while that of 5*l.* and 10*l.* notes, which are used in ordinary dealings, has been materially increased.

Security afforded by Banks of Deposit.—The security afforded by a bank of deposit is a matter as to which there must always be more or less of doubt. When, indeed, a banking company confines itself to its proper business, and does not embark in speculations of unusual hazard, or from which its funds cannot be easily withdrawn, it can seldom fail, except in periods of panic or general distrust, of being in a situation to meet its engagements; whilst the large private fortunes that frequently belong to the partners afford those who deal with it an additional guarantee. Much, however, depends on the character of the parties, on their living within or beyond their incomes, and on a variety of circumstances with respect to which the public can never be correctly informed; so that though there can be no doubt that the security afforded by many banks of deposit is of the most unexceptionable description, this may not be the case with others.

Not necessary for the State to provide for the Security of Depositors.—All joint-stock banks, or banks having more than six partners, whether for deposit and issue, or for deposit merely, are ordered, by the Act 3 & 4 Wm. IV. c. 83, to send quarterly returns of the number and names of their partners to the Stamp-office. But there was no good reason why similar returns should not, and several why they should, be required from *all* banks; and this having been done by the Act 7 & 8 Vict. c. 32, which also provides for their publication, little if any further interference would seem to be required with banks not issuing notes. There is in this respect a wide difference between them and banks of issue. It is the duty of Government to take care that the value of the currency shall be as invariable as possible; but it has never been pretended that it is any part of its duty to enquire into the security given by the borrowers to the lenders of money, any more than into the security given by the borrowers to the lenders of anything else. Government obliges a goldsmith to have his goods stamped, this being a security to the public that they shall not be imposed on in buying articles of the quality of which they are generally ignorant; but it does not require that the person to whom the goldsmith sells or lends his goods should give him a guarantee for their payment. This is a matter as to which individuals are fully competent to judge for themselves; and there is no good reason why a lender or depositor of bullion or notes should be more protected than a lender or depositor of timber, coal, or sugar. Gold being the standard or measure of value, Government is bound to take effectual precautions that the currency shall truly correspond in the whole and in all its parts with that standard; that every pound note shall be worth a sovereign; and that the amount and value of the aggregate notes in circulation shall vary exactly as a gold currency would do were it substituted in their stead. But if A trust a sum of money in the hands of B, it is their affair, and concerns none else. Provided the money afloat correspond with the standard, it is of no importance, in a public point of view, into whose hands it may come. The bankruptcy of a deposit bank, like that of a private gentleman who has borrowed largely, may be productive of much loss or inconvenience to its creditors. But if the paper in circulation be equivalent to gold, such bankruptcies cannot affect either the quantity or value of money, and are, therefore, directly injurious only to the parties concerned.

But though such be the direct effects of the bankruptcies of deposit banks, their indirect effect, by propagating panics and runs on other banks, may be most disastrous. And to prevent their mischievous influence in this respect, it would be good policy, as already seen, to require a month's or six weeks' notice to make deposits bearing interest legally demandable.

Deposit Banks which do not employ the Money of the Depositors.—The other description of banks of deposit, or those which do not employ the funds in their hands, or engage in any sort of business, are established without any view to profit, that they may secure the money, and facilitate the transactions of those who deal with them. The latter obtain *bank credits* or *bank money*, equivalent to the sums they deposit in the bank; and as the principal traders in towns where such a bank is established belong to it, each has a bank credit, and their payments are made without the intervention of money, by writing off so much from the credit or account of one to the credit or account of another. It is only in the event of a person having to pay money to a stranger that he has any motive to withdraw any portion of his deposit from the bank. An institution of this sort is, to those who deal with it, what the clearing house is to the London bankers. Its expenses are usually defrayed either by a small fee charged on every transfer of bank credit from one individual to another, or by a charge on the coin or bullion deposited, or both.

A bank of this sort can never, unless its agents act dishonestly, be involved in debt, or in any kind of difficulty. The constitution of the Bank of Amsterdam was in so far vicious that it was not managed by parties interested in its welfare; that is, by agents chosen by the depositors. On the contrary, it was managed in the most secret manner by those who happened to be magistrates of the city, whether they were or were not depositors. And they, in violation of their oaths, privately lent to others a large portion of the funds deposited in the bank. But a proceeding of this sort is hardly possible in the case of a properly constituted deposit bank, like that established in Hamburg. For in the latter the managers are appointed for short periods by the depositors, who of course endeavour to select the most trustworthy persons. And though it is necessary that the strictest secrecy should be kept in regard to the accounts of individuals in the bank, its affairs are otherwise transacted with sufficient publicity, while the deposits in its coffers may be withdrawn at any moment.

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Notice of Banking.—The trade or business of a banker has probably existed in all civilised countries in all ages. The bankers of Greece (τραπεζῖται) and Rome (*argentarii, mensarii, nummularii*) exercised nearly the same functions as those of the present day, except that they do not appear to have issued notes. They received money on deposit, to be paid on demands made by cheques or orders, or at some stipulated period, sometimes paying interest for it, and sometimes not. Their profits arose from their lending the balance at their disposal at higher rates of interest than they allowed the depositors. They were also extensively employed in valuing and exchanging foreign moneys for those of Athens, Corinth, Rome, &c., and in negotiating bills of exchange. In general they were highly esteemed, and great confidence was placed in their integrity. The rate of interest charged by the bankers was sometimes very high, but that was not a consequence, as has been alleged, of their rapacity, but of the defective state of the law, which, as it gave every facility to debtors disposed to evade payment of their debts, obliged the bankers to guarantee themselves by charging a proportionally high rate of interest. (Boeckh's *Political Economy of Athens*, i. 168, &c.; *Voyage d'Anacharse*, ch. lv. *passim*; Smith's *Dictionary of Greek and Roman Antiquities*, *s. v.* 'Argentarii,' &c.) In modern times the business of banking and exchange was for a while almost entirely engrossed by the Jews and Lombards of Italy.

Sec. III.—Bank of England, Account of.

Establishment and History of the Bank of England.—The Bank of England, which has long been the principal bank of deposit and circulation, in this country and in Europe, was founded in 1694. Its principal projector, Mr. William Paterson, an enterprising and intelligent Scotch gentleman, was afterwards engaged in the ill-fated colony at Darien. Government being at the time much distressed for want of money, partly from the defects and abuses in the system of taxation, and partly from the difficulty of borrowing, because of the supposed instability of the revolutionary establishment, the Bank grew out of a loan of 1,200,000*l.* for the public service. The subscribers, besides receiving eight per cent. on the sum advanced as interest, and 4,000*l.* a year as the expense of management, in all 100,000*l.* a year, were incorporated into a society denominated the Governor and Company of the Bank of England. The charter is dated July 27, 1694. It declares, amongst other things, that they shall 'be capable, in law, to purchase, enjoy, and retain to them and their successors, any moneys, lands, rents, tenements, and possessions whatsoever; and to purchase and acquire all sorts of goods and chattels whatsoever, wherein they are not restrained by Act of Parliament; and also to grant, demise, and dispose of the same.

'That the management and government of the corporation be committed to the governor and twenty-four directors, who shall be elected between March 25 and April 25 each year, from among the members of the company duly qualified.

'That no dividend shall at any time be made by the said governor and company, save only out of the interest, profit, or produce arising by or out of the said capital stock or fund, or by such dealing as is allowed by Act of Parliament.

'They must be natural-born subjects of England, or naturalised subjects; they shall have in their own name, and for their own use, severally, viz. the governor at least 4,000*l.*, the deputy-governor 3,000*l.*, and each director 2,000*l.* of the capital stock of the said corporation.

'That thirteen or more of the said governors and directors (of which the governor or deputy-governor must be always one) shall constitute a court of directors, for the management of the affairs of the company, and for the appointment of all agents and servants which may be necessary, paying them such salaries as they may consider reasonable.

'Every elector must have in his own name and for his own use 500*l.* or more capital stock, and can only give one vote. He must, if required by any member present, take the oath of stock; or the declaration of stock, in case he be one of the people called Quakers.

'Four general courts to be held in every year; in the months of September, December, April, and July. A general court may be summoned, at any time, upon the requisition of nine proprietors, duly qualified as electors.

'The majority of electors in general courts have the power to make and constitute by-laws and ordinances for the government of the corporation, provided that such by-laws and ordinances be not repugnant to the laws of the kingdom, and be confirmed and approved, according to the statutes in such case made and provided.'

The corporation is prohibited from engaging in any sort of commercial undertaking other than dealing in bills of exchange, and in gold and silver. It is authorised to advance money upon the security of goods or merchandise pledged to it; and to sell by public auction such goods as are not redeemed within a specified time.

It was also enacted in the same year in which the Bank was established, by statute 6 Wm. & Mary c. 20, that the Bank 'shall not deal in any goods, wares, or merchandise (except bullion), or purchase any lands or revenues belonging to the crown, or advance or lend to their Majesties, their heirs or successors, any sum or sums of money by way of loan or anticipation, or any part or parts, branch or branches, fund or funds of the revenue, now granted or belonging, or hereafter to be granted to their Majesties, their heirs and successors, other than such fund or funds, part or parts, branch or branches of the said revenue only, on which a credit of loan is or shall be granted by Parliament.' And in 1697 it was enacted, that the 'common capital and principal stock, and also the real fund of the governor and company, or any profit or produce to be made thereof, or arising thereby, shall be exempted from any rates, taxes, assessments, or impositions whatsoever, during the continuance of the Bank; and that all the profit, benefit, and advantage, from time to time arising out of the management of the said corporation, shall be applied to the uses of all the members of the said corporation of the Governor and Company of the Bank of England, rateably and in proportion to each member's part, share, and interest in the common capital and principal stock of the said governor and company hereby established.'

It was further enacted, in 1697, that the forgery of the company's seal, or of any sealed bill or bank note, should be felony without benefit of clergy, and that the making of any alteration or erasure in any bill or note should also be felony.

In 1696, during the great recoinage, the Bank was involved in considerable difficulties, and was even compelled to suspend payment of her notes, which were at a heavy discount. Owing, however, to the judicious conduct of the directors, and the assistance of Government, the Bank got over the crisis. But it was at the same time judged

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expedient, in order to place her in a situation the better to withstand any adverse circumstances that might afterwards occur, to increase her capital from 1,200,000*l.* to 2,201,171*l.* In 1708 the directors undertook to pay off and cancel 1,500,000*l.* of Exchequer bills they had circulated two years before, at 4½ per cent., with the interest on them, amounting in all to 1,775,028*l.*; which increased the permanent debt due by the public to the Bank, including 400,000*l.* then advanced in consideration of the renewal of the charter, to 3,375,028*l.*, for which they were allowed 6 per cent. The Bank capital was then also doubled, or increased to 4,402,343*l.* But the year 1708 is chiefly memorable, in the history of the Bank, for the Act that was then passed, which declared, that during the continuance of the corporation of the Bank of England, 'it should not be lawful for any body politic, erected or to be erected, other than the said Governor and Company of the Bank of England, or for any persons whatsoever, united or to be united in covenants or partnership, exceeding the number of six persons, in that part of Great Britain called England, to borrow, owe, or take up any sum or sums of money on their bills or notes payable on demand, or in any less time than six months from the borrowing thereof.' This proviso, which has had so powerful an operation on banking in England, is said to have been elicited by the Mine-adventure Company having commenced banking business, and begun to issue notes.

It has been pretty generally imagined, from the private banking companies in the metropolis not issuing notes, that they were legally incapacitated from doing so. But the clause in the Act of 1708, which has been the only restriction on the issue of notes, applied generally to all England, and had no peculiar reference to London. The fact that banks with 6 or fewer partners have not issued notes in the metropolis, as well as in the provinces, is, therefore, ascribable either to their being aware that their notes would obtain no considerable circulation concurrently with those of a great association like the Bank of England, or from their believing that their issue would not be profitable.

We subjoin—

An Account of the successive Renewals of the Charter, of the Conditions under which these Renewals were made, and of the Variations in the Amount and Interest of the Permanent Debt due by Government to the Bank, exclusive of the Dead Weight.

Date of Renewal	Conditions under which Renewals were made, and Permanent Debt contracted	Permanent Debt £ s. d.
1691.	Charter granted under the Act 5 & 6 Wm. III. c. 20, redeemable upon the expiration of 12 months' notice after August 1, 1705, upon payment by the public to the Bank of the demands therein specified.	
	Under this Act the Bank advanced to the public 1,200,000*l.*, in consideration of their receiving an annuity of 00,000*l.* a year, viz. 8 per cent. interest, and 4,000*l.* for management	1,200,000 0 0
1697.	Charter continued by the 8 & 9 Wm. III. c. 20, till 12 months' notice after August 1, 17'0, on payment, &c.	
	Under this Act the Bank took up and added to their stock 1,001,171*l.* Exchequer bills and tallies.	
1708.	Charter continued by 7 Anne, c. 7, till 12 months' notice after August 1, 1732, on payment, &c.	
	Under this Act the Bank advanced 400,000*l.* to Government, without interest; and delivered up to be cancelled 1,775,028*l.* 17*s.* 10*d.* Exchequer bills, in consideration of their receiving an annuity of 106,501*l.* 13*s.*, being at the rate of 6 per cent.	2,175,027 17 10
1713.	Charter continued by 12 Anne, stat. 1, c. 11, till 12 months' notice after August 1, 1742, on payment, &c.	
	In 1716, by the 3 Geo. I. c. 8, Bank advanced to Government, at ' per cent.	2,000,000 0 0
	And by the same Act, the interest on the Exchequer bills cancelled in 1708 was reduced from 6 to 5 per cent.	
	In 1721, by 8 Geo. I. c. 21, the South Sea Company were authorised to sell 200,000*l.* Government annuities, and corporations purchasing the same at 26 years' purchase were authorised to add the amount to their capital stock. The Bank purchased the whole of these annuities at 20 years' purchase 5 per cent. interest was payable on this sum to Midsummer, 1727, and thereafter, 4 per cent.	1,000,000 0 0
	At different times between 1727 and 1738, both inclusive, the Bank received from the public, on account of permanent debt, 3,275,027*l.* 17*s.* 10*d.*, and advanced to it on account of ditto 3,000,000*l.*: difference	9,375,027 17 10 275,027 17 10
	Debt due by the public in 1738	9,100,000 0 0
1742.	Charter continued by 15 Geo. II. c. 13, till 12 months' notice after August 1, 1764, on payment, &c.	
	Under this Act the Bank advanced 1,600,000*l.* without interest, which being added to the original advance of 1,000,000*l.*, and the 400,000*l.* advanced in 1710, bearing interest at 6 per cent., reduced the interest on the whole to 3 per cent.	1,000,000 0 0
	In 1745, under authority of 19 Geo. II. c. 6, the Bank delivered up to be cancelled 986,800*l.* of Exchequer bills, in consideration of an annuity of 30,172*l.*, being at the rate of 3 per cent.	986,800 0 0
	In 1749, the 23 Geo. II. c. 6, reduced the interest on the 1 per cent. annuities held by the Bank to 3½ per cent. for 7 years from December 25, 1750, and thereafter to 3 per cent.	
1764.	Charter continued by 4 Geo. III. c. 25, till 12 months' notice after August 1, 1786, on payment, &c.	
	Under this Act the Bank paid into the Exchequer 110,000*l.* free of all charge.	
1781.	Charter continued by 21 Geo. III. c. 60, till 12 months' notice after August 1, 1812, on payment, &c.	
	Under this Act the Bank advanced 3,000,000*l.* for the public service for 3 years at 3 per cent.	
1800.	Charter continued by 40 Geo. III. c. 28, till 12 months' notice after August 1, 1833, on payment, &c.	
	Under this Act the Bank advanced to Government 3,000,000*l.* for 6 years without interest; but in pursuance of the recommendation of the committee of 1807, the advance was continued without interest till 6 months after the signature of a definitive treaty of peace.	
	In 1816, the Bank, under authority of the Act 56 Geo. III. c. 96, advanced at 3 per cent. to be repaid on or before August 1, 1833	3,000,000 0 0
1833.	Charter continued by 3 & 4 Wm. IV. c. 98, till 12 months' notice after August 1, 1855, with a proviso that it may be dissolved on 12 months' notice after August 1, 1845, on payment, &c.	14,686,800 0 0
	This Act directs that in future the Bank shall deduct 120,000*l.* a year from their charge on account of the management of the public debt, and that a fourth part of the debt due by the public to the Bank, or 3,671,700*l.*, be paid off	3,671,700 0 0
	Permanent advance by the Bank to the public, bearing interest at 3 per cent., independent of the advances on account of dead weight, &c.	11,015,100 0 0
1844.	Charter continued by 7 & 8 Vict. c. 32, till 12 months after August 1, 1855, on payment, &c.	
	This Act, an abstract of which is given in a subsequent part of this article, exempts the notes of the Bank from all charge on account of stamp duty, and directs that in future the Bank shall deduct 180,000*l.* a year from the charge on account of the management of the public debt. It also separates the banking from the issuing department of the establishment, and effects other important changes.	

The charter of the Bank of England, when first granted, was to continue for eleven years certain, or till a year's notice after August 1, 1705. The charter was further prolonged in 1697. In 1708, the Bank having advanced 400,000*l.* for the public service, without interest, the exclusive privileges of the corporation were prolonged till 1733. And in consequence of various arrangements made at different times, the exclusive privileges of the Bank have been continued by successive renewals, till a year's notice after August 1, 1855. (See table prefixed.)

(For further details as to this subject, see the *Appendix* No. 1 *of the Report of* 1832 *on the Renewal of the Bank Charter*, and the Acts of Parliament referred to in it; see also Postlethwait's *History of the Revenue*, pp. 301—310; and Fairman *On the Funds*, 7th ed. pp. 85—88, &c.)

The capital of the Bank on which dividends are paid has never exactly coincided with, though till of late it seldom differed very materially from, the permanent advance by the Bank to the public. We have already seen that it amounted, in 1708, to 4,402,343*l.* Between that year and 1727 it was

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increased to near 9,000,000*l.* In 1746 it amounted to 10,780,000*l.* From this period it underwent no change till 1782, when it was increased 8 per cent., or to 11,642,400*l.* It continued stationary at this sum down to 1816, when it was raised to 14,553,000*l.* by an addition of 25 per cent. from the profits of the Bank, under the provisions of the Act 56 Geo. III. c. 96. The Act for the renewal of the charter, in 1833, 3 & 4 Wm. IV. c. 98, directed that the sum of 3,671,700*l.* of the debt due to the Bank should be repaid by the public, giving the directors power, if they thought fit, to deduct it from the Bank capital. But this was not done; the sum being reinvested in a Government annuity, terminable in 1860.

The Bank of England has been frequently affected by panics amongst the holders of its notes. In 1745 the alarm occasioned by the advance of the Highlanders under the Pretender as far as Derby led to a run upon the Bank; and in order to gain time to concert measures for averting the run, the directors adopted the device of paying in shillings and sixpences. But they derived a more effectual relief from the retreat of the Highlanders; and from a resolution agreed to at a meeting of the principal merchants and traders of the City, and very numerously signed, declaring the willingness of the subscribers to receive Bank notes in payment of any sum that might be due to them, and pledging themselves to use their utmost endeavours to make all their payments in the same medium.

During the tremendous riots in June, 1780, the Bank incurred considerable danger. Had the mob attacked the establishment at the commencement of the riots, the consequences might have proved fatal. Luckily, however, they delayed their attack till time had been afforded for providing a force sufficient to insure its safety. Since that period a considerable military force is nightly placed in the interior of the Bank, as a protection in any emergency that may occur.

In the latter part of 1792 and beginning of 1793 there was, in consequence of a previous over-issue on their part, a general run on most of the private banks; and about a *third* part of these establishments were forced to stop payments. This led to a considerable demand for coin from the Bank.

The year 1797 is, however, the most important epoch in the recent history of the Bank. Owing partly to events connected with the war in which we were then engaged; to loans to the Emperor of Germany; to bills drawn on the treasury at home by the British agents abroad; and partly, and chiefly, perhaps, to the advances most unwillingly made by the Bank to Government, which prevented the directors from having a sufficient control over their issues, the exchanges became unfavourable in 1795, and in that and the following year large sums in specie were drawn from the Bank. In the latter end of 1796 and beginning of 1797 considerable apprehensions were entertained of invasion, and rumours were propagated of descents having been actually made on the coast. In consequence of the fears that were thus excited, runs were made on the provincial banks in different parts of the country; and some of them having failed, the panic became general, and extended itself to London. Demands for cash poured in upon the Bank from all quarters; and on Saturday, Feb. 25, 1797, she had only 1,272,000*l.* of cash and bullion in her coffers, with every prospect of a violent run taking place on the following Monday. In this emergency an order in council was issued on Sunday the 26th, prohibiting the directors from paying their notes in cash until the sense of Parliament had been taken on the subject. And after Parliament met, and the measure had been much discussed, it was agreed to continue the restriction till six months after the signature of a definitive treaty of peace.

As soon as the order in council prohibiting payments in cash appeared, a meeting of the principal bankers, merchants, traders, &c. of the metropolis was held at the Mansion House, when a resolution was agreed to and very numerously signed, pledging, as had been done in 1745, those present to accept, and to use every means in their power to cause Bank notes to be accepted as cash in all transactions. This resolution tended to allay the apprehensions that the restriction had excited.

Parliament being sitting at the time, a committee was immediately appointed to examine into the affairs of the Bank; and their report put to rest whatever doubts might have been entertained with respect to the solvency of the establishment, by showing that at the moment when the order in council appeared the Bank was possessed of property to the amount of 15,518,690*l.*, after all claims upon her had been deducted.

Much difference of opinion has existed with respect to the policy of the restriction in 1797; but, considering the peculiar circumstances under which it took place, its expediency seems abundantly obvious. The run did not originate in any over-issue of Bank paper, but grew entirely out of political causes. So long as the alarms of invasion continued, it was clear that no Bank paper immediately convertible into gold would remain in circulation. And as the Bank, though possessed of ample funds, was without the means of instantly retiring her notes, she might, but for the interference of Government, have been obliged to stop payment; an event which, had it occurred, must have produced consequences in the last degree fatal to the public interests.

It had been generally supposed, previously to the passing of the Restriction Act, that Bank notes would not circulate unless they were immediately convertible into cash; but the event showed, conformably to principles that have since been fully explained, that this was not really the case. Though the notes of the Bank of England were not at the passing of the Restriction Act publicly declared to be legal tender, they were rendered so in practice, by being received as cash in all transactions on account of Government and of the vast majority of individuals. For the first three years of the restriction, their issues were so moderate that they not only kept on a par with gold, but actually bore a small premium. In the latter part of 1800, however, their quantity was so much increased that they fell to a discount of 8 per cent. as compared with gold, but they soon after rose nearly to par; and it was not until 1808 that the decline of their value excited any considerable attention. Early in 1810 they were at a discount of about 13½ per cent.; and this extraordinary fall having attracted the attention of the legislature, the House of Commons appointed a committee to enquire into the circumstances by which it had been occasioned. The committee examined several witnesses; and in their report, which was drawn up with considerable ability, they justly ascribed the fall to the over-issue of Bank paper, and recommended that the Bank should be obliged to resume cash payments within two years. This recommendation was not, however, acted upon; and the value of Bank paper continued to decline, as compared with gold, till 1814.

At the period when the restriction on cash payments took place in 1797, it is supposed that there

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were about 280 country banks in existence; but so rapidly were these establishments multiplied, that they amounted to above 900 in 1813. The price of corn, influenced partly by the depreciation of the currency, and the facility with which discounts were obtained, but far more by deficient harvests, and the unprecedented difficulties which the war threw in the way of importation, had risen to an extraordinary height during the five years ending with 1813. But the harvest of that year being unusually productive, and the intercourse with the Continent being then also renewed, prices, influenced by both circumstances, sustained a very heavy fall in the latter part of 1813, and the beginning of 1814. And this fall having ruined a considerable number of farmers, and produced a general want of confidence, such a destruction of provincial paper took place as has rarely been paralleled. In 1814, 1815, and 1816, no fewer than 240 country banks stopped payment; and *eighty-nine* commissions of bankruptcy were issued against these establishments, being at the rate of *one* commission against every *ten and a half* of the total number of banks existing in 1813.

The great reduction that had been thus suddenly and violently brought about in the quantity of country bank paper, by extending the field for the circulation of Bank of England paper, raised its value in 1817 nearly to a par with gold. The return to cash payments being thus facilitated, it was fixed, in 1819, by the Act 59 Geo. III. c. 78, commonly called Sir Robert Peel's Act, that they should take place in 1823. But to prevent any future over-issue, and at the same time to render the measures as little burdensome as possible, it was enacted, in pursuance of a plan suggested by the late Mr. Ricardo, that the Bank should be obliged, during the interval from the passing of the Act till the return to specie payments, to pay her notes, if required, in bars of standard bullion of not less than sixty ounces weight. This plan was not, however, acted upon during the period allowed by law; for, a large amount of gold having been accumulated at the Bank, the directors preferred recommencing specie payments on the 1st of May, 1821. (See Table I., p. 116, for an account of the price of bullion, the depreciation of paper, &c. from 1800 to 1821.)

A great diversity of opinion has been entertained with respect to the policy of the return to the old standard in 1819. By one party it has been represented as a wise and politic measure; they contend that Sir Robert Peel's Act not only put an end to those fluctuations in the value of money which had previously been productive of great mischief, and gave effect to the solemn engagements into which the public had entered with the national creditor, but that it did this without adding anything material to the national burdens. But another, and also a very numerous party, take a totally different view of this measure: they contend that the public was not really bound to return to cash payments at the old standard at the termination of the war; that the return has very greatly enhanced the value of the currency; and that this enhancement, by adding proportionally to the fixed burdens laid on the industrious classes, has been most injurious to their interests.

It will, however, be found in this, as in most cases of the sort, that the statements of both parties are exaggerated; and that if, on the one hand, the measure has not been so advantageous as its eulogists represent, neither, on the other, has it been nearly so injurious as its enemies would have us believe.

In discussing this question, it is material to observe that the value of paper, which had been in 1815 and 1816 about 16¾ per cent. below that of gold, rose in 1817 and 1818, from the causes already mentioned, without any interference whatever on the part of Government, to within little more than 2½ per cent. of the value of gold; and that in 1819 the depreciation only amounted to 4½ per cent. (See Table I., p. 116.) It is, therefore, quite ludicrous to ascribe to the Act of 1819, as is often done, the whole rise that has taken place in the value of the currency since the peace, seeing that the currency had been for *three years previously to its enactment* from 12½ to 14½ per cent. above its value in 1815, and from 21 to 23 per cent. above its value in 1814. The main object which the promoters of the Act of 1819 had in view was to sustain the value of the currency at the point to which it had recovered itself without legislative interference. This, however, could not be done without recurring to specie payments; and the difference of 4½ per cent. that obtained in 1819 between the value of gold and paper, was not deemed sufficiently considerable to warrant a departure from the old standard, and from the acts engaging to restore it.

But it is alleged that those who suppose that the Act of 1819 added only 4½ per cent. to the value of the currency mistake altogether the effect of the measure. It is admitted, indeed, that paper was then only 4½ per cent. less valuable than gold; but by reverting to specie payments, we made an unexpected purchase of *thirty millions* of gold; and it is affirmed that this novel and large demand, concurring simultaneously with the contraction of paper in several of the Continental states, and with a falling off in the supply of bullion from the mines, had the effect of adding very greatly to the value of gold itself, and consequently to that of the currency. It is very difficult, or rather, perhaps, impossible, to determine the precise degree of credit that should be attached to this statement; but while we incline to think that it is well founded to a certain extent, we see no grounds for believing that it is so to anything like the extent that has been stated. The gold imported into Great Britain, to enable the Bank to resume specie payments, was not taken from any particular country or district, but was drawn from the market of the world; and considering the vast extent of the supply whence it was derived, it is against all reason to suppose that its value could be materially influenced by our purchases. We doubt, too, whether the contraction of the paper currency of some of the Continental states, and the substitution of specie in its stead, was not more than balanced by the cessation of the demand for specie for the military chests of the different armies, by the stoppage of the practice of hoarding, and the greater security consequent on the return of peace. And with respect to the falling off in the supplies from the mines, it is not a circumstance, supposing it to have had a considerable influence, that Parliament could take into account. It could neither determine the extent to which bullion had been raised, nor at what point the rise would stop, nor how soon it might again begin to decline. The diminution in the supply of bullion had then continued for too short a period, and its influence on the value of gold was much too uncertain, to make it a ground for interfering in any degree with the standard. And notwithstanding the falling off in the productiveness of the American mines still continues, the diminution thence arising has been since more than compensated by the extraordinary increase that has taken place of late years in the produce of the Russian mines and washings.

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The decline in the price of most articles that has taken place since the peace has been often referred to as a conclusive proof of the great enhancement in the value of bullion. But the inference is by no means so certain as has been represented. The prices of commodities are as much affected by changes in the cost of their production, as by changes in the quantity of money afloat. Now, there is not one of the great articles of commerce the cost of which has not been considerably reduced, or which has not been supplied from new and more productive sources, within the last few years. The growth of corn, for example, has been vastly extended in France, Prussia, and generally throughout the Continent, by the splitting of large estates, and the complete subversion of the feudal system; and the reduction of its price in this country has been wholly owing to the astonishing improvements made in agriculture, and to the increase of imports from Ireland. The fall in the price of wool is satisfactorily accounted for by the introduction and rapid multiplication of Merino sheep in Germany, where they seem to succeed even better than in Spain, and by the large and rapidly growing imports from Australia, where little more than 50 years ago there was not a single sheep! And a very large portion, if not the whole, of the fall in the price of colonial products, is admitted, on all hands, to be owing to the destruction of the monopoly system, and the vast extension of cultivation in Cuba, Brazil, Java, Louisiana, &c. Although, therefore, we do not deny that the falling off in the supply of bullion from the mines must, at first, have had some influence over prices, we hold it to be the greatest imaginable error to ascribe to it the entire fall that took place after the peace. Were its effect rated at from 5 to 10 per cent., we believe it would be very considerably overstated. [Precious Metals.]

On the whole, therefore, we are disposed to approve of the conduct of those who framed the Act of 1819. That it added somewhat to the burdens of the industrious classes, and has been in so far hostile to the public interests, it seems impossible to doubt; but it has not been so in anything like the degree which its enemies represent. The period, too, when it was passed is now so distant, that the existing engagements amongst individuals have almost all been formed with reference to the altered value of the currency; so that whatever injury it may have occasioned in the first instance must be nearly gone by. To modify or change the standard at this late period, would not be to repair injustice, but to commit it afresh. At the end of the war the circumstances were considerably different. The standard had been really abandoned for the previous 18 years; and perhaps we may now say, that it would have been better, all things considered, had the mint price of bullion been raised in 1815 to the market price. But having surmounted all the difficulties attendant upon the restoration of the old standard, and maintained it since 1821, it would be in the last degree impolitic to subject it to new alterations. Should the country become, at any future period, unable to make good its engagements, it will better consult its honour and its interest by fairly compounding with its creditors, than by endeavouring to slip from its engagements by resorting to the underhand and dishonest expedient of enfeebling the standard.

The price of corn, which had been very much depressed in 1821 and 1822, rallied in 1823; and this circumstance contributed, along with others peculiar to that period, to promote an extraordinary rage for speculation. The issues of the country banks being in consequence far too much extended, the currency became redundant in the autumn of 1824; and the exchanges having been depressed, a drain for gold began to operate upon the Bank of England. But the directors of the Bank having entered, in the early part of that year, into an engagement with Government to pay off such holders of 4 per cent. stock as might dissent from its conversion into a 3½ per cent. stock, they were obliged to advance a considerable sum on this account after the depression of the exchange. This tended to counteract the effect of the drain on the Bank for gold; and, in consequence, the London currency was not very materially diminished till September, 1825. When, however, the continued demand of the public on the Bank for gold had rendered money scarce in the metropolis, the pressure speedily extended to the country. Such of the provincial banks—and they were a numerous class—as had been originally established without sufficient capital, or had conducted their business upon erroneous principles, began to give way the moment they experienced an increased difficulty of obtaining pecuniary accommodations in London. The alarm, once excited, soon became general; and confidence and credit were, for awhile, almost wholly suspended. In the short space of six weeks, above seventy banking establishments were destroyed, notwithstanding the very large advances made to them by the Bank of England; and the run upon the Bank for cash to supply the exigencies of the country banks was so heavy, that she was well nigh drained of all the coin in her coffers, and obliged to issue about a million of 1*l.* and 2*l.* notes.

To guard against a recurrence of the wide-spread mischief and ruin produced by this and the previous bankruptcies of the country banks, it was resolved, in 1826, with consent of the Bank of England, to make a change in the law of 1708, limiting the number of partners in banking establishments to six only. And it was accordingly enacted, that thenceforth any number of partners might form themselves into associations to carry on the business of banking, including the issue of notes, any where not within *sixty-five miles* of London. The directors of the Bank of England came, at the same time, to the resolution of establishing branches in some of the principal towns; and these have since been established in Gloucester, Manchester, Birmingham, Leeds, Liverpool, Bristol, Exeter, Newcastle-upon-Tyne, Hull, Norwich, &c.

The branch banks have been useful, but we have already seen that the benefits which it was supposed would result from the formation of joint-stock banks have been in great measure disappointed. At best, the formation of joint-stock banks was but a feeble palliative of inveterate disorders. It was quite illusory to expect to make any real improvement upon the system of country banking in England, by the mere introduction of a plan for *allowing* banking establishments with large capitals to be set on foot. There had always been, and were at the moment, a great number of such establishments in England. What we really wanted was the adoption of a system that should suppress all local issues, or exclude the possibility of notes being discredited, by making sure that notes when issued should be paid.

Besides attempting to lessen the frequency of bankruptcy among the country banks by repealing the law limiting the number of partners, it was further resolved, in 1826, to prohibit the issue of 1*l.* notes. The policy and effects of this measure

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gave rise to much dispute. It seems clear that it went far to shut up one of the most convenient channels by which the inferior class of country bankers contrived to get their notes into circulation, and must in so far have done good. But there were many other channels still open to them; and to imagine that this measure was to place the provincial currency on that solid basis on which it should be placed was quite visionary. There were no notes under 5*l.* in circulation in 1792; and yet fully *one third* part of the country banks then in existence became bankrupt! No doubt can, however, be entertained, that the representations of the extreme injury occasioned by the withdrawal of 1*l.* notes were greatly exaggerated. At the same time it is obvious that the means of the bankers to make advances, as well as the profit derived from making them, must both have been diminished by the suppression of the small notes; and it would be foolish to deny that this circumstance must have occasioned some loss and inconvenience to individuals; though, as respects the public, the measure was highly advantageous.

The extraordinary extent to which the forgery of the 1*l.* notes of the Bank of England was carried affords of itself a sufficient vindication of the policy of their suppression. But the comparatively limited circulation of the country banks, and perhaps we may add the greater attention paid to the manner in which their notes were engraved, hindered their forgery from becoming injuriously prevalent.

The defects inherent in the old system were again fully developed in 1836 and 1837. It is needless now to enter upon any investigation of the circumstances which led to the overtrading of these years; but it was carried to a great extent both here and in the United States. In nothing, however, was this more strikingly evinced, than in the rapid increase of joint-stock banks; their number, which in 1834–35 had amounted in England and Wales to 55, having risen in 1835–36 to no fewer than 100! Many of these were banks of issue, and in consequence of the large additions that were thus suddenly made to the number of notes afloat, and still more to the number of bills, cheques, and other substitutes for money, the currency became redundant and the exchange depressed; and the deficient harvests of 1838 and 1839, conspiring with this redundancy, occasioned a further fall in the exchange, and a severe drain upon the Bank of England for gold. But while the latter was narrowing her issues by supplying the exporters of bullion with gold in exchange for notes, the country banks went on increasing their issues! What the former did by contracting on the one hand, the latter more than undid by letting out on the other. The vacuum created by the withdrawal of Bank of England paper was immediately filled up, and made to overflow, by the issue of a more than equal amount of provincial paper; so that had it not been for the rise in the rate of interest, and the other repressive measures adopted by the Bank, the probability is that she might have gone on paying away bullion for notes, till she was drained of her last sixpence, without in any degree affecting the exchange: and as it was, the bullion in her coffers in August 1839 was reduced to 2,420,000*l.*, so that we narrowly escaped a tremendous crisis.

Sec. IV.—Principle and Operation of the Act of 1844.

This perilous experience having again forcibly attracted the public attention to the state of the banking system, Sir Robert Peel was induced to attempt its improvement. And the measures which he introduced and carried through Parliament in 1844 and 1845, for the improvement of our banking system, were so skilfully contrived as to provoke little opposition, at the same time that they effected most important and highly beneficial changes.

The measures in question consisted of the Act 7 & 8 Vict. c. 32, which refers to the Bank of England, and the English country banks; and the Act 8 & 9 Vict., of which c. 37, 38 refer to the banks of Ireland and Scotland respectively. These statutes were intended to obviate the chances of over-issue and of sudden fluctuations in the quantity and value of money, by limiting the power to issue notes payable on demand, and by making the amount of such notes in circulation vary with the amount of bullion in the possession of the issuers. In dealing with the Bank of England, Sir Robert Peel adopted the proposal previously made by Lord Overstone, for effecting a complete separation between the issuing and banking departments of that establishment, and giving the directors full liberty to manage the latter at discretion, while they should have no power whatever over the other.

Principle on which Act of 1844 *was founded.*—The notes of the Bank of England in circulation for some years previously to 1844 rarely amounted to 20,000,000*l.* or sunk so low as 16,000,000*l.* And such being the case, Sir Robert Peel was justified in assuming that the circulation of the Bank could not, in any ordinary condition of society, or under any mere commercial vicissitudes, be reduced below 14,000,000*l.* And the Act of 1844 allows the Bank to issue this amount upon securities, of which the 11,015,100*l.* she has lent to the public is the most important item. Inasmuch, however, as the issues of the provincial banks were at the same time limited in their amount, and confined to certain existing banks, it was further provided, in the event of any of these banks ceasing to issue notes, that the Bank of England might be empowered, by order in council, to issue, upon securities, two-thirds, and no more, of the notes which such banks had been authorised to issue. Under this condition, the total secured issue of the Bank has (1858) been increased from 14,000,000*l.* to 14,475,000*l.* ***But for every other note which the issue department may at any time issue over and above the maximum amount*** (14,475,000*l.*) ***issued on securities, an equal amount of coin or bullion must be paid into its coffers.*** And hence, under this system, the notes of the Bank of England are rendered really and truly equivalent to gold, while their immediate conversion into that metal no longer depends, as it previously did, on the good faith, the skill, or the prudence of the directors. And these important results have been attained without imposing any burden of which anyone has any right to complain. Our currency rests on the fundamental principle, that all debts above forty shillings shall be paid in gold. But individuals and associations, including the banking or commercial department of the Bank, have the option, if they prefer it, to exchange gold for bank notes, and to make use of the latter in their dealings with the public. Hence, if A. or B. goes to the issuers of paper, and gets 100 or 500 notes from them in exchange for an equivalent amount of gold, it is his own convenience he has exclusively in view. He was at full liberty to use gold, but he preferred exchanging it for notes because he could employ the latter more advantageously. This is the way in which paper is issued under the Act of 1844; and such being the case it is

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contradictory to say that it is productive either of hardship or inconvenience.

It has been alleged that this system is injurious by shackling the Bank in the use of her credit. But it must be clear on the least reflection that it does nothing of the sort. It merely prevents her from issuing substitutes for money which do not represent money. It does not absorb or lock up a single sixpence worth of her capital; nor does it interfere in any manner of way with her employment either of it, or of her credit. The gold in the issue department of the Bank was not purchased by her, and does not belong to her. She is its keeper, but not its owner. It belongs to the public, or to the holders of bank notes, who deposited it in the Bank in exchange for notes, with and under the express stipulation, that on paying the latter into the Bank, they should receive back their gold. Any interference with these deposits would be an interference with property held in pledge for others; that is, it would be an act precisely of the same kind with that which deservedly subjected Strahan, Paul, and Co. to transportation for fourteen years. The authority of Mr. Sheffield Neave, formerly governor of the Bank, may be quoted in corroboration of this statement: 'The issue-department is out of our hands altogether. We are mere trustees under the Act of Parliament, to see that those securities are placed there and kept up to that amount; and in no case can any creditor of the Bank touch that which is reserved for a note-holder. We are in that respect merely ministrative; we are trustees to hold that amount in the issue-department, and our banking department has a totally separate function, which has no relation whatever to the issue-department.' (*Min. of Evidence*, 1857, p. 99.)

But though she may not lay violent hands on the property of the public, the Bank, it is obvious, has at this moment the same absolute command over her entire capital and credit, that she would have were the Act of 1844 non-existent. In her banking capacity she is free from all restraint, and is in precisely the same situation as other banking or mercantile establishments. She may lend or not lend as she pleases, and may lay down such conditions as she pleases in regard to the interest and the terms of her loans and discounts. In short, she may do whatever she likes with her own. But further she is not permitted to go. She may not substitute shadows for realities. She cannot, whether to assist others, or to relieve herself from embarrassment, issue a single note except upon a deposit of bullion. But this rule does not operate on herself only. It applies to all individuals and associations. And to relax it in any degree would be—disguise it as you will—to authorise an issue of fictitious or spurious paper, and consequently to vitiate the currency and to abuse credit in the way that is sure to be in the end the most disastrous.

It is further objected to the Act of 1844, that it 'limits the currency;' 'that it makes no provision for the increasing demands of the public; and confined us in 1858, when the exports would probably exceed 120,000,000*l.*, to the same amount of money as in 1844, when the exports did not exceed 58,500,000*l.*' But though this statement has been made by parties who ought to have known better, the reader can hardly require to be told that it is completely destitute of foundation. The 14,000,000*l.* issued on securities, is the only thing that is limited in the Act; everything else varies with the varying condition and circumstances of the country, including the means by which the use of money may be economised. In the week ending August 29, 1857, the issue department of the Bank had issued notes to the amount of 25,323,965*l.*, being no fewer than 11,323,965*l.* over and above the amount authorised to be issued on securities. And if the country had really required a larger supply of money, that is, if more coins, or paper equivalent to coins, could have been absorbed into the circulation without rendering the currency redundant, and depressing the exchange, the additional quantity would have been forthwith supplied. For under such circumstances, merchants, bankers, and money-dealers would have realised a certain and immediate profit by carrying bullion to the Mint or the Bank, that they might obtain coins, or notes, or both, with which to increase the currency. It is one of the chief merits of the Act of 1844, that, under its agency, the supply of money is not to any extent or in any degree regulated or influenced by the proceedings of the Bank or the Government. They have nothing to do in the matter, unless it be to coin the bullion which individuals or firms carry to the Mint for that purpose, and to exchange, when called upon, notes for coins, and coins for notes. The supply of money, like that of all non-monopolised articles, is wholly dependent upon, and is determined by, the free action of the public. It would, indeed, be quite as true to say, that the Act of 1844 limits the amount of corn, of cloth, or of iron produced in the country, as that it limits the amount of money. It maintains the value of the notes issued by the Bank on a level with the coins for which they are substitutes; but beyond that its effect is *nil*. It has nothing whatever to do with the greater or less amount of the currency. That depends entirely on the estimate formed by the public of its excess or deficiency, an estimate which, when wrong, is sure to be corrected by the exchange.

We may add, that no inference can ever be safely drawn from the number of notes or coins, or both, afloat in a country, as to whether its currency be, or be not, in excess. That is to be learned by the state of the exchange, or by the influx and efflux of bullion. If the imports of bullion exceed the exports, it shows that the currency is in some degree deficient, while if the exports exceed the imports, it shows that the currency is in excess, and that no additions can be made to it without further depressing the exchange and increasing the drain of bullion. When the imports and exports of bullion are about equal, then of course the currency is at about its proper level. These are the only criteria by which anything can ever be correctly inferred in regard to the deficiency or excess of currency. Its absolute amount affords hardly even a basis for conjecture. When there is little speculation or excitement, an issue of 25,000,000*l.* or 27,000,000*l.* bank-notes may be in excess! while, at another time, and with a different state of trade and speculation, an issue of 35,000,000*l.* or 37,000,000*l.* of notes may not be enough. Except in periods of internal commotion, or when we are disturbed by alarms of invasion, the state of the exchange is the only, as it is the infallible, test of the sufficiency and insufficiency of the currency.

We have seen that bills of exchange, about which so much is said, though they serve some of the purposes of money, are not money. But whether the amount of them in circulation be great or small, and whether they be drawn at long or short dates, though highly important in other respects, has no reference to, or bearing upon, this question. When from any cause, whether from an excess in the amount of bills or notes afloat, the currency becomes redundant, the exchange is depressed, and notes are sent to the issue depart-

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ment of the Bank to be exchanged for gold, which is forthwith exported. And it is by the immediate action of the adverse exchange upon notes, and the consequent influence of the contraction of the latter upon bills, that the amount of the currency is lessened, its value raised, and the exchange brought to par. At such periods there is usually more or less of mercantile pressure, and a greater demand for discounts and pecuniary accommodation. This leads to a rise in the rate of interest; but no change in this rate has any influence over the currency, except in so far as its rise may diminish, and its fall may increase, the demands upon the Bank for loans. A system of this sort effectually prevents any great excess of bills from ever getting into the market; and thus checks, in limine, what would otherwise be the most copious source of wild speculation, overtrading, and bankruptcy.

It may be said, perhaps—for there is no end of apologies for whatever is vicious—that if the issue of notes were in the hands of Government, the entire profit accruing thereon would belong to the public. But supposing such to be the case, the difference between that profit, and that which is or may be realised under the present system, would either be nothing at all, or so inconsiderable as to be wholly unworthy of attention. It will be afterwards seen that at this moment the public receives by far the greater part of the profit made by the Bank on the fixed issue of 14,000,000*l.*, and if it be deemed expedient, that part may be still further increased, or turned into the lion's share. Assuming, therefore, for a moment, that the power to issue notes is vested in Government commissioners, it is not pretended that these notes are to be legal tender. Nothing so monstrous as that could be thought of, or at all events, durst be proposed. The notes issued by the commissioners, like those issued by the Bank, must be paid on demand. But to do this, a stock of bullion must be provided; and unless the plan now followed were adopted, and all issues above the amount of 14,000,000*l.*, or thereby, were made upon deposits of bullion, the public would not have that perfect security which is given them by the present system, and which is worth more than ten times all the profits arising out of the fixed issue. Even under the old system, or that which existed previously to 1844, the rule of the Bank was to keep a stock of bullion on hand equal to a third part of her issues. But this rule was not, and in truth could not be, acted upon. It is plain, however, had it been bonâ fide carried out, that the profits on the issue of notes would not have been materially, if at all, different from what they are at this moment. Nothing, therefore, can be more completely futile than the talk about the large profits that would accrue to the public by vesting the power to issue notes in commissioners appointed by Government. With the same security as at present for the conversion of the notes into coin, nothing would be gained by such appointment; and if, as would most likely be the case, it lessened the security referred to, and added to the chances of over-issue and mismanagement, the injury to the public hence resulting might be enormous. We, therefore, are disposed to believe, that of the various proposals in regard to the currency, that which proposes to vest the issue of notes in the hands of Government commissioners is one of the most objectionable. The chances are ten to one that they would act as directed by the Government of the day; and this, at all events, would be popularly assumed to be the case. Supposing, however, that they did nothing of the sort, but were perfectly independent, still it is obvious that whatever they did more or less than is done at present, would be mischievous. And such being the case, it is not easy to see what advantage would be gained by their appointment; while it would have the serious disadvantage of making Government directly responsible, in the public estimation, for whatever inconvenience might at any time be supposed to result from the limitation of the currency.

The objections to the Act of 1844 are so various and so opposite that they are not easily recollected. Sometimes we are told that it is inconsistent with itself and incomplete, and that it deals stringently with the Bank of England, while it hardly interferes with the country banks. But this is an unfair representation. In dealing with the country banks the Act may not have gone quite so far as it was desirable it should have gone, or as Sir Robert Peel wished it to go; but it notwithstanding effected, even in that respect, a very great improvement, and really left but little to be wished for.

To prevent future over-issues of country paper it was enacted, that from and after the passing of the Act, no new bank for the issue of notes should be established in any part of the United Kingdom. And it was further enacted, that the *maximum* issue of notes by the existing country banks should, in future, be limited to the average amount which they had respectively in circulation during the twelve weeks preceding the 27th April, 1844; and various penalties are imposed on those whose issues exceed that fixed amount. This condition applies only to banks in England and Wales. The issues of those in Scotland and Ireland are limited to the average amount of those in circulation during the twelve months ending the 1st of May, 1845. (See *post.*) It was then, also, ordered that the names of the partners, in joint-stock and other banks, should be periodically published.

These are most important regulations. No doubt it would have been better had provincial issues been entirely suppressed, and Bank of England notes made the only legal substitute for coins. But in matters of legislation what is practicable is of quite as much importance as what is absolutely just and proper. Sir Robert Peel knew what he could carry through Parliament. Had he attempted more, he would not only have failed of his object, but would, most likely, have endangered the success of the other and far more important portion of his measure which related to the Bank of England.

Under the operation of the Act of 1844 the extinction of the country issues is being gradually effected, partly by some of the issuing banks finding it to be for their advantage to use notes of the Bank of England instead of their own, and partly by the winding-up of some concerns and the bankruptcy of others. But, owing to the limitation of the issues, comparatively little inconvenience has resulted to the public from the latter circumstance.

On the whole, therefore, there does not appear to be much ground on which to object to the existing arrangements in regard to the country banks. Though not theoretically perfect, their practical deficiencies are unimportant. To attempt to obviate them might imperil other and more important arrangements. And we incline to think that the notion that such would be the case has had not a little to do in making them be pressed on the attention of the public.

Suspensions of 1847 *and* 1857.—But it is said, 'that even the best system cannot always be carried to an extreme. The Act of 1844 has had to be suspended in 1847, and again in 1857; and

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machinery for its relaxation in periods of difficulty should be introduced into it!'

We beg, however, to express our dissent from this doctrine. It would be easy to show that the embarrassment of the banking department of the Bank in 1847 which led to the suspension of the Act, was mainly a consequence of the injudicious proceedings of the directors; and it is to be hoped that the experience they acquired on that occasion may not be forgotten. But in whatever way the crisis may have originated, there can be no question that the suspension of 1847 was a measure of doubtful policy. The exchanges had already become favourable, and it was the prevalent opinion in very well-informed quarters, that the panic which had begun to show itself would speedily have disappeared without the intervention of Government. It should never be forgotten that, apart from internal panics, the time when the Act is said to be working harshly and oppressively is the very time when it is most for the public advantage that it should be honestly carried out.

The revulsion in 1857 was occasioned by the stoppage of the American banks. The real value of the exports from this country to the United States amounted in 1856 to 21,476,000*l.*, of which a large portion was unpaid when the banks stopped payments; and a further and very large sum was due to us on account of dividends on state, railway and canal stocks, and so forth, held by parties in England. The sudden cessation of so large an amount of payments could not fail to occasion a good deal of distress among the merchants and others dealing with America. And it was among this class, or those intimately connected with it, that the greatest overtrading and abuse of credit had taken place. Some firms in Glasgow, which had been notoriously overtrading for a number of years, were the first to give way. And their failure being on a very large scale, the banks by which they had been principally supported became the objects of suspicion. And from suspicion to distrust there is but a step. Notwithstanding the numbers and wealth of the shareholders responsible for the banks in question, they were subjected to a run on the part of the inferior class of note-holders and depositors, and their resources being either anticipated or locked up, they were obliged to suspend payments. And had they only failed, none could have regretted the result. On the contrary, it would have been nothing more than they deserved, for they had for a lengthened period grossly abused the ample resources at their command, and resorted to the most questionable means to bolster up the speculators with whom they had become identified. But the mischief is, that the disastrous effects of such proceedings cannot be confined to the guilty parties. A fire originating in a pig-sty may destroy a palace. The suspension of the offending banks, by generating uneasy feelings and suspicions in the public mind, led to a run on some of the other banks. And to provide for their own safety these establishments immediately began to sell securities, and to adopt other means, by which to obtain supplies of gold. Large amounts of it were in consequence carried to Scotland. And, in addition to the demand for gold, that for discounts, notwithstanding the high rate of ten per cent. charged by the Bank, continued undiminished, so that the reserve in her possession was reduced on November 11 to 1,462,153*l.*; and it was the general belief, that this inadequate reserve would be forthwith either much reduced or wholly swallowed up. To avert the possibility of such an event occurring, the directors were authorised, on November 12, to issue notes without being bound by the conditions of the Act of 1844.

This, though a brief, is, we believe, a sufficiently accurate account of the circumstances that led to the suspension of the Act in 1857. The weight to be attached to them will be differently estimated by different individuals. The suspension is believed by some to have been, at least, premature, and others think that probably it might have been avoided. It is alleged that the panic in Scotland had begun to subside previously to the measure being adopted; and it was all but certain that when it had subsided, a considerable portion of the gold that had been sent to Scotland would speedily find its way back to London, and some considerable risk and inconvenience should have been encountered rather than that measures should have been adopted, the effect of which will be to protect speculators and money dealers without capital, and wanting alike in character and conduct, from the consequences of their unjustifiable proceedings. But, at the same time, we admit that the immediate exposure and punishment of these parties, however desirable, was not to be purchased at the risk of a general revulsion. And as the information laid before ministers made them believe that such a calamity was imminent unless the statute of 1844 was suspended, they were bound to act upon that conviction, and to provide 'ne quid detrimenti respublica capiat.'

But whatever may be thought of these conclusions, it is at all events certain that the Act of 1844 had nothing whatever to do with the late revulsion. It did not occasion the American stoppage, and under its operation the foreign drain for gold had been entirely stopped; and though it could not prevent the abuses in banking, and the system of rediscounting and overtrading in which so many banks and firms have been engaged, it contributed in no ordinary degree, by preventing the issue of spurious paper, to confine them within comparatively narrow limits and to lessen the violence of the crisis.

The Act of 1844 is a rule to be enforced in all but extraordinary and unforeseen emergencies, the urgency of which cannot be appreciated beforehand, but must be determined at the moment. But when these occur, it may, like the Habeas Corpus Act, be properly suspended. It is mainly calculated to regulate our currency by the exchanges, or through our commercial intercourse with other countries; but it is not applicable, nor is any system of which the convertibility of paper into coin makes a part applicable, to a state of internal discredit or panic. Had it existed in 1797, it must have been suspended; and its suspensions in 1847 and 1857 are only to be justified by the state of our domestic affairs making an adherence to principle inexpedient and impracticable. But, whenever the circumstances referred to, that is, when the panic and distrust that occasioned the suspension of the Act subsided, it is clear it should be, and it has been, revived in its pristine vigour. The Habeas Corpus Act is not the less efficient at this moment that it has been repeatedly suspended in periods of danger and difficulty.

We subjoin a full

ABSTRACT OF THE ACT 7 & 8 VICT. C. 32, FOR REGULATING THE ISSUE OF BANK NOTES, AND FOR GIVING TO THE BANK OF ENGLAND CERTAIN PRIVILEGES FOR A LIMITED PERIOD, 19 JULY, 1844.

Bank to establish a separate Department for the Issue of Notes.—Whereas it is expedient to regulate the issue of bills or notes payable on demand:

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and whereas the Act 3 & 4 Wm. IV. c. 98 gave to the corporation of the governor and company of the Bank of England certain privileges for a limited period, under certain conditions; and it is expedient that the privileges of exclusive banking therein mentioned should be continued to the said governor and company of the Bank of England, with such alterations as are herein contained, upon certain conditions: be it therefore enacted, that from and after the 31st day of August, 1844, the issue of promissory notes of the governor and company of the Bank of England, payable on demand, shall be separated and thenceforth kept wholly distinct from the general banking business of the said governor and company; and the business of and relating to such issue shall be thenceforth conducted and carried on by the said governor and company in a separate department, to be called 'The Issue Department of the Bank of England,' subject to the rules and regulations hereinafter contained; and it shall be lawful for the court of directors of the said governor and company, if they shall think fit, to appoint a committee or committees of directors for the conduct and management of such issue department of the Bank of England, and from time to time to remove the members, and define, alter, and regulate the constitution and powers of such committee, as they shall think fit, subject to any bye-laws, rules, or regulations which may be made for that purpose: provided nevertheless, that the said issue department shall always be kept separate and distinct from the banking department of the said governor and company. (Sec. 1.)

Management of the Issue by Bank of England.—Upon August 31, 1844, there shall be transferred, appropriated, and set apart by the said governor and company to the issue department of the Bank of England securities to the value of 14,000,000*l.*, whereof the debt due by the public to the said governor and company shall be and be deemed a part; and there shall also at the same time be transferred, appropriated, and set apart by the said governor and company to the said issue department so much of the gold coin and gold and silver bullion then held by the Bank of England as shall not be required by the banking department thereof; and thereupon there shall be delivered out of the said issue department into the said banking department of the Bank of England such an amount of Bank of England notes as, together with the Bank of England notes then in circulation, shall be equal to the aggregate amount of the securities, coin, and bullion so transferred to the said issue department of the Bank of England; and the whole amount of Bank of England notes then in circulation, including those delivered to the banking department of the Bank of England as aforesaid, shall be deemed to be issued on the credit of such securities, coin, and bullion so appropriated and set apart to the said issue department; and from thenceforth it shall not be lawful for the said governor and company to increase the amount of securities for the time being in the said issue department save as herein-after is mentioned; but it shall be lawful for the said governor and company to diminish the amount of such securities, and again to increase the same to any sum not exceeding in the whole the sum of 14,000,000*l.*, and so from time to time as they shall see occasion; and from and after such transfer and appropriation to the said issue department as aforesaid, it shall not be lawful for the said governor and company to issue Bank of England notes, either into the banking department of the Bank of England or to any persons or person whatsoever, save in exchange for other Bank of England notes, or for gold coin or for gold or silver bullion received or purchased for the said issue department under the provisions of this Act, or in exchange for securities acquired and taken in the said issue department under the provisions herein contained: provided always, that it shall be lawful for the said governor and company in their banking department to issue all such Bank of England notes as they shall at any time receive from the said issue department or otherwise, in the same manner in all respects as such issue would be lawful to any other person or persons. (Sec. 2.)

Proportion of Silver Bullion to be retained in the Issue Department.—Whereas it is necessary to limit the amount of silver bullion on which it shall be lawful for the issue department of the Bank of England to issue Bank of England notes; be it therefore enacted, that it shall not be lawful for the Bank of England to retain in the issue department of the said Bank at any one time an amount of silver bullion exceeding one-fourth part of the gold coin and bullion at such time held by the Bank of England in the issue department. (Sec. 3.)

All Persons may demand of the Issue Department Notes for Gold Bullion.—From and after the 31st day of August, 1844, all persons shall be entitled to demand from the issue department, Bank of England notes in exchange for gold bullion, at the rate of 3*l.* 17*s.* 9*d.* per ounce of standard gold: provided always, that the said governor and company shall in all cases be entitled to require such gold bullion to be melted and assayed by persons approved of by the said governor and company at the expense of the parties tendering such gold bullion. (Sec. 4.)

Power to increase Securities in the Issue Department, and issue additional Notes.—If any banker who on the 6th day of May, 1844, was issuing his own bank notes shall cease to issue his own bank notes, it shall be lawful for H.M. in council at any time after the cessation of such issue, upon the application of the said governor and company, to authorise and empower the said governor and company to increase the amount of securities in the said issue department beyond the total sum or value of 14,000,000*l.*, and thereupon to issue additional Bank of England notes to an amount not exceeding such increased amount of securities specified in such order in council, and so from time to time: provided always, that such increased amount of securities specified in such order in council shall in no case exceed the proportion of two-thirds the amount of bank notes which the banker so ceasing to issue may have been authorised to issue under the provisions of this Act; and every such order in council shall be published in the next succeeding *London Gazette*. (Sec. 5.)

Account to be rendered by the Bank of England.—An account of the amount of Bank of England notes issued by the issue department of the Bank of England, and of gold coin and of gold and silver bullion respectively, and of securities in the said issue department, and also an account of the capital stock, and the deposits, and of the money and securities belonging to the said governor and company in the banking department of the Bank of England, on some day in every week to be fixed by the commissioners of stamps and taxes, shall be transmitted by the said governor and company weekly to the said commissioners in the form prescribed in the schedule hereto annexed marked (A), and shall be published by the said commissioners in the next succeeding *London Gazette* in which the same may be conveniently inserted. (Sec. 6.)

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Bank of England exempted from Stamp Duty upon their Notes.—From and after the said 31st day of August, 1844, the said governor and company of the Bank of England shall be released and discharged from the payment of any stamp duty, or composition in respect of stamp duty, upon or in respect of their promissory notes payable to bearer on demand; and all such notes shall thenceforth be and continue free and wholly exempt from all liability to any stamp duty whatsoever. (Sec. 7.)

Bank to allow 180,000*l. per Annum.*—From and after the said 31st day of August, 1844, the payment or deduction of the annual sum of 120,000*l.*, made by the said governor and company under the provisions of the said Act passed in the fourth year of the reign of his late Majesty King William IV., out of the sums payable to them for the charges of management of the public unredeemed debt, shall cease, and in lieu thereof the said governor and company, in consideration of the privileges of exclusive banking, and the exemption from stamp duties, given to them by this Act, shall, during the continuance of such privileges and such exemption respectively, but no longer, deduct and allow to the public, from the sums now payable by law to the said governor and company for the charges of management of the public unredeemed debt, the annual sum of 180,000*l.*, anything in any Act or Acts of Parliament, or in any agreement, to the contrary notwithstanding: provided always, that such deduction shall in no respect prejudice or affect the rights of the said governor and company to be paid for the management of the public debt at the rate and according to the terms provided in the Act 48 Geo. III. c. 4, intituled 'An Act to authorise the advancing for the Public Service, upon certain Conditions, a proportion of the Balance remaining in the Bank of England, for the payment of Unclaimed Dividends, Annuities, and Lottery Prizes, and for regulating the Allowances to be made for the Management of the National Debt.' (Sec. 8.)

Bank to allow the Public the Profits of increased Circulation.—In case, under the provisions hereinbefore contained, the securities held in the said issue department of the Bank of England shall at any time be increased beyond the total amount of 14,000,000*l.*, then and in each and every year in which the same shall happen, and so long as such increase shall continue, the said governor and company shall, in addition to the said annual sum of 180,000*l.*, make a further payment or allowance to the public, equal in amount to the net profit derived in the said issue department during the current year from such additional securities, after deducting the amount of the expenses occasioned by the additional issue during the same period, which expenses shall include the amount of any and every composition or payment to be made by the said governor and company to any banker in consideration of the discontinuance at any time hereafter of the issue of bank notes by such banker; and such further payment or allowance to the public by the said governor and company shall, in every year while the public shall be entitled to receive the same, be deducted from the amount by law payable to the said governor and company for the charges of management of the unredeemed public debt, in the same manner as the said annual sum of 180,000*l.* is hereby directed to be deducted therefrom. (Sec. 9.)

No new Bank of Issue.—From and after the passing of this Act no person other than a banker who on the 6th day of May, 1844, was lawfully issuing his own bank notes shall make or issue bank notes in any part of the U. K. (Sec. 10.)

Restriction against Issue of Bank Notes.—From and after the passing of this Act it shall not be lawful for any banker to draw, accept, make, or issue, in England or Wales, any bill of exchange or promissory note or engagement for the payment of money payable to bearer on demand, or to borrow, owe, or take up, in England or Wales, any sums or sum of money on the bills or notes of such banker payable to bearer on demand, save and except that it shall be lawful for any banker who was on the 6th day of May, 1844, carrying on the business of a banker in England or Wales, and was then lawfully issuing, in England or Wales, his own bank notes, under the authority of a license to that effect, to continue to issue such notes to the extent and under the conditions herein-after mentioned, but not further or otherwise, and the right of any company or partnership to continue to issue such notes shall not be in any manner prejudiced or affected by any change which may hereafter take place in the personal composition of such company or partnership, either by the transfer of any shares or share therein, or by the admission of any new partner or member thereto, or by the retirement of any present partner or member therefrom; provided always, that it shall not be lawful for any company or partnership now consisting of only six or less than six persons to issue bank notes at any time after the number of partners therein shall exceed six in the whole. (Sec. 11.)

Bankers ceasing to issue Notes may not resume.—If any banker in any part of the U. K. who after the passing of this Act shall be entitled to issue bank notes shall become bankrupt, or shall cease to carry on the business of a banker, or shall discontinue the issue of bank notes, either by agreement with the governor and company of the Bank of England or otherwise, it shall not be lawful for such banker at any time thereafter to issue any such notes. (Sec. 12.)

Existing Banks of Issue to continue under certain Limitations.—Every banker claiming under this Act to continue to issue bank notes in England or Wales shall, within one month next after the passing of this Act, give notice in writing to the commissioners of stamps and taxes at their head office in London of such claim, and of the place and name and firm at and under which such banker has issued such notes during the twelve weeks next preceding the 27th day of April last; and thereupon the said commissioners shall ascertain if such banker was, on the 6th day of May, 1844, carrying on the business of a banker, and lawfully issuing his own bank notes in England or Wales, and if it shall so appear, then the said commissioners shall proceed to ascertain the average amount of the bank notes of such banker which were in circulation during the said period of twelve weeks preceding the 27th day of April last, according to the returns made by such banker in pursuance of the Act 4 & 5 Vict. c. 50, intituled 'An Act to make further Provision relative to the Returns to be made by Banks of the Amount of their Notes in Circulation;' and the said commissioners or any two of them shall certify under their hands to such banker the said average amount, when so ascertained as aforesaid; and it shall be lawful for every such banker to continue to issue his own bank notes after the passing of this Act; provided nevertheless, that such banker shall not at any time after the 10th day of October, 1844, have in circulation upon the average of a period of four weeks, to be ascertained as hereinafter mentioned, a greater

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amount of notes than the amount so certified. (Sec. 13.)

Provision for united Banks.—If it shall be made to appear to the commissioners of stamps and taxes that any two or more banks have, by written contract or agreement (which contract or agreement shall be produced to the said commissioners), become united within the twelve weeks next preceding such 27th day of April as aforesaid, it shall be lawful for the said commissioners to ascertain the average amount of the notes of each such bank in the manner herein-before directed, and to certify the average amount of the notes of the two or more banks so united as the amount which the united bank shall thereafter be authorised to issue subject to the regulations of this Act. (Sec. 14.)

Duplicate Certificate to be published in the Gazette.—The commissioners of stamps and taxes shall, at the time of certifying to any banker such particulars as they are herein-before required to certify, also publish a duplicate of their certificate thereof in the next succeeding *London Gazette* in which the same may be conveniently inserted; and the *Gazette* in which such publication shall be made shall be conclusive evidence in all courts whatsoever of the amount of bank notes which the banker named in such certificate or duplicate is by law authorised to issue and to have in circulation as aforesaid. (Sec. 15.)

If Banks become united, Commissioners to certify the Amount of Bank Notes which each Bank was authorised to issue.—In case it shall be made to appear to the commissioners of stamps and taxes, at any time hereafter, that any two or more banks, each such bank consisting of not more than six persons, have, by written contract or agreement (which contract or agreement shall be produced to the said commissioners), become united subsequently to the passing of this Act, it shall be lawful to the said commissioners upon the application of such united bank, to certify, in manner herein-before mentioned, the aggregate of the amounts of bank notes which such separate banks were previously authorised to issue, and so from time to time; and every such certificate shall be published in manner herein-before directed; and from and after such publication the amount therein stated shall be and be deemed to be the limit of the amount of bank notes which such united bank may have in circulation: provided always, that it shall not be lawful for any such united bank to issue bank notes at any time after the number of partners therein shall exceed six in the whole. (Sec. 16.)

Penalty on Banks issuing in excess.—If the monthly average circulation of bank notes of any banker, taken in the manner herein-after directed, shall at any time exceed the amount which such banker is authorised to issue and to have in circulation under the provisions of this Act, such banker shall in every such case forfeit a sum equal to the amount by which the average monthly circulation, taken as aforesaid, shall have exceeded the amount which such banker was authorised to issue, and to have in circulation as aforesaid. (Sec. 17.)

Issuing Banks to render accounts.—Every banker in England and Wales who, after the 10th day of October, 1844, shall issue bank notes, shall on some one day in every week after the 19th day of October, 1844 (such day to be fixed by the commissioners of stamps and taxes), transmit to the said commissioners an account of the amount of the bank notes of such banker in circulation on every day during the week ending on the next preceding Saturday, and also an account of the average amount of the bank notes of such banker in circulation during the same week; and on completing the first period of four weeks, and so on, completing each successive period of four weeks, every such banker shall annex to such account the average amount of bank notes of such banker in circulation during the said four weeks, and also the amount of bank notes which such banker is authorised to issue under the provisions of this Act; and every such account shall be verified by the signature of such banker or his chief cashier, or, in the case of a company or partnership, by the signature of a managing director or partner or chief cashier of such company or partnership, and shall be made in the form to this Act annexed marked (B); and so much of the said return as states the weekly average amount of the notes of such bank shall be published by the said commissioners in the next succeeding *London Gazette* in which the same may be conveniently inserted; and if any such banker shall neglect or refuse to render any such account in the form and at the time required by this Act, or shall at any time render a false account, such banker shall forfeit the sum of 100*l.* for every such offence. (Sec. 18.)

Mode of ascertaining the average Amount of Bank Notes of each Banker.—For the purpose of ascertaining the monthly average amount of bank notes of each banker in circulation, the aggregate of the amount of bank notes of each such banker in circulation on every day of business during the first complete period of four weeks next after the 10th day of October, 1844, such period ending on a Saturday, shall be divided by the number of days of business in such four weeks, and the average so ascertained shall be deemed to be the average of bank notes of each such banker in circulation during such period of four weeks, and so in each successive period of four weeks, and such average is not to exceed the amount certified by the commissioners of stamps and taxes as aforesaid. (Sec. 19.)

Commissioners empowered to cause the Books of Bankers to be inspected.—Whereas, in order to insure the rendering of true and faithful accounts of the amount of bank notes in circulation, as directed by this Act, it is necessary that the commissioners of stamps and taxes should be empowered to cause the books of bankers issuing such notes to be inspected, as herein-after mentioned: be it therefore enacted, that all and every the book and books of any banker who shall issue bank notes under the provisions of this Act, in which shall be kept, contained, or entered any account, minute, or memorandum of or relating to the bank notes issued or to be issued by such banker, or of or relating to the amount of such notes in circulation from time to time, or any account, minute, or memorandum the sight or inspection whereof may tend to secure the rendering of true accounts of the average amount of such notes in circulation, as directed by this Act, or to test the truth of any such account, shall be open for the inspection and examination, at all reasonable times, of any officer of stamp duties authorised in that behalf by writing, signed by the commissioners of stamps and taxes or any two of them; and every such officer shall be at liberty to take copies of or extracts from any such book or account as aforesaid: and if any banker or other person keeping any such book, or having the custody or possession thereof, or power to produce the same, shall, upon demand made by any such officer, showing (if required) his authority in that behalf, refuse to produce any such book to such officer for his inspection and examination, or to permit him to

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inspect and examine the same, or to take copies thereof or extracts therefrom, or of or from any such account, minute or memorandum as aforesaid, kept, contained, or entered therein, every such banker or other person so offending shall for every such offence forfeit the sum of 100*l.*: provided always, that the said commissioners shall not exercise the powers aforesaid without the consent of the Lords of the Treasury. (Sec. 20.)

All Bankers to return Names once a Year to the Stamp Office.—Every banker in England and Wales who is now carrying on or shall hereafter carry on business as such, shall, on the 1st day of January in each year, or within 15 days thereafter, make a return to the commissioners of stamps and taxes at their head office in London of his name, residence, and occupation, or, in the case of a company or partnership, of the name, residence, and occupation of every person composing or being a member of such company or partnership, and also the name of the firm under which such banker, company, or partnership carry on the business of banking, and of every place where such business is carried on; and if any such banker, company, or partnership shall omit or refuse to make such return within 15 days after the said 1st day of January, or shall wilfully make other than a true return of the persons as herein required, every banker, company, or partnership so offending shall forfeit and pay the sum of 50*l.*; and the said commissioners of stamps and taxes shall, on or before the 1st day of March in every year, publish in some newspaper circulating within each town or county respectively, a copy of the return so made by every banker, company, or partnership carrying on the business of bankers within such town or county respectively, as the case may be. (Sec. 21.)

Bankers to take out a separate License for every Place at which they issue Notes or Bills.—Every banker who shall be liable by law to take out a license from the commissioners of stamps and taxes to authorise the issuing of notes or bills, shall take out a separate and distinct license for every town or place at which he shall, by himself or his agent, issue any notes or bills requiring such license to authorise the issuing thereof, anything in any former Act contained to the contrary thereof notwithstanding: provided always, that no banker who on or before the 6th day of May, 1844, had taken out four such licenses, which on the said last-mentioned day were respectively in force, for the issuing of any such notes or bills at more than four separate towns or places, shall at any time hereafter be required to take out or to have in force at one and the same time more than four such licenses to authorise the issuing of such notes or bills at all or any of the same towns or places specified in such licenses in force on the said 6th day of May, 1844, in which towns or places respectively, such bankers had, on or before the said last-mentioned day, issued such notes or bills in pursuance of such licenses or any of them respectively. (Sec. 22.)

Compensation to certain Bankers named in the Schedule.—Whereas the several bankers named in the schedule hereto annexed marked (C) have ceased to issue their own bank notes under certain agreements with the governor and company of the Bank of England; and it is expedient that such agreements should cease and determine on the 31st day of December next, and that such bankers should receive by way of compensation such composition as hereafter mentioned; and a list of such bankers, and a statement of the maximum sums in respect of which each such banker is to receive compensation, hath been delivered to the commissioners of stamps and taxes, signed by the chief cashier of the Bank of England: be it therefore enacted, that the several agreements subsisting between the said governor and company and the several bankers mentioned in the schedule hereto relating to the issue of Bank of England notes shall cease and determine on the 31st day of December next; and from and after that day the said governor and company shall pay and allow to the several bankers named in the schedule hereto marked (C), so long as such banker shall be willing to receive the same, a composition at and after the rate of 1*l.* per cent. per annum on the average amount of the Bank of England notes issued by such bankers respectively and actually remaining in circulation, to be ascertained as follows: (that is to say) on some day in the month of April, 1845, to be determined by the said governor and company, an account shall be taken of the Bank of England notes delivered to such bankers respectively by the said governor and company within three months next preceding, and of such of the said Bank of England notes as shall have been returned to the Bank of England, and the balance shall be deemed to be the amount of the Bank of England notes issued by such bankers respectively and kept in circulation; and a similar account shall be taken at intervals of three calendar months; and the average of the balances ascertained on taking four such accounts shall be deemed to be the average amount of Bank of England notes issued by such bankers respectively and kept in circulation during the year 1845, and on which amount such bankers are respectively to receive the aforesaid composition of 1 per cent. for the year 1845; and similar accounts shall be taken in each succeeding year; but in each year such accounts shall be taken in different months from those in which the accounts of the last preceding year were taken, and on different days of the month, such months and days to be determined by the said governor and company; and the amount of the composition payable as aforesaid shall be paid by the said governor and company out of their own funds; and in case any difference shall arise between any of such bankers and the governor and company of the Bank of England in respect of the composition payable as aforesaid, the same shall be determined by the Chancellor of the Exchequer for the time being, or by some person to be named by him, and the decision of the Chancellor of the Exchequer, or his nominee, shall be final and conclusive: provided always, that it shall be lawful for any banker named in the schedule hereto annexed marked (C) to discontinue the receipt of such composition as aforesaid, but no such banker shall by such discontinuance as aforesaid thereby acquire any right or title to issue bank notes. (Sec. 23.)

Bank of England to be allowed to compound with Issuing Banks.—It shall be lawful for the said governor and company to agree with every banker who under the provisions of this Act shall be entitled to issue bank notes, to allow to such banker a composition at the rate of 1 per cent. per annum on the amount of Bank of England notes which shall be issued and kept in circulation by such banker, as a consideration for his relinquishment of the privilege of issuing his own bank notes; and all the provisions herein contained for ascertaining and determining the amount of composition payable to the several bankers named in the schedule hereto marked (C) shall apply to all such other bankers with whom the said governor and company are hereby authorised to agree as aforesaid: provided that the amount of composi-

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tion payable to such bankers as last aforesaid shall in every case in which an increase of securities in the issue department shall have been authorised by any order in council be deducted out of the amount payable by the said governor and company to the public under the provisions herein contained: provided always, that the total sum payable to any banker under the provisions herein contained by way of composition as aforesaid, in any one year, shall not exceed, in case of the bankers mentioned in the schedule hereto marked (C), 1 per cent. on the several sums set against the names of such bankers respectively in the list and statement delivered to the commissioners of stamps as aforesaid, and in the case of other bankers shall not exceed 1 per cent. on the amount of bank notes which such bankers respectively would otherwise be entitled to issue under the provisions herein contained. (Sec. 24.)

Compositions to cease on 1st August, 1856.—All the compositions payable to the several bankers mentioned in the schedule hereto marked (C), and such other bankers as shall agree with the said governor and company to discontinue the issue of their own bank notes as aforesaid, shall, if not previously determined by the act of such banker as herein-before provided, cease and determine on the 1st day of August, 1856, or on any earlier day on which Parliament may prohibit the issue of bank notes. (Sec. 25.)

Banks within Sixty-five miles of London may accept, &c. Bills.—From and after the passing of this Act it shall be lawful for any society or company or any persons in partnership, though exceeding six in number, carrying on the business of banking in London, or within 65 miles thereof, to draw, accept, or endorse bills of exchange, not being payable to bearer on demand, anything in the herein-before recited Act passed in the fourth year of the reign of his said Majesty King William IV., or in any other Act, to the contrary notwithstanding. (Sec. 26.)

Bank to enjoy Privileges, subject to Redemption.—The said governor and company of the Bank of England shall have and enjoy such exclusive privilege of banking as is given by this Act, upon such terms and conditions, and subject to the termination thereof at such time and in such manner as is by this Act provided and specified; and all and every the powers and authorities, franchises, privileges, and advantages given or recognised by the said recited Act, 3 & 4 Wm. IV. c. 98, as belonging to or enjoyed by the said governor and company of the Bank of England, or by any subsequent Act or Acts of Parliament, shall be and the same are hereby declared to be in full force, and continued by this Act, except so far as the same are altered by this Act; subject, nevertheless, to redemption upon the terms and conditions following; viz. at any time upon 12 months' notice to be given after the 1st day of August, 1855, and upon repayment by Parliament to the said governor and company or their successors of the sum of 11,015,100*l.*, being the debt now due from the public to the said governor and company, without any deduction, discount, or abatement whatsoever, and upon payment to the said governor and company and their successors of all arrears of the sum of 100,000*l.* per annum, in the last-mentioned Act mentioned, together with the interest or annuities payable upon the said debt or in respect thereof, and also upon repayment of all the principal and interest which shall be owing unto the said governor and company and their successors upon all such tallies, exchequer orders, exchequer bills, or parliamentary funds which the said governor and company or their successors shall have remaining in their hands or be entitled to at the time of such notice to be given as last aforesaid, then and in such case, and not till then, the said exclusive privileges of banking granted by this Act shall cease and determine at the expiration of such notice of 12 months: and any vote or resolution of the House of Commons, signified under the hand of the Speaker of the said House in writing, and delivered at the public office of the said governor and company, shall be deemed and adjudged to be a sufficient notice. (Sec. 27.)

Return of the Bank Notes issued from April 11, 1860, to February 7, 1866, on the first Wednesday of each month: distinguishing Notes held by the Public, and the Bank, and the Securities on which the Issue was paid.

Week ending	Notes held by the Public	Notes held by the Bank	Total Issue	Bullion
1860	£	£	£	£
April 11	23,467,000	4,922,000	28,389,000	13,914,000
May 2	22,225,000	6,367,000	28,592,000	14,119,000
June 6	21,208,000	8,388,000	29,596,000	15,181,000
July 4	21,900,000	8,260,000	30,227,000	15,752,000
August 1	22,069,000	7,427,000	29,496,000	15,021,000
September 5	21,400,000	8,481,000	29,914,000	15,439,000
October 3	21,053,000	7,589,000	28,642,000	15,167,000
November 7	21,200,000	6,429,000	27,635,000	13,160,000
December 5	20,207,000	7,198,000	27,405,000	12,930,000
1861				
January 2	20,511,000	5,900,000	26,411,000	11,936,000
February 6	19,879,000	5,809,000	25,188,000	11,013,000
March 6	19,295,000	6,354,000	25,627,000	11,152,000
April 3	19,524,000	6,844,000	26,668,000	12,193,000
May 1	20,307,000	6,208,000	26,515,000	12,040,000
June 5	19,865,000	5,680,000	25,545,000	11,070,000
July 3	20,063,000	5,834,000	25,897,000	11,222,000
August 7	20,547,000	5,785,000	26,332,000	11,481,000
September 4	20,259,000	6,714,000	26,973,000	12,325,000
October 2	21,088,000	6,023,000	28,011,000	13,361,000
November 6	20,775,000	7,278,000	28,053,000	13,404,000
December 4	20,010,000	8,988,000	28,998,000	14,288,000
1862				
January 1	20,165,000	9,627,000	29,792,000	15,142,000
February 5	20,735,000	9,070,000	29,805,000	15,115,000
March 5	20,531,000	8,942,000	29,473,000	14,823,000
April 2	20,825,000	9,787,000	30,612,000	15,962,000
May 7	21,049,000	10,004,000	31,053,000	16,103,000
June 4	20,951,000	8,445,000	29,396,000	14,446,000
July 2	21,600,000	8,474,000	30,080,000	15,130,000
August 6	22,587,000	9,198,000	31,785,000	17,135,000
September 3	21,589,000	10,153,000	31,662,000	17,012,000
October 1	21,535,000	9,366,000	30,899,000	16,249,000
November 5	21,100,000	8,111,000	29,211,000	14,561,000
December 3	19,751,000	8,990,000	28,741,000	14,094,000
1863				
January 7	20,228,000	8,208,000	28,436,000	13,786,000
February 4	20,071,000	7,594,000	27,665,000	12,815,000
March 4	19,690,000	8,567,000	28,257,000	13,607,000
April 1	20,368,000	8,570,000	28,938,000	14,288,000
May 6	20,774,000	8,467,000	29,241,000	14,291,000
June 3	20,468,000	7,746,000	28,214,000	13,564,000
July 1	21,140,000	7,734,000	28,874,000	14,224,000
August 5	21,675,000	7,001,000	28,676,000	14,026,000
September 2	21,191,000	8,193,000	29,384,000	14,734,000
October 7	21,768,000	7,052,000	28,820,000	14,170,000
November 4	22,011,000	5,834,000	27,845,000	13,195,000
December 2	21,072,000	6,062,000	27,084,000	12,434,000
1864				
January 6	20,718,000	7,446,000	28,164,000	13,514,000
February 3	20,556,000	6,720,000	27,276,000	12,626,000
March 2	20,243,000	7,671,000	27,914,000	13,264,000
April 6	21,003,000	6,584,000	27,587,000	12,937,000
May 4	21,181,000	4,944,000	26,428,000	11,778,000
June 1	20,888,000	7,147,000	28,035,000	13,385,000
July 6	21,381,000	6,518,000	27,899,000	13,249,000
August 3	21,929,000	4,893,000	26,822,000	12,172,000
September 7	20,810,000	6,067,000	26,877,000	12,227,000
October 5	21,353,000	5,574,000	26,927,000	12,277,000
November 2	21,014,000	6,177,000	27,221,000	12,571,000
December 7	19,642,000	8,099,000	27,741,000	13,091,000
1865				
January 4	20,315,000	7,454,000	27,969,000	13,319,000
February 1	20,534,000	7,852,000	28,386,000	13,736,000
March 1	19,933,000	8,728,000	28,661,000	14,011,000
April 5	20,903,000	8,149,000	29,052,000	14,402,000
May 3	21,603,000	6,503,000	28,106,000	13,456,000
June 7	21,164,000	8,377,000	29,541,000	14,891,000
July 5	22,221,000	7,554,000	29,775,000	15,125,000
August 2	22,646,000	5,605,000	28,251,000	13,601,000
September 6	21,702,000	6,370,000	28,072,000	13,422,000
October 4	22,728,000	4,362,000	27,090,000	12,440,000
November 1	21,947,000	7,315,000	27,162,000	12,512,000
December 6	20,756,000	5,580,000	26,335,000	11,685,000
1866				
January 3	21,777,000	5,253,000	27,030,000	12,380,000
February 7	21,016,000	5,907,000	26,923,000	12,273,000

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Interpretation Clause.—The term *bank notes* used in this Act shall extend and apply to all bills or notes for the payment of money to the bearer on demand other than bills or notes of the governor and company of the Bank of England; and the term *Bank of England notes* shall extend and apply to the promissory notes of the governor and company of the Bank of England payable to bearer on demand; and the term *banker* shall extend and apply to all corporations, societies, partnerships, and persons, and every individual person carrying on the business of banking, whether by the issue of bank notes or otherwise, except only the governor and company of the Bank of England; and the word *person* used in this Act shall include corporations; and the singular number in this Act shall include the plural number, and the plural number the singular, except where there is anything in the context repugnant to such construction; and the masculine gender in this Act shall include the feminine, except where there is anything in the context repugnant to such construction. (Sec. 28.)

An Account, pursuant to the Act 7 & 8 Vict. c. 32, for the Week ending on Wednesday, Aug. 7, 1867.

ISSUE DEPARTMENT.

	£		£
Notes issued	37,012,835	Government debt	11,015,100
		Other securities	3,984,900
		Gold coin and bullion	22,012,835
	£37,012,835		£37,012,835

BANKING DEPARTMENT.

	£		£
Proprietors' capital	14,553,000	Government securities	12,812,523
Rest	3,399,455	Other securities	16,763,503
Public deposits (including exchequer, savings-banks, commissioners of national debt, and dividend accounts)	5,189,684	Notes	12,699,355
		Gold and silver coin	1,212,729
Other deposits	19,856,932		
Seven days' and other bills	488,689		
	£43,487,760		£43,487,760

Aug. 8. F. May, Deputy Cashier.

Sec. V.—Management of the Bank of England.

Since 1826 the Bank has established branches in some of the great commercial towns, the mode and terms of conducting business at which have been described as follows:—

'The branch bank at Swansea (and the same is true of those established in other places) is to be a secure place of deposit for persons having occasion to make use of a bank for that purpose; such persons are said to have *drawing accounts*: to facilitate to the mercantile and trading classes the obtaining discounts of good and unexceptionable bills, founded upon real transactions, two approved names being required upon every bill or note discounted; these are called *discount accounts*. The applications of parties who desire to open discount accounts at the branch are forwarded to the parent establishment for approval, and an answer is generally received in about ten days. When approved, good bills may be discounted at the branch without reference to London. Bills payable at Swansea, London, or any other place where a branch is established, are discounted under this regulation. The dividends on any of the public funds, which are payable at the Bank of England, may be received at the branch by persons who have opened "drawing accounts," after signing powers of attorney for that purpose, which the branch will procure from London. No charge is made in this case, except the expense of the power of attorney and the postages incurred in transmitting it. Purchases and sales of every description of Government securities are effected by the branch at a charge corresponding to that made by the local bankers where the branch is situated. A commission, including brokerage in London, and all expenses of postage, is charged on paying at the Bank of England bills accepted by persons having drawing accounts at Swansea, such bills to be advised by the branch; also for granting letters of credit on London, or on the other branches. The branch grants bills on London, payable at seven days' date, without acceptance, for sums of 10*l.* and upwards. Persons having drawing accounts at Swansea may order money to be paid at the bank in London to their credit at Swansea, and *vice versâ*, at a charge of 6*d.* in lieu of postage. The branch may be called upon to change any notes issued and *dated* at Swansea; but they do not change the notes of the bank in London, nor receive them in payment, unless as a matter of courtesy where the parties are known. Bank post bills, which are accepted and due, are received at the branch from parties having drawing accounts, and taken to account without any charge for postage; but unaccepted bank post bills, which must be sent to London, are subject to the charge of postage, and taken to account when due. No interest is allowed on deposits. No advance is made by the branch upon any description of landed or other property, nor is any account allowed to be overdrawn. The notes are the same as those issued by the parent establishment, except being dated Swansea, and made payable there and in London. No note issued exceeds the sum of 500*l.*, and none are for a less amount than 5*l.*'

But though it might have been advisable to establish offices in Manchester, Birmingham, and one or two more great towns, for the interchange of bank-notes and gold, we much doubt whether the establishment of the branch banks has been advantageous. Speaking generally, it may be laid down that local affairs are best conducted by local agencies; and this is believed to be especially the case in banking. It is a business which is most likely to flourish when those by whom banks are established in country districts belong to those districts, and are well acquainted with the character and pursuits of those with whom they deal.

Bank of England in connection with Government.—The Bank of England transacts the whole business of Government. 'She acts not only,' says Adam Smith, 'as an ordinary bank, but as a great engine of state. She receives and pays the greater part of the annuities which are due to the creditors of the public; she circulates Exchequer bills; and she advances to the Government the annual amount of the land and malt taxes, which are frequently not paid till some years thereafter.'

Assistance rendered by Bank to the Mercantile Interest.—The greater part of the paper of the Bank has generally been issued in the way of advances or loans to Government, upon security of certain branches of the revenue, and in the purchase of Exchequer bills and bullion; but her issue through the medium of discounts and advances to individuals has also been at all times considerable, while during war, and in periods of distress, it is occasionally very great. Generally, however, the directors do not appear to have thought it advisable to enter into any very keen competition with private bankers in the discounting of mercantile paper. And hence it is that the rate of interest charged by the Bank for loans being usually equal to, and sometimes rather above, the market rate, comparatively few

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applications are made to her, in ordinary periods, for discounts. But, at the same time, every one who has any reasonable security to offer, knows where they may always be had; while the rate of interest charged by the Bank necessarily forms a *maximum* rate which no other establishment can exceed. When, however, any circumstances occur to occasion a pressure in the money market, or a difficulty of obtaining accommodation in the usual channels, the market rate of interest generally rises to the rate fixed by the Bank, how high soever that may be, and on such occasions the private bankers, and the public generally, resort to the Bank for aid. She then becomes, as it were, *a bank of support*; and has, as such, on various occasions, rendered good service to public credit, and to the commercial interests of the country.

But, at the same time, it must be admitted that the interference of the Bank in assisting the commercial interest is a matter that requires the greatest consideration, and that it can only be safely undertaken in rare instances and under very peculiar circumstances. We repeat again, that however a drain for gold may originate, the fact of its existence shows conclusively that gold is more valuable abroad than here, and consequently that the currency is redundant and ought to be diminished. Under such circumstances, it is the imperative duty of the directors, if they would prevent the total exhaustion of their banking reserve, not to fill up the vacuum caused by the exchange of notes for bullion, by the issue of fresh notes. It is at such periods, no doubt, that the applications for assistance are the most urgent; but it is impossible to yield to them, and at the same time to enforce that systematical and continuous reduction of the issues which is indispensable for the safety of the banking department of the Bank. She can no longer assist herself, as on former occasions, by making fresh issues of paper. And in truth that resource was of no real advantage to her, but the reverse. It tempted her to disregard those great principles and warnings which never can be neglected with impunity. The great commercial crises that took place in 1793, in 1815-16, in 1825, and in 1836-39, were all increased in violence and destructiveness by the Bank declining to narrow her issues immediately on the exchange becoming unfavourable, and deferring her repressive action till too late a period.

Methods by which the Bank may reduce her Issues.—When the Bank sets about reducing her issues, she may effect her object in various ways, viz., by rejecting a portion of the bills sent to her for discount, by raising the rate of interest at which she discounts or makes advances, by shortening the dates or *échéance* of the bills which she negotiates, and by selling bullion and securities. Of these means, some may be more or less expedient at one time, and some at another. On the whole, however, the first mode, or the rejection of bills, seems to be, in all respects, the most objectionable. The Bank will not, of course, discount any bill in regard to the payment of which there can be any reasonable doubt. And when the solidity of the bills offered for discount cannot be objected to, it becomes an invidious, if not an unjust proceeding, to discount some and reject others. Under such circumstances, the true plan is to raise the rate of interest, for while such rise operates equally and universally, it makes rich parties, or those who can avail themselves of other means of accommodation, withhold their demands, and thus effect its object in the fairest and easiest way, and without sacrificing individuals.

Inasmuch, however, as any sudden rise in the rate of discount, especially if it be considerable, is always productive of more or less inconvenience to the mercantile world, it may be proper, when the exchange becomes unfavourable, to endeavour to restore it to par by shortening the dates of bills, and, if circumstances will permit, by selling bullion and securities. But, at all events, the redundancy of the currency must be got rid of, and the exchange redressed; and if the other means at the disposal of the Bank be inadequate to effect this object, a rise in the rate of interest should be at once resorted to, and carried to the necessary extent.

It may be observed, with respect to the sale of securities, that they may be wholly or partly paid by drafts against deposits held by the Bank. But, if so, it is clear that, at all events, her debts, or the obligation under which she lies to pay notes or gold to depositors when demanded, will be in so far reduced.

The fact that the applications for discount at the Bank are usually most numerous when the rate of discount is highest, has caused some doubts to be entertained in regard to the efficacy of a rise in that rate to raise the value of the currency, and restore an unfavourable exchange to par.

But the additional demand for discounts, on the occasions referred to, is most commonly a consequence of the increased difficulty of obtaining them in other quarters; and when the rate of discount becomes unusually high, apprehensions of a revulsion begin to be entertained, and bankers and others carry bills to the Bank, not that they may get gold to send abroad, but that they may provide for their own security, by getting a supply of notes or gold, or both, to keep in reserve. And it is further to be observed, that the rise in the rate of interest, whether it be, as it usually is, the result of capital becoming scarcer or more productive, or of a temporary increase in the demand for money, uniformly operates to hinder the exportation of the latter. That such is the case is evinced by what took place in 1825, and in 1836–37. And on a more recent occasion, notwithstanding the large sums lent by the Bank on bills and advances of one sort or other, the 10 per cent. rate of interest charged by her was sufficient to stop the efflux of bullion to the Continent and the United States; and, but for the abuse of credit by some private establishments, the restoration of the exchange to par would have been effected without any internal revulsion.

Mischievous Effects of discounting Bills at long Dates.—The Bank of England rarely discounts bills that have more than two, or at most three, months to run, and it were well were this rule generally observed by other establishments. The discounting of bills at long dates is a powerful stimulus to unsafe speculations. When individuals obtain loans which they are not to be called upon to pay for six, twelve, or, perhaps, eighteen months, they are tempted to adventure in speculations which are not expected to be wound up till some proportionally distant period; and as these not unfrequently fail, the consequence is that, when the bills become due, there is commonly little or no provision made for their payment. In such cases the discounters, to avert an imminent loss, sometimes consent to renew the bills. But, while a proceeding of this sort is rarely productive of ultimate advantage to either party, the fact of its having taken place makes other adventurers reckon that in the event of their speculations proving to be less successful than they anticipated, their bills will be treated in the same manner, and thus aggravates and extends the evil.

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In other respects, too, the discount of bills at long dates, or their renewal, or the making of permanent loans, is altogether inconsistent with sound banking principles, for it prevents the bankers from having that command over their resources which is advantageous at all times, and indispensable in periods of difficulty or distress.

Distinction between real and accommodation Bills.—In the discounting of bills, a great deal of stress is usually laid, or pretended to be laid, on the distinction between those that arise out of real transactions and those that are fictitious, or that are intended for accommodation purposes. The former are said to be legitimate, while the latter are stigmatised as illegitimate. But Mr. Thornton (*On the Paper Credit of Great Britain*, ch. ii.) has shown that the difference between these two classes of bills is neither so well marked nor so wide as most persons suppose. A notion seems to be generally entertained that all real bills are drawn against produce of one sort or other, which, or its value, is supposed to form a fund for their payment. Such, however, is not always, nor even most commonly, the case. A, for example, sells to B certain produce, for which he draws a bill at sixty days' date. But prices are rising, trade is brisk, or a spirit of speculation is afloat, and in a week or two (sometimes much less) B sells the produce at an advance to C, who thereafter sells it to D, and so on. Hence it may, and in fact frequently does, happen, that bills amounting to four, five, or even ten times the value of a quantity of merchandise, have grown out of its successive sales, before the first bill of the series has become due. And not only this, but bills are themselves very frequently rediscounted; and in this case the credit of the last indorser is generally the only thing looked to; and there is not, perhaps, one case in ten in which any enquiries are made in regard to the origin and history of the bills, though they are often of the most questionable description.

On the whole, therefore, it would seem that the real or presumed solidity of the parties signing a bill, and responsible for its payment, is the only safe criterion by which to judge whether it should or should not be discounted. But the fact of a merchant or other trader offering accommodation bills for discount ought unquestionably to excite a suspicion that he is trading beyond his capital. Enquiries of the most searching description should forthwith be instituted; and unless satisfactory explanations are given, his paper should be rejected. On the same principle, the offering of bills for rediscount ought to awaken suspicions of the bankers and others who resort to so questionable a mode of carrying on business. But, except in so far as a feeling of distrust may be thus very properly excited, there does not appear to be anything in an accommodation bill *per se* to hinder it from coming within the pale of negotiability. It is a mode of obtaining a loan from a bank; and when the character of the bill is known to the banker, or is openly declared, it does not appear to be an objectionable mode.

Besides bills avowedly intended for accommodation purposes, another and a different variety of such bills is drawn by parties at a distance from each other, often men of straw, and made to appear as if they were bottomed on real transactions. And we are sorry to say, that bills of this sort are always current, and often to a large extent. Of course no person of respectability can be knowingly connected with such bills, which are almost always put in motion either to bolster up some bankrupt concern, or to cheat and defraud the public. But despite the mischief of which they are productive, it appears to be pretty generally supposed that the currency of these bills is an evil which cannot be prevented. There can, however, be no real doubt that it may, at all events, be very greatly diminished; and this desirable result would be effected were it enacted that all bills should henceforth bear upon their face what they really are—that those that are intended for accommodation purposes shall have at their head the words *Accommodation Bill;* and that those only shall bear to be for 'value received' that have grown out of bonâ fide transfers of property. An enactment of this sort could not be felt as a grievance by any one unless he had a fraudulent purpose in view. And were the impressing of a false character on a bill made a criminal offence punishable by three years' imprisonment, or some such penalty, there is every probability that a formidable check would be given to the issue of spurious bills, and to the manifold abuses to which the practice gives rise.

Bill-discounters who have got fictitious paper on their hands, and attempt, as has been done, to get rid of it by concealing its character, or representing it in a favourable light, make themselves parties to the fraud. Such conduct is so very flagitious, that when it can be fairly brought home to the parties, it should subject them to the severest penalties.

Rates of Discount charged by Bank.—The rates of discount charged by the Bank fluctuate with the variations in the demand for money, and in the rate of interest. The rates of discount since 1856 have been as follow:—

Rates of Discount.

	Per cent.		Per cent.		Per cent.		Per cent.		Per cent.
1856		Dec.	2½	Aug.	5	1864		Oct.	5
Jan.	6	Aver.	3½	Aug.	4½	Jan.	8	Oct.	6
May	5½			Aug.	4	Feb.	7	Oct.	7
June	4½	1859		Sept.	3½	Feb.	6	Nov.	6
Oct.	6	April	3½	Nov.	3	April	7	Dec.	7
Nov.	7	May	4½	Aver.	5½	May	8	Aver.	4½
Dec.	6	June	3½			May	9		
Aver.	5½	June	3			May	8	1866	
		July	2½	1862		May	7	Jan.	8
1857		Aver.	3	Jan.	2½	June	6	Feb.	7
April	6½	1860		May	3	July	7	March	6
June	6	Jan.	3	July	2½	Aug.	8	May	7
July	5½	Feb.	4	July	2	Sept.	9	May	8
Oct.	6	April	5	Oct.	3	Nov.	8	May	9
Oct.	7	May	4½	Aver.	2½	Nov.	7	May	10
Nov.	8	May	4			Dec.	6	Aug.	8
Nov.	9	Nov.	4½	1863		Aver.	7½	Aug.	7
Nov.	10	Nov.	5	Jan.	4			Aug.	6
Dec.	8	Nov.	6	Jan.	5	1865		Sept.	5
Aver.	7	Dec.	5	Feb.	4	Jan.	5½	Sept.	4½
		Dec.	6	April	3½	Jan.	5	Nov.	4
		Aver.	4½	April	5	March	4½	Dec.	3½
1858				May	3½	March	4	Aver.	7½
Jan.	7½	1861		May	4	May	4½		
Jan.	5	Jan.	7	Nov.	5	May	4		
Jan.	3½	Feb.	8	Nov.	6	June	3½	1867	
Feb.	3½	March	7	Dec.	7	June	3	Feb.	3
March	3	April	6	Dec.	8	July	3½	May	2½
April	2½	April	5	Dec.	7	Aug.	4	July	2
July	3	May	6	Aver.	4½	Sept.	4½	Aver.	2½

The dividends on Bank stock, from the establishment of the company to 1867, have been as follow:—

Years	Dividend	Years	Dividend
1694	8 per cent.	1789	7 per cent.
1697	9 ,,	1801	10 ,,
1708 to 1729	Varied from 9 to 5½ per cent.	1825	8 ,,
1730	6 ,,	1839	7 ,,
1730	5½ ,,	1852	7½ ,,
1731	6 ,,	1853	8 ,,
1738	5½ ,,	1856	9½ ,,
1747	5 ,,	1859	8½ ,,
1753	4½ ,,	1863	8 ,,
1764	5 ,,	1864	9½ ,,
1767	5½ ,,	1865	11½ ,,
1781	6 ,,	1866	10½ ,,
		1867	10 ,,

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Bank does not allow Interest on Deposits.—The Bank of England does not allow, either at the head office in London or at her branches, any interest on deposits; and in doing so she acts wisely. Notwithstanding the non-payment of interest, she has often very large amounts of deposits on her hands, and were she to pay interest, the probability is that they would be very greatly increased, and might, in periods of difficulty, seriously compromise her safety. At present the Bank may either retain deposits or invest them in those securities from which they may be most easily withdrawn. But if she allowed interest, the case would be different, and she would be obliged to look quite as much or more to the profits to be made by investments as to the facility of repossessing herself of funds. We beg, in corroboration of what has now been stated, to draw the reader's attention to the following extract from the evidence of Mr. Weguelin, late Governor of the Bank, before the Committee of 1857:—

'We,' said he, 'at the Bank of England, have always considered that the proper functions of a banker were to keep the spare cash of his customer, such cash as his customer required for his daily expenditure, for the sudden demands of his business, and any accidental accumulation which might happen before the customer had occasion to invest it. That is contrasted with the system pursued by the joint-stock banks. The joint-stock bank invites a large deposit by offering a certain rate of interest for the deposit; in point of fact, the joint-stock bank becomes the investor of the money instead of the customer. The customer of a joint-stock bank does not himself invest his own money, but he employs the joint-stock bank to do it, taking the guarantee of the joint-stock bank, and taking, possibly, a lower rate of interest. Now that system, if applied to the Bank of England, would be, I think, very prejudicial to the public interests. It would, in the first place, force upon the Bank of England to invest its reserves much more closely than it does now. If it had to pay interest upon its deposits, it could only do so by investing them in some securities that would pay a higher rate of interest than that which it pays. Its deposits are also of that particular character which would render it still more inexpedient that they should be closely invested. They consist, in the first place, of Government deposits, which rise from a low rate at one period of a quarter up to 5,000,000*l.* or 6,000,000*l.* higher at another period of a quarter, and again collapse to a very low rate at another period. Again, the private deposits consist, to a certain extent, of the deposits of the bankers and the joint-stock banks of London. Those deposits are the amounts which those bankers require to work their own business. Consequently, they are not deposits which should be very closely invested by the Bank of England. In times when there is a great accumulation of deposits in the Bank of England, it is because the public are not able at those times to find investments to their mind to employ those deposits; and, consequently, it is not at all likely that the Bank of England, if that is the case with the public generally, will be able to find investments which the public themselves have not been able to do. All these reasons combined would lead me to think that to force a system upon the Bank of England by which it should be obliged to employ its deposits very closely—much more closely than it does at present—would be not only prejudicial and unsafe as regards the Bank of England, but would be prejudicial to the public interest.' (*Q.* 159.)

The truth is, that the whole subject of deposits is beset with difficulties. The extent to which it has been already carried has deeply endangered the stability of the banking system, and we have seen that it is indispensable it should be subjected to regulation.

Previously to 1786 the Bank received an allowance for trouble in paying the dividends, superintending the transfer of the stock &c. of the national debt of 562*l.* 10*s.* a million on its amount. In 1786 this allowance was reduced to 450*l.* a million, the Bank being, at the same time, entitled to a considerable allowance for her trouble in receiving contributions on loans, lotteries &c. This, though long regarded as a very improvident arrangement on the part of the public, was acquiesced in till 1808, when the allowance on account of management was reduced to 340*l.* per million on 600,000,000*l.* of the public debt, and to 300*l.* per million on all that it exceeded that sum, exclusive of some separate allowances for annuities &c. The impression, however, was still entertained that the allowances for management should be further reduced, and this has been effected in the interim.

Exclusive of her functions as public banker, and manager of the public debt, the Bank of England is connected with Government through the circulation. We have seen that she is entitled to issue upwards of 14,000,000*l.* upon securities, that is, on the credit of the funds she has lent to Government. But for these she receives about 3 per cent. interest, and such being the case, the public is clearly entitled to a portion, if not to the whole amount, of the profits realised by the Bank on the issue of these 14,000,000*l.* It is difficult to say how much this may amount to. The issue department of the Bank seldom reissues notes, but for the most part destroys them as soon as they are returned to it. This practice is said to be necessary to enable the Bank to obviate fraud, by keeping a proper account of the numbers of the notes afloat. An opinion is, however, pretty generally entertained that this might be effected by a less expensive process than that which is now resorted to. And, certainly, it seems to be a very wasteful proceeding, that a quantity of newly manufactured notes issued by the Bank in the forenoon, and returned to her in the afternoon, should not be reissued, but consigned to the flames. The Scotch banks are justly censurable for keeping their notes too long afloat, but this is running with a vengeance into the opposite extreme.

But, as it is, the cost of maintaining an issue of 14,000,000*l.* is estimated by the Bank at about 113,000*l.* a year; and taking the gross profits of the issue at 3 per cent., or 420,000*l.*, the nett profits may be estimated at 307,000*l.* a year; and of this sum the Bank pays to Government 180,000*l.*, viz. 60,000*l.* in lieu of the old charge for stamp duty, abolished in 1844, and a further sum of 120,000*l.*, leaving the Bank 127,000*l.* for her share of the profits. And so long as the cost of the issues remains at about its present amount, we do not know that there is much to object to in this arrangement. Probably, however, were the allowance to Government further increased by some 50,000*l.* or 60,000*l.*, the Bank might find means, without injury to the public, of reissuing her notes, or of otherwise reducing the cost of their circulation. During the year ended March 31, 1856, the payments made to the Bank for managing the national debt and annuities amounted to 95,875*l.*

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It should be observed that the responsibility and expense incurred by the Bank, in managing the public debt, are very great. The temptation to the commission of fraud, in transferring stock from one individual to another, and in the payment of the dividends, is well known; and notwithstanding the skilfully devised system of checks adopted by the Bank for its prevention, she has frequently sustained very great losses by forgery and otherwise. In 1803 the Bank lost, through a fraud committed by one of her principal cashiers, Mr. Aslett, no less than 340,000*l.*; and the forgeries of Fauntleroy, the banker, cost her a still larger sum! At an average of the ten years ending with 1831, the Bank lost, through forgeries on the public funds, 40,204*l.* a-year. (*Report on Bank Charter*, App. p. 165.)

Besides the transactions alluded to, the Bank entered, on March 20, 1823, into an engagement with Government with respect to the public pensions and annuities, or, as they have been more commonly termed, the *dead weight*. At the end of the war, the naval and military pensions, superannuated allowances &c. amounted to above 5,000,000*l.* a-year. They would, of course, have been gradually lessened, and ultimately extinguished, by the death of the parties. But it was resolved in 1822 to attempt to spread the burden equally over the whole period of *forty-five* years, during which it was calculated the annuities would continue to decrease. To effect this purpose, it was supposed that, upon Government offering to pay 2,800,000*l.* a-year for forty-five years, capitalists would be found who would undertake to pay the entire annuities, according to a graduated scale previously determined upon, making the first year a payment of 4,900,000*l.*, and gradually decreasing the payments until the forty-fifth and last year, when they were to amount to only 300,000*l.* This supposition was not, however, realised. No capitalists were found willing to enter into such distant engagements. But in 1823 the Bank agreed, on condition of receiving an annuity of 585,740*l.* for *forty-four* years, commencing on April 5, 1823, to pay, on account of the pensions &c. at different specified periods, between the years 1823 and 1828, both inclusive, the sum of 13,089,419*l.* (4 Geo. IV. c. 22.)

Formerly the business transacted at the Bank was so much encumbered with forms and conditions, that the generality of merchants and ordinary people rarely thought of employing her to keep their money or make their payments. But in this respect an entire change has been effected. Cheques, the minimum amount of which was formerly 10*l.*, may now be drawn of any amount, great or small; and all sorts of banking business is conducted with facility and despatch, and, we may add, with perfect security.

The Bank opens banking accounts, or, as they are called, 'drawing accounts,' for the safe custody, and the receipt and payment of cash, not only with merchants and traders, but with all persons who choose to keep their money at a banker's and to draw cheques against it. The Bank also takes charge of their customers' bills of exchange, exchequer bills, and other securities, and does all that is needful either in the collection of bills of exchange, the exchange of exchequer bills, or the receipt of dividends, and so forth, free of any charge. Plate-chests, and deed and security boxes, may be deposited, free of expense, by customers, for safe custody. The Bank looks to the average balance of cash on each account to compensate for the trouble and expense of keeping it, and in this respect the requirements of the Bank are certainly not greater than those of ordinary bankers. No particular sum is required to be lodged on opening an account; it is only necessary that the party should be known as respectable, and in a condition to require a banking account. A commission is now (1868) charged if the account be not considered remunerative. But the Bank receives and holds sums of money for safe custody for parties who have no current accounts.

The following are the regulations under which accounts are conducted:—1. All letters should be addressed to the chief cashier.

2. It is desirable that drafts should be drawn upon cheques furnished by the Bank.

3. Cheques upon City bankers, eastward of King Street, Cheapside,

Paid in by 12 o'clock may be drawn for after 1.
Do. 2 o'clock „ „ after 3.

4. Cheques paid in after 2, and before 3 o'clock, and cheques upon all other London bankers paid in before 12 o'clock, may be drawn for on the following morning.

5. Cheques paid in after 3 o'clock are sent out at 9 the following morning, and may be drawn for as soon as received.

6. Cheques on country bankers paid in before 11 o'clock (on Saturdays 10 o'clock) will be collected through the country clearing, and go to account 2 days after date of paying in.

7. Dividend warrants are received at the drawing office until 4 o'clock in the afternoon for all persons having accounts at the Bank.

8. It is requested that notice be given at the drawing office of bills accepted payable at the Bank, with the date of their maturity.

9. Persons keeping a drawing account with the Bank (although not having a discount account) may tender bills for discount through the drawing office. Application for discounts, or for advances on stock, &c., must be made before 2 o'clock.

10. Bills of exchange and notes not paid when due will be noted.

11. The Bank will make purchases or sales of British or foreign securities upon an order in writing addressed to the chief cashier; and dividends on stock may be received under powers of attorney granted to the cashiers of the Bank.

12. Exchequer bills, bonds, railway debentures &c. may be deposited, and the interest, when payable, will be received and placed to account.

13. Credits paid in to account are received without the Bank book, and are afterwards entered therein without the party claiming them.

14. Notes of country bankers, payable in London, are sent out the same day for payment if paid in before 3 o'clock.

15. The pass-books should be left at the drawing office, at least once a month, to be written up.

16. Where post-bills are required, or a payment is to be made to any office of the Bank by cheque on the Bank of England, the cheque must be presented to the office on which it is drawn, and exchanged for an order on the post-bill office, or on the office where the payment is to be made.

17. Cash-boxes taken in, contents unknown, for such parties as keep accounts at the Bank.

18. A person having a drawing account may have a discount account; but no person can have the latter without having also the former. When a discount account is opened, the signatures of the parties are entered in a book, and powers of attorney are granted empowering the persons named in them to act for their principals. Bills of exchange having more than 95 days to run are not eligible for discount.

N.B.—All changes in the residence of persons keeping cash at the Bank are requested to be made

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known at the drawing office; and it is particularly requested not to offer any gratuities to the clerks of the banking offices, such gratuities being strictly forbidden.

There are no general holidays at the Bank except Christmas and Good Friday, though May 1 and November 1 are held as such in the transfer offices.

We subjoin an account of the days for transferring stock, and when the dividends are due at the Bank:—

Transfer Days.—The transfer days are now Tuesdays, Wednesdays, Thursdays, and Fridays. Dividends are due at the following dates after an interval of three days, or if a Sunday intervenes, of four days.

At the Bank.

Bank Stock	April 5, Oct. 10	
3 per Cent. Cons.	Jan. 5, July 5	
3 per Cent. 1726		
3 per Cent. Reduc.	April 5, Oct. 10	
New 3 per Cent. Annuit.		
New 3½ per Cent. Annuit.	Jan. 5, July 5	
East India Stock		
East India Bonds	Mar. 31, Sep. 30	
Old 3 per Cent. Annuit.	April 5, Oct. 10	
3 per Cent. 1751	Jan. 5, July 5	
New 3½ per Cent.		

Tickets for preparing transfer of stock must be given in at each office before one o'clock. Private transfers may be made at other times than as above, by paying 2*s.* 6*d.* extra for each transfer; but no transfer can be made after one o'clock on Saturdays.

Transfer at the Bank must be made by half-past two o'clock.

Expense of Transfer.

Bank Stock, not exceeding 25*l.* 9*s*; above that sum, 12*s*.
India Stock, 1*l.* 10*s*.; non transfer days, 2*s.* 6*d.* extra. Transfers in Consols and other Government Stocks are exempt from duty.

Powers of attorney for the sale or transfer of stock to be left at the Bank &c. for examination one day before they can be acted upon: if for receiving dividends, they may be left at any time.

The expense of a power of attorney varies from 1*s.* to 1*l.* 10*s.* If wanted for the same day, half-past twelve o'clock is the latest time for receiving orders. The boxes for receiving powers of attorney for sale close at two.

Probates of wills, letters of administration, and other proofs of decease, must be left at the Bank &c. for registration, from two to three clear days, exclusive of holidays.

Stock cannot be added to any account (whether single or joint) in which the decease of the individual, or one or more of a joint party, has taken place; and the decease to be proved as soon as practicable. Powers of attorney, in case of the death of the party or parties granting them, become void.

The unaltered possession of 500*l.* or upwards Bank stock, for six months clear, gives the proprietor a vote.

Sec. VI.—Circulation of the Bank of England, and of the English Provincial Banks.

No. I.—*An Account of the Average Market Price of Bullion in each Year from* 1800 *to* 1821 *(taken from Official Documents); of the Average Value per Cent. of the Currency, estimated by the Market Price of Gold for the same Period; and of the Average Depreciation per Cent.*

Years	Average Price of Gold per oz.	Average per Cent. of the Value of the Currency	Average Depreciation per Cent.
	£ s. d.	£ s. d.	£ s. d.
1800	3 17 10½	100 0 0	Nil.
1801	4 5 0	91 12 4	8 7 8
1802	4 4 0	92 14 2	7 5 10
1803	4 0 0	97 6 10	2 13 2
1804	4 0 0	97 6 10	2 13 2
1805	4 0 0	97 6 10	2 13 2
1806	4 0 0	97 6 10	2 13 2
1807	4 0 0	97 6 10	2 13 2
1808	4 0 0	97 6 10	2 13 2
1809	4 5 0	91 12 4	8 7 8
1810	4 10 0	86 10 6	13 9 6
1811	4 4 6	92 3 2	7 16 10
1812	4 15 6	79 5 5	20 14 9
1813	5 1 0	77 2 0	22 18 0
1814	5 4 0	74 17 6	25 2 6
1815	4 13 6	83 5 9	16 14 3
1816	4 13 6	83 5 9	16 14 3
1817	4 0 0	97 6 10	2 13 2
1818	4 0 0	97 6 10	2 13 2
1819	4 1 6	95 11 0	4 9 0
1820	3 19 11	97 8 0	2 12 0
1821	3 17 10½	100 0 0	Nil.

No. II.—*An Account of the Notes, Post Bills &c. of the Bank of England in Circulation on the* 28*th of February and* 31*st of August in each Year from* 1698 *to* 1792 *both included, as near as the same can be made up.*

Year	Feb. 28	Aug. 31	Year	Feb. 28	Aug. 31	Year	Feb. 28	Aug. 31
	£	£		£	£		£	£
1698	1,221,000	1,240,000	1730	3,998,000	4,417,000	1762	5,741,000	5,887,000
1699	741,000	719,000	1731	4,152,000	5,250,000	1763	6,000,000	5,515,000
1700	958,000	781,000	1732	4,252,000	4,902,000	1764	5,501,000	6,211,000
1701	799,000	761,000	1733	4,585,000	4,545,000	1765	6,317,000	5,356,000
1702	921,000	1,051,000	1734	4,672,000	4,672,000	1766	5,618,000	5,246,000
1703	954,000	1,214,000	1735	4,698,000	4,720,000	1767	5,211,000	4,883,000
1704	962,000	946,000	1736	4,998,000	5,078,000	1768	5,779,000	5,416,000
1705	557,000	1,013,000	1737	5,218,000	4,415,000	1769	5,707,000	5,411,000
1706	907,000	807,000	1738	4,766,000	4,969,000	1770	5,937,000	5,737,000
1707	960,000	825,000	1739	4,347,000	4,158,000	1771	6,823,000	6,014,000
1708	649,000	599,000	1740	4,561,000	4,444,000	1772	5,962,000	5,998,000
1709	707,000	691,000	1741	4,841,000	4,984,000	1773	6,037,000	6,362,000
1710	602,000	481,000	1742	4,879,000	4,711,000	1774	7,551,000	9,886,000
1711	478,000	573,000	1743	4,655,000	4,250,000	1775	9,139,000	8,398,000
1712	739,000	2,025,000	1744	4,284,000	4,271,000	1776	8,709,000	8,552,000
1713	1,292,000	891,000	1745	4,280,000	3,165,000	1777	8,712,000	7,764,000
1714	921,000	1,652,000	1746	3,383,000	3,845,000	1778	7,440,000	6,758,000
1715	972,000	979,000	1747	4,107,000	3,654,000	1779	9,013,000	7,977,000
1716	1,161,000	1,586,000	1748	3,802,000	3,799,000	1780	8,411,000	6,702,000
1717	2,055,000	2,188,000	1749	3,257,000	4,183,000	1781	7,092,000	6,589,000
1718	2,782,000	1,807,000	1750	3,965,000	4,318,000	1782	8,029,000	6,788,000
1719	1,807,000	1,940,000	1751	4,022,000	5,195,000	1783	7,670,000	6,307,000
1720	2,967,000	3,052,000	1752	4,143,000	4,750,000	1784	6,203,000	5,593,000
1721	2,414,000	2,998,000	1753	4,402,000	4,420,000	1785	5,923,000	6,571,000
1722	2,366,000	2,416,000	1754	4,063,000	4,081,000	1786	7,389,000	7,181,000
1723	2,916,000	3,482,000	1755	3,951,000	4,115,000	1787	8,330,000	9,686,000
1724	3,335,000	3,858,000	1756	4,197,000	4,518,000	1788	9,561,000	10,003,000
1725	3,734,000	3,342,000	1757	3,519,000	3,159,000	1789	9,897,000	11,177,000
1726	3,077,000	3,182,000	1758	3,321,000	4,864,000	1790	10,041,000	11,435,000
1727	3,585,000	4,678,000	1759	4,587,000	4,810,000	1791	11,439,000	11,677,000
1728	4,275,000	4,514,000	1760	4,969,000	4,936,000	1792	11,307,000	11,006,000
1729	4,153,000	4,200,000	1761	5,059,000	5,247,000			

No. III.—Account of the Circulation, Deposits, Securities, Bullion, and Surplus (exclusive of Capital) of the Assets over the Liabilities of the Bank of England on the 31st August (or as near thereto as the Accounts can be made up) in each of the following Years.

Dates	Circulation	Deposits	Securities	Bullion	Rest or Surplus of Assets over Liabilities	Dates	Circulation	Deposits	Securities	Bullion	Rest or Surplus of Assets over Liabilities
	£	£	£	£	£		£	£	£	£	£
1793	10,865,000	6,443,000	14,810,000	5,3[illegible],000	2,824,000	1841	20,244,000	5,818,000	18,476,000	11,241,000	3,596,000
1794	10,287,000	5,936,000	12,446,000	6,[illegible],000	[illegible],000	1842	17,169,000	6,[illegible],000	17,[illegible],000	10,[illegible],000	3,[illegible],000
1795	10,562,000	8,135,000	16,960,000	5,[illegible],000	3,[illegible],000	1843	19,431,000	7,827,000	17,[illegible],000	12,[illegible],000	3,[illegible],000
1796	9,247,000	6,656,000	17,[illegible],000	2,[illegible],000	[illegible],000	1844	20,152,000	9,980,000	20,[illegible],000	11,787,000	2,880,000
1797	11,114,000	7,765,000	18,261,000	4,[illegible],000	3,471,000	1845	19,[illegible],000	6,[illegible],000	24,[illegible],000	3,[illegible],000	2,[illegible],000
1798	12,181,000	8,301,000	17,350,000	6,546,000	3,113,000	1846	21,[illegible],000	7,[illegible],000	25,081,000	6,[illegible],000	2,[illegible],000
1799	13,389,000	7,642,000	16,930,000	7,[illegible],000	2,[illegible],000	1847	24,[illegible],000	8,[illegible],000	23,[illegible],000	10,[illegible],000	2,[illegible],000
1800	15,047,000	8,375,000	22,138,000	5,[illegible],000	3,[illegible],000	1848	21,[illegible],000	10,[illegible],000	23,[illegible],000	10,[illegible],000	2,816,000
1801	14,556,000	8,134,000	22,910,000	4,[illegible],000	3,[illegible],000	1849	19,[illegible],000	9,[illegible],000	21,[illegible],000	9,[illegible],000	2,[illegible],000
1802	17,098,000	9,759,000	27,115,000	3,[illegible],000	4,[illegible],000	1850	21,[illegible],000	11,[illegible],000	21,[illegible],000	11,[illegible],000	2,[illegible],000
1803	15,983,000	9,817,000	26,019,000	3,[illegible],000	4,[illegible],000	1851	18,[illegible],000	9,[illegible],000	21,[illegible],000	6,[illegible],000	2,[illegible],000
1804	17,154,000	9,716,000	25,827,000	4,[illegible],000	4,[illegible],000	1852	18,[illegible],000	10,[illegible],000	23,[illegible],000	7,[illegible],000	2,[illegible],000
1805	16,388,000	14,048,000	27,775,000	7,[illegible],000	4,[illegible],000	1853	19,[illegible],000	11,[illegible],000	25,[illegible],000	10,[illegible],000	2,[illegible],000
1806	21,027,000	9,636,000	29,173,000	6,[illegible],000	5,[illegible],000	1854	19,[illegible],000	13,[illegible],000	27,[illegible],000	7,[illegible],000	2,[illegible],000
1807	19,678,000	11,789,000	29,957,000	6,454,000	4,[illegible],000	1855	18,[illegible],000	13,[illegible],000	28,[illegible],000	6,[illegible],000	2,[illegible],000
1808	17,111,000	13,013,000	29,244,000	6,016,000	5,[illegible],000	1856	18,[illegible],000	12,[illegible],000	27,[illegible],000	5,[illegible],000	2,[illegible],000
1809	19,574,000	12,857,000	33,435,000	3,[illegible],000	3,[illegible],000	1857	18,[illegible],000	10,[illegible],000	25,[illegible],000	6,[illegible],000	2,[illegible],000
1810	24,791,000	15,418,000	40,974,000	3,[illegible],000	3,[illegible],000	1858	19,[illegible],000	8,[illegible],000	21,[illegible],000	9,[illegible],000	2,[illegible],000
1811	23,287,000	11,076,000	37,[illegible],000	3,[illegible],000	3,[illegible],000	1859	17,[illegible],000	6,[illegible],000	22,[illegible],000	2,[illegible],000	3,[illegible],000
1812	23,077,000	11,849,000	38,176,000	3,[illegible],000	3,[illegible],000	1860	17,[illegible],000	6,[illegible],000	22,[illegible],000	4,[illegible],000	2,[illegible],000
1813	21,828,000	11,160,000	40,[illegible],000	2,[illegible],000	3,[illegible],000	1861	17,[illegible],000	6,[illegible],000	22,[illegible],000	4,[illegible],000	3,[illegible],000
1814	28,368,000	14,856,000	48,340,000	2,[illegible],000	3,[illegible],000	1862	20,[illegible],000	8,[illegible],000	24,[illegible],000	9,[illegible],000	2,[illegible],000
1815	27,249,000	12,696,000	44,[illegible],000	3,[illegible],000	3,[illegible],000	1863	19,[illegible],000	11,[illegible],000	21,[illegible],000	12,[illegible],000	3,[illegible],000
1816	26,750,000	11,856,000	37,[illegible],000	7,[illegible],000	4,[illegible],000	1864	21,[illegible],000	11,[illegible],000	21,[illegible],000	11,[illegible],000	3,[illegible],000
1817	29,344,000	9,085,000	32,[illegible],000	11,[illegible],000	5,[illegible],000	1865	22,[illegible],000	11,[illegible],000	24,[illegible],000	10,[illegible],000	3,[illegible],000
1818	26,[illegible],000	7,[illegible],000	32,571,000	4,[illegible],000	4,[illegible],000	1866	21,[illegible],000	10,[illegible],000	21,[illegible],000	10,[illegible],000	3,[illegible],000
1819	25,253,000	6,304,000	31,741,000	3,[illegible],000	3,[illegible],000	1867	18,[illegible],000	14,417,000	28,[illegible],000	9,164,000	3,[illegible],000
1820	21,[illegible],000	4,121,000	23,816,000	8,211,000	3,337,000						

No. IV.—Account of the Average Aggregate Amount of Promissory Notes Payable to Bearer on Demand, in circulation in England and Wales, Scotland and Ireland, at the undermentioned Periods.

Month ended	England and Wales				Scotland	Ireland		Total for United Kingdom
	Bank of England	Country Banks			Chartered, Private and Joint Stock Banks	Bank of Ireland	Private and Joint Stock Banks	
		Private Banks	Joint Stock Banks	Total				
	£	£	£	£	£	£	£	£
1843								
March 4	20,310,000	4,785,000	2,814,000	7,629,000	2,588,000	3,196,000	2,097,000	35,851,000
June 24	18,411,000	4,503,000	2,863,000	7,367,000	2,869,000	3,105,000	1,756,000	33,488,000
Sept. 16	19,152,000	4,288,000	2,763,000	7,051,000	2,659,000	2,975,000	1,699,000	33,518,000
Dec. 10	18,791,000	4,533,000	3,161,000	7,694,000	3,166,000	3,302,000	2,376,000	35,331,000
1844								
March 2	21,471,000	4,992,000	3,427,000	8,419,000	2,684,000	3,609,000	2,428,000	38,612,000
June 22	20,634,000	4,743,000	3,665,000	8,408,000	3,117,000	3,488,000	2,080,000	37,728,000
Sept. 14	21,282,000	4,338,000	3,158,000	7,496,000	2,940,000	3,359,000	2,056,000	37,133,000
Dec. 7	20,985,000	4,443,000	3,036,000	7,529,000	3,486,000	3,900,000	2,945,000	38,847,000
1845								
March 1	21,040,000	4,411,000	3,089,000	7,501,000	2,986,000	3,991,000	3,130,000	38,689,000
June 21	21,277,000	4,398,000	3,131,000	7,529,000	3,485,000	3,882,000	2,736,000	38,911,000
Sept. 13	21,951,000	4,358,000	3,142,000	7,500,000	3,341,000	3,712,000	2,547,000	39,052,000
Dec. 6	24,015,000	4,569,000	3,221,000	7,791,000	3,804,000	4,401,000	3,311,000	43,327,000
1846								
March 28	20,346,000	4,515,000	3,176,000	7,692,000	3,018,000	4,257,000	3,187,000	38,502,000
June 20	25,557,000	4,456,000	3,128,000	7,584,000	3,508,000	4,119,000	2,852,000	38,618,000
Sept. 12	21,192,000	4,407,000	3,111,000	7,519,000	3,646,000	3,923,000	2,664,000	38,746,000
Dec. 5	21,055,000	4,596,000	3,190,000	7,786,000	3,996,000	4,375,000	3,464,000	40,676,000
1847								
March 27	20,087,000	4,341,000	3,247,000	7,589,000	3,500,000	3,857,000	2,846,000	37,941,000
June 19	19,078,000	4,385,000	3,088,000	7,473,000	3,647,000	3,547,000	2,137,000	35,664,000
Sept. 11	18,918,000	4,179,000	2,934,000	7,113,000	3,497,000	3,026,000	2,021,000	34,597,000
Dec. 4	20,161,000	3,691,000	2,576,000	6,267,000	3,731,000	3,175,000	2,147,000	35,484,000
1848								
March 25	18,640,000	3,601,000	2,572,000	6,173,000	2,951,000	2,900,000	2,116,000	32,872,000
June 17	18,683,000	3,628,000	2,599,000	6,227,000	3,437,000	2,863,000	1,797,000	33,009,000
Sept. 9	19,134,000	3,482,000	2,471,000	5,953,000	3,021,000	2,583,000	1,685,000	32,376,000
Dec. 9	18,702,000	3,703,000	2,727,000	6,430,000	3,570,000	2,851,000	2,117,000	33,672,000
1849								
March 24	18,986,000	3,467,000	2,593,000	6,057,000	2,935,000	2,598,000	1,803,000	32,380,000
June 16	19,312,000	3,540,000	2,661,000	6,201,000	3,380,000	2,481,000	1,564,000	32,941,000
Sept. 8	19,520,000	3,327,000	2,457,000	5,785,000	3,053,000	2,308,000	1,502,000	32,170,000
Dec. 1	19,244,000	3,676,000	2,703,000	6,379,000	3,500,000	2,656,000	2,017,000	33,796,000
1850								
March 23	19,936,000	3,516,000	2,686,000	6,203,000	2,993,000	2,601,000	1,883,000	33,616,000
June 15	20,401,000	3,558,000	2,715,000	6,298,000	3,471,000	2,530,000	1,711,000	34,412,000
Sept. 7	20,919,000	3,412,000	2,611,000	6,023,000	3,173,000	2,438,000	1,715,000	34,300,000
Dec. 28	19,757,000	3,450,000	2,685,000	6,136,000	3,545,000	2,647,000	2,209,000	34,095,000
1851								
March 22	19,908,000	3,346,000	2,685,000	6,072,000	3,033,000	2,574,000	2,046,000	33,634,000
June 14	20,154,000	3,513,000	2,805,000	6,319,000	3,474,000	2,160,000	1,808,000	34,216,000
Sept. 6	21,018,000	3,219,000	2,569,000	5,789,000	3,125,000	2,252,000	1,719,000	33,903,000
Dec. 27	19,599,000	3,370,000	2,678,000	6,049,000	3,356,000	2,470,000	2,286,000	34,032,000
1852								
March 20	21,341,000	3,397,000	2,733,000	6,131,000	3,081,000	2,428,000	2,133,000	35,115,000
June 12	22,722,000	3,504,000	2,850,000	6,355,000	3,580,000	2,510,000	2,018,000	37,186,000
Sept. 4	24,157,000	3,406,000	2,764,000	6,171,000	3,334,000	2,505,000	2,002,000	38,170,000
Dec. 25	23,893,000	3,647,000	2,914,000	6,561,000	3,764,000	2,857,000	2,827,000	39,904,000
1853								
March 19	23,206,000	3,671,000	2,993,000	6,665,000	3,443,000	2,804,000	2,715,000	38,833,000
June 11	24,470,000	3,758,000	3,011,000	6,769,000	4,026,000	2,771,000	2,394,000	40,461,000
Sept. 3	24,296,000	3,648,000	2,984,000	6,632,000	3,728,000	2,693,000	2,537,000	39,886,000
Dec. 24	22,112,000	3,853,000	3,036,000	6,889,000	4,112,000	3,095,000	3,337,000	39,567,000

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No. IV.—*Account of the Average Aggregate Amount of Promissory Notes &c.*—continued.

Month ended	England and Wales				Scotland	Ireland		Total for United Kingdom
	Bank of England	Country Banks			Chartered, Private and Joint Stock Banks	Bank of Ireland	Private and Joint Stock Banks	
		Private Banks	Joint Stock Banks	Total				
	£	£	£	£	£	£	£	£
1854								
March 18	22,376,000	3,811,000	3,076,000	6,888,000	3,844,000	3,217,000	3,494,000	39,819,000
June 10	21,[illegible]2,000	3,7[illegible]6,000	3,[illegible]27,000	[illegible],000	4,219,000	3,147,000	3,052,000	38,821,000
Sept. 2	21,[illegible]00	3,485,000	2,853,000	6,338,000	3,867,000	2,892,000	2,708,000	36,805,000
Dec. 23	20,298,000	3,818,000	3,072,000	6,921,000	4,316,000	3,200,000	3,462,000	38,258,000
1855								
March 17	19,924,000	3,744,000	3,022,000	6,766,000	3,811,000	3,281,000	3,276,000	37,159,000
June 9	20,[illegible]6,000	3,8[illegible],000	3,071,000	6,[illegible],000	4,377,000	3,[illegible],000	2,841,000	37,917,000
Sept. 1	21,227,000	3,[illegible],000	2,[illegible],000	6,[illegible],000	3,[illegible],000	2,[illegible],000	2,697,000	37,[illegible],000
Dec. 22	19,554,000	3,842,000	3,058,000	6,900,000	4,400,000	3,424,000	3,019,000	37,898,000
1856								
March 15	19,593,000	3,692,000	2,993,000	6,685,000	3,819,000	3,532,000	3,250,000	36,493,000
June 7	20,[illegible]8,000	3,81[illegible],000	3,[illegible]66,000	6,[illegible],000	4,47[illegible],000	3,[illegible],000	3,[illegible],000	37,997,000
Sept. 27	20,[illegible]0,000	3,669,000	3,048,000	6,718,000	4,[illegible],000	3,[illegible],000	3,254,000	37,967,000
Dec. 20	19,805,000	3,696,000	3,044,000	6,741,000	4,349,000	3,529,000	3,777,000	38,206,000
1857								
March 14	19,566,000	3,655,000	3,013,000	6,678,000	3,828,000	3,561,000	3,611,000	37,046,000
June 6	19,[illegible]1,000	3,771,000	3,078,000	6,8[illegible],000	4,588,000	3,[illegible],000	3,[illegible],000	37,[illegible],000
Sept. 26	19,[illegible],000	3,[illegible],000	3,035,000	6,[illegible],000	4,051,000	3,160,000	3,[illegible],000	37,[illegible],000
Dec. 19	21,598,000	3,200,000	2,602,000	5,803,000	4,305,000	3,302,000	2,773,000	37,581,000
1858								
March 13	20,563,000	3,059,000	2,562,000	5,612,000	3,577,000	3,260,000	2,934,000	35,948,000
June 5	21,[illegible]4,000	3,[illegible],000	2,850,000	6,[illegible],000	4,[illegible],000	3,[illegible],000	2,[illegible],000	37,[illegible],000
Sept. 25	20,[illegible]2,000	3,[illegible],000	2,[illegible],000	6,[illegible],000	3,[illegible],000	3,[illegible],000	2,[illegible],000	36,[illegible],000
Dec. 18	20,910,000	3,527,000	2,877,000	6,404,000	4,[illegible],000	3,[illegible],000	3,117,000	38,229,000
1859								
March 12	21,240,000	3,339,000	2,939,000	6,277,000	3,740,000	3,407,000	3,527,000	38,233,000
June 4	22,172,000	3,423,000	2,991,000	6,[illegible],000	4,[illegible],000	3,[illegible],000	3,[illegible],000	39,[illegible],000
Sept. 24	22,[illegible],000	3,[illegible],000	2,[illegible],000	6,[illegible],000	4,[illegible],000	3,[illegible],000	3,[illegible],000	39,123,000
Dec. 17	21,856,000	3,180,000	3,017,000	6,498,000	4,591,000	3,569,000	3,831,000	40,379,000
1860								
March 10	21,428,000	3,376,000	2,916,000	6,[illegible]2,000	4,001,000	3,450,000	3,754,000	38,957,000
June 2	22,231,000	3,198,000	3,058,000	6,[illegible],000	4,[illegible],000	3,[illegible],000	3,[illegible],000	40,[illegible],000
Sept. 22	21,[illegible],000	3,[illegible],000	2,[illegible],000	6,[illegible],000	4,[illegible],000	3,[illegible],000	3,[illegible],000	38,[illegible],000
Dec. 15	20,512,000	3,538,000	2,974,000	6,512,000	4,688,000	3,[illegible]2,000	3,[illegible],000	38,[illegible],000
1861								
March 9	20,109,000	3,205,000	2,867,000	6,073,000	3,936,000	3,094,000	3,[illegible],000	36,801,000
June 1	20,[illegible],000	3,[illegible],000	2,[illegible],000	6,[illegible],000	4,[illegible],000	3,[illegible],000	3,[illegible],000	37,[illegible],000
Sept. 21	[illegible],000	3,[illegible],000	2,[illegible],000	5,[illegible],000	4,[illegible],000	2,[illegible],000	2,[illegible],000	36,[illegible],000
Dec. 14	20,789,000	3,554,000	2,908,000	6,463,000	4,647,000	2,873,000	3,[illegible],000	38,107,000
1862								
March 8	20,991,000	3,184,000	2,850,000	6,034,000	3,869,000	2,708,000	3,192,000	36,797,000
May 31	21,[illegible],000	3,[illegible],000	2,[illegible],000	6,[illegible],000	4,[illegible],000	2,[illegible],000	3,[illegible],000	38,[illegible],000
Sept. 20	21,[illegible],000	3,[illegible],000	2,[illegible],000	5,[illegible],000	3,[illegible],000	2,[illegible],000	2,[illegible],000	36,[illegible],000
Dec. 13	20,607,000	3,205,000	2,875,000	6,080,000	4,572,000	2,670,000	3,272,000	37,102,000
1863								
March 7	20,100,000	3,088,000	2,821,000	5,909,000	3,879,000	2,406,000	2,988,000	35,282,000
May 30	21,[illegible],000	3,179,000	2,931,000	6,[illegible],000	4,[illegible],000	2,[illegible],000	2,[illegible],000	37,[illegible],000
Sept. 19	21,739,000	3,025,000	2,817,000	5,[illegible],000	4,101,000	2,295,000	2,740,000	36,745,000
Dec. 12	21,355,000	3,220,000	2,899,000	6,119,000	4,639,000	2,528,000	3,411,000	38,054,000
1864								
March 5	20,603,000	3,105,000	2,862,000	5,968,000	3,906,000	2,430,000	3,132,000	36,130,000
May 28	21,[illegible],000	3,[illegible],000	2,[illegible],000	6,[illegible],000	4,[illegible],000	2,[illegible],000	3,[illegible],000	37,[illegible],000
Sept. 17	21,[illegible],000	2,971,000	2,774,000	5,[illegible],000	4,174,000	2,377,000	2,960,000	36,414,000
Dec. 10	20,330,000	3,058,000	2,754,000	5,812,000	4,626,000	2,491,000	3,381,000	36,642,000
1865								
March 4	20,407,000	2,951,000	2,738,000	5,693,000	4,009,000	2,455,000	3,247,000	35,871,000
May 27	21,[illegible],000	3,[illegible],000	2,[illegible],000	5,[illegible],000	4,[illegible],000	2,[illegible],000	3,[illegible],000	38,[illegible],000
Sept. 16	22,[illegible],000	2,[illegible],000	2,[illegible],000	5,[illegible],000	4,[illegible],000	2,[illegible],000	3,[illegible],000	38,[illegible],000
Dec. 9	21,294,000	2,977,000	2,789,000	5,766,000	4,905,000	2,744,000	3,946,000	38,656,000
1866								
March 3	21,185,000	2,843,400	2,508,683	5,352,065	4,291,519	2,354,825	3,598,192	36,981,389
May 26	24,697,000	2,906,966	2,529,032	5,435,998	4,[illegible],781	2,[illegible],476	3,[illegible],813	40,555,070
Sept. 15	24,573,000	2,[illegible],925	2,[illegible],[illegible]	4,[illegible],[illegible]	4,[illegible],[illegible]	2,[illegible],[illegible]	3,[illegible],076	38,[illegible],[illegible]
Dec. 8	23,404,000	2,766,878	2,334,127	5,101,005	4,967,168	2,648,175	3,803,855	39,924,203
1867								
March 2	23,037,000	2,685,396	2,992,964	4,978,360	4,336,160	2,562,100	3,583,904	38,537,524
May 25	25,557,000	2,792,445	2,376,679	5,169,124	4,[illegible],411	2,487,900	3,241,873	39,878,108
Sept. 14	24,382,000	2,540,702	2,205,199	4,[illegible],901	4,404,142	2,267,375	2,893,650	38,673,018
Dec. 7	24,447,000	2,854,611	2,332,414	5,187,025	5,055,794	2,713,400	3,702,901	41,106,120

No. V.—*Quarterly Averages of the Weekly Liabilities and Assets of the Bank of England.*

Quarter ended	Liabilities			Assets		
	Notes in circulation	Deposits	Total	Securities	Bullion	Total
	£	£	£	£	£	£
1852						
March 20	21,367,000	18,113,000	39,480,000	21,368,000	18,474,000	42,842,000
June 12	22,499,000	18,576,000	41,07[illegible],000	24,192,000	20,10[illegible],000	44,294,000
September 4	23,982,000	18,977,000	42,[illegible],000	24,329,000	21,838,000	46,167,000
December 24	24,295,000	19,461,000	43,756,000	25,562,000	21,367,000	46,929,000
1853						
March 19	23,967,000	19,657,000	43,624,000	27,761,000	19,176,000	46,937,000
June 11	24,236,000	18,326,000	42,562,000	27,241,000	18,561,000	45,802,000
September 3	24,561,400	16,512,000	40,873,000	26,322,000	17,813,000	44,135,000
December 24	23,369,000	18,232,000	41,601,000	29,402,000	15,462,000	44,864,000
1854						
March 18	22,785,000	16,627,000	39,412,000	26,906,000	15,922,000	42,828,000
June 10	22,518,000	14,031,000	36,549,000	26,504,000	13,363,000	39,867,000
September 9	21,191,000	14,418,000	35,609,000	25,372,000	13,619,000	38,991,000
December 30	21,003,000	14,758,000	35,761,000	25,328,000	13,619,000	38,947,000
1855						
March 31	20,405,000	15,098,000	35,503,000	25,577,000	13,342,000	38,919,000
June 30	20,865,000	17,647,000	38,512,000	25,068,000	16,603,000	41,665,000
September 29	21,379,000	18,271,000	39,650,000	27,603,000	15,475,000	43,078,000
December 29	20,430,000	16,257,000	36,687,000	28,680,000	11,301,000	39,921,000

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No. V.—Quarterly Averages &c.—continued.

Quarter ended	Liabilities			Assets		
	Notes in circulation	Deposits	Total	Securities	Bullion	Total
	£	£	£	£	£	£
1856						
March 29	19,679,000	17,681,000	37,360,000	30,405,000	10,514,000	40,919,000
June 28	20,155,000	14,[illegible],000	35,[illegible],000	27,[illegible],000	10,[illegible],000	38,[illegible],000
September 27	21,097,000	15,584,000	36,681,000	27,877,000	12,314,000	40,191,000
December 27	20,728,000	15,601,000	36,329,000	29,484,000	10,105,000	39,589,000
1857						
March 28	19,712,000	16,871,000	36,583,000	29,943,000	10,203,000	40,146,000
June 27	20,[illegible],000	16,056,000	36,059,000	29,382,000	10,029,000	39,411,000
September 26	20,182,000	16,042,000	36,221,000	28,464,000	11,413,000	39,877,000
December 30	21,070,000	19,296,000	40,366,000	35,025,000	8,788,000	43,813,000
1858						
March 31	20,511,000	20,837,000	41,381,000	28,716,000	16,446,000	45,162,000
June 30	20,089,000	19,475,000	40,164,000	25,477,000	18,102,000	43,579,000
September 29	21,215,000	19,298,000	40,511,000	26,189,000	17,798,000	43,987,000
December 29	21,435,000	20,490,000	41,925,000	26,098,000	18,985,000	45,083,000
1859						
March 30	21,477,000	22,155,000	43,632,000	27,482,000	19,570,000	47,052,000
June 29	22,[illegible],000	22,249,000	44,[illegible],000	29,[illegible],000	17,861,000	47,617,000
September 28	21,[illegible],000	20,[illegible],000	43,420,000	29,620,000	17,[illegible],000	46,908,000
December 28	22,415,000	21,516,000	43,929,000	30,117,000	17,002,000	47,119,000
1860						
March 28	21,935,000	21,416,000	43,349,000	31,400,000	15,434,000	46,834,000
June 27	22,[illegible],000	20,[illegible],000	43,075,000	30,[illegible],000	15,[illegible],000	46,555,000
September 26	22,283,000	19,657,000	41,940,000	29,418,000	16,011,000	45,429,000
December 26	21,482,000	18,750,000	40,232,000	29,135,000	14,[illegible],000	43,442,000
1861						
March 27	20,357,000	17,802,000	38,159,000	29,677,000	12,091,000	41,768,000
June 26	20,311,000	18,[illegible],000	38,[illegible],000	29,[illegible],000	12,[illegible],000	41,[illegible],000
September 25	20,[illegible],000	16,739,000	37,[illegible],000	28,[illegible],000	12,[illegible],000	41,[illegible],000
December 24	21,180,000	18,124,000	39,304,000	27,993,000	14,653,000	42,646,000
1862						
March 26	21,046,000	20,985,000	42,031,000	29,417,000	16,099,000	45,516,000
June 25	21,[illegible],000	21,518,000	43,105,000	29,953,000	16,[illegible],000	46,[illegible],000
September 24	22,[illegible],000	22,[illegible],000	44,[illegible],000	30,[illegible],000	17,[illegible],000	48,[illegible],000
December 31	21,129,000	21,985,000	43,114,000	30,961,000	15,351,000	46,312,000
1863						
March 25	20,399,000	21,412,000	41,811,000	30,036,000	14,392,000	45,258,000
June 24	21,[illegible],000	21,[illegible],000	43,[illegible],000	31,[illegible],000	14,[illegible],000	46,264,000
September 30	21,[illegible],000	20,[illegible],000	42,[illegible],000	30,[illegible],000	15,[illegible],000	46,033,000
December 30	21,[illegible],000	20,[illegible],000	42,[illegible],000	31,777,000	13,934,000	45,711,000
1864						
March 23	20,[illegible],000	21,067,000	41,[illegible],000	31,608,000	13,771,000	45,379,000
June 22	21,[illegible],000	20,[illegible],000	41,[illegible],000	31,[illegible],000	13,[illegible],000	45,[illegible],000
September 28	21,[illegible],000	19,[illegible],000	40,[illegible],000	31,[illegible],000	13,[illegible],000	44,[illegible],000
December 28	20,771,000	19,070,000	39,841,000	29,570,000	13,636,000	43,206,000
1865						
March 29	20,560,000	20,157,000	40,717,000	30,572,000	14,582,000	45,154,000
June 28	21,[illegible],000	20,[illegible],000	42,375,000	30,967,000	15,[illegible],000	46,[illegible],000
September 27	22,[illegible],000	19,[illegible],000	42,[illegible],000	31,[illegible],000	14,[illegible],000	46,[illegible],000
December 27	21,819,000	18,365,000	40,184,000	30,615,000	13,601,000	44,211,000
1866						
March 28	21,436,000	17,785,000	39,219,000	30,058,000	13,570,000	43,628,000
June 27	21,588,000	22,[illegible],000	46,[illegible],000	37,[illegible],000	13,[illegible],000	50,[illegible],000
September 26	25,[illegible],000	21,[illegible],000	46,[illegible],000	36,[illegible],000	14,[illegible],000	51,[illegible],000
December 26	23,728,000	22,740,000	46,468,000	33,110,000	17,478,000	50,588,000
1867						
March 27	23,147,000	24,549,000	47,696,000	32,865,000	19,258,000	52,123,000
June 26	25,538,000	24,[illegible],000	48,[illegible],000	33,[illegible],000	20,[illegible],000	53,[illegible],000
September 25	24,186,000	25,[illegible],000	49,[illegible],000	30,[illegible],000	23,[illegible],000	54,[illegible],000
December 24	24,706,000	25,[illegible],000	49,[illegible],000	29,960,000	22,561,000	52,521,000

Sec. VII.—Banks (Scotch).

The Act of 1708, preventing more than six individuals from entering into a partnership for carrying on the business of banking, did not extend to Scotland. In consequence of this exemption, several banking companies, with numerous bodies of partners, have existed, for a lengthened period, in that part of the empire.

Bank of Scotland.—The Bank of Scotland was projected by Mr. John Holland, merchant, of London, and was established by Act of the Scotch Parliament (Wm. III. Parl. 1, s. 5) in 1695, by the name of the Governor and Company of the Bank of Scotland. Its original capital was 1,200,000*l.* Scotch, or 100,000*l.* sterling, distributed in shares of 1,000*l.* Scotch, or 83*l.* 6*s.* 8*d.* sterling, each. The Act exempted the capital of the bank from all public burdens, and gave it the exclusive privilege of banking in Scotland for 21 years. The objects for which the bank was instituted, and its mode of management, were intended to be, and have been, in most respects, similar to those of the Bank of England. The responsibility of the shareholders is limited to the amount of their shares.

The capital of the bank was increased to 200,000*l.* in 1744, and was enlarged by subsequent Acts of Parliament, the last of which (44 Geo. III. c. 23) was passed in 1804, to 1,500,000*l.*, its present amount. Of this sum, 1,000,000*l.* has been paid up. The last-mentioned Act directed that all sums relating to the affairs of the bank should henceforth be rated in sterling money; that the former mode of dividing bank stock by shares should be discontinued; and that, for the future, it should be transferable in sums or parcels of any amount. On the union of the two kingdoms in 1707, the Bank of Scotland undertook the recoinage, and effected the exchange of the currency in Scotland. It was also the organ of Government in the issue of the new silver coinage in 1817.

The Bank of Scotland is the only Scotch bank constituted by Act of Parliament. It began to establish branches in 1696, and issued notes for one pound so early as 1704. The bank also began at a very early period to receive deposits on interest, and to grant credit on cash-accounts, a minute of the directors with respect to the mode of keeping the latter being dated so far back as 1729. It is, therefore, entitled to the credit of having introduced and set on foot the distinctive principles of the Scotch banking system, which, whatever may be its defects, is perhaps superior to most other systems hitherto established. Generally speaking, the Bank of Scotland has been cautiously and skilfully conducted; and there can be no doubt that it has been

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productive, both directly and as an example to other banking establishments, of much public utility and advantage.

It may be worth mentioning, that the Act of Wm. III., establishing the Bank of Scotland, declared that all foreigners who became partners in the bank should, by doing so, become to all intents and purposes naturalised Scotchmen. After being for a long time forgotten, this clause was taken advantage of in 1818, when several aliens acquired property in the bank in order to secure the benefit of naturalisation. But, after being suspended, the privilege was finally cancelled in 1822.

We subjoin an *official* abstract of the constitution and objects of the Bank of Scotland, printed for the use of the proprietors. The terms and mode of transacting business are, of course, sometimes altered, according to circumstances.

I. The Bank of Scotland is a public national establishment, erected and regulated by the legislature alone: and expressly as a public bank in this kingdom; for the benefit of the nation, and for the advancement of agriculture, commerce, and manufactures; and for other objects of public policy. (Wm. III. Parl. 1, s. 5; 14 Geo. III. c. 32; 24 Geo. III. c. 8; 32 Geo. III. c. 25; 34 Geo. III. c. 19; 44 Geo. III. c. 23.)

II. The statutory capital is at present 1,500,000*l.* sterling. It is raised by voluntary subscription; and has been subscribed for. 1,000,000*l.* has been called for, and paid in. (44 Geo. III. c. 23.)

III. Subscribers, if not under obligations to the bank, may, at pleasure, transfer their right. If under obligation to the bank, the obligation must be previously liquidated; or the proceeds of the sale, at a price to the satisfaction of the directors, must be applied towards such liquidation. Transfers are made by a short assignment and acceptance thereof, both in a register appointed for that purpose. The expense, beside the Government stamp, is 11*s.* (Wm. III. Parl. 1, s. 5.)

IV. Bank of Scotland stock may be acquired, in any portions, by any person, community, or other lawful party whatsoever; without selection, exclusion, or limitation of numbers. (Wm. III. Parl. 1, s. 5; 44 Geo. III. c. 23.)

V. Bank of Scotland stock may be conveyed by will, and if specially mentioned, without expense of confirmation. It cannot be arrested: the holder's right may be adjudged. Dividends may be arrested. (Wm. III. Parl. 1, s. 5.)

VI. The Bank of Scotland is a public corporation by Act of Parliament. The bank's transactions are distinct from those of the stockholders: and theirs from those of the bank. (Wm. III. Parl. 1, s. 5.)

VII. The establishment is expressly debarred from any other business than that of banking. (Wm. III. Parl. 1, s. 5.)

VIII. The management is vested, by statute, in a governor, deputy governor, twelve ordinary, and twelve extraordinary, directors. They are chosen annually, on the last Tuesday of March, by the stockholders having 250*l.* of stock or upwards. Those above 250*l.* have a vote for every 250*l.* to 5,000*l.*, or 20 votes. No person can have more than 20 votes. The governor must hold, at least, 2,000*l.* of stock; the deputy governor 1,500*l.*; and each director 750*l.* They swear to be equal to all persons; and cannot hold any inferior office in the bank. (Wm. III. Parl. 1, s. 5; 14 Geo. III. c. 32; 44 Geo. III. c. 23.)

IX. The executive part is conducted by a treasurer, secretary and other public officers, all sworn. Those having the official charge of cash find due security. (Wm. III. Parl. 1, s. 5.)

X. The board of directors sits for the general administration of the bank, at the bank's public head office in Edinburgh. The local business of that district is also conducted at that office. For the local business in the other parts of the kingdom, the bank has its regular public offices in the principal towns. At each of these offices there is the bank agent or cashier, who gives due security, and conducts the bank's business for that district in the manner after mentioned. (Wm. III. Parl. 1, s. 5.)

XI. The bank takes in money at all its public offices, on deposit receipts or on current deposit accounts. At the head-office drafts on the branches, and at the branches drafts on the other branches and on the head-office are granted. Both at the head-office and branches drafts are granted on the London, Dublin, and English and Irish provincial correspondents of the bank. All receipts and drafts are on the bank's engraved forms, and bear to be granted 'for the Bank of Scotland,' or 'for the Governor and Company of the Bank of Scotland.' At the head-office official documents are signed by the treasurer, and at the branches by the agents, and all are countersigned.

Remittances can be made to the principal colonial and continental towns; and bills, payable in the colonies and in foreign countries, can be negotiated through the bank. (*Resolution of Court*, 1793, *as since modified.*)

N.B.—The bank has always allowed interest on deposits, at a rate varying according to circumstances.

XII. Bills on London, Edinburgh, or any town in the United Kingdom, are discounted at all the bank's public offices. The bank's agents judge, in ordinary cases, of the bills presented; so that parties meet with no delay. The bank does not re-issue the bills which it has discounted. (*Resolution of Court*, Feb. 23, 1789, *and subsequent Modifications.*)

XIII. Government stock and other public funds may be purchased or sold, and dividends thereon may be received, through the bank.

XIV. The bank gives credit on cash accounts at any of its offices, on bond, with security. The security may be personal co-obligants, or such other security as may be specially agreed on. Applications for cash accounts are given in to the office where the cash account is wanted, and must specify the credit desired, and the security proposed; and the individual partners, where co-partneries are proposed. Cash accounts are granted by the directors only; and are not recalled unless by their special authority. It is understood that these credits are not used as dead loans, to produce interest only. In the fair course of business, the advantage of the bank is consulted by an active circulation of its notes, and by frequent repayments to it in a way least affecting that circulation. (*Resolution of Court*, Nov. 6, 1729, and Feb. 23, 1789.)

XV. The bank's dividend has been for some time 8 per cent. per annum on its paid-up capital of 1,000,000*l.* sterling. The dividends are paid regularly twice a year, without expense. They may be drawn either at the bank's head-office, or at any of its other offices, as most agreeable to the stock-holder.

The above may suffice as a general outline of the mode in which the business of banking is conducted in Scotland.

The *Royal Bank of Scotland* was established in 1727. Its original capital of 151,000*l.* has been increased to 2,000,000*l.*

The *British Linen Company* was incorporated in 1746, for the purpose, as its name implies, of undertaking the manufacture of linen. But the views in which it originated were speedily abandoned; and it became a banking company only. Its capital amounts to 1,000,000*l.*

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None of the other banking companies established in Scotland are chartered associations with limited responsibility, the parties being liable, to the whole extent of their fortunes, for the debts of the firms. Some of them, such as the Edinburgh and Glasgow Bank, the National Bank, the Commercial Bank &c. have very numerous bodies of partners. Their affairs are uniformly conducted by a board of directors, annually chosen by the shareholders.

The Bank of Scotland began, as already stated, to issue 1*l.* notes so early as 1704; and their issue has since been continued without interruption. 'In Scotland,' to use the statement given in the Report of the Committee of the House of Commons of 1826, on the Promissory Notes of Scotland and Ireland, 'the issue of promissory notes payable to the bearer on demand, for a sum of not less than 20*s.*, has been at all times permitted by law; nor has any Act been passed limiting the period for which such issue shall continue legal in that country.'

Deposits.—All the Scotch banks receive deposits of so low a value as 10*l.*, and sometimes lower, and allow interest upon them.

The interest allowed by the banks upon deposits varies from time to time, according to the variations in the current rate of interest. And it has been estimated, by the best authorities, that the aggregate amount of the sums deposited with the Scotch Banks is little, if anything, under 50,000,000*l.*

We borrow from Oliver and Boyd's excellent Almanac for 1868 the following table, exhibiting the capital and other particulars of the Banks of Issue in Scotland, with the price of their shares, as publicly quoted in the third week of December 1867:

Instituted	Name	Partners	Br.	Paid up capital	Dividend		Share paid	Price		
					Rate	Payable				
				£	£		£	£	s.	d.
1695	Bank of Scotland * - -	900	66	1,000,000	12½	April & Oct.	100	240	0	0
1727	Royal Bank * - - -	—	83	2,000,000	8	Jan. & July	100	167	10	0
1746	British Linen Company * - -	870	52	1,000,000	11	June & Dec.	100	245	10	0
1810	Commercial Bank * - - -	897	81	1,000,000	12 & 2	Jan. & July	100	246	0	0
1825	National Bank of Scotland * - -	1,510	71	1,000,000	10 & 2	Jan. & July	100	233	0	0
1830	Union Bank of Scotland * - -	1,041	100	1,000,000	10	June & Dec.	100	188	0	0
1822	Aberdeen Town and County Bank -	545	32	182,000	10	Mar. & Sep.	7	13	17	6
1836	North of Scotland Banking Company -	1,241	56	280,000	10	May & Nov.	5½	7	15	0
1838	Clydesdale Banking Company * -	1,267	69	900,000	10	Feb. & Aug.	100	191	10	0
1839	City of Glasgow Bank * - -	1,000	99	870,000	8	Feb. & Aug.	105	145	15	0
1838	Caledonian Banking Company - -	725	17	175,000	10	August	2½	5	1	6
1834	Central Bank of Scotland - -	418	9	100,000	12½	September	40	111	0	0

* The capital of the banks marked with an asterisk is not in shares, but in stock transferable to any amount.
† Ex dividend. ‡ Dividend and bonus.

A witness, connected for many years with different banks in Scotland, being examined by the Commons' Committee of 1826, stated that more than half the deposits in the banks with which he had been connected were in sums from 10*l.* to 200*l.* Being asked what class of the community it is that makes the small deposits, he gave the following answer; from which it appears that the mode of conducting this branch of the banking business in Scotland has long given to that country most part of the benefits derivable from the establishment of savings banks.

Q. What class of the community is it that makes the smallest deposits?

Ans. They are generally the labouring classes in towns like Glasgow: in country places like Perth and Aberdeen, it is from servants and fishermen, and that class of the community who save small sums from their earnings, till they come to be a bank deposit. There is now a facility for their placing money in the Provident Banks, which receive money till the deposit amounts to 10*l.* When it comes to 10*l.* it is equal to the minimum of a bank deposit. The system of banking in Scotland is an extension of the Provident Bank system. Half-yearly or yearly those depositors come to the bank, and add the savings of their labour, with the interest that has accrued upon the deposits from the previous half-year or year, to the principal; and in this way it goes on, without being at all reduced, accumulating (at compound interest) till the depositor is able either to buy or build a house, when it comes to be 100*l.*, or 200*l.*, or 300*l.*, or till he is able to commence business as a master in the line in which he has hitherto been a servant. A great part of the depositors of the bank are of that description, and a great part of the most thriving of our farmers and manufacturers have arisen from such beginnings.'

Cash Accounts.—The loans or advances made by the Scotch banks are either in the shape of discounts, or upon cash-credits, or, as they are more commonly termed, *cash accounts*.

A *cash-credit* is a credit given to an individual by a banking company for a limited sum, seldom under 100*l.* or 200*l.*, upon his own security, and that of two or three individuals approved by the bank, who become sureties for its payment. The individual who has obtained such a credit is enabled to draw the whole sum, or any part of it, when he pleases, replacing it, or portions of it, according as he finds it convenient; interest being charged upon such part only as he draws out. 'If a man borrows 5,000*l.* from a private hand, besides that it is not always to be found when required, he pays interest for it whether he be using it or not. His bank credit costs him nothing, except during the moment it is of service to him, and this circumstance is of equal advantage as if he had borrowed money at a much lower rate of interest.' (Hume's *Essay on the Balance of Trade.*) This, then, is plainly one of the most commodious forms in which advances can be made. Cash-credits are not, however, intended to be a *dead loan*, though they not unfrequently become such; a main object of the banks in granting them is to get their notes circulated, and they do not grant them except to persons in business, or to those who are frequently drawing out and paying in money.

The system of cash-credits has been very well described in the Report of the Lords' Committee of 1826 on Scotch and Irish Banking. 'There is also,' say their lordships, 'one part of their system which is stated by all the witnesses (and, in the opinion of the committee, very justly stated) to have had the best effects upon the people of *Scotland*, and particularly upon the middling and poorer classes of society, in producing and encouraging habits of frugality and industry. The practice referred to is that of cash-credits. Any person who applies to a bank for a cash-credit is called upon to produce two or more competent sureties, who are jointly bound; and, after a full enquiry into the character of the applicant, the nature of his business, and the sufficiency of his securities, he is allowed to open a credit, and to draw upon the bank, for the whole of its amount, or for such part as his daily transactions may require. To the credit of the account he pays in such sums as he may not have occasion to use,

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and interest is charged or credited upon the daily balance, as the case may be. From the facility which these cash-credits give to all the small transactions of the country, and from the opportunities which they afford to persons who begin business with little or no capital but their character, to employ profitably the minutest products of their industry, it cannot be doubted that the most important advantages are derived to the whole community. The advantage to the banks who give these cash-credits arises from the call which they continually produce for the issue of their paper, and from the opportunity which they afford for the profitable employment of part of their deposits. The banks are indeed so sensible that, in order to make this part of the business advantageous and secure, it is necessary that their cash-credits should (as they express it) be frequently operated upon, that they refuse to continue them unless this implied condition be fulfilled. The total amount of the cash-credits is stated by one witness to be 5,000,000*l.*, of which the average amount advanced by the banks may be one-third.'

The expense of a bond for a cash-credit of 500*l.* is 12*s.* 6*d.* stamp duty, and a charge of from 5*s.* to 10*s.* 6*d.* per cent. for preparing it.

Stability of the Scotch Banks.—There have been, until lately, comparatively few failures among the Scotch banks. In 1793 and 1825, when so many of the English banks were swept off, there was not a single establishment in Scotland that gave way. This superior solidity appears to have been owing to various causes, partly to the banks having, for the most part, large bodies of partners, who, being conjointly and individually bound for the debts of the companies to which they belong, go far to render their ultimate security all but unquestionable; and partly to the facility afforded by the law of Scotland, of attaching a debtor's property, whether it consist of land or moveables, and making it available for the payment of his debts.

But, on the whole, we are inclined to think that the long familiarity of the inhabitants with banks and paper money, and the less risk that has attended the business of banking in Scotland, have been the principal causes of the greater stability of the Scotch banks. Latterly, however, owing to the rapid growth of Glasgow, Dundee, and other commercial towns, the risk attending banking in Scotland has materially increased. And while hazard has been augmenting on the one hand, there appears, on the other, to have been a still more rapid decrease of that cautious policy that was supposed to be a characteristic of Scotch bankers. In the crisis of 1857 two of the principal Scotch banks, the head-quarters of which were in Glasgow, were compelled to stop payments. They had very large capitals, the Western Bank 1,500,000*l.*, and the City of Glasgow Bank 1,000,000*l.*, with a great many branches, large amounts of deposits, and very numerous and wealthy proprietary bodies. Had their management displayed anything like ordinary skill and prudence, they might have gone triumphantly through a far more serious trial. But the management of the Western Bank was characterised by the most marvellous folly and recklessness; that of the City of Glasgow Bank, though in many respects blameworthy, has been, as compared with that of the Western Bank, prudent and skilful. It has recommenced business; and it is to be hoped that its managers will profit by the lesson they have received. Having advanced immense sums to a few firms that never were entitled to any considerable credit, the Western Bank was so crippled that, for a lengthened period before its stoppage, the directors were reduced to the miserable expedient of sending up the bills they had discounted in Glasgow to be rediscounted in London; and when this resource failed them, and the other banks declined to come forward to their assistance, they had nothing for it but to shut their doors. On the stoppage taking place the affairs of the bank were found to be in a much worse state than any one could have anticipated. The losses are estimated at above 3,000,000*l.*, so that, besides the sacrifice of their paid-up capital of 1,500,000*l.*, the shareholders have had to advance a farther sum of more than that amount to meet the demands upon them. No such gigantic failure ever occurred in Scotland. The holders of notes and deposit-receipts will be paid in full. But of the 1,200 or 1,300 individuals who held shares in the bank, a large proportion have been nearly, and many entirely, ruined. It is difficult, indeed, to imagine the distress and misery of which this catastrophe has been productive.

The ruin in which the bank has been involved did not come suddenly upon it. On the contrary, it was accumulating for years. And yet the directors took no steps, or none that were efficient, to arrest the progress of the evil; nor did they apprise their confiding constituents of the perilous condition into which the bank had got. Concealment was practised to the very last moment, till the concern was irretrievably sunk in the abyss of bankruptcy. It is much to be wished that directors who have so acted were really responsible for their conduct. No charge of corruption is brought against them; but their inattention to, and neglect of, the important interests committed to their charge, has been wholly inexcusable. They were bound, on undertaking the office of directors, to bestow unremitting care and diligence upon the performance of the duties which it imposed on them. They might neglect their own business: but they could not, without a flagrant breach of trust, neglect the duties they had undertaken to discharge on account of others. This, however, is precisely what they have done. They appear to have selected the most reckless and incompetent managers, and then to have given them *carte blanche*. Whatever such conduct may be in law, it is morally and politically in the highest degree culpable. Hundreds have been sent to the antipodes and the treadmill for offences that were comparatively innocuous. No doubt, the grand source of mismanagement in banks and other associations is to be found in the apathy of the shareholders, in the blind and often undeserved confidence they place in those who are, no matter how, at the head of their concerns. If those who may be ruined by the proceedings of their own officers and servants will not look after them, it were idle to attempt to throw such a duty upon others.

In a public point of view, the stoppage of the Glasgow banks was productive of the very worst results. By creating a panic, and occasioning a heavy internal demand for gold, it may indeed be said to have been the main cause of the suspension of the Act of 1844.

Sec. VIII.—Banking in Ireland.

Banking in Ireland.—'In no country, perhaps,' says Sir Henry Parnell, 'has the issuing of paper-money been carried to such an injurious excess as in Ireland. A national bank was established in 1783, with similar privileges to those of the Bank of England, in respect to the restriction of more than six partners in a bank; and the injury that Ireland has sustained from the repeated failure of banks may be mainly attributed to this defective

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regulation. Had the trade of banking been left as free in Ireland as in Scotland, the want of paper-money that would have arisen with the progress of trade would in all probability have been supplied by joint-stock companies, supported with large capitals, and governed by wise and effectual rules.

'In 1797, when the Bank of England suspended its payments, the same privilege was extended to Ireland; and after this period the issues of the Bank of Ireland were rapidly increased. In 1797 the amount of the notes of the Bank of Ireland in circulation was 621,917*l.*; in 1801, 2,266,471*l.*; and in 1814, 2,986,999*l.*

'These increased issues led to corresponding increased issues by the private banks, of which the number was fifty in 1804. The consequence of this increase of paper was its great depreciation; the price of bullion and guineas arose to 10 per cent. above the Mint price; and the exchange with London became as high as 18 per cent., the par being 8¼. This unfavourable exchange was afterwards corrected, not by any reduction in the issues of the Bank of Ireland, but by the depreciation of the British currency in the year 1810, when the exchange between London and Dublin settled again at about par. [EXCHANGE.]

'The loss that Ireland has sustained by the failure of banks may be described in a few words. It appears by the Report of the Committee on Irish Exchanges in 1804, that there were, at that time, in Ireland fifty registered banks. Since that year a great many more have been established, but the whole have failed, one after the other, involving the country from time to time in immense distress, with the following exceptions: First, a few that withdrew from business; secondly, four banks in Dublin; thirdly, three at Belfast; and, lastly, one at Mallow. These eight banks, with the new Provincial Bank and the Bank of Ireland, are the only banks now (1827) existing in Ireland.

'In 1821, in consequence of eleven banks having failed nearly at the same time, in the preceding year, in the south of Ireland, Government succeeded in making an arrangement with the Bank of Ireland, by which joint-stock companies were allowed to be established at a distance of fifty miles (Irish) from Dublin, and the bank was permitted to increase its capital from 2,500,000*l.* to 3,000,000*l.* sterling. The Act 1 & 2 Geo. IV. c. 72 was founded on this agreement. But ministers having omitted to repeal in this Act various restrictions on the trade of banking that had been imposed by 33 Geo. II. c. 14, no new company was formed. In 1824 a party of merchants of Belfast, wishing to establish a joint-stock company, petitioned Parliament for the repeal of this Act of Geo. II.; and an Act was accordingly passed in that session, repealing some of its most objectionable restrictions. (5 Geo. IV. c. 73.)

'In consequence of this Act, the Northern Bank of Belfast was converted into a joint-stock company, with a (nominal) capital of 500,000*l.*, and commenced business on the 1st of January, 1825. But the restrictions of 33 Geo. II., and certain provisions contained in the Acts 1 & 2 Geo. III. and 5 Geo. IV., obstructed its progress, and they found it necessary to apply to Government to remove them; and a bill was accordingly introduced, which would have repealed all the obnoxious clauses of the 33 Geo. II., had it not been so altered in the committee as to leave several of them in force. In 1825 the Provincial Bank of Ireland commenced business with a (nominal) capital of 2,000,000*l.*; and the Bank of Ireland has of late established branches in all the principal towns.' (*Observations on Paper-Money* &c. by Sir Henry Parnell, p. 171.)

Since Sir Henry Parnell published the pamphlet from which we have taken the foregoing extract, several joint-stock banking companies have been founded in Ireland. The Provincial Bank, to which Sir Henry alludes, has a paid-up capital of 540,000*l.*, and has been well and profitably managed. But others have been less fortunate. The Agricultural and Commercial Bank of Ireland, established in 1834, with 2,170 partners, a paid-up capital of 352,790*l.*, and many branches, stopped payment during the pressure in November 1836, and by doing so involved many persons in great distress. It appears to have been extremely ill-managed. The auditors appointed to examine into its affairs reported that 'Its book-keeping has been found to be so faulty, that we are convinced no accurate balance-sheet could at any time have been constructed.' And they significantly added, 'the personal accounts at the head office require a diligent and searching revision.'

The Tipperary Joint-Stock Bank, which was established in 1839, and stopped payments in 1855, appears to have been little, if at all, better than a mere swindling engine. Luckily it did not issue notes; and the sphere of its operations was not very extensive. But, so far as its influence went, nothing could be worse, being ruinous alike to the majority of its partners and the public.

The existing Irish joint-stock banks, amounting to eight, have been all established between 1824 and 1864. We borrow principally from Thom's *Irish Almanac*, the most valuable publication of its class, the following details with respect to the Irish banks in 1867:—

Account of the Joint-Stock Banks existing in Ireland in 1867; *their Branches, fixed Issues &c.*

	Initiated	No. of Shares	Per Share	Amount	Capital paid up	Reserve	Fixed Issue: 8 & 9 Vict., c. 37	Dividend per cent. 1866
		£	£	£	£	£	£	£
Bank of Ireland	1783	Stock	100	2,769,230	2,769,230	1,068,135	3,738,428	11½
*Hibernian Joint Stock Bank	1821	10,000	100	2,000,000	250,000	79,785	—	8
Provincial Bank of Ireland	1825	21,000 4,000	100 10	2,000,000	540,000	256,563	927,667	20
Northern Banking Company	1825	4,891	92	451,480	150,000	131,912	213,440	23½
Belfast Banking Company	1827	10,000	100	1,000,000	225,000	263,000	281,611	30
National Bank	1835	50,000	50	2,500,000	1,500,000	597,917	852,269	15½
Ulster Banking Company	1836	73,562	10	735,620	183,405	115,865	311,079	22
*Royal Bank	1836	30,000	50	1,500,000	300,000	215,000	—	20
*Union Bank of Ireland (Limited)	1862	10,000	100	1,000,000	220,000	5,106	—	—
*Munster Bank (Limited)	1864	40,000	10	400,000	140,000	25,000	—	6
Total	—	—	—	15,356,330	6,277,635	2,727,781	6,554,494	—

* These are not banks of issue.

The following are the latest parliamentary enactments in connection with Irish banking.

By 9 Geo. IV. c. 24 all public notaries practising in Ireland were constrained to keep open their

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offices till nine P.M. By 27 & 28 Vict. c. 7 the notary is not constrained to keep his office open after six P.M., and every note or bill, payment of which is not presented upon this hour, is held to be dishonoured.

By 27 & 28 Vict. c. 20 so much of 8 & 9 Vict. c. 37 as prohibits the negotiation of bills of exchange and promissory notes below 5*l.* is repeated for the space of two years.

By c. 86 the Treasury may compound with bankers in Ireland for the stamp duty on bank post bills for a period of three years.

By 28 & 29 Vict. c. 16 the interest payable to the governor and company of the Bank of Ireland in respect of 2,630,769*l.* 4*s.* 8*d.*, due to them by the public, is fixed at 3 per cent. The payment in respect of the management of the public debt is 450*l.* per million, if the debt be under 30,000,000*l.*; 300*l.* per million, when between 30,000,000*l.* and 40,000,000*l.*; and if above 40,000,000*l.*, then 150*l.* per million for each additional million.

Sec. IX.—Banks of Venice, Amsterdam &c.

It would far exceed our limits to enter into any detailed statements with respect to the banks and banking systems of foreign countries: we shall therefore confine ourselves to a brief notice of such banks as have been most celebrated, or are at present of the greatest importance.

Bank of Venice.—The Bank of Venice was the most ancient bank in Europe. Historians inform us that the republic being hard pressed for money, was obliged, upon three different occasions, in 1156, 1480, and 1510, to levy forced contributions upon the citizens, giving them in return perpetual annuities at certain rates per cent. The annuities on the forced loan of 1480 were to be suspended during periods of war. The annuities due under the forced loan of 1156 were, however, finally extinguished in the sixteenth century. And the offices for the payment of the annuities due under the other two loans having been consolidated, eventually became the Bank of Venice. (Cleirac, *Du Négoce, de la Banque* &c.—Bordeaux, 1656, pp. 112—117. a scarce and valuable volume.) This might be effected as follows: The interest on the loan to Government being paid punctually, every claim registered in the books of the office would be considered as a productive capital; and these claims, or the right of receiving the annuity accruing thereon, must soon have been transferred, by demise or cession, from one person to another. This practice would naturally suggest to holders of stock the simple and easy method of discharging their mutual debts by transfers on the office books, and as soon as they became sensible of the advantages to be derived from this method of accounting, bank-money was invented.

The Bank of Venice was essentially a deposit bank. Though established without a capital, its bills bore at all times an agio or premium above the current money of the republic. The invasion of the French, in 1797, occasioned the ruin of this establishment.

Bank of Amsterdam.—The Bank of Amsterdam was founded in 1609, on strictly commercial principles and views, and not to afford any assistance, or to commix with the finances of the state. Amsterdam was then the great entrepôt of the commerce of the world, and, of course, the coins of all Europe passed current in it. Many of them, however, were so worn and defaced as to reduce their general average value to about 9 per cent. less than their Mint value; and, in consequence, the new coins were immediately melted down and exported. The currency of the city was thus exposed to great fluctuations; and it was chiefly to remedy this inconvenience, and to fix the value or par of the current money of the country, that the merchants of Amsterdam established a 'bank,' on the model of that of Venice. Its first capital was formed of Spanish ducats or ducatoons, a silver coin which Spain had struck in the war with Holland, and with which the tide of commerce had enriched the country it was formed to overthrow. The bank afterwards accepted the coins of all countries, worn or new, at their intrinsic value, and made its own bank-money payable in standard coin of the country, of full weight, deducting a 'brassage' for the expense of coinage, and giving a credit on its books, or 'bank-money,' for the deposits.

The Bank of Amsterdam professed not to lend out any part of the specie entrusted to its keeping, but to retain in its coffers all that was inscribed on its books. In 1672, when Louis XIV. penetrated to Utrecht, almost every one who had an account with the bank demanded his deposit, and these were paid off so readily that no suspicion could exist as to the fidelity of the administration. Many of the coins then brought forth bore marks of the conflagration which happened at the Hôtel de Ville, soon after the establishment of the bank. This good faith was maintained till about the middle of last century, when the managers secretly lent part of their bullion to the East India Company and Government. The usual 'oaths of office' were taken by the magistracy of a religious community that all was safe; and the good people of Holland believed, as an article of their creed, that every florin which circulated as bank-money had its metallic constituent in the treasury of the bank, sealed up and secured by oaths, honesty, and good policy. This blind confidence was dissipated in December 1790, by a declaration that the bank would retain 10 per cent. of all deposits, and would return none of a less amount than 2,500 florins.

Even this was submitted to and forgiven. But four years afterwards, on the invasion of the French, the bank was obliged to declare that it had advanced to the states of Holland and West Friesland, and the East India Company, more than 10,500,000 florins, which sum they were, of course, unable to make up to their depositors, to whom, however they assigned their claims on the states and the company. Bank-money, which previously bore an agio of 5 per cent., immediately fell to 16 per cent. below current money.

This epoch marked the fall of an institution which had long enjoyed an unlimited credit, and had rendered the greatest services. The amount of treasure in the vaults of the bank, in 1775, was estimated by Mr. Hope at 33,000,000 florins. (Storch, *Cours d'Economie Politique*, tom. iv. p. 102.)

Bank of Hamburg.—The Bank of Hamburg was established in 1619, on the model of that of Amsterdam. It is purely a deposit bank for the transfer of sums from the account of one individual to that of another. It receives no deposits in coin, but only in bullion of a certain degree of fineness. Down to 1845 it charged itself with the bullion at the rate of 442 schillings the mark, and issued it at the rate of 444 schillings, being a charge of four-ninths, or nearly one-half per cent., for its retention; but since that date it receives and issues bullion at the same rate, charging one per mille for its expenses. It advances money on jewels to three-fourths of their value. The city is answerable for all pledges deposited with the bank: they may be sold by auction if they re-

main one year and six weeks without any interest being paid. If the value be not claimed within three years, it is forfeited to the poor. This bank is universally admitted to be very well managed.

Sec. X.—The Bank of France,

which is second only in magnitude and importance to the Bank of England, was originally founded in 1800, but was not placed on a solid and well-defined basis till 1806. Her capital, which was originally fixed at 45,000,000 fr., was raised in the last mentioned year to 90,000,000 fr., divided into 90,000 shares, or *actions*, of 1,000 fr. each. Of these shares, 67,900 have passed into the hands of the public; the remaining 22,100, having been purchased up by the bank out of her surplus profits, were subsequently cancelled. Hence her capital amounted, down to 1848, to 67,900,000 fr. (2,716,000*l.*), with a reserve fund, first of 10.000,000 fr., and more recently of 12,980,750 fr. Since 1806 the bank has enjoyed the privilege of being the only institution in Paris entitled to issue notes payable on demand; and, as will be afterwards seen, she is now the only authorised issuer of such paper in France. Her charter and exclusive privileges have been prolonged and varied by laws passed at different periods; according to existing arrangements they are not terminable till 1897.

The bank has established, at different periods between 1817 and 1856, offices or branches (*succursales*) in different parts of the country. They are managed nearly in the same way as the parent establishment; but their operations have been on a comparatively small scale. These are exclusive of the departmental banks, united, as will be immediately seen, to the bank in 1848.

Notwithstanding the skill and caution with which her affairs have generally been conducted, the Revolution of 1848 brought the bank into a situation of extreme danger. She had to make large advances to the provisional Government and the city of Paris. And these circumstances, combined with the distrust that was universally prevalent, occasioned so severe a drain upon her for gold, that, to prevent the total exhaustion of her coffers, she was authorised, by a decree of March 16, 1848, to suspend cash payments, her notes being at the same time made legal tender. But to prevent the abuse that might otherwise have taken place under the suspension, the maximum amount of her issues was fixed at 350 millions. She was then also authorised to reduce the value of her notes from 500 fr. to 200 and 100 fr.

Previously to 1848, joint-stock banks, on the model of that of Paris, and issuing notes, had been established in Lyons, Marseilles, Bordeaux, Rouen, and other large cities. And it was then determined that these banks should be incorporated with the Bank of France, and made branches of the latter. This was effected by decrees issued on April 27 and May 2, 1848, by which the shareholders of the banks referred to (nine in number) were allowed, for every 1,000 fr. nominal value of their shares, a share of 1,000 fr. nominal value of the stock of the Bank of France. And, in consequence of this measure, 23,351 new shares, representing a capital of 23,351,000 fr., were added to the stock of the Bank of France, making the latter consist of 91.250,000 fr., divided into 91,250 shares. In 1851 the bank resumed, and has since continued, specie payments.

The suppression of the local issues of the departmental banks was, no doubt, a judicious measure, and was indispensable, indeed, to secure the equal value of the paper circulation in different parts of the country. This, however, might have been effected by the mere stoppage of the issues of the departmental banks, without consolidating them with the Bank of France. The latter measure is one of which the policy is very questionable; and there are, as already seen, good grounds for thinking that the banking business of the departments would have been more likely to be well conducted by local associations than by branches of the Bank of France.

Owing to the peculiar circumstances of the last few years, occasioned partly by the war with Russia, but more by the rage for speculation and the drain for silver to the East, the Bank of France has been exposed to considerable difficulties. And in the view of strengthening her position, and also, it may be presumed, of providing a loan for Government, a law has been recently passed (June 9, 1857), by which the capital of the bank has been doubled. Previously to this law, her capital amounted, as already seen, to 91,250 shares of 1,000 fr. each; whereas it now consists of 182.500 shares of 1,000 fr. each. The new shares were assigned to the existing proprietors at the rate of 1,100 fr. per share, producing a sum total of 100.370,000 fr., of which 100,000,000 fr. have been lent to Government at 3 per cent. Hence the measure, though it has added to the credit and security of the bank, has not made any addition to the means directly at her disposal.

Down to the passing of this law, the bank could not raise the rate of interest on loans and discounts above 6 per cent. But this impolitic restriction is now removed, and the bank may charge any rate of interest which she reckons expedient, except upon advances to Government, the maximum interest on which is limited to 3 per cent. The bank has been farther authorised to issue notes of the value of 50 fr., to make advances on railway shares &c. and the charter has been extended to 1897.

The bank is obliged to open a *compte courant* for anyone who requires it, and performs services, for those who have such accounts, similar to those performed for their customers by the banks in London. She does not charge any commission on current accounts, so that her only remuneration arises from the use of the money placed in her hands by the individuals whose payments she makes. It is probable, therefore, as has been alleged, that this part of her business is but little profitable. The bank also discounts bills with three signatures, at variable dates, but not having more than three months or ninety days to run. In 1855 the aggregate amount of these discounts in Paris and the departments amounted to the very large sum of 3,262,000,000 fr., the interest being 5 per cent. till October 18, and afterwards 6 per cent. Besides discounting bills, the bank makes advances on stocks and pledges of various kinds, and undertakes the care of valuable articles, such as plate, jewels, title-deeds &c. at a charge of one-eighth per cent. on the value of the deposit, for every period of six months and under. Nothing can show more clearly the petty retail character of the trade of Paris, and generally of France, than the smallness of the value of the bills discounted by the bank. Thus of 963,000 bills discounted in 1847, the average amount was only 55*l.* 4*s.*, and of these no fewer than 126,000 were for less than 200 fr. (8*l.*), and 470,000 for less than 1,000 frs. (20*l.*), each. (Tooke and Newmarch *On Prices*, vi. 51.)

The administration of the bank is vested in a council of twenty-one members, viz. a governor and two sub-governors, nominated by the Emperor; and fifteen directors and three censors,

nominated by the shareholders. The bank has a large surplus capital or *rest*. In 1855 and 1856 she divided no less than 200 fr. and 272 fr. profits on each share; but these have much exceeded the dividends in any previous year. In 1848 the dividends only amounted to 75 fr. per share. In July 1856 the 1,000 fr. share of bank-stock was worth 4,075 fr.; in July 1857 it had sunk to 2,880 fr. Her intimate connection with the Government is decidedly the most objectionable feature in the constitution of the Bank of France.

The following is an Account of the Bank of France for the Five Years ending 1865, stated in English money at 25 francs = 1l.

I.—LIABILITIES (Passif).

Dates	Billets to Bearer (Circulation)			Bills to Order (Bank Post Bills)			Current Accounts (Deposits)				Other Liabilities	Total Liabilities
		Branch	Total	Paris	Rétrocessions	Total	Treasury	Paris	Branch	Total		
1861	£	£	£	£	£	£	£	£	£	£	£	£
April	—	—	[illegible]	[illegible]	360,000	[illegible]	3,200,000	4,400,000	1,[illegible]	[illegible]	9,550,000	47,[illegible]
Dec.	—	—	30,[illegible]	180,000	190,000	370,000	1,110,000	4,670,000	1,650,000	10,[illegible]	10,520,000	49,[illegible]
1862												
April	—	—	[illegible]	330,000	310,000	680,000	4,660,000	6,210,000	1,[illegible]	[illegible]	9,[illegible]	[illegible]
Dec.	—	—	[illegible]	[illegible]	220,000	[illegible]	4,720,000	5,[illegible]	1,270,000	11,[illegible]	9,780,000	[illegible]
1863												
April	—	—	[illegible]	210,000	160,000	370,000	3,[illegible]	6,050,000	1,[illegible]	[illegible]	9,[illegible]	[illegible]
Dec.	—	—	[illegible]	180,000	120,000	300,000	2,160,000	[illegible]	1,010,000	8,560,000	10,170,000	[illegible]
1864												
April	—	—	[illegible]	180,000	60,000	240,000	[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dec.	—	—	[illegible]	—	—	280,000	2,820,000	5,[illegible]	960,000	[illegible]	[illegible]	[illegible]
1865												
Jan. 5	—	—	31,020,000	—	—	240,000	3,580,000	6,[illegible]	1,220,000	11,[illegible]	10,490,000	[illegible]
Feb. 2	—	—	[illegible]	—	—	270,000	[illegible]	1,600,000	1,[illegible]	[illegible]	[illegible]	[illegible]
March 2	—	—	[illegible]	—	—	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]
April 6	—	—	[illegible]	—	—	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]
May 4	—	—	[illegible]	—	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
June 1	—	—	[illegible]	—	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
July 6	—	—	[illegible]	—	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Aug. 3	—	—	[illegible]	—	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sept. 7	—	—	[illegible]	—	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Oct. 5	—	—	[illegible]	—	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nov. 3	—	—	[illegible]	—	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dec. 7	—	—	[illegible]	—	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

II.—ASSETS (Actif).

Dates	Coin and Bullion			Portfolio (Discounts)			Advances on Ingots Total	Advances on Public Stocks Total	Advances on Shares Total	Other Assets	Total Assets
	Paris	Branch	Total	Paris	Branch	Total					
1861	£	£	£	£	£	£	£	£	£	£	£
April	2,960,000	12,160,000	15,120,000	8,[illegible]	9,920,000	18,[illegible]	1,[illegible]	1,080,000	[illegible]	9,[illegible]	47,[illegible]
Dec.	3,730,000	9,180,[illegible]	12,910,000	11,430,000	13,[illegible]	24,[illegible]	700,000	980,000	1,[illegible]	8,[illegible]	[illegible]
1862											
April	5,450,000	11,180,[illegible]	16,630,000	12,490,000	10,060,000	22,550,000	130,000	5,700,000	[illegible]	8,120,000	55,[illegible]
Dec.	4,430,000	8,350,000	12,[illegible]	12,150,000	10,760,000	22,[illegible]	240,000	5,180,000	3,730,000	9,10[illegible]	[illegible]
1863											
April	4,540,000	10,520,000	15,060,000	10,840,000	9,350,000	20,190,000	370,000	3,310,000	3,260,000	8,990,000	51,080,000
Dec.	3,310,000	6,210,000	9,520,000	13,660,000	11,850,000	24,510,000	520,000	2,030,000	3,110,000	9,160,000	48,850,000
1864											
April	3,050,000	5,710,[illegible]	8,760,000	14,290,000	11,450,000	25,740,000	580,000	1,260,000	2,330,000	9,210,000	47,900,000
Dec.	—	—	15,[illegible]	10,950,000	11,590,000	22,[illegible]	960,000	930,000	1,770,000	9,930,000	49,260,000
1865											
Jan.	—	—	13,200,000	14,380,000	13,220,000	27,600,000	810,000	950,000	1,800,000	9,140,000	53,500,000
Feb.	—	—	12,[illegible]	12,[illegible]	13,150,000	25,[illegible]	720,000	960,000	1,[illegible]	9,120,000	51,110,000
Mar.	—	—	15,[illegible]	10,760,000	12,020,000	22,780,000	690,000	880,000	1,740,000	9,190,000	50,530,000
April	—	—	18,[illegible]	10,080,000	10,790,000	20,810,000	840,000	940,000	1,910,000	9,19[illegible]	[illegible]
May	—	—	18,[illegible]	10,650,000	11,000,000	21,[illegible]	1,[illegible]	960,000	1,940,000	9,190,000	52,930,000
June	—	—	19,[illegible]	8,900,000	10,530,000	19,[illegible]	1,[illegible]	970,000	1,960,000	9,110,000	53,840,000
July	—	—	20,[illegible]	11,380,000	12,290,000	23,[illegible]	2,320,000	1,010,000	2,120,000	9,400,000	59,400,000
Aug.	—	—	19,730,000	12,130,000	13,000,000	25,130,000	2,[illegible]	1,010,000	2,100,000	9,310,000	60,190,000
Sep.	—	—	20,140,000	11,560,000	11,850,000	23,410,000	2,660,000	960,000	2,080,000	9,340,000	58,570,000
Oct.	—	—	18,[illegible]	13,510,000	12,800,000	26,310,000	2,[illegible]	980,000	2,140,000	9,300,000	59,[illegible]
Nov.	—	—	16,710,000	13,930,000	13,990,000	27,920,000	1,140,000	820,000	2,100,000	9,600,000	58,390,000
Dec.	—	—	17,[illegible]	12,930,000	12,[illegible]	25,540,000	1,[illegible]	850,000	1,960,000	9,260,000	56,070,000

Fluctuations in the Value of the Shares of the Bank of France since the Year 1801, par 1,000 francs.

Years	Highest	Lowest	Years	Highest	Lowest
1801	1,450	1,170	1837–41	3,800	2,320
1802–6	1,385	1,010	1842–46	3,545	3,000
1807–11	1,430	1,185	1847–51	3,400	950
1812–16	1,260	470	1852–56	4,200	2,345
1817–21	1,605	1,112	1857–61	4,000	2,340
1822–26	2,725	1,415	1862	3,500	2,920
1827–31	2,050	1,380	1863	3,500	3,275
1831–36	2,355	1,595	1864	3,395	3,260

Amount of Dividend paid per Share of the Bank of France, 1836–64.

Years	Frs.	Years	Frs.	Years	Frs.	Years	Frs.
1836	112	1844	107	1851	105	1858	114
1837	126	1845	133	1852	118	1859	115
1838	114	1846	159	1853	134	1860	140
1839	144	1847	177	1854	194	1861	147
1840	139	1848	75	1855	200	1862	158
1841	126	1849	106	1856	272	1863	165
1842	136	1850	101	1857	247	1864	200
1843	122						

During a period of 29 years the Bank thus

paid dividends of, 1 year (1848) 7 per cent., 18 years 10 to 15 per cent., 8 years 15 to 20 per cent., 1 year (1857) 24 per cent., and 27 per cent. in 1856.

Note Circulation of the Bank of France, 1805–64.

Years	Frs.	Years	Frs.
1805	70,000,000	1846	260,000,000
1810	100,000,000	1848	373,000,000
1815	41,000,000	1851	452,000,000
1820	136,000,000	1855	640,000,000
1824	225,000,000	1860	750,000,000
1831	217,000,000	1862	804,000,000
1835	224,000,000	1864	780,000,000
1840	225,000,000		

Sec. XI.—Banking in Germany.

Prussia.—The Bank Royal of Prussia was founded at Berlin in 1765, upon the model of that of Hamburg. So it existed until 1846, when it was reorganised under a new charter, by which more extension was given to its operations. In accordance with this new constitution, the issue of notes has been carried to 15,000,000 thalers (the thaler equal to 2*s.* 10½*d.* sterling). In 1850 this issue was raised to 21,000,000 of thalers. The capital of the bank is always to be, in proportion with the notes in circulation, two-sixths in silver, three-sixths in bills discounted, and the rest in loans on securities. The bank notes are from twenty-five to fifty thalers each; but in 1856, an issue of notes of ten thalers was permitted to the extent of about 400,000*l.* sterling. It pays from 2 to 3 per cent. on deposits. In 1856 the discounts amounted to 238,000,000 thalers. But there cannot be a doubt, although accurate information on foreign banking is not easily attainable, that the progress of commerce is rapidly augmenting their use. The share of the Government in the bank amounts, at most, to 500,000 thalers. The shareholders are entitled to an annual interest of 3½ per cent. upon the capital, and, after a further deduction of ¼ per cent. set apart for the reserve or rest, which is not to exceed 30 per cent. of the capital, one moiety of the surplus profits is apportioned to them in addition, and the other goes to the treasury. The bank has branches in a great number of cities, as Breslau, Königsberg, Dantzic, Stettin, Magdeburg, Münster, Cologne, Memel, Posen, Stolpe, Elberfeld, Trèves, Aix-la-Chapelle, Düsseldorf, Coblenz, Minden, Erfurt, Frankfort-on-the-Oder, Stralsund, Köslin, Liegnitz, and Oppeln, and thus forms a vast network of financial operations through all the kingdom.

The private bank of the noblesse of Pomerania was founded at Stettin, in 1824, by an association of noble proprietors, with a capital of 1,000,000 thalers. After the crisis of 1830 this capital was carried to 1,534,500 thalers. The operations of this bank embrace discount, loans upon lodgments of merchandise, loans upon public and private securities, current accounts, and deposits with interest. Its issue is limited to 1,000,000 thalers, on condition that it retains one third in specie. There is a circulation of about 90,000,000 of thalers of mortgage notes in Prussia (these are, in fact, for 105,000,000). They have been issued, at different periods, by associations of proprietary nobles of various parts of the kingdom, and carry interest at 3½ per cent.

Austria.—The Bank of Vienna was founded in 1815, with the purpose of restoring the finances, and particularly for the conversion of the state paper money, the value of which was by this time all but nominal. At the end of 1864 the capital was 110,250,000 florins, the reserve 11,267,900 florins, the note circulation 375,828,020 florins, mortgages in circulation (Pfandbriefe in Umlauf) 44,153,370 florins. The specie held by the bank amounted to 117,363,718 florins. Its privileges are extended to December 31, 1876. The loan to the state in consideration of these privileges is 80,000,000 florins without security.

The Bank of Vienna is the sole state bank of Austria. Its functions are chiefly those of issuing paper, discounting commercial bills, and of developing certain kinds of public works. It has the sole right of issuing notes. It appears that the chief danger which the bank runs is that consequent upon advances to Government, which are made, as might be expected, profusely in times of pressure. These advances are accompanied with a largely increased issue of paper. The bank allows no interest on deposits. The rate of discount is never above 5 or below 4 per cent.

The bank had, in 1865, nineteen branches, the chief of these being the establishments at Prague, Pesth, and Brünn. The business, however, done at the branches is comparatively trivial.

Bavaria.—The Royal Bank of Nuremberg, which has branches at Anspach (at which place it was first founded), Bayreuth, Bamberg, Hof, Ludwigshafen, Ratisbon and Wurtzburg, is an ancient establishment, the supervision of which is in the hands of finance ministers. The funds of the bank are derived from state grants, advances made by the officials of the bank reserve funds, and deposits from the law courts. The net profits are divided into two portions: of these one is divided between the state and the officials of the bank; the other moiety forms a reserve. It publishes no accounts. Its business is that of exchange, discount, loan and deposit: loans being granted on sufficient security, and deposits bearing interest of from 2 to 3 per cent.

The loan and exchange Bank of Bavaria, which was founded in Munich in 1834, and authorised by royal decree in 1835, began operations in 1835. Its charter is for 99 years from July 1, 1834. It had three branches in 1863. Its function is to lend on goods up to half their value; to discount bills of exchange of ninety days, and containing not less than three names, or Bavarian securities at six months' date; to lend on specie &c. up to ninety per cent.; to contract fire and life assurances. The issue is limited to 8,000,000 florins, 2,000,000 being based on specie. The annual dividend on the stock of the bank appears to be large.

Leipsic.—This bank was founded by royal decree in 1839, to endure for forty years, with a capital of 1,500,000 thalers, a sum which has been subsequently increased. It receives deposits without interest, discounts three months' bills with three names, and performs similar operations. Its issues of 20, 50, and 100 thalers must be supported by two-thirds their amount in specie or ingots. The profits are divided: 3 per cent. is first paid on the capital, and of the surplus 25 per cent. is added to the reserve, until it reaches 3,000,000 thalers, 5 for the management, 70 for the shareholders.

Würtemberg.—There are four banks at Stüttgardt, one belonging to the king. Another, possessing a capital of 9,000,000 florins, pays 5 per cent. and whatever surplus may exist, issues notes, two-thirds of which may be guaranteed on commercial bills, one-third in specie.

Belgium.—The National Bank of Belgium is modelled on that of the Bank of France. Its capital consists of 25,000 shares, each of 1,000 francs: it issues paper payable on sight and to bearer to the amount of 20, 50, 100, 500, and 1,000 francs; but without permission from Government cannot increase its issues beyond three times its

metallic reserve. This bank has paid large and increasing dividends to holders of its stock.

The Bank of Belgium has a capital of 30,000,000 francs in 1,000 franc shares. It was authorised by royal decree in 1835 for the period of forty years.

There are also banks at Ghent, Liége, Seraing, Tongres, Namur, Verviers, besides loan and discount establishments and institutions of crédit foncier and mobilier. One of the last kind has been in existence since 1822, was authorised by the king of Holland, was modified by the Belgian monarchy after the war of independence, and has been eminently successful. There are, in short, few European countries in which banking has been so fully developed as in Belgium.

Denmark.—There is a bank at Copenhagen (with branches at Flensburg and Rendsburg), which was created in 1818, with a capital of 13,461,600 rixdollars. The capital was provided by a special tax, the contributaries to which, provided their quota was not short of 100 rixdollars (about 10*l.* 5*s.*), became pro ratâ shareholders. The bank issues notes, the amount of which in 1864 was 20,000,000 rixdollars.

Greece.—The National Bank of Greece, situate at Athens, with branches at Patras and Syra, has a capital of 5,000,000 drachmas, divided into 5,000 shares. It discounts bills at a maximum rate of 8 per cent., lends on deposit of gold or silver at a maximum of 10 per cent., and makes advances on accounts current and deposits. It issues notes of 25, 100, and 500 drachmas, of which one-third must be supported by specie, and bills of not less than 100, or more than 1,000, drachmas. After providing that 7 per cent. should be paid as interest on the shares, the surplus is divided as follows: four-twentieths to the reserve fund, until this fund amounts to one-fifth of the capital; one-twentieth to the directors and officials; fifteen twentieths to the proprietors of shares. The bank had, in 1863, 2,128,000 drachmas as a reserve, and had paid, from its commencement in 1842 to this date, a rate varying between 7½ and 12 per cent. on the capital.

Italy.—The National Bank of Italy has its chief office at Turin with branches at Florence, Naples, Milan, and Genoa. Its capital amounts to 100,000,000 francs in 100,000 shares on each of which 700 francs is paid. Its foundation took place 1863, by the union of the National Bank of Turin with that of Tuscany. There are also a bank at Naples and at Rome, the former with a capital of 1,000,000 ducats, the latter of 2,000,000 Roman scudi. The issues of the Papal Bank are as low as a single scudo. Establishments of crédit foncier and mobilier have also been founded in Italy.

Portugal.—The National Bank of Portugal—chief office at Lisbon with branch at Oporto—has a capital of 8,000 contos of reis, divided into 80,000 shares. It was established by royal decree, by a fusion of the old Bank of Lisbon and the Companhia Confianza National. It issues notes, the lowest at 1,200 reis, makes advances on bills and deposits of merchandise &c., on immovable property, and on accounts current. Bills having two names, and for ninety days, are discounted at 5 per cent. and loans are negotiated at the same rate on public and private securities.

Spain.—The Bank of Spain has its chief office at Madrid, with branches at Valentia and Alicante. The governor and deputy-governor are nominated by the state. Its capital is 120,000,000 reals vellon, in 60,000 shares. Interest fixed at 6 per cent. The bank was founded by the crown in 1849, in place of the Bank of S. Ferdinand, which had itself been incorporated with that of Isabella II. An earlier institution was the bank of S. Conles, founded by a Frenchman, in 1782, one Cabanus.

The bank issues notes up to a moiety of its capital, under the guarantee of a third of the issue in specie, the lowest note being of 500 reals vellon. It discounts ninety days' bills with three signatures, and makes advances on deposits to four-fifths their value. The dividend on the shares has been as high as 26 per cent. There are other banks in Spain, besides institutions of credit.

Sweden and Norway.—The Bank of Sweden has its chief office at Stockholm, with branches at Gothenburg, Malmö and Wisby. Its capital is 13,000,000 bank thalers. It was founded in 1637. It issues notes. The Royal Loan Bank of Norway has a capital of 3,000,000 thalers specie. Its chief offices are at Drontheim, but it has several branches. It issues paper to double the amount of its reserve in bullion.

Switzerland.—There are numerous banks in this republic, each state in the confederation being possessed of a bank.

Turkey.—The transactions of this community are managed by the Imperial Ottoman Bank, which is empowered to issue notes. The capital of the bank is 67,000,000 francs.

Wallachia and Moldavia.—These principalities have a bank at Jassy, the capital of which is 10,000,000 thalers in 50,000 shares. It issues a paper currency, which must be supported by one-third its amount in specie.

Bank of the Netherlands.—The original capital was fixed at 5,000,000 florins, with a power of doubling this, if expedient; but two years elapsed before the whole was subscribed for. Of this capital the State held 1,000,000 florins.

In 1819 the capital was raised to 10,000,000 florins; and as the rest then amounted to 250,000 florins, in order to place the new shares on the same footing with the old, 1,050 florins were paid up on each share. The whole were immediately placed, as will be seen by the balance of March 31, 1820.

In 1838 the charter was renewed for another period of 25 years by royal decree, and the capital increased to 15,000,000 florins, the State receiving and exercising the right of holding 500,000 florins of the increase of capital. The sum to be paid up on each of the new shares was fixed at 115 florins, thus bringing the capital and rest up to 17,500,000 florins, at which figure it remained with trifling change up to the expiration of the renewed charter. It appears by the statement made by the Minister of Finance, in laying before the States-General a bill for the renewal of the charter of the Bank, that the last-named 500 shares belonging to the State were sold in 1840 at a premium of 163,809 florins 35 cents; and the original 1,000 shares likewise held by the State were realised in 1847, fetching the sum of 1,610,000 florins.

By the new charter of 1838, several restrictions existing under the former one were removed, while on the other hand the Bank lost some of its privileges.

Up to the year 1852 a strict injunction of secrecy was imposed and observed; in the last-mentioned year this injunction was removed, and the publication of some details of the operations of the Bank rendered imperative, and of others permissive. The same decree empowered it also to make loans on all foreign Government stocks without distinction.

Lastly the charter was again renewed by Act of the Legislature in 1863. The 1,000 shares reserved to the Government by the new charter were sold at the price of 1,940 florins per share.

It is alleged that the Bank of the Netherlands has a considerably greater supply of bullion in proportion to its circulation than any other bank.

Sec. XII.—Banking in the United States.

It has been the uniform practice of the different States of the Union to allow banks to be established for the issue of notes, payable in specie on demand. In cases where the liability of shareholders in banks was to be limited to the amount of their shares, they had, previously to 1838, to be established by Acts of the local legislatures. But, in general, these were easily obtained; and down to a comparatively late period, it may be said that banking was quite free; and that, practically, all individuals or associations might issue notes, provided they abided by the rules laid down for their guidance, and engaged to pay them when presented.

Under this system, the changes in the amount and value of the paper currency of the United States have been greater than in any other country; and it has produced an unprecedented amount of bankruptcy and ruin.

Between 1811 and 1820, about 195 banks, in different parts of the Union, became bankrupt; and it is said, in a report by the Secretary of the Treasury of the United States, dated May 12, 1820, that these failures, which mostly happened in 1814 and 1819, produced a state of distress so general and severe, that few examples of the like had then occurred.

But bad as this instance was, it was nothing to that which took place subsequently to 1834. The accounts of the aggregate issues of the banks differ a little; but the following statement is believed to be very nearly accurate, viz.:—

Years	Notes
1830	66,638,980 dollars.
1834	94,859,570 "
1835	103,692,195 "
1836	140,310,038 "
1837	149,185,890 "

Now observe, that this sudden and enormous increase took place under the obligation, which we are told is quite enough to prevent all abuse, of paying notes on demand. The result was, what most men of sense must have anticipated, viz. that a revulsion took place, and that every bank within the Union, without, it is believed, a single exception, stopped payment in 1837.

In 1838 such of the banks as had been best managed, and had the largest capitals, resumed payment in specie. But in 1839 and 1840 a farther crash took place. And the bank-notes afloat, which, as has been seen, amounted to 149,185,890 dollars in 1837, sunk to 83,734,000 dollars in 1842, and to 58,563,000 dollars in 1843. It is supposed that in this latter crash nearly 180 banks, including the Bank of the United States, were totally destroyed. And the loss occasioned, by the depreciation which it caused in the value of stocks of all kinds, and of all sorts of property, was quite enormous. And yet, vast as that loss was, it was really trifling, as a writer in the *American Almanac* has stated, compared with 'the injury resulting to society from the upheaving it occasioned of the elements of social order, and the utter demoralisation of men by the irresistible temptation to speculation which it afforded, ending in swindling to retain ill-gotten riches.'

The evils of the American system have been aggravated by the lowness of the notes which most banks have issued. This brings them into the hands of retail traders, labourers, and others in the humbler walks of life, who always suffer severely by the failure of a bank.

Since 1838 and 1842, various measures have been taken in nearly all the States, but principally in New York, to restrain the free action of the banks, and to prevent a repetition of the calamities referred to.

In New York, for example, the banks have been divided into two great classes—the incorporated and the free banks. The former, which are incorporated by a State law, have to conform to certain regulations, and have to contribute a half per cent. annually upon their capital to a security fund, which is devoted to the payment of the notes of defaulting banks. But this is a most objectionable plan; for, in the first place, it does not prevent bankruptcies; and in the second place, it compels the well-managed banks to contribute to a fund which goes to pay the debts of those that are mismanaged. It has consequently declined in favour, and is now rarely acted upon.

In the other, or free banking system, all individuals or associations who choose to deposit securities (minimum amount 100,000 dollars) for their payment, are allowed to issue an equal amount of notes. And this is certainly by far the more efficient as well as the most popular of the two plans. But it is objectionable, because, 1st. A longer or shorter, but always a considerable, period necessarily elapses after a bank stops before its notes can be retired; and, 2nd. Because the securities lodged for the notes are necessarily at all times of uncertain and fluctuating value; while, in periods of panic or general distrust, they become all but inconvertible. The Sub-secretary of the Treasury of the United States has animadverted as follows on this plan, in a letter dated Nov. 27, 1854:

'The policy of many of the State governments has of late years consisted in encouraging the issue of small notes, by sanctioning the establishment of what are popularly called "free banks," with deposits of stocks and mortgages for the "ultimate" security of their issues. This "ultimate" security is, it may be admitted, better than no security at all. The mischief is, that it is least available when most wanted. The very causes which prevent the banks from redeeming their issues promptly, cause a fall in the value of the stocks and mortgages on "the ultimate security" of which their notes have been issued. The "ultimate security" may avail something to the broker who buys them at a discount, and can hold them for months or years; but the labouring man who has notes of these "State security banks" in his possession, finds, when they stop payment, that "the ultimate security" for their redemption does not prevent his losing twenty-five cents, fifty cents, or even seventy-five cents in the dollar.

'In a circulating medium we want something more than "ultimate security." We want also "immediate" security; we want security that is good to-day, and will be good to-morrow, and the next day, and for ever thereafter. This security is found in gold and silver, and in these only.'

The above statements are taken from a paper read by Lord Overstone to the late Committee on Banks.

It appears from the Report of the Superintendent of Banking for the State of New York for 1856, that the securities he then held in trust amounted to 39,359,071 dols., which were almost wholly lodged by banking associations and individual bankers.

During the year the securities held in trust for the under-mentioned banks that had become insolvent in 1855 were disposed of. But the sums realised by their sale did not in any case suffice to pay the notes at par, while a period varying from two to four years would have to elapse before the affairs of the insolvent banks will be finally settled.

Names of Banks that Failed	Notes Redeemed	Rates of Redemption	Time for Redemption
Eighth Avenue Bank	All	91 cents	May 21, 1861
Farmer's Bank, Onondaga	All	87 cents	Nov. 12, 1859
James' Bank	All	91 cents	June 17, 1858
Merchants' and Mechanics' Bank, Oswego	All	77 cents	Sept. 28, 1860
New Rochelle, Bank of	Stock Notes	Par	June 17, 1858
New Rochelle, Bank of	Stock and Estate Notes	81 cents	June 17, 1858

This statement sets the defective nature of the security system, as administered in New York, in the clearest point of view. It might, no doubt, be improved by increasing the proportion of securities to notes. But owing to the variety of securities that are taken (viz. all manner of bonds and mortgages, state, canal, and railway stocks &c. &c.), and the uncertainty of their value, a great deal of risk is always incurred in accepting them, and they can never form a proper foundation on which to issue notes.

But, however desirable, it would, we fear, be visionary to expect that local issues should be suppressed in America, or that her paper currency should be placed on a really sound foundation. But it may, nevertheless, be easily and greatly improved. And, perhaps, this would be best effected by suppressing low notes, or those for less than twenty dollars, and increasing the proportion of securities to issues. The rules on which so much stress is laid, in most parts of America, for making the issues of banks depend on the magnitude of their capitals, or the amount of specie in their vaults, are really of no use whatever. They may be and have been eluded and defeated in a thousand ways, and serve only to make the public look for protection to what is altogether impotent and worthless for any good purpose.

The following table, from *Hunt's Commercial Magazine* for March 1857, gives an account of the number and condition of the banks of the United States, as officially reported, in certain years from 1834 to 1856.

Table of the Secretary of the Treasury, showing the Number of Banks and Branches, with their Capitals, Discounts, Specie, Circulation, and Deposits, in the Union, in the following Years, from 1834 *to* 1856. *The last line gives the position of the Banks near January* 1, 1856.

Years	Banks	Capital	Discounts	Specie	Circulation	Deposits
		$	$	$	$	$
1834	506	200,006,000	324,119,000	26,642,000	94,810,000	75,667,000
1836	715	251,875,000	457,506,000	40,020,000	140,301,000	115,104,000
1837	788	270,772,000	525,116,000	37,915,000	149,185,000	127,397,000
1843	691	228,862,000	254,545,000	53,510,000	58,564,000	56,169,000
1848	751	204,853,000	344,477,000	46,370,000	128,506,000	105,226,000
1851	879	227,808,000	413,757,000	48,671,000	155,165,000	128,958,000
1854	1,208	301,376,000	557,398,000	59,410,000	204,689,000	188,189,000
1855	1,307	332,177,000	576,745,000	53,045,000	186,252,000	180,400,000
1856	1,398	345,874,000	654,183,000	59,314,000	195,717,000	212,506,000

Statement showing the Condition of the Banks of the United States in 1855, 1856, 1857, *and* 1858.

	1855	1856	1857	1858
Number of banks	1,163	1,255	1,285	1,284
Number of branches	144	143	135	138
Total	1,307	1,398	1,416	1,422
Capital paid in	$332,177,000	$343,874,000	$370,535,000	$394,623,000
Resources				
Loans and discounts	$576,145,000	$634,185,000	$684,457,000	$583,165,000
Stocks	52,727,000	49,485,000	59,272,000	60,305,000
Real estate	24,074,000	20,866,000	26,126,000	28,756,000
Other investments	8,735,000	8,823,000	5,920,000	6,076,000
Due by other banks	55,730,000	62,640,000	65,849,000	58,055,000
Notes of other banks	23,450,000	24,779,000	28,124,000	29,447,000
Specie funds	21,956,000	19,958,000	25,087,000	15,390,000
Specie	53,945,000	59,314,000	58,356,000	74,413,000
Liabilities				
Circulation	186,252,000	195,748,000	214,779,000	155,208,000
Deposits	180,400,000	212,706,000	230,351,000	185,939,000
Due to other banks	45,157,000	52,720,000	57,674,000	51,170,000
Other liabilities	15,690,000	12,268,000	19,817,000	14,167,000
Aggregate of immediate liabilities	422,500,000	461,174,000	509,893,000	392,510,000
Aggregate of immediate means	158,049,000	166,671,000	177,405,000	170,294,000
Gold and silver in the United States treasury depositories	27,189,000	23,705,000	20,066,000	10,929,000
Total specie in banks and treasury depositories	81,135,000	82,020,000	78,416,000	84,612,000

In 1857 another crash took place, and *all* the banks in the Union, from the Gulf of Mexico to the frontiers of Canada, again stopped payments.

This new crash affords, had that been necessary, a fresh and striking illustration of the truth of the principles we have endeavoured to establish in the course of this treatise; and it may be expected to awaken, if that be possible, the American people to a proper sense of the enormous abuses connected with their banking system; and the necessity of placing it on an entirely new foundation.

The above account shows that there had been a rapid increase of discounts since 1851, and that increase was especially great in 1856, and went on augmenting down to August (1857). On the 8th of that month, the discounts and advances by the New York banks amounted to 122,077,252 dollars, the deposits in their possession being at the same time 94,436,417 dollars. This was the maximum of

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both. On August 24, the Ohio Life and Trust Company, which carried on an extensive banking business in New York, stopped payments; and by so doing gave a severe shock to credit and confidence, which the suspension of two or three more banks turned into a panic. Notes being in a certain degree secured, the run upon the banks was principally for deposits. And to meet it they so reduced their discounts and advances, that on October 17 they amounted to only 97,245,826 dollars. This sudden and violent contraction necessarily occasioned the suspension of many of those mercantile houses that had depended on the banks for discounts. And it did this without stopping the drain for deposits, which had sunk on October 17 to 52,894,623 dollars, being a decrease of 41,546,784 dollars, in about two months. The universal stoppage of the banks was a consequence of these proceedings.

There seems to be no doubt that improvident advances on the part of the banks, and overtrading, were the main causes of the crisis. And it is important to observe that it is stated in the *Banker's Magazine* for November 1857 (p. 430), and other works of authority published in New York, that the improvidence referred to was, in part at least, occasioned by the too high interest allowed at New York on deposits on current accounts, or at call. This made the opulent bankers and capitalists in the Western States keep large balances at New York; and it tempted, and in some degree obliged, the bankers and money-dealers in the latter to make advances on questionable security, for the sake of the high interest payable on them. A system of this sort may be truly said to force capital into the hands of the least deserving, and to be a prolific source of wild speculation and overtrading. And whenever any serious check is given in any quarter of the Union to the process of inflation, the consequences are sure to be in the last degree disastrous; for, the greater number of the banks being very ill supplied with specie, they can resist no serious demand upon them either for payment of notes or deposits; and when one or a few stop, a panic is generated, which involves even the best managed banks in the common ruin.

A tendency to panics is, in fact, one of the peculiarities of the American system. Owing to the liability of the partners in banks being limited, the depositors in them, and the holders of notes not issued upon securities, having nothing to trust to, make all imaginable haste, when their suspicions are awakened, to save themselves by withdrawing their deposits, and cashing their notes. And hence the rapidity with which panics spread throughout the Union; and, we may add, that the slowness with which they are disseminated in this country arises from the contrary circumstances, from the confidence placed by the public in the unlimited obligation of the partners to make good all demands.

In the city of New York, the action of the foreign exchanges compels the banks to have always on hand a very considerable amount of specie. But the reader will hardly believe with what a small stock of coin the banks in the country parts of that state, and generally throughout the Union, contrive to carry on their business. In illustration of this statement, we may mention, that in June 1857 the fifty-six banks in the city of New York are reported in the official returns to have had 8,000,000 dols. notes in circulation, with an aggregate amount of no less than 12,000,000 dols. specie in their coffers. But at the same time that the city banks were in this situation, the circulation of the 255 country banks then existing in the state is returned at 24,000,000 dols., and their specie at only 1,200,000 dols., being only one-twentieth part of their notes afloat. And as these returns give only average results, it follows that, while some of the banks would have more, others would have proportionally less specie than this medium rate.

A notion, indeed, would appear to be gaining ground among the banks, in some parts of the States, that when they have given security for their issues, they have done quite enough, and that they may dispense with the troublesome obligation to pay them on demand. It appears, for example, that in the moral and religious state of Massachusetts there were, on July 7, 1856, no fewer than 135 banks (excluding those in Boston), which had 6,601,180 dols. of deposits, and notes in circulation amounting to 13,106,068 dols., while their specie on hand amounted to only 1,092,463 dols., or about one-thirteenth part of the circulation. And in other parts of the Union the stock of bullion was still more scanty. Thus, in Illinois, on July 6, 1857, the State Bank, with notes afloat to the amount of 725,000 dols., had, to meet all demands, 61,000 dols. in specie in her coffers; while the Grayville Bank, with a circulation of 471,556 dols., was provided with a supply of 18,951 dols. in specie; and the Raleigh Bank, with a circulation amounting to 248,000 dols., had a specie fund of no less than 1,000 dols.! It may be supposed, perhaps, that this would be the minimum amount of specie, but no. For some banks (such as the Bank of the Commonwealth, with notes afloat to the extent of 84,915 dols.) were honest enough to admit that they had a considerable circulation without being encumbered with a single dollar!

It is evident that a banking system of this sort has no better foundation than a house of cards. It is sure to fall to pieces at the first touch. The grand object of by far the greater number of the bankers is to get their notes into circulation; and as these are often issued for very small sums, cost nothing, and at the same time yield some eight, ten, or twelve per cent., or more, of interest, we need not wonder at the eagerness with which they pursue this object, or at their success, or the abuses to which it leads. The discount of bills at distant dates, and their renewal, make part of the system.

The security system followed in New York, even were it generally adopted, affords no guarantee against these evils. Instead of preventing, it really tends to encourage, over-issue, and it is impotent to insure a proper supply of bullion. All that it contemplates is the ultimate payment of the notes; but it does not prevent the bankruptcy of those by whom they are issued, and we have seen that it does not accomplish even that ultimate payment which it has exclusively in view. The whole system is rotten to the core; and unhappily, too, it is deeply injurious to all those with whom the Americans have any dealings, as well as to themselves.

We are glad to be able to corroborate our views of these matters by the high authority of a former President of the United States. Mr. Buchanan, in his Message to Congress, delivered on December 8, 1857, makes the following conclusive statement: 'The first duty which banks owe to the public is to keep in their vaults a sufficient amount of gold and silver to insure the convertibility of their notes into coin at all times and under all circumstances. No bank ought ever to be chartered without such restrictions

on its business as to secure this result. All other restrictions are comparatively vain. This is the only true touchstone—the only efficient regulator of a paper currency—the only one which can guard the public against over-issues and bank suspensions. As a collateral and eventual security it is doubtless wise, and in all cases ought to be required, that banks shall hold an amount of United States' or state securities equal to their notes in circulation, and pledged for their redemption. This, however, furnishes no adequate security against over-issues. On the contrary, it may be perverted to inflate the currency; indeed, it is possible by this means to convert all the debts of the United States and state governments into bank notes, without reference to the specie required to redeem them. However valuable these securities may be in themselves, they cannot be converted into gold and silver at the moment of pressure, as our experience teaches, in sufficient time to prevent bank suspensions and the depreciation of bank-notes.'

It is truly stated by Mr. Buchanan, in the Message now referred to, 'that it is easy to account for our financial history for the last forty years. It has been a history of extravagant expansions in the business of the country, followed by ruinous contractions. At successive intervals the best and most enterprising men have been tempted to their ruin by excessive bank loans of mere paper credit, exciting them to extravagant importations of foreign goods, wild speculations, and ruinous and demoralising stock gambling. When the crisis arrives, as arrive it must, the banks can extend no relief to the people. In a vain struggle to redeem their liabilities in specie, they are compelled to contract their loans and their issues; and at last, in the hour of distress, when their assistance is most needed, they and their debtors together sink into insolvency.'

We have already seen that the real value of our exports to the United States in 1856 amounted to 21,476,000*l.* But we have been too much in the habit of estimating our commercial prosperity by the magnitude of the exports, which is a most fallacious criterion. We have heard it stated by well-informed parties, and we believe the statement to be true, that but for the extreme inflation of the banking and credit system of the United States, the imports from *England* in 1858 would not have exceeded 15,000,000*l.* or 16,000,000*l.*; and that those from France and other countries would have been reduced in something like the same proportion. And, had such been the case, production here would not have been unnaturally stimulated, and a fair profit would have been obtained from our exports, whereas they will now entail a large and most serious loss.

Besides the bankruptcy and ruin that periodically arise from such a system, it is at all times productive of the greatest inconvenience and trouble. Where there are so many separate and independent banks (about 1,400), the sphere of the influence and circulation of each is necessarily circumscribed; and when notes get to any considerable distance from the place where they are issued, especially when they get into a different state, they circulate with difficulty, and generally at a discount. But this is not the only evil by which their circulation is attended. Banks are every now and then suspending payments, or getting into discredit. And lists are regularly published of such defaulting or suspected banks, and of the rates of discount at which their notes are current, without which no traveller can leave his house, and no shopkeeper can venture to transact any business. It is truly astonishing, seeing the extreme inconvenience resulting from such a state of things, that it should be tolerated even for a week. If the general Government be not sufficiently strong to suppress local issues, and to substitute in their stead a national paper issued on deposits of bullion, the public may, if they choose, rid themselves of the evil by refusing to accept payment otherwise than in coin. The banking interest is, however, so very powerful, and embraces so great a number of individuals, that we doubt whether, even with the co-operation of the general Government, the time has yet arrived for anything effectual being done for the amendment of the system. But the longer it exists, the more intolerable will it become; and in the end, no doubt, it will be suppressed. It forms, at present, the most gigantic abuse by which an intelligent people ever permitted themselves to be disgraced and oppressed.

Congress passed an Act, dated February 25, 1863, by which the privilege possessed by the several states was virtually superseded. The title of this Act is, 'An Act to provide a National Currency, secured by a pledge of United States Stocks, and to provide for the Circulation and Redemption thereof.'

The Act provides a new officer, called the *comptroller of the currency*, who is nominated by the secretary of the treasury for 5 years, subject to the approval of the president and senate. This officer is bound to make an annual financial report. The immediate object of the department is the circulation *and* redemption of the legal tender greenbacks; the indirect effect is the extinction of the States banks, and the establishment in their stead of national banks. Banks known by the name of national banks may now be founded by not less than five persons, who are bound to lodge duly legalised certificates with the public officer, specifying the name of the company, its place of business, the amount of its capital, which must not be less than 50,000 dollars in towns under 10,000 inhabitants, and in towns above that number, than 100,000; the names and residences of the shareholders, with the number of shares subscribed for by each, 30 per cent. of which must at least be paid up; and lastly the date at which the operations of the bank are to commence.

The comptroller, when he is satisfied that these conditions have been fulfilled, gives the proper authority to the company, under which they commence their operations. The company is bound to forward a certain amount of United States bonds to the treasury, in exchange for which they receive 'currency circulating notes in blank' registered and countersigned to 90 per cent. of the bonds deposited. The aggregate amount of these notes shall not exceed 350,000,000 dollars, 150,000,000 of which are circulated by the bank, the rest by the secretary of the treasury. The notes are 5, 10, 20, 100, 500, and 1000 dollars. The banks, in lieu of taxes on their circulation, pay 1 per cent. on the notes issued to them at the returns of July 1 and Jan. 1, 2 per cent. being recoverable in default.

The notes are receivable at par for taxes, excise, land sales, and all public debts, except customs and dividends on United States stock. Banks which fail to meet their obligations after protest made by creditors before a notary, are suspended by the comptroller, and the guarantee bonds forfeited. These are sold by public auction at New York, after thirty days' notice, and the creditors reimbursed.

Each bank must be managed by from five to

nine directors, all citizens of the United States, resident more than a year, and each possessed of 1 per cent. of the capital, or, in case it exceed 200,000 dollars, of 10 per cent. A bank must always possess to the amount of one-fourth of its circulation deposits in lawful money. The bank must not pledge its own stock in order to procure specie or notes.

Banks are required to make a detailed statement of their affairs at the beginning of each quarter, and a statement of their average circulation, deposits, lawful money, and balances available for the redemption of their circulating notes, at the beginning of each month. It is urged by the comptroller that this quarterly return is insufficient, and that it would be desirable that a full exhibit of the affairs of each bank should be required on the first Monday of each month. The first national bank was organised on June 20, 1863.

On Jan. 1, 1863, there were 507 Eastern banks, 491 in the Middle states, 147 in the South-east, 114 in the South-west, 207 in the North-western states—1,466. For nine years precedent and 1851, there were the following:—

Jan. 1.		Jan. 1.	
1851	879	1858	1,122
1854	1,208	1859	1,476
1855	1,307	1860	1,402
1856	1,398	1861	1,601
1857	1,416	1862	1,496

On Jan. 1, 1863, the capital was 405,000,000, the circulation 238,000,000, the deposits 393,000,000, the specie 101,000,000, of dollars.

In October, 1867, the number of national banks was 1,639, with a capital of 424,394,861 dols., having bonds on deposit, 340,675,000. The circulation of legal tender paper was 299,103,996.

Between June 20, 1863, and Oct. 1, 1867, only ten of these banks have failed, with habilities to the public of 4,560,000 dols. The liquidation of these banks has led to the loss of only 1,000,000 dols. (Mr. Holland's *Report*, Dec. 1867.)

Sec. XIII.—Banks for Savings.

Banks established for the receipt of small sums deposited by the poorer class of persons, and for their accumulation at compound interest. They are managed by individuals who are supposed to derive no benefit from the deposits. All moneys paid into any savings bank established according to the provisions of the Acts 9 Geo. IV. c. 92, and 7 & 8 Vict c. 83, are ordered to be paid into the Banks of England and Ireland, and vested in Bank annuities or Exchequer bills. The last-mentioned statute reduced the interest payable to the trustees of banks to 3*l.* 5*s.*, and that payable to depositors to 3*l.* 0*s.* 10*d.* per cent. per annum: the difference of 4*s.* 2*d.* per cent. being intended to form a fund to defray the cost of management &c. No depositor can contribute more than 30*l.*, exclusive of compound interest, to a savings bank in any one year; and the total deposits to be received from any individual are not to exceed 150*l.*; and whenever the deposits, and compound interest accruing upon them, standing in the name of any one individual, shall amount to 200*l.*, no interest shall be payable upon such deposit so long as it shall amount to 200*l.* The commissioners for the reduction of the national debt have the disposal of the sums vested in the public funds on account of savings banks.

This system began in 1817; and on the 20th of November, 1857, there was due to depositors, including interest accruing on deposits, 35,255,722*l.* It farther appears that from the 6th of August, 1817, down to the 20th of November, 1857, the public paid on account of interest and charges on the sums due to savings banks and friendly societies under the Act referred to, 28,852,013*l.* 8*s.* 5*d.*, and that the dividends received during the same period on the stock and other public securities in which the commissioners for the reduction of the national debt invested the said sums, amounted to 26,077,961*l.* 19*s.* 2*d.*, leaving a balance of 2,774,051*l.* 9*s.* 3*d.*, which consequently may be said to be the sum which the system has cost the public. (*Parl. Paper*, No. 441, sess. 1858.) The reduction of the interest on deposits in 1844 from 2½*d.* to 2*d.* per cent. per diem contributed in some degree to diminish the loss to the public. But it is mainly owing to the circumstance that the contributions to savings banks, and consequently the investments on their account, are greatest when the country is prosperous and the funds high; and that the deposits are principally drawn out under the opposite circumstances, or when confidence is shaken and the funds are low. But, after all, the loss to the public is not very considerable; and it does not seem too great a price to pay for the maintenance of so advantageous a system.

That this is a true statement may be easily shown. In the metropolis, and many other parts of England, public banks do not receive small deposits, and until recently they did not pay any interest on them. And even in Scotland, where the public banks allow interest upon deposits, they do not generally receive less than 5*l.* or 10*l.* But few poor persons are able to save even this much, except by a lengthened course of economy. The truth, therefore, is, that until savings banks were established, the poorer classes were everywhere without the means of securely and profitably investing those small sums they are not unfrequently in a condition to save, and were consequently led, from the difficulty of disposing of them, to neglect opportunities for making savings, or, if they did make them, were tempted, by the offer of high interest, to lend them to persons of doubtful characters and desperate fortunes, by whom they were for the most part squandered. Under such circumstances, it is plain that nothing could be more important, in the view of diffusing habits of forethought and economy amongst the labouring classes, than the establishment of savings banks, where the smallest sums are accumulated at compound interest, and are paid, with their accumulations, the moment they are demanded by the depositors. The system has not yet received its full development. The want of perfect security operates as a serious drawback to its extension; but the magnitude of the deposits already received sets its powerful and salutary operation in a very striking point of view.

Savings banks are now regulated by the Act of 1863, 23 & 24 Vict. c. 87, and the various sections of the previous Acts which that statute left unrepealed. These are 3 & 4 Wm. IV. c. 14 ss. 21, 22, 25, 28, 29, 30, 31, 32, 33, 34 & 35, and 17 & 18 Vict. c. 20, sec. 2 only of which is repealed.

Purchase of Government Annuities by Depositors in Savings Banks.—The Act 2 & 3 Wm. IV. c. 14, under the provisions of which depositors in savings banks were allowed to purchase Government annuities, was subsequently amended by the 7 & 8 Vict. c. 83, which Acts were afterwards consolidated and amended by the 16 & 17 Vict. c. 45; and the facilities for the purchase of such annuities were extended by the 27 & 28 Vict. c. 43. That these measures were benevolently intended, and that they may be productive of advantage to many individuals, cannot be doubted;

but we look upon all attempts, and particularly those made by Government, to get individuals to exchange capital for annuities, as radically objectionable, and as being subversive of principles which ought to be strengthened rather than weakened. [FUNDS; INTEREST AND ANNUITIES.]

Sec. 6 of the 27 & 28 Vict. c. 43 requires the construction of fresh tables of the annuities and insurances contemplated by the Act; and s. 14 empowers the Postmaster-General to authorise his officers to receive the moneys payable under the Act and under the 16 & 17 Vict. c. 45.

Persons desiring to purchase annuities or to effect insurances should apply for a proposal form at one of the post offices opened for the purpose. Instructions as to the mode of filling up the form are printed on it.

This serious defect and the constant defalcation of the trustees of savings banks led to the introduction into Parliament of a measure to remedy the evil by the establishment of Government savings banks, pledging the security of the state to depositors, and the Act of 1861, 24 Vict. c. 14, known as the Post Office Savings Bank Act, was passed with this object.

GENERAL POST OFFICE SAVINGS BANK.

The 24 & 25 Vict. c. 14 extends the facilities for the deposit of small savings, by making the General Post Office available for the purpose, and affording the direct security of the state to every depositor for the repayment of all money deposited, together with the interest due thereon.

Before the post office savings banks were established, 638 savings banks (in which number penny banks are, of course, not included) were open in the United Kingdom for the receipt of small savings. Of these, 355 were open but once in each week, 54 were open but once in each fortnight, several were open but once a month, and only 20 were open daily. Since the establishment of the 3,064 post office banks, all of which are open daily, the duration and the frequency of the term for business have been increased at many of the old savings banks. On the other hand, the trustees of many of the old savings banks have either closed or signified their intention to close the institutions under their control, in the belief that the post office banks afford the public a sufficient amount of accommodation.

The following statement gives the proportion of savings bank depositors to the whole population of the kingdom at each of four decennial periods, and shows that the rate of increase in the number of such depositors has, throughout the last 30 years, been greater than the rate of increase of population:—

On Nov. 20	1832, there were for every 100 persons	About 1	savings bank depositors.	
,,	1842	,, ,,	3½	,, ,,
,,	1852	,, ,,	4½	,, ,,
,,	1862	,, ,,	5¾	,, ,,

The following Table is appended in Illustration of the Condition of the Post Office Savings Banks on March 31, 1864.

Countries	Number of Depositors' Accounts to March 31 1861			Deposits		Withdrawals		Amount of Balances remaining at Credit of Depositors' Accounts
	Opened	Closed	Remaining Open	Number	Amount	Number	Amount	
					£ s. d.		£ s. d.	£ s. d.
England - - -	403,560	76,214	327,346	1,556,202	5,552,250 10 9	315,595	1,652,071 6 3	3,700,176 4 6
Wales - - -	14,713	3,162	11,551	65,120	174,325 5 10	8,964	53,295 12 6	121,029 13 4
England and Wales -	418,273	79,376	338,897	1,621,322	5,726,575 16 7	324,559	1,705,369 18 9	3,821,205 17 10
Islands - - -	929	193	736	3,797	10,829 3 4	579	3,230 17 0	7,598 6 4
Scotland - - -	23,588	4,703	18,885	91,346	168,143 14 6	16,126	60,512 1 10	107,931 12 8
Ireland - - -	18,915	4,276	14,639	78,569	249,026 3 4	16,212	89,169 19 0	160,756 4 4
Total - - -	461,705	88,550	373,955	1,795,174	5,955,774 17 9	357,476	1,858,282 16 7	4,097,492 1 2

Out of the 7,000,000*l.* paid into the post office savings banks since their establishment in 1861, only 1,100,000*l.* has been transferred from the older savings banks; thus it is obvious that the post office banks have created an almost entirely new business.

SEAMEN'S SAVINGS BANK.

With a view of inducing provident habits in the seamen and their families, and of providing for the safe custody and increase of their savings, the legislature has passed an Act empowering the Board of Trade to establish savings banks at suitable places within the United Kingdom for the benefit of seamen belonging to the mercantile marine, as well as their wives and families, the management and control of these banks being vested in the Board of Trade. Under the provisions of the Merchant Shipping and Seamen's Savings Bank Acts a department has been established in London at the Board of Trade as the Central Savings Bank, where all accounts of the depositors are kept. The shipping masters at the several ports are to act as its agents to receive and to pay deposits.

The Regimental Savings Banks are conducted under the War-Office, and those for the seamen of the Royal Navy under the Admiralty.

BANKRUPT AND BANKRUPTCY. In the general sense of the term, bankrupt is equivalent to insolvent, and is applied to designate any individual unable to pay his debts. Formerly in the law of England bankrupts formed that particular class of insolvents who were engaged in trade, or who 'sought their living by buying and selling,' and who were declared, upon the oath of one or more of their creditors, to have committed what the law had defined to be an *act of bankruptcy*. But the distinction between traders and non-traders was in most respects abolished by the Act of 1861, the 24 & 25 Vict. c. 134. At present, however, we shall merely lay before the reader a few observations with respect to the principles and leading provisions embraced in the law as to bankruptcy and insolvency; referring to the article INSOLVENCY AND BANKRUPTCY for some further observations on the subject.

All classes of individuals, even those who have least to do with industrious undertakings, are exposed to vicissitudes and misfortunes, the occurrence of which may render them incapable of making good the engagements into which they have entered, and render them bankrupt or insolvent. But though bankruptcy be most frequently, perhaps, produced by uncontrollable

causes, it is frequently also produced by persons living beyond their means, and by their repugnance to make those retrenchments which the state of their affairs imperatively demands; and sometimes and, we regret to have to add, not unfrequently, bankruptcy originates in fraud or bad faith. But, however it may be occasioned, whether by the misfortunes, the folly, or the fraud of the individual, it ought, primâ facie, to be viewed as a very grave moral offence. No man is justified in entering into engagements, or making promises, which he has not a reasonable prospect of being able to fulfil; nor is he justified in applying the money or loans that may have been made to him, or the property that may have come into his hands in the course of his business, to maintain an expenditure that decidedly exceeds his ordinary income or profits. Those who persevere in a system of this sort cannot, if they think at all, expect to arrive at any goal other than bankruptcy. They must know that they are carrying on a system of deception; that they are contracting debts which they can never pay; and that, in truth, they are as really swindlers as if they had offered fictitious bills or dock-warrants in payment of their bonds. And hence the difficulty of dealing with this subject. Misfortunes, when they really occur, or the failure of reasonable speculations, are easily dealt with; but all bankruptcies not at once accounted for in that way involve serious grounds of suspicion, and should be thoroughly sifted. Inasmuch, however, as the circumstances which end in bankruptcy are often of a very complicated character, and difficult to disentangle, it is not easy to lay down any general rules for dealing with them. And hence it is that the laws with respect to bankruptcy have differed very widely in different countries and periods of society, and that it is not, perhaps, possible to suggest any system against which pretty plausible objections may not be made.

The execrable atrocity of the early Roman laws with respect to bankruptcy is well known. According to the usual interpretation of the law of the Twelve Tables, which Cicero has so much eulogised (*De Orat.* lib. i.), the creditors of an insolvent debtor might, after some preliminary formalities, cut his body to pieces, each of them taking a share proportioned to the amount of his debt; and those who did not choose to resort to this horrible extremity were authorised to subject the debtor to chains, stripes, and hard labour; or to sell him, his wife, and children, to perpetual slavery *trans Tiberim*! This law, and the law giving fathers the power of inflicting capital punishments on their children, strikingly illustrate the ferocious and sanguinary character of the early Romans.

There is reason to think, from the silence of historians on the subject, that no unfortunate debtor ever actually felt the utmost severity of this barbarous regulation; but the history of the republic is full of accounts of popular commotions, some of which led to very important changes, that were occasioned by the exercise of the power given to creditors of enslaving their debtors, and subjecting them to corporal punishments. The law, however, continued in this state till the year of Rome 427, 120 years after the promulgation of the Twelve Tables, when it was repealed. It was then enacted that the persons of debtors should cease to be at the disposal of their creditors, and that the latter should merely be authorised to seize upon the debtor's goods, and sell them by auction in satisfaction of their claims. In the subsequent stages of Roman jurisprudence farther changes were made, which seem generally to have leaned to the side of the debtor; and it was ultimately ruled that an individual who had become insolvent without having committed any fraud should, upon making a *cessio bonorum*, or a surrender of his entire property to his creditors, be entitled to an exemption from all personal penalties. (Terasson, *Histoire de la Jurisprudence Romaine*, p. 117.)

The law of England distinguished, down to a late period (1861), between the insolvency of persons engaged in trade and that of others, the former being treated with comparative indulgence. But despite the elaborate reasonings of Blackstone in its favour (*Comment.* book ii. ch. xxxi.), there were no really good grounds for this preference. Vast numbers of traders found their way into the Gazette without being the victims either of accidental losses or unavoidable contingencies. All that was most revolting in the worst cases of insolvency was equalled or surpassed by many of the cases in bankruptcy. Recklessness, improvidence, and the obtaining of loans or advances under false pretences, are as common in one class of society as another; and though this were not the case, the classes excluded from the benefit of the Bankruptcy Acts had to encounter as many risks as the others. There are few trades so hazardous as that of a farmer, and yet if he became insolvent he was not entitled to the same privileges he would have enjoyed had he been the keeper of an inn, or a commission agent! The injustice of this distinction is obvious; but, without dwelling upon it, it is clear that discharges, which were not given to insolvents, should be granted indiscriminately to all honest debtors. Being relieved from all concern as to his previous incumbrances, an insolvent who has obtained a discharge is prompted to exert himself vigorously in future, at the same time that his friends are not deterred from coming forward to his assistance. But no one, however favourably disposed, could venture to aid an insolvent who continued liable to his previous debts with a loan; and he was discouraged, even if he had means, from attempting to earn anything more than a bare livelihood; so that, while creditors did not, in one case out of a hundred, gain the smallest sum by this constant liability of the insolvent, his energies and usefulness were for ever paralysed. We, therefore, are glad that the distinction between bankruptcy and insolvency has been practically abolished. Every case of a failure to meet one's engagements should be tried on its own merits. Improvidence, extravagance, and bad faith are equally objectionable in the case of traders and non-traders, and should be dealt with in precisely the same way.

The law of Bankruptcy is administered by a Court which sits in London, and by district courts in Manchester, Birmingham, and other large towns. The County Court Judges have also the powers of Commissioners of Bankruptcy, and may act as such.

The Acts which constitute what are called a bankruptcy are specified in clauses 70–85 of the Act 25 & 26 Vict. c. 134. They all involve either an inability or a disinclination to pay one's just debts. They consist principally of allowing oneself to be imprisoned for a debt, a trader for fourteen days, and a non-trader for two months; going or escaping abroad with intent to defraud creditors; filing a declaration of inability to meet one's engagements; suffering execution to be levied by seizure and sale of goods; traders executing a conveyance of their property to trustees for the benefit of the creditors &c.

An adjudication of bankruptcy takes place upon

the debtor or a creditor to the extent of 50*l.* presenting a petition to the court, which, on proof of the statement, adjudges the debtor a bankrupt. An official assignee is then appointed by the court to ascertain and take care of the debtor's property. The creditors also appoint an assignee, and the proceedings then take place which are specified in the Act, clauses 86–225, for realising and rateably dividing the property of the bankrupt among the creditors, or for otherwise winding up and terminating the bankruptcy.

Upon the bankrupt passing his last examination under the statute, the court appoints a meeting for considering whether a discharge should be granted to him, and the conditions under which it should be granted. Formerly discharges or certificates were of three kinds, but these distinctions are now abolished. The court is authorised, according to the estimate which it forms of the conduct of the bankrupt, to suspend his discharge, with or without protection from arrest, for such term as they may think fit, stating in the discharge the reasons for such suspension, and whether he has been imprisoned under the provisions of the Act. It is left to the creditors to determine whether any, and if any, what allowance shall be made to a bankrupt out of his estate.

And it is further enacted, that any bankrupt 'who has carried on trade by means of fictitious capital, or who could not have had, at the time when any of his debts were contracted, any reasonable or probable ground of expectation of being able to pay the same, or that, if a trader, he has, with intent to conceal the true state of his affairs, wilfully omitted to keep proper books of account, or, whether trader or not, that his insolvency is attributable to rash and hazardous speculation, or unjustifiable extravagance in living, or that he has put any of his creditors to unnecessary expense by frivolous or vexatious defence to any action or suit to recover any debt or money due from him, the court may either refuse an order of discharge, or may suspend the same from taking effect for such time as the court may think fit, or may grant an order of discharge subject to any condition or conditions touching any salary, pay, emoluments, profits, wages, earnings, or income, which may afterwards become due to the bankrupt, and touching after-acquired property of the bankrupt, or may sentence the bankrupt to be imprisoned for any period of time not exceeding one year from the date of such sentence.'

But, despite these and other penalties embodied in the Act, we are strongly impressed with a conviction that bankruptcy is treated in this country with too much indulgence. The offences specified in the Act are mostly of a very grave character, and some of them deserve to be very severely treated. But it so happens that it is often very difficult to establish by the evidence of witnesses some of the least justifiable and most common causes of bankruptcy, such as extravagant living, which is its great source, improvident speculation, and so forth. And we doubt whether any such evidence should be required. Bankruptcy, or the failure of individuals to fulfil their engagements, is, and should be considered a very serious offence. But, like other offences, it is of various degrees of magnitude, and may arise from very different causes. There is a wide difference between bankrupts who pay their creditors 10*s.*, 15*s.*, or 18*s.* per pound, and those who pay them only 1*s.* or 2*s.* per ditto, and it is not reasonable that they should be treated in the same way. Innumerable accidents and disappointments may occur to hinder a man from meeting his engagements; but if he have lived within his income and properly proportioned his speculations to the extent of his capital, it is difficult to see how he should be unable to pay a dividend of less than 10*s.* or 12*s.* per pound on his debts. And supposing this to be a correct view, it might be safely enacted that all bankruptcies in which the estates realised less than 10*s.* per pound of dividend should *ipso facto* be held to be fraudulent, or caused by improper proceedings on the part of the bankrupts; and that they should be dealt with accordingly, unless they succeeded in satisfactorily establishing the propriety of their conduct. In cases where the dividend exceeded 10*s.*, it might, as at present, be left to the creditors to arraign the proceedings of the bankrupts in opposing their discharge.

We do not well see how a system of this sort could be justly objected to. Those who make improvident speculations, or who pursue a line of conduct which involves them deeper and deeper in debt and difficulties, cannot fail to know that they must necessarily become bankrupts; and, if they only injured themselves, few would regret the hardships which they might suffer. But they are sure to injure others—the savings on which the industrious and frugal had to depend being often squandered by the most unworthy parties, and on the most unworthy objects. Bankruptcy, when not occasioned by uncontrollable or unlooked-for causes, is, in truth, a great crime. Individuals who systematically contract debts which they have no reasonable prospect of being able to pay—who, to obtain loans, misrepresent the true state of their affairs, and pervert them, when obtained, to spendthrift or dishonest purposes—are one of the worst varieties of swindlers. And the vast extent to which bankruptcy is carried, the extravagance and bad faith of many bankrupts, and the frequent non-existence and inconsiderable amount of the dividends, show the extent and malignancy of the disease, and the propriety of taking measures for its abatement.

The policy of imprisoning for debt, when nothing unfair or improper is involved in its contraction, is not a little questionable. Notwithstanding the deference due to the authorities who have vindicated this practice, we confess we are unable to discover anything very cogent in the reasonings advanced in its favour. Provided a person in insolvent circumstances intimate his situation to his creditors, and offer to make a voluntary surrender of his property to them, he has, supposing he has acted honestly, done all that should be required of him, and ought not to undergo any imprisonment. If, indeed, he have deceived his creditors by false representations, or have grossly misconducted himself, or have endeavoured to convey away any part of his property, then, undoubtedly, he should be subjected to the pains and penalties attached to swindling; but when such practices are not alleged, or cannot be proved, sound policy, we apprehend, would dictate that creditors should have no power over the persons of their debtors, and that they should be entitled only to their effects. The maxim *carcer non solvit* is not more trite than true. It is said that the fear of imprisonment operates as a check to prevent persons from getting into debt, and so no doubt it does. But then it must, on the other hand, be borne in mind, that the power to imprison tempts individuals to trust to its influence to enforce payment of their claims, and makes them less cautious in their enquiries as to the condition and circumstances of those to whom they give credit. The carelessness of tradesmen, and their extreme earnestness to obtain custom, are, more than anything else, the great causes of insolvency,

and the power of imprisoning merely tends to foster and encourage these habits. If a tradesman trust an individual with a loan of money or goods, which he is unable to pay, he has made a bad speculation. But why should he, because he has done so, be allowed to arrest the debtor's person? If he wished to have perfect security, he either should not have dealt with him at all, or dealt with him only for ready money. Such transactions are, on the part of tradesmen, perfectly voluntary; and if they place undue confidence in a debtor who has not misled them by erroneous representations of his affairs, they have themselves only to blame.

It is pretty evident, too, that the efficacy of imprisonment in deterring individuals from running into debt has been greatly overrated. Insolvents who are honest must have suffered from misfortune or been disappointed in the hopes they entertained of being able, in one way or other, to discharge their debts. The fear of imprisonment did not greatly influence such persons; for when they contracted debts, they had no doubt of their ability to pay them. And though the imprisonment of bonâ fide insolvents be abolished, it could give no encouragement to the practices of those who endeavour to raise money by false representations; for these are to be regarded as swindlers, and ought as such to be subjected to adequate punishment. [CREDIT.]

The following return sets these statements in the clearest point of view:—

Return for the Year ending October 11, 1863, *of Judicial and Financial Matters transacted under* (*Parl. Paper, No.* 31, *Sess.* 1864) *the Bankruptcy Act of* 1861.

	London District Court	Country District Courts	County Courts	Total
Number of adjudications of bankruptcy	2,919	1,674	3,819	8,470
On petition of a creditor	716	313	85	1,114
On petition of the debtor	2,012	1,060	3,055	6,144
By registrars at the prisons	190	245	406	867
On petitions in forma pauperis	420	15	277	780
On judgment debtor summons	5	—	—	5
Number of adjudications where the debts of the bankrupt exceeded 300*l.*	1,683	1,657	184	3,524
Number where the debts did not exceed 300*l.*	1,236	17	3,635	4,946
Discharges granted	2,742	1,280	3,115	6,137
suspended	148	98	142	388
refused	3	5	114	120
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Total amount of gross produce realised from the several bankrupts' estates	185,185 14 3	458,471 17 5	54,020 17 1¼	698,678 9 9½
Total amount realised by creditors' assignees	124,085 3 7	287,[illegible] 8 2	11,[illegible] 12 [illegible]	425,141 3 10½
Total amount realised by official assignees	61,100 11 0	170,[illegible] 9 3	42,030 5 0½	273,[illegible] 5 9½
Number of cases in which a dividend was made	116	241	329	686
there was no dividend	2,785	1,[illegible]28	1,712	5,[illegible]5
dividend was under 2*s.* 6*d.*	53	269	147	469
s. d. s. d.				
2 6 and under 5 0	34	170	111	284
5 0 „ 7 6	14	81	41	136
7 6 „ 10 0	5	20	16	41
10 0 „ 15 0	7	15	19	43
15 0 „ 20 0	3	6	4	13
20 0 - -	—	9	11	20

The Acts of Parliament under which bankruptcy is administered in Scotland are 19 & 20 Vict. c. 29, explained by 20 & 21 Vict. c. 19, and amended by 23 & 24 Vict. c. 19. (Mr. Murdoch's *Law of Bankruptcy and Insolvency.*)

Bankruptcy in Ireland.—The Irish law of Bankruptcy is generally identical with that of England before the Act of 1861. The distinction between traders and non-traders is still retained, though the same judges adjudicate in cases of bankruptcy and insolvency.

The following tables, extracted from official returns, give the number of deeds registered between April 11, 1865, and April 11, 1866, with the rates of composition paid:—

Number of Composition Deeds and Rates of Composition paid between April 11, 1865, *and April* 11, 1866.

Number of Deeds	Rate per Pound	Number of Deeds	Rate per Pound	Number of Deeds	Rate per Pound
	s. d.		s. d.		s. d.
2	0 5	2	5 0	29	9 0
1	0 5	1	5 11	225	10 0
18	0 6	117	4 0	1	10 5
1	0 8	1	4 1½	2	10 6
1	0 8½	1	4 2	19	11 0
2	0 9	1	4 5	1	11 6
142	1 0	10	4 6	25	12 0
6	1 3	1	4 9	26	12 6
2	1 4	528	5 0	5	13 0
31	1 6	1	5 1	5	13 4
1	1 8	1	5 4	2	13 6
147	2 0	4	5 6	9	14 0
1	2 1	2	5 9	31	15 0
2	2 3	60	6 0	2	16 0
297	2 6	9	6 6	1	16 6
3	2 8	94	6 8	1	17 6
1	2 10	37	7 0	2	18 0
86	3 0	105	7 6	1	19 0
1	3 1	41	8 0	3	19 6
11	3 4	11	8 6	146	20 0
37	3 6	1	8 9	2,920	

Number of Deeds registered between April 11, 1865, *and April* 11, 1866.

Date	Deeds of Assignment		Composition Deeds		Deeds of Inspectorship	
	Number	Gross Amount of Unsecured Debts	Number	Gross Amount of Unsecured Debts	Number	Gross Amount of Unsecured Debts
		£		£		£
From April 11, 1865 to Oct. 11, 1865	1,207	3,861,399	1,129	3,526,211	40	5,614,161
From Oct. 11, 1865 to April 11, 1866	1,219	3,213,714	1,191	2,125,079	37	679,8[illegible]

Bankruptcy is considered in France as simple and fraudulent, bankruptcy being distinguished from insolvency.

The French law of bankruptcy in its characteristic particulars has been admitted into many European countries, and appears to make progress. That of the United States agrees generally with the English law of 1849, which, as we have seen, is stricter than the present law of England.

BARCALAO or BACALAO. The Spanish name for cod.

BARCELONA. The capital of Catalonia, and the principal town of Spain, on the Mediterranean, lat. 41° 22′ 58″ N., long. 2° 8′ 11″ E. It is a strongly-fortified, well-built city. The population, which has rapidly increased, amounted, in 1857, to 242,015. Barcelona is eminently distinguished in the history of the middle ages for the zeal, skill, and success with which her citizens prosecuted commercial adventures at a very early period. She would seem also to be entitled to the honour of having compiled and promulgated the

famous code of maritime law known by the name of the *Consolato del Mare*; and the earliest authentic notices of the practice of marine insurance and of the negotiation of bills of exchange are to be found in her annals. For proofs of this, see INSURANCE, MARITIME LAW, &c. The *Memorias Historicas sobre la Marina, Comercio &c. de Barcelona*, by Capmany, in 4 vols. 4to. is one of the most valuable and authentic works on the commerce, arts, and commercial and maritime legislation of the middle ages. The first volume is the most interesting, at least to the general reader; the others consisting principally of extracts from the archives of the city. There is a brief but pretty good account of the early trade of Barcelona, drawn principally from Capmany, in the work of Depping, *Histoire du Commerce entre le Levant et l'Europe depuis les Croisades &c.* tom. i. ch. v. Catalonia has continued, amidst all the vicissitudes it has undergone, to be the most industrious of the Spanish provinces. Many very extensive manufactures, especially of silk and cotton, have been established in Barcelona, and within the last 10 or 12 years an extraordinary degree of enterprise has been infused into all classes of the population. In 1865 the town had no fewer than 7 banking companies, 10 maritime insurance companies, 5 railway companies, 4 steam navigation companies, 3 canal companies, 3 gas companies &c. The Bank of Barcelona, which was founded in 1844, has a capital of 80 millions of reals, of which 20 millions have been paid up. It has been well managed; and its success has led to the formation of other banking and discount companies. Another company recently formed deserves special mention, being for the establishment of an electric telegraph to connect Barcelona with France and Europe generally on the one side, and with Madrid through Tarragona on the other. It is true that some of the many companies formed of late years have been wound up; but others continue in a flourishing state. The railways which centre in the city, and are being extended into the interior, will be of infinite advantage to its industry and trade.

The Harbour, which is naturally bad, is formed by a mole or jetty, which has recently been a good deal enlarged, running out to a considerable distance in a southerly direction, and having a lighthouse and some batteries near its extremity. The depth of water within the mole is from 18 to 20 feet; but there is a bar between the mole and Monjouich, which has frequently not more than 10 feet water; and which would, it is believed, entirely shut up the harbour, were it not occasionally lowered by means of dredging machines. Vessels in the harbour moor at a short distance from the mole: where, though exposed to the southerly gales, they are so well protected that no accident of any consequence has taken place since the dreadful storm of 1821. Large ships must anchor outside the mole, and in winter are much incommoded by winds. Vessels entering the harbour are under no obligation to take a pilot on board; but they are always in attendance, and it is generally deemed safest to have their assistance in passing the bar.

The port of Barcelona is being considerably increased by the carrying out of a sea-wall from the shore under Fort Monjouich and by another prolonging the old extremity of the mole so as to approach at some distance, leaving a good entry. Much of this work has been effected already, and which will enable vessels to ride safely within the port, but the works are far from terminated; when concluded, the port will be capacious and safe, though as for its depth much dredging will be required to keep it clean and useful. The depth of water is not above 20 feet.

The principal articles of import are raw cotton; sugar, coffee, cocoa, and other colonial products, principally from Cuba and Porto Rico; salted fish, hides, and horns; iron and hardware; machinery, coal &c. have latterly been imported in large quantities, principally from England. Most species of manufactured goods are prohibited; but it is needless to add that they are notwithstanding largely introduced into this as into most other parts of Spain. The trade with the colonies, France, and the coasting trade is active and increasing. Catalonia being the grand seat of the Spanish cotton trade, the imports of raw cotton are very considerable. In proof of this, it may suffice to mention that in the year ending June 30, 1858, no fewer than 80,043 bales (36,805,962 lbs.), worth 4,516,244 dols., were shipped from the United States for Spain on the Mediterranean, that is, for Barcelona; at the same time that additional supplies were obtained from Brazil and other parts. 50,000 to 100,000 persons, mostly in Catalonia, are said to be dependent on the manufacture. The raw cotton is principally imported in Spanish ships. The direct imports from England, ex. coal, are not very considerable, and the exports to her still less.

The chief exports are wrought silks, cotton stuffs, soap, fire-arms, paper, hats, laces, ribands, steel &c. The principal articles of native produce that Catalonia has to export are most conveniently shipped at Villanova, Tarragona, and Salou. They consist of wine, brandy, nuts, almonds, cork bark, wool, fruits &c. A good deal of brandy is sent to Cadiz and Cette: most part of the former finds its way into the wine vaults of Xeres; and the latter, being conveyed by the Canal of Languedoc to the Garonne, is used in the preparation of the wines of Bordeaux. From 25,000 to 30,000 bags of nuts are annually sent from Tarragona to England. Tarragona also exports about 12,000 bags of almonds.

In the years 1861-2-3, the tonnage which cleared from Barcelona was 195,607 with cargoes; 74,393 in ballast; 177,712 with cargoes; 63,716 in ballast; 307,905 with cargoes; 71,313 in ballast; while that which entered was 240,928 with cargoes; 5,666 in ballast; 237,615 with cargoes; 5,705 in ballast; 344,555 with cargoes; 4,793 in ballast respectively. The imports and exports and merchandise cleared coastwise were in value as follow:—

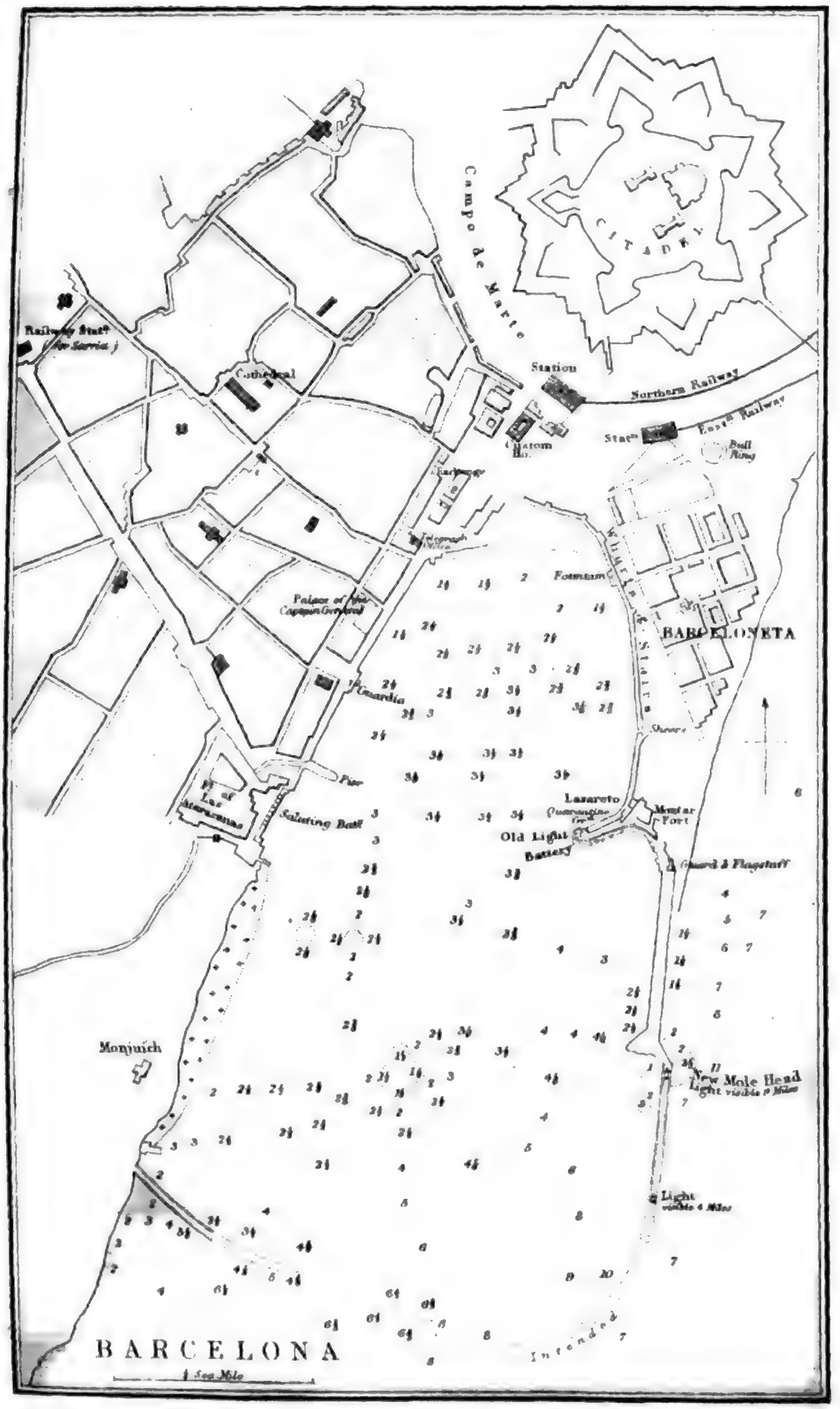
	1861	1862	1863
	reales	reales	reales
Imports	365,109,729	342,960,187	405,872,631
Exports	146,065,104	140,111,390	179,925,919
Coasting trade, entered	455,295,012	367,061,868	334,790,520
cleared	474,931,361	509,612,814	539,280,155
Total	1,441,101,206	1,359,758,259	1,459,869,225
	£14,414,012	£13,597,582	£14,598,692

The trade of Barcelona is by far the largest of any Spanish port, and a spur has been given to it by the opening of the railway which now connects it with Madrid, and the most important towns of Spain, and with the rest of Europe.

Custom-house and Warehousing Regulations same as at ALICANT.

Port charges have been reduced, and are now nearly identical for Spanish, British vessels, and most of the Foreign, being uniformly exacted on Tonnage.

Port dues now paid by British vessels.—Anchorage at 1 real (2½*d.*) per ton, Spanish measure; lighthouses, 1 real per ton: navigation dues, one-eighth of a real per Spanish hundredweight; of cargo taken in or discharged.



London Longmans & Co

Extra dues paid for support of works carried out to improve the port.—Anchorage, ½ real per ton; lighthouses, ¼ real per ton; navigation, $\frac{3}{10}$ real per Spanish cwt.: and health dues, ½ real per ton on arrivals from European ports, and 1 real on those from America.

Commission is at the rate of 2½ per cent. on goods shipped, and 2 per cent. on those received on consignment. Goods are sometimes sold for ready money, and sometimes on credit for 3 or 4 months.

Tares.—At the Custom-house, real tares only are allowed; and the net weights must be rigorously manifested. A surplus of 3 per cent. is, however, allowed to cover any inexactness in the net portion between foreign and Spanish weights; but if the weight of any parcel should turn out to be 3 per cent. greater than is marked in the manifest, the surplus is seized, at the same time that the importer loses the benefit of the 3 per cent. allowed by law, and becomes liable to the penalties of smuggling. The tares usually allowed by merchants are, on Havannah sugar 13 per cent.; on coffee 2 per cent., exclusive of the barrel, bag &c. in which it is contained; on cocoa and pepper 2 per cent.; Pernambuco cotton 4 lbs. per bale; other cotton 1 lb. per cwt.

Money.— Accounts are kept in *libras* of 20 *sueldos*, 240 *dineros*, or 480 *mallas*. The libra is likewise divided into *reales de plata Catalan*, of 3 *sueldos* each; and into *reales ardites* of 2 *sueldos* each. Hence, 6·7 of the former, or 10 of the latter, = 1 *libra Catalan*.

The *libra Catalan* is = 2*s.* 4*d.* sterling nearly.

The *peso duro*, or hard dollar, is valued at 37½ *sueldos Catalan*, eight such dollars making 15 *libras*.

Weights and Measures.—There are endless discrepancies amongst the weights and measures in the different Spanish provinces, and there is a very great discrepancy in the accounts of the authors who have written upon them. The following statements are taken from Nelkenbrecher:—

The quintal is divided into 4 *arrobas*, or 104 lbs. of 12 oz. to the pound. The pound = 6,174 English grains = 4 kilog. = 8325·6 as of Holland. 100 lbs. of Barcelona = 88·215 lbs. avoirdupois.

The yard, named *cana*, is divided into 8 *palmos*, of 4 *quartos*, and is = 21 inches very nearly. Hence, 100 canas = 53·499 metres = 77·5 yards of Amsterdam = 58·514 English yards.

The *quartera*, or measure for grain, is divided into 12 *cortanes* and 48 *picolins*. 100 quarteras = 23·536, or 25½ Winchester quarters.

The *carga*, or measure for liquids, is divided into 12 *cortanes* or *arrobas*, 24 *cortarinas*, and 72 *mitadellas*. It is = 32·7 English wine gallons. 4 cargas = 1 *pipe*. The pipe of Majorca oil contains 107 cortanes.

(We have derived these details from various sources; but principally from a report obligingly given us for this work by Mr. Baker, and from Inglis's *Spain in* 1830, vol. ii. pp. 384–387, 362.)

BARILLA (Dutch, soda; Fr. soude, barille; Ger. soda, barilla; Ital. barriglia; Port. solda barrilha; Russ. socianka; Span. barilla; Arab. kali). Carbonate of soda [ALKALIES] is found native in Hungary, Egypt, and many other countries. It is largely used by bleachers, manufacturers of hard soaps, glass-makers &c. The barilla of commerce consists of the ashes of several marine and other plants growing on the sea-shore. The best, or Alicant barilla, is prepared from the *Salsola soda*, which is very extensively cultivated for this purpose in the *huerta* of Murcia, and other places on the eastern shores of Spain. (Townsend's *Travels in Spain*, vol. iii. p. 195.) The plants are gathered in September, dried and burned in furnaces heated so as to bring the ashes into a state of imperfect fusion, when they concrete into hard, dry, cellular masses of a greyish blue colour. Sicily and Teneriffe produce good barilla, but inferior to that of Alicant and Carthagena. Kelp, which is a less pure alkali, is formed by the incineration of the common sea-weed. [KELP.]

The Saracens established in Spain seem to have been the first who introduced the manufacture of barilla into Europe. They called the plants employed in its preparation *kali*; and this, with the Arabic article *al* prefixed, has given rise to the modern chemical term alkali. Prime quality in barilla is to be distinguished by its strong smell when wetted, and by its whitish colour. Particular attention should be paid to have as little small or dust as possible.

The manufacture of artificial soda (*soude factice*), now very extensively carried on, occasioned an extraordinary decline in the imports of barilla, the quantity entered for home consumption in 1834, amounting to 237,712 cwt., having been reduced in 1841 to 47,380 cwt. Considerable quantities are imported from Teneriffe, Alicant in Spain, Sicily, the United States, and Russia. Thus, of 1449 tons imported in 1857, 819 came from the Canary Islands, 158 from Italy (Sicily), 122 from the United States, and 103 from Russia. The duty on barilla, after being reduced in 1842 from 40*s.* to 5*s.* a ton, was wholly repealed in 1845. But this judicious measure has not had so much influence over the consumption of the article as was expected.

BARK. The outer rind of trees. There is an immense variety of barks known in commerce as cinnamon, Peruvian bark, oak bark, quercitron &c. The term *bark* is, however, generally employed to express either Peruvian bark, or oak bark and quercitron, and it is these only we here notice.

Peruvian bark (Fr. quinquina; Ger. kronchina; Dutch, china-bast; Span. quina, quenquina; Lat. quenquina, Cortex Peruvianus). There are several sorts of this bark known in commerce. The first sort is the *pale* bark of the shops. It is the original cinchona of Peru, and is the produce of different varieties of the *Chinchona officinalis* of Linnæus. The sorts called *Condaminea*, *Bonplandiana* and *Crispa* or *Crespilla* are now naturalised in India and flourishing on the higher ranges of the Neilgherries, and the *C. Succirubra* and *C. Calisaya*; and are also largely propagated in the Government plantations, with every prospect of successful results in India, Ceylon, and the West Indies. This sort is usually imported in chests covered with skins, each containing about 200 lbs. well packed, but generally mixed with a quantity of dust and other heterogeneous matter. It consists of pieces 8 or 10 inches long, some of them being scarcely one-tenth of an inch thick, singly and doubly quilled or rolled inwards, the quills generally being in size from a swan's quill to an inch and a half. It is internally of a pallid fawn or cinnamon hue, but approximates, on being moistened, to the colour of a pale orange. When in substance it has scarcely any odour, but during the decoction the odour is sensible and agreeably aromatic. The taste is bitter, but not unpleasant, acidulous and austere.

The second sort, or *red* bark, is obtained from the *C. Succirubra* growing on the Andes, chiefly in Ecuador in the forests of Chimborazo, where the true *red* bark is known as the 'Cascarilla roja,' and its production appears at present to be confined to the district lying between 1° and 2½°

S. lat. and 30′ and 40′ W. long. of Guilo. It is, however, supposed to have within a recent period existed in all the valleys of the Andes which debouch in the Guyagulian plain, but in most of these districts it has been completely exhausted. The *red* bark is imported in chests containing from 100 to 150 lbs. each. It consists of various sized pieces, most of them flat, but some partially quilled or rolled. The internal part is woody, and of a rust red colour; it has a weak peculiar odour, and its taste is much less bitter, but more austere and nauseous than that of the other barks.

We would refer for a description of the mode of collecting the bark to a report by Mr. Spruce to the Under-Secretary of State for India (*Parl. Papers, Return E. India Chinchona Plant*, 1863, No. 118, p. 65 et seq.) with reference to his expedition to the red bark tree districts. Limon, the situation to which Mr. Spruce's observations refer, is at the junction of a stream of that name with the river Chasuan.

The entire quantity of the red bark collected in 1859 did not reach 50 quintals, and it was sold for 43 dols. the quintal. In 1860 no red bark at all was got out, so that the trade in it is well nigh extinct.

The third sort of *yellow* bark of the shops is obtained from the *Cinchona Calisaya*, growing in Bolivia and the Peruvian province of S. Caravaya. It is imported in *serons*, containing 6 *arrobas* of about 150 lbs. each, and consists of pieces 8 or 10 inches long, some quilled but greater part flat. The interior is of a yellow colour passing to orange. It has nearly the same odour in decoction as the pale; the taste is more bitter and less austere, and it excites no astringent feeling when chewed. The *C. Calisaya* is used in the manufacture of sulphate of quinine and is consequently of great commercial value. The forests of New Granada yield several sorts of bark used in quinine manufactures. The most valuable of these are the *C. pitaya* and the *C. lancifolia*, which have recently been imported into Europe in great quantities. According to Dr. Macpherson's account of the medico-botanical history of cinchona, it was first introduced into Europe in 1640, and it is stated that the value of Peruvian bark as a medicine was first made known in connection with the cure of the Countess of Chinchon, whence the name Chinchona or more properly Chincona.

The quantity exported from Payta (the port of Loxa) in 1860 was 1,400 quintals of *pale* bark at 30 dols. the quintal. The quantity exported from Arica in 1859 was 1,926 quintals, valued at 17,334*l.*, and from January to November 1860 it was 3,888 quintals valued at 35,000*l.* From Islay in 1863 the quantity exported was 3,615 quintals, valued at 100 dols. per quintal, or 361,500 dols. The bark from Islay is *yellow* bark.

The exhaustion of the Bolivian bark tree forests led the Government of Bolivia to establish in 1859 a 'bank of bark;' but as this institution was granted a monopoly of the export of bark, the result was, as stated by Dr. Forbes Royle, rather to enhance the price than to continue the preservation of the supply.

The increasing cost of the article and the danger arising from the reckless system of destruction of the bark-trees pursued by the owners of the Bolivian forests, added to the great cost of the supply of the article for the British service in India (stated by Mr. Markham to have been 53,000*l.* in the years 1857-8), induced the British Government to endeavour to introduce the cultivation of the Cinchona in the hill districts of British India. Dr. Forbes Royle had recommended its introduction in 1835, in his work on Himalayan Botany, suggesting that it might be cultivated on the slopes of the Neilgherries, and he again recommended that endeavours should be made with the same object in 1847, and his recommendations were strongly supported by Dr. Falconer, superintendent of the Hon. East India Company's Botanic Gardens in 1852. At length, in 1859, Mr. Clements Markham was instructed by Lord Stanley, then Secretary of State for India, to proceed to Peru with a view to procure seeds and plants of the Cinchona and to convey them to India, to which country, in conjunction with Mr. Spruce, a botanist, and Mr. Cross, a practical gardener, he succeeded, after innumerable difficulties owing principally to the jealousy of the Peruvian Government, in conveying upwards of 400 plants of the *C. Calisaya*, where they were planted at the nursery at Ootacamund. These plants were, however, reported as all dead at the end of 1860, but Mr. Cross succeeded in arriving in April 1861, with 463 plants of the *C. succirubra* and six plants, brought from England, of the *C. Calisaya*, and Mr. Spruce introduced from Java the *C. Calisaya*, *C. caucifolia*, and *C. Pahudiana*. From this stock the present Cinchona plantations in India have been established with results so successful, that the number of plants growing on the Neilgherries in February 1863 was as follows :—

Number and Distribution of Cinchona Plants on the Neilgherries, on February 28, 1863.

No. of Species	Botanical Names	Commercial Names	No. of Plants	Value per Pound of Dry Bark in the London Market	
				s. d.	s. d.
1	C. succirubra -	Red bark - -	48,989	2 6 to 8	9
2	C. Calisaya - -	Yellow bark - -	1,480	2 10 „ 7	0
3	C. Uritusinga -	Original loxa bark	927	2 10 „ 7	0
4	C. Condaminea -	Select crown bark	51,012	2 10 „ 7	0
5	C. Crespilla - -	Fine crown bark -	825	2 10 „ 6	0
6	C. lancifolia - -	Pitayo bark - -	1	1 8 „ 2	10
7	C. nitida - -	Genuine grey bark	8,512	1 8 „ 2	9
8	C. species without name - - -	Fine grey bark -	2,595	1 8 „ 2	10
9	C. micrantha -	Grey bark - -	8,526	1 8 „ 2	9
10	C. Peruviana -	Finest grey bark -	2,847	1 8 „ 2	10
11	C. Pahudiana -	Unknown - -	425	Worthless	
	Total number of plants - -		155,559		

The Dutch Government attempted to introduce the Cinchona into their East Indian possessions in 1852, and Mr. Hasskarl succeeded in 1854 in introducing it into Java, where the plants are now thriving. The principal plantations are situated on the Kending and Malabar range of mountains in the southern portion of the island.

The quantity of Peruvian bark imported into Great Britain in 1866 was 13,797 cwt., valued at 109,477*l.*

The above has been compiled chiefly from information furnished by J. E. Howard, Esq. the author of the *Nueva Quinologia de Pavon*, and from *Parl. Paper* 118, 1863, East India Cinchona. See also Dr. Weddell's *Quinologie*.

The cascarilleros or peelers usually destroy the tree by stripping off its bark as it stands; whereas were they to cut it close to the ground, young shoots would spring up, which would in their turn become fit for peeling in from six to twenty years. This reckless destruction, coupled with the enormous demand for quinine in Europe, has occasioned so great a scarcity, that the authorities in Upper Peru contemplate placing an interdiction on the exportation of bark for a series of years. It is asserted that 800 to 900 trees are cut down in order to furnish 11,000 pounds of bark, and that 25 to 30 ounces, 1½ to 3 per cent., are

the two extremes of quinine from 100 pounds. The sum expended by the Indian Government in the purchase of this valuable medicine is stated to exceed five lacs of rupees annually. Madras consumes, on an average, 2,090 lbs. of bark and 451 of quinine. Great Britain imports annually about 400,000 lbs. of bark, and retains towards 120,000 lbs. for home consumption.

The following represents the imports &c. of Peruvian bark in the year 1863:—

	Quantity	Value	Per Cwt.		
	cwt.	£	£	s.	d.
From St. Thomas - -	1,400	7,757	5	10	10
United States: North Atlantic Ports -	768	4,292	5	11	9
New Granada - - -	6,549	36,451	5	11	4
Peru - - - - -	12,040	69,118	5	9	4
Chili - - - - -	415	2,175	5	11	5
Other Parts - - - -	1,787	9,850	5	10	5
Total - - -	23,589	129,903			

The re-exports of bark from Great Britain to foreign countries in 1865 amounted to 14,975 cwt., of which 5,517 cwt. went to Holland and 3,307 cwt. to France. Sulphate of quinine is manufactured in great quantities at Stuttgart in Würtemburg, and in France, from which sources the continent of Europe is largely supplied.

The superior cheapness of the German and French quinine is probably in some degree owing to the lower cost of the alcohol used in its production.

Quercitron Bark.—We are indebted for the discovery and application of the useful properties of quercitron to Dr. Bancroft, who obtained a patent for his invention in 1775; but the American war breaking out soon after, deprived him of its advantages. In consideration of this circumstance, Parliament passed, in 1785, an Act (25 Geo. III. c. 38) securing to him the privileges conveyed by his patent for fourteen years. At the expiration of the latter period the House of Commons agreed to extend his privilege for an additional seven years, but the House of Lords rejected the bill. Like too many discoverers, Dr. Bancroft profited but little by his invention, though it has been of great use to the arts and manufactures of the country. (Bancroft *On Permanent Colours*, vol. ii. p. 112; *Report of the Committee of the House of Commons on Patents*, Appendix, page 175.)

BARLEY (Fr. orge; Ger. gerstengraupen; Dutch, ryg; Ital. orzo; Span. cebada: Russ. fatschmea; Lat. hordeum; Arab. dhourra; Hind. jow). A species of bread-corn (*Hordeum*, Linn.), of which there are several varieties. It is extensively cultivated in most European countries, and in most of the temperate districts of Asia and Africa. It may also be raised between the tropics; but not at a lower elevation than from 3,000 to 4,000 feet, and then it is not worth cultivating. Large quantities of barley have been, for a lengthened period, raised in Great Britain. Recently, however, its cultivation has been supposed, though probably on no good grounds, to be declining. In 1765 Mr. Charles Smith estimated the number of barley consumers in England and Wales at 739,000; and as a large proportion of the population of Wales, Westmoreland, and Cumberland continue to subsist chiefly on barley bread, we are inclined to think that this estimate may not, at present, be very wide of the mark. But the principal demand for barley in Great Britain is for conversion into malt, to be used in the manufacture of ale, porter, and British spirits; and though its consumption in this way has not certainly increased proportionally to the increase of wealth and population, still there does not seem to be any ground for supposing that it has diminished. Barley is also extensively used in fattening black cattle, hogs, and poultry. It now generally follows turnips, and is a very important crop in the rotation best adapted to light soils. The principal barley counties of England are Norfolk, Suffolk, Cambridge, Bedford, Herts, Leicester, Nottingham, the upper parts of Hereford, Warwick, and Salop. The produce varies, according to soil, preparation, season &c. from about 20 to 60 or 70 bushels an acre. The most usual crop is from 28 to 36 or 38 bushels. The Winchester bushel of good English barley generally weighs about 50 lbs., but the best Norfolk barley sometimes weighs 53 or 54 lbs. Its produce in flour is about 12 lbs. to 14 lbs. grain. Barley is a tender plant, and easily hurt in any stage of its growth. It is more hazardous than wheat, and is, generally speaking, raised at a greater expense: so that its cultivation should not be attempted except when the soil and climate are favourable for its growth.

The question whether malted or unmalted barley is the fittest food for cattle, has in this country practical interest. For purposes of revenue, a considerable duty is levied on malt. It is asserted that this duty checks the cultivation of barley on light soils, and that even when barley is grown, its most useful purpose, that of stimulating the flow of milk in cows, and of promoting the rapid growth of fat stock, is prohibited by the operation of an excise duty. The Act 27 & 28 Vict. c. 9 has indeed so far relaxed the excise system as to permit, under proper regulations and supervision, the malting of barley for the use of stock, the chief precaution taken in order to prevent the abuse of the privilege being the admixture of a certain amount of linseed meal with the malt. This, it appears, renders the malt permanently unfit for the manufacture of beer or spirit.

In the 11th Inland Revenue Report (1867), p. xxiii., it is stated 'The farmers, however, appear to be finding out by experience what science long ago indicated as the truth—that malt contains no feeding properties not possessed by barley, and that the cost of malting is worse than thrown away, because the barley during the process loses a portion of its nutritious constituents, its value as an article of food being proportionately diminished.' Number of samples examined for cattle-feeding purposes in 1866–7, only 95 as against 462 in the preceding year. The customs' duty on foreign barley, pearled, is 4½*d.* per cwt.

(For details as to the prices of barley, the quantities imported and exported &c. see Corn Laws and Corn Trade; and for further details as to its consumption and culture, see Smith's *Tracts on the Corn Trade*, 2nd edition, p. 182; Brown *On Rural Affairs*, vol. ii. p. 42; Loudon's *Encyclopædia of Agriculture*; and *Report of the Relative Values of Malted or Unmalted Barley as Food for Stock*, presented to Parliament in 1866.)

BARRATRY. In Navigation, barratry is, in its most extensive sense, any fraudulent or unlawful act committed by the master or mariners of a ship, contrary to their duty to their owners, and to the prejudice of the latter. It appears to be derived from the Italian word *barratrare*, to cheat. It may be committed by running away with a ship, wilfully carrying her out of the course prescribed by the owners, delaying or defeating the voyage, deserting convoy without leave, sinking or deserting the ship, embezzling the cargo, smuggling, or any other offence whereby the ship or cargo may be subjected to arrest, detention, loss, or forfeiture.

It is the practice in most countries to insure against barratry. Most foreign jurists hold that it comprehends every fault which the master and crew can commit, whether it arise from fraud, negligence, unskilfulness, or mere imprudence. But in this country it is ruled that no act of the master or crew shall be deemed barratry unless it proceed from a *criminal* or *fraudulent* motive.

'Barratry can only be committed by the master and mariners by some act contrary to their duty in the relation in which they stand to the owners of the ship. It is, therefore, an offence against them, and consequently an owner himself cannot commit barratry. He may, by his fraudulent conduct, make himself liable to the owner of the goods on board, but not for *barratry*. Neither can barratry be committed against the owner *with his consent*; for though he may be liable for any loss or damage occasioned by the misconduct of the master to which he consents, yet this is not barratry. Nothing is more clear than that a man can never set up as a crime an act done by his own direction or consent.' (Marshall *On Insurance*, book i. ch. xii. s. 6.)

When, therefore, the owner of a ship is also the master, no act of barratry can be committed; for no man can commit a fraud against himself.

It is a maxim in law, that fraud shall not be presumed, but must be clearly proved; and it is a rule in questions of insurance, that he who charges barratry must substantiate it by conclusive evidence.

It is not necessary, to render an act barratrous, that it should be committed with a criminal intent as respects the owners, in order to injure them, or to benefit the captain or crew. It may even be committed with a view to promote the owner's interests; for *an illegal act* done without the authority or privity of the owners, and which proves detrimental to them, is barratry, whatever be the motives in which it originated. Lord Ellenborough, in an able judgment, has laid it down as clear law, 'that a breach of duty by the master in respect of his owners, with a fraudulent or criminal intent, or *ex maleficio*, is barratry; that it makes no difference whether this act of the master be induced by motives of advantage to himself, malice to the owner, or *a disregard of those laws which it was his duty to obey*; and that it is not for him to judge or suppose, in cases not intrusted to his discretion, that he is not breaking the trust reposed in him, when he endeavours to advance the interests of his owners by means which the law forbids, and which his owners also must be taken to have forbidden.'

The circumstance of the owners of ships being permitted to insure against the barratry of the master and mariners can hardly fail, it may be not uncharitably presumed, of rendering them less scrupulous in their enquiries with respect to their character than they would otherwise be. Perhaps, therefore, it might be expedient to prohibit such insurances, or to lay some restrictions upon them. They were, indeed, expressly forbidden by the Ordinance of Rotterdam; and Lord Mansfield, whose authority on all points connected with the law of insurance is so deservedly high, seems to have thought that it would be well to exclude barratry entirely from policies, and to cease 'making the underwriter become the insurer of the conduct of the captain whom he does not appoint, and cannot dismiss, to the owners who can do either.' But though it were expedient to prevent the owners from making an insurance of this sort, nothing can be more reasonable than that third parties, who freight a ship, or put goods on board, should be allowed to insure against such a copious source of loss. In the maritime policies effected in France, the barratry of the master of the ship will, under certain circumstances, vitiate the claim to compensation, especially when the captain has been appointed by the claimant. (For a further discussion of this subject, see MARINE INSURANCE; and Marshall *On Insurance*, book i. ch. xii. s. 6, and Park *On Insurance*, ch. v.)

By 24 & 25 Vict. c. 100 s. 13 it is enacted that if any person set fire to any ship or part thereof, or any goods or chattels therein, or shall cast away any ship with intent to commit murder, he shall be guilty of felony, and liable, at the discretion of the court, to be kept to penal servitude for life, or for any term not less than three years, or to be imprisoned for any term not exceeding two years, with or without hard labour, and with or without solitary confinement.

BARREL. A cask or vessel for holding liquids, particularly ale and beer. Formerly the barrel of beer in London contained only 32 ale gallons = 32½ imperial gallons; but it was enacted by 43 Geo. III. c. 69 that 36 gallons of beer should be taken to be a barrel; and by the 6 Geo. IV. c. 58 it is enacted that whenever any gallon measure is mentioned in any excise law, it shall always be deemed and taken to be a standard imperial gallon. At present, therefore, the barrel contains 36 imperial gallons. It may be worth while observing that the barrel or cask is an exclusive product of European ingenuity; and that no such article is known to any nation of Asia, Africa, or America, who have not derived it from Europeans.

BARWOOD. A red dye-wood brought from Africa, particularly from Angola, and the river Gaboon. The dark red which is commonly seen upon British Bandana handkerchiefs is for the most part produced by the colouring matter of barwood, saddened by sulphate of iron. (Bancroft *On Colours.*) The imports of barwood, in 1865, amounted to 2,347 tons. It is estimated, in the official accounts, as being worth about 3*l.* per ton.

BARYTA, SULPHATE OF. This substance is found native in many parts of the United Kingdom, and is known under the name of *heavy spar*.

Considerable importance attaches to this substance from the use which has latterly been made of it in the arts, as a body for paint. The native sulphate being crystallised, and therefore more or less translucent, is not available for this purpose, and when mixed with white lead, as is frequently done, must be looked on as an adulteration. That, however, which is prepared by artificial means is more opaque, though still far inferior in body and solidity to white lead. It has certain advantages, however. It is not affected as lead is by the vapour of sulphuretted hydrogen, and therefore does not blacken on exposure to the air, and its use is unattended with those deleterious effects which ensue from the constant manipulation of lead salts. Sulphate of baryta is used as a water-colour by artists, under the name of *permanent white* or *blank fix*. It is also said to be largely used in the manufacture of paper-hangings.

A very great impetus has been given to the use of barytes by the paper collar trade. When the collars were covered with white lead there was reason to fear that health might be endangered by the pores absorbing this deleterious substance. A durable enamel prepared from barytes has consequently been substituted, and with so much success, that upwards of twenty tons are daily

used in the collar manufactories of New York city alone. (*Journal of the Society of Arts*, Oct. 26, 1866.)

BASKETS (Fr. corbeilles; Ger. körbe; Ital. paniere; Span. canastas, canastos; Russ. korsinü). Baskets are made, as everyone knows, principally of the interwoven twigs of willows, osier, birch &c. but frequently also of rushes, splinters of wood, straw, and an immense number of other articles. They are used to hold all sorts of dry goods, and are constructed of every variety of quality and shape. Besides the vast quantities produced at home, some of the finer kinds were imported under an ad valorem duty, which, previously to 1854, was 10 per cent. In the above year the duty was reduced to 4*d*. It is now repealed. Very large quantities of rods for making baskets are imported.

BAST. Material for straw hats or bonnets. [HATS; MATTING.]

BATAVIA. A city of the Island of Java, the capital of the Dutch possessions in the East Indies, and the principal trading port of the Oriental islands; lat. of lighthouse on the west pier, visible 13 miles off in clear weather, 6° 5′ 4″ S., long. 106° 47′ 40″ E., on the north-west coast of the island, on an extensive bay. The harbour, or rather road, lies between the main land and several small uninhabited islands, which, during the boisterous or north-western monsoon, afford sufficient shelter, and good anchorage. Ships of from 300 to 500 tons anchor at about 1½ mile from shore. A small river runs through the town, which is navigable for vessels of from 20 to 40 tons, a couple of miles inland; a number of canals branch off from it into different parts of the town, affording great conveniences for trade. Batavia was formerly so very insalubrious, that General Daendals was anxious to transfer the seat of government to Sourabaya; but being thwarted in this, he set about building a new town, a little farther inland, on the heights of Weltevreden, whither the Government offices were immediately removed. Most part of the principal merchants now live in the new town, repairing to the old city, only when business requires it, during a portion of the day. In consequence, the old town is at present principally occupied by Chinese, and the descendants of the ancient colonists, several of its streets having been deserted and demolished. More recently, however, the Baron Capellen, whose enlightened administration will long be gratefully remembered in Java, sensible of the superior advantages of the old town as a place of trade, exerted himself to prevent its further decay, by removing the causes of its unhealthiness; to accomplish which, he widened several of the streets, filled up some of the canals, and cleaned others, demolished useless fortifications &c.: and the effect of these judicious measures has been, that Batavia is now as healthy as any other town of the island. The population, according to an accurate census taken in 1832, consisted of 2,800 Europeans, 80,000 natives, 25,000 Chinese, 1,000 Arabs, and 9,500 slaves; in all 118,300 persons, exclusive of the garrison. As the population has increased since, it may at present be estimated at from 140,000 to 150,000, independently of the military, of which there are always a considerable number. Among the principal merchants are Dutch, English, Americans, French, and Germans. The island of Java forms the most important portion of the Dutch possessions in the East, and is, in fact, one of the finest colonies in the world. It contains, inc. Madura, an area of 52,000 square miles, with a population on Dec. 31, 1862, of 13,380,770.

Account of the Quantities and Values of the Principal Articles, the Produce of the Eastern Archipelago, exported from Java and Madura in 1863.

Principal Articles and Countries to which exported	Quantities	Value
		guilders
Arrack - - Total - - leggers	6,741	539,111
To Holland - - - - ,,	4,690	368,967
Mauritius - - - ,,	722	26,750
Great Britain - - - ,,	1,29	29,600
Coffee - - Total - - picols	2,203,092	7,554,886
To Holland - - - - ,,	1,756,2	5,938,178
France - - - - ,,	19,8	834,5
Copper and copper wares Total value	—	167,371
To Singapore - - - ,,	—	138,1
Borneo - - - ,,	—	20,916
Celebes - - - ,,	—	8,306
Fancy Wares - Total - - ,,	—	7
To South-West Coast - - ,,	—	2,8
Palembang and Banka - ,,	—	1,8
Borneo - - - ,,	—	83,482
Hides, cow and buffalo - - ,,	241,985	871,0
To Holland - - - ,,	231,9	786,4
India rubber - - Total - pieces	7,4	650,0
To Holland - - - ,,	6,4	2
Indigo - - Total - - pecul	4	1,843,7
To Holland - - - ,,	4	1,851,8
Iron wares - - Total - value	—	119,129
To Singapore - - ,,	—	28,4
South-West Coast - ,,	—	2
Bali - - - ,,	—	9,0
Borneo - - - ,,	—	9,8
Moluccas - - ,,	—	9,1
Linen and cotton manufactures Total - - ,,	—	1,880,765
To South-West Coast - - ,,	—	668,2
Borneo - - - ,,	—	304,5
Palembang and Banka - ,,	—	251,5
Singapore - - - ,,	—	133,2
Oil cake - - Total - - ,,	—	107,6
To China - - - - ,,	—	85,9
Holland - - - ,,	—	10,8
Provisions - - Total - ,,	—	441,9
To South-West Coast - - ,,	—	93,1
Borneo - - - ,,	—	87,5
Rio - - - ,,	—	59,5
Palembang and Banka - ,,	—	51,0
Rattans - - Total - - picols	76,692	246,240
To Holland - - - ,,	71,7	196,1
Singapore - - - ,,	5,7	70,5
Rice - - Total - - ,,	951,798	6,038,586
To Holland - - - ,,	372,0	1,940,5
Palembang and Banka - ,,	166,5	1,102,8
Borneo - - - ,,	88,2	656,2
China - - - ,,	108,5	591,9
Sugar, loaf - - Total - ,,	1,137,525	15,785,9
To Holland - - - ,,	1,0	15,5
Sugar, brown - - - ,,	37,683	254,541
To North America - - ,,	16,947	121,5
Australia - - - ,,	5,815	56,0
Holland - - - ,,	7,000	49,5
Tea - - Total - - value	—	127,9
To Holland - - - ,,	—	107,0
Tin - - Total - - picols	6,228	317,9
To Holland - - - ,,	3,0	247,5
Japan - - - ,,	3,1	184,4
Tobacco (Java) - Total - ,,	153,531	2,481,0
To Holland - - - ,,	138,9	2,079,4
Cigars (all kinds) - Total - value	—	32,6
To South-West Coast - - ,,	—	9,4
Borneo - - - ,,	—	6,2
Rio - - - ,,	—	3,8
Moluccas - - - ,,	—	3,6
Wine, &c. - - Total - ,,	—	212,8
To Borneo - - - ,,	—	89,5
South-West Coast - ,,	—	47,9
Palembang and Banka - ,,	—	35,9
Specie - - Total - ,,	—	5,0
To Singapore - - - ,,	—	4,3
China - - - ,,	—	283,3
Bali - - - ,,	—	377,3
South-West Coast - ,,	—	30

The area of the islands of Java and Madura was, in the year 1861, 51,336 English square miles, and the population 13,019,108.

Amount received from the several Duties and Dues levied in the Islands of Java and Madura in the Years 1861—1863.

Duties &c.		1861	1862	1863
		gulden	gulden	gulden
Duties:				
Import		7,038,800	6,383,675	5,780,569
Export		5,291,187	5,166,563	5,116,715
Dues:				
Bonding		80,847	109,450	56,031
Shipping		4,113	3,351	5,365
Weighing		50,688	44,765	40,011
Warehouse rent		141,841	197,042	225,564
Excise duty on tobacco		87,514	82,504	91,258
Additional 5 per cent.		521,994	482,663	452,988
Total	Gulden	21,217,284	10,469,994	6,770,499
	£	954,774	872,499	814,200

Amount of Duty received on the several Articles exported from the Islands of Java and Madura in the Years 1861–1863.

Articles	Amount of Duty received		
	1861	1862	1863
	gulden	gulden	gulden
Coffee	2,196,013	2,144,620	2,290,728
Pepper	15,765	15,611	19,075
Sugar	460,891	312,415	109,786
Arrack	9,495	5,163	5,512
Rice	80,079	52,997	93,150
Horses	7,320	3,740	2,500
Indigo	42,228	49,884	42,215
Japan camphor	50	1,021	2,205
Spices:			
Mace	23,416	23,153	19,857
Cloves	19,443	27,588	1,968
Nutmegs	84,515	90,996	45,851
Oil	11,519	14,554	4,162
Tin	144,894	140,302	178,438
Birds' nests (edible)	10,971	29,541	1,679
Other articles	184,559	69,277	248,913
Total Gulden	3,291,186	3,166,563	3,116,714
£	274,265	263,880	259,726

Foreign ships are admitted to the ports of Batavia, Samarang, and Sourabaya, on a principle of reciprocity. They are, however, prohibited from engaging in the coasting trade, which is reserved exclusively for Dutch and colonial ships.

A large portion of the import and export trade of Java, especially the latter, has been engrossed by the Netherlands Commercial Company, established in 1819. But of late years the private traders have been gaining on the Company; and were it not for the patronage that has been injudiciously accorded to the latter by Government, its agents would most probably be driven from the field.

Tariff in force from January 1, 1866, *to January* 1, 1872.

Art. 1.—On all articles imported for consumption into Java and Madura, the west coast of Sumatra, Benkoelen, the Lampong districts, Palembang, Banca, Billiton, and West, South, and East sections of Borneo, a duty shall be paid as specified in the following tariff, save on articles positively exempted.

Art. 2.—Besides the goods exempt from import-duty, the following also may be imported free.

1. All goods for the use or on account of the Government.

2. *a.* All produce of the Netherlands East Indies where customs-duties are levied, as cotton goods, tobacco and cigars, must be followed by a certificate of export. *b.* All the produce of other Netherlands East India possessions and of the Inland friendly States of the Eastern Archipelago;—gambier excepted only on Java and Madura, besides woven cotton goods, tobacco and cigars.

The prohibitory stipulations relating to the import of some articles have nevertheless effect on these goods.

3. All goods on which duty is paid at one of the Netherlands India custom-boards.

When a higher duty must be paid at the second place of import, the goods cannot enter before the difference is paid.

4. Clothes, linen, used furniture, and luggage of passengers (*regalen*), imported by them.

Art. 3.—An *Export* duty shall be paid on the articles, as specified in the following list, when they are exported from the countries named in Art. 1.

Articles	Rate	Duties when exported to	
		The Netherlands	Elsewhere
Birds' nests	value	6 per ct.	6 per ct.
Coffee	—	6 per ct.	9 per ct.
Hides	—	2 per ct.	2 per ct.
Indigo, not prepared for the inland market	n. pd.	10 cents.	15 cents.
Sugar	value	free	3 per ct.
Tin	100 n. pd.	3·50 fl.	5 fl.
Tobacco not prepared for the inland market	100 n. pd.	1 fl.	1 fl.

Art. 4.—When goods subject to a differential customs-duty are exported to the Netherlands, then the payment of the higher duties shall be warranted, according to the stipulations of the governor-general.

The lowest duty shall be levied only when it shall be proved that the goods are landed in their entirety within the term fixed by the governor-general in a Dutch harbour, out of the same ship in which they had been laden.

The governor-general may exempt from the higher duty when convinced that goods have been totally or partly lost at sea, or necessarily laden in another ship.

The governor-general may also exempt from the higher duty part of a cargo landed in one of the Dutch harbours, when it has been necessary, in consequence of a disaster on sea, to sell the rest of the goods in a foreign harbour.

Art. 5.—No export duty is to be paid on—

1. The goods exported for the use or account of the Government;

2. The goods on which the duty is paid at one of the Netherlands Indies custom-boards.

When a higher duty is due at the second place of export, then the goods cannot be cleared before the difference is paid.

Art. 6.—The rules about the import and export duties, and the particular stipulations for *Moeara-Kompeh*, in Djambi, fixed by resolution of the governor-general of April 23, 1847, shall continue to have effect.

The governor-general may levy custom duties in those parts of the Dutch Indies not indicated in Art. 10 where as yet no duties were levied; provided that this shall take place after a non-differential tariff.

Art. 7.—On the import and export duties no additional cents are to be paid.

Art. 8.—The dock-duties (*entrepôt-gelden*), those for loading from one ship into another, and those for weighing (*waaggeld*), are abolished.

The governor-general fixes the tariffs of payment for warehousing and watching goods, and other services rendered.

Art. 9.—No duties on the transit will be levied.

Art. 10.—No import or export duties will be levied in the residency *Riouw*, its subjections on the east coast of Sumatra, not including the government of Celebes and subjections, the government of the *Moluccas*, and the residencies *Menado* and *Timor*. The application of this stipulation in the western, southern, and eastern sections of Borneo is reserved.

Art. 11.—Necessary measures will be taken to maintain the execution of this law, and to prevent the duties being evaded.

Bank of Batavia.—A bank, for the issue of notes and other banking business, was established at Batavia in 1827, with branches at Samarang and Sourabaya; the history of which is not uninstructive. The capital of the bank, consisting of 2,000,000 florins, divided into 4,000 shares, was subscribed with difficulty; and the most unfavourable anticipations were entertained of the success of the establishment. No sooner, however, had the bank been set on foot, than she began to enjoy a large share of prosperity. The rapid increase of cultivation and commerce in Java led to a corresponding demand for capital, and to the payment of a very high rate of interest on loans; and as the loans made by the bank consisted of bank notes, which cost next to nothing, the profits became quite enormous; so much so that they amounted in 1837 to 33 per cent., the price of the 500 florin share of bank stock being then also 1,550 florins. But this prosperity was as brief as it was signal.—The offer of an exorbitant interest had tempted, in not a few cases, the bank to make advances on doubtful security; and in Java, as elsewhere, issues of paper payable on demand necessarily stop the moment the circulation has been fully saturated with notes; and this result having been attained in 1838, and the notes issued by the bank being henceforth returned on her for payment, she speedily became involved in the greatest difficulties; many of those who depended on her advances for support were no longer able to meet their engagements; and the whole island was subjected to a severe pecuniary and commercial crisis: in fact, but for the intervention of the Government, in 1840, when bank notes were made *legal tender* for a limited period, she must have stopped payments! This intervention gave her time to recover from the difficulties into which she had been precipitated; and after sustaining a very heavy loss, she resumed specie payments. At present the maximum amount of notes which the bank may issue is fixed from time to time by the governor-general. In 1846 she was prohibited from making any dividends till the losses her capital had sustained during the crisis were made good.

Tariff of Customs Duties to be levied in Java and Madura &c. 1866–1872.

A. Merchandise of certified Dutch origin or manufactured in the Netherlands. B. Imported from or manufactured elsewhere.

Articles	Rate	Duties During 1866, 1867, and 1868		Duties During 1869 and following years	
		A	B	A	B
Arms, fire, likewise parts of fire-arms *	value	5 per ct.		6 per ct.	
Beer, in bulk	100 litres	2 fls.	4 fls.	2·25 fls.	3 fls.
in glass	—	2·25 fls.	4·50 fls.	2·25 fls.	3·50 fls.
Boneblack	—	free		free	
Books, geographical and hydrographical maps, engravings, prints, music, bound or not †	—	free		free	
Candles, wax, spermaceti, stearine, and composition	100 n. pd.	20 fls.		20 fls.	
Carriages, and parts of carriages ‡	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Cattle, alive	—	free		free	
Clocks, watches, and pendules	value	10 per ct.		10 per ct.	
Clothes, woven or knit	value	10 per ct.		10 per ct.	
Coals and coke	—	free		free	
Cocoanuts and cocoanut oil	—	free		free	
Copper, rough and dressed, including sheets and leaves for sheathing ships, muntzmetal, bolts and nails	—	free		free	
Copper manufactured, painted and lacquered or not, plated and bronze ware, and copper wire	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Copper in plates for copper coin, or copper coin §	—	prohibited		prohibited	
Earthenware, pottery, and china	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
tiles and bricks	—	free		free	
Flour and meal	—	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Furniture	—	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Fustage, new and empty	—	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Gambier ‖	100 n. pd.	20 fls.		20 fls.	
Glass and glasswork, of all sorts	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Gold and silver, in bars or pieces, goldleaf and coin	—	free		free	
work, lace and wire	—	free		free	
Gunpowder ¶	value	6 per ct.		6 per ct.	
Horses, asses, and mules	—	free		free	
Ice	—	free		free	
Instruments, mathematical, physical, chirurgical, optical, and musical	—	free		free	
Iron, in bars, pieces, rods, or sheets; railway bars, scarf nails for railways, tubes for water conductors; iron gas tubes, founded or cast, axles and wheels,** iron prows or loading boats; frames for iron buildings or warehouses, bolts and nails, iron wire, ships' anchors, chains, capstans	—	free		free	
Ironwork, founded or forged, not otherwise enumerated	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Jewels, pearls, and all other precious stones, set or unset	—	free		free	
Lead, rough and flattened, manufactured, and not otherwise enumerated	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Leather and leatherwork	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Machinery, steam, for the use of agriculture, mining, and manufactories. Likewise parts of machinery, provided that this can be acknowledged by the functionaries	value	free	5 per ct.	free	4 per ct.
Manufactures, of cotton, not made up, white or bleached, dyed or printed, linen, woollen, hemp, flax, and tow; ribbon and band, lace, and all other sorts, not particularly enumerated	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Manure	—	free		free	
Meat of all sorts, salted or preserved in any other way, not otherwise enumerated	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Mercery ††	value	6 per ct.		6 per ct.	
Mineral water, natural or artificial	100 bottles in stone or glass	6 fls.		6 fls.	
Opium: Patna and Benares ‡‡	per chest of 62 n. pd. or less §§	350 fls.		350 fls.	
Malwa	—	250 fls.		250 fls.	
Levant and Persia	—	200 fls.		200 fls.	
Painter's colours, ground with oil or not, and linseed oil	value	6 per ct.	10 per ct.	6 per ct.	10 per ct.

* Save existing or future prohibitory stipulations. The prohibition does not include the arms for sportsmen, which must be imported separately and acknowledged as such by the custom functionaries.

† Prints and engravings, in frame, as Furniture.

‡ Railway carriages and parts of them are free of duty.

§ The prohibitory stipulation is not applicable to plates for copper coin, and copper coin which is imported on account and for the use of the Government.

‖ The custom duty shall only be paid on imports into Java and Madura. Elsewhere gambier is free of duty.

¶ Save the existing or future prohibitory stipulations. The prohibition does not include fowling gunpowder (*crepé*), imported in boxes containing 1 n. pd. or less, and with permission of the local authorities.

** Carriage axles and wheels imported to pay the same duty as carriages.

†† When necessary, the governor general will specify the other articles to be classed under Mercery.

‡‡ Save the existing or future prohibitory stipulations.

§§ When imported in chests containing a larger quantity, the duty will be comparatively increased.

Tariff of Customs Duties—continued.

A. Merchandise of certified Dutch origin or manufactured in the Netherlands. B. Imported from or manufactured elsewhere.

Articles	Rate	Duties during 1866, 1867, and 1868		Duties during 1869 and following years	
		A	B	A	B
Paper of all sorts. Paper hangings, marble, colored, card, pasteboard, and negatives whiting lined	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Perfumeries	value	10 per ct.		10 per ct.	
Pictures	—	free		free	
Pitch	—	free		free	
Playing cards	value	10 per ct.		10 per ct.	
Resin	—	free		free	
Rice, cleaned or uncleaned	—	free		free	
Rope and cordage of all sorts	value	free	3 per ct.	free	4 per ct.
Sago	value	free	3 per ct.	free	4 per ct.
Salt *	—	prohibited		prohibited	
Silk, manufactured and unmanufactured	value	6 per ct.		6 per ct.	
Spirits: Genever, gin in bulk	100 litres	20 fls.		20 fls.	
in boxes, bottles	—	23 fls.		23 fls.	
Brandy of all sorts, Cognac, rum, arrack, in bulk	—	27 fls.		27 fls.	
ditto ditto in glass	—	50 fls.		50 fls.	
liqueurs, sweetened, of all sorts	—	40 fls.		40 fls.	
Steel, cut, plate, sheet, cast-steel bars, and steel for manufactures	—	free		free	
manufactured, not otherwise enumerated	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
Syrup and treacle	100 litres	20 fls.		20 fls.	
mixed with spirits	—	As liqueurs.	See Spirits	As liqueurs.	See Spirits
Tar	—	free		free	
Timber or wood, sawn or not, ship and building timber, including pickets and wattle stakes	—	free		free	
Timber or wood; turned and prepared for use	value	6 per ct.		6 per ct.	
Tobacco, in leaves, stemmed or unstripped, all manufactured sorts not otherwise enumerated	100 n. pd.	8 fls.		8 fls.	
Cabanas, Manilla and Havana	—	70 fls.		70 fls.	
cavendish	—	40 fls.		40 fls.	
cigars, Manilla and Havana	—	300 fls.		300 fls.	
all other sorts	—	70 fls.		70 fls.	
Victuals, not otherwise enumerated	value	10 per ct.		10 per ct.	
Vinegar, all sorts, in bulk	100 litres	3 fls.	4 fls.	3 fls.	5 fls.
in glass	—	5 fls.	6 fls.	5 fls.	6 fls.
Wine, in bulk	100 litres	6 fls.		6 fls.	
in glass	—	Same.	10 per ct.	Same.	10 per ct.
Champagne and other foaming wines	100 bottles	24 fls.		24 fls.	
Writing and drawing necessities §	value	4 per ct.	10 per ct.	6 per ct.	10 per ct.
Yarns, cotton or woollen	value	10 per ct.	20 per ct.	10 per ct.	16 per ct.
other sorts	—	6 per ct.		6 per ct.	
Zinc, rough and flattened, plates and sheets for roofing, ships, and boats	—	free		free	
work, painted, lacquered, or not	value	5 per ct.	20 per ct.	10 per ct.	16 per ct.
All other articles, not particularly enumerated, of raw and other materials than those mentioned above	value	4 per ct.		6 per ct.	

* The prohibition is not applicable when salt is imported on account of or for the use of the Government, and in those possessions out of Java and Madura which are or shall be excepted by the governor general.
† Exclusively manufactured of silk. Mixed stuffs as Manufactures of cotton.
‡ Postage and cooper's work excepted.
§ Paper excepted.

General Remarks on Java.—The previous statements show that the produce and trade of Java have increased during the last 30 years with a rapidity unknown in any other colony, Cuba, perhaps, excepted. And if the resources and capabilities of this noble island be fully developed, it is quite impossible to say how much farther her trade may be extended. It would far exceed our limits, and, even were this not the case, it would involve us in discussions nowise suitable for this work, were we to enter into any detailed examination of the means by which the extension of culture in Java has been brought about. We may, however, shortly mention that the produce for exportation is principally raised on account of Government, partly by contributions in kind from the cultivators, these being, in fact, the rent of the land which the latter occupy, Government being here, as in Hindostan, the only, or, at all events, the paramount proprietor; and partly by a system of *corvée* or compulsory labour established on one-fifth part of the lands applicable to the culture of rice, of which Government has resumed the possession. And, provided these contributions and *corvées* be not carried to excess, we incline to think that they are at once the least onerous mode in which the natives can be made to pay their taxes, and the most profitable for the Government. It is, we apprehend, idle to suppose that industry, if left to itself, will ever become flourishing in a country like Java, where the wants of the inhabitants are so few and so easily satisfied, and where the climate indisposes to exertion. No doubt the system of compulsory labour may be easily abused and converted into an instrument of the most grinding oppression; but so long as it is managed with discretion and good sense, we are disposed to believe, from all we can learn, that it is preferable to every other system hitherto devised for developing the resources of tropical countries. (Temminck, *Possessions Neerlandaises dans l'Inde Archipelagique*, i. 237 &c.)

Very great public improvements have also been already effected, and are still in progress, in the island. Among others, an excellent high road has been constructed through its whole length, from Bantam on its W. to Sourabaya on its E. coast, whence cross roads lead to all the principal stations. A number of forts have also been constructed in commanding situations in the interior, the principal of which at Surackarta, near the centre of the island, is a regular and strong citadel. It is said to be intended to transfer the seat of government thither from Batavia. These forts have been erected principally to keep the natives in check, and to prevent those outbreaks that have done so much to retard the prosperity of the island. Several important establishments have also been recently founded along the S. coast, which had previously been all but neglected. (Argout *Sur Java, Singapore &c.*)

Rice used to be the staple product of Java; but it is now far surpassed by coffee and sugar, the culture of both of which has been astonishingly increased. In proof of this we may mention that the exports of coffee, which in 1830 amounted to 288,740 piculs, had increased in 1854 to 1,017,596 do. or to 60,571 tons; while the exports of sugar,

which in 1830 amounted to 108,640 piculs, had increased in 1854 to 1,793,510 piculs or 106,756 tons. More than half the trade of the island centres in Batavia.

Indigo has also become an important product. The other principal articles of export are tin from Banca, tobacco, tea, and birds' nests.

The imports comprise cottons, woollens, and other manufactured goods; wines and spirits, with iron, hardware, and machinery; opium from the Levant and from Bengal; and a great variety of other articles.

Port Regulations.—The following is the substance of the port regulations of Batavia: 1. The commander of a ship arriving in the roads is not to land himself, or permit any of his crew or passengers to land, until his vessel be visited by a boat from the guard ship.—2. The master, on landing, is first to wait on the master attendant, and afterwards report himself at the police office.—3. A manifest of the whole cargo must be delivered at the Custom-house within 24 hours of the ship's arriving in the roads.—4. The master of a vessel must lodge the ship's papers with the master attendant when he first lands, which are duly delivered up to him when he receives his port clearance from the same authority.—5. No goods can be shipped or landed after sunset, under a penalty of 500 florins.—6. No goods can be shipped on Sunday without a special permission from the water fiscal, which, however, is never refused on application.—7. No muskets or ammunition can be imported; but the prohibition does not extend to fowling pieces exceeding 100 florins value.

Money.—Accounts are kept, at Batavia, in the florin or guilder, divided into centimes, or 100 parts, represented by a copper coinage or doits. The florin is a new coin made expressly for India, but of the same value as the florin current in the Netherlands. It is usually estimated at the rate of 12 to the pound sterling, but the correct par is 11 florins 58 cent. per pound. Doubloons, and the coins of continental India, are receivable at the Custom-house at a fixed tariff; the Spanish dollar, for example, at the rate of 100 for 260 florins.

Weights.—The Chinese weights are invariably used in commercial transactions at Batavia, and throughout Java and the other Dutch possessions in India. These are the picul and the cattle, which is its hundredth part. The picul is commonly estimated at 125 Dutch, or 133⅓ lbs. avoirdupois, but at Batavia it has been long ascertained and considered to be equal to 136 lbs. avoirdupois (Hogendorp, *Coup d'Œil sur l'Ile de Java*, c. viii. &c.) By far the best work on Java, and generally on the Dutch possessions in the East, is that of Temminck, referred to above, in 3 tomes, Leide, 1846–49.

Rates of Duty levied, and Amount of Duty received, on the various Articles imported into the Islands of Java and Madura, in the Years 1861–1863.

Articles	Rates of Duty	Amount of Duty Received		
		1861	1862	1863
	per cent.	guilden	guilden	guilden
Manufactures:				
Woollen:				
From Holland with certificate	12½	5,801	4,312	2,550
All other countries of Europe and America	25	85,137	85,947	93,883
Linen and cotton goods:				
From Holland with certificate	12½	1,066,829	1,109,790	816,691
All other countries of Europe and America	25	2,929,238	2,351,814	2,140,710
Indian cotton and woollen: Archipelago	12 and 24	8,750	6,124	8,901
Cotton and woollen: From countries eastward of the Cape of Good Hope	25	13,141	15,409	15,380
Furniture	12 and 24	39,813	45,345	40,392
Provisions from Europe and America	12 and 24	259,932	229,409	246,934
Gambier:				
From Dutch East Indies	12 fl. per picul	837,759	860,593	778,504
From Foreign ,,	18 ,, (tariff)			
Wine and other beverages	per cent.	1,794,567	1,695,002	1,638,693
Copper, iron, steel, and wares thereof	6, 12, and 24			
Miscellaneous	6, 10, 12, and 24			
Total { Guilden	—	7,038,800	6,383,675	5,780,569
Total { £	—	586,567	531,973	481,881

Account of the Quantities and Declared Values of the Principal Articles of British Produce and Manufacture exported to Java in 1862–1866.

Principal and other Articles		Quantities					Declared Real Value				
		1862	1863	1864	1865	1866	1862	1863	1864	1865	1866
							£	£	£	£	£
Apparel and haberdashery	value	—	—	—	—	—	5,368	2,193	5,609	4,759	2,964
Beer and ale	barrels	222	330	742	912	559	1,149	1,851	4,014	4,721	2,411
Coals, cinders, and culm	tons	41,849	29,473	22,250	23,015	18,312	17,338	12,925	10,546	11,326	9,141
Copper, wrought and unwrought	cwts.	2,697	2,191	3,170	3,233	1,991	13,276	10,794	15,706	15,986	9,961
Cotton yarn	lbs.	535,112	645,055	419,165	481,788	791,196	38,252	66,156	49,119	50,096	77,950
Cottons, entered by the yard	yards	26,522,463	16,165,927	20,708,210	30,941,969	62,190,326	496,180	411,389	556,644	702,961	1,431,059
at value	value	—	—	—	—	—	9,113	11,944	11,624	8,280	26,481
Earthenware and porcelain	,,	—	—	—	—	—	31,406	26,458	22,982	22,331	16,949
Glass manufactures	,,	—	—	—	—	—	4,914	2,899	2,654	1,598	1,509
Hardwares and cutlery, unenumerated	cwts.	3,273	2,780	1,721	2,587	2,899	15,503	10,514	8,348	8,382	8,248
Iron, wrought and unwrought	tons	2,586	3,051	2,754	2,636	3,892	23,706	26,439	22,079	23,685	39,846
Lead and shot	,,	27	55	93	29	4	645	1,172	2,065	618	95
Linens, entered by the yard	yards	93,007	205,649	202,504	404,744	426,686	5,579	8,525	9,544	17,205	19,412
Machinery: Steam engines	value	—	—	—	—	—	21,064	2,680	3,664	4,911	14,745
All other sorts	,,	—	—	—	—	—	27,253	9,802	21,358	14,647	8,306
Soap	cwts.	11,448	10,033	10,517	10,214	13,473	11,429	10,697	9,668	9,417	13,412
Tin plates	value	—	—	—	—	—	1,581	1,756	2,747	105	—
Woollens, entered by the yard (including those formerly entered by the piece)	yards	176,861	210,812	182,598	147,833	221,671	13,556	13,082	13,935	11,019	21,929
Woollens entered at value	value	—	—	—	—	—	1,122	568	410	319	290
All other articles	,,	—	—	—	—	—	39,596	18,721	25,904	18,288	21,690
Total		—	—	—	—	—	778,411	650,414	796,857	927,755	1,725,558

Rates of Duty levied on the several Articles exported from the Islands of Java and Madura, in the Years 1861–1863.

Articles		Rates of Duty					
		To Dutch Ports				To Foreign Ports	
		In Holland		In the East Indies			
		In Dutch Vessels	In Foreign Vessels	In Dutch Vessels	In Foreign Vessels	In Dutch Vessels	In Foreign Vessels
Coffee	Ad valorem	6 per cent.	12 per cent.	12 per cent.	12 per cent.	12 per cent.	12 per cent.
Pepper	Per picul	1 gulden	2 gulden	2 gulden	2 gulden	2 gulden	2 gulden
Sugar	Ad valorem	Free	6 per cent.	6 per cent.	6 per cent.	6 per cent.	6 per cent.
Arrack	Per leaguer	Free	6 ,,	Free	6 ,,	Free	6 ,,
Rice	Picul	10 cents	10 cents	10 cents	10 cents	10 cents	10 cents
Horses	Each	20 gulden	40 gulden	20 gulden	40 gulden	20 gulden	40 gulden
Indigo	Per lb.	5 cents	10 cents	10 cents	10 cents	10 cents	10 cents
Japan camphor	Balie	5·40 gulden	7 gulden	7 gulden	7 gulden	7 gulden	7 gulden
Spices:							
Mace	Picul	10 ,,	20 ,,	20 ,,	20 ,,	20 ,,	20 ,,
Cloves	,,	9·50 ,,	19 ,,	19 ,,	19 ,,	19 ,,	19 ,,
Nutmegs	,,	9·50 ,,	19 ,,	19 ,,	19 ,,	19 ,,	19 ,,
Oil	,,	1·50 ,,	3 ,,	1·50 ,,	3 ,,	1·50 ,,	3 ,,
Tin	,,	2 ,,	4 ,,	4 ,,	4 ,,	4 ,,	4 ,,
Birds' nests (edible)	Ad valorem	6 per cent.	12 per cent.	6 per cent.	12 per cent.	6 per cent.	12 per cent.
Other articles	,,	,,	,,	,,	,,	,,	,,

Account of the Quantities and Computed Values of the Principal Articles imported from Java into the United Kingdom in 1862–1866.

Principal and other Articles	Quantities					Computed Real Value				
	1862	1863	1864	1865	1866	1862	1863	1864	1865	1866
						£	£	£	£	£
Canes: rattans, not ground — number	564,038	260,052	252,516	—	57,651	639	851	605	—	98
Caoutchouc — cwts.	175	493	—	—	91	1,306	3,671	—	—	934
Coffee — ,,	1,472	311	262	—	—	49	10	8	—	—
Hides, not tanned — ,,	892	37	175	—	—	3,039	125	551	—	—
Nutmegs — lbs.	—	1,420	1,079	—	—	—	86	67	—	—
Pepper — ,,	141,644	85,695	137,467	—	—	2,361	783	2,076	—	—
Rice, not in the husk — cwts.	14,836	8,464	15,686	—	—	12,903	7,444	12,371	—	—
Sugar, unrefined — ,,	55,758	6,754	—	—	5,699	69,216	8,391	—	—	7,046
All other articles — value	—	—	—	—	—	3,923	1,076	1,091	286	74
Total	—	—	—	—	—	93,536	22,417	16,749	286	8,152

BATTEN. A name in common use for a scantling of wood 2½ inches thick and 7 wide. If above 7 inches wide, it is called *deal*.

BAZAAR. A term used in the East to designate a market, or building in which various articles of merchandise are exposed for sale. Bazaars are now met with in most large cities of Europe. There are several in London, of which the one in Soho Square is the most considerable. The largest of Eastern bazaars is said to be that of Tauris in Armenia, which is reputed to contain 15,000 shops, in which every kind of merchandise is exposed for sale. The bazaar of Ispahan encloses a square, which would, it is said, hold an army of near 40,000 men. That of Constantinople was built by Mahomet II. Sometimes these bazaars are devoted to the sale of special commodities, as drugs; and generally, when they are large, particular streets and districts are occupied by traders of one kind only.

BDELLIUM. This gum resin is of two kinds, known as Indian and African, the former produced by a tree found in India and Madagascar, and called *Amyris commiphora*. The latter is said to be the produce of *Heudelotia africana*, a native of Senegal. It is found either in small and somewhat globular pieces, of a reddish colour, semitransparent and brittle, with a wax-like fracture; or in large irregular lumps of a dark brownish-red colour, less transparent, somewhat tenacious, and adhering to the teeth when chewed. Its medical properties are somewhat analogous to those of myrrh, but it is seldom used in modern pharmacy. (Wood and Bache, *United States Dispensatory*.)

BEACONS. In Commerce and Navigation, public marks or signals to give warning of rocks, shoals &c. No man is entitled to erect a light-house, beacon &c. without being empowered by law. The Trinity House corporation are authorised to set up beacons in whatever places they shall think fit; and any person who shall wilfully remove or run down any buoy, beacon &c. belonging to the Trinity House, or to any other corporation, individual or individuals, having authority to establish it, shall, besides being liable to the expense of replacing the same, forfeit a sum of not less than 10*l*. nor more than 50*l*. for every such offence. (6 Geo. IV. c. 125 s. 91.) [Buoys.]

BEADS (Fr. rosaires; Ger. rosenkränze; Dutch, paternosters; Ital. corone; Span. coronas). Small globules or balls used as necklaces, and made of different materials; as pearl, steel, amber, garnet, coral, diamonds &c. But those of crystal or glass, generally called bugles, are by far the most extensively produced, and form, indeed, how inconsiderable soever they may appear, an important commercial article. Roman Catholics use them in rehearsing their Paternosters and Ave Marias; and besides their consumption for these and other purposes in Europe, they are largely exported to Africa, the West Indies, India &c. They are produced to a greater or less extent in most parts of the Continent, but principally in Venice, which is, and has long been, the grand seat of their manufacture. In 1865 we imported the enormous quantity of 3,365,221 lbs. beads, of which no fewer than 3,054,763 lbs. were brought from Venice; the residue mostly came to us from Bohemia, through the Hanse Towns. In 1866 we imported 3,438,587 lbs. We re-export them in very large quantities to the places referred to above. Beads are, also, made in China, and sent to India and elsewhere.

The non-manufacture of beads in this country used to be ascribed to the influence of the glass duties; but the repeal of the latter has had little or no effect on their production. The truth is, that the colours of the Venetian beads, and their finish, are decidedly superior to those of the beads produced here and in most other places. Beads have fallen greatly in price of late years.

Those made in France are mostly of the finer and fanciful sorts, on which gilding and other decorations are expended. (*Private information.*)

BEANS (Fr. fèves; Ger. bohnen; Ital. fave; Russ. boobii; Span. nabu; Lat. fabæ). A well-known vegetable of the pulse species, largely cultivated both in gardens and fields. Its cultivation is of much importance in rural economy, inasmuch as it has gone far to supersede fallows on strong loams and clays. There is a round white or yellowish bean, grown principally in the north at Shangtung and Chih-le, and in the south of Manchuria, and largely exported to Shanghai, Ningpo, and other Chinese ports. They are chiefly employed in the manufacture of oil, used both for cooking and lighting. Soy is prepared from the same or a closely allied kind of bean, the Dolichos soja. (Lockhart, *Medical Missionary in China, Chinese Repository*, &c.)

Bean of S. Ignatius.—The fruit of the *Strychnos Ignatia*, a native of the Philippine Islands, is of the size and shape of a pear, and encloses about twenty seeds. These seeds contain a notable quantity of two alkaloids, strychnia and brucia, and possess the poisonous properties of these substances. They are not used in British pharmacy, but are found in the *United States Dispensatory*.

Bean, Tonka.—The seed of the *Dipterix odorata*, or *Coumarona odorata*, a tree growing in Guiana. An oblong pod contains a single seed, of an agreeable, aromatic odour, chiefly used to flavour snuff, but it is also employed in perfumery.

BEAVER. [Skins.]

BEECH (*Fagus sylvatica*). A forest-tree to be met with everywhere in England. There is only one species, the difference in the wood proceeding from the difference of soil and situation. A considerable quantity of beech is grown in the southern parts of Bucks. It is not much used in building, as it soon rots in damp places; but it is used as piles in places where it is constantly wet. It is manufactured into a great variety of tools, for which its great hardness and uniform texture render it superior to all other sorts of wood; it is also extensively used in making furniture.

BEEF. The flesh of kine. It is used either fresh or salted. Formerly it was usual for most families, at least in the country, to provide a stock of salt beef in October or November, which served for their consumption until the ensuing summer; but in consequence of the universal establishment of markets where fresh beef may be at all times obtained, the practice is now nearly relinquished, and the quantity of salted beef made use of as compared with fresh beef is quite inconsiderable. Large supplies of salted beef are, however, prepared at Cork, and other places, for exportation to the East and West Indies. During the war large supplies were also required for victualling the navy. The vessels engaged in the coasting trade, and in short voyages, use only fresh provisions.

The English have at all times been great consumers of beef; and at this moment more beef is used in London, as compared with the population, than anywhere else. Previously to 1842 the importation of fresh beef was prohibited; and salt beef from a foreign country was at the same time charged with a duty of 12*s.* per cwt. But in that year the duties on both sorts were reduced to 8*s.* 4½*d.* per cwt., and in 1846 they were wholly repealed. In 1866 the imports of salted and fresh beef amounted to 232,948 cwt. [Cattle; Provisions.]

BEER. [Ale and Beer.]

BEET. Certain plants, originally grown near the sea, and which belong to the natural order *Chenopodiaceæ*, have long ago been employed for domestic and agricultural purposes, under the names of beet and mangold. They are characterised by containing a large quantity of sugar, and the cultivation of the beet and the extraction of this sugar form an important and increasing industry in central Europe.

This cultivation was the consequence of the exclusion of colonial produce from France during the continental war, and notwithstanding the great increase in the growth of cane sugar, that of the beet has grown and is growing rapidly. The French agriculturists reckon five varieties of beet, grosse rouge, petite rouge, jaune, blanche, and veinée de rouge. The richest in sugar are the yellow and red, but the percentage varies with the soil and the season. A beet crop is an excellent rotation to grain.

As the beet root sugar is chemically identical with that from the cane, it can be fermented and become a wash for spirits. The distillation of spirit from beet was hardly known in France before 1840, when it is said that only 30 hectolitres were manufactured. After the oidium attacked the grape, the produce of beet-root distillation increased enormously, and it has probably by this time reached 400,000 hectolitres (8,800,000 gallons).

For the statistics &c. of the beet root sugar produce of France &c. see Sugar.

BELL-METAL (Fr. métal de fonte ou de cloches; Ger. glockengut; Dutch, klokspys; Span. campanil; Russ. kolokInaja mjed). A composition of tin and copper, usually consisting of 3 parts of copper and 1 of tin. Its colour is greyish-white; it is very hard, sonorous, and elastic. Less tin is used for church bells than for clock bells; and in very small bells a little zinc is added to the alloy. (Thomson's *Chemistry*.)

BEN (Fr. ben; Ger. salbnüsse; Dutch, behenmoten; Swed. bennotter; Span. anais unguentarias; Ital. noce di been, ghiande unguentaria). The nut of a kind of tree known to botanists as *Guilandina bonduc*, originally brought from tropical Asia, but now cultivated successfully in central Europe. The seed is a cone, containing a number of triangular seeds, about the size of a hazel nut, these seeds holding a white and sweet kernel, which gives on expression a large quantity of oil. This oil is particularly free from mucilaginous admixture, and therefore does not solidify. Hence it is exceedingly useful for watchmakers, and other mechanicians who need a lubricating oil which does not readily congeal. It is also free from any disposition to grow rancid, and it thus forms a convenient vehicle for perfumes. Ben oil is now a rare article of commerce, and is sometimes confounded with oil of sesame.

BENZOIN. [Balsam.]

BERGEN. The first commercial city of Norway, situated at the bottom of a deep bay, in lat. 60° 24′ N., long. 5° 20′ E. Pop. in 1860, 26,540. It has a light on Nordnaes Point, visible 4 miles off in clear weather. The bay is enclosed on all sides by rugged rocks and islands: the water is deep; but, owing to the number and intricacy of the passages, the access to the town is attended at all times with a good deal of difficulty, and should never be attempted without a pilot. Cod-fish, salted or dried, is the principal article of export: when dried, it is called stock-fish, and goes chiefly to Italy and Holland. The fishery is the principal employment; and considerable quantities of fish and other products are also brought hither for exportation from the more northerly parts of the kingdom. At an average, from 25,000,000 to 30,000,000 lbs. salted and dried fish are annually

exported. Herrings, whale oil, skins, bones, tar, lobsters &c. are also largely exported. Consul-General Crowe, in his Report of Feb. 1848, states that fishing for sharks along the western coast of Norway has become profitable. The exports of timber from Bergen are inconsiderable, and none has latterly gone to England. Norway timber is not so large as that brought from Prussian ports, nor so free from knots; but, being of slower growth, it is more compact, and less liable to rot. The planks are either red or white fir or pine: the red wood is produced from the Scotch fir; the white wood, which is inferior in price and estimation, is the produce of the spruce fir: each tree yields three pieces of timber of 11 or 12 feet in length: and is 70 or 80 years of age before it arrives at perfection. The planks or deals of Bergen are, however, a good deal inferior to those of Christiania. The imports into Bergen principally consist of grain from the Baltic; and salt, hardware, coffee, sugar &c. from England.

For *Moneys, Weights*, and *Measures*, see CHRISTIANIA; where there are further details as to the trade and navigation of Norway.

BERRIES (*Bacca*). The fruits or seeds of many different species of plants. The berries quoted in London Price Currents are bay, juniper, Turkey, and Persian.

1. *Bay Berries* (Fr. baies de laurier; Ger. lorbeeren; Ital. bacchi di lauro; Span. bayas). The fruit of the *Laurus nobilis*. This tree is a native of the south of Europe, but is cultivated in this country, and is not uncommon in our gardens. The berry is of an oval shape, fleshy, and of a dark purple colour, almost black; it has a sweet fragrant odour, and an aromatic astringent taste. Bay berries, and the oil obtained by boiling them in water, are imported from Italy and Spain.

2. *Juniper Berries* (Fr. genévrier; Dutch, seven-boom; Ital. ginepro; Span. enebro). The fruit of the common juniper (*Juniperus communis*). They are round, of a black purple colour, and require two years to ripen. They have a moderately strong, not disagreeable, but peculiar smell, and a warm, pungent, sweetish taste, which, if they be long chewed, or previously well bruised, is followed by a considerable bitterness. They are found in this country; but most of those made use of here are imported from Holland, Germany, and Italy. They should be chosen fresh, not much shrivelled, and free from mouldiness, which they are apt to contract in keeping. On distillation with water, they yield a volatile essential oil, very subtle and pungent, and in smell greatly resembling the berries. The peculiar flavour and diuretic qualities of Geneva depend principally on the presence of this oil. Much English gin is said to be flavoured with oil of turpentine. (Lewis's *Mat. Med.*; Thomson's *Dispensatory*.)

The duty on juniper berries, previously to 1832, was 11*s.* 1*d.* per cwt., being more than 100 *per cent. on the price in bond*. The oppressiveness of this duty seems to have been the principal reason why turpentine, which in point of flavour and all other respects is so inferior, was largely used in preference to juniper berries in the preparation of gin. This oppressive duty was reduced, in 1832, to 2*s.*, again, in 1842, to 1*s.* 6*d.*, and was finally repealed in 1845. This wise and liberal measure has materially improved the beverage of a large proportion of the people. In 1865, 2,842 cwt. of juniper berries were retained for consumption.

3. *Turkey Yellow Berries*. The unripe fruit of the *Rhamnus infectorius* of Linnæus. They are used as a dye drug, in preparing a lively but very fugitive yellow, for topical application in calico-printing. Considerable quantities of them are exported from Salonica, to which they are brought from Thessaly and Albania. An inferior sort is produced in France. (Bancroft *On Colours*.) The duty on Turkey berries was abolished in 1845. The imports in 1865 amounted to 5,184 cwt., and the exports to 1,116 do. Price in the London market, September 1865, *5l.* 7*s.* 6*d.* to *5l.* 14*s.* 2*d.* per cwt.

4. *Persian Yellow Berries* are said by the merchants to be of the same species as the Turkey yellow berries. The colours which they yield are more lively and lasting. They are high priced, fetching from 80*s.* to 110*s.* per cwt.

BERYL (called by the jewellers *Aquamarine*). This stone was suspected by Pliny to be a variety of the emerald; a conjecture which modern mineralogists have completely confirmed. The term *emerald* is applied to that particular variety which presents its own peculiar colour, or *emerald green*; while that of beryl is given indiscriminately to all the other varieties; as the sea green, pale blue, golden yellow, and colourless. The beryl is found in very many parts of the world—in the United Kingdom, France, Bavaria, Siberia, Sweden, Saxony, Elba, Brazil, Massachusetts, Hindostan.

The commercial value of the beryl or aquamarine is trifling; it is used principally in Birmingham, for imitation jewellery, and as ornaments for metal work. (Emanuel *On Diamonds*.)

BETEL-LEAF (Hind. pan; Malay, sireh; Javanese, suro). The leaf alluded to in art. BETEL-NUT. It is the produce of a species of pepper vine (*Piper Betle*), and somewhat resembles the ivy-leaf. In their fresh state, betel leaves form an important article of Eastern traffic, being every where used in the preparation of betel. The *Piper Betle* is a scandent plant, and poles are placed in the ground, round which it twines itself. In consequence of the great consumption of its leaves, it is extensively cultivated throughout tropical Asia. It grows in the greatest perfection in rich soils close to the Equator; and is raised with more difficulty the farther we recede from it. (*Ency. Britannica*, new ed., art. 'Betel;' Crawfurd's *Indian Archipelago*, vol. i. p. 403.)

BETEL-NUT or ARECA (Sansc. and Hind. suapri; Malay, pinang; Javanese, jambi). The fruit of the *Areca catechu*, a slender and graceful palm, rising to the height of about 30 or 40 feet; it produces fruit at the age of five or six years, and continues bearing till its twenty-fifth or thirtieth year. The fruit, which is the only part of the palm that is made use of, is eaten both in its unripe and in its mature state. When ripe, it is of the size of a small egg, and of an orange colour; the exterior part consists of a soft, spongy, fibrous matter, enclosing a nucleus resembling a nutmeg in shape, internal structure, and colour, but usually larger, and always harder. A single tree produces, according to its situation, age, culture &c., from 200 to 800 nuts. They are objects of great importance in the East, forming the principal ingredient of a compound in universal use as a masticatory in all central and tropical Asia. The other ingredients are the leaf of the BETEL PEPPER, in which the areca nut is wrapped; a little CHUNAM; and generally, but not always, a little *catechu* or *terra japonica* [CATECHU]. The whole compound is called *betel*, and is used to an extent of which it is difficult for a European to form a just idea. All individuals, without exception of age or sex, begin at an early period to accustom themselves to betel. They are unceasingly masticating it, and derive a gratification from its use that strangers can neither understand nor explain. It reddens the saliva, gives a bright hue to the lips, and, in course of time, renders

the teeth quite black. It is said to dispel nausea, excite appetite, and strengthen the stomach. Besides being used as an article of luxury, it is a kind of ceremonial which regulates the intercourse of the more polished classes of the East. When any person of consideration visits another, after the first salutations, betel is presented: to omit it on the one part would be considered neglect, and its rejection would be judged an affront on the other. No one of inferior rank addresses a dignified individual without the previous precaution of chewing betel; two persons seldom meet without exchanging it; and it is always offered on the ceremonious interviews of public missionaries. The areca nut is, in consequence, an article of very extensive trade. The countries which yield it most largely for exportation are Malabar, Ceylon, and Sumatra. Of the extent of this trade some notion may be formed from the fact that the imports of areca into Calcutta in 1841-42 amounted to 53,633 Ind. maunds, or 1,966 tons, and those into Canton, in 1837, by British ships only, amounted to 25,978 piculs, or 1,502 tons, notwithstanding Bengal and Southern China are countries in which areca is largely produced. (Art. 'Betel,' *Ency. Brit.* new ed.; Bell's *Review of the External Commerce of Bengal*; Crawfurd's *Indian Archipelago*, vol. i. p. 102, vol. iii. p. 414; *Chinese Kalendar and Register.*)

BEZOAR (Arab. faduj; Hind. zeher-morah; Pers. padzehr kanie). A concretion found in the stomach of an animal of the goat kind: it has a smooth, glossy surface, and is of a dark green or olive colour. The word *bezoar*, however, has lately been extended to all the concretions found in animals; such as the *hog bezoar*, found in the stomach of the wild boar in India; the *bovine bezoar*, found in the gall-bladder of the ox, common in Nepaul; and the *camel bezoar*, found in the gall-bladder of the camel: this last is much prized as a yellow paint by the Hindoos. The finest bezoar is brought to India from Borneo and the sea-ports of the Persian Gulf; the Persian article is particularly sought after, and is said to be procured from animals of the goat kind, *Capra Gazella*. Many extraordinary virtues were formerly ascribed to this substance, but without any sufficient reason. (Ainslie's *Materia Indica.*)

BHANG or CHURRUS (the latter name used in tracts north of the Punjab to denote a resinous exudation derived from the hemp, *Cannabis sativa*). The dried hemp plant which has flowered and from which the resin has not been removed is called Gunjah, and is used for smoking. It has also valuable medicinal properties as an antispasmodic and anodyne. The larger leaves and capsules are called Bhang, Tubjee, and Siddha.

The resin called Churrus is worth about 8*s.* 4*d.* per lb.; a still finer kind, collected by hand in Nepaul, and called momeea, is worth from 10*s.* to 12*s.* per lb. The ordinary churrus is collected by a singular process. Men clad in leathern dresses run through the hemp fields, brushing through the plants with all possible violence; the soft resin adheres to the leather, and is subsequently scraped off and kneaded into balls. Sometimes the leathern attire is dispensed with, and the resin is collected on the skin of naked coolies. (*Exhibition Catalogue for India*, pp. 42, 81.)

BIAZ. A cotton material resembling linen, manufactured in Central Asia to a considerable extent, both for native use and for exportation to Russia. There are three sorts: the best, or Bokharian; the medium, or Khivan; and an inferior variety manufactured in Tashkend. The Bokharian biaz is brought to the bazaars and purchased by dealers for export to Russia. It is sold in pieces from 12½ to 16½ yards in length and 10½ inches in breadth. The best description sells at about 1*s.* 6*d.* and the lowest at 10½*d.* per piece. A camel's load consists of 400 pieces, each piece weighing about 1¼ lb. The Tashkend biaz, although inferior in quality and measure to that of Bokhara, is of but very little less value, the price of a piece of 14 yards being at Tashkend 10½*d.* to 1*s.* 4*d.* The price of the Khivan biaz is from 16*s.* 3*d.* to 17*s.* 1½*d.* per 10 pieces. The quantity imported into Russia between 1840 and 1850 was, according to Mr. Lumley, about 1,600,000 pieces, valued at 114,450*l.* A blue biaz, *tendel* or *buyah*, dyed with indigo, is also exported from Bokhara, Khiva, and Tashkend to Russia. For further information on this subject see Mr. Lumley's valuable Report on Central Asia, with Reports of Secretaries of Legation presented to Parliament in 1862.

BILBAO. The capital of Biscay, one of the three Basque Provinces, a seaport town of Spain, on the river Nervion, about 8½ English miles from Portugalete. Population in 1864, 25,000.

Port.—The Bay of Bilbao lies between Punto Galea on its east, and Punto Luzuero on its western side, distant apart about 3 miles. It stretches S.E. to within ¾ mile of Portugalete, a small town at the mouth of the Nervion, lat. 43° 15′ 47″ N., long. 2° 45′ W.

The water in the bay varies from 5 to 10 and 14 fathoms. There is a bar at the mouth of the river. High water at full and change at 3 h. P.M. The depth of water at high tide on the bar may be said to have a maximum of 16 to a minimum of 12 feet. Instances, however, are frequent of 18 and 19 feet: about 15 feet at high water may generally be depended on.

The channel is constantly changing, and heavy seas on the bar are of continual occurrence. The head pilot is in attendance, weather permitting, taking soundings, and directing incoming or outgoing vessels; but when he is unable to go out, signals are made by red flags at Portugalete and Santurce, either to direct the passage of the ships or to forbid their attempting to cross the bar. Vessels never, except in the finest weather, or to avoid running on an impracticable bar and lee shore, anchor in the bay. Pilots go off from Portugalete and Santurce on the west, and Algorta on the east side of the bay, and sometimes board from Santaña. The lighthouse is at Punto Galea. (For bearings, see SAILING DIRECTIONS.) Vessels proceed to Olaveaga, 2 miles below the town of Bilbao, to discharge, to which point ships of any draught that can cross the bar can safely proceed and discharge afloat. Only steamers of light draught, and ships drawing not more than 9 feet, can get up to Bilbao, and even then they lie aground at low water. Vessels also discharge coal cargoes and load iron ore at San Nicolas, about 2 miles above Portugalete. Goods are conveyed in lighters from Olaveaga to Bilbao; but the railway will be continued to Olaveaga, and probably to Portugalete, and thus put an end to the heavy expense and inconvenience of the present system of discharging and loading. A proposed port outside the bar, stretching from Santurce to Algorta, would obviate that formidable obstacle.

The following are the port dues and expenses:—

Inwards.

	Rs.	v.	ct.
Advice to head pilot of draught of water	25	0	
Head pilot	56	75	
Pilotage, per Spanish foot	10	0	
Boat from sea to Olaveaga (every vessel above 50 tons is bound to take a boat)	150	0	
Detention at Quarantine, to pilot	12	50	
Extra boats to tow in or out, each	50	0	
Pair of bullocks to tow up the river, per kilometre	2	16	

	Rs. v. ct
Coasting pilot (if any) west coast, per league	15 0
,, east coast ,,	20 0
Measuring vessel for payment of duties, per Spanish ton	0 50
Anchorage duty, per Spanish ton } only charged inwards	1 0
Light dues ,, } only charged inwards	1 0
Quarantine dues, per Spanish ton	0 75
Navigation duty on cargo, per quintal	0 12½
Brokerage, per Spanish ton	2 0

Outwards, with cargo.

Register at Customs	10 0
Pilotage, boats, head pilot, and oxen, the same as inwards.	
Navigation duty, the same, but if cargo is iron ore, per quintal	0 6½
Brokerage, per Spanish ton	1 0
,, if chartered in port, 2 per cent.	

Outwards in ballast.

The same, excepting that the navigation duty is not charged.	
Ballast, per ton	5 0

Telegraphic communication has long been established. The rate of exchange, taking an average for the last five years, may be calculated at 97 Rs. Von. to the *l.* sterling.

The Bilbao and Tudela Railway, commenced in 1858 and completed in 1863, is one of the most remarkable works in Spain. In a distance of about 22 English miles in a direct line it accomplishes an ascent of 2,000 feet, and reaches the level of the plateau of the interior. At Miranda this railway intersects the North of Spain line, and places Bilbao in direct communication with France, Barcelona, Madrid &c.

The Bank of Bilbao, established in 1857, is the only bank of issue and discount. There are also two associations for general financial purposes, but having no power of issue.

Trade and Commerce.—The articles of import are British and French manufactures of every description, cod-fish, timber, and colonial produce. The exports are grain and flour, iron, zinc and lead ore, wine, madder, preserved food, liquorice, lamb and goat skins, chesnuts &c. The wool trade has ceased for many years. An idea of the rapid advance in the commercial importance of Bilbao during the last few years may be formed from the following:—

Exports.		*Imports.*	
1859	£ 43,214	1859	£ 755,677
1864	204,262	1864	2,760,095

Moneys.—The same as throughout Spain.

Weights and Measures.—The metrical system is now the legal one, and will no doubt in a few years be universally adopted. The ancient weights and measures of Biscay are the quintal of 108 lbs., the arroba of 25 lbs., the cantara of about 4 gallons, and the azumbre of half a gallon; but these are liable to considerable variations according to the different articles concerned.

Privileges.—The Basque Provinces still retain their principal ancient privileges, known as the *Fueros*, but great efforts are being made to deprive them of these advantages. The most important are, the free importation of tobacco and salt, freedom from Government taxation, stamps, and the conscription.

[We are indebted for this article on Bilbao to Horace Young, Esq.]

BILL OF EXCHANGE. [EXCHANGE.]

BILL OF HEALTH. A certificate or instrument signed by consuls or other proper authorities, delivered to the masters of ships at the time of their clearing out from all ports or places suspected of being particularly subject to infectious disorders, certifying the state of health at the time that such ship sailed. A *clean* bill imports that at the time the ship sailed no infectious disorder was known to exist. A *suspected* bill, commonly called a *touched* patent or bill, imports that there were rumours of an infectious disorder, but that it had not actually appeared. A *foul* bill, or the absence of clean bills, imports that the place was infected when the vessel sailed. [QUARANTINE.]

BILL OF LADING. A *formal receipt* subscribed by the master of a ship in his capacity of carrier, acknowledging that he has received the goods specified in it *on* board his ship, and binding himself (under certain exceptions) to deliver them, in the like good order as received, at the place and to the individual named in the bill, or his assigns, on his or their paying him the stipulated freight &c. When goods are sent by a ship hired by a charterparty, the bills of lading are delivered by the master to the merchant by whom the ship is chartered; but when they are sent by a *general ship*—i.e. by a ship not hired by charterparty, but employed as a general carrier—each individual who sends goods on board receives a bill of lading for the same. In all cases, therefore, the bill of lading is the evidence of and title to the goods shipped.

The liability of a carrier, at common law, is to deliver the goods intrusted to his care, cancelled only by 'the act of God and the queen's enemies.' But to limit this responsibility, the following exception is now, invariably almost, introduced into the clause in bills of lading, binding the master to the delivery of the goods: '*The act of God, the queen's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, excepted.*'

Bills of lading are not, in general, immediately given by the master on receiving the goods. The usual practice is for the master or his deputy to give a common receipt for the goods, which is delivered up on receiving the bill of lading. The latter should always be required within 24 hours after the goods are received on board.

Three sets of all bills of lading are made out on stamped paper: one of these should be remitted by the first post to the person to whom the goods are consigned, a second being sent to him by the ship; the third is retained by the shipper of the goods. The master ought always to retain copies of the bills of lading for his government. A stamp duty of 6*d.* is charged on each bill of lading, whether for goods exported or carried coastwise.

The usual form of a bill of lading is as follows:—

W. B. } *N. B.*—SHIPPED, in good order
No. 1. *a* 10. } and well conditioned, by *A. B.* merchant, in and upon the good ship called whereof *C. D.* is master, now in the river Thames and bound for , the goods following, viz. [*here describe the goods*] marked and numbered as *per* margin, to be delivered in the like good order and condition, at aforesaid (*the act of God, the queen's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, excepted*), unto the said *A. B.* or his assigns, he or they paying for the said goods at the rate of *per* piece freight, with primage and average accustomed. In witness whereof, I, the said master of the said ship, have affirmed to three bills of lading, of this tenour and date; any one of which bills being accomplished, the other two are to be void.

London, this day of , 1868. C. D., *Master.*

But in the case of ships homeward bound from the West Indies, which send their boats to fetch the cargo from the shore, the exception in the bill of lading is usually expressed as follows: 'The act of God, the queen's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, *save risk of boats, so far as ships are liable thereto*, excepted.' Other exceptions may be and are sometimes introduced; but the above is the general form.

Transfer of Bills of Lading.—Bills of lading are transferable either by blank or special indorsement, like bills of exchange. And whatever may be the character of the person to whom the goods are consigned, whether he be a buyer, or merely the factor, agent, or broker of the consignor, the bonâ fide holder of a bill of lading indorsed by the consignee is entitled to the goods, and may claim them from the master, if he can prove that he has purchased the bill for a *good consideration*; but unless he can do this, he is not entitled to the goods. (Holt, *Law of Shipping*, 2nd ed. p. 363.)

Formerly, a factor, though he might sell, could not *pledge* the goods of his principal. But the hardship and inconvenience arising from this rule were such, that it was set aside by the Act 6 Geo. IV. c. 94. The second section of this Act declares that any person in possession of a bill of lading shall be deemed the true owner of the goods specified in it, so as to make a sale or pledge by him of such goods or bill of lading valid, unless the person to whom the goods are sold or pledged has notice that the seller or pledger is not the actual and bonâ fide owner of the goods. [FACTOR.]

Delivery under Bill of Lading.—It being usual to sign and deliver three bills of lading, it is possible that there may be conflicting demands upon the captain by the different holders. Nothing, however, is, in such a case, required of him, except that he act with good faith, and to the best of his judgment; and that he make delivery of the goods to the person who first demands them of him, upon presentment of the bill of lading, *provided the circumstances be not such as to justify a suspicion* of his having unfairly got possession of it. If he act differently, he is answerable, according to the peculiarities of the case, to the person injured by his negligence; the bill of lading being not only the instructions of the merchant to him, as his carrier or servant, but his own especial agreement to deliver according to its conditions.

Where several bills of lading of a different import have been signed, no regard is to be paid to the time when they were first signed by the master; but the person who first gets legal possession of one of them from the owner or shipper has a right to the consignment; and where such bills of lading, though different upon the face of them, are constructively the same, and the master has acted bonâ fide, a delivery according to such legal title will discharge him from all. (Holt, pp. 375, 377.)

By 23 Vict. c. 22 s. 21 &c. a bill of lading becomes the entry or shipping bill of goods exported. The charges under this Act are repealed by 26 Vict. c. 22: see also 18 & 19 Vict. c. 111 on the same subject.

Great inconveniences arise, should any irregularity occur in a bill of lading; for the regulations of several countries, as in particular Spain, Portugal, and several of the South American governments, are exceedingly strict. In the ports of these countries, a mistake in these documents leads frequently to the infliction of severe penalties.

BILL OF SALE. A formal instrument by which an individual conveys away the right and interest he has in the goods or chattels named therein. The property of ships is transferred by bill of sale, of which there are two descriptions, viz. (1) the *grand* bill of sale, which conveys the property of the ship from the builder to the owner or first purchaser; and (2) the *ordinary* bill of sale, by which any subsequent transfer is made. No stamp duty is payable on these documents, nor is it necessary that they should be under seal. (Maude and Pollock *On the Law of Shipping*, p. 13.) [REGISTRY.]

BILL OF SIGHT. When a merchant is ignorant of the real quantities or qualities of any goods consigned to him, so that he is unable to make a perfect entry thereof, he or his agent must subscribe a declaration to that effect before the collector or comptroller, who is authorised, on receiving such declaration, to allow the importer to enter the goods by BILL OF SIGHT. (See the form, IMPORTATION AND EXPORTATION.) They may then be provisionally landed; and perfect entry of the same must be made within 3 days, by indorsing on the bill of sight such particulars as are required in making perfect entry of goods, whether for payment of duty, warehousing, or delivery free of duty. (16 & 17 Vict. c. 107 ss. 61, 62.)

Goods entered by bill of sight for delivery on payment of duty are not to be delivered till perfect entry thereof has been made, and the duty paid, unless the importer deposit a sum of money sufficient to cover the duty payable thereon. (Sec. 63.)

In default of perfect entry within 3 days, goods entered by bill of sight are to be taken to the Queen's warehouse; and if the importer do not, within 1 month, make perfect entry, and pay the duties thereon, or on such parts as can be entered for home use, together with charges of moving and warehouse rent, such goods shall be sold for payment of the duties. (Sec. 64.) [IMPORTATION AND EXPORTATION.]

BILL OF STORE. A license granted by the Custom-house to re-import British goods into the United Kingdom.

The Act 16 & 17 Vict. c. 107 has the following clause in regard to the entry of goods by bill of store:—

All British goods re-imported into the United Kingdom shall be entered as foreign, and shall be liable to the same duties, rules, regulations, and restrictions as such goods, if foreign, would be liable to on the first importation thereof, unless the same shall be re-imported within 10 years after the exportation thereof, and it shall be proved to the satisfaction of the Commissioners of Customs that the property in such goods has continued and still remains in the person by whom or on whose account the same have been exported, in which case the same may be entered as British goods, by bill of store, containing such particulars and in such form and manner as the said Commissioners may direct: Provided always, that the following goods shall, on re-importation, be deemed and taken to be foreign goods, viz. corn, grain, meal, flour, and hops, and also all goods for which any drawback of excise shall have been received on exportation, unless by special permission of the Commissioners of Customs, and on re-payment of such drawback, and also all goods for which a bill of store cannot be issued in manner directed by the said Commissioners, except remnants of British goods, with permission of the Commissioners of Customs. (Sec. 65.)

The following is a regulation of the Board of Customs, dated November 9, 1861, by which the importation of returned British goods is greatly facilitated:—

'That the limit of time within which goods may be returned and admitted as British be

abolished in all cases except where a Bill of Store is required, and that the declaration of continued proprietorship be in all cases dispensed with.

'That returned British goods of the same description as foreign goods on which duty is chargeable upon importation, or which were entitled to drawback on exportation, be deemed to be foreign unless a Bill of Store be obtained in accordance with the other provisions of the above section, corn, grain, meal, flour, and hops being in all cases deemed to be foreign.

'That returned British goods bearing marks or brands of British manufacturers be deemed to be foreign goods with British marks or brands, and as such liable to forfeiture, unless declaration be made by the persons whose marks or brands they bear, that the goods are of British manufacture, or unless a Bill of Store be obtained.

'That returned British goods not bearing marks or brands, not entitled to drawback on exportation, and not of a description which, if foreign, would be chargeable with duty, be admitted upon their being entered as British goods with the usual declaration to the truth of the particulars contained in the entry, as required on all import entries.'

BILL (VICTUALLING). Formerly a victualling bill was a list of all stores for shipment, but now it shows only stores shipped from the bonded warehouse or for drawback on board vessels proceeding on over-sea voyages. This document serves also as a certificate of clearance when there is nothing but stores on board the ship (16 & 17 Vict. c. 107 s. 145), and this law also enacts that if after clearing outwards a vessel be found to possess any such stores which are not endorsed on the victualling bill, such stores shall be forfeited. (Sec. 146.)

BILLINGSGATE. A market for fish, contiguous to the Custom-house in London. It is held every lawful day, and was established in 1669 by stat. 10 & 11 Wm. III. c. 24. Every person buying fish in Billingsgate market may sell the same in any other market-place or places within the city of London or elsewhere, by retail, with this condition, that none but fishmongers be permitted to sell in fixed shops or houses. No person or persons shall purchase at Billingsgate any quantity of fish, to be divided by lots or in shares amongst any fishmongers or other persons, *in order to* be afterwards put to sale by retail or otherwise; nor shall any fishmonger engross, or buy in the said market, any quantity of fish, but what shall be for his own sale or use, under the penalty of 20*l*. No person is to have in his possession, or expose to sale, any spawn of fish, or fish unsizeable, or out of season. (36 Geo. III. c. 118.) The minimum size of the lobsters to be sold at Billingsgate is fixed by statute. [LOBSTER.]

Previously to 1842 no fish of foreign taking or curing, or in foreign vessels, could be imported into the United Kingdom, except turbots and lobsters, stock-fish, live eels, anchovies, sturgeon, botargo, and caviare. But the importation of all sorts of fish was then permitted on payment of duties, which were finally repealed in 1853. At present, therefore, the trade in fish is quite free.

For some further remarks with respect to this subject, see FISH.

BIRCH (Fr. bouleau; Dutch, berke; Ger. birke; Ital. betulla; Lat. betula; Pol. brzoza; Russ. bereza; Span. abedul, betulla). A forest-tree met with everywhere in the north of Europe. It is applied to various purposes. In Lapland, Norway, and Sweden, the long twigs of the birch are woven into mats and twisted into ropes; the outer bark forms an almost incorruptible covering for houses; and the inner bark is used, in periods of scarcity, as a substitute for bread. Russia leather is prepared by means of the empyreumatic oil of the birch. It is an excellent wood for the turner, being light, compact, and easily worked. Its durability is not very great. It is sometimes used in the manufacture of herring barrels.

BIRDLIME (Ger. vogelleim; Fr. glu; Ital. pania; Span. liga; Russ. ptitschei klei). It is found in the inner bark of certain plants, as the mistletoe (*Viscum album*) and the holly (*Ilex aquifolium*). It is prepared by boiling the bark several hours in water, separating it from the liquid, in which it is insoluble, and setting it aside till it becomes viscous. Birdlime is greenish, tenacious, glutinous, of a bitter taste, and a smell similar to linseed oil. If exposed to the air in thin layers, it becomes dry brown, and may be powdered, but regains its viscidity when treated with water. A substance similar to birdlime, and called specially *glu* by French chemists, exudes spontaneously from the bark of certain plants. When this substance is purified, it is without odour or taste, is very adhesive, is fusible by heat and inflammable, is quite insoluble in water, and nearly so in alcohol, but is freely dissolved by ether and turpentine oils. It has been called *viscin*. The use of birdlime is familiar, but it has little commercial importance.

BIRDS' NESTS (Ger. Indianische vogelnester; Dutch, Indiaansche vogelnestjes; Fr. nids de Tunkin; Ital. nidi di Tunchino; Span. nidos de la China; Javanese, susu; Malay, sarungburung; Chinese, yin-wo). The nests of a species of small swallow peculiar to the Indian islands (*Hirundo esculenta*), very much esteemed in China. In shape these nests resemble those of other swallows. They are formed of a viscid substance; and in external appearance, as well as consistence, are not unlike fibrous, ill-concocted isinglass. Esculent nests are principally found in Java, in caverns that are most frequently, though not always, situated on the sea-coast. Many conflicting statements have been made as to the substance of nests; some contending that they are formed of sea-foam or other marine products, and others that they are elaborated from the food of the bird &c. But these are points as to which nothing satisfactory is known.

It is asserted that at the time of pairing the swallow secretes a glutinous substance from its bill, and that this mucus flowing from the bill in filaments forms the material of the nest. This substance, for which the name *cubilose* has been suggested, is hardly soluble in cold, and slowly in boiling water, but readily in alkaline solutions, whether cold or hot. Iodine tinges it an orange yellow.

Singapore is the chief mart for birds' nests, to which they are brought from Borneo, Java, Rio Minto, Sumbawa, Sumatra, and Celebes. The price of the same quality varies enormously: at Manilla a picul (133 lbs.) will fetch 2,000 piastres, while in Canton the same quantity may be worth nearly 6,000 piastres.

Birds' nests are served at the close of great entertainments, in the proportion of a nest and a half to each guest.

We borrow from Mr. Crawfurd's valuable work on the *Eastern Archipelago* (vol. iii. pp. 432—437) the following authentic and curious details as to the traffic in this singular production: 'The best nests are those obtained in deep damp caves, and such as are taken before the birds have laid their eggs. The coarsest are those obtained after the young are fledged. The finest nests are the whitest, that is, those taken before the nest has

been rendered impure by the food and *faces* of the young birds. They are taken twice a-year, and if regularly collected, and no unusual injury be offered to the caverns, will produce very equally, the quantity being very little, if at all improved by the caves being left altogether unmolested for a year or two. Some of the caverns are extremely difficult of access, and the nests can only be collected by persons accustomed from their youth to the office. The most remarkable and productive caves in Java, of which I superintended a moiety of the collection for several years, are those of *Karang-bolang*, in the province of *Baglen*, on the south coast of the island. Here the caves are only to be approached by a perpendicular descent of many hundred feet, by ladders of bamboo and rattan, over a sea rolling violently against the rocks. When the mouth of the cavern is attained, the perilous office of taking the nests must often be performed by torch-light, by penetrating into recesses of the rock where the slightest trip would be instantly fatal to the adventurers, who see nothing below them but the turbulent surf making its way into the chasms of the rock.

'The only preparation which the birds' nests undergo is that of simple drying, without direct exposure to the sun, after which they are packed in small boxes, usually of half a picul. They are assorted for the Chinese market into three kinds, according to their qualities, distinguished into *first* or *best*, *second*, and *third* qualities. Caverns that are regularly managed will afford, in 100 parts, 53·3 parts of those of the first quality, 35 parts of those of the second, 11·7 parts of those of the third.

'The common prices for birds' nests at Canton are, for the first sort, no less than 3,500 Spanish dollars the picul, or 5*l*. 18*s*. 1½*d*. per lb.; for the second, 2,800 Spanish dollars per picul; and for the third, 1,600 Spanish dollars. From these prices it is sufficiently evident that the birds' nests are no more than an article of expensive luxury. They are consumed only by the great; and indeed the best part is sent to the capital for the consumption of the court. The sensual Chinese use them, under the imagination that they are powerfully stimulating and tonic; but it is probable that their most valuable quality is their being perfectly harmless. The people of Japan, who so much resemble the Chinese in many of their habits, have no taste for the edible nests; and how the latter acquired a taste for this foreign commodity is no less singular than their persevering in it. Among the Western nations there is nothing parallel to it, unless we except the whimsical estimation in which the Romans held some articles of luxury, remarkable for their scarcity rather than for any qualities ascribed to them.'

Mr. Crawfurd estimates the whole quantity of birds' nests exported from the Archipelago at 242,400 lbs., worth 284,290*l*. 'The value,' he observes, 'of this immense property to the country which produces it, rests upon the capricious wants of a single people. It is claimed as the exclusive property of the sovereign, and everywhere forms a valuable branch of his income, or of the revenue of the state. This value, however, is of course not equal, and depends upon the situation and the circumstances connected with the caverns in which the nests are found. Being often in remote and sequestered situations, in a country so lawless, a property so valuable and exposed is subject to the perpetual depredation of freebooters, and it not unfrequently happens that an attack upon it is the principal object of the warfare committed by one petty state against another. In such situations, the expense of affording them protection is so heavy, that they are necessarily of little value. In situations where the caverns are difficult of access to strangers, and where there reigns enough of order and tranquillity to secure them from internal depredation, and to admit of the nests being obtained without other expense than the simple labour of collecting them, the value of the property is very great. The caverns of *Karang-bolang*, in Java, are of this description. These annually afford 6,810 lbs. of nests, which are worth, at the Batavia prices of 3,000, 2,500, and 1,200 Spanish dollars the picul, for the respective kinds, nearly 139,000 Spanish dollars; and the whole expense of collecting, curing, and packing, amounts to no more than 11 per cent. on this amount. The price of birds' nests is of course a monopoly price, the quantity produced being by nature limited, and incapable of augmentation. The value of the labour expended in bringing birds' nests to market is but a trifling portion of their price, which consists of the highest sum that the luxurious Chinese will afford to pay for them, and which is a tax paid by that nation to the inhabitants of the Indian islands. There is, perhaps, no production upon which human industry is exerted, of which the cost of production bears so small a proportion to the market price.' (See also the valuable work of Count Hogendorp, *Coup d'Œil sur l'Ile de Java*, p. 291.)

'The present importation of all kinds can only be guessed at: 500 piculs were entered at Shanghai and Canton in 1800, but the entire import can hardly be less than 700 or 800 piculs annually.' (Williams' *Chinese Commercial Guide*, 5th ed.)

BISMUTH (Ger. wismuth; Dutch, bismuth, bergsteen, blinkendin; Fr. bismuth; Ital. bismutte; Span. bismuto, piedra inga; Russ. wismut; Lat. bismuthum). A metal of a reddish white colour, and almost destitute of taste and smell. It is softer than copper; its specific gravity is 9·822. When hammered cautiously, its density is considerably increased; it breaks, however, when struck smartly by a hammer, and, consequently, is not malleable, neither can it be drawn out into wire; it melts at the temperature of 476°. The chief source of bismuth is Saxony, but it is found in Swabia, the Pyrenees, Sweden, and Cornwall. (Thomson's *Chemistry*.)

'Bismuth is used in the composition of pewter, in the fabrication of printers' types, and in various other metallic mixtures. With an equal weight of lead, it forms a brilliant white alloy, much harder than lead, and more malleable than bismuth, though not ductile; and if the proportion of lead be increased, it is rendered still more malleable. Eight parts of bismuth, 5 of lead, and 3 of tin, constitute the fusible metal, sometimes called Newton's, from its discoverer, which melts at the heat of boiling water, and may be fused over a candle in a piece of stiff paper without burning the paper. It has been suggested that this alloy of bismuth might be used advantageously in order to prevent steam explosions. Pewterers' solder is formed of 1 part of bismuth, with 5 of lead, and 3 of tin. It forms the basis of a sympathetic ink.' (Ure.)

BITUMEN (Ger. judenpech; Fr. bitume; Dutch, jodenlym; Ital. asfalto; Span. asfalto; Port. asphalto; Russ. asfalt; Lat. asphaltum bitumen judaicum). This term includes a considerable range of inflammable mineral substances, burning with the flame in the open air. They differ in consistency, from a thin fluid to a solid; but the solids are for the most part liquefiable at a moderate heat. They are—1. *Naphtha*; a fine, white, thin, fragrant, colourless oil, which issues out of white, yellow, or black clays in Persia and Media. This

is highly inflammable. Near the village of Amiano, in the state of Parma, there exists a spring which yields this substance in sufficient quantity to illuminate the city of Genoa, for which purpose it is employed. With certain vegetable oils, naphtha is said to form a good varnish.—2. *Petroleum* is much thicker than naphtha, resembling in consistence common tar. It has a strong disagreeable odour, and a blackish or reddish brown colour. During combustion it emits a thick black smoke, and leaves a little residue in the form of black coal. It is more abundant than the first-mentioned variety, from which it does not seem to differ, except in being more inspissated. It is found in various countries, and is especially abundant in the Birman empire, where it is met with above Prome, within about 2 miles of the Irrawadi. The gross annual produce of the wells in this place has been estimated at about 80,000,000 lbs., worth on the spot about 1*s.* 8*d.* per cwt.; and the supply might, if a market could be found, be indefinitely increased. It is used as a lamp oil, and, when mingled with earth or ashes, as fuel and in the lining of boats. (*Geographical Dictionary*, i. 453.) In the United States it is found abundantly in Kentucky, Ohio, and New York, where it is known by the name of *Seneca* or *Genesee* oil. It is also obtained from wells in the island of Zante. Herodotus tells us that he had seen these wells (lib. iv. c. 195); and the description he has given of them, and of the mode of obtaining the petroleum, corresponds, in all respects, with the accounts of the best modern travellers. The average annual produce of the Zante springs is about 100 barrels. (Chandler's *Travels in Greece*, 4to. ed. p. 301; Holland's *Travels in Greece*, 4to. ed. p. 18.) Petroleum is particularly abundant in Persia. 'When taken from the pit, it is a thick liquid resembling pitch. The bottoms of most vessels which navigate the Euphrates and Tigris are covered with it, and it is also used in lamps, instead of oil, by the natives. The most productive fountains are those of Kerkook, Mendali, and Badku. The wells in the neighbourhood of the latter seem to be quite inexhaustible, being no sooner emptied than they again begin to fill. Some of them have been found to yield from 1,000 to 1,500 lbs. a day!' (Kinneir's *Persian Empire*, pp. 39, 359.)—3. *Maltha*, or *Sea-wax*, is a solid whitish substance, not unlike tallow. It melts when heated, and in cooling assumes the consistence of white cerate. This is, most probably, the *bitumen candidum* of Pliny (*Hist. Nat.* lib. xxxv. c. 15). It is not used as pitch; but it affords a better light than petroleum, and emits a less disagreeable smell. It is found on the surface of the Baikal Lake in Siberia, at the foot of the mountains of Bucktiari in Persia, and in some other places.—4. *Elastic Bitumen* yields easily to pressure; it is flexible and elastic. It emits a strong bituminous odour, and is about the weight of water. On exposure to the air it hardens, and loses its elasticity. It takes up the traces of crayons in the same manner as caoutchouc, or India-rubber, whence it has obtained the name of *mineral caoutchouc*. It has hitherto been found only in the lead mines of Derbyshire.—5. *Compact Bitumen*, or *Asphaltum*, is of a shining black colour, solid, and brittle, with a conchoidal fracture. Its specific gravity varies from 1 to 1·6. Like the former varieties, it burns freely, and leaves but little residuum. It is found in India, on the shores of the Dead Sea, in France, in Switzerland, and in large deposits in sandstone in Albania; but nowhere so largely as in the island of Trinidad, where it forms a lake 3 miles in circumference, and of a thickness unknown. A gentle heat renders it ductile, and, when mixed with grease or common pitch, it is used for paying the bottoms of ships, and is said to protect them from the teredo of the West Indian seas. The ancients employed bitumen in the construction of their buildings. The bricks of which the walls of Babylon were built were, it is said (Herodotus, lib. i. s. 179), cemented with hot bitumen, which gave them unusual solidity. [PETROLEUM.]

BLACKING (Ger. schuhschwärze, wichse; Fr. noir (de cordonnier), cirage; Ital. nero da ugner le scarpe; Span. negro de zapatos). A factitious article, prepared in various ways, used in the blacking of boots and shoes. The principal ingredients in its manufacture are oil, vinegar, bone-earth, molasses, and sulphuric acid. It is in very extensive demand. Some of the establishments for its manufacture, especially those in the metropolis, are on a very large scale; and it is in such only that it can be cheaply and advantageously produced. One of the principal, or rather we may say the principal outlay in establishing a blacking business, consists in advertising. Indeed, any individual or set of individuals, provided they supply a reasonably good article, may by continuous advertising and puffing attain to the highest eminence in the 'blacking line.' Exclusive of that used at home, blacking is a considerable article of export.

BLACK-LEAD, PLUMBAGO, GRAPHITE, or WAD (Dutch, potloot; Fr. mine de plomb noir, plomb de mine, potelot; Ger. pottloth, reissbley; Ital. miniera di piombo, piombaggine, corezolo; Lat. plumbago; Span. piedra mineral de plomo). A mineral of a dark steel grey colour, and a metallic lustre; it is soft, has a greasy feel, and leaves a dark-coloured line when drawn along paper.

This mineral is found only in a state of purity in Borrodale in Cumberland, the mines in which have been wrought since the days of Elizabeth. The lead is not found in veins, but in detached pieces, or in what are called *sops* or *bellies*, so that the supply is very irregular, the miners being frequently employed for a lengthened period in seeking at random for the lead. Its quality also differs very widely. The best is that which is lightest, and the trace of which on paper is easily and completely removed by the application of India-rubber. The mine is only opened at intervals, and is at present (1868) closed. The supply has been extremely scanty, and mostly also very inferior. When the mine is open, the trade is supplied at sales held on the first Monday of each month, in *Essex Street, Strand*, London.

At a sale of black-lead held at *Essex Street, Strand* (according to a writer in the *Builder*, Sept. 1, 1866), picked plumbago brought 20*s.* the lb., the article having been picked through at former sales. After this, there was a considerable stock sold at much lower prices, more like 20*l.* the ton than anything else, while the pure Borrodale lead would now fetch 30*s.* the lb., or more than 3,000*l.* the ton.

The mine ceased to be worked three or four years ago. The company who took it passed through the Bankruptcy Court. The Keswick makers not unfrequently purchase pure lead found in the locality which has been washed down from the mountains into the rivers and low lands, so that pure Borrodale lead pencils may still be purchased at Keswick; but comparatively few people go to the price, viz. 6*s.* the dozen.

In one year (1803) the produce of the Borrodale mine was 500 casks, each of 1½ cwt., the produce being worth 30*s.* the lb. So valuable was the product, every cart-load being worth from 3,000*l.*

to 4,000*l.*, that the produce was sent under military escort to Kendal. In order to prevent depredations on the mine, an Act, 25 Geo. II. c. 10, made robbery from a black-lead mine felony.

The sources of black-lead are numerous. It is found in Ceylon, and according to Sir E. Tennent 2,000 tons are annually exported from the southern part of the island. It is also procured from Siberia, Austria, Prussia, in North America near Lake Superior, in Scotland, and from Schwarzenbach in Bohemia, whence about 70,000 lbs. per annum are obtained. It has also been discovered in beds of great thickness on the banks of the Yenisei about 300 English miles east of the town of Toorookhansk, and again in South Siberia near the Chinese frontier. The chief sources, however, of commercial graphite are Passau, in Bavaria; India, both in the Himalayas and Ceylon; and Spain. It is also a product of some iron works. In 1865, 4,836 tons were imported, chiefly from Ceylon.

BLACK-LEAD PENCILS (Dutch. potlootpennen; Fr. crayons noirs; Ger. bleystifte; Ital. lapis nero; Port. lapis negro; Russ. karanaschü; Span. lapiz negro). Pencils formed of black lead, encircled with cedar.

There is hardly, perhaps, anything in which the temptation to substitute a spurious for a genuine article is greater, or in which, consequently, the purchaser is more liable to be deceived, than black-lead pencils. This is occasioned by the vast difference between the cost of genuine Cumberland lead, and of the other articles that are or may be substituted for it. Pencils are usually described as follows:—

First quality, or drawing pencils.
Second ditto, or prepared pencils.
Third ditto, or composition pencils.

1. Pencils of the first quality are, when genuine, made of pure Cumberland lead, which costs at present (1868) 30*s.* per lb. or 168*l.* per cwt. From 18 to 20 dozen such pencils are produced from a pound of this lead.

These pencils are usually made by sawing the lead into the pieces inserted in the cedar. Sometimes, however, the lead is in parts gritty and defective, so that a pencil of this kind may, in fact, be very inferior. To obviate this defect, some makers prepare the lead, to free it from the grit or earthy particles; and, provided no antimony or other alloy be mixed up with the prepared lead, the pencils produced from it are most to be depended on.

2. Pencils of the *second* quality are manufactured out of the sawings or dust of pure lead, with the dust of the small pieces picked up by poor people from the rubbish thrown out of the mine, mixed or alloyed with a greater or less quantity of antimony. The goodness of this pencil depends, of course, on the proportion in which the pure lead exceeds the antimony. But as the cost of the former may be taken at 100*l.* per cwt. and that of the latter at only 26*s.*, there is an all but irresistible temptation to increase the proportion of the latter beyond due bounds. This sort of composition produces about 15 or 16 dozen pencils to the lb.; their price varying according to the purity of the lead.

3. The *third* quality of pencil is made by using Mexican or Spanish lead dust, costing 45*s.* or 50*s.* per cwt., with antimony costing about 26*s.* per cwt. It produces about 14 or 15 dozen pencils to the lb., which may be sold at from 2*s.* 6*d.* to 12*s.* per gross, according to the cost of the articles employed and the care taken in mixing them. This sort of pencil may take a firm point, and make a fine stroke, but its trace will not obliterate on being rubbed with India-rubber. The easy and complete obliteration of the strokes is, in fact, the best and perhaps only test of a pencil being of pure Cumberland lead. (*Private information.*)

BLEACHING POWDERS. These are the chlorides of the alkalies and alkaline earths. The cheapest and most generally used is the chloride of lime.

This product is manufactured in various parts of the country. The *Industrial Resources of the Tyne, Wear, and Tees* estimates the amount produced in that region at 11,280 tons per annum. The use of the powder is not confined to the bleaching of manufactured goods, for, according to the work referred to, the demand has greatly increased in consequence of the extensive use of the Spanish esparto grass in the manufacture of paper. The use of the chlorides, especially that of lime, as a disinfectant is well known.

The price of chloride of lime, which amounted to about 28*l.* a ton before chemical discovery had cheapened the process, has now been reduced to a third of that amount.

BLOCKADE. [CONTRABAND; NEUTRALITY.]

BLUBBER (Ger. thran, fischtran; Dutch, thraan; Ital. olio di pesce; Span. grassa, aceite de pescado; Russ. salo worwannoe, worwan; Lat. oleum piscinum). The fat of whales and other large sea-animals, of which train oil is made. The blubber is the *adeps* of the animal: it lies under the skin, and over the muscular flesh: it is about 6 inches in thickness, but about the under lip it is 2 or 3 feet thick. The whole quantity yielded by one of these animals ordinarily amounts to 40 or 50, but sometimes to 80 or more cwt. Formerly train oil was manufactured from the blubber in the seas round Spitzbergen, and other places where whales were caught; but the practice is now to bring the blubber home in casks, and to prepare the oil afterwards.

It is enacted by the 6 Geo. IV. c. 107 s. 44 that before any blubber, train oil, spermaceti oil, head matter, or whale fins, shall be entered as being entirely the produce of sea animals caught by the crews of ships fitted out in the United Kingdom, or the islands of Jersey, Guernsey, Sark, and Man, the master of the ship importing such goods shall make oath, and the importer also shall make oath to the best of his knowledge and belief, that the same are the produce of fish or creatures living in the sea, taken and caught wholly by the crew of such ship, or by the crew of some other ship (naming it) fitted out in the United Kingdom, or in one of the islands of Guernsey, Jersey, Alderney, Sark, or Man (naming which).

Before blubber, train oil &c. can be entered as from a British possession, a certificate must be obtained from the custom-house officer at such British possession, or in default of such officer being there, from two principal inhabitants, notifying that oath had been made before him or them that such blubber &c. was the produce of fish or creatures living in the sea, and had been taken by British subjects usually residing in some part of his Majesty's dominions; and the importer is to make oath, to the best of his knowledge and belief, to the same effect.

The gauging of casks of oil and blubber is dispensed with since 1825. They are to be passed at the rate of 126 gallons the pipe, and 63 gallons the hogshead.

BOART. A technical term. used by diamond merchants to designate granular or imperfectly crystallised diamonds. This substance is either crushed into powder or used for engraving on hard stones. Boart is worth from 22*s.* to 30*s.* per carat. (Emanuel *On Diamonds &c.*)

BOATS. Open vessels, commonly wrought by oars, and of an endless variety of shapes, according to the purposes to which they are to be applied.

Boats of Vessels to bear Name of Vessel, Port, and Master.—The owner of every ship belonging wholly or in part to any of her Majesty's subjects shall paint or cause to be painted upon the outside of the stern of every boat belonging to such ship the name of such ship and the port or place to which she belongs, and the master's name within-side the transom, in white or yellow Roman letters, not less than 2 inches in length, on a black ground, on pain of the forfeiture of every such boat not so marked, wherever the same shall be found. (16 & 17 Vict. c. 107 s. 203.)

Boat not belonging to Ships to have Name of Owner and Port thereon.—The owner of every boat not belonging to any ship shall paint or cause to be painted upon the stern of such boat, in white or yellow Roman letters, of 2 inches in length, on a black ground, the name of the owner of the boat and the port or place to which she belongs, on pain of the forfeiture of such boat not so marked, wherever the same shall be found. (Sec. 204.)

BOHEA. A species of tea. [TEA.]

BOLE. A friable earthy substance, a species of the soapstone family. Specific gravity 1·4 to 2. It is found in the island of Lemnos, whence it is sometimes called Lemnian earth; and in Armenia, Italy, France, Silesia, various parts of South America &c. Armenian and French boles were at one time not uncommon in this country, being used in the materia medica; but they are now entirely, or almost entirely, discarded. In India, however, Armenian bole still continues to be in extensive demand. It is brought to Bombay from the Persian Gulf. It is soft, feels greasy to the touch, adheres strongly to the tongue, and is very frangible: it is generally of a yellowish brown colour; though sometimes it is seen of a fine flesh red, which is the variety held in the highest estimation. Armenian bole consists chiefly of alumina and silica, coloured by oxide of iron. The chief use of Armenian bole is that of the *manufacture of tooth powder*. Some savage nations, such as the Ottomaques, described by M. Humboldt, are in the habit of allaying the pains of hunger by eating boles, which however are occasionally nutritious, because masses of infusoria fossilised, but still containing animal matter, are found in the substance. The Javanese, when they wish to become thin, eat cakes, called *tanaampo*, made of bole. (Lewis, *Mat. Medica*; Thomson's *Chemistry*; Ainslie's *Mat. Indica*.)

BOMBAY. A seaport on the western coast of British India, one of the greatest emporiums in the East; lat. 18° 56′ N., long. 72° 57′ E. It stands on the south-eastern extremity of a small island of the same name, separated from the main land by an arm of the sea, forming with the contiguous islands of Colaba, Salsette, Butcher's Island, and Caranjah, one of the best harbours in India. Bombay Island was ceded by the Portuguese to the English in 1661. In 1668 it was transferred by the Crown to the East India Company, by letters patent, in free and common soccage, on payment of an annual rent of 10*l*., and in 1859 it was placed with the rest of India under the direct government of the Crown. The fort stands on the south-east extremity of the island, on a narrow neck of land, immediately over the harbour. The fortifications are extensive, and on the sea side very strong.

The population of Bombay Island, on its cession in 1661, did not exceed 15,000. In 1864 it amounted, including all its suburbs, to 816,562 inhabitants, of whom 530,450 were males and 286,112 females, being in the ratio of 185·4 males to 100 females. The following table shows the caste or race. (*Bombay Almanac* 1865.)

Boodhist or Jain	8,021	Parsees	49,201
Brahmin	50,603	Jews	2,872
Lingaet	1,598	Native Christians	19,903
Bhatea	21,771	Eurasians	1,891
Hindoos	525,074	European	8,115
Mussulmen	143,880	Chinese	258
Negro African	2,074	Total	816,562

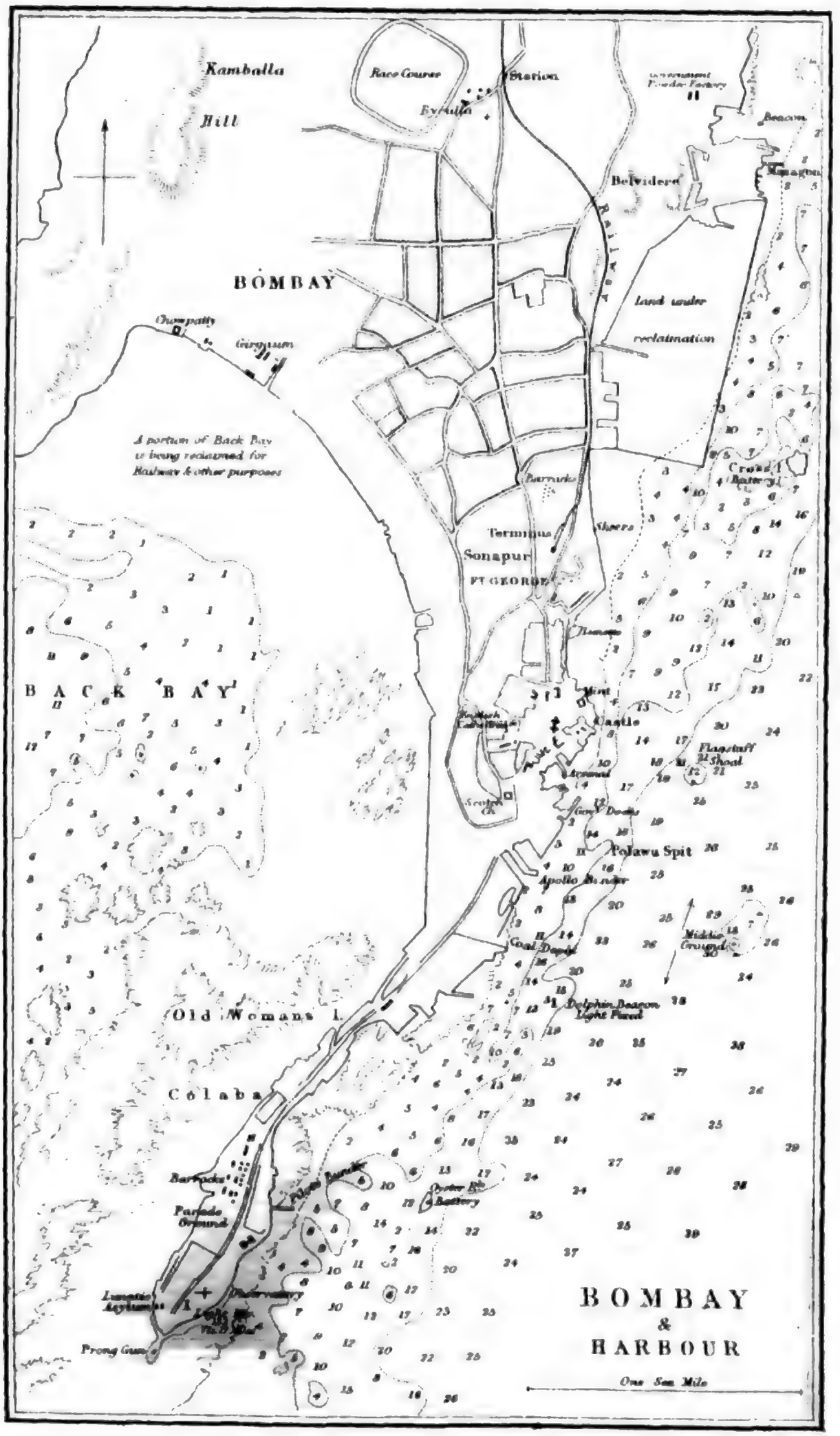
The total area of the Bombay Presidency under the administration of British rule, excluding native States, amounts to 142,043 square miles, with a total population of 13,039,106, of which the European portion, according to a census taken in 1861, was 27,317. The gross revenues of the Presidency show a progressive increase.

In 1843–44	£3,805,464
1853–54	4,660,807
1863–64	8,215,717

Bombay Harbour is one of the safest and most commodious in India. It is bounded on the west and north by the island of Colaba or Old Woman's Island, Bombay Island, and the island of Salsette. The first two are separated only by a narrow creek fordable at low water, and Bombay Island was joined to Salsette by a causeway constructed in 1805. On the east side of the harbour, between it and the main land, is Butcher's Island, distant about 4 miles from Bombay; and immediately behind Butcher's Island is the famous island of Elephanta. About 8 miles south from Butcher's Island is the island of Caranjah, on the western side of which, next the harbour, is an extensive shoal. S.W. from Caranjah, distant about 5 miles, is Tull Point; between which and Colaba, or Old Woman's Island, is the entrance to the harbour. A lighthouse was erected in 1844 on the southern extremity of Colaba Island, elevated about 120 feet above high-water, which in clear weather may be seen at the distance of 17 or 18 miles. The point on which the lighthouse stands is surrounded on all sides by an extensive reef of rocks divided into prongs: of these, the most dangerous is the prong stretching S.W. about 3 miles from the lighthouse, and forming the northern boundary of the entrance into the harbour. It is proposed to erect a new lighthouse a mile and a half farther out on the reef. The reef stretching W.N.W. from Tull Point about 3¼ miles forms the southern boundary of the entrance; the breadth of the channel between them being about 3 miles, with a depth of from 7 to 8 fathoms. A new light was erected in 1867 on Kennary Island, 161 feet above the level of the sea. These lighthouses will contribute much to the safety of the navigation into and out of the harbour of Bombay. In going into the harbour, it is necessary to clear a sunken rock, lying almost due east from the lighthouse, at about 1½ mile distant; and also a bank, called the Middle Ground, lying nearly opposite to and about 1¼ mile from the southern extremity of the town. (Nicholson and Watson's *Plan of Bombay Harbour*.)

Docks.—Bombay is the only port of consequence in British India in which the rise and fall of the tide are so considerable as to admit of the formation of extensive wet docks. At ordinary spring tides the rise is about 14 feet, but occasionally as high as 17. The capacious docks constructed by the East India Company are their property, and are for the most part under the direction of Parsees, who, excepting the Chinese, are the most industrious and intelligent people of the East. Merchant vessels of the largest class, or from 1,300 to 1,400 tons burden, for the cotton trade to China, have been built in these docks. Frigates

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and line-of-battle ships have also been occasionally constructed in them, sometimes under the exclusive direction of Parsee artificers. The timber having to be brought from a great distance, ships built at Bombay are very costly; but being, contrary to the practice in other parts of India, entirely constructed of teak, they are the most durable vessels in the world, requiring little repair, and often running 50 or 60 years. Being for the most part built by natives, without any very strict application of the rules of art, they are commonly, though not always, heavy sailers.

The Bombay port establishment, under Act I. of 1859, consists of the shipping master, a deputy, an accountant, a master attendant and conservator of the port, with 2 assistants, and 17 pilots.

Rates of Dock Charges for Repairs to Ships and Steam Vessels.

	Large Dock	Small Dock
	Rs.	Rs.
Opening the gates	500	300
Daily dock hire	40	25
Superintendence	10 per diem	—
Hire of shores	20 per spring	15 per spring
Hire of gangway ladder	2 ,,	2 ,,
Boring holes in copper sheets	3 per 100	3 per 100

Any artificers or foremen employed from the dockyard to be charged at dockyard rates.

Pilotage and labour—hauling in and out—will be charged extra.

Commission on work, and materials used in ship-building or repairing, and on machinery, brazier's or plumber's work, and on all contractor's bills and on all ship's supplies brought into the dockyard 10 per cent.

All stores brought into the dockyard for the repairs of vessels must be weighed or measured, and the full value declared to the dockyard clerk; and a copy of the contract for repairs must be furnished to him before the vessel leaves the dock.

Timber cut for shores, and dock blocks cut, will be charged for extra.

Port Rules, Dues, and Pilotage Fees.

Port Rules.—Clause 1.—1. No vessel, if above 200 tons, entering Bombay harbour, shall run up amongst the shipping until she shall have received permission from the master attendant or other duly authorized person, but must anchor within and to the eastward of the inner floating light; and no such vessel anchored within the limits of the port of Bombay shall move from one place to another within the port, between sunset and sunrise, without the special permission of the master attendant.

2. A vessel working out of harbour, if not clear of it at sunset, must anchor. In the S. W. Monsoon both anchors and cables are to be kept clear should they be required, and the sheet cable to be bent to the anchor.

3. All vessels above 200 tons, entering or leaving the harbour whilst a pilot may be on board, are to fly their national flag from the time of his boarding to the time of leaving, from the time of sunrise to sunset, or before and after, as long as the flags may be visible; and also every ship will show his number on entering the port.

Clause 2.—All vessels above 200 tons, within the port of Bombay, shall be bound to take up such berth as may be appointed for them by the master attendant, the harbour master, or their assistants, and shall change their berths or remove when required by such authority.

The berths of coasting craft and small vessels to be determined under the provisions of section 59 of Act I. of 1852, by the customs authorities, with the consent and approval of the master attendant.

Clause 3.—All vessels in the port of Bombay shall have their flying jib-booms rigged on, and shall when ordered by the master attendant rig in their jib and driver booms, and strike their masts or yards; and any signals made from the dockyard sheer flagstaff directing the striking of masts or yards, or the rigging in of booms, shall be considered to be orders, and obeyed as such.

Clause 4.—Cargo boats, full or empty, shall not be allowed to swing astern of any vessel without permission; nor shall anchors be cockbilled, or spare spars allowed to hang alongside or astern of any vessel.

Clause 5.—Vessels taking in or discharging ballast or any particular kind of cargo, within the port of Bombay, shall be bound to take up such berth as the master attendant or the harbour master may direct.

Clause 6.—Free passages to be kept to all piers, jetties, landing-places, wharves, docks, and moorings; and all boats and vessels shall be bound to move when required to clear such passages.

Clause 7.—All vessels within the port of Bombay will moor and unmoor according to the orders of the master attendant or the harbour master, and shall keep a clear hawse.

Clause 8.—1. On making a written application to the master attendant, a vessel may be moved from any mooring or anchorage within the harbour to any other mooring or anchorage approved by the master attendant, on paying the rates specified in Act XXXI. of 1857.

2. Transporting vessels below the Middle Ground, 20 rupees for vessels not exceeding 800 tons, and for all ships above that tonnage 30 rupees.

All vessels within the port of Bombay shall be moored or warped from place to place as required by the master attendant or harbour master; and no vessel shall cast off a warp that has been made fast to her to assist a vessel mooring, without being required so to do by the pilot or officer in charge of the vessel mooring.

Clause 9.—No vessel shall use any of the Government chain moorings, whether fixed or swinging, without permission of the master attendant or the harbour master.

Clause 10.—All vessels occupying Government moorings, fixed or swinging, shall be liable to pay for the same according to the following scale, but no more:—

For Fixed Moorings.

	From Nov. 1 to May 30.	From June 1 to Oct. 31.
	Rs.	Rs.
Vessels up to 199 tons	1 per diem.	3 per diem.
From 200 to 299 ,,	2 ,,	4 ,,
300 — 399 ,,	3 ,,	5 ,,
399 — 499 ,,	4 ,,	6 ,,
500 — 599 ,,	5 ,,	7 ,,
600 — 999 ,,	6 ,,	8 ,,
1,000 and upwards	8 ,,	10 ,,
Swinging Moorings	3 ,,	4 ,,

Clause 11.—No boats to ply as cargo boats except under license, as provided for by section 86 of Act I. of 1852.

Clause 12.—1. No boats lying within 50 yards of the dockyard stairs or wharves, or within 50 yards of the wharf in the basin formed within the breakwater in the vicinity of the custom house bunder, or Government docks, will be allowed to have fire on board.

2. No vessel shall boil pitch on board, but must do so in a boat alongside or astern.

3. All vessels taking in cotton are not on any account to have any lights in the hold or orlop whilst the hatches are opened, and during the stowage of the cotton; the fires are to be put out,

and all spirits, oil, paints, and spirits of turpentine are to be stowed in a place of security.

4. All vessels that may require to be steamed must be moved below the Middle Ground, clear of the shipping.

Clause 13.—No private vessels are to hoist signal lights at nights or to fire any great guns, or muskets, at the hour of sunrise or sunset, or at any other time, without permission excepting in cases when assistance is needed.

The provisions of sections 12, 28, 37, and 40 of the said Act, No. XXII. of 1855, are hereby specially extended to the port of Bombay.

Port Dues.—Port dues are levied under the provisions of Acts XXII. of 1855 and XXXI. of 1857, at the rate of 2 annas for every ton of burden, and ships entering the port with ballast 1 anna per ton.

Fees are levied at the rates below indicated for the following services:

Transporting.

	Fair season	Monsoon
Vessels not exceeding 300 tons	40 rupees	65 rupees

And 10 rupees additional for every additional 100 tons. This only applies to vessels transporting from their moorings to Government docks and *vice versa*, or to Mazagon and back to harbour.

Transporting to the Middle Ground.

Tons	Rs.
Vessels not exceeding 300	60
Between 300 and 1,000	80
1,000 and 1,500	100
1,500 and 2,000	120

Vessels proceeding to sea, and anchoring by desire at the Middle Ground for less than twenty-four hours, half the above rate.

Hooking	16 rupees	Measuring	50 rupees

Pilotage in and out of Bombay Harbour.—For vessels from 100 tons to 2,000 tons during fair season and S.W. monsoon. The S.W. monsoon commences from June 1 and ends September 30:—

Tons	Fair season Rs.	Monsoon Rs.
Ships from 100 to 300	50	75
300 — 400	55	80
400 — 500	60	85
500 — 600	65	90
600 — 700	70	95
700 — 800	75	100
800 — 900	80	105
900 — 1,000	85	110
1,000 — 1,100	90	115
1,100 — 1,200	95	120
1,200 — 1,300	100	125
1,300 — 1,400	105	130
1,400 — 1,500	110	135
1,500 — 1,600	115	140
1,600 — 1,700	120	145
1,700 — 1,800	125	150
1,800 — 1,900	130	155
1,900 — 2,000	135	160

If a pilot proceeds on board a ship (when requested) to take her to sea, and his services are for that day dispensed with by reason of the ship not being ready—a fee of rs. 20 is charged by the master attendant for the attendance of the pilot.

Pilotage in and out of the Port of Kurrachee.—From and after the last day of January 1865, pilot fees for pilot services as shown in the following scale will be charged on all sailing vessels over 100 tons burden that may enter or leave the port of Kurrachee. The monsoon season comprises the months of June, July, and August.

Tons	Fair season Rs.	Monsoon Rs.
Ships from 100 to 300	50	75
300 — 400	55	80
400 — 500	60	85
500 — 600	65	90
600 — 700	70	95
700 — 800	75	100
800 — 900	80	105
900 — 1,000	85	110
1,000 — 1,100	90	115
1,100 — 1,200	95	120
1,200 — 1,300	100	125
1,300 — 1,400	105	130
1,400 — 1,500	110	135
1,500 — 1,600	115	140
1,600 — 1,700	120	145
1,700 — 1,800	125	150
1,800 — 1,900	130	155
1,900 — 2,000	135	160

Inward pilotage only will be charged on Steamers.

On all sea-going vessels of 100 tons and upwards, the same being necessitated to receive a pilot on board when moving within port limits, 2 annas for each ton of burden.

Coasting craft and vessels under 100 tons burden, which vessels are not required to take a pilot when moving within port limits, 4 annas for each ton of burden. (Extract *Bombay Almanac*, 1865.)

Money.—Accounts are kept in rupees; each rupee being divided into 4 quarters, and each quarter into 100 reas. The rupee is also divided into 16 annas, or 50 pice. An urdee is 2 reas; a doreea, 6 reas; a dooganey, or single pice, 4 reas; a fudden, or double pice, 8 reas; a paunchen is 5 rupees; and a gold mohur, 15 rupees. Of these, the annas and reas only are imaginary moneys. The coins of Bombay are the mohur, or gold rupee, the silver or Government rupee, and their divisions; also the double and single pice, the urdee, and doreea, which are copper coins with a mixture of tin or lead. The following is the assay and sterling value of the present gold and silver coinage of Bombay:—

	Gross wt. grs.	Pure metal. grs.	Sterling value s.
Gold mohur	180	165	29·2
Government rupee (silver)	180	165	1·11

if silver be taken at 5*s.* 2*d.* per oz., and 2*s.* 0½*d.* if silver be taken at 5*s.* 6*d.* per oz.

The Government rupee has been coined only since November 1, 1862; but it is almost identical in respect of value with the rupees previously in circulation. [CALCUTTA.]

The charge of coinage in the Bombay Mint is 2½ per cent. for gold, and 3 per cent. for silver, including the charges for refining. The machinery for this mint was sent out from England a few years ago, and is complete, but very costly.

Weights and Measures.—The unit of weight in Bombay, as in other parts of India, is, by the law of 1833, the tola of 180 grains troy, the other weights being derived from it as follows:—

8 ruttees	= 1 masha =	15 troy grains
12 mashas	= 1 tola =	180 troy grains
80 tolas (or sicca weight)	= 1 seer =	2½ lb. troy
40 seer = 1 mun (or bazaar maund) = 100 lb. troy		

The following table shows the commercial weights of the several Presidencies of India, Travancore, China, and England, compared with the new Indian maund introduced into Bengal in 1833, and adopted in the tariff valuation under the Bombay Presidency since 1840.

		lbs.	Which contain new Indian maunds of 82 2-7ths lb. av. or 80·285714 lb. av.	maunds.
The Bombay maund of	40 seers	= 28		2·038775
	42	= 29·400		2·298887
The Surat maund of	40	= 31·333		2·201081
	41	= 38·266		2·156823
	42	= 39·200		2·099129
	43½	= 40·366		2·036456
	44	= 41·066		2·003710
The Bengal factory maund		= 74·666		1·102040
bazaar do.		= 82·133		1·001855
The Madras maund		= 25		3·211428
The Bombay candy of	20 maunds	= 560		6·805555
	21	= 588		7·145833
	22	= 616		7·486111
The Surat candy of	20	= 746·666		9·070074
	21	= 784		9·527777
	22	= 821·333		9·981481
The Madras candy of	20	= 500		6·076388
The Travancore candy of	20	= 640		7·777777
The China picul		= 133·333		1·620370
The English cwt.		= 112		1·361111
The English ton of 20 cwt.		= 2240		27·222220

Grain Measure.

	lbs.	oz.	dr.
2 dippras = 1 seer =	0	11	5·2
4 seers = 1 pally =	2	14	12·8
7 pallies = 1 parah =	19	9	9·6
8 parahs = 1 candy =	156	12	12·8

Weights and Measures.

Bazaar weight.—In Bombay the following are the local weights in use:—

4 dhan or yav =	1 raktika or gunj	= 2·1367	gr. tr. =	·01182 tola.
8 raktika	= 1 masha	= 8·5069	„ „ =	·09452 „
4 masha	= 1 tank	= 2·4859	dr. av. =	·37809 „
72 tank, or 80 pala.	= 1 ser	= 11 1-3	oz. „ =	27 2·9 „
40 sers	= 1 mán	= 28	lb. „ =	1058 8·9 „
20 máns	= 1 khandi	= 560	lb. „ =	6·3056 im. ma.

The khandi for cotton is 28 máns or 784 lbs. avoir. or 7 cwt.

The 'pakka ser' is $1\frac{13}{15}$ lbs. avoir. or 72·59 tolas. At Panwel the ser weighs 72·83 tolas.

The British Indian or imperial ser and mán are 2·9387755 Bombay sers and máns respectively; and the Bombay mán is 0·3402778 imp. máns.

The Bombay ser weighs 317·51485 grammes, and the mán 12·700594 kilogrammes.

At Poona the ser is 80 ankushi rupees or 76·66 standard tolas, or 1·9714 lbs. avoir. or 2·33604 lbs. troy = ·9583 B. I. sers.

4½ tanks	= 1 chhatank =	1·9714 oz. av. =	0·958 im. ch.	
4 chhatanks	= 1 pau-ser =	7·8856 „ „	3·833 „ „	
4 paua	= 1 ser =	1·9714 lb. „	0·958 „ ser.	
5 sers	= 1 pauseri =	9·857 „ „	4·791 „ „	
8 pauseri	= 1 mán =	78·856 „ „	38·329 „ „	
5 mán or 120 sers	= 1 palla =	23·657 „ „	2·873 „ má.	
6⅔ pallas (20 máns)	= 1 khandi =	1577·12 „ „	19·165 „ „	

Kachcha máns of 12½ and 14 sers are also used in the district.

In the Khed, Poorundhur, and Bhimathadi talukas, the ser weighs 76 tolas; in Shiwner and Indapur, 76½; in Pabal 77; and in Mawal 75 tolas.

At Ahmednuggur and Sholapore the British Indian or imperial weights are in use.

At Ahmednuggur the Palla is 2½ máns.
„ Sholapore: 1 Manki = 1 Dharas = 12 sers.

In Satara the ser varies in different localities from 92·75 tolas at Koley to 115 tolas at Mamdapur; in Satara city it is 93·25 tolas.

In Sindh the British Indian weights were declared by proclamation August 1, 1853, to be the only legal standard.

8 máns = 1 khandi = 658 2-7 lbs. av. = 23·510204 Bombay máns.

At Surat the Surat ser of 35 Surat tolas is variously stated from 36·4583 to 37 tolas, and the mán from 37½ to 38 lbs. avoirdupois, the former being probably the more accurate determination, from which—

1 Surat ser. = ·455729 Brit. Ind. sers.
1 „ „ = 1·37·7856 Bomb. sers.
1 Brit. Ind. ser. = 2·194·857 Surat sers.
1 Bomb. ser. = ·746667 „ „
The Khandi for cotton is 21 máns, or 7 cwt. 3½ lbs.

In Khandeish &c. the British Indian system is authorised.

At Baroach &c.

At Baroach the ser is	40	tolas.
„ Ahmod „ „ „	38·5	„
„ Jambusar and Anklesar	38	„
„ Wagra	37½	„
„ Hansot	36·8125	„

Native Jewellers' Weight.

	1 dhan =	15·32 gr. troy.	
4 dhan	= 1 rati =	1 7-8 „ „	
8 rati	= 1 masha =	15 „ „	
12 masha	= 1 tola =	180 „ „	

A dhan is 0·46875 gr. troy or 0·0303745 French grammes.

Goldsmiths' Weight.

2 gunj	= 1 wal =	3·8282 gr. troy.	
4 wal	= 1 masha =	15·3128 „ „	
12 masha	= 1 tola =	183·7536 „ „	

Mashas, rati, dhans are employed in the native evaluation of assay of the precious metals: thus '10 mashas fine' signifies 10-12ths pure, or the same as '10 oz. touch.'

Measures of Length.—The gaz or unit of lineal measure not only differs in different provinces of India, but also, like the ser, in the same province for different purposes. The English yard, however, is rapidly becoming the only standard unit, especially where English education has obtained a firm footing.

3 jau	= 1 angli	= ¾	in. or 19·05	mm.
4 angli	= 1 muthi	= 3	„ 76·2	„
1½ angli	= 1 big'hath or bi'hath	= 9	„ 228·6	„
2 big'hath or 24 ang.	= 1 hath or cubit	= 18	„ 457·19	„
2 hath	= 1 gaz or yard	= 3	ft. 914·38	„
4 hath	= 1 danda or bam	= 2	yds. 1·8287	mèt.
2000 danda	= 1 kos or kros	= 4000	yds. 3657·5	„
4 kros	= 1 yojan	= 9 1-11	m. 14650	„

In Bombay the half háth is called Vént; and the measuring rod or kathí for land, according to Jervis, is 9·3644 feet. In Gujarat 5 háth make 1 Vasō or Kathí. In Western India almost every village has its own Kathí.

The Kos of the Ayin-akbari was about 2·58 miles, or 4,540 yards, or 4,150 mètres.

The Bengal Kos contains only 1,000 danda or dhanú. In surveying, 80 háth = 1 Rassí.

In the N.W.P.—Delhi, Lúdhianah, Ferozepore, and part of Berar: 33 inches = 1 Iláhi gaz, 3 Il. gaz = 1 bans or ganteh, and 20 bans = 1 Jarib. In Benares and Ghazeepore the gaz used by Mr. Duncan in the settlement of 1795 was 33·6 inches. The true Iláhi gaz probably measured 32·6 to 32·8 inches; in Bareilly, Bulanshahr, Agra &c. it is reckoned at 32·5 inches.

In Orissa the padika or rod is 10·4355 feet; in Tirhút the lagí is 9¾ feet; and in Jynteah the dastidarí háth is 18·87 inches, and 16 háths make 1 null.

In Bombay, for cloth—

2 angali = 1 tasú = 1 1-8 inch.
24 tasú = 1 gaz = 27 „

In Púna the gaz is 34⅕ inches, but English cloth is sold by the yard.

In Bengal—

3 ungal or angli	= 1 girih =	2¼ inch.
8 girih	= 1 háth =	18 „
2 háth	= 1 gaz =	36 „

Measures of Surface.—In Bengal the following are used:—

9 square háths	= 1 gandeh =	2¼ sq. ft.	
20 gandeh	= 1 chhatánk =	5 sq. yds.	
16 chhatánk	= 1 kathá =	80 „ „	
20 kathá	= 1 bighá =	1600 „ „	

The Bengal bíghá is $\frac{40}{121}$ or 0·3305785 of an acre.

The Benares and Ghazeepore bíghá contains 3,600 square Benares gaz, or 3,136 sq. yards, or ·647934 acre.

In Bombay, Poona &c.—

34 1-36 square háths	= 1 kathi.	
20 kathiyo	= 1 pand, or vasó.	
20 pand	= 1 bighá.	
6 bighá	= 1 rukeh.	
120 bighá	= 1 chahór.	

If the Bombay kathí of $5\frac{5}{6}$ háths be exactly 9·3644 feet as stated by Jervis, this bígh will contain 3897·422 sq. yards = 0·805253 acre; but in other places it varies with the kathí, which is the only real measure ever used in the central and southern parts of the Bombay Presidency. In some places the survey chain of 33 feet has taken its place, and—

16 anas or links = 1 gunta or chain.
40 guntas = 1 acre.

In Gujarat—

20 khunt	=1	padtal.
20 padtal	=1	padat.
20 padat	=1	vishwáshi.
20 vishwáshi	=1	vasó.
20 vasa	=1	vinghe, bighá or dóri.

In the North-West provinces,—Delhi, Patna, Shahabad, Sarun, Bhagalpore, and Monghyr, the bighá of 3,600 square Iláhi gaz = 3,025 sq. yards or 0·625 acre prevails, and is divided as follows:—

20 uswansi or nanwansi	=1 saswansi	=	24·5025 sq. in.
20 saswansi or tanwansi	=1 kachwansi	=	3·40312 sq. ft.
20 kachwansi	=1 biswansi	=	7·56125 sq. yds.
20 biswansi	=1 biswá	=	151¼ ,, ,,
20 biswá	=1 bighá	=	3025 ,, ,,

1 acre = 1·6 Delhi bighá. The Orissa bighá is 1 acre or 4840 sq. yds. The Tirhut bighá is 400 sq. lágí = 4225 sq. yds. = ·872934 acre.

In Madras—

	1 máni or ground	=	2400 sq. ft.
24 grounds	=1 káni	=	6400 sq. yd.
the káni = 1·322314 acres	1 acre	=	0·75625 káni.

Liquid and Dry Measures.—India, properly speaking, does not possess dry or liquid measures. Where these are employed they represent the ser or the mán weight. The value of any vessel of capacity rests solely on the weight contained in it. In South and West India an equal mixture of the principal grains is taken, and a vessel formed to hold a given weight of it.

In Bengal the following are used for grain;—the conversion into English measure being derived from the capacity of a vessel holding a mán of water or $1\frac{1}{35}$ bushel:—

5 chhatánks	=1 kánki	=	11·107 c. in. =	0·5143 pts.
16 chhatánk	=1 ser	=	57·057 ,, =	1·6457 ,,
4 kánki	=1 rék	=	71·3 ,, =	2·0571 ,,
4 rék or 5 ser	=1 páyali, or drón	=	285·186 c. in. =	8·2286 pts.
8 páli	=1 mán	=	2281·49 ,, =	8·2286 gal.
20 páyali	=1 soalf	=	5703·72 ,, =	20·5714 ,,

It may be remarked that the mán of $8\frac{2}{5}$ gallons very nearly would form a very convenient dry measure; it would be a little larger than the English bushel, and ought to be a cylinder 8 inches deep and 19·055 inches diameter, or $8\frac{1}{2}$ inches deep and 18·487 inches diameter.

At Bombay—

36 tanks	=1 tipari	=	9·7046 c. in. =	5 3–5 oz. av.
2 tipari	=1 ser	=	19·4092 ,, =	11¼ ,,
4 sers	=1 páyali or adhali	=	77·6367 ,, =	2 4-5 lbs.
16 páyali	=1 pharo, or faro	=	1242 3-16 ,, =	44 4-5 ,,
8 pharas or faras	=1 khandi	=	9937½ ,, =	358 2-5 ,,
25 faras	=1 muda	=	17·9715 c. ft. =	14 qrs.
17½ páyalis	=1 fara of rice	=	1339·23 c. in. =	6·01 gal.
17½ páyalis	=1 fara of other grain	=	1338·66 ,, =	6¼ ,,
8½ páyalis	=1 fara of lime or chunam	=	659·91 ,, =	2·98 ,,

These faras are not regulated on any authoritative basis.

For salt in Bombay—

	1 adhvalli	=	4·11745 pints.
10½ adhvallis	=1 pharo or faro	=	5·7979 gall.
100 phara	=1 ano	=	72·474 bush.
16 ana	=1 ras	=	144·948 qrs.

The faro for salt contains 1607·61 cubic inches; and there is a ser for liquids of 60 tolas, or about 42·78 cubic inches, that is, 1·2343 pint.

At Poona and Haweli Taluka—

8 chiptin	=1 ser	=	38·32	stand. tolas.
2 sers	=1 adholi	=	1·916	,, sers.
4 sers	=1 páyali	=	3·832	,, ,,
12 páyalf or 48 sers	=1 mán	=	45·985	,, ,,
2½ mán, or 120 ser	=1 palla	=	5·4487	,, máns.
8 palla	=1 khandi	=	27·59	,, ,,

According to Sykes, a ser in the Deccan contains 2·44934 lbs. avoir. of Jerwail rice, or 1·0417 quart. The Adholi is the largest measure in common use.

The measures are all heaped; and equal quantities of five sorts of grain give the equivalent weight in tolas.

In Haweli Taluka	the adholi	=	212 tolas.
Khed, Mawal, and Indapore	,,	=	216 ,,
Poorundhur	,,	=	222 ,,
Bhimathadi	,,	=	224 ,,
Shirwner	,,	=	233 ,,
Pabal	,,	=	239 ,,

At Hydrabad, &c. (Sindh)—

4 chaotais	1 patoi	1·1743	imp. sers.
4 patois (375·77 tolas)	1 toya	4·6971	,, ,,
4 toyas	1 kasa	18·7884	,, ,,
5 kasas	1 mundi	93·942	,, ,,
12 mundias, 60 kasas	1 khirwar	1127·304	,, ,,

The values of these measures vary at different places; the Toya at Nuggur is 528 tolas, at Mitthi 518, and at Islamkot 464, on the frontier about 344, and at Shikarpore 295 tolas weight of water.

In Kurrachee everything is sold by weight.

At Madras—

			Depth and diam.	
8 ollacks	=1 padi	93·75	c. in.	5·3906 in.
8 padi	=1 markal	750	,,	10·0616 ,,
5 markals	=1 parah	3750	,,	17·2050 ,,

The Garisha or Garce for grain is $12\frac{4}{5}$ máns or 320 lbs. avoir. = $3\frac{9}{5}$ British India máns.

Shipping.—Vessels of various nationalities trade in and out of the port of Bombay, but the far greater portion are under British colours, showing an average of upwards of 800 tons. The native craft is larger than in any other part of India, trading generally from port to port, and even as far as the Arabian and Persian Gulfs. The following table shows the arrivals and departures at the port of Bombay to and from all foreign places:—

	Arrivals				Departures			
	1853–54		1863–64		1853–54		1863–64	
	ships	tons	ships	tons	ships	tons	ships	tons
British colours	268	173,035	540	439,360	285	167,471	457	400,849
French ,,	19	6,025	29	13,544	18	5,618	25	12,235
American ,,	7	4,762	27	19,640	5	3,819	21	14,140
Other ,,	19	7,192	46	17,744	12	2,915	42	14,070
Total	313	191,014	622	490,288	300	179,823	575	441,294
Steamers	not given		117	81,054	not given		125	86,062
Native craft	5,567	209,973	6,600	217,794	4,631	177,474	4,726	209,182
Total			6,717	298,848			4,851	295,244
Grand total	5,880	400,987	7,339	789,136	4,931	357,297	5,426	736,538

In 1843 there belonged to Bombay, and mostly to native merchants, 58 ships of the aggregate burden of 31,878 tons, of which 6 only were under 200 tons. They were for the most part navigated by natives or lascars, the master and superior officers only, and that not always, being Englishmen. Besides these there were then numerous native craft, varying from 2 to 175 tons each, amounting in all to about 50,000 tons. In 1863 it was ascertained (*Bombay Almanac*) that the vessels registered as belonging to Bombay were—

	Number of vessels.	Aggregate tonnage.	Aggregate of crews.
Square rigged	243	77,552	7,741
Boats above 10 tons	3,155	—	—
do. under „	1,843	—	—
Canoes or Sumbooks	1,812	—	—

Commerce &c.—Bombay is much less favourably situated in respect to natural internal communications than Calcutta and Madras, inasmuch as the rivers with one or two exceptions do not afford the same facilities for navigation on the Western as on the Eastern coast of India; all the inland trade has hitherto been carried on along the roads, which are available only for pack-bullocks and camels. The abolition of transit duties and the introduction of railways communicating with the principal markets in the interior have, however, considerably tended to increase the trade of the port of Bombay and otherwise improved the Presidency generally.

The external trade of Bombay is principally carried on with Great Britain, France, ports in Arabian and Persian Gulfs, China, and Mauritius, in British and other European vessels, as well as a very large coasting trade in native vessels from minor ports in the Presidency to the port of Bombay for the purpose of exporting produce to other parts of the universe. The coasting trade is chiefly carried on between Calcutta, the Malabar and Canara coast, Cutch and Kattywar.

The principal articles of import from the United Kingdom consist of coal, cotton goods, metals (raw), chiefly copper and iron, machinery, malt liquor, manufactured metals, woollen stuffs, apparel, books and stationery, wines and spirits &c. From France, wines and spirits, furniture, books, jewellery, musical instruments, clocks &c. From China, raw silk and silk goods, sugar and sugar-candy, tea, glassware, tobacco &c. From the Arabian and Persian Gulfs, horses, cotton-wool, gums, fruits, grain, precious stones, wool &c., and from Mauritius sugar.

The export trade to the United Kingdom chiefly consists of raw cotton, cashmere shawls, seeds, spices from Africa, silk and silk goods, hides and skins, opium, coffee, grain, ivory, gums. To France, coffee, seeds, and shawls. To China, cotton goods and opium. To Mauritius grain, and to the Arabian and Persian Gulfs cotton goods, sugar and sugar-candy, tobacco, tea, grain &c.

Value of Principal Articles Imported into the Presidency of Bombay from all parts out of India.

Articles	1850-51	1853-54	1860-61	1863-64
	£	£	£	£
Apparel	52,451	61,534	82,772	142,766
Cattle, horses &c.	41,800	51,485	59,100	7,480
Coal	—	20,621	143,419	171,457
Cotton twist and yarn	221,160	308,326	297,117	618,575
Cotton goods	728,531	1,735,229	3,441,264	5,686,971
Fruits	71,569	78,855	102,757	164,420
Jewellery and precious stones	173,347	172,628	189,662	287,806
Machinery	5,004	15,867	148,615	174,257
Malt liquor	49,374	50,399	244,316	372,593
Metals manufactured	102,494	75,117	153,694	215,355
Metals unmanufactured	707,439	180,889	1,157,134	1,488,948
Railway materials	—	54,115	858,219	576,647
Silk, raw	210,015	290,801	403,598	383,968
Silk goods	77,918	60,214	143,515	236,241
Sugar and sugar candy	438,434	183,021	216,353	425,184
Tea	37,866	30,354	68,677	101,094
Wines and spirits	141,378	116,727	163,619	340,328
Miscellaneous	1,453,944	1,026,737	1,623,822	2,906,547
Gross imports	4,515,764	4,492,915	9,448,210	14,270,950
Bullion or treasure	2,392,215	2,208,479	5,967,209	16,136,459
Total Import Trade	6,907,979	6,701,394	15,415,419	30,407,409

The discrepancy between the imports and exports is to be accounted for by the vast exportations of cotton from Bombay. These exportations were in response to the void created by the sudden cessation of the supplies of American cotton. For some time the trade of Bombay was excessively active, speculation was rife, fortunes were rapidly accumulated. Land in the neighbourhood of the port rose to a fabulous price. As might be expected, the reopening of the Southern ports of the American Union reversed some of these circumstances, and the necessary consequences of over speculation ensued, but Bombay has been permanently benefited by the extraordinary commercial activity of the years 1862-5.

Value of Principal Articles Exported (including Imports re-exported) from the Presidency of Bombay to all parts out of India.

Articles	1850-51	1853-54	1860-61	1863-64
	£	£	£	£
Coffee	53,854	65,391	75,651	133,356
Cotton raw	2,943,021	2,469,760	6,977,726	28,415,154
Cotton goods, twist, and yarn	380,075	518,857	635,246	925,248
Grain	39,076	61,559	102,025	115,149
Indigo	13,621	46,960	49,060	89,755
Opium	2,301,060	2,748,135	6,689,599	5,518,158
Saltpetre	2,514	11,076	65,265	23,582
Seeds	28,441	128,059	201,021	688,271
Shawls, Cashmere	154,136	148,806	311,441	205,265
Silk raw	15,155	33,766	75,147	5,863
Silk goods	20,657	13,799	31,700	17,072
Spices	49,911	69,415	56,197	100,702
Sugar	100,014	100,675	55,956	71,835
Tea	13,955	18,619	41,518	46,939
Tobacco	5,254	5,861	13,284	15,961
Wool	68,285	205,148	478,134	995,047
Miscellaneous	403,211	555,100	614,683	716,389
Gross exports	6,599,615	7,198,816	17,190,615	38,083,739
Bullion or treasure	160,819	980,726	414,338	484,966
Total Export Trade	6,760,434	8,179,542	17,604,881	38,568,725

Proportion of Imports into Bombay from the United Kingdom, and Exports from Bombay to the United Kingdom, at different periods from 1850 *to* 1864.

Years	Imports	Exports
	£	£
1850-51	2,866,009	2,105,857
1853-54	5,518,194	2,685,183
1862	6,120,385	21,908,616
1863	9,284,031	30,284,041
1864	9,604,658	33,609,009
1865	6,895,409	22,369,133
1866	6,716,407	19,588,541

Statement of the Value of the External Trade of Bombay exclusive of Interport Trade with other Ports in the same Presidency, and of Remittances of Specie on Government account, for each of the 6 *Years ending with* 1866–7.

Years	Imports	Exports	R. Exports	Total Trade
	£	£	£	£
1861-2	21,856,379	18,889,060	2,410,899	43,156,340
1862-3	29,018,709	27,175,883	2,963,320	59,157,914
1863-4	36,340,307	37,810,017	3,457,928	77,608,353
1864-5	34,171,964	40,917,118	4,403,709	79,791,892
1865-6	35,068,316	35,511,787	4,617,016	75,697,150
1866-7	27,250,504	19,570,047	4,940,181	46,740,731

Banks.—These consist of the Chartered Mercantile Bank of India, and the Chartered Bank of India, and branches of the Oriental Bank of London, the Agra Bank &c. Including agencies of English houses, there are about 13 in all, the capital amounting in the aggregate to about 16,000,000*l.* But it would appear from the *Bombay Calendar and Directory* for 1868, that there were, besides these, 56 Banking and Financial Associations connected with Bombay then in course of liquidation.

Insurance.—Companies for the insurance of lives, shipping, and against fire, have been established in Bombay; and several of the London and Calcutta Insurance Companies have agents here.

Marine Insurance Companies.—There are 89 marine insurance offices, chiefly agencies, at Bombay. The fire and life insurance business is conducted almost exclusively by agents for companies in England, there being only one life company, namely, the Bombay Laudable, having a quin-

quennial existence, as the first appears to have been established in 1829 and terminated December 31, 1833; and the seventh Laudable Society terminated on December 31, 1863.

Customs Duties: Import and Export.—By the Indian Customs Duties Act of March 1867, one uniform tariff for imports and exports was fixed for all ports in British India. [CALCUTTA.]

Tonnage Scale at Bombay.

Articles	to the ton
Aloes, in kegs	16 cwt.
Alum, in bags	20 ,,
Annatto, in cases	50 feet
Apparel	,,
Arrowroot, in cases	,,
Asafœtida ,,	,,
Barilla	20 cwt.
Bees' wax, in cases	50 feet
Betel nut, in bags	16 cwt.
Blackwood, in straight square logs	50 feet
Blackwood, otherwise	20 cwt.
Books	50 feet
Borax, in cases	,,
in bags	20 cwt.
Bullion	per cent.
Camphor, in cases	50 feet
Canes, rattans, in bundles	16 cwt.
Cardamoms, in bundles	50 feet
Cassia lignea, fistula, and buds	,,
Chasmm	10 cwt.
China root, in cases	50 feet
Cigars	,,
Cinnamon, in bales	10 cwt.
in cases	50 feet
Cloves, in cases	,,
in bags or frails	10 cwt.
Coals	20 ,,
Cocoa, in bags	12 ,,
Cocculus indicus, in bags	16 ,,
Coffee, in cases	50 feet
in bags or frails	16 cwt.
Coir, in bales	50 feet
in bundles or loose	6 cwt.
rope, in coils	8 ,,
Colocynth, in cases	50 feet
Colombo root, in bags	14 cwt.
Copra, in robins	12 ,,
Coral, rough (not specimens) in bags	20 ,,
Cotton, in bales	50 feet
Cowries, in cases	,,
in bags	20 cwt.
Cubebs	12 ,,
Cummin seed, in cases	50 feet
Cutch, or terra japonica, in bags or baskets unscrewed	16 cwt.
Dates, wet	20 ,,
dry	16 ,,
Dragon's blood, in cases	50 feet
Ebony, square and straight	,,
Elephants' teeth in cases	,,
in bundles	18 cwt.
loose	20 ,,
Furniture	50 feet
Galingals	12 ,,
Galls, in bags	16 cwt.
in cases	50 feet
Ginger, dry, in cases	,,
in bags	12 cwt.
Gram	20 ,,
Ground nuts, shelled	16 ,,
Gums of all kinds, in cases	50 feet
Gum olibanum, in bags	16 cwt.
Hartall, in cases	50 feet
Hemp, in screwed bales	,,
loose or in bundles	7 cwt.
Hides and skins, in screwed bales	50 feet
Hides and skins, loose in small bundles	12 cwt.
Horns, buffalo and cow, loose	16 ,,
Horns, deer, loose	8 ,,
tips, of any kind	16 ,,
Indigo, in cases	50 feet
Jack wood	,,
Lac dye, in shells or cases	,,
Linseed, in bags	18 cwt.
Mace, in cases	50 feet
Mother-o'-pearl, in cases	,,
in bags	20 cwt.
Munjeet or madder root, in cases or bales	50 feet
Munjeet or madder root, in bundles or in bags	12 cwt.
Musk, in cases	50 feet
Myrobalans, in bags	16 cwt.
Nutmegs, in cases	50 feet
Nux vomica, in cases	,,
in bags	16 cwt.
Oil of any kind, in casks	1210 imp. Gallons
Oil seeds, teel, rape, mustard, castor, and Khorassan	17 cwt.
Opium	per chest
Paddy, in bags	16 cwt.
Pepper, in bags	,,
Pimento	14 ,,
Plumbago, in bags	20 ,,
Rattans, in bundles	16 ,,
ground	,,
Red wood	,,
Rhubarb, in cases	50 feet
Rice, in bags	20 cwt.
Safflower, in cases	50 feet
in screwed bales	,,
in bags	10 cwt.
Sago, in cases	50 feet
Sal ammoniac, in cases	,,
in bags	18 cwt.
Saltpetre	20 ,,
Sandal and sapan wood	16 ,,
Sealing wax, in cases	50 feet
Senna, in bags	6 cwt.
in bales	50 feet
Shells, rough, in bags	20 cwt.
Silk, in bales	10 ,,
in cases	50 feet
Soap, in cases	,,
Sugar, in bags	20 cwt.
Talc	,,
Tallow	50 feet
Tamarinds	18 cwt.
Tea, in chests	50 feet
Timber, teak, square planks and poon	,,
Timber, teak, round, one-fifth off	,,
Tobacco, in bales	50 feet
Tortoise shells, in chests	,,
Turmeric, in bags	13 cwt.
Tutenague	20 ,,
Unrated wood	14 ,,
Whangees (vide Canes)	16 ,,
Wheat	20 ,,
Wines and spirits, in casks	50 feet
Wines and spirits, in cases	,,
Wool, in screwed bales	,,
Zedoary	20 cwt.

*** The standard ton at Bombay for measurement of goods shall be taken at 50 cubic feet.

The freight on oil is paid on the full gauge of the cask, ascertained at the port of discharge.

When freight is payable on weight, the same is to be on the net weight delivered.

Rules and regulations for the measurement by callipers upon shipments to Great Britain of cotton, wool, hemp, and other screwed and pressed bales, at the port of Bombay.—1. That callipers shall from time to time be submitted to the Secretary of the Chamber of Commerce, and if found correct, shall be branded with a stamp bearing the name of the chamber, to indicate the same.

2. That if, from use or otherwise, any callipers should get out of order and be objected to, the party objecting shall send the callipers to the chamber for examination; and should the objection be valid, the chamber's stamp shall be defaced by the secretary; if, however, the objection is found to be groundless, the secretary shall give a note to that effect, and the party objecting shall be bound by his decision.

3. That any callipers found incorrect, and on which the stamp has been defaced, may be re-stamped after adjustment.

4. That no measurements shall be held good except such as are taken by callipers bearing the chamber's stamp.

5. That cotton, hemp, wool, and other screwed bales shall be measured as follows, namely—the greatest length to be first ascertained, and then the bale to be set on either end, as the shipmaster may wish, and cross measurements to be taken at top over the lashings, excepting the knots, and as near the centre of the bale as possible. That an average of 100 bales be struck by ascertaining the actual measurement of any 10 bales, and proportionately, the shipper selecting and measuring one half, and the shipmaster the other half: should, however, any dispute or difficulty arise in the selection of bales, either party to have the option of measuring the whole quantity.

6. That all produce subject to measurement be measured within the day on which it has been ordered to be screwed, provided the order has been given by the shipmaster or agents of the vessel; and that from June 1 to October 15 the same be measured at the Screws: during the remainder of the year, if required, on the Bunder, weather permitting. No cotton, wool, or other goods to be measured until a Custom-house pass has been obtained for the same.

7. That in the event of the shipmaster not attending to measure at such hour as may have been appointed by him, the agent or agents of the ship do empower a person to attend on his behalf, whose sanction to the measurement shall be binding upon the shipmaster.

Money.—Silver is the legally constituted medium of exchange in all money transactions throughout the British-Indian possessions. Gold coin was intended to be a legal tender, at a fixed value of 16 rupees for the gold mohur of Calcutta, and 15 rupees for the gold rupee of Madras and Bombay; but it is not demandable in payment, and is left to find its current value in the market.

The value of a rupee is generally assumed as equal to 2*s.* sterling. At the Calcutta mint price of silver it is worth 2*s.* 0·035*d.*; at the commercial par of exchange 1*s.* 11·51*d.*; and at the London mint price of silver it is worth 1*s.* 11·04*d.*

The rupee weighs 180 grains troy, or 1 tola, and consists of 11 parts of silver and 1 of alloy. The gold rupee is of the same weight and standard. The copper coins are the half anna, weighing 200 grains; the quarter anna or paisa, 100 grains; the half paisa, 50 grains; and the pie, 33⅓ grains.

In Bombay, accounts are still often kept in rupees, quarters, and raes, 25 raes making one anna.

		Value Sterling. £	s.	d.
1 pie	=	0	0	1·8
3 pie = 1 paisa or ¼ anna	=	0	0	5·8
12 pie = 1 anna	=	0	0	1½
16 annas = 1 rupee	=	0	2	0
15 rupees = 1 gold rupee	=	1	10	0
16 rupees = 1 gold mohur	=	1	12	0
100,000 rupees = 1 lakh	=	10,000	0	0
100 lakhs = 1 karor	=	1,000,000	0	0

BOMBAZINE (Fr. alépine). A kind of mixed stuff of silk and wool, originally manufactured at Milan, and thence sent into France and other countries. The chief seat of its foreign manufacture is Amiens. In this country it has gone

greatly out of fashion, being superseded by alpaca fabrics, but it is said that there is a considerable export trade in the fabric to South America.

BONES. In the Arts, the bones of cattle and other animals are extensively used in forming handles for knives, and various other purposes; but of late years they have been of most importance in agriculture. When employed in the latter they are, in most instances, ground or reduced to powder, and are commonly used as manure for turnips, being in general drilled in with the seed, though sometimes also they are sown broadcast and with other crops. The quantity used varies from about 25 bushels of *dust* to about 40 bushels *large* an acre. Their effect is said to be considerably increased when they have undergone the process of fermentation. They were first used, in this country on a large scale, as a manure in Lincolnshire; and there can be no doubt that their extensive employment in that county has been one of the chief causes of its rapid improvement, and of the high state of cultivation to which it has attained. Bone-dust is now, however, very largely used, not only in Lincolnshire, York, and the adjacent counties, but in most other parts of England, and almost everywhere in Scotland; and its influence in increasing the crops of corn and turnips, and consequently also the supplies of butcher's meat and farm manure, has been quite extraordinary. In fact, it is to the employment of this manure and guano, combined with the extension of furrow drainage and the introduction of steam navigation, that the wonderful improvements that have been made in agriculture since 1820, and the vast increase of agricultural produce, are principally to be ascribed.

In 1827 Mr. Huskisson estimated the real value of the bones annually imported for manure at about 100,000*l.*; but at present (1868) it probably amounts to more than quadruple that sum. The ad valorem duty of 1 per cent. on bones produced, in 1841, 2,933*l.* 5*s.* 3*d.* nett, showing that the value of the imports must then have exceeded 293,000*l.*, of which it is abundantly certain that but a comparatively small portion was employed otherwise than in agriculture. They are principally brought from the Netherlands, Germany, and South America. It is a curious fact, that while the duty on bones imported into Scotland in 1841 amounted to 749*l.* 4*s.* 4*d.*, the duty on those imported into Ireland amounted to only 2*l.* 10*s.* 1*d.* After being reduced in 1842 to 6*d.* a ton, the duty on bones was finally repealed in 1845. In 1866 the imports of bones (exclusive of whale fins) into the United Kingdom amounted to 80,306 tons, valued at 409,590*l.*

Burnt bones or animal charcoal possess remarkable powers of absorbing noxious gases, and of bleaching water which is stained by organic matter. Hence they are used largely as the material for filters, and in particular for refining sugar. The same substance is employed to form the cupel of the gold and silver refiner, the scoria of the alloy sinking into the substance of the cupel, and the button of pure metal remaining on the surface of the crucible.

The most powerful kinds of animal charcoal are obtained from the ignition of substances possessing a large amount of animal matter, as dried blood, hair &c. Thus, while bone black has a power in decolorising syrup and indigo which may be represented by 1, a charcoal formed from blood ignited with carbonate of potassa has the powers of 20 and 50 on these substances respectively.

BOOK-KEEPING. The art of keeping the accounts and books of a merchant. Book-keeping by double entry means that mode or system in which every entry is double, that is, has both a debtor and a creditor. It is also called the Italian method, because it was first practised in Venice, Genoa, and other towns in Italy, where trade was conducted on an extensive scale at a much earlier date than in England, France, or other parts of Europe. This method, however familiar to merchants and book-keepers, seems intricate to almost all who have not practised it; nor is the dryness and difficulty of the task much lessened by the printed works on the subject, which, having been compiled more by teachers than by practical merchants, contain a number of obsolete rules and unnecessary details. The most effectual mode of giving clearness and interest to our remarks will be, first, to state a few mercantile transactions, and then to explain the nature of the accounts and entries which result from them.

The Journal of a mercantile house ought to open, at the beginning of each year, with an enumeration of their assets and debts, as follows:—

Folio of Ledger	SUNDRIES Dr. to STOCK. For the following, being the assets of the house.	£	s.	d.
1	Cash; amount at the banker's this day (Jan. 1)	2,550	0	0
1	Exchequer bills; amount in hand	5,310	0	0
7	Bills receivable; in hand, as per bill book	7,300	15	0
1	Three and a half per Cent. Stock, 6,000*l.*, valued at 90*l.* per 100*l.* stock	5,400	0	0
8	Debenture account; drawbacks receivable at the custom-house	515	0	0
6	Ship *Amelia*; our three-eighths of that vessel	3,000	0	0
7	Adventure in Irish linen; amount in hand, computed at cost price	2,467	0	0
7	James Bailey & Co., Liverpool; due by them	1,350	10	0
7	Thomas Watson & Co., Dublin; ditto	2,550	12	0
7	William Spence & Co., Plymouth; ditto	970	0	10
		£32,391	17	10

Folio of Ledger	STOCK Dr. to SUNDRIES. For the debts of the house, as follows:—	£	s.	d.
6	To bills payable; amount of acceptances at this date	2,350	10	0
3	To Insurance; amount of premiums due to underwriters	1,800	15	0
9	To Morris Pittman, Trinidad; balance due to him	1,370	5	0
4	To James Forbes, Demerara; do.	720	5	0
7	To Simon Fraser, London; do.	960	18	0
2	To James Allan & Co., Kingston, Jamaica; do.	1,150	10	0
8	To George and William Fox, Falmouth; do.	320	15	0
		8,753	15	0
	Balance, being the present capital of the house	23,638	2	10
		£32,391	17	10

Let the transaction to be first explained be an order for goods from a correspondent abroad. A house in Jamaica sends instructions to the house at home to buy and ship a quantity of manufactured articles, suited to the Jamaica market, as follows:—

Order from James Allan & Co. of Kingston, Jamaica, to Henry Barclay & Co. of London.

J. A. & Co.

Linen; Lint Strellitz Osnaburgs, 14 bales, about 6*d*. per yard.
Best tow Strellitz do., 9 bales, 4*d*. or 4½*d*.
Best white Platillas, 1 case.
Linen tick assorted, 3-4ths width, 9*d*., 1*s*., 1*s*. 3*d*.; 10 pieces each, cut up in 22-yard lengths.
Woollens; 5 bales Penistones, 3-4ths wide, best indigo blue, 1*s*. a yard.
Cottons; 50 pieces stout calico, 28 yards each, 3-4ths wide, 4½*d*. a yard.
50 do. do. do. 7-8ths, superior, 5*d*. a yard.
100 do. stout calico shirting, 7-8ths wide, superior, 6*d*. a yard.
Hats; 4 dozen gentlemen's superfine black, 20*s*. each.
2 do. do. drab, 20*s*. each.
1 do. youths' do. black, 15*s*. each.
20 do. felt hats, for negroes, 22*s*. per dozen.
Shoes; 10 dozen prime calf-skin shoes, full size, 65*s*. per dozen.
10 do. youths' do. 52*s*. per dozen.
5 do. gentlemen's dress do. 72*s*. per dozen.

This order the London merchant divides among six, seven, or more wholesale dealers, according to their respective lines of business. Each dealer, or tradesman, as he is commonly called, provides his portion of the order in the course of the fortnight, three weeks, or month, allowed him by the merchant; and when the goods are packed and ready to ship, he sends in his account, or bill of parcels thus:—

London, 20th February, 1843.

Messrs. Henry Barclay & Co.

Bought of Simon Frazer.

J. A. & Co. No. 8.		£	s.	d.
	10 pieces best tow Strellitz Osnaburgs, 116 yards each, at 4*d*. per yard	24	6	8
	Inside wrapper, 16 yards, at 3*d*.	0	4	0
	Cord, bale, and press packing	0	10	0
		25	0	8
	Then follow, stated in like manner, the particulars of 8 bales, No. 9 to 16, both inclusive, amounting to	212	4	2
		£237	4	10

London, 20th February, 1843.

Messrs. Henry Barclay & Co.

Bought of J. Borradaile & Co.

J. A. & Co.		£	s.	d.	£	s.	d.
39	Case, 1 dozen and 2 youths' hats and bands, at 15*s*. each	10	10	0			
	Case (small)	0	4	0			
					10	14	0
40	Case, 9 dozen felt hats for negroes, at 22*s*. per dozen	9	18	0			
	Case (large)	0	16	0			
					10	14	0
41	Do. the same				10	14	0
					£32	2	0

The merchant, having received the whole of the bills of parcels, fixed on a vessel, and agreed for the freight, proceeds to make an entry at the Custom-house, and to ship the goods. That done, the next step is to prepare the Invoice, or general account of the shipment, as follows:—

Invoice of Goods shipped by Henry Barclay & Co. in the Rawlins, *J. Thomson, from London to Kingston in Jamaica, on account and risk of Messrs. James Allan & Co. of Kingston.*

J. A. & Co.		£	s.	d.	£	s.	d.
No. 1.	Puncheon strong calf skin shoes, per J. Johnson's bill of parcels	93	7	0			
2.	Ditto ditto per ditto	94	16	4			
3.	French calf skin shoes, per ditto	23	9	0			
4, 5, 6.	3 trunks ditto per ditto	67	3	7			
					278	15	11
7.	Case linen tick assorted, per J. Wilson's bill of parcels				42	0	0
8 to 16.	9 bales best tow Osnaburgs, 10 pieces each, per Simon Frazer's bill of parcels				236	5	0
17.	1 case white Platillas, per Molling & Co.'s bill of parcels				41	0	8
18 to 24.	7 cases the same, per ditto				287	4	8
25 to 38.	14 bales lint Osnaburgs, per J. Mackenzie's bill of parcels				367	10	0
39.	1 case youths' hats and bands, per J. Borradaile & Co.'s bill of parcels				10	14	0
40, 4, 1.	2 cases felt hats, ditto per ditto				21	8	0
					1,284	18	3
		£	s.	d.			
	Entry; duty on part at ½ per cent.; bond and debenture	4	8	0			
	Cartage, wharfage, and shipping charges	7	9	6			
	Freight and primage 38*l*. 7*s*.; bills of lading 3*s*. 6*d*.	38	10	6			
	Insurance on 1,500*l*. at 40*s*. per 100*l*. £30 0 0						
	Policy duty 3 18 9						
		33	18	9			
	Commission, 5 per cent. on 1,335*l*.	66	15	0			
	Ditto ½ per cent. on 1,500*l*. insured	7	10	0			
					158	11	9
					£1,443	10	0

At 6 months' credit; due September 6. Errors excepted.
London, March 6, 1843. Henry Barclay & Co.

This invoice, being sent out by the vessel to Messrs. Allan & Co., conveys to them a number of particulars in a short space; viz. the mark, the numbers, the value, and the contents of each package. In former times it was the practice to make an invoice very long, inserting in it a literal copy of each bill of parcels, but it has now become usual to make each tradesman deliver a duplicate of his account, to be sent abroad with the goods; in which case the invoice may be, like the above, little more than a summary of the bills of parcels. This method has two advantages: it saves time at the counting-house of the exporter, and it affords to his correspondent an assurance that no more is charged to him than has been actually paid for the articles.

An invoice ought to be made out with the utmost care, for it is a document of great importance in several respects: first, between the exporting merchant and his correspondent abroad; and next, when in the hands of the latter, it may and generally does form a voucher for calculating the import duty, as well as for the sales effected to retailers or other dealers.

The sum insured by the exporting merchant generally exceeds the amount of the invoice by 2 per cent., because the recovery of a loss from insurers involves a charge of fully that amount. It is thus necessary to cover not only the price of the goods, and the charges of shipping, insurance, and freight, but such further sum as may enable the shipper, in case of loss, to carry to the credit of his correspondent the amount of the invoice, clear of any deduction.

Journal Entries resulting from the foregoing Invoice.

Folio of Ledger	James Allan & Co. Dr. to Sundries. For goods shipped to them in the *Rarities*, Thomson, for Jamaica.	£	s.	d.
1	To James Johnson; amount of shoes, per his bills of parcels	278	15	11
1	To John Wilson; linen tick per ditto	42	0	0
1	To Simon Fraser; tow Osnaburgs per ditto	236	5	0
1	To John Mackenzie; lint Osnaburgs per ditto	567	10	0
2	To James Berradaile & Co.; hats per ditto	32	2	0
2	To Molling & Co.; for Platillas per ditto	328	5	4
3	To Freight Account; freight, primage, and bills of lading	58	10	6
3	To Insurance; premium and policy	33	18	9
3	To Charges; entry outward, duty, and shipping charges	11	17	6
3	To Profit and Loss; for commission	74	5	0
		£1,443	10	0

The preceding invoice, being for account of a mercantile house, who sell again to dealers, comprises a variety of articles: as a further specimen, we subjoin two short invoices, for account of sugar planters, and confined to articles consumed on their estates.

Invoice of Plantation Stores shipped by Henry Barclay & Co. in the Adventure, *J. Williamson Master, for Kingston, Jamaica, by order of Mr. James Thomson, Planter, and for his account and risk.*

J.T. 1 to 6.		£	s.	d.
	6 bales lint Osnaburgs, per bill of parcels from James Anderson	£240 0 0		
	Then follow, in like manner, the mark, number, and contents of various other packages of plantation stores (hats, shoes, nails &c.), composing the shipment; amounting in all to	2,352	10	0
	Charges.	£ s. d.		
	Custom-house entry, and shipping charges	2 12 6		
	Freight, primage, and bills of lading	18 7 6		
	Commission on 2,747*l.* at 2½ per cent.	59 7 0	80	7 0
	Insurance on 2,550*l.* at 2*l.* per cent.	51 0 0		
	Policy duty	6 10 0		
	Commission, ½ per cent.	12 15 0	70	5 0
			£2,503	2 0

Errors excepted.

London, October 2, 1842. Henry Barclay & Co.

The following is an invoice of 60 barrels of herrings, shipped by Henry Barclay & Co. of London, in the *Barclay*, James Ferrier, bound to Barbadoes, by order and for account and risk of John Henderson, Esq., planter, and consigned to him at Bridgetown, Barbadoes.

London, Feb. 18, 1843.

J. H.		£	s.	d.
	60 barrels prime white herrings, deliverable at Bridgetown, Barbadoes, free of charges, at 21*s.* per barrel	£63	0	0

This invoice is very short, the agreement having been that the herrings should be delivered at a fixed price, all charges included.

Account of Sales.—We come now to a transaction of a different kind; to the sale of goods imported from abroad. A merchant in England receives from a correspondent, whether in India, the West Indies, or North America, notice of a shipment of sugar, coffee, rice, or other produce, about to be made to England, with instructions to effect insurance on the computed value. This is the first step in the transaction; on the arrival of the vessel the goods are entered, landed, and warehoused; and a broker is instructed to report on the state and prospects of the market. On a sale taking place, an account is made out and forwarded to the correspondent abroad, as follows:—

Account Sales of 7 Hhds. Sugar, by the *Ceres*, from Trinidad, for Account of Morris Pittman, Esq. of Trinidad.

	£	s.	d.
Insurance on 175*l.* at 60*s.* per 100*l.* £5 5 0			
Policy 0 10 6			
Freight of 79 cwt. 25 lbs. at 6*s.* per cwt.	5	15	6
Primage, pierage, and trade	23	15	4
Duty on 79 cwt. 25 lbs. at 27*s.* per cwt.	0	9	7
Entry	106	19	0
Dock dues	0	6	0
Landwaiters and entry	2	12	10
Warehouse rent, 19 weeks	0	16	0
Sampling	1	15	2
Insurance from fire	0	3	6
Interest on freight and duty	0	6	0
Brokerage, 1 per cent.	1	12	3
Commission, ½ per cent.	2	6	9
½ per cent. on 175*l.* insured	4	15	4
	0	17	6
	152	8	9
Nett proceeds, due May 2, 1843	81	11	3
	£234	0	0

M.P. 1 to 7.

	cwt.	qrs.	lbs.
7 hhds. weighing	87	3	21
Deduct draft	0	0	14
	87	3	7
Deduct tare	9	3	7
Nett 78 0 0 at 60*s.* per cwt.			

£234 0 0

£231 0 0

London, April 2, 1843. Errors excepted. Henry Barclay & Co.

We have here, on one side of the account, the quantity and value of the goods sold; on the other, the various charges attending the bringing home, the warehousing, and the sale of the articles.

The quantity of goods accounted for in an account sale must be the same as in the invoice; if it be less, whether through damage at sea, through waste, or any other cause, the extent of the deficiency should be explicitly stated. By the *overtaker* in the following sale is meant the additional barrel or package required for the coffee taken out of such of the tierces as have been opened on account of breakage or other damage.

Allowances of Weight.—The tare is the weight of the cask, and differs, of course, in almost every package: but trett (see the following sale) is a fixed allowance of 5 lbs. per tierce in the case of coffee, intended, like draft in the case of sugar, to insure good weight to the buyer, and to enable him to do the same to those who purchase again from him.

ACCOUNT SALE of 20 Tierces Coffee, per *Vittoria*, from Demerara, for Account of JAMES FORBES, Esq. Demerara.

Charges.	£	s.	d.
Insurance on 20 tierces at 35*l.* a tierce, 700*l.* at 9*s.*; policy, 36*s.* 9*d.*	19	6	9
Freight on 114 cwt. at 7*s.* 6*d.* per cwt.	42	15	0
Primage, pierage, and trade	1	7	6
	44	2	6
Dock dues	10	9	1
Landwaiters, entry, and part of bond	1	2	6
Insurance from fire	0	19	6
Public sale charges	1	7	6
Brokerage, 1 per cent.	6	16	7
Commission, 2½ per cent. on 676*l.*	16	18	0
Commission, ½ per cent. on 700*l.* insured	3	10	0
	104	12	5
Nett proceeds, due May 5, 1851	571	13	1
	£676	5	6

J. F. No.	Gross Weight cwt. qrs. lbs.	Tare cwt. qrs. lbs.	£ s. d.
1. to 20.			
5 tierces	30 1 7	3 2 13	
5 do.	32 2 5	4 0 5	
4 do.	24 2 4	3 3 16	
	87 1 16	10 2 8	
		Trett 0 2 14	
		11 0 22	
Deduct	11 0 22		
Nett	76 0 22 at 121*s.* 6*d.* per cwt.		462 17 2
3 tierces	17 1 1	2 0 9	
3 do.	19 2 15	2 1 15	
	37 0 16	4 1 24	
		Trett 0 1 1	
		4 2 25	
Deduct	4 2 25		
Nett	32 1 19 at 120*s.* per cwt.		194 9 4
Overtaker	5 1 9	0 3 9	
		Trett 0 0 11	
		0 3 20	
Deduct	0 3 20		
Nett	4 1 17 at 117*s.* per cwt.		25 15 0
			682 2 1
		Discount, 1 per cent.	6 16 7
		Gross proceeds	£676 5 6

London, April 5, 1843. Errors excepted. HENRY BARCLAY & Co.

Freight is charged on the weight of the produce only; not of the produce and packages together. This allowance is of old standing, and is to be traced less to the reason of the case than to the competition prevailing among shipmasters.

Journal Entries resulting from the preceding Accounts of Sale.

Folio of Ledger		£	s.	d.
	June 1843.			
	THOMAS KEMBLE & Co. Drs. to SUNDRIES.			
4	To Sugar per *Ceres*. Proceeds of 7 hhds., M.P. 1 to 7, sold by them at one month's credit, from April 2	234	0	0
4	To Coffee per *Vittoria*. Proceeds of 20 tierces, J. F. 1 to 20, sold at one month's credit, from April 5	676	5	6
2		910	5	6
	Sugar per *Ceres* Dr. to Sundries.			
3	To Insurance Account; for premium and policy	5	15	6
3	To Freight Account; for freight, primage, and pierage	24	4	11
4	To Customs Inward; duty and entry	107	5	0
4	Charges; dock dues, 5*s.* 10*d.*; warehouse rent, 35*s.* 7*d.*; landwaiters, 16*s.*; sampling, 3*s.* 6*d.*; and fire insurance, 6*s.*	3	13	5
4	To Thomas Kemble & Co.; brokerage, 1 per cent.	2	6	9
3	To Profit and Loss; for commissions £5 10 10 Interest on freight and duty 1 12 3	7	3	1
4	To Morris Pittman; proceeds due May 2, 1843	81	11	3
4		234	0	0
	Coffee per *Vittoria* Dr. to Sundries.			
3	To Insurance; for premium and policy	19	6	9
3	To Freight Account; freight, primage and pierage	44	2	6
3	To Charges; dock dues, landwaiters, insurance from fire, and public sale charges	15	18	7
4	To Thomas Kemble & Co.; brokerage	6	16	7
3	To Profit and Loss; for commissions	29	8	1
4	To James Forbes; nett proceeds due June 5, 1842	571	13	1
		£676	5	7

We have thus given an example of the transactions which form a great part of the business of our merchants; the export of manufactured goods, and the import and sale of produce received in return. Our next illustration shall be of a merchant's cash book. The following is an example of the entries for a month:—

Dr.	CASH.	£	s.	d.
1842				
Mar. 1	To balance at the bankers'	2,550	0	0
3	To ship *Amelia*, received of James Jacobs, for freight	175	3	0
6	To bills receivable, received payment of No. 251 on J. Henderson	200	0	0
9	To James Bailey & Co., received payment of their draft at sight on J. Bainbridge	152	10	0
15	To William Spence & Co., received balance of their account	970	0	10
—	To debenture account, received drawback on tobacco shipped by the *Plover*	15	8	0
18	To bills receivable, discounted at the bankers', Harrison & Co., due 15—18 March	730	10	0
—	To profit and loss, received 5 per cent. discount, on paying with ready money the accounts per contra, not due till 6 months hence, from			
	James Johnson	£15	19	0
	John Wilson	2	2	0
	Simon Frazer	11	16	0
	John Mackenzie	18	7	6
	James Borradaile & Co.	0	16	0
	Molling & Co.	16	8	3
		63	8	9
		£4,857	0	7

Cr.	PAID.	£	s.	d.
1842				
Mar. 2	By bills payable, paid No. 261 to James Harding	145	10	0
4	By George and William Fox, paid their balance of account	320	15	0
6	By John Smith & Sons, paid J. Jackson for their account	98	0	0
7	By bills payable, paid No. 269 to J. Stewart	300	0	0
18	By interest paid, discount on Harrison & Co., 2 months	6	1	10
	By J. Johnson, paid his bill of parcels	278	15	11
	By John Wilson do.	42	0	0
	By Simon Frazer do.	236	5	0
	By John Mackenzie do.	367	10	0
	By James Borradaile & Co. do.	32	2	0
	By Molling & Co. do.	328	5	4
31	By charges paid, postage, and petty disbursements this month, per petty cash book	15	2	6
—	By balance, carried to next month	2,686	13	0
		£4,857	0	7

These transactions, when put into the Journal form, stand thus:—

Folio of Ledger	March 1842. CASH Dr. to SUNDRIES Received this month.	£	s.	d.
6				
6	To Ship *Amelia*.			
	3d. Freight from James Jacobs	175	3	0
	To Bills Receivable.			
	6th. Received payment of J. Anderson, due this day £200 0 0			
	18th. Discounted Harrison & Co. due 9th of May 730 10 0			
		930	10	0
7	To James Bailey & Co.			
	9th. Received their draft on Bainbridge, due	152	10	0
7	To William Spence & Co.			
	15th. Received balance of their account	970	0	10
8	To Debenture Account.			
	15th. Drawback on tobacco by the *Plover*	15	8	0
3	To Profit and Loss.			
	18th. Received discount on sundry accounts, per cash book	63	8	9
		£2,307	0	7

Folio of Ledger	SUNDRIES Drs. to CASH. Paid this month as follows:	£	s.	d.	£	s.	d.
6	Bills Payable.						
	2d. Paid No. 261	145	10	0			
	7th. Do. 269	192	15	0			
					338	5	0
4	Customs Inward.						
	23rd. Paid duty on sugar, per *Ceres*, 79 cwt. 2½ lbs. at 27*s.* per cwt.	106	19	0			
	Entry	0	6	0			
					107	5	0
5	Simon Frazer.						
	18th. Paid his bill of parcels	236	5	0			
1	26th. Paid J. Jackson for his account	98	0	0			
					334	5	0
8	Interest Account.						
	18th. Paid discount on Harrison & Co.				6	1	10
1	James Johnson.						
	18th. Paid his bill of parcels				278	15	11
1	John Wilson.						
	18th. Paid his bill of parcels				42	0	0
1	John Mackenzie.						
	18th. Paid his bill of parcels				367	10	0
2	James Borradaile & Co.						
	18th. Paid their bill of parcels				32	2	0
2	Molling & Co.						
	18th. Paid their balance of account				328	5	4
5	George and William Fox.						
	21th. Paid their balance of account				320	15	0
3	Charges.						
	31st. Paid postage, and petty disbursements this month				15	2	6
					£2,170	7	7

The above shows, that for all sums received, the account of cash is made debtor, and the parties paying the same are made creditors; while for all sums paid, the cash is credited, and the parties receiving them are made debtors.

We are next to state the mode of entering bill transactions.

Bills receivable.—We have seen by the Balance sheet that several correspondents are indebted to the house. The debts of correspondents abroad may be reduced by remitting either bills, specie, or merchandise for sale: from correspondents in England, bills are almost the only mode of remitting. When bills come to hand, the rule is to enter each in the bill book, with a minute statement of the date, term, sum, and other particulars thus:—

No.	Received	From whom	Drawn by	Date	Term	Drawn on	To order of	Due	Sum	How disp. of
									£	
630	8 March	Bailey & Co.	W. Adams	Belfast, 1 March	2 months	T. Jones, Dublin	A. Williams	1—4 May	350	Rahder & Co.
631	10 March	Watson & Co.	J. Jacobs	Cork, 3 March	1 month	J. Adams, London	O. Wilson	3—6 April	135	Smith & Co.
632	12 March	Spence & Co.	T. Johnson	Falmouth, 5 March	2 months	T. Allan, Liverpool	D. Jones	5—8 May	260	Overend & Co.

The Journal Entries for these bills are as follow :—

Folio of Ledger	BILLS RECEIVABLE Dr. to SUNDRIES. For the following remitted this month.	£	s.	d.
7	To James Bailey & Co. No. 630, on T. Jones, Dublin, due 4th of May	350	0	0
7	To T. Watson & Co. No. 631, on J. Adams, London, due 6th of April	135	0	0
7	To William Spence & Co. No. 632, on T. Allan, Liverpool, due 8th of May	260	0	0
		£745	0	0

Bills Payable.—The entries under this head are, of course, wholly different from the preceding, being for acceptances of the house given on account of sums owing by it to correspondents. Each acceptance is entered in the book of bills payable, thus :—

No.	Drawn by	Place and Date	To order of	On account of	Term	When accep.	Due.	Sum £	s.	d.
151	J. Allan & Co.	Jamaica, 15 January	J. Jones	J. Allan & Co.	90 days' sight	12 March	10—13 June	175	10	0
152	G. & W. Fox	Falmouth, 7 March	J. Thomson	G. & W. Fox	15 days' date	14 March	22—25 March	73	15	0
153	J. Clark	Hull, 5 March	G. Barclay	J. Smith & Sons	1 month's date	16 March	5—8 March	132	10	0

The Journal entries for these bills are as follows :—

Folio of Ledger	SUNDRIES Dr. to BILLS PAYABLE. For the following bills accepted.	£	s.	d.
2	James Allan & Co. No. 151, their draft, due 13th of June	175	10	0
8	G. & W. Fox. No. 152, their draft, due 25th of March	73	15	0
1	Simon Frazer. J. Clark's draft on his account, due 8th of March	132	10	0
		£381	15	0
	— May 1842. —			
	CASH Dr. to THOMAS KEMBLE & CO.	£	s.	d.
1	27th. Received from them proceeds of sugar per *Ceres*	234	0	0
	Less their brokerage	2	6	9
		231	13	3
4	30th. Received coffee per *Pittoria*	676	5	6
	Less brokerage	6	16	7
		669	8	11
		£901	2	2

The preceding entries, few as they are compared to the monthly transactions of a house of business, are sufficient to show the nature of a Journal as well as of the subsidiary books (for cash, bills, invoices, and account sales) from which it is composed. The Journal, being a complete record of the business of the house, is very varied and comprehensive in its nature, and may be termed an index to every book of consequence in the counting-house. But while in the cash book every payment or receipt is entered on the day it takes place, and in the bill books every bill is registered on the day it comes to hand, or is accepted, the Journal entries, being completed only at the end of the month, admit of being combined to a considerable extent, so as to exhibit a number of transactions in collective sums. Thus all the acceptances of the house paid in the course of the month appear in the Journal entry of Bills Payable Dr. to Cash: they are arranged in this entry as they fall due, after which the whole are added into one sum, which sum alone needs be carried to the Ledger. In like manner, all bills receivable, whether discounted, or kept by the house till they fall due, are collected under the head of Bills Receivable Dr. to Cash, summed up together, and carried to the Ledger in one line; a point of great importance, as we shall see presently, in facilitating the balance of the Ledger.

We proceed to give a specimen of the Ledger: the whole of the Journal entries in the preceding pages, when posted into the Ledger, will stand thus :—

Dr. STOCK. Cr.

1842	Fo.		£	s.	d.	1831	Fo.		£	s.	d.
Jan. 1	1	To sundries	8,753	15	0	Jan. 1	1	By sundries	32,391	17	10

Dr. CASH. Cr.

Jan. 1	1	To stock	2,550	0	0	Mar. 31		By sundries	2,170	7	7
Mar. 1	4	To sundries	2,307	0	7						
May 30	15	To T. Kemble & Co.	901	2	2						

Dr. EXCHEQUER BILLS. Cr.

Jan. 1	1	To stock	5,310	0	0						

Dr. THREE AND A HALF ℘ CENT. STOCK. Cr.

Jan. 1	1	To stock	5,100	0	0						

Dr. JAMES JOHNSON, London. Cr.

Mar. 1	4	To cash	278	15	11	Mar. 6	9	By J. Allan & Co.	278	15	11

Dr. JOHN WILSON, London. Cr.

Mar. 1	4	To cash	42	0	0	Mar. 6	9	By J. Allan & Co.	42	0	0

Dr. SIMON FRAZER, London. Cr.

	Fo.		£ s. d.		Fo.		£ s. d.
Mar. 26	4	To cash	334 5 0	Jan. 1	2	By stock	960 15 0
31	5	To bills payable	132 10 0	Jan. 6	9	By J. Allan & Co.	336 5 0

Dr. JOHN MACKENZIE, London. Cr.

Mar. 8	4	To cash	367 10 0	Mar. 6	9	By J. Allan & Co.	367 10 0

Drs. JAMES BORRADAILE & Co. London. Crs.

Mar. 1	4	To cash	32 2 0	Mar. 6	9	By J. Allan & Co.	32 2 0

Drs. MOLLINO & Co. London. Crs.

Mar. 1	4	To cash	328 5 4	Mar.	9	By J. Allan & Co.	328 5 4

Drs. J. ALLAN & Co. Kingston, Jamaica. Crs.

Mar. 6	9	To sundries	1,143 10 0	Jan. 1	2	By stock	1,150 10 0
31	11	To bills payable	175 10 0				

Dr. SUGAR BY THE *CERES*. Cr.

April 2	11	To sundries	234 0 0	April 2	11	By T. Kemble & Co.	234 0 0

Dr. FREIGHT ACCOUNT. Cr.

				Mar. 6	9	By J. Allan & Co.	38 10 8
				April 2	11	By sugar per *Ceres*	24 11 11
				May 3	13	By coffee per *Vittoria*	44 2 6

Dr. INSURANCE ACCOUNT. Cr.

				Jan. 1	2	By stock	1,880 15 0
				Mar. 6	9	By J. Allan & Co.	33 18 9
				April 2	11	By sugar per *Ceres*	5 16 6
				May 3	13	By coffee per *Vittoria*	19 6 9

Dr. CHARGES. Cr.

Mar. 3	4	To cash	15 2 6	Mar. 6	9	By J. Allan & Co.	11 17 6
				April 2	11	By sugar per *Ceres*	5 13 6
				May 3	13	By coffee per *Vittoria*	13 18 7

Dr. PROFIT AND LOSS. Cr.

				Mar. 6	9	By J. Allan & Co.	74 5 0
				Mar. 8	4	By cash	63 8 9
				April 2	11	By sugar per *Ceres*	7 3 1
				May 3	13	By coffee per *Vittoria*	90 8 1

Dr. CUSTOMS INWARD. Cr.

April 2	4	To cash	107 5 0	April 2	11	By sugar per *Ceres*	107 5 0

Dr. COFFEE PER VITTORIA. Cr.

April 3	13	To sundries	676 5 6	April 3	11	By T. Kemble & Co.	676 5 6

Dr. MORRIS PITTMAN, Trinidad. Cr.

				Jan. 1	2	By stock	1,330 5 0
				April 2	11	By sugar per *Ceres*	81 11 3

Dr. JAMES FORBES, Demerara. Cr.

				Jan. 1	2	By stock	720 5 0
				May 3	13	By coffee per *Vittoria*	371 13 1

Drs. THOMAS KEMBLE & Co. London. Crs.

April 3	11	To sundries	910 5 6	April 7	11	By sugar per *Ceres*	2 6 9
				30	13	By coffee per *Vittoria*	6 16 7
				May 30	15	By cash	901 2 2
							910 5 6

Dr. BILLS RECEIVABLE. Cr.

Jan. 1	1	To stock	7,300 15 0	Mar. 1	4	By cash	950 10 0
Mar. 3	5	To sundries	745 0 0				

Dr. BILLS PAYABLE. Cr.

Mar. 7	8	To cash	338 5 0	Jan. 1	2	By stock	2,339 10 0
				Mar. 3	5	By sundries	381 15 0

Dr. SHIP AMELIA. Cr.

Jan. 1	1	To stock	5,000 0 0	Mar. 1	4	By cash	175 3 0

Dr. ADVENTURE IN IRISH LINEN. Cr.

Jan. 1	1	To stock	2,467 0 0				

Drs. JAMES BAILEY & Co. Liverpool. Crs.

Jan. 1	1	To stock	1,300 10 0	Mar. 3	4	By cash	152 10 0
				Mar. 9	5	By bills receivable	330 0 0

Drs. THOMAS WATSON & Co. Dublin. Crs.

	Fo.		£ s. d.		Fo.		£ s. d.
Jan. 1	1	To stock - - - - -	3,550 12 0	Mar. 3	3	By bills receivable - -	135 0 0

Drs. WILLIAM SPENCE & Co. Plymouth. Crs.

Jan. 1	1	To stock - - - - -	970 0 10	Mar. 3	4	By cash - - - - -	970 0 10
				Mar. 5	5	By bills receivable - -	260 0 0

Drs. GEORGE AND WILLIAM FOX, Falmouth. Crs.

Mar. 4	4	To cash - - - - -	320 15 0	Jan. 1	2	By stock - - - - -	320 15 0
Mar. 6		To bills payable - - -	75 15 0				

Dr. DEBENTURE ACCOUNT. Cr.

Jan. 1	1	To stock - - - - -	515 0 0	Mar. 5	4	By cash - - - - -	15 8 0

Dr. INTEREST ACCOUNT. Cr.

Mar. 8	4	To cash - - - - -	6 1 10				

The Ledger is thus a register of all the entries in the Journal; and a register so arranged as to exhibit on one side all the sums at Debtor, on the other all those at Creditor. It is kept in the most concise form, the insertions in it hardly ever exceeding a line each, or containing more than the title of the entry in the Journal. On opening a page in the Ledger, a person unacquainted with book-keeping is apt to consider this brevity unsatisfactory; and it was formerly the practice to add in each line a few explanatory words. Thus the entries in the Dr. side of the account of Simon Frazer, which in our preceding page are briefly

		£	s.	d.
March 26.	To cash - - -	334	5	0
31.	To bills payable -	132	10	0

would, at an earlier date in the practice of book-keeping, have been expanded to

		£	s.	d.
March 18.	To cash paid for goods per *Rawlins* -	236	5	0
26.	To ditto paid J. Jackson for his account	98	0	0
31.	To bills payable, paid J. Clark's draft for his account - - - - -	132	10	0

This method is still followed in some counting-houses, and such explanatory additions are certainly conducive to clearness; but they are practicable only in a house of limited business: wherever the transactions are numerous and varied, they should be left out of the Ledger, for two reasons; they increase greatly the labour of the book-keeper, and they never can be so full or circumstantial as to supersede the account current book.

The same Ledger may continue in use from one to five years, according to the size of the book, or the extent of the transactions of the house. On opening a new Ledger, it is proper to place in succession accounts of the same class or character: thus—Stock account ought to be followed by that of the Three per Cent. Consols, Exchequer bills, or other property belonging to the house; and if the business be with the West Indies, it is fit that accounts with Jamaica should be placed near those with Demerara, Trinidad, and other sugar colonies.

Balancing the Ledger.—This important operation is performed by adding up the Debtor and Creditor side of every account in the Ledger, ascertaining the difference or balance in each, and carrying such balance, as the case may be, to the Debtor or Creditor column in the balance sheet. On closing, for example, a few of the preceding Ledger accounts, we find them to stand thus:—

Debtors.	£ s. d.	Creditors	£ s. d.
Cash - - - - - - - -	3,567 15 2	Simon Fraser - - - - - -	730 5 0
James Allan & Co. - - - - -	468 10 0	Freight account - - - - -	107 4 11

And so on with every account except Stock, which, having no entries in the current year, is put in the balance sheet exactly as it was in the beginning of the year. Including Stock, the total at the Debtor side of the balance sheet ought to agree exactly with the total at the Creditor side; and if it do not, it is a rule in all well-regulated counting-houses to follow up the examination perseveringly, until they are made to agree. The apparent difference may not exceed a few shillings, or a few pence; still the search is continued, because the smallest discrepancy shows the existence of error, and to an extent perhaps greatly beyond the fraction in question. It often happens, indeed, that, as the examination proceeds, the difference undergoes a change from a smaller to a larger amount, and without increasing the difficulty of discovering the error, which is as likely to have occurred in the case of a large as of a small sum. Differences, when in round sums, such as 10*l.*, 100*l.* or 1,000*l.*, generally lie in the addition; fractional sums frequently in the posting. All this, however, is uncertain; for the error or errors may be in any month in the year, and in any one of the thousand entries and upwards which have been made in the course of it. Hence the necessity of examining the whole; and young book-keepers are often obliged to pass week after week in the tedious labour of revising, adding, and subtracting. On the other hand, there are sometimes examples of the balance being found on the first trial; but such cases are rare, and occur only to careful and experienced book-keepers. The only effectual means of lessening the labour and perplexity of balancing the Ledger is to exercise great care in every stage of the book-keeping process; as well in making the additions in the Journal, as in posting from the Journal into the Ledger, and casting up the Ledger accounts; and, lastly, in adding up the balance sheet, which is generally of formidable length.

Accuracy in addition is one of the main requisites in a clerk, and particularly in a book-keeper. Of the extent to which it may be attained by continued practice, those only can judge who have experienced it themselves, or have marked the ease and correctness with which clerks in banking-houses perform such operations. They are in the habit of striking a daily balance which comes within small compass; but a merchant's balance, comprising the transactions of a year, extends

commonly over a number of folio pages. It is advisable, therefore, to divide each page into portions of ten lines each, adding such portions separately. This lessens the risk of error, as it is evidently easier to add five or six such portions in succession, than to do at once a whole folio containing fifty or sixty sums.

Another important point towards agreeing a balance, is to limit carefully the number of Ledger entries; in other words, to comprise as much as possible in those aggregate sums in the Journal which are posted in the Ledger. Thus, in the case of the monthly entries for bills, whether receivable or payable, while the inner column of the Journal contains the amount of each specific bill, the final column—that which is carried to the Ledger—should, and generally does, comprise a number of bills in one sum. Entries in the cash book, which generally form so large a proportion of the transactions of the month, are carried by some book-keepers directly from the cash book into the Ledger, without an intermediate arrangement in the Journal form. In some lines of business this plan may answer; but as a general rule it is better to take the trouble of journalising the cash, thereby comprising in 30 or 40 Ledger entries the transactions of the month, which, when posted separately, would exceed 100. The time required for re-writing or rather re-casting them will, in most cases, be amply made good by exhibiting the cash in a proper form, and by facilitating the balance of the Ledger at the close of the year.

We have said the close of the year, because, in nine mercantile houses out of ten, that is the period for striking a balance. In some branches of trade, however, the case is otherwise. Thus, among West India merchants, April 30 is the time of balancing, because at that season the sales of the preceding crop are, in general, completed, and those of the current year not yet begun.

Arrears in book-keeping ought to be most carefully avoided—calculated as they are to engender mistakes, and to produce loss from delay in adjusting accounts. The practice of balancing the ledger every 6 months, and of transmitting as often accounts current to the correspondents and connections of merchants, will, it is to be hoped, become general. It is, however, hardly practicable in cases where, as too often happens in the lesser mercantile establishments, the book-keeper is charged with a share of the active management. Exemption from interruption, and removal from the bustle of current business, are main requisites to accuracy and despatch in accounts. In examining, or, as it is called, collating the books, the book-keeper requires not only a retired apartment, but the assistance of a clerk for the purpose of calling them over. A similar arrangement for another purpose—we mean for composing the Journal, the book-keeper dictating from the subsidiary books to a clerk whose writing forms the draught or rough copy of the Journal—has as yet been seldom adopted; although, when properly applied, it is highly conducive both to accuracy and expedition.

A Ledger must, of course, have an index; but it is very brief, containing merely the titles of the accounts and a reference to the page, as follows:—

	Folio		Folio
Allan & Co., James	2	Bailey & Co., James	6
Amelia, ship	6	Bills payable	7

The Subsidiary Books.—In former times, when business in this country was conducted by most persons on a very limited scale, the accounts of a number of merchants, or rather of those dealers whom we should now think it a compliment to call merchants, were often kept on a plan somewhat like that at present followed by our shopkeepers. The merchant or his chief clerk kept a daily record of transactions, whether sales, purchases, receipts, or payments, in a diary, which was called a Waste-book, from the rude manner in which the entries or rather notices in it were written, being inserted, one by one, soon after the transactions in question took place. From this diary the Journal and Ledger were posted; and book-keeping by double entry being in those days understood by few, one person frequently kept the books of several merchants, passing one or two days in the week at the house of each, and reducing these rough materials into the form of regular entries. In process of time, as transactions multiplied and mercantile business took a wider range, separate books were more generally required for particular departments, such as a bill book for all bills of exchange, and a cash book for all ready money transactions. This had long been the case in the large mercantile towns of Italy and Holland; and above a century ago it became a general practice in London and Bristol, which were then the only places of extensive business in England. But in English, as in foreign counting-houses, the bill book and even the cash book were long considered as little more than memoranda of details; not as books of authority, or as fit documents for Journal entries: for that purpose the diary only was used. In time, however, the mode of keeping these subsidiary books improved, and merchants became aware that, when cash or bill transactions were properly entered in them, the Journal might be posted from them as well as from the diary.

Similar observations are applicable to the other subsidiary books, viz. an invoice book for goods shipped, and an account of sales book for goods received and sold. When from the gradual improvement in the management of counting-houses these books were kept in a manner to supply all that was wanted for Journal entries, the use of the diary was dispensed with for such entries also. And at last it was found, that in all well-regulated counting-houses the books kept for separate departments of the business were sufficient for the composition of the Journal, with the exception of a few transactions out of the regular course, which might be easily noticed in a supplementary book called a Petty Journal, or a book for occasional entries. The consequence was, that the diary or waste book, formerly the groundwork of the Journal and Ledger, became excluded from every well-regulated counting-house. This has long been the case, and the name of waste book would have been forgotten, were it not found in the printed treatises on book-keeping which have appeared from time to time, and have been generally composed by teachers in schools or academies, who, unacquainted with the actual practice of merchants, were content to copy and reprint what they found laid down in old systems of book-keeping.

The subsidiary books required in a counting-house are, the Cash book;

Book of Acceptances of the house, or Bills Payable;

Book of Bills receivable, or bills on other merchants which are or have been in possession of the house;

Bought book, or book for bills of parcels;

Invoice book, or register of goods sold or exported;

Account of Sales book;

Insurance Policy book; containing copies of all policies of insurance;

Petty Journal, or book for such occasional entries as do not belong to any of the preceding.

Such are the authorities from which it is now customary, in every well-regulated house, to compose the Journal. Their number indicates a repartition or subdivision, to a considerable extent, of counting-house work, and nowhere is such repartition productive of greater advantage. How much better is it to enter all bills receivable in one book, all bills payable in another, and all cash transactions in a third, than in any way to blend these very distinct entries! The effect of this subdivision is to simplify the Journal entries in a manner highly conducive to accuracy and despatch; and to present such means of checking or examining them, that many transactions may be stated, and an account extended over a number of folios, without a single error.

The use of most of the subsidiary books is sufficiently pointed out by their names; but it may be well to add a few remarks on the *Bought Book*, or receptacle for the accounts of goods purchased. A bill of parcels is the name given to the account of goods supplied by a manufacturer, tradesman, or dealer, to a merchant. Such accounts soon become numerous, and it is evidently of consequence to adopt the best method of keeping them. In former times it was the practice to fold them up in a uniform size, and after writing on the back the names of the respective furnishers, to put them away in bundles. But wherever the purchases of a merchant are extensive, and the bills of parcels numerous, the better mode, after arranging them alphabetically, is to paste them in a large book, generally a folio, made of blue or sugar-loaf paper: this book to have its pages numbered, and to have an alphabetical index. Any single bill of parcels may thus be referred to with the same ease as we turn to an account in a ledger; and one of these folios may be made to hold a very great quantity of bills of parcels; as many as would form a number of large bundles when tied up on the plan of former times.

Book of Bills Payable.—The notice, or, as it is termed, advice of bills payable after sight, generally comes to hand before the bills themselves. As the time of the arrival of the latter is uncertain, the better plan is not to enter them from the advice among the other bills payable, but to appropriate a space of 10 or 12 pages at the beginning or end of the book of bills payable, and to insert there the substance of the advice received.

There are a few books in every counting-house which do not form part of the vouchers or materials for the Journal; viz. the Account Current book, containing duplicates of the accounts furnished by the house to their different correspondents and connections;

The Letter book, containing copies of all letters written to the correspondents or connections of the house;

The Petty Cash book, or account of petty disbursements, the sum of which is entered once a month in the cash book;

The Order book, containing copies of all orders received;

The Debenture book, or register of drawbacks payable by the Custom-house.

It was formerly a practice in some houses for the book-keeper to go over the letter book at the end of each month, that he might take note of any entries not supplied by the subsidiary books. This, however, is now unnecessary; these books, when carefully kept, containing, in one shape or other, every transaction of the house.

The Principle of Double Entry.—From these explanations of the practice of book-keeping, we must call the attention of our readers to a topic of more intricacy—the origin of the present system, and the manner in which it was adopted. To record the transactions of a merchant in a Journal or day book was an obvious arrangement, and to keep a Ledger or systematic register of the contents of the Journal was a natural result of his business, particularly when conducted on credit. Such, in a rude form, are the books of our shopkeepers, who enter their sales and purchases in a day book, and in their Ledger carry the former to the Dr. of their customers, the latter to the Cr. of the wholesale dealers who supply them with goods. By making at the end of the year a list of the sums due to him by his customers, and of those due by him to wholesale dealers, a shopkeeper may, after adding to the former the value of his stock on hand, make out an approximate statement of his debts and assets. Now, that which in this manner is done indirectly and imperfectly, it is the object of double entry to do with method and certainty. The shopkeeper makes out a list of debtors on one side and of creditors on the other, but he cannot make them balance, because his entries have been single; that is, they have had no counterpart. On making a purchase of cottons from Messrs. M'Connell of Manchester, or of woollens from Messrs. Gott of Leeds, he merely enters the amount to their credit, but he makes no one Dr. to them, because the goods are not sold; and to introduce an imaginary account would be too great a refinement for a plain practical man. But a person accustomed to double entry would, without any effort of thought, make 'Printed Calicoes' Dr. to Messrs. M'Connell, and 'Kerseymeres' Dr. to Messrs. Gott, for the respective amounts; after which, as the sales proceeded, he would make the buyers Drs. to these accounts for the amount of their purchases.

We thus perceive that the intricacy in the application of double entry was not with the personal so much as with the nominal accounts. Let us refer to the country where book-keeping was first studied, and take as an example the case of Doria, a merchant in Genoa, shipping, in a former age, silk, of the value of 200*l.*, bought from Flori, in Piedmont, to Henderson and Co., silk manufacturers, in England, on the terms of charging, not an additional price, but a commission of 5 per cent. with interest until reimbursed his advance. In entering the transaction, Doria's book-keeper would, as a matter of course, make Hendersons debtors to Flori 200*l.* for the cost of the silk; but he might not so readily find a creditor for the 10*l.* commission, or the 7*l.* interest eventually due on the advance. The custom in this primitive era of book-keeping probably was, to introduce the firm of the house into their books, making Hendersons debtors to Doria for the 10*l.* and 7*l.*; but as the practice of book-keeping improved, it was found preferable to avoid inserting, on any occasion, the firm of the house, and to substitute nominal accounts, such as, commission, interest, bills payable, bills receivable. These, attention and practice rendered in time familiar to the book-keeper, who learned to open his Journal at the beginning of a year by making the parties who owed balances to the house debtors, not to the firm by name, but to Stock; and those to whom the house was indebted, creditors by Stock. As the transactions

of the year proceeded, he made those to whom money was paid debtors, not to the firm of the house, but to Cash; and those for whose account bills were accepted debtors to Bills payable; so that book-keeping by double entry assumed its present form gradually and almost imperceptibly.

What are the advantages of this method compared to that of single entry? First, it supplies a test of accuracy, inasmuch as, the entries on the debtor side of the Ledger being equal to those on the creditor side, their respective totals ought, as a matter of course, to balance. After going through this proof, personal accounts, of whatever length, may be settled with confidence; while in a general account, such as kerseymeres or printed calicoes, the value sold and the value remaining on hand may be ascertained by merely balancing the account in the Ledger, without the repeated references to the sales book that would otherwise be required. Without double entry, a dealer could hardly estimate his property unless he took stock; but with it an extraction of the Ledger balances fulfils that object, and stock-taking, however proper as a test of the honesty of servants, becomes quite unnecessary as a means of calculation. In short, in regard to any person in trade, whether merchant, dealer, or manufacturer, double entry forms the connecting link of his accounts, and affords a ready solution of any enquiry as to the appropriation, increase, or diminution of his capital.

This advantage may fortunately be obtained without any great sacrifice of time or labour. Of the books of dealers, manufacturers, and retailers, nine parts in ten may continue to be kept by single entry; for the addition of a few pages of double entry in the form of a summary, at the end of the month or quarter, will be sufficient to exhibit the result of a great extent of transactions.

Nominal Accounts.—Of these our limits permit us to notice only two; Profit and Loss, and Merchandise. The former contains on the creditor side all the entries of commissions earned, and gains obtained on particular adventures; while the debtor side exhibits the losses incurred, whether by bad debts or by unsuccessful purchases. Every house keeping regular books must have a profit and loss account, but a merchandise account is altogether optional. Those who have such a head in their Ledger are accustomed to make it Dr. to the dealers or furnishers from whom they make purchases, and to credit it in return by the correspondents or connections to whom they make sales. In many houses, however, there is no such intermediate account; the parties to whom the goods are sent being made Drs. at once to the furnishers of the goods, as in the case of the shipment to Jamaica stated in our preceding pages.

A merchant, before estimating his profits, ought to charge interest on each head of investment. His clear profit cannot be ascertained without it; and the practice of charging it is a lesson to him to hold no property that does not afford, at least, interest on his advances.

Mercantile books and accounts must be kept in the money of the country in which the partners reside. A house in Rotterdam composed of English partners necessarily keep their accounts in Dutch money, although their transactions may be chiefly with England. Further, books, it is obvious, can be kept in only one kind of money; and when a merchant in England receives from a distant country accounts which cannot at the time be entered in sterling for want of a fixed exchange, these accounts should be noted in a separate book, until, the exchange being ascertained, they can be entered in the Journal in sterling.

A book-keeper will do well to avoid all such puzzling distinctions as 'J. Johnson, my account with him;' and 'J. Johnson, his account proper;' on the plain ground that every account in the Ledger ought to be the general account of the person whose name it bears.

Errors excepted.—This expression is merely a proviso, that if any mistakes be discovered in the account in question, they shall be open to correction.

Accounts Current.—An account current generally contains all the transactions of the house with one of its correspondents during a given time, generally 6 or 12 months. The following is an example:—

Messrs. James Allan & Co. Jamaica, in Account Current with Henry Barclay & Co. London.

	Drs.	£	s.	d.	Days to 31 Dec	Interest		Crs.	£	s.	d.	Days to 31 Dec.	Interest
1842							1842						
June 30	To balance of last account	867	10	0	184	1,595	Aug. 10	By proceeds of 20 tierces coffee, per *Louisa*, due Sept. 10	410	0	0	112	469
July 2	To your draft to J. Smith, due Aug. 15	123	0	0	140	172		By your remittance on J. Austin, due Oct. 10	350	0	0	82	287
July 9	To invoice of goods per *Amelia*, due Oct. 9	752	0	0	83	624	Sept. 15	By proceeds of 17 hhds. sugar, per *Hercules*, due Oct. 15	238	0	0	77	173
Oct. 10	To cash paid J. Harvey on your account	75	10	0	82	62	Sept. 20	By cash received from J. Johnson on your account	260	0	0	102	265
	To insurance on produce shipped by you in the *Ann*, Nokes, 1,400*l.*, at 2 guineas per cent. £29 8 0						Dec. 31	Balance of interest carried to Dr.					1,276
	Policy 3 10 0	32	18	0				Balance of account carried to your Dr. in new account	621	8	7		
Dec. 31	Postage and petty charges during the half year	1	15	0									
	To commission, ½ per cent. on 703*l.* paid, Ditto on 26 *l.* received on your account	4	6	0									
	To balance of interest this half year, 1,276 divided by 73, is	17	9	7									
	£	1,879	8	7		2,460		£	1,879	8	7		2,460

Errors excepted.

London, December 31, 1842. Henry Barclay & Co.

We have here on the Dr. side all the payments made or responsibilities incurred for the correspondents in question, and on the Cr. side the different receipts on their account. The interest for the half year, the commission on receipts and payments, the postage and petty charges, being then

added, the account may be closed and the balance carried to next year. Copies of accounts current ought to be sent off as soon as possible after the day to which they are brought down; and with that view they ought to be written out from the Ledger before the close of the year or half year, particularly as the entries for interest and commission can be made only after they are written out. The whole ought then to be copied into the account current book.

But in some counting-houses the account current book, instead of being copied from the Ledger and Journal, is posted, like the latter, from the bill book, the cash book, the invoice book, and the account of sales book. It is then considered a check on the Journal and Ledger; and from the comparative ease with which it is posted, may be completed and made use of before the latter are fully brought up. This is certainly an advantage in houses where, from pressure on the book-keeper, the Journal and Ledger are in arrear, but such ought never to be the case for any length of time; while as to the former point—that of forming a check on the Journal and Ledger—the fact is, that these books, from the mode in which they are kept, are much more likely to be correct than the account current book.

Printed Works on Book-keeping.—To the publications of old date by teachers have succeeded, in the present age, several treatises on book-keeping by accountants. Some of these are of very limited use, being directed more to recommend a favourite practice of the author in some particular branch of book-keeping than to convey a comprehensive view of the system. The only works on the subject entitled to that character are two: one, *A Complete System of Book-keeping*, London 1799, by the late Benjamin Booth; the other, *The Science of Book-keeping exemplified*, by Mr. Jones, an accountant in London, printed in 1831. Booth was a man of ability, who had experience both as a merchant and a book-keeper, having passed one part of his life in London, the other in New York. The reader of his work finds a great deal of information in short compass, without being perplexed either by superfluous detail or by fanciful theory. The form of Mr. Booth's Journal and Ledger is similar to what we have given in the preceding pages, and to the practice of our merchants for more than a century: it was by much the best work on book-keeping, until Mr. Jones devised several improvements calculated to lessen the risk of error in both Journal and Ledger. One of these improvements is the use of two columns for figures in each page of the Journal, one for the Drs., the other for the Crs.: by inserting each sum twice, the book-keeper obtains the means of proving the Journal additions page by page. The posting from the Journal to the Ledger is also simplified and rendered less subject to error by the use of these columns. In regard to the great task of balancing the Ledger, Mr. Jones's plan is to do it quarter by quarter, making use of a separate book, called a balance book, in which are inserted the totals on each side of the Ledger accounts at the end of 3 months. By these means the agreement of the general balance is made a matter of certainty after completing the additions. Other parts of Mr. Jones's book, viz. his *formulæ* for books on the single entry plan, and for the accounts of bankers, contain suggestions of evident utility. His volume consists of two parts: the printed part (120 pp.) containing the treatise, with directions; and the lithographed part (140 pp.) giving copious examples in two sets of books, one kept by single, the other by double entry. If, on a reimpression, the author were to divide the work, and to sell the single entry part separately from the double entry, the price of each might be moderate, and a great service would be rendered to the mercantile public.

BOOKS (Ger. bücher; Dutch, boeken; Dan. böger; Swed. böcker; Fr. livres; Ital. libri; Span. libros; Port. livros; Russ. knigi; Pol. ksiaski, ksiegi; Lat. libri). Written or printed treatises on any branch of science, art, or literature, composed with the view of instructing, amusing, or persuading the reader.

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Books are sometimes blank, as account books: but these enjoy no peculiar privileges, and do not come within the scope of our enquiries.

Books are divided into *classes*, according to the mode in which the sheets of the paper on which they are printed or written are folded: viz. *folio*, when the sheet is folded into two leaves; *quarto*, when folded into *four*; *octavo*, when folded into *eight*; *duodecimo*, when the sheet is folded into *twelve*, &c. In making these classifications, no attention is paid to the *size* of the sheet.

I. *Progress and present State of the Law as to the Copyright of Books.*—It has been doubted whether, in antiquity, an author had any exclusive right to a work, or whether, having once published it, he could restrain others from copying it, and selling copies. We incline to think that he could. The public sale of copies of works is often referred to in the classics; and in such a way as warrants the inference that they were productive to the author, which could not have been the case had every one been permitted to copy them at pleasure. Terence, in one of his plays (*Prol. in Eunuch.* l. 20), says, 'Fabulam, quam nunc acturi sumus, postquam ædiles emerunt;' but why should the magistrates have bought it, had it been free to every one to copy it? Martial, in one of his epigrams, says—

> Sunt quidam, qui me dicunt non esse poëtam:
> Sed qui me vendit, bibliopola, putat.
>
> Lib. xiv. Ep. 194.

This evidently conveys the idea that he had assigned the right to sell his book to a single person who profited by it. Passages to the same effect may be found in Horace (*De Arte Poeticâ*, line 345), Juvenal (*Sat.* 7, line 83) &c.

It would have been singular, indeed, had it been otherwise. Of all the species of property a man can possess, the fruits of his mental labours seem to be most peculiarly his own. And though it may, we think, be shown that many serious inconveniences would result from giving the same absolute and interminable property over ideas that is given over material objects, these inconveniences could hardly have been perceived in antiquity.

It will also be observed, that in antiquity a copyright was of much less value than in modern times. Books could then only be multiplied by copying them with the pen; and if any one chose privately to copy a work, or to buy it of another, it must have been very difficult to hinder him: but when printing had been introduced, the greater cheapness of books not only extended the demand for them in far greater proportion, and consequently rendered copyrights more valuable, but it also afforded the means of preventing their piracy. Printing is not a device by which a few copies of a book can be obtained at a cheap rate. It is productive of cheapness only when it is employed upon a large scale, or when a considerable impression is to be thrown off. And hence, after its

invention, piracy could hardly be committed in secret: the pirated book had to be brought to market; the fraud was thus sure to be detected, and the offending party might be prosecuted and punished.

For a considerable time after the invention of printing, no questions seem to have occurred with respect to copyrights. This was occasioned by the early adoption of the licensing system. Governments soon perceived the vast importance of the powerful engine that had been brought into the field; and they endeavoured to avail themselves of its energies by interdicting the publication of all works not previously licensed by authority. During the continuation of this system, piracy was effectually prevented. The Licensing Act (13 & 14 Ch. II. c. 2) and the previous Acts and proclamations to the same effect, prohibited the printing of any book without consent of the owner, as well as without a license. In 1694 the Licensing Act finally expired, and the press then became really free. Instead, however, of the summary methods for obtaining redress for any invasion of their property enjoyed by them under the Licensing Acts, authors were now left to defend their rights at *common law*; and as no author or bookseller could procure any redress for a piracy at common law, except in so far as he could *prove damage*, property in books was virtually annihilated; it being in most cases impossible to prove the sale of one printed copy out of a hundred. Under these circumstances, applications were made to Parliament for an Act to protect literary property, by granting some speedy and effectual method of preventing the sale of spurious copies. In consequence, the statute 8 Anne c. 19 was passed, securing to authors and their assignees the exclusive right of printing their books for 14 years certain, from the day of publication, with a contingent 14 years, provided the author were alive at the expiration of the first term. Persons printing books protected by this Act, without the consent of the authors or their assignees, were to forfeit the pirated copies, and 1*d.* for every sheet of the same. Such books as were not entered at Stationers' Hall were excluded from the benefit of this Act.

It had been customary, for some time previous to this period, for the libraries of the Universities of Oxford and Cambridge, &c. to get a copy of most books entered at Stationers' Hall; and the Act of Anne made it imperative that single copies of all works entitled to its protection should be delivered to the following libraries: viz. the Royal Library, now transferred to the British Museum; the Libraries of Oxford and Cambridge; the Libraries of the four Scotch Universities; the Library of Sion College, London, and that of the Faculty of Advocates in Edinburgh; in all, *nine* copies.

The Act of Anne did not put to rest the questions as to copyright. The authors contended that it did not affect their natural ownership; and that they or their assigns were entitled to proceed at *common law* against those who pirated their works after the period mentioned in the statute had expired. The publishers of spurious editions resisted these pretensions, and contended that there was either no right of property at common law in the productions of the mind; or that, supposing such right to have existed, it was superseded by the statute of Anne. There was some difference of opinion in the courts as to these points; but Lord Mansfield, Mr. Justice Blackstone, and the most eminent Judges, were favourable to the claims of the authors. However, it was finally decided, upon an appeal to the House of Lords in 1774, that an action could not be maintained for pirating a copyright after the term specified in the statute. (Godson *On the Law of Patents and Copyrights*, p. 205.)

The Act of Queen Anne referred only to Great Britain; but in 1801 its provisions were extended to Ireland; the penalty, exclusive of forfeiture, on printing or importing books without consent of the proprietor, was also increased from 1*d.* to 3*d.* a sheet. In return for this concession, two additional copies of all works entered at Stationers' Hall were to be delivered; one to Trinity College, Dublin, and one to the King's Inns, Dublin.

Everyone must be satisfied that 14 years' exclusive possession is far too short a period to indemnify the author of a work, the composition of which has required any considerable amount of labour and research; though 28 years is perhaps, all things considered, not a very improper period. But the grand defect of the statute of Anne consisted in its making the right to the exclusive possession for 28 years contingent on the fact of a person having lived a day more or less than 14 years after the publication of his work. This was making the enjoyment of an important right dependent on a mere accidental circumstance over which man has no control. Could anything be more oppressive and unjust than to hinder an author from bequeathing that property to his widow and children, that would have belonged to himself had he been alive? Nothing, indeed, as it appears to us, can be more obvious than the justice of extending all copyrights to the same period, whether the authors be dead or not.

But though the extreme hardship, not to say injustice, of the Act of Queen Anne had been repeatedly pointed out, its provisions were continued down to 1814, when the Copyright Act, 54 Geo. III. c. 156, was passed. This Act extended the duration of all copyrights, whether the authors were dead or alive, to 28 years certain; with the further provision, that if the author should be alive at the end of that period, he should enjoy the copyright during the residue of his life.

But though the Act of 1814 conferred a most important advantage on authors and publishers, it did not satisfy their pretensions, and repeated attempts were subsequently made to have copyrights declared perpetual, or, at all events, to have their term considerably extended. In consequence, after a great deal of discussion, the existing Copyright Act, 5 & 6 Vict. c. 45, was passed in 1842. This statute extends the duration of all copyrights, whether the authors be dead or alive, to *forty-two* years certain: providing, further, that if the author be alive at the expiration of this period of 42 years from the publication of his work, he shall enjoy the copyright to his death, and that his heirs or assigns shall enjoy it for 7 years after that event. We subjoin an abstract of this statute.

Clause 1 repeals former Acts, viz. 8 Anne c. 19, 41 Geo. III. c. 107, and 54 Geo. III. c. 156.

Clause 2 refers to the interpretation of this Act.

Endurance of Term of Copyright in any Book hereafter to be published.—The copyright in every book which shall hereafter be published in the lifetime of its author shall endure for the natural life of such author, and for the further term of 7 years from the time of his death, and shall be the property of such author and his assigns: provided always, that if the said term of 7 years shall expire before the end of 42 years from the first publication of such book, the copyright shall in that case endure for such period of 42 years; and that the copyright in every book which shall be published after the death of its author shall endure

for the term of 42 years from the first publication thereof, and shall be the property of the proprietor of the author's manuscript from which such book shall be first published, and his assignees. (Sec. 3.)

In Cases of subsisting Copyright the Term to be extended.—The copyright which at the time of passing this Act shall subsist in any published book (except as hereinafter mentioned) shall be extended and endure for the full term provided by this Act in cases of books thereafter published, and shall be the property of the person who at the time of passing this Act shall be the proprietor of such copyright: provided, that in all cases in which such copyright shall belong in whole or in part to a publisher or other person who shall have acquired it for other consideration than that of natural love and affection, such copyright shall not be extended by this Act, but shall endure for the term which shall subsist therein at the time of passing this Act, and no longer, unless the author of such book, if he be living, or the personal representative of such author, if he be dead, and the proprietor of such copyright shall, before the expiration of such term, consent and agree to accept the benefits of this Act in respect of such book, in the form given in the schedule annexed to the Act to be entered in the book of registry thereinafter directed to be kept, in which case such copyright shall endure for the full term of the books to be published after the passing of this Act, and shall be the property of such person or persons as in such minute shall be expressed. (Sec. 4.)

Clause 5 gives the Judicial Committee of the Privy Council power to license the republication of such books as the proprietor refuses to republish after death of the author.

Clauses 6 and 7 specify the terms within which copies of books published after the passing of this Act, and of subsequent editions, shall be delivered at the British Museum.

Clause 8 directs that (besides the copy for the British Museum) a copy of every book be delivered within a month after demand to the officer of the Stationers' Company for the following libraries: viz. the Bodleian at Oxford, the Public Library at Cambridge, the Faculty of Advocates at Edinburgh, and that of Trinity College, Dublin.

Clauses 9 and 10 authorise publishers to deliver copies to the libraries, instead of at the Stationers' Company, and impose penalties for default in delivering copies for the use of the said libraries.

Book of Registry to be kept at Stationers' Hall.—A book of registry, wherein may be registered the proprietorship in the copyright of books, and assignments thereof, and in dramatic and musical pieces, whether in manuscript or otherwise, and licenses affecting such copyright shall be kept at the hall of the Stationers' Company, and shall be open to the inspection of any person, on payment of one shilling for every entry searched for or inspected in the said book; and the officer in charge of such book shall, whenever required, give a copy of such entry in such book, certified under his hand, and impressed with the stamp provided by said company for that purpose, to any person requiring the same, on payment of the sum of five shillings; and such copies so certified and impressed shall be received in evidence in all courts and in all summary proceedings, and shall be primâ facie proof of the proprietorship or assignment of copyright or license as therein expressed, and in the case of dramatic or musical pieces shall be primâ facie proof of the right of representation or performance. (Sec. 11.)

Clause 12 enacts that making a false entry in the book of registry shall be a misdemeanour.

Clause 13 enacts that entries of copyright may be made in the book of registry.

Clause 14 enacts that persons aggrieved by any entry in the book of registry may apply to a court of law in term, or judge in vacation, who may order such entry to be varied or expunged.

Remedy for the Piracy of Books by Action on the Case.—If any person shall, in any part of the British dominions, after the passing of this Act, print or cause to be printed, for sale or exportation, any book in which there shall be a subsisting copyright, without the consent in writing of the proprietor, or shall import for sale or hire any such book unlawfully printed from parts beyond the sea, or, knowing such book to have been so unlawfully printed or imported, shall sell, publish, or expose to sale or hire, or shall have in his possession, for sale or hire, any such book without consent as aforesaid, such offender shall be liable to a special action on the case at the suit of the proprietor of such copyright, to be brought in any court of record in that part of the British dominions in which the offence shall be committed: provided always, that in Scotland such offender shall be liable to an action in the Court of Session in Scotland, to be brought and prosecuted in the same manner as any other action of damages to the like amount may be brought and prosecuted there. (Sec. 15.)

Clause 16 enacts that in actions for piracy the defendant shall give notice of the objections to the plaintiff's title on which he means to rely.

Clause 17 enacts that no person, except the proprietor &c., shall import into the British dominions, for sale or hire, any book first composed &c. within the United Kingdom, wherein there shall be copyright, and reprinted elsewhere, under penalty of forfeiture thereof, and also of 10*l.* and double the value. Books may be seized by officers of customs or excise.

Clause 18 relates to and defines the copyright in encyclopædias, periodicals, and works published in a series, reviews, or magazines.

Clause 19 enacts that proprietors of encyclopædias, periodicals, and works published in series, may enter at once at Stationers' Hall, and thereon have the benefit of the registration of the whole.

Clause 20 enacts that the provisions of 3 & 4 Wm. IV. c. 15 shall be extended to musical compositions, and the term of copyright, as provided by this Act, applied to the liberty of representing dramatic pieces and musical compositions.

Clause 23 enacts that pirated books shall become the property of the proprietor of the copyright, and may be recovered by action.

Clause 25 makes copyright personal property.

It was further enacted by the statute 5 & 6 Vict. c. 47 that the importation of all books, of which there is an existing copyright, into the United Kingdom, should be absolutely prohibited from April 1, 1843.

The great practical difficulty in interpreting the Copyright Acts is in distinguishing between an original work and a copy made, animo furandi, from one already in existence. The following is a summary of Mr. Godson's remarks on this subject:—

'The identity of a literary work consists entirely in the *sentiments* and *language*. The same conceptions, clothed in the same words, must necessarily be the same composition; and whatever method is taken of exhibiting that composition to the ear or the eye, by *recital*, or by *writing*, or by *printing*, in any number of copies, or at any period of time, the property of another person has been violated; for the new book is still the identical work of the real author.

'Thus, therefore, a transcript of nearly all the sentiments and language of a book is a glaring piracy. To copy part of a book, either by taking a few pages *verbatim*, when the sentiments are not new, or by imitation of the principal ideas, although the treatises in other respects are different, is also considered to be illegal.

'Although it was held by Ellenborough C.J. that a variance in *form* and *manner* is a variance in *substance*, and that any material alteration which is a *melioration* cannot be considered as a piracy; yet a piracy is committed, whether the author attempt an original work, or call his book an abridgment, if the principal parts of a book are servilely copied or unfairly varied.

'But if the main design be not copied, the circumstance that part of the composition of one author is found in another is not of itself piracy sufficient to support an action. A man may fairly adopt part of the work of another; he may so make use of another's labours for the promotion of science, and the benefit of the public: but having done so, the question will be, Was the matter so taken used fairly with that view, and without what may be termed the animus furandi?

'In judging of a quotation, whether it is fair and candid, or whether the person who quotes has been swayed by the animus furandi, the quantity taken, and the *manner* in which it is adopted, of course must be considered.

'If the work complained of be *in substance* a copy, then it is not necessary to show the intention to pirate; for the greater part of the matter of the book having been purloined, the intention is apparent, and other proof is superfluous. A piracy has undoubtedly been committed.

'But if only a *small portion* of the work is quoted, then it becomes necessary to show that it was done animo furandi, with the intention of depriving the author of his just reward, by giving his work to the public in a cheaper form. And then the *mode* of doing it becomes a subject of enquiry; for it is not sufficient to constitute a piracy, that part of one author's book is found in that of another, unless it be nearly the whole, or so much as will show (being a question of fact for the jury) that it was done with a bad intent, and that the matter which accompanies it has been *colourably* introduced.' (Pp. 215—217.)

'If a work be of such a libellous or mischievous nature as to affect the *public morals*, and that the author cannot maintain an action at law upon it, a court of equity will not interpose with an injunction to protect that which cannot be called property. Even if there be a doubt as to its evil tendency, the Lord Chancellor will not interfere.' (Godson, p. 212.)

II. *Expediency of limiting Copyrights to a reasonable Term.*—It is argued by many that copyrights should be made perpetual; that, were this done, men of talent and learning would devote themselves much more readily than at present to the composition of works requiring great labour; inasmuch as the copyright of such works, were it perpetual, would be an adequate provision for a family. But we doubt much whether these anticipations would be realised. Most books or manuscripts are purchased by the booksellers, or published upon the presumption that there will immediately be a considerable demand for them; and we apprehend that when copyrights are secured for 42 years certain, very little more would be given for them were they made perpetual. When an annuity, or the rent or profit arising out of any fixed and tangible property, with respect to which there can be no risk, is sold, if the number of years for which it is to continue be considerable, the price which it is worth, and which it fetches, does not differ materially from what it would bring were it perpetual. But the copyright of an unpublished work is, of all descriptions of property in which to speculate, the most hazardous, and the chances of reaping contingent advantages from it, at the distance of 42 years, would be worth very little indeed.

Those who write books, and those who publish them, calculate on their obtaining a ready and extensive sale, and on their being indemnified in a few years. Very few authors, and still fewer booksellers, are disposed to look forward to so distant a period even as 28 years for remuneration. They are, with very few exceptions, sanguine enough to suppose that a much shorter term will enable them to reap a full harvest of fame and profit from the publication; and we doubt much whether there be one case in a hundred in which an author would obtain a larger sum for a perpetual copyright than for one that is to continue for the period stipulated in the late Act.

But while the making of copyrights perpetual would not, as it appears to us, be of any material advantage to the authors, there are good grounds for thinking that it would be disadvantageous to the public. Suppose an individual computes a table of logarithms to five or seven places; if his computations be correct, no improvement can be made upon them to the extent at least to which they go. But is he or his assigns to be entitled, in all time to come, to prevent other individuals from publishing similar tables, on the ground of an invasion of private property? Such a pretension could not be admitted without leading to the most mischievous consequences; and yet there is no real ground (though the courts have attempted to make one) on which the claim in question and others of the same description could be resisted, were copyrights made perpetual, and placed in all respects on the same footing as other property. We, therefore, are clearly of opinion that good policy suggests the limitation of the exclusive right of printing and publishing literary works to some such reasonable period as may secure to authors the greater part of the profit to be derived from their works; and that this period being expired, they should become public property.

Perhaps the period of 28 years has been advantageously extended to 42; but we are satisfied that more injury than benefit would result to literature by extending it beyond this term. In France, copyrights continue for 20 years after the death of the author. In most of the German states they are perpetual: this, however, until very recently, hardly indemnified the authors for the ease with which spurious copies might be obtained from other states. But by a resolution of the late German Diet, a copyright secured in one state is good in all.

III. *International Copyrights.*—The establishment of an international copyright system, that should enable the authors of one country to secure the copyright of their works in other countries, has, of late, excited a good deal of attention. We doubt, however, whether the advantages that would result from such a system, were it established, would be so great as many seem to suppose. No doubt it would be advantageous for the authors of popular works in Great Britain and the United States, for example, to be able to secure a copyright in both countries; but the real question is, would the interests of literature and of the public be promoted by such arrangement? Now we incline to think that this question must be answered in

the negative. The single market of either Great Britain or the United States is quite large enough to secure a sale for really good works sufficient to afford ample encouragement to their authors; and such being the case, it is difficult to see on what ground the republication at a cheap rate in the one country of books originally published in the other should be prevented. Indeed, such prevention would appear, by obstructing the circulation of knowledge and of amusement, to be injurious to both. It has, it is true, been alleged, that if we had a copyright system in common with America, English and American books might be published at a less price, inasmuch as the extension of the market would secure them a larger sale. But though this result *might*, we doubt much whether it really *would*, happen. We apprehend that then, as now, authors and publishers would impose such prices on their works as they supposed would realise the largest amount of profit, and that if they thought a high price more likely to do this than a low one, it would be preferred. The extensive reprinting of cheap editions of French works that has for a lengthened period been carried on at Brussels has certainly been disadvantageous to the literati of France. Still, however, the market of that kingdom seems to be sufficiently extensive to insure the unlimited production of works displaying the greatest talent, research, and industry; and it is plain that if the production of valuable works be not checked in France by their being reprinted abroad, the injury done to French men of letters redounds to the advantage of every foreigner who has occasion to look into or consult their works. Every effort should be made to prevent copyrights being invaded by pirates at home, and by the clandestine importation of books printed abroad; but farther than this we should not go. We are well convinced that it is for the advantage of the public and of literature that nations should have full liberty to republish each other's works in such forms and at such times and prices as they may think fit.

The real evil with which our literature has to contend originates in the barefaced piracy carried on at home, and not in the proceedings of foreigners. The latter may, perhaps, interfere a little with the sale of native works, by supplying the public with foreign instead of home editions; but the proceedings of the indigenous pirates are ten times more mischievous. They consist for the most part of knaves and drudges, without talent or learning of any sort, save only that of transmuting and adulterating the labours of others, and disguising their own rascality. Such persons fasten like leeches on any new work of talent, research, and industry; they forthwith announce some system, compilation, or abridgment of the same sort, every idea and statement in which is stolen; and then publish their spurious rubbish at a low price, advertise it as being decidedly the best work on the subject, and find numbers of newspaper writers ready to puff *off* and eulogise their disinterested and meritorious labours! It is difficult, we admit, to deal with such a nuisance, and it cannot, perhaps, be abated by legislation. But while we regret the fact, there cannot, we believe, be a question that courts and juries have for a lengthened period inclined too much to a lenient interpretation of the law as to piracy; and that literary plunderers, whose robberies are but little disguised, too often escape with impunity.

IV. *Taxes on Literature.*—These taxes, if carried beyond their proper limits, become impolitic, oppressive, and unjust; impolitic, because they tend to obstruct the growth and diffusion of knowledge; oppressive, because they sometimes swallow up the entire reward of the labours of the most deserving persons; and unjust, because they are not proportioned to the value of the article on which they are laid, and have not unfrequently to be paid out of capital.

Formerly 11 copies of all new works had to be given to different public libraries. Happily, however, this tax, which not unfrequently prevented the publication of expensive works that had only a limited demand, has been reduced to 5 copies. We incline to think that it is expedient, to secure the preservation of books and to facilitate their consultation, that copies of all works should be deposited in the British Museum, and in libraries in Edinburgh and Dublin. Perhaps it would be right that the public, for whose advantage they are preserved, should pay for such copies; we should not, however, object to the authors doing this, but they should not be required to do more. To call upon them to provide copies for the libraries of rich foundations, like the Universities of Oxford and Cambridge, is a proceeding at variance with every fair principle.

The law of other countries is in this respect preferable to ours. In America, Prussia, Saxony, and Bavaria, only *one* copy of any work is required from the author; in France and Austria, *two* copies are required; and in the Netherlands, *three*.

V. *Book Trade of Great Britain.*—London is the great centre of the British book trade; the number of new publications that issue from its presses being far greater than all that appear in the rest of the empire. Within the course of the last 60 years, however, many very important works have been published in Edinburgh; but the latter, as well as those that appear in Oxford, Cambridge, Glasgow &c., are principally disposed of by the London trade. The booksellers of Edinburgh, and all the provincial towns, have agents in London, to whom they consign a certain number of copies of every work they publish; and to whom, also, they address their orders for copies of such new or old works as they have occasion for. The London booksellers, who act as agents for those in the country, are in the habit of regularly despatching parcels to their correspondents on the last day of each month, with the magazines and other monthly publications; but if any new work of interest appears in the interim, or orders be received from the country that cannot be conveniently deferred to the end of the month, a parcel is immediately forwarded by rail. The booksellers of Edinburgh and Dublin act as agents for those of London, and supply the Scotch and Irish country trade with the metropolitan publications.

The publishers sell the books which they publish to the retailers at certain prices. But, instead of allowing the latter to dispose of these books at prices varying according to the conditions and circumstances under which they might be sold, they endeavoured to compel them to be sold at or near uniform prices fixed by themselves. Thus, if the publishers sold a book to the trade at 9*s*., they fixed the price at which the latter should sell it to the public at 12*s*., or thereby; and they proclaimed that if any retail dealer sold it for less than 10 per cent. under this price, the publishers, who had combined for the purpose, would not supply him with another book! But we are glad to have to state that this audacious attempt to keep up the prices of books at an artificial elevation has completely broken down; and retail dealers who purchase books from publishers may now sell them at any price they please, without

any risk of having their supplies cut off. The credit given by the publishers to the retailers varies from seven to twelve months; a discount being allowed for prompt payment at the rate of 5 per cent. per annum.

From enquiries we have had made with much care and labour, founded on *Low's British Catalogue*, we find that at an average of the 4 years ending with 1852, 3,279 volumes of new works, and 1,101 volumes of new editions and reprints (exclusive of pamphlets and periodical publications), were annually published in Great Britain; and we have farther ascertained that the publication price of the former was 7*s.* 7*d.*, and of the latter 6*s.* 9*d.* a volume. Hence, if we suppose the average impression of each work to have been 750 copies, it will be seen that the total value of the new works annually produced, if they were sold at their publication price, would be 932,465*l.* 12*s.* 6*d.*, and that of the new editions and reprints 278,960*l.* 12*s.* 6*d.*, making together 1,211,156*l.* 5*s.* We believe, however, that if we estimate the price at which the entire impressions of both descriptions of works actually sell at 3*s.* 6*d.* a volume, we shall not be far from the mark; and if so, the real value of the books annually produced will be 574,875*l.* a year. Since this date the production of books in Great Britain has been rapidly increasing, and the amount annually published cannot be less than a third more than the quantity of 1852.

It would be, in many points of view, desirable, were the librarians of the British Museum directed to keep and annually publish an account, classified according to the subject and the size of the works, of all the new British books, pamphlets, and periodical publications that come into their hands, specifying the average publication price of each class. Such a return might be made up with the greatest facility, and would afford authentic information not otherwise attainable.

The old book trade carried on in Great Britain is very extensive, and employs many dealers. The price of old books depends very much on their condition; but, independently of this circumstance, it is very fluctuating and capricious, equally good copies of the same works being frequently to be had in some shops for the half of what they can be bought for in others.

VI. *Regulations as to Importation of Foreign Works.*—To prevent foreign books and maps, the property of individuals, from being charged with duty more than once, the proprietor shall, on each importation subsequent to the original one, declare that the duties were paid when they were first imported, or that he purchased them in this country in a fair way of trade; that they are the identical books or maps he exported from this kingdom, and that they are now brought back for his private use, and not for sale. (*Treasury Order*, October 3, and *Customs Order*, October 8, 1818.)

Individuals coming from foreign parts might, down to April 1, 1843, import as baggage single copies of English works of which the copyright had not expired; but, in consequence of the facilities for smuggling that grew out of this indulgence, it has been withdrawn, and the importation of all English works printed in foreign countries, of which there is an existing copyright, is absolutely prohibited. (5 & 6 Vict. c. 47 s. 21.)

The duty on foreign works produced, in 1852, 7,118*l.* 19*s.* 3*d.* The duty was, however, reduced in 1853, and has since been abolished. [Tariff.]

VII. *Book Trade of France.*—The activity of the French press has been very greatly increased since the commencement of the present century. Count Daru, in his *Notions Statistiques sur la Librairie*, published in 1827, estimated the number of printed sheets, exclusive of newspapers, produced by the French press in 1816, at 66,852,883; and it appears (art. 'Librairie,' *Dict. du Commerce*) that in 1836 the number of printed sheets (ex. newspapers) had increased to 118,857,000. Between the years 1812 and 1859 inclusive, the number of works published in France, exclusive of engravings, musical compositions, and newspapers, amounted to 321,950. The quality of many of the works that have recently issued from the French press is also very superior; and it may be doubted whether such works as the *Biographie Universelle*, the new and enlarged edition of the *Art de vérifier les Dates*, in 42 vols. octavo, and the 2 octavo editions of Bayle's *Dictionary*, could have been published in any other country. The greater number of new French works of merit, or which it is supposed will command a considerable sale, are immediately reprinted in the Netherlands or Switzerland, but principally in the former. To such an extent is this practice carried, that a single bookseller in Brussels has reprinted as many as 150,000 volumes of new French works in the course of a single year!

All the French booksellers are *brevetés*, that is, licensed, and sworn to abide by certain prescribed rules. This regulation is complained of by the publishers, as tending to lessen the number of retail booksellers in the country, and to prevent that competition which is so advantageous.

The discount allowed by the French publishers to the retail dealers is not regulated, as in England, by the size of the volumes, but by the subjects. The discount on the sale of books of history, criticism, and general literature, is usually about 25 per cent.; in the case of mathematical and strictly scientific works, it is seldom more than 10 or 15 per cent.; while upon romances, tales, &c. it is often as high as 50 or 60 per cent.

VIII. *German Book Trade.*—This trade is very much facilitated by the book fairs at Leipsic; the Easter fair being frequented by all the booksellers of Germany, and by those of some of the neighbouring countries, as of France, Switzerland, Denmark, Livonia &c., in order to settle their mutual accounts, and to form new connections. The German publisher sends his publications to the keeper of assortments *à condition*, that is, on commission, for a certain time, after which the latter pays for what have been sold, and may return the remainder. This is not so favourable for the publisher as the custom in the French and English book trades, where the keepers of assortments take the quantity they want at a fixed rate. In the German book trade it is the custom for almost every house, either in the country or abroad, which publishes or sells German books, to have its agent at Leipsic, who receives and distributes its publications. A, of Riga, who publishes a book calculated for the German trade, has his agent B in Leipsic, to whom he sends, free of expense, a number of copies of his publication, that he may distribute the new work to all the booksellers with whom he is connected, from Vienna to Hamburg, and from Strasburg to Königsberg, each of whom has his agent in Leipsic. Instructions are also given as to the number of copies to be sent to each. B delivers those copies in Leipsic to the agents, who send them every week, or more or less frequently, by the post or by carriers, at the expense of the receiver. C, of Strasburg, who finds that he has not received copies enough, writes for an additional number of copies to his agent D of Leipsic: D gives this order to B, who delivers

the number wanted to D to be transmitted to C. This arrangement is advantageous to the German book trade as well as to Leipsic. The dealer receives everything from Leipsic; and as a great number of packets, with books from all parts of Germany, arrive there for him every week, he can have them packed together and sent at once. The carriage is thus much less than if the packets were sent to him separately from the different places, and the whole business is simplified. The booksellers are also enabled to agree with ease on a certain discount per cent. No such intimate connection of the booksellers has yet been formed in any other country. The German booksellers rarely unite, as is the practice in England, in undertaking the publication of extensive works.' (*German Conversations-Lexicon*, American edition.)

The literary deluge which commenced in Germany in 1814 still continues to increase. For the 2,000 works which were then about the annual complement, we have now perhaps 10 times as many. Magazines and Encyclopædias have increased in the same proportion, and the public has shown as great a desire to read as the learned have to write. Private libraries are diminishing, while the public ones are daily increasing.

BOOTS AND SHOES. The external covering for the legs and feet, too well known to require any description. (For an account of the value of the boots and shoes annually produced in Great Britain, see LEATHER.)

BORAX or TINCAL (Arab. burak; Pers. tunkar). A compound of soda and boracic acid. It exists native, and is also prepared artificially. It is found in Europe, in Peru, and in the republic of Ecuador, in a mineral which is called finkalzite, and which appears to be a mixed borate of soda and lime. But the principal source of native borax is the lakes of Thibet and Persia, from which it is obtained by spontaneous evaporation. The impure borax called tincal crystallises on the borders of the lakes. It is always covered with an earthy coating, greasy to the touch. This appearance is derived from a fatty matter. There is also a tincal exported from China, and it is reported that borax is found in vast quantities in California.

The purification of borax was originally a secret possessed by the Dutch and Venetians only, but is now, owing to the development of chemical science, practised in most manufacturing countries. The chief peculiarity in the refining of borax consists in separating the fatty matter by means of lime, which forms an insoluble soap, and by getting rid of saline impurities by careful crystallisation.

Artificial Borax.—Large quantities of borax are now manufactured by direct combination of boracic acid and soda. This acid is produced in large quantities in certain parts of the Italian volcanic field, and especially in a region in Tuscany. The soil in this district is cleft by numerous fissures, which form a vent for hot vapours, called soffioni. The process is to build a basin of masonry round several of these fissures, so as to form a lagoon; water being introduced from a neighbouring stream. The water, owing to the heat of the emitted vapour, gradually boils, and becomes impregnated with boracic acid. It is then drawn off and evaporated in leaden pans, the heat being supplied as before by the steam issuing from the earth. The produce of these works is annually increasing. In 1845 it was nearly 1,000 tons, in 1855 it was over 1,800. The boracic acid is then saturated with carbonate of soda. It may be added that the origin of this acid is exceedingly obscure. It is not found in the extruded gases, nor in the soil; but as boracic acid is volatilised by the aid of steam, it seems that it is carried mechanically to the lagoon.

Borax has an alkaline reaction. Its chief uses are as a flux for metals; as a material to facilitate the soldering of metallic surfaces, which it seems to effect by preventing oxidation; as an ingredient in glass and porcelain; and as a medicine.

The duties on borax were repealed in 1845.

BORDEAUX. A large and opulent city of France, on the Garonne, about 75 miles from its mouth. Latitude 40° 50′ 26″ North; Longitude 0° 34′ West. Population in 1865, 173,300. The commerce of Bordeaux is very extensive, but the most important article is that of wine. The Garonne, which at its confluence with the river Dordogne about 18 miles below Bordeaux changes its name and becomes the *Gironde* thence to the sea, is a noble river, with depth of water sufficient to enable large ships to come up to the city, laying open, in conjunction with the Dordogne and their tributary streams, a large extent of country. The commerce of Bordeaux has been considerably extended since the introduction of railroads. Formerly the *Grand Canal du Languedoc*, extending from Toulouse to Cette on the Mediterranean, was the principal channel for the transport of goods between Bordeaux and the south of France. But since the establishment of the 'Compagnie des Chemins de Fer du Midi,' which now farms this canal, and whose interest it is to divert from it its usual traffic in order to favour their own line, it has lost much of its importance. Wine, brandy, fruit, grain and seeds, resin, turpentine, pine timber for railroad purposes and pit-props, are the staple articles of export; but the generality of merchants confine themselves more especially to the wine trade. Most part of their other business is confined to dealing on commission, but this they conduct almost invariably on their own account. The reason they assign for this is, that the difficulties attending the purchase and subsequent care of wines so as to render them fit for exportation are so very great as to make it almost impossible to conduct the business on anything like ordinary terms, so as to satisfy their employers. Colonial produce, cotton, dye stuffs, hides, tobacco, rice, coffee, sugar, cocoa, pepper, form the principal articles of import.

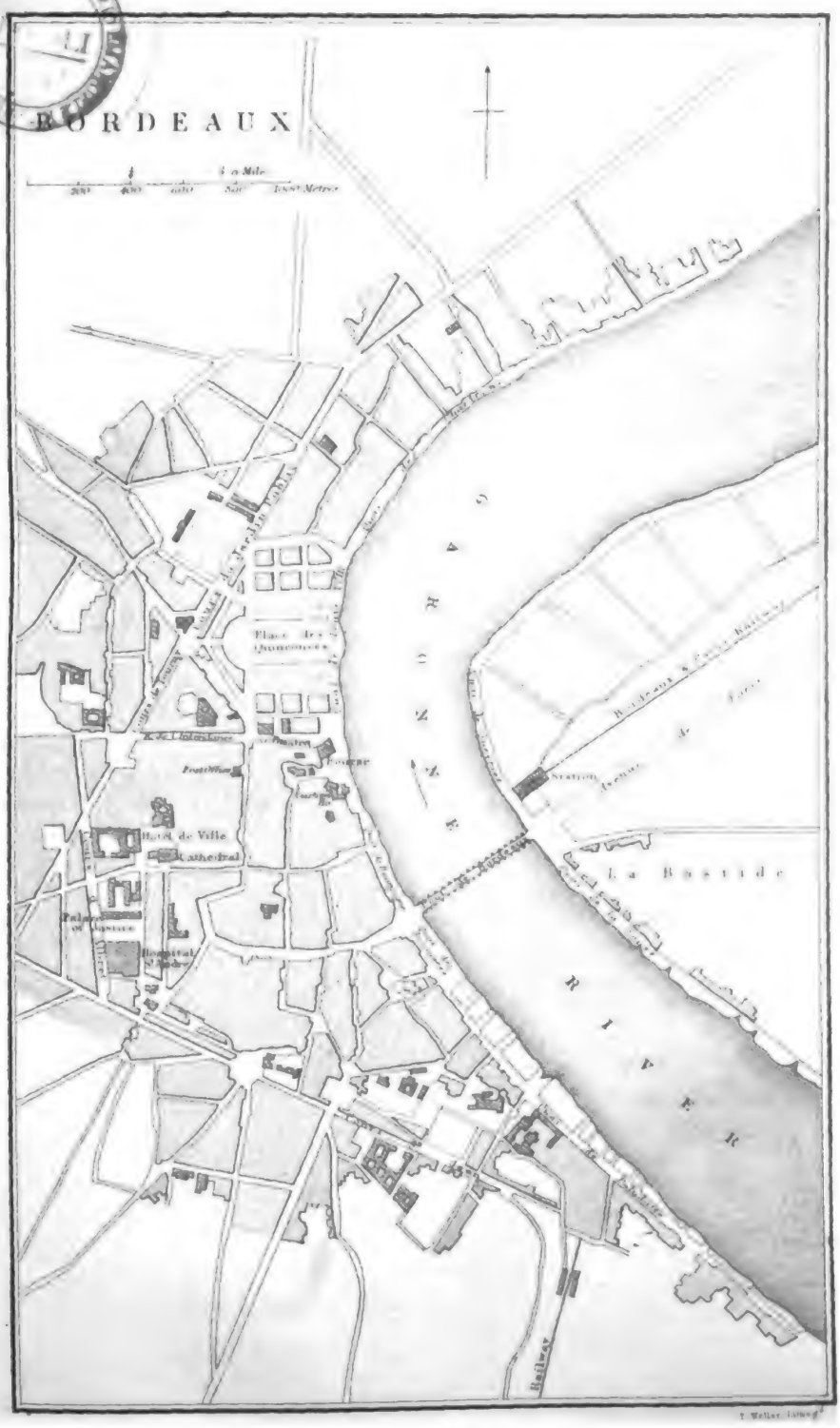
Money.—Money is the same in Bordeaux as in other parts of France. All accounts are kept in francs, the par of exchange being 25 francs the pound sterling.

Weights and Measures.—The decimal system has entirely superseded the old system.

The old measure of the *velte* has long since been abolished. Wine is sold by the tun of 4 hogsheads of 225 litres each, equal to 50 gallons; brandy and spirits by the hectolitre; oil by 100 kilogrammes.

Entrance to the River.—Since the last publication of this Dictionary great improvements have been effected. The entrance as well as the whole course of the river up to Bordeaux have been thoroughly buoyed, and many additional lights and beacons have been added. The passes have been greatly improved by the works effected under the directions of the Government engineers; and though the navigation for vessels of high tonnage is still intricate, it has been rendered much more safe than it was formerly. (*Consular Report to the Admiralty*, August 11, 1860.)

Port Charges.—The following is an account of charges and harbour dues levied at Bordeaux on British shipping trading between British possessions in Europe and this port.



London Longmans & Co



Pro formâ Shipbroker's Bill for a Vessel of 300 tons with Cargo from an English Port in Europe, and returning home in ballast.

	fr.	cts.
To report and pilotage from sea to Bordeaux (draught of water 17 feet)	275	25
Lazaretto dues, 10 cents. per register ton	0	0
Moving vessel up and mooring her	10	0
Entering the vessel at Custom House and other offices, and brokerage inwards, at 50 cents. per ton (whether laden or in ballast)	150	0
Declaration and protest at the Custom House (if any), including stamps and registering and declaration at the Tribunal of Commerce (when required)	38	35
Advertisements in the papers against trusting the crew, and for freight and passengers (optional)	27	0
Tonnage money and navigation dues, as per receipts, on French measurement, about 310 tons, at 1 fr. per ton. Double decime thereon, clearance and stamps	387	0
Clearances at sundry offices	10	0
Manifest and freight list (if any)	12	0
Consul's bill (if any).		
Ballast taken in, from 1 fr. 10 cents. to 1 fr. 25 cents. per ton		
Pilotage from Bordeaux to sea, in ballast (draught of water 10 feet)	123	20
Care, attendance, and brokerage, outwards, 50 cents. per ton (in ballast)	150	0
Mooring buoys, 10 cents. per ton and per month	30	0

N. B. Brokerage outward, when laden and chartered lump sum 1 fr. per ton measurement; when laden otherwise, 1 fr. 50 cts. per ton of goods taken in.

Quayage and use of cranes to deliver or take in goods, 1 fr. per ton, paid by the shippers.

Use of cranes to take goods out of the hold on deck, 60 cents. per ton, paid by the ship.

To moor and unmoor ship to and from the quay a drayman is employed, and is paid 15 frs. for each operation. If the ship can spare no hands to assist in mooring, labourers are employed at the rate of 5 frs. each.

British ships coming from or going elsewhere than British possessions in Europe pay foreign navigation dues, that is 3 fr. 75 c. instead of 1 fr. per ton, and the pilotage is one half more than in the former case, and the clearance at the customs is 36 fr. instead of 15 (for vessels of 300 tons).

Bordeaux is a favourable place for repairing and careening ships, and for obtaining supplies of all sorts of stores.

The following is a statement of the number and tonnage of vessels entered and cleared at the port of Bordeaux in the year 1864:—

	vessels	tons
Entered	1,488	356,565
Cleared	1,455	379,291

The relative proportions of British and French vessels were:—

British: vessels entered	397	121,626	
cleared	391	119,838	
French: vessels entered	734	142,917	
cleared	707	167,145	

(See also *Detailed Report showing the Regulations &c. respecting Shipping*, transmitted to the Board of Trade, Nov. 1855.)

Coasting Trade.—1,644 French vessels of 129,762 tons entered, and 1,745 vessels of the same nation of 116,714 tons cleared, during the year 1864.

Banking Establishment.—There is only one bank in Bordeaux, which formerly was in the hands of a local company, but was incorporated in 1848 in the 'Banque de France.' It is now called 'succursale de la Banque de France,' and all its operations are conducted according to the statutes and regulations of that establishment.

Brokers.—No one is allowed to act as a mercantile broker in France who has not attained the age of twenty-five years, and who, being a French subject or being naturalised, has not served four years in a mercantile house or with a broker.

They are nominated by the Emperor after their qualifications have been ascertained by the Chamber of Commerce.

All foreigners are obliged to employ ship brokers to transact their business at the custom-house; and although masters and owners of French vessels might sometimes dispense with their services, they never do so, finding it to be, in all cases, most advantageous to use their intervention. All duties outward on vessels and cargoes are paid by the ship brokers, who invariably clear out all vessels, French as well as foreign.

All goods brokers must deposit in the treasury, as a guarantee, the sum of 8,000 francs if of the first category, or 4,000 francs if of the second.

The first category comprises the brokers exercising their functions in the city of Bordeaux; the second, those similarly employed in the various arrondissements.

The insurance, ship, and money and exchange brokers are subjected to the same rules and regulations as the goods brokers, but the deposit of the money brokers is 30,000 francs instead of 8,000.

At the present moment there are 28 goods brokers; 22 ship brokers; 20 money and exchange brokers; 15 wine and spirit brokers; 7 insurance brokers.

Rates of Commission.

Shipbrokers.

	per ton. fr.	cent.
On foreign going vessels:		
Arriving laden or in ballast	0	50
Departing in ballast	0	50
Loaded per charter-party, or on owner's account	1	0
Loaded on freight (not chartered)	1	50
On coasters:		
No regular, but very moderate charges.		
On goods shipped:		
In foreign-going ships	2	0
In coasters trading to and from all French ports, except those on the Mediterranean	1	50
In coasters trading only to ports between Bordeaux and Nantes inclusively	1	0

Goods Brokers.

On most goods, principally colonial, with the exception of cotton, sugar, and molasses, ½ per cent. paid by the purchaser.
On molasses, 1 per cent. paid by the purchaser.
On cotton and sugar, ½ per cent., that is ¼ per cent. paid by the seller and ¼ by the purchaser.

	per ton. fr.	cent.
On prunes, paid by the purchaser		
per ¼ case, 1st quality	0	40
per 50 kilos, 2nd quality	1	0
per cask of 200 kilos, common	0	60
100 ,, ,,	0	40
60 ,, ,,	0	30
On walnuts, per bag	0	25

The following goods pay a commission of ½ per cent.; that is, ¼ by the seller and ¼ by the buyer.

Oats.	Seeds:	Rape.	Verdigris.
Wheat.	Linseed.	Juniper berries.	Argol
Maize.	Mustard.	Horse grease.	Neat's foot oil.
Barley.	Sesamum.	Guinea cloth.	Cotton.
Rye.	Clover.	Hops.	Raw sugar.
Flour.	Poppy.	Raisins.	

Brandy and Spirits Brokers.

Alcohol, per pipe 1 fr. 50 by seller and 1 fr. 50 by buyer.

		per cent.		per cent.	
Brandy per cask of 4 hectols.	1	0 by seller	1	0 by buyer.	
Cognac ,, ,, 5 ,,	2	0 ,,	2	0 ,,	
,, ,, ,, 3 ,,	1	50 ,,	1	50 ,,	
,, ,, ,, 2 ,,	1	0 ,,	1	0 ,,	
,, per case of 12 bottles	12	½ ,,	12	½ ,,	

Rum, ½ per cent. the seller, and ½ per cent. the buyer.

Wine Brokers.—2 per cent. paid by the seller per tun of 4 hogsheads. When wine is sold under 150 francs the tun, the broker's commission, paid by the seller, is 3 francs per tun.

Insurance Brokers.—⅛ per cent. on the capital insured.

Money and Exchange Brokers.—⅛ per cent.

The *exchange* or *money brokers* of Bordeaux follow a kind of business pretty similar to the London private bankers. They receive, negotiate, and pay bills and orders of such houses as have accounts open with them, charging and allowing an interest on balances, which varies from 3½ to 4½ per cent., according to circumstances. They charge ¼ per cent. for negotiating bills, and ⅛ per cent. on all the payments they make.

There are, besides, numerous capitalists who employ their spare funds in discounting bills. They prefer bills at long dates, and take from 3 to

6 per cent. discount, according to the confidence they have in the paper presented.

There are not wanting individuals who guarantee, with their names, every sort of paper presented, taking from 5 to 60 per cent. for the risk.

Merchants' Commissions.—2 per cent. on current affairs, 5 per cent. on litigious affairs, variable on goods in transitu, ½ per cent. on insurances.

For a considerable portion of the above valuable information on the trade of Bordeaux we are indebted to Mr. Scott, her Majesty's consul at Bordeaux.

Quarantine.—Quarantine can be performed in the river Gironde, in the neighbourhood of Pauillac, a small port about 30 miles below Bordeaux. The old Lazaretto has been pulled down as being uselessly large, and a smaller and more appropriate establishment is erecting.

Colonial produce, spices, dye-stuffs, and metals are usually sold for cash, with 3 per cent. discount. Corn, flour, brandy, and several other articles, are sold for nett cash, without discount.

The usage is generally established in Bordeaux to consider all paper having less than 30 days to run *as cash*; and with such all payments are made, where there is not an express stipulation to be paid in coin.

Tares.—The tares allowed at Bordeaux are the following:—

Tares allowed by the Custom House.

		per cent.
Anchovies. In small kegs of 5 kilos, 1-6th of their weight		
Cocoa: in cases or casks		12
in bales or bags		3
Coffee: in casks		12
in bales or bags		3
in the husk		10
in pellicle		20
Cotton, Turkish: in small bales of coarse bullrush mats, of coarse goat hair		10
of other countries in small bales, less than 50 kilos		8
in bales above 50 kilos		6
Indigo: in cases or casks enclosing a leather bag		21
a canvas bag		14
in cases		12
in serons		9
in canvas bags		2
Pepper: in bales, small bales or bags		3
Sugar: in casks or cases		13
in bales or bags, with double packages		4
in canisters		8
All other goods: in casks or cases		12
in bales, small bales or bags		2

Tares allowed in Commerce between Merchants.

Aloes	sold nett weight
Almonds, in double packing	1st packing deducted
Arsenic	nett
Asafœtida	nett
Annatto, besides 16 per cent. for vacant space	16 per cent. and 4 per cent. tret
Bark (Peruvian), in serons	10 kilos per seron
Cutch	1 per cent.
Cocoa: in casks	nett
bags weighing 60 kilos or less	1 kilo per bag
60, 50 to 75 kilos	1½ ,,
75, 50 and upwards	2 ,,
Coffee: in casks	nett
bags	as for cocoa
Mocha	real tare
Cinnamon	,,
Cochineal	nett
Cotton: in square bales	6 per cent.
round ,,	4 ,,
small ,,	8 ,,
Indian ,,	5 ,,
Cream of tartar	real tare
Copper	nett, tret 1 per cent.
Cloves	real tare
Earth nuts	to agreement
Galls	rough weight
Ginger: in bags	1 kilo per bag
small bags	real tare
Gums: in casks	nett
bags	1 kilo per bag
Hair (cattle)	5 per cent.
Indigo: in cases	nett
serons weighing 55 kilos or less	5 kilos per seron
55, 60 to 65 kilos	7 ,,
65, 70 to 75 ,,	9 ,,
75, 75 to 95 ,,	10 ,,
95 and upwards	11 ,,
Besides 1 kilo for mats	
Juniper berries	rough weight
Jalap: in serons	7 kilos per seron
Litharge	nett
Liquorice: in single packing	rough weight
Manganese	nett
Molasses	real tare
Mother of pearl (shells)	nett
Nutmegs	,,
Oil, whale: in casks of 250 kilos and upwards	18 per cent. and tret 1 per cent.
less than 250 kilos	20 per cent.
Oil, rape	nett
olive: in casks	18 per cent. and 1½ kilo. tret
cod fish ,,	20 per cent. and 1 kilo. tret
Pimento: in large bales	5½ kilos per bale
smaller ,,	real tare
Pepper: in bales	4 kilos per bale
Pot and pearl ashes	12 per cent.
Prunes	nett
Quercitron	12 per cent.
Rosin	nett
Rice: in casks	12 per cent.
bags	as for cocoa
Seeds: aniseed	rough weight
,, linseed (Indian), in bags	nett
,, lucern (produce of the country), in bales	2 kilos per bale
,, ,, (South American) ,,	nett
,, clover, in bales	2 kilos per bale
Safflower	8 per cent.
Sago	real tare
Salt	nett
Saltpetre	3 per cent.
Sarsaparilla: in bales	tret 1½ kilo.
Soap	nett
Sugar: raw, in hogsheads	15 per cent.
tierces	16 ,,
quarts	17 ,,
bales (Mauritius, Reunion and Manilla)	8 ,,
canvas bags	5 ,,
double packing	6 ,,
clayed, in hogsheads (Hayti, Martinico, and Guadaloupe)	15 ,,
tierces	14 ,,
quarts	15 ,,
cases (Havana and Porto Rico)	13 ,,
cases (Brazil)	17 ,,
bales (Vera Cruz)	6 kilos per bale
of 75 kilos and upwards (India)	6 ,,
of less than 75 kilos (India)	5 ,,
(Manilla)	8 ,,
(Batavia)	3 kilos per bale
canisters of 175 kilos and upwards	21 ,,
less than 175 kilos	as agreed
loaf	nett
Shumac	rough weight
Turmeric: in bags	1 kilo per bag
smaller bags	real weight
Tin	tret 1 per cent.
Tallow: Russian	14 per cent.
Buenos Ayres and United States	varies according to kind of package
Bordeaux	nett
Tobacco	14 per cent.
Turpentine	real tare
Tea	,,
Vanilla	nett
Verdigris	real tare
Wool	5 per cent.
Wood (dyeing)	tret 1 per cent.
Madder	nett

Bordeaux possesses some iron founderies, cotton factories, sugar refineries, glass works &c.; but labour and living are too high to admit of its becoming a considerable manufacturing city.

Insurance of ships, houses, and lives is effected at Bordeaux. The first is carried on partly by individuals, and partly by companies; the last two by companies only. The partners in these associations are generally liable only to the amount of the shares they respectively hold.

For statements as to the *Warehousing System, Smuggling, &c.* the reader is referred to the article HAVRE.

Bordeaux Wine Trade.—The cultivation of the vine has greatly increased since 1834, except in a portion of the white wine district; though for many years, owing to the vine disease, the quantity of wine produced fell short of what it ought to have been. The disease has, however, gradually diminished, and had almost entirely disappeared in 1864, which year may be considered to have produced a low average quantity.

The average production of the vines in the Department of the Gironde, for the five years ending with 1864, amounted to 231,404,400 litres (257,116 tuns), equal to 50,908,968 gallons.

The red wines of the Gironde may be divided into three categories, the first of which is divided into several classes.

The first category includes the five classes of

the superior *crûs* (growths) and the *crûs bourgeois* of Médoc.

The second category includes the Vins de Graves, St. Emilion, Blaye and Bourg, Vins de Côtes, and Vins de Paysans du Médoc.

The third category, Vins de Palus and Entre deux Mers (district lying between the two rivers), Bas Médoc, and Cargo wines.

The first category is divided into five sub-classes, according to the excellence of the wines, besides the *crûs bourgeois*, all of which are the produce of the *Haut Médoc*.

The first class comprises the Lafite, the Latour, the Château Margaux, and the Hautbrion. The first three are the produce of the district of Haut Médoc, N.W. of Bordeaux, and the last of the district called des Graves. These wines are all of the highest excellence; their produce is very limited, and in favourable years sells at from 3,000 to 4,000 fr. per tun, which contains 210 imp. gallons, but when they have been kept in the cellar for 6 years, the price is doubled, so that even in Bordeaux a bottle of the best wine cannot be had for less than 6 or 7 fr. The Lafite is the most choice and delicate, and is characterised by its silky softness on the palate and its charming perfume, which partakes of the nature of the violet and raspberry. The Latour has a fuller body, and at the same time a considerable aroma, but wants the softness of the Lafite. The Château Margaux on the other hand is lighter, and possesses all the delicate qualities of the Lafite, except that it has not quite so high a flavour. The Hautbrion again has more spirit and body than any of the preceding, but is rough when new, and requires to be kept 6 or 7 years in wood; while the others become fit for bottling in much less time. (Henderson *On Wines*, p. 184.)

The second class comprises the growths of Mouton, Léoville, Larose, Pichon &c.

The third class comprises the growths of Langoa, La Grange, Giscours, Palmer, Kirwan &c.

The fourth class comprises the growths of St. Pièvre, Château Beycheval, Duluc, Carnel &c.

The fifth class comprises the growths Canet, Batailley, Grand Puy, Lynch, D'Armailhac, Cantemerle &c.

The *crûs bourgeois*, inferior to the last named, but superior to the Vins de paysans, all of which are likewise the produce of Haut Médoc. The principal parishes in which all these wines are produced are Macan, Labarde, Cantenac, Margaux, St. Julien, Pauillac, and St. Estêphe.

The production of the five categories of *crûs classés* was estimated, in 1864, at about 5,000 tuns, the prices ranging between 5,000 francs for the first growths to 1,200 francs for the fifth growths. The *crûs bourgeois* produced 7,500 tuns, and prices varied from 700 to 1,200 francs.

The district of Blaye and Bourg produced about 30,000 tuns. Prices varied from 200 francs to 450 francs per tun.

The district of Libourne produced about 50,000 tuns, varying in price from 300 francs to 1,000 francs per tun.

The other districts produced about 157,000 tuns, varying in price from 120 francs to 400 francs per tun.

The white wines of the first quality are produced in the districts of Sauterne, Bommes, Preignac, and Barsac. They are divided into three classes, besides the common kinds; the average quantity of the two first classes is about 950 tuns, of the third about 700 tuns. In 1864 the quantity of the two first classes was 635 tuns, but their high prices have hitherto interfered with their sale.

The quantity produced of other classes, including the *Vins de Graves*, amounted to about 2,200 tuns, and their prices ranged from 240 francs to 500 francs per tun, with the exception of the higher kinds of *Graves*.

The production of the classed white wines has remained stationary, but that of the unclassed wines has decreased to the extent of two thirds, owing to the invasion of the oïdium, which, since 1852, has forced many proprietors to pull up the greatest part of their vines.

Annual Average Exports of Wine at the Port of Bordeaux for the Five Years 1860–1864.

Countries to which exported	Quantities	
	Litres	Gallons
The United Kingdom	6,101,457	1,342,980
The Hanse Towns	5,071,528	1,115,736
Holland	4,645,125	1,021,927
Belgium	4,596,372	1,011,202
The German Commercial Union	2,659,903	585,178
Sweden and Norway	743,140	163,492
Hanover	660,864	145,390
Mecklenburg	386,232	84,971
Denmark	359,360	79,046
Russia	147,058	32,350
Spain	59,280	13,041
Portugal	11,027	2,426
Austria	10,257	2,256
Italy	328	72
Total exports to Europe	25,455,151	5,600,127
The United States	8,283,464	1,822,362
River Plate	7,089,320	1,559,650
British Colonies	6,539,223	1,438,629
French Colonies	5,372,564	1,181,964
Uruguay	3,850,268	842,659
Brazil	1,454,987	320,097
Peru	845,869	186,091
Mexico	825,535	181,618
Spanish Colonies	663,918	146,062
China and Cochin China	614,357	135,158
Chile	551,597	116,951
Venezuela	201,341	147,044
Oceania	172,102	37,862
Equator	130,808	28,778
New Granada	169,971	37,398
Dutch Colonies	127,455	28,040
Danish Colonies	114,744	25,243
Hayti	48,095	10,581
Guatemala	34,782	7,652
West coast of Africa	28,356	6,238
Total exports to sundry colonies	37,079,076	8,261,046
Recapitulation:		
Exports to Europe	25,455,151	5,600,127
Colonies	37,079,076	8,261,046
Sundry places	3,651	803
Total	62,537,878	13,861,976

The unclassed wines of *Médoc* were estimated at about 40,000 tuns, varying in price from 250 francs to 600 francs per tun.

The expenses attending the cultivation of the vine, including the vintage, in the district of *Médoc*, where, owing to the superior value of the wine, no expense is spared in producing the greatest quantity and the best quality, are estimated at about 300 francs per *journal*, equal to ¼ *hectare*, or 3 roods, 6 poles English measure, besides the interest on the capital, to which must be added, in years when the wine is not immediately disposed of, the expense of keeping and loss in ullage.

The produce of a *journal* is estimated as follows:—

On the light sandy soils, 1 to 2 hogsheads; on the good average soil of *Médoc*, 2 to 3 hogsheads; on the strong alluvial soils, where the wines are of the commonest kinds, up to as much as 6 tuns.

The merchants generally purchase the finest *crûs* as soon as they can judge their character. The system of farming certain of them for a number of years is almost entirely exploded, as experience has shown that such an operation is a very losing concern. The wines are transported to the private establishments of the purchasers in Bordeaux, so situated as to insure an equable temperature throughout the year; and in these they ripen and undergo all the different processes of fining, racking, mixing &c. considered necessary to bring them to the requisite condition for sale.

The old custom of adapting Bordeaux wines to the taste of the English market has entirely ceased here for many years past. The taste for pure wines having generally superseded that for the heavily loaded wines of the former generation, the wine merchants of Bordeaux have ceased the operation of blending their wines with the strong, full-bodied, and high-flavoured wines of the Rhone, such as Hermitage, côte rotie, croze &c., and the still more heavy wines of Catalonia. In former days, the greatest portion of the wines of the Rhone were imported into Bordeaux for the above specified purpose; but at the present time, and for several years past, the purchase of them has entirely ceased, and they take another direction, that of Burgundy, or direct to England, where the operation formerly practised in Bordeaux is said still to prevail.

The wines shipped under the titles of Lafite, Latour, and Château Margaux are also freely mixed with the wines of the surrounding vineyards, which, from the nature of the soil, proximity, and mode of cultivation, cannot differ materially.

Other good wines are also said to enter largely into the composition of these celebrated *crûs*. Some houses pretend to keep their wines pure, but the practice of mixing is at any rate very general.

The purchase of the wines, whether from the grower or the merchant, is effected through brokers. There are a few of them who have the reputation of accuracy in dissecting the different flavours, and in tracing the results of the wine by certain measures of training and treatment.

England consumes the greatest portion of the high-classed wines, besides a large share of the lower kinds, especially since the Treaty of Commerce with France. A certain quantity is taken by the Russians and citizens of the United States; the remainder is consumed in Bordeaux or in Paris, where, owing to increase of wealth, high-priced wines are now in demand.

The wines of inferior quality and value are exported to various parts of the Continent of Europe, and wherever a demand may exist. The wines known as *Cargo Wine* are the least valuable. They are chiefly from the district of 'Entre deux Mers,' but for several years past, and more particularly since the diminution in the production of wine, many of these wines are so manufactured that it is hardly possible to know of what they are composed. The best, however, are a mixture of the common white wines, the coarse dark-coloured wines of the south, such as Narbonne, Roussillon &c., and a certain quantity of distilled water. They can be put on board at 2*l.* per hogshead and upwards, and at 5*s.* per case of 12 bottles. These kinds of wine, when properly prepared, will last sound two or three years, whether in wood or in bottle, and bear the sea-carriage well; a vast quantity being exported to North and South America, the colonies, the south coast of Africa, and India.

The practice formerly pursued by the Dutch, as described in the first edition of this Dictionary, of sending ships with supercargoes to purchase the wines, has been modified—the purchases for that country being now in some cases conducted by the purchasers personally under the guidance of a merchant of Bordeaux, to whom is intrusted the shipment of their purchases. In others, the Bordeaux merchants are employed to purchase, ship &c., without the presence of the Dutch purchaser—a commission being allowed on all these operations. Many Bordeaux merchants connected with Holland speculate on their own account, sending samples of their purchases to their customers. They seldom purchase old wines, or those of full body, as the prevalent taste in Holland is for new and light wines.

Brandies and Spirits of Wine.—The quantity distilled in the Department of the Gironde has been very insignificant for several years past. Notwithstanding the increase of the cultivation of the vine, the oïdium or vine disease reduced the quantity so greatly below the average as to increase the price even of the lowest qualities, from which brandy is made, to such an extent that far greater profits were derived from the sale of the wines than from the distilling of them into spirits. The manufacture of brandy may therefore be said to have been confined exclusively to the neighbouring countries of Armagnac and Marmande.

The district of Armagnac produces yearly on an average about 40,000 to 50,000 pieces, of 4 hectolitres each, and the present price is 72 francs per hectolitre.

The district of Marmande produces from 10,000 to 15,000 pieces, valued at 58 francs per hectolitre.

Languedoc produces annually about 40,000 pieces, of 80 veltes each, the greater part of which comes to Bordeaux to be forwarded to the different ports of the north of France, or to foreign countries. France consumes about two-thirds of the above quantity; the remaining one-third goes to the north of Europe. The prices of brandy are from 130 fr. to 150 fr. per 50 veltes, ordinary proof; spirits of wine, from 4 fr. to 5 fr. per velte.

The greatest shipments of brandy take place to England from the port of Tonnay-Charente, on the Charente. Cognac, from which the brandy takes its name, and where there are large distilleries, is a few leagues up the river. The quantity exported is far greater than what is made at Cognac; the two leading distillers there (Martell and Hennessy) buying great quantities from the small cultivators. The greater part of the wines made about Angoulême, and thence down toward the sea, are of inferior quality, and fit only for making brandy; and so little do the prices vary, that the proprietors look upon it nearly in the same light as gold. When they augment their capital by savings or profits, it is employed in keeping a larger stock of brandy, which has the further advantage of paying the interest of their capital by its improved value from age. England is said to receive upwards of 6,000 pieces annually from Charente.

A very large proportion of these brandies is sent to Bordeaux, where they are converted into common or cargo Cognac, and sent off as such to various parts of the world. The remainder finds its way pure to various parts of France, or is employed here for brandied fruits, liqueurs, and cordials.

At Bordeaux, as at Paris and Marseilles, there is a constant gambling business in time bargains of spirits of wine. It is in the form of spirits of wine that nearly all the brandy consumed in France is expedited, as in this form there is a great saving in carriage. (For an official account of the exports of wine and brandy from France, see Wine.)

Export of Fruits.—The fruit exported consists of prunes, almonds, walnuts, apples &c.

The influx of the South American Spaniards, which was noted thirty years ago, has long since ceased. Many of those who at that time had settled in Bordeaux have either died or left it altogether, and their capital has gone with them. At the present time there are few existing, and the trade with the South American continent has again fallen into the hands of the French merchants. Many of these capitalists embarked in speculations

which did not succeed, and much of the fortune they had brought with them was thus dissipated.

Annual Average Exports of Brandy at the Port of Bordeaux, for the last 5 Years, 1860—1864.

Countries to which exported	Quantities	
	Litres	Gallons
The United Kingdom	707,044	155,558
Sweden and Norway	337,083	74,158
Hanse Towns	248,919	54,762
Holland	206,593	45,450
Belgium	118,223	26,009
Russia	106,210	23,366
German Commercial Union	87,473	19,244
Denmark	34,225	7,529
Spain	18,536	4,078
Portugal	9,556	2,102
Hanover	7,681	1,690
Total exports to Europe	1,881,373	413,900
The United States	2,024,221	445,329
British Colonies	1,671,000	368,280
River Plate	368,871	81,152
French Colonies	221,137	48,650
Mexico	161,882	35,614
Spanish Colonies	128,016	28,163
China and Cochin China	112,211	24,686
Uruguay	111,357	24,494
Chile	100,098	22,021
Peru	97,025	21,477
Equator	93,491	20,568
New Granada	62,990	13,858
Brazil	53,649	11,803
West coast of Africa	52,884	11,634
Dutch Colonies	46,812	10,299
Venezuela	30,993	6,818
Danish Colonies	20,709	4,468
Oceania	5,110	1,124
Guatemala	4,346	1,000
Total export to sundry colonies	5,370,180	1,181,138
Recapitulation:		
Exports to Europe	1,881,373	413,900
To the Colonies	5,370,180	1,181,138
To sundry places	13,060	2,873
Total	7,264,613	1,598,211

Operation of the French Commercial System on the Trade of Bordeaux &c.—The trade of this great city has suffered severely from the short-sighted, anti-social policy of the French Government. This policy was first broadly laid down, and systematically acted upon, by Napoleon I.; and we believe it would not be difficult to show that the privations it entailed on the people of the Continent powerfully contributed to accelerate his downfall. But those by whom he has been succeeded have not hitherto seen the expediency of returning to a sounder system; on the contrary, they have carried, in some respects at least, the 'continental system' to an extent not contemplated by Napoleon. Notwithstanding the vast importance to a country like France of supplies of iron and hardware at a cheap rate, that which is produced by foreigners is excluded, though it might be obtained for a third part of the price of that which is manufactured at home. A similar line of policy has been followed as to cotton yarn, earthenware &c. And in order to force the manufacture of sugar from the beet-root, oppressive duties have been laid, not only on foreign sugar, but even on that imported from the French colonies. The operation of this system on the commerce and industry of the country has been most mischievous. By forcing France to raise, at home, articles for the production of which she has no natural or acquired capabilities, the exportation, and consequently the growth, of those articles in the production of which she is superior to every other country has been very greatly narrowed. All commerce being bottomed on a fair principle of reciprocity, a country that refuses to import must cease to export. By excluding foreign produce —by refusing to admit the sugar of Brazil, the cottons and hardware of England, the iron of Sweden, the linens of Germany, and the cattle of Switzerland and Würtemberg—France has done all that was in her power to drive the merchants of those countries from her markets. They are not less anxious than formerly to obtain her wines, brandies, and silks; inasmuch, however, as commerce is merely an exchange of products, and as France will accept very few products belonging to others, they cannot, how anxious soever, maintain that extensive and mutually beneficial intercourse with her they would otherwise carry on: they sell little to her, and their purchases are, of course, proportionally diminished.

This, indeed, is in all cases the necessary and inevitable effect of the prohibitive system. It never fails to lessen exportation to the same extent that it lessens importation; so that, when least injurious, it merely substitutes one sort of industry for another—the production of the article that had been obtained from the foreigner, for the production of that which had been sent to him as an equivalent. [COMMERCE.]

France is not only extremely well situated for carrying on an extensive intercourse with foreign countries, but she is largely supplied with several productions, which, were she to adopt a liberal commercial system, would meet with a ready and advantageous sale abroad, and enable her to furnish equivalents for the largest amount of imports. The superiority enjoyed by Amboyna in the production of cloves is not more decided than that enjoyed by France in the production of wine. Her claret, burgundy, champagne, and brandy are unrivalled; and furnish, of themselves, the materials of a vast commerce. Indeed, the production of wine is, next to the ordinary business of agriculture, by far the most extensive and valuable branch of industry in France. It is stated by the landholders and merchants of the department of the Gironde, in the admirable *Pétition et Mémoire à l'Appui*, presented by them to the Chamber of Deputies in 1828, that the quantity of wine annually produced in France amounts, at an average, to about 40,000,000 hectolitres, or 1,060,000,000 gallons; that its value is not less than from 800,000,000 to 1,000,000,000 francs, or from 32,000,000*l.* to 40,000,000*l.* sterling; and that upwards of *three millions* of individuals are employed in its production. In some of the southern departments it is of paramount importance. The population of the Gironde, exclusive of Bordeaux, amounts to about 450,000 individuals, of whom no fewer than 230,000 are supposed to be directly engaged in the cultivation of the vine.

Here, then, is a branch of industry in which France has no competitor, which even now affords employment for about a tenth part of her population, and which is susceptible of indefinite extension. She has, in this single article, the means of carrying on the most extensive and lucrative commerce. 'Le gouvernement français,' says M. Chaptal, in his work *Sur l'Industrie Française*, 'doit les plus grands encouragements à la culture des vignes, soit qu'il considère ses produits relativement à la consommation intérieure, soit qu'il les envisage sous le rapport de notre commerce avec l'étranger, *dont il est en effet la base essentielle*.'

But instead of labouring to extend this great branch of industry, Government has consented to sacrifice it to the interests of the iron-founders, the cotton and linen manufacturers, and the planters of Martinique and Guadaloupe! We do not, indeed, imagine that they were at all aware that such would be the effect of their policy. Theirs is only one instance, among myriads that may be specified, to prove that ignorance in a ministry is quite as pernicious as bad intentions. The consideration, apparently not a very recondite one, that, notwithstanding the bounty of nature, wine was not gratuitously produced in France, and

could not, therefore, be exported except for an equivalent, would seem never to have occurred to the ministers of Louis XVIII. and Charles X. But those whose interests were at stake did not fail to apprise them of the hollowness of their system of policy. In 1822, when the project for raising the duties on sugar, iron, linens &c. was under discussion, the merchants of Bordeaux, Nantes, Marseilles, and other great commercial cities, the silk manufacturers of Lyons, and the wine-growers of the Gironde, and some other departments, presented petitions to the Chambers, in which they truly stated that it was a contradiction and an absurdity to attempt selling to the foreigner without, at the same time, buying from him; and expressed their conviction that the imposition of the proposed duties would be fatal to the commerce of France, and would consequently inflict a very serious injury on the wine-growers and silk manufacturers. These representations did not, however, meet with a very courteous reception. They were stigmatised as the work of ignorant and interested persons. The Chambers approved the policy of ministers; and in their ardour to extend and perfect it, did not hesitate deeply to injure branches of industry on which several millions of persons are dependent, in order that a few businesses, nowise suited to France, and the support of which costs her several millions a year, might be bolstered up and protected!

It is plain, had there not been some powerful counteracting cause in operation, that the exports of wine from France would have been very greatly augmented since the peace of 1815. The United States, Russia, England, Prussia, and all those countries that have at all times been the great importers of French wines, have made prodigious advances in wealth and population since 1789; and, had the commerce with them not been subjected to injurious restrictions, there is every reason to think that their imports of French wine would have been much greater now than at any former period. So far, however, from this being the case, they have declined in a most extraordinary degree. This is proved beyond all question by the following extract from a report made to the Council General of the Gironde in 1841, and published by its orders and with its sanction:—

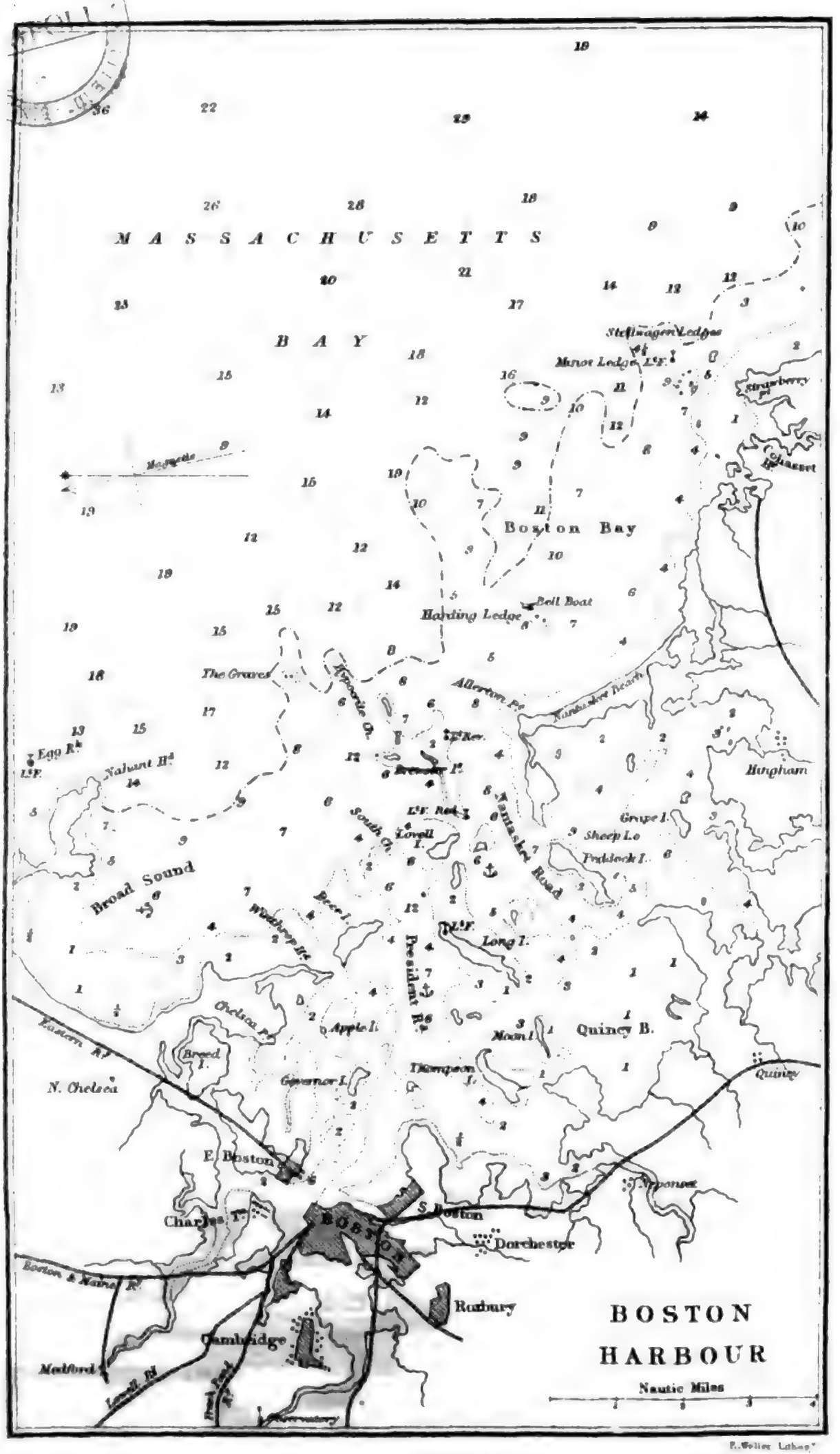
'Previously to 1790 the wine trade at Bordeaux had an immense development. The books of our most ancient houses, transmitted down religiously from father to son, and the registries of our lands, prove that in the years preceding 1787 our exports had reached more than 100,000 tuns of wine, 10,000 casks of brandy, and 5,000 of vinegar. They also show that from 1,200 to 1,400 vessels from the North took large quantities of wine, in return for their national produce, which they easily disposed of amongst us. It was a most lucrative commerce, for we then sent 15,000 tuns to Prussia, 18,000 to England and Ireland, 6,000 to Dantzic, 40,000 to Hamburg, Lubeck, and Bremen, 15,000 to Holland, 7,000 to Sweden, 5,000 to Denmark and Norway, and 12,000 to Russia. But at that period we had not closed our frontiers to the produce of all these nations — we received at moderate duties their woollens, linens, hemp, iron, wood, cattle, and other articles, the consumption of which was less expensive, and the quality better, than similar articles made at home, and forced on us by customs duties. At present, notwithstanding the rapid increase of commercial affairs—notwithstanding the new nations of America, the advantages of a more expeditious, certain, and economical navigation, the demands of nations increased in number and industry, and consequently more disposed to purchase for consumption, our commerce is declining in a most alarming manner. Authentic documents prove that, in 1839, our exports only reached 1,339 tuns to England, 2,499 to Russia, 147 to Sweden, 342 to Norway, 2,964 to Prussia, 612 to Denmark, 8,188 to the Hanse Towns, and 7,621 to the Netherlands. Since then our exports have not increased; so that instead of 100,000 tuns at least taken by the north of Europe from the department of the Gironde previously to 1790, not more than 25,000 tuns are taken at present. Yet the taste for wine and the necessity to use it have not been weakened amongst the various nations; but the exaggerated duties with which its introduction has been loaded only allow it to be consumed by the wealthy classes, who are everywhere the least numerous. These duties are established in retaliation of those which France lays on foreign productions. If the exportation of wine has diminished in so great a proportion, the cause must be sought in the protective system. When the variations in the exports of wine are attentively examined, and their decrease looked to since 1822, when this system attained its height, to 1840, it is impossible not to be struck with the fact that these variations are intimately connected with the system itself. The decrease in the exports of wine has followed the increased development of the protective system, and, therefore, we are forced to draw this conclusion, that *it is this system which destroys our export trade.* Yet foreign consumption is the most certain and most profitable for Bordeaux wines, and it is particularly in the markets of the north of Europe and of England that the wines of the finest quality which our department produces find purchasers. Let us, then, insist on the necessity of re-opening these markets, which have been closed by the enormous amount of duties imposed by foreigners in reprisal of those laid by us on their products.'

Besides the injury inflicted on the wine trade by the prohibitive system of commercial policy adopted in France, and the retaliatory measures provoked in other countries, it suffered severely from the octrois and other duties on internal consumption. But the depression, though felt everywhere, was greatest in the Gironde, which was especially dependent on its export trade. This was strikingly evinced by the large stocks of wine remaining in the hands of the growers and merchants, and by the fall in its price. This, of course, reacted on the vineyards, many of which became all but unsaleable: and in 1843 the committee of wine growers applied to Government for a loan of 2,000,000 francs to be applied to the payment of taxes due by the wine growers.

Such were the effects of the restrictive system of policy on the wine trade of France—on a branch of industry which employed *three millions* of people.

A wiser policy has, however, prevailed in France since the negotiation of the French commercial treaty and the partial development of the principles of free trade in that country.

BOSTON. A commercial city of the United States, the capital of Massachusetts, and the largest town of New England, lat. 42° 23′ N., long. 71° 4′ W. Population in 1860, 177,812. The city is situated on a peninsula near the bottom of a large and deep bay, being surrounded on all sides by water, except on the south, where it is joined to the mainland by the narrow isthmus called Boston Neck. But it communicates, by means of extensive wooden bridges, with Charleston on the north side of the bay, and with Dorchester on the south. Boston Bay is of great extent, and is studded with many islands.



London Longmans & Co

E. Weller Lithog.

Lighthouses, Boston Bay.—There are 4 lights: one on the Minot Ledge, the second on the north entrance of the harbour on Lighthouse Island, the third on the west end of the Spit abreast the Narrows, and the fourth on the north-east end of Long Island. The second light is revolving, the third is red.

Shipping.—With the exception of New York, Boston has a larger mercantile marine than any other port in the United States. According to the accounts laid before Congress January 1, 1858, the registered, enrolled, and licensed tonnage belonging to Boston on June 30, 1857, amounted to 447,996 tons, of which 42,179 tons were employed in the coasting trade. In 1856, 48 ships, of the burden of 50,394 tons, were launched in Boston and her immediate vicinity. Since the war, however, the shipping of Boston has been materially diminished.

Shipping Charges.—For an account of these, see NEW YORK.

How to enter the Port.—In coming from the Atlantic, a ship should bring the lighthouse to bear W. by N. to W.N.W. and run direct for it. The largest ships may pass it at within less than a cable's length. If there be no pilot on board, or the master be unacquainted with the harbour, or the wind be north-westerly, which is the most unfavourable for entering, she had better steer W. by S. for Nantucket roads, where she may anchor and get a pilot.

Mooring &c.—Generally speaking, there is sufficient depth of water to enable the largest ships to come up to the town at all times of the tide. They usually moor alongside quays or wharfs, where they lie in perfect safety. But Mr. Consul Lousada, in his Report of Jan. 24, 1867, says that the roadstead is fast filling up, and unless energetic measures are taken, it will be merely a question of time when large vessels will be unable to enter. There are in all about 60 wharfs; which, for the most part, are built on piles, with a superstructure of stone and earth. The two principal are 'Long Wharf,' 550 yards in length; and 'Central Wharf,' 413 yards long by 50 in breadth, having a range of lofty brick stores and warehouses along its whole length.

Pilotage.—No particular place is specified at which vessels must heave to for a pilot. But all vessels, with the exception of coasters under 200 tons, and American vessels laden with plaster of Paris from British America, if hailed by a pilot within about 1½ mile of the outer light, must take him on board, under a penalty of 50 dollars. If they have got within this distance before being hailed, the obligation to take a pilot on board ceases. This regulation has obviously been dictated by a wish to have the pilots constantly on the alert; it being supposed that masters not well acquainted with the bay will heave to to take one on board, though they have got within the free limits.

Careening, Stores, &c.—Boston is a very favourable place for careening and repairing ships. All kinds of supplies may be had of the best quality and at moderate prices.

Immigration.—The number of immigrants arriving at Boston is not great, seldom exceeding 1,600 or 1,800 in a year. A city ordinance directs that the masters of vessels bringing immigrants shall enter into a bond with sureties, to the amount of 200 dollars for each immigrant, that he shall not become a charge upon the state for 3 years, or pay a commutation of 5 dollars on account of each individual. But this regulation does not apply to immigrants having a reasonable amount of property. the declaration of the foreign consuls as to this point is commonly acted upon.

Trade of Boston &c.—Boston has a very extensive trade with the Southern States and with foreign countries, and is also one of the principal seats of the American fisheries. She is largely indebted to her southern neighbours, and principally to New York, Maryland, and Pennsylvania, for supplies of flour and wheat, and for great quantities of barley, maize, oatmeal, oats &c. as well as for cotton, tobacco &c. Of these, the imports of flour amount, at an average, to about 1,400,000 barrels a-year; all sorts of grain to about 3,500,000 bushels; cotton 220,000 bales; sugar 80,000,000 lbs.; coffee 50,000 bags &c. Her returns are made, partly in native raw produce, as beef, pork, lard &c.; partly and principally in the produce of her manufacturing industry, in which Massachusetts is decidedly superior to every other state in the Union; and partly in the produce of her fisheries and foreign trade. At an average, Boston annually sends to the southern parts of the Union about 70,000 barrels of beef and pork; 200,000 barrels mackerel, herrings, alewives &c.; large quantities of dried and smoked fish; 5,000,000 pairs of boots and shoes; besides a very large amount of cotton and woollen manufactured goods, paper, nails, ice, furniture, cordage &c.; so as to leave a large balance in her favour. Her exports of native produce to foreign countries consist principally of the same articles she sends to the southern States; but she also exports a large amount of the foreign produce she had previously imported. The imports from abroad consist principally of cotton and woollen goods; linens and canvas; hardware, silks, sugar, tea, coffee, wines and brandy, spices, hides, indigo, dyewoods &c. The total imports from foreign countries into the state of Massachusetts in the year ending June 30, 1864, amounted to 31,365,627 dols.; while the exports of native produce, during the same year, amounted to only 15,664,033 dols., and of native and foreign produce together to 17,057,092 dols.; the balance against Massachusetts being paid off by bills upon the southern States, to which she exports much more than she imports from them. New York alone is, in fact, supposed to be at all times indebted to Boston about 5,000,000 dols. We subjoin some statements illustrative of the trade of Boston.

Value of the Domestic Produce of Massachusetts, 1865, 1866.

	1866 Dollars	1865 Dollars
Cotton	34,000,000	40,000,000
Flour	21,000,000	15,000,000
Corn	2,000,000	2,250,000
Oats	850,000	1,250,000
Coal	7,000,000	6,500,000
Hides	2,500,000	2,750,000
Leather	16,500,000	18,000,000
Provisions	7,000,000	8,500,000
Naval stores	650,000	600,000
Butter and cheese	4,500,000	6,000,000
Wool	23,000,000	28,000,000
Total	119,000,000	128,850,000

Imports (Quantities).

		1866	1865
Ashes	casks.	3,875	4,183
Cocoa	bags.	12,980	5,711
Coffee	,,	50,154	26,198
Cotton	bales.	275,609	162,428
Dyewoods	tons.	15,164	12,934
Iron bars	British tons.	867,582	650
Lead	pigs.	102,964	75,677
Saltpetre	bags.	38,957	36,246
Wine	gallons.	94,814	83,769
Wool	bales.	34,218	21,001

Ice.—Boston was the original and still continues to be the principal seat of the American ice trade. This novel branch of industry began here in 1806, and has since vastly increased. For a while the exportation was confined to the southern ports of

the Union, the Havannah, and other ports of the West Indies; but now it extends to all parts of South America, to India and China, and to many parts of Europe. At present (1867) the exports amount to about 160,000 tons, whereof about 22,000 are sent to the East Indies. The cost of the ice free on board exceeds 300,000 dollars a-year, and it affords a profitable article of freight to a vast amount of shipping. It was formerly sold in New Orleans and the Havannah at 6 cents per lb., but it is now sold for 1 cent per ditto, and a similar reduction has taken place in its price in other emporiums. The ice is principally brought by railway from Fresh Pond, Wenham, and other lakes, about 18 miles from Boston. It is sawn into square blocks, not less than 12 inches thick, and is remarkably pure and solid.

Insurance Companies.—Insurance, both fire and marine, is carried on to a great extent by joint-stock companies, and to some extent also by individuals. There is a great deal of risk in the business, which is more, indeed, like a lottery than a regular trade; and the dividends, consequently, vary from next to nothing to 10, and sometimes even to 20 per cent. or upwards.

Credit.—Foreign goods are frequently sold for ready money, but more usually at a credit of from 3 to 12 months: average length of credit, 6 months; but on iron and some other articles 12 months' credit is given. Discount for ready money at the rate of 6 per cent. per annum.

Commission.—The rates of commission are arbitrary, varying from 2 to 5, and sometimes (*del credere* included) to 7½ per cent. On small accounts, and West India goods, 5 per cent. is usually charged. The ordinary rate may be taken at 2½ per cent.; but competition is so great that commission merchants may be found who will transact business on almost any terms. Sometimes whole cargoes are sold by brokers on an agreement to receive a specific sum in lieu of commission and brokerage.

Money.—In Massachusetts, and throughout New England, the dollar passes at 6*s.*; so that the pound sterling = 1*l.* 6*s.* 8*d.* Boston currency. (For further particulars as to *Money, Weights, Measures &c.* see NEW YORK.)

We have derived these details partly from official, partly from private information, and partly from tables and statements in Hunt's valuable *Commercial Magazine*. See, for detailed information as to the shipping rates and charges at the port of Boston, Edwards's *British Shipmaster's Guide* (Longmans & Co.).

BOTARGO (called in Provence *Bouargues*). A sausage made on the shores of the Mediterranean and the Black Sea, of the roe of the mullet. The best come from Tunis and Alexandria.

BOTTLES (Fr. bouteilles; Ger. bouteillen; Ital. bottiglie, fiaschi; Russ. bulülki; Span. botellas). Glass vessels for holding liquids, too well known to require any description. They are exported in considerable quantities. The duty of 8*s.* a cwt. on bottle glass, like the duties on other descriptions of glass, was both oppressive in amount, and was imposed and collected in the most vexatious manner. Happily, however, it was repealed in 1845. Since the repeal the produce of common glass bottles has increased four fold.

During the year 1862 there were forty-seven bottle houses in operation on the banks of the Tyne, the Wear, and the Tees, and their produce was about 4,230,000 dozens. (*Industrial Resources of the Tyne, Wear, and Tees*, 1864). [GLASS.]

BOTTOMRY AND RESPONDENTIA. Bottomry, in Commercial Navigation, is a mortgage of the ship. The owner or captain of a ship is, under certain circumstances, authorised to borrow money, either to fit her out so as to enable her to proceed on her voyage, or to purchase a cargo for the voyage, pledging the keel, or bottom of the ship (a part for the whole), in security for payment. In bottomry contracts it is stipulated, that if the ship be lost in the course of the voyage, the lender shall lose his whole money; but if the ship arrive in safety at her destination, the lender is then entitled to get back his principal, and the interest agreed upon, however much that interest may exceed the legal rate. (Black. *Com.* book ii. c. xxx.) The extraordinary hazard run by the lenders of money on bottomry, who, in fact, become adventurers in the voyage, has been held, in all countries, as justifying them in stipulating for the highest rate of interest.

When the loan is not on the ship, but on the goods laden on board, which, from their nature, must be sold or exchanged in the course of the voyage, the borrower's personal responsibility is then the principal security for the performance of the contract, which is therefore called *respondentia*. In this consists the principal difference between bottomry and respondentia. The one is a loan upon the ship, the other upon the goods. The money is to be repaid to the lender, with the *marine interest*, upon the safe arrival of the ship, in the one case, and of the goods in the other. In all other respects these contracts are nearly the same, and are governed by the same principles. In the former, the ship and tackle, being hypothecated, are liable, as well as the person of the borrower; in the latter, the lender has, in general, only the personal security of the borrower.

This contract, which *must always be in writing*, is sometimes made in the form of a deed poll, called a bill of bottomry, executed by the borrower; sometimes in the form of a bond or obligation, with a penalty. But whatever may be its form, it must contain the names of the lender and the borrower, those of the ship and the master; the sum lent, with the stipulated marine interest; the voyage proposed, with the commencement and duration of the risk which the lender is to run. It must show whether the money is lent upon the ship, or upon goods on board, or on both; and every other stipulation and agreement which the parties may think proper to introduce into the contract. (See the *Forms* at the end of this art.)

The loan in bottomry is on risk during the voyage. Hence no one can be entitled to it who does not take on himself the perils of the voyage. Thus the words in a bond stipulating payment of the sum borrowed 'in eight days after my arrival at the port of London' were understood to mean my arrival with the ship, or the ship's arrival. (Smith's *Mercantile Law*, book iii. c. vii.)

'It is obvious,' says Lord Tenterden, 'that a loan of money upon bottomry, while it relieves the owner from many of the perils of a maritime adventure, deprives him also of a great part of the profits of a successful voyage; and, therefore, *in the place of the owners' residence*, where they may exercise their own judgment upon the propriety of borrowing money in this manner, the master of the ship is, by the maritime law of all states, precluded from doing it, so as to bind the interest of his owners, without their consent. With regard to a *foreign country*, the rule appears to be, that if the master of a vessel has occasion for money to repair or victual his ship, or for any other purpose necessary to enable him to complete the enterprise in which she is engaged; whether the occasion arises from an extraordinary peril or misfortune, or from the ordinary course of the adventure; he may,

if he cannot otherwise obtain it, borrow money on bottomry at marine interest, and pledge the ship, and the freight to be earned in the voyage, for repayment at the termination of the voyage. When this is done, the owners are never personally responsible. The remedy of the lender is against the master of the ship.' (*Law of Shipping*, part ii. c. iii.)

The authority of the master to hypothecate the ship and freight in case of necessity, and in furtherance of the voyage in which he is engaged, at a foreign port, is indisputable, and his hypothecation of the freight or cargo is also justifiable, if necessary; but he must not do so when he can obtain money on better terms, e.g. on the personal credit of the owner, or when he can communicate with the owner at his residence. All England would be the residence of the owner, and, since the Union, probably Ireland. (Smith, *ibid.*)

It has been held that if this communication could have been made by telegraph, the bottomry bond is void. (Maude and Pollock.)

The rule that the remedy of the lender is against the owner of the ship, was contingent, it seems, on the laws regulating the rate of interest. It is now a question, however, since the repeal of these laws, whether the owner's personal credit may not be pledged. For the process by which the lender on a ship hypothecated in a foreign country can recover, see *Smith*. If a number of loans are effected, it is the rule, if the ship be sold, that the *last* in point of date is entitled to priority of payment, on the presumption (to be proved) that the master was compelled to contract the obligation by absolute necessity.

In bottomry and respondentia bonds, the lender receives the whole of his principal and interest or nothing; *he is not answerable for general or particular average*. [Mr. Serjeant Marshall doubts this; but it was so decided by the Court of King's Bench in *Joyce* v. *Williamson*, *B. R. Mich.* 23 Geo. III.] Nor will any loss by capture, if subsequently recaptured, affect his claim. In this respect our law differs from that of France (*Code de Commerce*, art. 330) and most other countries; the lenders on bottomry bonds being there subject to average, as our underwriters upon policies of insurance. No loss can void a bottomry contract, unless a total loss, proceeding from a peril of the sea, during the voyage, and within the time specified by the contract. If the loss happen through any default or act of the owners or master, to which the lender was not privy, he may still recover.

There is no restriction by the law of England as to the persons to whom money may be lent on bottomry or at *respondentia*, except in the single case of loans on the ships of foreigners trading to the East Indies, which are forbidden by the 7 Geo. I. stat. 1 c. 21 s. 2.

It does not, however, appear to be necessary, in order to enable the master of a ship in a foreign port to obtain money for her repair, outfit &c., that the contract pledging the vessel in security of the debt should be in the nature of a bottomry bond. Provided the person who advances the money do not choose to take upon himself the risk of the ship's return, and *do not stipulate for maritime interest*, 'there seems,' says Lord Tenterden, 'to be no reason why the master should not pledge both the ship and the personal credit of the owner.' And in the case of money advanced in this way to refit a ship in distress at Jamaica, which was captured on the voyage home, the lender recovered. (*Law of Shipping*, part ii. c. iii.)

Bottomry contracts were well known to the ancients. At Athens the rate of interest was not fixed by law; but the customary rate seems to have been about 12 per cent. But when money was lent for a voyage, upon the security of the ship and cargo, the interest, on account of the superior risk encountered by the lender, was in most cases much higher. By the Rhodian law, the exaction of such high interest as is usual in bottomry was declared to be illegal, unless the principal was really exposed to the dangers of the sea. (Boeckh's *Public Economy of Athens*, vol. i. p. 177, Eng. trans.) This principle was adopted by the Romans, who gave to bottomry interest the name of *nauticum fœnus*; and has been transferred from the Roman law into all modern codes.

'Formerly,' says Mr. Serjeant Marshall, 'the practice of borrowing money on bottomry and respondentia was more general in this country than it is at present. The immense capitals now engaged in every branch of commerce render such loans unnecessary; and money is now seldom borrowed in this manner but by the masters of foreign ships who put into our ports in need of pecuniary assistance to refit, to pay their men, to purchase provisions &c. Sometimes officers and others belonging to ships engaged in long voyages, who have the liberty of trading to a certain extent, with the prospect of great profit, but without capitals of their own to employ in such trade, take up money on respondentia to make their investments; but even this, as I am informed, is now not very frequently done in this country.'

The term *bottomry* has sometimes been incorrectly applied to designate a contract by the terms of which the ship is not pledged as a security, but the repayment of money, with a high premium for the risk, is made to depend upon the success of the voyage. This, however, is plainly a loan upon a particular adventure, to be made by a particular ship, and not a loan upon the ship, and, of course, the lender has only the personal security of the borrower for the due performance of the contract. And it seems that loans have sometimes been made in this manner, and probably also with a pledge of the ship itself, to an amount exceeding the value of the borrower's interest in the ship; and such a contract is still legal in this country in all cases, except the case of ships belonging to British subjects bound to or from the East Indies; as to which it is enacted (19 Geo. II. c. 37 s. 5), 'That all sums of money lent on bottomry or at respondentia upon any ship or ships belonging to his Majesty's subjects, bound to or from the East Indies, shall be lent only on the ship, or on the merchandise or effects laden, or to be laden, on board of such ship, and shall be so expressed in the condition of the bond, and the benefit of salvage shall be allowed to the lender, his agents or assigns, who alone shall have a right to make assurance on the money so lent; and no borrower of money on bottomry or at respondentia as aforesaid shall recover more on any assurance than the value of his interest on the ship, or in the merchandises and effects laden on board of such ship, exclusive of the money so borrowed; and in case it shall appear that the value of his share in the ship, or in the merchandises and effects laden on board, doth not amount to the full sum or sums he hath borrowed as aforesaid, such borrower shall be responsible to the lender for so much of the money borrowed as he hath not laid out on the ship, or merchandises laden thereon, in the proportion the money not laid out shall bear to the whole money lent, notwithstanding the ship and merchandises be totally lost.'

Lord Tenterden says that this statute was introduced for the protection of the trade of the East India Company; and its rules must be

complied with in the case of bottomry by the *masters* of ships trading to the East Indies.

For a further discussion of this subject, see Abbott *On the Law of Shipping*, part ii. ch. iii.; Marshall *On Insurance*, book ii.; and Park *On Insurance*, ch. xxi.

I. *Form of a Bottomry Bond.*

Know all men by these presents, That I, A. B., commander and two-thirds owner of the ship *Exeter*, for myself and C. D., remaining third-owner of the said ship, am held and firmly bound unto E. F. in the penal sum of *two thousand pounds* sterling, for the payment of which well and truly to be made unto the said E. F., his heirs, executors, administrators, or assigns, I hereby bind myself, my heirs, executors, and administrators, firmly by these presents. *In witness* whereof I have hereunto set my hand and seal, this 14th day of *December*, in the year of our Lord 1796.

Whereas the above bound A. B. hath taken up and received of the said E. F. the full and just sum of *one thousand pounds* sterling, which sum is to run at respondentia on the block and freight of the ship *Exeter*, whereof the said A. B. is now master, from the port or road of *Bombay* on a voyage to the port of *London*, having permission to touch, stay at, and proceed to all ports and places within the limits of the voyage, at the rate or premium of *twenty-five per cent.* (25 per cent.) for the voyage. In consideration whereof usual risks of the seas, rivers, enemies, fires, pirates &c. are to be on account of the said E. F. And for the further security of the said E. F. the said A. B. doth by these presents mortgage and assign over to the said E. F., his heirs, executors, administrators, and assigns, the said ship *Exeter*, and her freight, together with all her tackle, apparel &c. And it is hereby declared, that the said ship *Exeter* and her freight is thus assigned over for the security of the respondentia taken up by the said A. B., and shall be delivered to no other use or purpose whatever until payment of this bond is first made, with the premium that may become due thereon.

Now the condition of this obligation is such, that if the above bound A. B., his heirs, executors, or administrators, shall and do well and truly pay, or cause to be paid, unto the said E. F. or his attorneys in *London* legally authorised to receive the same, their executors, administrators, or assigns, the full and just sum of 1,000*l.* sterling, being the principal of this bond, together with the premium which shall become due thereon, at or before the expiration of *ninety* days after the safe arrival of the said ship *Exeter* at her moorings in the river *Thames*, or in case of the loss of the said ship *Exeter*, such an average as by custom shall have become due on the salvage, then this obligation to be void and of no effect, otherwise to remain in full force and virtue. Having signed to three bonds of the same tenor and date, the one of which being accomplished, the other two to be void and of no effect.

A. B. for self and C. D.) (L. S.)

Signed, sealed, and delivered, where no stamped paper is to be had, in the presence of G. H. I. K.

In this bond the occasion of borrowing the money is not expressed, but the money was in reality borrowed to refit the ship, which, being on a voyage from *Bengal* to *London*, was obliged to put back to *Bombay* to repair. (*The Exeter, Whitford*, 1 Rob. A. R. 176.) The occasion therefore of borrowing the money gave the lender the security of the entire interest of the ship. But this bond, although expressed to be executed by the master for himself and the other part-owner, would not bind the other part-owner personally, *unless he had by a previous deed authorised the master to execute such a bond for him.* (Abbott *On the Law of Shipping*, part iii. ch. i. s. 2.)

II. *Form of a Bottomry Bill.*

To all men to whom these presents shall come. I, A. B., of *Bengal*, mariner, part-owner and master of the ship called the *Exeter*, of the burden of five hundred tons and upwards, now riding at anchor in *Table Bay*, at the *Cape of Good Hope*, send greeting:

Whereas I, the said A. B., part-owner and master of the aforesaid ship, called the *Exeter*, now in prosecution of a voyage from *Bengal* to the port of *London*, having put into *Table Bay* for the purpose of procuring provisions and other supplies necessary for the continuation and performance of the voyage aforesaid, am at this time necessitated to take up upon the adventure of the said ship called the *Exeter* the sum of *one thousand pounds* sterling moneys of *Great Britain*, for setting the said ship to sea, and furnishing her with provisions and necessaries for the said voyage, which sum C. D. of the *Cape of Good Hope*, master attendant, hath at my request lent unto me, and supplied me with, at the rate of *twelve hundred and twenty pounds* sterling for the said *one thousand pounds*, being at the rate of *one hundred and twenty-two pounds* for every *hundred pounds* advanced as aforesaid, during the voyage of the said ship from *Table Bay* to *London*. Now know ye, that I, the said A. B., by these presents, do, for me, my executors and administrators, covenant and grant to and with the said C. D. that the said ship shall, with the first convoy which shall offer for *England* after the date of these presents, sail and depart for the port of *London*, there to finish the voyage aforesaid. And I, the said A. B., in consideration of the sum of *one thousand pounds* sterling to me in hand paid by the said C. D. at and before the sealing and delivery of these presents, do hereby bind myself, my heirs, executors, and administrators, my goods and chattels, and particularly the said ship, the tackle and apparel of the same, and also the freight of the said ship, which is or shall become due for the aforesaid voyage from *Bengal* to the port of *London*, to pay unto the said C. D., his executors, administrators, or assigns, the sum of *twelve hundred and twenty pounds* of lawful British money, within thirty days next after the safe arrival of the said ship at the port of *London* from the same intended voyage.

And I, the said A. B., do, for me, my executors and administrators, covenant and grant to and with the said C. D., his executors and administrators, by these presents, that I, the said A. B., at the time of sealing and delivering of these presents, am a true and lawful part-owner and master of the said ship, and have power and authority to charge and engage the said ship with her freight as aforesaid, and that the said ship, with her freight, shall, at all times after the said voyage, be liable and chargeable for the payment of the said *twelve hundred and twenty pounds*, according to the true intent and meaning of these presents.

And lastly, it is hereby declared and agreed by and between the said parties to these presents, that in case the said ship shall be lost, miscarry, or be cast away before her arrival at the said port of *London* from the said intended voyage, that then the payment of the said *twelve hundred and twenty pounds* shall not be demanded, or be recoverable

by the said C. D., his executors, administrators, or assigns, but shall cease and determine, and the loss thereby be wholly borne and sustained by the said C. D., his executors and administrators, and that then and from thenceforth every act, matter, and thing herein mentioned on the part and behalf of the said A. B. shall be void; any thing herein contained to the contrary notwithstanding.

In witness whereof the parties have interchangeably set their hands and seals to four bonds of this tenor and date, one of which being paid, the others to be null and void.

At the *Cape of Good Hope*, this 15th day of *November*, in the year of our Lord one thousand eight hundred and thirty.

Witness, { E. F. / G. H. / I. K. } A. B. (L. S.)

BOUNTY. A term used in Commerce and the Arts, to signify a premium paid by Government to the producers, exporters, or importers of certain articles, or to those who employ ships in certain trades.

1. *Bounties on Production* are most commonly given in the view of encouraging the establishment of some new branch of industry; or they are intended to foster and extend a branch that is believed to be of paramount importance. In neither case, however, is their utility very obvious. In all old settled and wealthy countries, numbers of individuals are always ready to embark in every new undertaking, if it promise to be really advantageous, without any stimulus from Government; and if a branch of industry, already established, be really important and suitable for the country, it will assuredly be prosecuted to the necessary extent, without any encouragement other than the natural demand for its produce.

2. *Bounties on Exportation and Importation.*—It is enacted by the 3 & 4 Wm. IV. c. 52 that a merchant or exporter claiming a bounty or drawback on goods exported must make oath that they have been actually exported, and have not been re-landed, and are not intended to be re-landed, in any part of the United Kingdom, or in the Isle of Man (unless entered for the Isle of Man), or in the islands of Faro or Ferro; and it is further enacted, that if any goods cleared to be exported for a bounty or drawback shall not be duly exported to parts beyond the seas, or shall be re-landed in any part of the United Kingdom, or in the islands of Faro or Ferro, or shall be carried to the islands of Guernsey, Jersey, Alderney, Sark, or Man (not having been duly entered, cleared, and shipped for exportation to such islands), such goods shall be forfeited, together with the ship or ships employed in re-landing or carrying them; and any person by whom or by whose orders or means such goods shall have been cleared, re-landed, or carried, shall forfeit a sum equal to treble the value of such goods. (Secs. 87–95.)

3. *Policy of Bounties.*—It was formerly customary to grant bounties on the exportation of various articles; but the impolicy of such practice is now very generally admitted. It is universally allowed that bounties, if they be given at all, should be given only to the exporters of such commodities as could not be exported without them. But it is plain that, by granting a bounty in such cases, we really tax the public, in order to supply the foreigner with commodities at less than they cost. A. has a parcel of goods which he cannot dispose of abroad for less than 110*l.*; but they will fetch only 100*l.* in the foreign market; and he claims and gets a bounty of 10*l.* to enable him to export them. Such is the mode in which bounties on exportation uniformly operate; and to suppose that they can be a means of enriching the *public*, is equivalent to supposing that a shopkeeper may be enriched by selling his goods for less than they cost!

But however injurious to the state, it has been pretty generally supposed that bounties on exportation are advantageous to those who produce and export the articles on which they are paid. But the fact is not so. A trade that cannot be carried on without the aid of a bounty must be a naturally disadvantageous one. Hence, by granting it, individuals are tempted to engage or continue in businesses which are necessarily very insecure, and are rarely capable of being rendered lucrative; at the same time that they are prevented, by trusting to the bounty, from making those exertions they naturally would have made, had they been obliged to depend entirely on superior skill and industry for the sale of their produce. The history of all businesses carried on in this country by the aid of bounties proves that they are hardly less disadvantageous to those engaged in them than to the public.

The truth of these remarks has been acknowledged by Government. The bounty on the exportation of corn was repealed in 1815; and the bounties on the exportation of linen and several other articles ceased in 1830.

4. *Bounties on Shipping* have principally been paid to the owners of vessels engaged in the fishery, and their influence will be treated of under Herring Fishery and Whale Fishery.

[Drawback; Tariff.]

BOX-WOOD (Ger. buchsbaumholz; Dutch, palmhout; Fr. buis; Ital. busso, bosso, bossolo). The wood of the box-tree (*Buxus sempervirens*), growing wild in several places in Great Britain. This tree was greatly admired by the ancient Romans, and has been much cultivated in modern times, on account of the facility with which it is fashioned into different forms. Box is a very valuable wood. It is of a yellowish colour, close-grained, very hard, and heavy; it cuts better than any other wood, is susceptible of a very fine polish, and is very durable. In consequence, it is much used by turners, and mathematical and musical instrument makers. It is too heavy for furniture. It is the *only* wood used by the engravers of wood-cuts for books; and provided due care be exercised, the number of impressions that may be taken from a box-wood cut is very great. In France, box-wood is extensively used for combs, knife-handles, and button-moulds; and sometimes, it has been said, as a substitute for hops in the manufacture of beer. The value of the box-wood sent from Spain to Paris is reported to amount to about 10,000 fr. a year. In 1815 the box-trees cut down on Box-hill, near Dorking in Surrey, produced upwards of 10,000*l.* They are now, however, become very scarce in England. Previously to 1837 the duty on box-wood was quite oppressive, being 5*l.* a ton if brought from a foreign country, and 1*l.* a ton if from a British possession; but it was then reduced to 10*s.* a ton without reference to origin. In 1841 this duty produced 554*l.*, showing that 1,108 tons had been entered for consumption. In 1842 the duty on box-wood from a British possession was reduced to 2*s.* 6*d.* a ton, and in 1845 it was repealed. Turkey box-wood sells in the London market for from 4*l.* 10*s.* to 8*l.* 15*s.* a ton.

The export of box-wood from Constantinople in 1864 amounted to about 7,000 tons, 3,000 of which were of large sizes: about 6,000 tons were sent to England, the remainder to France. In 1866 we

imported 4,166 tons, of which 4,055 were from Turkey. Considerable quantities of Circassian box-wood are shipped to Great Britain through Constantinople. The average value of Turkish box-wood was, in 1866, 6*l.* 17*s.* 3*d.* per ton, other box-wood 7*l.* The Customs duty, which produced 304*l.* in 1864, was abolished in 1866. It is subject in Turkey to an export duty of 4 per cent.

BRAN (Fr. son; Ger. kleie). The thin skins or husks of corn, particularly wheat, ground, and separated from the corn by a sieve or boulter. Bran contains a large amount of nitrogenous matter, and flour loses its nutritive power by the separation of bran. Bran is also used in dyeing.

BRANDY (Ger. brantewein; Dutch, brandewyn; Fr. eau de vie, brandevin; Ital. aquarzente; Span. aguardiente; Port. aguardiente; Russ. wino; Lat. vinum adustum). A spirituous and inflammable liquor, obtained by distillation from wine and the husks of grapes. It is prepared in most of the wine countries of Europe; but the superiority of French brandy is universally admitted. The latter is principally distilled at Bordeaux, Rochelle, Cognac, the Isle de Rhé, Orleans, Nantes, and in Poitou, Touraine, and Anjou. That of Cognac is in the highest estimation.

Wines of all descriptions, but chiefly those that are strong and harsh (*poussés*), are used in the manufacture of brandy. The superior vintages, and those that have most flavour, are said to make the worst brandy. It is naturally clear and colourless. The different shades of colour which it has in commerce arise partly from the casks in which it is kept, but chiefly from the burnt sugar, saunders wood, and other colouring matter intentionally added to it by the dealers. It is said that the burnt sugar gives mellowness to the flavour of the liquor, and renders it more palatable.

The art of distillation is believed to have been first discovered by the Arabians. From a passage in the *Testamentum Novissimum* of the famous Raymond Lully, who flourished in the thirteenth century, it would appear that the production of brandy and alcohol from wine was familiar to his contemporaries. (P. 2, edit. *Argent.* 1571.) But the practice does not appear to have been introduced into France till 1313. (Le Grand d'Aussi, *Vie privée de François*, t. iii. p. 64.) When first introduced, brandy or burnt wine (*vinum adustum*) appears to have been used principally as an antiseptic and restorative medicine; and the most extravagant panegyrics were bestowed on its virtues. It was described as a sovereign remedy in almost all the disorders of the human frame; it was commended for its efficacy in comforting the memory, and strengthening the reasoning powers; it was extolled, in short, as the elixir of life, and an infallible preservative of youth and beauty! (Henderson's *History of Wine*, p. 24.) Dr. Henderson says that the experience of later times has shown how little this eulogy was merited; but in this he is contradicted by Burke, who maintains, with equal eloquence and ingenuity, that 'the *alembic* has been a vast benefit and blessing.' (*Thoughts and Details on Scarcity*, p. 41.)

Duties on Brandy.—In a former edition of this work we remarked on this subject as follows, viz.: 'In nothing, perhaps, has the injurious operation of oppressive duties been so strikingly exemplified as in the case of brandy. At the latter end of the 17th century, when the duty on brandy did not exceed 9*l.* a tun, the imports into England amounted to about 6,000 tuns, or 1,512,000 gallons (*Historical and Political Remarks on the Tariff of the late Treaty*, 1786, p. 113); whereas at present, notwithstanding our vast increase in wealth and population since the period referred to, we do not import so much brandy as we did then. Nor is this extraordinary circumstance to be ascribed to any preference on the part of the public to other beverages, but is wholly owing to the exorbitant duties with which brandy is loaded. The price of brandy in bond varies, at this moment, according to quality, from 4*s.* to 6*s.* a gallon (imperial measure), while the duty is no less than 22*s.* 10*d.* Had the imposition of such a duty taken away the taste for brandy, it would have been comparatively innocuous. But it has done no such thing. Its only effect has been to convert a trade, that might otherwise have been productive of the most advantageous results, into a most prolific source of crime and demoralisation. The temptation to smuggle, occasioned by the exorbitancy of the duty, is too overpowering to be counteracted by the utmost penalties of the law. All along the coasts of Kent and Sussex, and the districts most favourably situated for *running spirits*, almost the whole of the labouring population are every now and then withdrawn from their ordinary employments to engage in smuggling adventures. The efforts of the revenue officers to seize foreign brandy and geneva have in innumerable instances been repelled by force. Bloody and desperate contests have in consequence taken place. Many individuals who, but for this fiscal scourge, would have been industrious and virtuous, have become idle, predatory, and ferocious; they have learned to despise the law, to execute summary vengeance on its officers; and are influenced by a spirit that has been, and may be, turned to the most dangerous purposes.

'Neither can it be truly said that this miserable system is upheld for the sake of revenue. On the contrary, it is easy to show that, besides the other mischievous effects it entails on the public, it occasions the loss of at least 1,000,000*l.* a-year. In 1786, Mr. Pitt, by a wise and politic measure, took 50 per cent. from the duty on brandy and geneva (the duty on the latter has been for a lengthened period the same as that on brandy); and instead of being diminished, the revenue was increased. In 1790, when the duty on brandy and geneva was 5*s.* the wine gallon, the quantity retained for home consumption was 2,225,590 gallons. During the 3 years ending with 1803, when the duty was 9*s.* 2*d.*, the quantities of brandy and geneva retained for home consumption amounted, at an average, to about 2,700,000 gallons; but during the 3 years ending with 1818, when the duty had been increased to 18*s.* 10*d.* the wine gallon, the quantities retained did not exceed 850,000 gallons, while the quantities actually entered for home consumption were much less! The consumption increased considerably between 1818 and 1822; but since the latter epoch it has remained nearly stationary; and, notwithstanding the great increase of wealth and population in the interval, is not nearly so great now (1843) as it was half a century ago! Nothing, therefore, can be more palpably erroneous than to contend that the revenue is improved by the present system. Have we not seen the revenue derived from coffee trebled by reducing the duty from 1*s.* 7*d.* to 6*d.*? Have we not seen the revenue derived from British spirits greatly increased by reducing the duty from 5*s.* 6*d.* to 2*s.* the wine gallon? And where is the ground for supposing that the result would be different were the duties on brandy equally reduced? But the experience afforded by Mr. Pitt's measure, in 1786, is decisive as to this point. He quadrupled the consumption and increased the revenue by taking a half from the duty when it was a good deal less oppressive than now? Were

a similar reduction made at present, does any one doubt that a similar result would follow? Smuggling and adulteration would immediately cease; our trade with France would be very greatly extended; and the revenue would gain not merely by a direct increase of duty, but indirectly by a very great diminution of the expense of collection.

'But the effect of the increase of the duties on brandy in Ireland has been still more extraordinary. At an average of the 3 years ending with 1802, when the duty was 7*s.* 3¾*d.* the wine gallon, the average annual consumption of brandy in Ireland amounted to 208,064 gallons, producing a nett revenue of 77,714*l.* Now, mark the consequence of *trebling* the duties. The consumption during the 3 years ending with 1842, notwithstanding the population is more than doubled, only amounted, at an average, to 15,399 gallons, producing about 17,560*l.* a-year revenue! Dr. Swift has shrewdly remarked, that in the arithmetic of the customs two and two do not always make four, but sometimes only one. But here we have threefold duties, with less than ¼ of the revenue, and less than $\frac{1}{12}$ of the consumption.

'It is surely impossible that a system like this, evincing in every part a degree of ignorant rapacity, to be paralleled only by that of the savages who to get at the fruit cut down the tree, should be permitted for a much longer period to disgrace our fiscal code. Those only who are anxious for the continuance of smuggling, with all its consequent crime and misery, can be hostile to a reduction of the duty on brandy. By fixing it at 10*s.* a gallon, neither the consumption of British spirits nor that of rum would be sensibly affected. The middle classes would, however, be able to use brandy on occasions when, perhaps, at present, they use nothing; its clandestine importation would be prevented; those engaged in smuggling would be obliged to have recourse to industrious pursuits; and the manufacture of the abominable compounds, that are now so frequently substituted in its stead, would be put an end to.'

At length, in 1846, the duties on brandy were reduced by Sir Robert Peel from 22*s.* 10*d.* to 15*s.* a gallon. But though considerable, this was not equal to some of the reductions effected by the same great minister in cases in which, perhaps, they were less necessary. It was, nevertheless, of much importance; and the subjoined account shows that the increased consumption which it occasioned has prevented any diminution of revenue; for the falling off in the consumption and duties in 1857 and 1858 was wholly a consequence of the scarcity and high price of brandy, occasioned by the vine disease. In 1860 the duty on brandy was fixed at 10*s.* 5*d.* per gallon. This change equalised the duty on foreign and British spirits.

Notwithstanding the improvement in the vintage since 1858, the price of brandy is still (1868) very high. And hence the substitution of British brandy, and of other more objectionable compounds, for the genuine article.

Regulations as to Importation &c. — Brandy, geneva, and other foreign spirits must be imported, if in casks, in casks containing not less than 20 gallons, under penalty of forfeiture. They must be imported in ships of 50 tons burden or upwards, and are not to be exported from a bonded warehouse except in a vessel of like tonnage under pain of forfeiture.

In Parl. Paper No. 400, Sept. 1864, it is stated that in 1862 847,935 gallons of British brandy were permitted from the rectifiers' stocks, and 706,356 gallons in 1863; 61,258 being permitted in the latter year for exportation.

An Account of the Number of Gallons (Imperial Measure) of Foreign Brandy retained for Home Consumption in the United Kingdom, the Rates of Duty affecting the same, and the entire nett Produce of the Duty, each Year since 1814 *(obtained from the Custom House).*

Years	Quantities entered for Home Consumption	Nett Produce of Duty	Rates of Duty per Imperial Gallon	
	United Kingdom	United Kingdom	Great Britain	Ireland
	Imp. gal.	£	£ s. d.	£ s. d.
1814	507,761	587,674	1 2 6¼	0 17 3¼
1815	661,715	745,449	—	—
1816	662,537	746,429	—	—
1817	637,892	719,982	—	—
1818	537,815	604,473	—	—
1819	794,502	896,159	1 2 7¼	—
1820	848,889	961,495	—	—
1821	920,651	1,039,501	—	—
1822	1,008,915	1,138,850	—	—
1823	1,100,272	1,239,812	—	1 2 8
1824	1,227,699	1,388,411	—	—
1825	1,320,577	1,493,945	—	—
1826	1,480,614	1,464,897	1 2 6	1 2 6
1827	1,320,488	1,479,733	—	—
1828	1,335,185	1,499,423	—	—
1829	1,309,979	1,470,151	—	—
1830	1,285,967	1,443,018	—	—
1831	1,235,101	1,388,167	—	—
1832	1,601,652	1,801,400	—	—
1833	1,317,211	1,526,545	—	—
1834	1,388,639	1,561,427	—	—
1835	1,314,943	1,476,511	—	—
1836	1,257,553	1,413,774	—	—
1837	1,208,646	1,359,615	—	—
1838	1,203,435	1,353,614	—	—
1839	1,167,756	1,309,100	—	—
1840	1,103,578	1,239,527	before May 16 1 2 6 after May 16 1 2 10	1 2 6 1 2 10
1841	1,164,506	1,309,083	—	—
1842	1,082,919	1,236,816	1 2 10	1 2 10
1843	1,038,547	1,185,478	—	—
1844	1,023,073	1,167,817	—	—
1845	1,058,274	1,208,161	—	—
1846	1,514,165	1,165,046	until Mar. 18 1 2 10 from Mar. 18 0 15 0	1 2 10 0 15 0
1847	1,537,938	1,152,758	—	—
1848	1,609,004	1,206,745	—	—
1849	2,187,358	1,639,473	—	—
1850	1,860,809	1,395,110	—	—
1851	1,859,273	1,393,862	—	—
1852	1,924,595	1,442,683	—	—
1853	1,869,343	1,402,088	—	—
1854	1,862,189	1,396,175	—	—
1855	1,525,578	1,143,365	—	—
1856	1,553,762	1,150,088	—	—
1857	1,289,615	967,885	—	—
1858	1,107,298	829,899	—	—
1859	1,305,969	980,353	—	—
1860	1,461,552	721,476	March 6, 1860 0 8 6 July 18, 1860 0 10 5	0 8 6 0 10 5
1861	1,598,270	833,312		
1862	1,698,399	885,490		
1863	1,911,400	8,057		
1864	2,312,596	1,205,768		
1865	2,664,289	1,388,735		
1866	3,120,950	1,627,639		

BRASS (Ger. messing; Dutch, messing, missing, geelkoper; Fr. cuivre jaune, laiton; Ital. ottone; Span. laton, azofar; Russ. selenoi mjed; Lat. orichalcum, aurichalcum). A factitious metal, made of copper and zinc in certain proportions. It is of a beautiful yellow colour, more fusible than copper, and not so apt to tarnish. It is malleable, so ductile that it may be drawn out into wire, and is much tougher than copper. Its density is greater than the mean density of the two metals. By calculation it ought to be 7·63 nearly, whereas it is actually 8·39; so that its density is increased by about one tenth. The ancients do not seem to have known accurately the difference between copper, brass, and bronze. They considered brass as only a more valuable kind of copper, and therefore used the word *æs* to denote either. They called copper *æs cyprium*, afterwards *cyprium*; and this in process of time was converted into *cuprum*. Dr. Watson has proved that it was to brass they gave the name of *orichalcum*. Brass is malleable when cold, unless the proportion of zinc be excessive; but when heated it becomes brittle. It

may be readily turned upon the lathe; and, indeed, works more kindly than any other metal.

There is a vast variety in the proportions of the different species of brass used in commerce; nor is it easy to determine whether the perfection of this alloy depends on any certain proportions of the two metals. In general, the extremes of the highest and lowest proportions of zinc are from 12 to 25 parts in the 100. In some of the British manufactories, the brass made contains one third its weight of zinc. In Germany and Sweden the proportion of zinc varies from one fifth to one fourth of the copper. The ductility of brass is not injured when the proportion of zinc is highest. This metal is much used in the escapement wheels and other nicer parts of watch-making; and bars of brass, very carefully made, fetch for this purpose a high price.

The use of brass is of very considerable antiquity. Most of the ancient genuine relics are composed of various mixtures of brass with tin and other metals, and are rather to be denominated bronzes. The best proportion for brass guns is said to be 1,000 lbs. of copper, 990 lbs. of tin, and 600 lbs. of brass, in 11 or 12 cwt. of metal. The best brass guns are made of malleable metal, not of pure copper and zinc alone; but worse metals are used to make it run closer and sounder, as lead and pot-metal. (Thomson's *Chemistry*; *Ency. Britannica*; &c.)

The economical use of brass is largely increasing. It is employed for a great variety of mechanical purposes, and in the fine arts, no metal having been found so available for these uses. It would be impossible in the compass of this article to refer to all the ends which this important metal fulfils. But the reader may be referred to the exhaustive and valuable account of the brass manufacture in Birmingham, written by Mr. Aitken, and contained in the volume entitled *The Resources, Products, and Industrial History of Birmingham and the Midland Hardware District.*

The amount of the metals used in the Birmingham brass manufactories during the year 1865 is reckoned by this writer at upwards of 38,000 tons, the value being 2,371,658*l.*

There are various kinds of brass, known as pinchbeck, prince's metal, bath metal, red brass, Dutch gold, Muntz's yellow metal, and malleable brass; the difference depending on the various proportions of copper and zinc. An alloy of brass with phosphorus is said to have valuable properties.

BRAZIL NUTS (Ger. pechurinnüsse; Dutch, brezilie or foelie nooten; Swed. macis bönor, piccorin bönor; Dan. pechurim nodder, macis bönner; Fr. noix péchurins; Ital. fava bucari, noci gemelle; Span. becuiba; Port. pucharins) or *Chestnuts of Brazil.* The fruit of the Juvia (*Bertholletia excelsa*), a majestic tree growing to the height of 100 or 120 feet, abounding on the banks of the Orinoco, and in the northern parts of Brazil. The nuts are triangular, having a cuneiform appearance, with sutures at each of the angles; the shell is rough and hard, and of a brownish ash colour. The kernel resembles that of an almond, but is larger, and tastes more like a common hazel nut; it contains a great deal of oil that may be obtained by expression or otherwise. These nuts do not grow separately, or in clusters, but are contained, to the number of from 15 to 50 or more, in great ligneous pericarps or outer shells, generally of the size of a child's head. Humboldt says he had most frequently found from 15 to 22 nuts in each pericarp; but De Laet, who gave the first and most accurate description of this fruit, says that the pericarp is divided into six compartments, each of which encloses from 8 to 12 nuts. This outer shell is very hard and strong, so that it is rather difficult to get at the nuts, which are closely packed in cells inside. The natives are particularly fond of this fruit, and celebrate the harvest of the juvia with rejoicings; it is also very much esteemed in Europe. The nuts brought to this country and the Continent are chiefly exported from Pará, and form an article of considerable commercial importance. (Humboldt's *Pers. Nar.* vol. v. p. 538, English translation.)

The fluctuations in the export from Pará of Brazil nuts are very considerable: between 1851 and 1856 the maximum and minimum amounts were 92,000 and 19,000 *alquieres.* An alquiere of Brazil nuts varies in weight from 60 to 80 lbs. avoir., according to the season and goodness of the nuts. They are principally exported to the United States and to Great Britain, the larger portion to the former country. The price varies considerably, being occasionally as low as 1,740 m. reis and as high as 5,400 m. reis per alquiere. The imports into the United Kingdom are not specified in the returns of trade. Price in London market, October 26, 1865 and 1866, 34*s.* to 35*s.* and 42*s.* to 45*s.* per barrel.

BRAZIL-WOOD (Fr. bois de Brésil; Ger. Brasilienholz; Dutch, Brasilienhout; Ital. Legno del Brasileverzino; Span. madera del Bresil; Port. pao Brasil). It has been commonly supposed that this wood derived its name from the country in which it is principally produced. But Dr. Bancroft has conclusively shown that woods yielding a *red dye* were called Brazil-woods long previously to the discovery of America; and that the early voyagers gave the name of Brazil to that part of that continent to which it is still applied, from their having ascertained that it abounded in such woods. (*Philosophy of Colours*, vol. ii. pp. 316—321.)

It is found in the greatest abundance, and is of the best quality, in the province of Pernambuco, where it is called *Pao da rainha*, or Queen's wood; but it is also found in many other parts of the Western hemisphere. The tree is large, crooked, and knotty; the leaves are of a beautiful red, and exhale an agreeable odour. Its botanical name is *Cæsalpinia brasiletto*, but it is called by the natives *ibiripitanga.* Notwithstanding its apparent bulk, the bark is so thick that a tree as large as a man's body with the bark will not be so thick as the leg when peeled. When cut into chips, it loses the pale colour it before had, and becomes red, and when chewed has a sweet taste. It is used for various purposes by cabinet-makers, and admits of a beautiful varnish, but its principal use is in dyeing red; and though the colour is liable to decay, yet, by mixing with it alum and tartar, it is easily made permanent. There is also made of it, by means of acids, a sort of liquid lake or carmine for painting in miniature.

Brazil-wood has been for many years past a royal monopoly; its exportation, except on account of Government, being prohibited under the severest penalties. Owing to the improvident manner in which it has been cut down by the Government agents, it is now rarely found within several leagues of the coast. Indeed, we are assured that many of the planters have privately cut down the trees on their estates, and used the timber as fire-wood, that they might not expose themselves to annoyance from the arbitrary and vexatious proceedings of these functionaries. The quantity of Brazil wood imported into this country is inconsiderable. Its price in the London market is about 30*l.* per ton. In 1866, 1,201 tons were imported, chiefly from Venezuela and Mexico. (*Dr.* Bancroft in loc.

cit.; *Encyc. Metrop.*; *Modern Traveller*, vol. xxix. p. 87; Malte Brun, vol. v. p. 525, Eng. ed.: &c.)

BRAZILETTO. An inferior species of Brazil wood brought from Jamaica. It is one of the cheapest and least esteemed of the red dyewoods.

BREAD (Fr. pain; Ger. brot), the principal article in the food of most civilised nations, consists of a paste or dough formed of the flour or meal of different sorts of grain mixed with water and baked. When stale dough or yeast is added to the fresh dough, to make it swell, it is said to be *leavened*; when nothing of this sort is added, it is said to be *unleavened*.

For the process of bread-making, we refer the reader to Ure's *Dictionary of Manufactures*.

1. *Historical Sketch of Bread.*—The President de Goguet has endeavoured, with his usual sagacity and learning, to trace the successive steps by which it is probable men were led to discover the art of making bread (*Origin of Laws &c.* vol. i. pp. 95—105, Eng. trans.); but nothing positive is known on the subject. The method of grinding corn by hand-mills was practised in Egypt and Greece from a very remote epoch; but for a lengthened period the Romans had no other method of making flour than by beating roasted corn in mortars. The Macedonian war helped to make the Romans acquainted with the arts and refinements of Greece; and Pliny mentions that public bakers were then, for the first time, established in Rome. (*Hist. Nat.* lib. xviii. c. 11.) The conquests of the Romans diffused, amongst many other useful discoveries, a knowledge of the art of preparing bread, as practised in Rome, through the whole south of Europe.

The use of yeast in the raising of bread seems, however, from a passage of Pliny (lib. xviii. c. 7), to have been practised by the Germans and Gauls before it was practised by the Romans; the latter, like the Greeks, having leavened their bread by intermixing the fresh dough with that which had become stale. The Roman practice seems to have superseded that which was previously in use in France and Spain; for the art of raising bread by an admixture of yeast was not practised in France in modern times till towards the end of the seventeenth century. It deserves to be mentioned, that though the bread made in this way was decidedly superior to that previously in use, it was declared, by the faculty of medicine in Paris, to be prejudicial to health; and the use of yeast was prohibited under the severest penalties! Luckily, however, the taste of the public concurring with the interest of the bakers, proved too powerful for these absurd regulations, which fell gradually into disuse; and yeast has long been, almost every where, used in preference to any thing else in the manufacture of bread, to the wholesomeness and excellence of which it has not a little contributed.

The species of bread in common use in a country depends partly on the taste of the inhabitants, but more on the sort of grain suitable for its soil. But the superiority of wheat to all other farinaceous plants in the manufacture of bread is so very great, that wherever it is easily and successfully cultivated, wheaten bread is used to the nearly total exclusion of most others. Where, however, the soil or climate is less favourable to its growth, rye, oats &c. are used in its stead. A very great change for the better has, in this respect, taken place in Great Britain within the last century. It is mentioned by Harrison, in his description of England (p. 168), that in the reign of Henry VIII. the gentry had wheat sufficient for their own tables, but that their *household* and poor neighbours were usually obliged to content themselves with rye, barley, and oats. It appears from the household book of Sir Edward Coke, that, in 1596, rye bread and oatmeal formed a considerable part of the diet of servants, even in great families, in the southern counties. Barley bread is stated, in the grant of a monopoly by Charles I. in 1626, to be the usual food of the ordinary sort of people. (Sir F. M. Eden *On the Poor*, vol. i. p. 561.) At the Revolution, the wheat produced in England and Wales was estimated by Mr. King and Dr. Davenant to amount to 1,750,000 quarters. (Davenant's *Works*, vol. ii. p. 217.) Mr. Charles Smith, the very well informed author of the Tracts on the Corn Trade, originally published in 1758, states that in his time wheat had become much more generally the food of the common people than it had been in 1689; but he adds (2nd ed. p. 182, London, 1766) that notwithstanding this increase, some very intelligent enquirers were of opinion that even then not more than *half* the people of England fed on wheat. Mr. Smith's own estimate, which is very carefully drawn up, is a little higher; for, taking the population of England and Wales, in 1760, at 6,000,000, he supposed that 3,750,000 were consumers of wheat; 739,000 of barley; 888,000 of rye; and 623,000 of oats. Mr. Smith further supposed that they individually consumed, the first class, 1 quarter of wheat; the second, 1 quarter and 3 bushels of barley; the third, 1 quarter and 1 bushel of rye; and the fourth, 2 quarters and 7 bushels of oats.

About the middle of last century hardly any wheat was used in the northern counties of England. In Cumberland, the principal families used only a small quantity about Christmas. The crust of the goose pie, with which almost every table in the county is then supplied, was, at the period referred to, almost uniformly made of barley meal. (Eden *On the Poor*, vol. i. p. 564.)

Everyone knows how inapplicable these statements are to the condition of the people of England at the present time. Wheaten bread is now universally made use of in towns and villages, and almost every where in the country. Barley is no longer used, except in the distilleries, and in brewing; oats are employed only in the feeding of horses; and the consumption of rye bread is comparatively inconsiderable. The produce of the wheat crops has been, at the very least, *quadrupled* since 1760. And if to this immense increase in the supply of wheat we add the still more extraordinary increase in the supply of butcher's meat [CATTLE], the fact of a very signal improvement having taken place in the condition of the population, in respect of food, will be obvious.

But great as has been the improvement in the condition of the people of England since 1760, it is but trifling compared to the improvement that has taken place, since the same period, in the condition of the people of Scotland. At the middle of last century Scotch agriculture was in the most depressed state; the tenants were destitute alike of capital and skill; green crops were almost wholly unknown; and the quantity of wheat raised was quite inconsiderable. A field of 8 acres sown with this grain, in the vicinity of Edinburgh, in 1727, was reckoned so great a curiosity that it excited the attention of the whole neighbourhood! (Robertson's *Rural Recollections*, p. 267.) But even so late as the American war, the wheat raised in the Lothians and Berwickshire did not exceed a third part of what is now grown in them; and taking the whole country at an average, it will be a moderate estimate to say that the cultivation of wheat has increased in a *tenfold* proportion since 1780. At

that period no wheaten bread was to be met with in the country places and villages of Scotland; *oat cakes and barley bannocks* being universally made use of. But at present the case is widely different. The upper and also the middle and lower classes in towns and villages use only wheaten bread, and even in farmhouses it is very extensively consumed. There is, at this moment, hardly a village to be met with, however limited its extent, that has not a public baker.

In many parts of England it is yet the custom for private families to bake their own bread. This is particularly the case in Kent, and in some parts of Lancashire. In 1804 there was not a single public baker in Manchester, and their number is still small.

2. *Regulations as to the Manufacture of Bread.*—Owing to the vast importance of bread, its manufacture has been subjected in most countries to various regulations, some of which have had a beneficial and others an injurious operation.

a. Assize of Bread.—From the year 1266, in the reign of Henry III., down to our own days, it has been customary to regulate the price at which bread should be sold according to the price of wheat or flour at the time. An interference of this sort was supposed to be necessary to prevent that monopoly on the part of the bakers which it was feared might otherwise take place. But it is needless, perhaps, to say that this apprehension was of the most futile description. The trade of a baker is one that may be easily learned, and it requires no considerable capital to carry it on; so that were those engaged in the business in any particular town to attempt to force up prices to an artificial elevation, the combination would be immediately defeated by the competition of others; and even though this were not the case, the facility with which bread may be baked at home would of itself serve to nullify the efforts of any combination. But the assize regulations were not merely useless; they were in many respects exceedingly injurious: they rendered the price of flour a matter of comparative indifference to the baker; and they obliged the baker who used the finest flour, and made the best bread, to sell at the same rate as those who used inferior flour, and whose bread was decidedly of a worse quality. But these considerations, how obvious soever they may now appear, were for a long time entirely overlooked. According, however, as the use of wheaten bread was extended, it was found to be impracticable to set assizes in small towns and villages; and, although the fewness of the bakers in such places gave them greater facilities for combining together, the price of bread was almost uniformly lower in them than in places where assizes were set. In consequence, partly of this circumstance, but still more of the increase of intelligence as to such matters, the practice of setting an assize was gradually relinquished in most places; and in 1815 it was expressly abolished, by an Act of the Legislature (55 Geo. III. c. 99), in London and its environs. In other places, though the power to set an assize still subsists, it is seldom acted upon, and has fallen into comparative disuse.

b. Regulations as to the Weight, and Ingredients to be used in making Bread.—According to the assize Acts, a sack of flour weighing 280 lbs. is supposed capable of being baked into 80 quartern loaves; one-fifth of the loaf being supposed to consist of water and salt, and four-fifths of flour. But the number of loaves that may be made from a sack of flour depends entirely on its goodness. Good flour requires more water than bad flour, and old flour than new flour. Sometimes 82, 83, and even 86 loaves have been made from a sack of flour, and sometimes hardly 80.

Under the assize Acts, bakers were restricted to bake only three kinds of bread, viz. wheaten, standard wheaten, and household; the first being made of the finest flour, the second of the whole flour mixed, and the third of the coarser flour. The loaves were divided into peck, half-peck, and quartern loaves; the legal weight of each, when baked, being, the peck loaf 17 lbs. 6 oz., the half-peck 8 lbs. 11 oz., and the quartern 4 lbs. 5½ oz. avoirdupois.

Now, however, it is enacted, that, within the city of London, and in those places in the country where an assize is not set, it shall be lawful for the bakers to make and sell bread made of wheat, barley, rye, oats, buckwheat, Indian corn, peas, beans, rice, or potatoes, or any of them, along with common salt, pure water, eggs, milk, barm, leaven, potato, or other yeast, and *mixed in such proportions as they shall think fit*. (3 Geo. IV. c. 106 s. 2, and 1 & 2 Geo. IV. c. 50 s. 2.)

It is also enacted by the same statutes that bakers in London, and in the country, i.e. in all places 10 miles from the Royal Exchange where an assize is not set, *may make and sell bread of such weight and size as they think fit*, any law or assize to the contrary notwithstanding. But it is at the same time enacted that such bread shall always be sold by avoirdupois weight of 16 ounces to the pound, and in no other manner, under a penalty for every offence of not more than 40*s.*, except, however, French or fancy bread, or rolls, which may be sold without previously weighing the same.

Bakers or sellers of bread are bound to have fixed, in some conspicuous part of their shop, a beam and scales, with proper weights for weighing bread; and a person purchasing bread may require it to be weighed in his presence. Bakers, and others sending out bread in carts, are to supply them with beams, scales &c., and to weigh the bread if required, under a penalty of not more than 5*l.* (3 Geo. IV. c. 106 s. 8.)

Bakers, either journeymen or masters, using alum or any other unwholesome ingredient, and convicted on their own confession, or on the oath of one or more witnesses, to forfeit not exceeding 20*l.* and not less than 5*l.* if beyond the environs of London, and not exceeding 10*l.* nor less than 5*l.* if within London or its environs. Justices are allowed to publish the names of offenders. The adulteration of meal or flour is punishable by a like penalty. Loaves made of any other grain than wheat without the City and its liberties, or beyond 10 miles of the Royal Exchange, to be marked with a large Roman M.; and every person exposing such loaves without such mark shall forfeit not more than 40*s.* nor less than 10*s.* for every loaf so exposed. (1 & 2 Geo. IV. c. 50 s. 6.)

Any ingredient or mixture found within the house, mill, stall, shop &c. of any miller, mealman, or baker, which, after due examination, shall be adjudged to have been placed there for the purpose of adulteration, shall be forfeited, and the person within whose premises it is found punished, if within the city of London and its environs, by a penalty not exceeding 10*l.* nor less than 40*s.* for the first offence, 5*l.* for the second offence, and 10*l* for every subsequent offence. (3 Geo. IV. c. 106 s. 14.) And if without London and its environs, the party in whose house or premises ingredients for adulteration shall be found shall forfeit for every such offence not less than 5*l.* and not more than 20*l.* (1 & 2 Geo. IV. c. 5 s. 8.)

Bakers in London and its environs are not to sell, or expose to sale, any bread, rolls, or cakes,

nor bake or deliver any meat, pudding, pie, tart, or victuals of any sort, on Sundays, except between the hours of *nine* in the morning and *one* in the afternoon, under penalty of 10*s.* for the first offence, 20*s.* for the second offence, and 40*s.* for every subsequent offence. (3 Geo. IV. c. 106 s. 16.)

Bakers in the country are prohibited from selling &c. any bread &c. or baking or delivering any meat &c. on Sundays any time after half past 1 o'clock of the afternoon of that day, or during the time of Divine service, under penalty of 5*s.* for the first offence, 10*s.* for the second, and 20*s.* for the third and every subsequent offence. (59 Geo. IV. c. 36 s. 12.)

There are several regulations in the Acts now in force with respect to the sale &c. of bread where an assize is set; but as the practice of setting an assize is nearly relinquished, it seems unnecessary to recapitulate them. The weight of the assize bread has already been mentioned, and the principle on which its price is fixed.

Notwithstanding the prohibition against the use of alum, it is believed to be very generally employed, particularly by the bakers of London. 'In the metropolis,' says Dr. Thomson (*Suppl. to Encyc. Brit.* art. 'Baking'), 'where the goodness of bread is estimated entirely by its whiteness, it is usual with those bakers who employ flour of an inferior quality to add as much alum as common salt to the dough; or, in other words, the quantity of salt added is diminished a half, and the deficiency supplied by an equal weight of alum. This improves the look of the bread, rendering it much whiter and firmer.'

The census returns of 1860 give 12,308 as the number of 'bakers' in the metropolitan district. The trade which they carry on is in general but limited, and it is not reckoned a very advantageous line of business.

Bread-making in France.—The old assize of bread was, and theoretically is still, in force in France. The Government did not, however, fix the price, but this was left to the mayor of the commune, in Paris to the préfet of the city. This privilege of the mayor was conferred on him by a law of July 1791. In pursuance of these arrangements, the bakers were made liable to a variety of regulations. In most communes their number was limited. In Paris, in 1860, they were only 1,601, and their shops were liable to inspection. It is said that, in order to keep the Parisian populace in good humour, the bakers were compelled to sell bread in scarce times at low prices, their loss being reimbursed to them from the public or communal revenue.

Table showing the Mean Annual Prices per Kilogramme in Centimes and Fractions of Wheaten Bread at Paris from the year 1801 *to* 1858.

Years	Prices	Years	Prices	Years	Prices	Years	Prices
	cents.		cents.		cents.		cents.
1801	32·61	1816	45·37	1831	39·69	1845	32·75
1802	40·3	1817	61·43	1832	37·6	1846	39·37
1803	28·58	1818	37·35	1833	28·95	1847	49·87
1804	23·96	1819	35·27	1834	27·44	1848	29·29
1805	25·25	1820	41·87	1835	28·59	1849	28·37
1806	29·42	1821	38·35	1836	27·92	1850	26·87
1807	30·23	1822	33·2	1837	29·32	1851	26·96
1808	26·19	1823	33·35	1838	34·53	1852	31·8
1809	22·73	1824	28·48	1839	39·95	1853	38·27
1810	29·15	1825	29·48	1840	38·83	1854	48·5
1811	33·35	1826	29·45	1841	31·4	1855	49·79
1812	50·87	1827	32·4	1842	34·17	1856	49·91
1813	39·15	1828	39·95	1843	32·62	1857	38·17
1814	28·21	1829	45·75	1844	31·8	1858	29·4
1815	28·5	1830	39·32				

The *regulations* affecting the baker's trade were taken away by a decree of June 22, 1863. But the decree says nothing of the assize, for this right was conferred on the mayor by law. The Minister of Agriculture, however, issued a circular, dated August 22, 1863, suggesting to the mayor to suspend, provisionally, his privilege. If, it is said, experience is favourable to this suggestion, the law will be altered by the Legislature. [The information on this head has been supplied by M. Maurice Block.]

BREMEN. One of the Hanseatic cities, on the Weser, about 50 miles from its mouth, lat. 53° 4½′ N., long. 8° 48′ 3″ E. The city and suburbs contain an area of 73½ square miles (British) The revenue for the three years 1862-4 was 279,404*l.*, 241,627*l.*, 261,910*l.*; the expenditure 353,406*l.*, 367,866*l.*, 295,536*l.* Population in 1864. 104,091; that of Bremen town being 70,692; of Vegesack town 3,981; Bremer Haven 7,435; of the rural districts 21,983.

Its situation renders Bremen the principal emporium of Hanover, Brunswick, Hesse, and other countries traversed by the Weser.

Entrance to Bremen.—The entrance to the Weser lies between the Mellum and other sands on the south-western, and the Teglers Plaat &c. on the north-eastern side. Its course from Bremerlehe to its mouth is nearly S.E. and N.W. It is buoyed throughout; the buoys on the right or starboard side when entering being black and marked with letters, while those on the left or larboard are white and numbered. The first or outer black buoy has a gilt key upon it, and is, therefore, called the *schlussel* or key buoy; it lies in 10½ fathoms, bearing N.E. 5 miles from Wrangeroog light. This is an intermitting light, having replaced in 1850 the old coal-fire beacon on the island of Wrangeroog, opposite to the northern extremity of East Friesland. It is, according to the most authentic statements, in lat. 53° 47½′ N., long. 7° 51′ 55″ E.; and is elevated 63¼ feet above high-water mark, being alternately visible and invisible for the space of a minute.

In place of the wooden *Bremen Beacon*, situated in 53° 42′ 51″ North lat. and 8° 14′ 52″ East long. from Greenwich, a lighthouse was erected in the Weser on the Hohe Weg in 1856. It is of brick, and surrounded with sloping masonry of stone at the base. It is octagonal.

The light is catadioptric, according to Fresnel's system of the second order; it is 107 feet above high-water at ordinary tides, and is a fixed white light. In clear weather it is visible at the distance of 15 or 16 nautical miles, within all the points of the compass from S. round E. to N. W. by W., and may therefore be seen from the Key buoy.

From the outer light-vessel the lighthouse bears S. by E. ¼ E., and from the lighthouse the church of Langwarden bears S.

For the convenience of mariners entering the Weser, but by no means to induce them to neglect the use of the lead, a small white light will be shown from the lighthouse at an elevation of 88 feet above common high-water mark, which in clear weather will be visible at the distance of 7 nautical miles. This light will disappear to those who are nearing too much the black buoy (or starboard) side, near buoys H. and J. To those entering the *Dwarsgat* it will assume a reddish colour in a line with the red buoy, and will disappear when they reach the line of the black W. A. buoy. This smaller light will be visible between the bearings of N. by W. ¾ W. round northward to E. by S.

By a law of February 12, 1866, regulations have been laid down for discharging freights in the ports of the Weser. The time allowed for discharging vessels up to 75 lasts is eight days between March 1 and October 31, twelve days between Nov. 1 and Feb. 28. For every additional

30 lasts one day more is allowed. Sundays and holidays are not reckoned.

The number of Bremen vessels on January 1, 1867, amounted to 293, of the burden of 112,497½ lasts, each last of 4,000 lbs., 2,032 lbs. being equal to one English ton. The number of vessels which arrived at Bremen in 1866 was 2,870, of 373,785 lasts burden. The following are the principal institutions in Bremen :—

The *Chamber of Commerce or Board of Trade* at Bremen was substituted in 1849 for the ancient court of Aldermen called Collegium Seniorum. The members of the chamber are elected by and from merchants. It consists of 24 members and two syndics. It possesses certain legislative and executive functions.

The *Bank* has a capital of 4,000,000 Bremen thalers and a note circulation of about 2,000,000 Bremen thalers.

A Discount and Deposit Bank has been established with a capital of 20 millions thalers (400,000*l.*). It is empowered to issue notes of the value of 5 thalers and upwards, payable on demand, to the amount of one-third of the bullion in its coffers; and is said to have been of considerable use, by its judicious conduct, during the crisis of 1857. It has since been authorised to add 2½ million thalers to its capital.

The gold thaler equals 3*s.* 4*d.* sterling.

The public debt of Bremen is about 12,000,000 thalers, chiefly contracted for railways, docks &c.

The *Norddeutsche Lloyd.*—This company owns 27 steamers and a number of iron lighters. Among the steamers are 4 large Transatlantic steam-ships, which maintain a regular communication once a fortnight with the United States, and 6 steamers which run between Bremen, London, and Hull.

The *Emigration Office*, where emigrants may obtain, gratuitously, all reliable information and advice. The number of emigrants embarking at Bremen during the period from 1851 to 1862 amounts to 455,782, averaging 38,000 a-year. The largest number, viz. 76,875, passed through in 1854. In 1866 the emigrants were 62,254, nearly all of whom went to the United States. (See below.)

Quantities and Value of the Principal Articles Imported into, and Exported from, Bremen, in each of the Years 1863 *and* 1864.

Principal Articles	Imported				Exported			
	1863		1864		1863		1864	
	Quantities	Value	Quantities	Value	Quantities	Value	Quantities	Value
		rix-dollars		rix-dollars		rix-dollars		rix-dollars
Bacon - lbs.	3,694,701	766,656	192,585	22,971	3,679,262	386,483	867,217	100,593
Beef - ,,	1,414,368	135,567	1,163,665	118,842	1,355,212	139,394	840,617	92,089
Butter - ,,	4,062,908	933,730	2,292,589	588,252	2,193,252	511,779	641,632	167,575
Cheese - ,,	2,800,106	319,352	1,403,171	189,720	2,372,609	297,589	956,762	137,670
Chicory - ,,	2,646,922	120,118	1,127,436	52,815	—	—	—	—
Cigars - mille	35,452	407,374	37,740	526,902	104,900	1,411,875	103,248	1,451,345
Cocoa - lbs.	178,175	31,932	400,406	78,758	—	—	—	—
Coffee - ,,	8,987,385	1,899,699	8,788,705	1,859,915	7,846,277	1,732,891	6,509,161	1,462,125
Corn: wheat - lasts	2,097	252,427	1,918	221,073	693	93,115	1,255	140,470
rye - ,,	13,343	1,326,530	9,540	790,455	6,184	641,731	4,994	432,744
oats - ,,	4,225	207,905	3,405	166,692	1,428	81,666	867	44,255
barley - ,,	1,683	139,195	1,835	139,986	604	51,908	685	55,241
Cotton, raw - ,,	9,855,605	4,411,809	11,384,371	5,807,254	9,857,446	4,890,295	10,987,194	6,018,969
Currants and raisins lbs.	2,921,651	161,314	1,519,869	96,320	—	—	—	—
Grease, lard &c. ,,	4,091,928	489,123	2,115,396	270,099	4,677,161	565,311	4,861,546	671,673
Ham - - ,,	1,672,918	230,778	1,246,242	196,908	1,327,643	219,811	982,700	182,720
Hides: salt - ,,	1,288,015	161,058	1,671,325	216,815	—	—	—	—
dried - ,,	2,138,807	410,673	1,881,336	342,789	—	—	—	—
Honey - ,,	2,453,169	201,650	2,329,709	189,796	1,976,510	176,261	1,331,540	123,877
Hops - - ,,	1,618,741	446,022	855,326	235,533	1,468,991	416,744	893,927	205,647
Indigo - ,,	392,311	815,947	467,981	998,826	310,020	715,607	487,058	1,076,326
Molasses - ,,	4,430,541	122,576	2,032,938	67,227	—	—	—	—
Pepper - ,,	1,567,521	169,532	1,293,444	121,825	1,720,217	193,238	1,135,106	128,390
Petroleum - ,,	8,683,102	516,767	8,679,756	698,044	5,643,070	334,716	7,091,651	600,245
Rice - - ,,	80,800,109	2,566,717	90,280,011	2,993,993	44,904,247	1,963,518	63,210,300	2,625,008
Salt - - lasts	3,040	115,885	3,452	101,055	—	—	—	—
Skins, raw - lbs.	156,505	459,484	180,892	457,607	148,233	444,602	175,375	447,100
Spirits: rum - hds.	3,155	163,878	3,818	179,549	5,805	392,544	6,125	423,141
spirits of wine ,,	7,650	234,909	14,463	404,081	5,695	128,206	8,677	259,879
Sugar: raw - lbs.	24,487,018	1,588,475	12,428,142	1,044,523	15,049,708	1,081,186	2,196,161	189,013
refined ,,	2,141,801	317,758	1,958,261	299,435	8,708,366	945,681	4,606,047	575,879
Tallow - ,,	1,939,397	234,092	770,943	86,340	—	—	—	—
Timber:								
oak and beech cubic ft.	917,595	380,324	605,349	240,273	—	—	—	—
fir and alder &c. ,,	1,467,106	299,406	878,778	161,500	—	—	—	—
deals and planks no.	1,514,010	460,363	1,701,068	415,767	—	—	—	—
cedar - sq. ft.	3,837,849	319,474	3,137,346	243,270	—	—	—	—
Tobacco - lbs.	68,341,639	15,819,970	70,589,701	14,446,180	63,071,879	15,911,546	63,810,084	14,613,768
Train oil - tons.	16,828	433,727	16,081	425,305	—	—	—	—
Whalebone - lbs.	—	—	—	—	265,583	413,399	291,726	397,267
Whale fins - ,,	214,535	316,992	238,036	290,894	—	—	—	—
Wheat meal - ,,	11,075,848	474,481	10,458,383	414,695	—	—	—	—
Wool, raw (sheep's) ,,	1,947,864	1,215,237	1,510,748	1,191,810	1,975,383	1,027,218	1,526,287	1,198,015

Vegesack, situated on the Weser, is remarkable for ship-building. Its harbour is of no importance, and only fitted for smaller vessels. There is a Railway hence to Bremen; and *Bremer Haven*, the harbour of Bremen, has also been connected with the city by railroad (since 1862). The harbour works are very extensive, and are being enlarged year by year to meet the requirements of the extending trade. In addition to the adjacent Geestemünde, there are three large docks of such depth that vessels drawing 23 to 24 feet can enter with facility. The harbour dues are very moderate, and not higher than those of Geestemünde.

Besides her communications by water, Bremen is now, also, connected by railways with Hanover, Leipsic, and the whole of western and central Germany; and hence the rapidly increasing magnitude of her commerce, which has more than doubled within the last 8 or 10 years. Though inferior as a navigable river to the Elbe, the Weser has the important advantage on its side of being free from those tolls and burdens which obstruct the navigation of the former. The toll at Elsfleth, below Bremen, was suspended or abolished early in this century; and the tolls on the Upper Weser have been abolished since 1815. And we may add that the advantages which have resulted from the free navigation of the Weser have powerfully contributed to awaken attention

to the mischievous influence of the tolls at Stade and elsewhere on the Elbe.

The charges on the buying, selling, and shipping of goods at Bremen are very moderate. The principal German exports are woollen goods, linens, grain, oak bark, glass, smalts, hams, hides, rapeseed, beef and pork, rags, wool, wine, wooden toys and clocks, oil-cake &c. The wheat and barley shipped here are mostly inferior; but the oats are useful common feed; beans are good. The linens are much the same as those from Hamburg. The imports consist of tobacco (of which large quantities are re-exported), coffee, sugar, and other colonial products; whale oil, iron, rice, hides, wines, raw cotton, cotton stuffs and yarn, earthenware, coal, brandy, tar, tea, dyewoods, timber, hemp &c.

The oversea trade of Bremen with the United States is important. She also sends thither a great variety of German products, and brings back large quantities of cotton, tobacco, rice, and other American produce. The annexed account shows the magnitude of her trade with the United States in 1864. From the official accounts published by order of Congress, the value of the exports of the domestic produce of the Union to Bremen was estimated for the year ended June 30, 1858, at 8,617,457 thalers, and that of the imports into the Union from Bremen in the same year at 10,452,106 thalers.

Total Value of the Imports and Exports at the Port of Bremen, from various Countries, in the Year 1864.

Countries	Imports *	Exports *
	rix-dollars	rix-dollars
Greenland	43,091	—
Russia	860,667	2,405,456
Sweden	85,460	1,039,292
Norway	233,605	765,075
Denmark	3,567	495,582
Lauenburg and Sleswig Holstein	145,523	434,127
Helgoland	—	270
Hamburg	2,495,536	2,419,749
Lübeck	58,581	129,062
Weser Ports of Bremen	—	—
Mecklenburg	60,241	291,826
Holland	361,042	940,037
Zollverein	22,967,686	31,816,437
Belgium	189,378	324,036
United Kingdom	10,955,127	4,051,028
France	755,363	251,137
Austria	1,219,666	3,003,159
Switzerland	104,730	764,772
Spain and Portugal	214,392	160,653
Italy	115,478	169,114
Greece	15,671	—
Turkey in Europe	25,404	27,418
Turkey in Asia	23,117	85,547
Russia in Asia	—	64,621
Egypt	—	55,098
British North America	10,461	69,487
United States	9,155,912	8,062,679
Mexico and Central America	245,443	155,099
Cuba	3,924,335	533,561
Jamaica	187,172	91,060
Hayti	188,058	87,987
Porto Rico	375,229	225,704
St. Thomas	1,060	1,280
New Grenada	4,196,765	121,267
Venezuela	552,997	430,163
Brazil	2,689,642	95,900
Uruguay	—	19,172
Buenos Ayres	82,870	252,814
Chile	—	32,774
Peru	17,861	92,268
Ecuador	13,040	41,896
Canary Islands	65,521	60,907
Cape Colony	—	3,905
West Coast of Africa and Mauritius	33,314	58,011
British East Indies	1,981,551	57,205
Birmah	1,589,129	9,230
Dutch East Indies	745,692	7,013
Pondichery	1,800	—
Manilla	352	—
China	151,704	174,226
Japan	5,285	4,746
Australia and Sandwich Islands	361,812	387,600
Ship's stores	—	705,955
Other countries	3,375	24,259
Total rix-dollars	67,113,950	61,466,848
Total £	11,185,655	10,244,474

* Exclusive of the trade of the Weser Ports, which was included with Bremen in the year 1862.

Arrivals and Departures of Shipping at Bremen in the Years 1860–64.

Years	Entered					
	Cargoes		Ballast		Total	
	Vessels	Lasts of two tons	Vessels	Lasts of two tons	Vessels	Lasts of two tons
1860	2,462	267,209	460	16,949	2,922	284,158
1861	2,689	276,343	462	13,639	3,151	290,142
1862	2,398	251,005	377	18,798	2,775	269,803
1863	2,396	256,811	551	25,308	2,947	282,119
1864	2,261	248,364	343	26,343	2,604	274,707
	Cleared					
1860	2,536	195,297	923	109,896	3,459	305,893
1861	2,165	175,837	1,008	123,562	3,173	299,199
1862	2,322	194,302	824	91,951	3,146	286,343
1863	2,468	201,121	969	107,135	3,437	308,556
1864	1,912	196,327	872	80,872	2,784	277,199

The value of the imports of British goods in 1865 was 1,143,320*l.*, and in 1866 1,438,325*l.* The value of the exports to England in 1865 was 1,107,491*l.*, and in 1866 was 1,154,014*l.*

Duties.—An export duty of ½ per cent., ad valorem, is charged on all merchandise shipped from Bremen; and an import duty of ½ per cent., ad valorem, on all foreign articles entered for sale.

Goods passing through Bremen in transitu are divided into *four* classes; those subjected to the highest duty paying about ½*d.* per cwt. gross, while those subjected to the lowest duty pay only about ⅛*d.* per ditto. As this duty can yield but a mere trifle, it should be repealed.

The value of the *imports* is calculated according to the invoice price, adding thereto the freight and the rate of insurance current in Bremen; the value of the *exports* is estimated from the invoice price only. Should there be no invoice of imports, it is the duty of the importer to make a correct estimate of the value upon oath.

Emigration.— Bremen has become the most considerable port on the Continent for the shipment of emigrants. In proof of this we subjoin an

Account of the Numbers of the Emigrants sailed from Bremen during each of the 35 *Years ending with* 1866.

Years	Emigrants	Years	Emigrants
1832	10,344	1850	25,776
1833	8,891	1851	37,493
1834	15,086	1852	38,561
1835	6,185	1853	38,111
1836	14,137	1854	76,878
1837	15,087	1855	31,550
1838	9,312	1856	36,511
1839	12,412	1857	49,399
1840	12,806	1858	23,095
1841	9,594	1859	22,098
1842	13,619	1860	30,128
1843	9,927	1861	17,261
1844	19,857	1862	14,710
1845	31,822	1863	18,022
1846	32,372	1864	27,486
1847	33,682	1865	44,181
1848	29,947	1866	62,254
1849	28,629		

Nine-tenths and more of the emigrants are destined for the United States, and are justly regarded as among the best of the recruits sent to them from Europe. It will be seen, however, that the number, which was diminished during the American war, has again largely increased.

Ship-brokers are licensed officers, and give security to the amount of 2,000 rix-dollars for the faithful discharge of their duties. These are, to engage freights, to sell vessels by auction, to enter vessels, and collect freights. They are not permitted to have partners, to transact any commercial business on their own account, to accept commissions or consignments, to sell or purchase bills of exchange, or to engage in any mercantile concerns.

None but appointed brokers of this class can undertake any of the duties assigned to them.

Any person employing a non-appointed broker is deprived of legal redress against the unauthorised agent by whose conduct he may sustain injury.

Ship-brokers are obliged to keep a register of all vessels coming in or going out, of the names of the captains who employed them, to procure manifests of cargoes, and to attend to the payment of duties and other dues chargeable on vessel or cargo.

The fees allowed to them are, for chartering a vessel in bulk, 18 grotes per grain last; of this the owner pays 12 and the freighter 6 grotes.

For outward-bound vessels, taking merchandise as it may be offered, 2 per cent. on the freight.

For entering a vessel from sea measuring 50 lasts, 5 rix-dollars; measuring 100 ditto, 7½ rix-dollars; and if she measure above 100 lasts, 10 rix-dollars.

Entry dues are to be paid by the consignees of foreign vessels out of the commission they may charge.

For the collection of freight money, the broker is entitled to receive 1 per cent., but the consignee of a *foreign* vessel is to pay this sum.

Regulations of the Harbour of Bremer Haven.—All vessels entering the harbour are subject to the superintendence of the harbour-masters, whose directions are to be obeyed.

No ballast or rubbish is to be thrown overboard under a heavy penalty.

It is not permitted to keep gunpowder on board longer than 2 hours after the vessel has reached her berth under a heavy penalty; nor is it permitted to discharge any fire-arms in port.

The use of all fire on board, from sunset to sunrise, is prohibited; the captain, however, may have a light, in a closed lantern, in his cabin.

The crews are not allowed to carry on shore any fire-arms, dirks, or other weapons.

Harbour Dues at Bremen.

For each ship over 30 last burden lying in harbour for two months (60 days) at most, each last	11 grotes.
Less ships by last	8 "
One month	half the above.
Beyond two months, each month, each last	1 grote.
Rafts of timber each month	2 thalers.

Tonnage Dues in place of Harbour Dues.

Goods stowed on board or landed, each last — 3 grotes.
Ships remaining more than a month to pay harbour dues.
Lock dues — 2 thalers 36 grotes.
Tonnage dues from the right bank, each last, 1 grote, but no excess over 36 grotes.
Certain vessels are exempt from these tolls of harbour and tonnage.
Repairs to keel, when needed, a payment of per last burden, 4 grotes.

Harbour Dues.

last	thal.	gr.
up to 60	1	60
60 to 120	2	18
120 to 300	3	36
300 to 500	4	54
500 to 700	5	36
700 and upwards	7	0

Life-boat service.

last	thal.	gr.
up to 60	1	24
60 to 120	1	60
120 to 300	3	18
300 to 500	3	54
500 to 700	5	0
over 700	6	18
ocean steamships	12	0

Towing ships.

last	thal.	gr.
up to 150	0	36
150 to 400	1	0
400 and upwards	1	36

Stowage on quay, license being given, every square perch, 6 grotes.

(*Regulations of Nov.* 17, 1863.)

The following are the rates of pilotage for the pilot-company of Bremer Haven:—

I. Vessels coming from sea, of whatever construction, pay in gold or Bremen money for each foot Bremen measure which the vessel draws:

A. During the summer months, from April 16 to September 15, inclusive:—

Bremer Haven.

		thal.	gr.
1.	From sea to Bremer Haven	2	3
2.	the first to the fourth buoy	1	57
3.	fourth to the seventh buoy	1	39
4.	seventh buoy to the Bremen beacon	1	27
5.	Bremen beacon to the red buoy	1	9
6.	red buoy to Wremen	0	69
7.	Wremen to Bremer Haven	0	51
8.	Bremer Haven to Grossensiel	0	33

Zweyburg.

		thal.	gr.
1.	From sea to Zweyburg	2	10
2.	the first to the fourth buoy	1	64
3.	fourth to the seventh buoy	1	46
4.	seventh buoy to the Bremen beacon	1	34
5.	Bremen beacon to the red buoy	1	16
6.	red buoy to Wremen	1	4
7.	Wremen to Bremer Haven	0	58
8.	Bremer Haven to Zweyburg	0	40

Brake.

		thal.	gr.
1.	From sea to Brake	2	18
2.	the first to the fourth or Crosbuoy	2	0
3.	fourth to the seventh buoy or Mellum	1	54
4.	seventh buoy to the Bremen beacon	1	42
5.	Bremen beacon to the red buoy	1	24
6.	red buoy to Wremen	1	12
7.	Wremen to Bremer Haven	0	66
8.	Bremer Haven to Brake	0	48

B. In spring and autumn, from February 16 to April 15, and from September 16 to November 15, both inclusive:—

Bremer Haven.

		thal.	gr.
1.	From sea to Bremer Haven	2	15
2.	the first to the fourth buoy	1	69
3.	fourth to the seventh buoy	1	51
4.	seventh buoy to the Bremen beacon	1	39
5.	Bremen beacon to the red buoy	1	21
6.	red buoy to Wremen	1	9
7.	Wremen to Bremer Haven	0	63
8.	Bremer Haven to Grossensiel	0	45

Zweyburg.

		thal.	gr.
1.	From sea to Zweyburg	2	24
2.	the first to the fourth buoy	2	6
3.	fourth to the seventh buoy	1	60
4.	seventh buoy to the Bremen beacon	1	48
5.	Bremen beacon to the red buoy	1	30
6.	red buoy to Wremen	1	18
7.	Wremen to Bremer Haven	1	0
8.	Bremer Haven to Zweyburg	0	54

Brake.

		thal.	gr.
1.	From sea to Brake	2	35
2.	the first to the fourth buoy	2	15
3.	fourth to the seventh buoy	1	69
4.	seventh buoy to the Bremen beacon	1	57
5.	Bremen beacon to the red buoy	1	39
6.	red buoy to Wremen	1	27
7.	Wremen to Bremer Haven	1	9
8.	Bremer Haven to Brake	0	63

C. During the winter months, from November 16 to February 15, inclusive:—

Bremer Haven.

		thal.	gr.
1.	From sea to Bremer Haven	2	52
2.	the first to the fourth buoy	2	28
3.	fourth to the seventh buoy	2	4
4.	seventh buoy to the Bremen beacon	1	60
5.	Bremen beacon to the red buoy	1	36
6.	red buoy to Wremen	1	20
7.	Wremen to Bremer Haven	0	68
8.	Bremer Haven to Grossensiel	0	44

Zweyburg.

		thal.	gr.
1.	From sea to Zweyburg	2	61½
2.	the first to the fourth buoy	2	37½
3.	fourth to the seventh buoy	2	13½
4.	seventh buoy to the Bremen beacon	1	69½
5.	Bremen beacon to the red buoy	1	45½
6.	red buoy to Wremen	1	29½
7.	Wremen to Bremer Haven	1	5½
8.	Bremer Haven to Zweyburg	0	53½

Brake.

		thal.	gr.
1.	From sea to Brake	3	0
2.	the first to the fourth buoy	2	48
3.	fourth to the seventh buoy	2	24
4.	seventh buoy to the Bremen beacon	2	8
5.	Bremen beacon to the red buoy	1	56
6.	red buoy to Wremen	1	40
7.	Wremen to Bremer Haven	1	16
8.	Bremer Haven to Brake	0	64

The places named from Nos. 1 to 8 point out the commencement and the end of the divisions or stations, for which the adjoined hire is to be paid, whether the pilot went on board at the commencement or at the end of the space so designed.

II. Vessels going to sea, for each foot Bremen measure which they draw:—

A. During the summer months, from April 16 to September 15, inclusive:—

		thal. gr.
1.	From Bremer Haven to the Bremen beacon	0 39
2.	Mellum	0 56
3.	fourth or cross buoy	1 0
4.	first buoy	1 12

B. In spring and autumn, from March 1 to April 15, and from September 16 to October 31:—

		thal. gr.
1.	From Bremer Haven to the Bremen beacon	0 58½
2.	Mellum	1 12
3.	fourth or cross buoy	1 36
4.	first buoy	1 54

C. During the winter months, November, December, January, and February:—

		thal. gr.
1.	From Bremer Haven to the Bremen beacon	1 6
2.	Mellum	1 40
3.	fourth or cross buoy	2 0
4.	first buoy	2 24

D. For piloting a vessel to the Elbe or Eyder is to be paid, without regard to her bulk:—

a. During the summer months, from April 16 to September 15:—

	thal. gr.
To the Elbe	18 0
Eyder	24 0

b. From September 16 to April 15:—

	thal. gr.
To the Elbe	36 0
Eyder	42 0

Measures, Weights, and Money.

Measures of Length.

100 Bremen feet=94·933 English feet.
1 Bremen ell=2 feet=·633 English yards.

Superficial Measure.

1 Bremen square foot=·903 English square foot.

Cubical Measure.

1 Bremen cubic foot=1·728 cubic inches=·807 English cubic foot.

Measures of Capacity.

1 Bremen last of grain=10 scheffel.
1 scheffel=0·225 English quarter.
1 last=10·200 English quarters.

Fluid Measures for Wine and Spirits.

1 oxhoft=6 anker=30 viertel.
1 viertel=1·560 English imp. gallons.
1 oxhoft=46·800 English imp. gallons.

Weight.

100 Bremen handels-pfunde=110·232 English avoid. lb.

Money.

1 lb. fine gold=30 kronen=120 thalers gold.
100 thalers gold=16 ·257 £ or 100 £=615·083 thalers.
410·550 frc. or 1 frc.=17·538 grotes.
79·100 U.S. dols. or 1 dol.=1·265 thalers.
The course of exchange of gold against silver gives
in Hamburg for 1 : 15·33.
in Berlin „ 1 : 15·42.
The course of exchange is with

London	100 £ l. s.	615·694 thalers	2 months	611·737 thalers.
Paris	1 frc.	„	„	17·452 grotes.
Hamburg	300 bco. l.s.	184·028 thalers	„	182·78 thalers.
Berlin	100 ths. gold	„ 109·917 „	„	110·947 „

Tares.—The usual tares are, on sugar in casks and Brazil chests, 17 per cent.; on Havannah boxes, 70 lbs.; Maryland tobacco, 90 lbs. per hogshead; ditto Virginia and Kentucky, 110 lbs. per hogshead; cotton, round bales, 4 per cent.; square ditto, 6 per cent.; tea (green), 20 lbs. per quarter chest, equal to the modern English chest; ditto (black), 22 lbs. per quarter chest. Most other articles, such as East India indigo, rice, coffee, spices &c. real tare. (*Drawn up from the communications of Bremen merchants and Consular Reports.*)

BRIBE. Any person giving or offering a bribe, recompense, or reward, to any officer of the customs, to induce him to neglect his duty, to forfeit 200*l.* (3 & 4 Wm. IV. c. 53 s. 38).

BRICKS AND TILES. Well-known articles used in the building and covering of houses. They are made of baked clay and sand.

Until 1833 an excise duty was charged both on bricks and tiles (the latter being then exempted from the duty), so that their manufacture was placed under surveillance. It was ordered by 17 Geo. III. c. 42 that bricks made for sale should be 8½ inches long, 2½ inches thick, and 4 wide; on pain of forfeiting, for bricks of less dimensions when burnt, 20*s.* for every 1,000, and proportionally for a greater or less number. It was also provided that the size of the sieves or screens for sifting or screening sea-coal ashes to be mixed with brick earth in making bricks should not exceed ¼ inch between the meshes.

Bricks being the principal material used in London and in most parts of England in the building of houses, immense quantities are annually produced in that part of the United Kingdom. And notwithstanding the influence of the duty, their consumption in England nearly doubled during the 20 years ending with 1840; the number that paid duty in 1821 having been 899,178,510, whereas in 1840 it amounted to 1,677,811,134, and in 1847 to 2,193,829,491; but they subsequently fell off, the quantity brought to the charge in 1849, the last year of the duty, being only 1,462,767,154. In Scotland, where stone is mostly employed in building, their manufacture is comparatively unimportant. The duty, which produced, in 1849, a nett revenue (inc. Scotland) of 456,452*l.*, had long been felt to be extremely partial, seriously affecting some parts of the country, while it did not touch others. Its defects were set in a still more striking light by the rapidly extending use of tiles, after they had been relieved from the duty in drainage and otherwise. Influenced by these and other considerations, Government proposed and carried the repeal of the duty on bricks in 1850. Perhaps, however, the better plan would have been to have commuted it for an equivalent house-tax.

BRIMSTONE. [Sulphur.]

BRISBANE. The metropolis of the colony of Queensland. It is situated about 12 miles up the river Brisbane, and being accessible to steamers and coasters is a city of considerable commercial importance. Pop. (1861) 4,225; of the colony, 34,885. The imports from Queensland have risen from 155,673*l.* in 1862 to 341,362*l.* in 1866. The principal, nearly the sole, article is sheep and lamb's wool, of which 3,354,020 lbs. were imported thence into the United Kingdom in 1866; this material being of very good quality. A small amount of cotton, for the production of which the colony is well suited, is also exported. The exports from the United Kingdom to Queensland are cotton, linen and woollen fabrics, iron, hardware, and machinery. They have risen from 210,757*l.* in value (1862) to 561,693*l.* (1866). [Colonies and Colony Trade.]

BRISTLES (Fr. soies; Ger. borsten; Dutch, borstels; Ital. setole; Span. cerdas, setas; Pol. szczeciny; Russ. schtschetina; Lat. setæ). The strong glossy hairs growing on the back of the hog and the wild boar.

These are very extensively used by brushmakers, shoemakers, saddlers &c. and form a considerable article of import.

British bristles are not to be had, the old breeds of the pig having died out, and the improved breeds being almost without hair.

Our supplies of bristles are chiefly obtained from Russia, European and Asiatic. The following is a list of the annual exports from St. Petersburg (the chief port of shipment) during the eleven years ending with 1865:—

	Poods		Poods
1855	67,336	1861	57,635
1856	67,569	1862	64,373
1857	69,894	1863	75,065
1858	70,705	1864	71,931
1859	77,353	1865	78,995
1860	71,986		

100 poods = 3¾cwt. 0qr. 16lb. English.

The total quantity of bristles imported into the United Kingdom in 1866 was 2,678,565 lbs., valued at 352,223*l.*

There are various substances used as substitutes for bristles. Amongst these may be mentioned the *agava*, or fibre of the *Agave americana*, stated by the jury of the London Exhibition of 1862 to possess qualities which in some respects render it equal if not superior to hog's bristles. The fibre of the broom corn (*Sorghum vulgare*) is also used, as also that of the Piassava or Bass, which grows in the Brazilian forests on the *Attalea funifera*.

The duty, which varied from 2*s.* 6*d.* on rough to 3*s.* per cwt. on sorted bristles, was repealed in 1845.

BROKERS. Persons employed as middlemen to transact business or negotiate bargains between different merchants or individuals. They are sometimes licensed by public authority, and sometimes not.

Brokers are divided into different classes; as bill or exchange brokers, stockbrokers, ship and insurance brokers, pawnbrokers, and brokers simply so called, or those who sell or appraise household furniture distrained for rent. Exclusive, too, of the classes now mentioned, the brokers who negotiate sales of produce between different merchants usually confine themselves to some one department or line of business; and by attending to it exclusively, they acquire a more intimate knowledge of its various details, and of the credit of those engaged in it, than could be looked for on the part of a general merchant; and are consequently able, for the most part, to buy on cheaper and to sell on dearer terms than those less familiar with the business. It is to these circumstances—to a sense of the advantages to be derived from using their intervention in the transaction of business—that the extensive employment of brokers in London and all other large commercial cities is wholly to be ascribed.

The number of brokers in London is unlimited; but by the stat. 8 & 9 Wm. III. c. 20 they are to be licensed by the lord mayor and aldermen, under such restrictions and limitations as they may think fit to enact. By the 57 Geo. III. c. 60 brokers acting without being duly admitted are made liable in a penalty of 100*l.* The fee on admission is fixed by the same Act at 5*l.*; and there is besides an annual payment of 5*l.*

The following are some of the regulations established by the mayor and aldermen pursuant to the Act of Wm. III.: That every person shall, upon his admission, take an oath duly and faithfully to execute and perform the office of broker between party and party, in all things pertaining to the duty of the said office, without fraud or collusion, to the best and utmost of his skill and knowledge; that he shall in all cases reveal the name of his principal; and neither deal in goods on his own account, nor barter and sell again, nor make any gain in goods beyond the usual brokerage; and that he shall regularly register all the contracts &c. into which he enters.

Brokers grant a bond under a penalty of 500*l.* for the faithful performance of the duties sworn to in the oath of admission.

A medal is delivered to the broker, with his name engraved thereon, which he may produce, if required, as evidence of his qualification.

Twelve persons professing the Jewish religion are permitted to act as brokers within the City under the same regulations, and receive the silver medal accordingly. This medal is transferable, and is sold generally at from 800*l.* to 1,500*l.* exclusive of the expense of transfer, which is uncertain. Upon the decease of any of the holders of the medal without its having been transferred, the appointment falls to the lord mayor for the time being; and for it the sum of 1,500*l.* has not unfrequently been given. (Montefiore's *Com. Dict.* art. 'Brokers.')

If goods in the city of London be sold by a broker, to be paid for by a bill of exchange, the vendor has a right, *within a reasonable time*, if he be not satisfied with the sufficiency of the purchaser, to annul the contract, provided he intimate his dissent as soon as he has an opportunity of enquiring into the solvency of the purchaser. In a case of this sort (Hodgson *v.* Davies, 2 *Camp.* N. P. C. 536), Lord Ellenborough was, at first, rather inclined to think that the contract concluded by a broker must be absolute, unless his authority were limited by writing, of which the purchaser had notice. But the special jury said, that 'unless the name of the purchaser has been previously communicated to the seller, if the payment is to be by bill, the seller is always understood to reserve to himself the power of disapproving of the sufficiency of the purchaser, and annulling the contract.' Lord Ellenborough allowed that this usage was reasonable and valid; but he clearly thought that the rejection must be intimated as soon as the seller has had time to enquire into the solvency of the purchaser. The jury found in the case in question, that *five* days was not too long a period for making the necessary enquiries.

Brokers, Bill,—propose and conclude bargains between merchants and others *in* matters of bills and exchange. They make it their business to know the state of the exchange, and the circumstances likely to elevate or depress it. They sell bills for those *drawing* on foreign countries, and buy bills for those *remitting* to them; and from their knowledge of the mutual wants of the one class as compared with those of the other, a few of the principal brokers are able to fix the rate of exchange at a fair average, which it would not be possible to do if the merchants directly transacted with each other. Their charge, as brokerage, is 2*s.* per cent.

'Those,' says Mr. Windham Beawes, 'who exercise the function of bill brokers, ought to be men of honour and capable of their business; and the more so, as both the credit and fortune of those who employ them may, in some measure, be said to be in their hands; and, therefore, they should avoid babbling, and be prudent in their office, which consists in one sole point, that is, *to hear all and say nothing*; so that they ought never to speak of the negotiations transacted by means of their intervention, or relate any ill report which they may have heard against a drawer, nor offer his bills to those who have spread it.'

Brokers, Stock,—are employed to buy and sell stock in the public funds or in the funds of joint stock companies. Their business is regulated by certain Acts of Parliament, by which, among other things, it is enacted, that contracts in the nature of wagers, or contracts apparently framed for the sale or purchase of stock, but really intended only to enable the parties to speculate on contingent fluctuations of the market, without any stock being actually sold, shall be void, and those engaging in them subjected to a penalty of 500*l.* (7 Geo. II. c. 8, made perpetual by 10 Geo. II. c. 8.) And by the same Act, anyone contracting to sell stock of which he is not actually possessed, or to which he is not entitled, forfeits 500*l.* Brokers not keeping a book in which all contracts are regularly inserted, are liable in a penalty of 50*l.* for each omission; half to the King and half to those who sue for it. The charge for brokerage on all public funds, except Exchequer

bills and India bonds, is 2*s.* 6*d.* per cent.; on these it is 1*s.* per cent. No transaction with respect to the purchase and sale of stock in the public funds can be concluded except by the intervention of a licensed broker, unless by the parties themselves.

Brokers, Ship and Insurance.—The chief employment of this class of brokers is in the buying and selling of ships, in procuring cargoes on freight and adjusting the terms of charter-parties, settling with the master for his salary and disbursements &c. Their charge as ship brokers is about 2 per cent. on the gross receipts. When they act as insurance brokers, they charge 5 per cent. on the premium, exclusive of a discount allowed them on settling with the underwriter. The merchant looks to the broker for the regularity of the contract and a proper selection of underwriters. To him also the underwriters look for a fair and candid disclosure of all material circumstances affecting the risk, and for payment of their premiums. From the importance of their employment, ship and insurance brokers ought to be, and indeed generally are, persons of respectability and honour, in whom full confidence may be reposed. A ship broker is not within the various Acts for the regulation and admission of brokers. (Gibbons *v.* Rule, C. P. June 27, 1827.)

Brokers, Custom-house.—It is enacted by the Customs Consolidation Act of 1853, ss. 15–17, that no person shall be authorised to act as an agent for transacting business at the Custom-house in the port of London, relative to the entrance or clearance of any ship &c. unless authorised by license of the Commissioners of Customs, who are to require bond with one surety for 1,000*l.* for the faithful conduct of such person and his clerks. This regulation does not, however, apply to the clerk or servant of any person or persons transacting business at the Custom-house on his or their account.

Brokers, Pawn. [PAWNBROKERS.]

Brokers, simply so called, in their character of appraisers and sellers of goods distrained for rent, are regulated by 57 Geo. III. c. 93, which enacts that no *such person* making any distress for rent where the sum due does not exceed 20*l.* shall take more than the following sums: viz.

	s.	*d.*
For levying	3	0
For men keeping possession, per day	2	0
Advertisements, if any	10	0
Catalogues, sale, commission &c. in the pound on the nett produce	1	0
Stamp duty, lawful amount.		

Appraisements, whether by one broker or more, 6*d.* per pound on the value of the goods, under a penalty of treble the amount of the money unlawfully taken, with costs, to be recovered summarily before a justice of the peace.

In France the brokers who deal in money, exchange, merchandise, insurance, and stock, are called *agents de change*, and their number at Paris is limited to *sixty*. The company of *agents de change* is directed by a chamber of syndics (*chambre syndicale*) chosen annually by the company. They are severally obliged to give bonds to the amount of 125,000 fr. for the prevention of abuses. They are also obliged to keep books; are restricted to a charge of from ⅛ to ½ per cent.; and are interdicted from carrying on, or having any interest in, any commercial or banking operations. (*Code de Commerce*, s. 74 &c.) [BORDEAUX.]

In the United States, brokers are not licensed, nor do they give bonds.

BROKERAGE. The commission, or percentage, paid to brokers on the sale or purchase of bills, funds, goods &c. [FACTORAGE.]

BRONZE (Ger. stückgut, stükmetall; Dutch, stückgoed; Ital. bronzo; Span. metal de canones; Lat. metallum tormentorum). 'A mixed metal, consisting chiefly of copper, with a small proportion of tin, and sometimes other metals. It is used for casting statues, cannon, bells, and other articles, in all of which the proportions of the ingredients vary.' (Hunt's *Ure.*)

BROOMS (Ger. besen; Fr. balais; Ital. scope, granate; Span. escobas; Russ. metlü). They are principally made of birch or heath. Vast quantities are manufactured in Southwark, for the supply of the London market.

BRUSHES (Ger. bürsten; Fr. brosses; Ital. setole, spazzole; Span. brozas, cepillos, escobillas; Russ. schtschetki). Well-known implements, made of bristles, and manufactured of various forms. Our exports of brooms and brushes in 1866 were valued at 49,201*l.* [BRISTLES.]

BUBBLES. A familiar name applied generally to fraudulent or unsubstantial commercial projects, which hold out hopes of rapid gain, for the purpose of enriching the projectors at the expense of sanguine and ignorant adventurers; and particularly used to designate those projects the funds for which are raised by the sale of shares or subscription to a transferable stock.

In consequence of the mischief produced by the gambling in transferable shares of bubble companies at the time of the South Sea project, 1719 and 1720, the stat. 6 Geo. I. c. 18, reciting that several undertakings or projects had been contrived and practised which 'manifestly tended to the common grievance, prejudice, and inconvenience of great numbers of his Majesty's subjects in their trade and commerce,' and describing, among other practices of the time, the ordinary mode of raising money by shares and subscriptions to a pretended transferable stock, enacted that the undertakings and attempts so described, and public subscriptions, assignments, and transfers for furthering them, and particularly the raising or pretending to raise transferable stocks without authority of charter or Act of Parliament, should be deemed illegal and void, and prohibited them under severe penalties. Some decisions limited the operation of, and finally the stat. 6 Geo. IV. c. 91 altogether repealed, these enactments and prohibitions. The projectors of bubbles, therefore, are now punishable only when they can be deemed guilty of frauds or conspiracies at common law; and there is no other check on the adventurers than the loss and troublesome liabilities, under the law of partnership, in which participation in these projects often involves them.

BUCHU LEAVES. The leaves of the *Barosma crenata* and of other species of *Barosma*, small shrubs growing at the Cape of Good Hope. They have long been used by the Hottentots for a variety of diseases, and have been made known in Europe through the English and Dutch physicians resident at the Cape. They are employed in Europe principally in diseases of the urinary organs. Prices in London market October 1866, 3½*d.* to 6*d.* per lb. for broad leaves, long narrow do. 9*d.* to 1*s.* per lb.

BUCKWHEAT (Fr. blé sarrasin, blé noir; Ger. buchweizen, heidekorn; Ital. grano saraceno, faggina, fraina; Span. trigo saraceno, trigo negro; Pol. tatarca, gryka, pohanca; Russ. gretscha; Lat. fagopyrum). It is principally cultivated in order that it may be cut when young and green, and employed as fodder for cattle; when allowed to ripen, the grain is usually employed to feed pigeons and poultry.

When ripe it is of a deep yellow colour, the seeds bearing a great resemblance to beech-mast. It will grow on the poorest soils. Buckwheat has been cultivated in this country from the latter part of the sixteenth century. Its native country

is unknown, but supposed to be Asia. Beckmann has a very learned dissertation on its introduction and early culture in Europe. (*History of Inventions*, vol. i. art. 'Buckwheat.') The imports of buckwheat are comparatively inconsiderable. The duty on it and on buckwheat meal is the same as on other sorts of corn or meal. [CORN LAWS.]

Buckwheat is largely produced in the United States. In 1840 the production was 7,291,743 bushels, in 1850 8,956,912 bushels, and in 1860 17,571,818 bushels, showing a larger increase than any other grain crop. The states in which the largest quantity is grown are New York, Pennsylvania, and Ohio.

BUENOS AYRES. This city, the capital of the province of the same name, was founded in 1535, and stands on the right bank at the head of the estuary of the Rio de la Plata, on a vast plain which is here about 35 or 40 feet above the sea, and which extends westward to the Andes. The level uniformity of its outline is only broken by the spires of various churches. The streets are regular and straight, intersecting each other at distances of about 150 yards, forming squares like a chessboard. The houses have never more than two storeys, and commonly only one. The Argentine Confederation contains the tract of South America comprised within the 22nd and 42nd degrees of latitude, and the 59th and 72nd of longitude, the area being 75,000 square leagues, or 675,000 geographical miles; the regions being that which lies within the great rivers Parana and Uruguay, the Pampas, and the mountainous districts of the Southern Andes. The political divisions of the Argentine Confederation comprise fourteen provinces—those of Buenos Ayres, Santa Fé, Entre Rios, and Corrientes on the coast; those of San Luis, Mendoza, and San Juan on the west, and at the base of the Chilian Andes; those of Cordova, Rioja, and Santiago del Estero in the centre; and Tucuman, Catamarca, Salta, and Jujuy in the north.

The rivers Parana and Uruguay join to form the Plata, and drain an area of 170,000 square leagues. The Plata is 8 leagues broad at the junction of the streams Parana and Uruguay, and after a course of 35 leagues the river is emptied into the ocean between the capes of St. Maria and St. Antonio, where its breadth is 70 leagues—the widest embouchure in the world. (Martin de Moussy, *Confédération Argentine*, 1860.) But the course of the river is encumbered with sand-banks, which shift from time to time and cause great difficulties to navigation. Hence it becomes necessary to employ pilots to Buenos Ayres and Montevideo, the capital of the Uruguayan Republic. Considerable danger arises also from the prevalence of gusty winds called *pamperos*, which are said to occasionally cause a rise in the water to the extent of a fathom.

The total population of the Argentine Confederation was estimated by De Moussy at 1,210,000. Of these, 83,250 were inhabitants of Buenos Ayres, 11,905 of Rosario, the two ports of the Confederation. One-third of the inhabitants of Buenos Ayres were Europeans, chiefly English and French. Mr. Clare Ford, secretary of the British Legation, states the population of the Republic in 1866 to be 1,465,000. At present (1868), judging from its past growth, it may amount to about 1,500,000.

From San Miguel tower, 68 feet high, a little westward of the cathedral, the true bearing of the north Cerro de San Juan on the Banda Oriental coast is N. 39° 41′ 34″ E. There are two wharves or piers, from 220 to 330 feet in length—the first near the church of La Merced, for passengers; the second in front of the custom-house, for merchandise—but they are not long enough, and inconvenient when the river is low from N.W. winds.

Trade of Buenos Ayres.—Buenos Ayres has a considerable trade. Its imports are manufactured goods, cottons, earthenware, gunpowder, hardwares and cutlery, iron, leather, linens, oil, linseed, woollens &c.; and the exports are, wool, bones, copper unwrought, grease, horsehair, hides, horns, skins of various kinds, salt meat, tallow, tobacco &c. All kinds of supplies, including coal, but excepting meat, are at a very high price. Corn, which for a considerable period was not produced in sufficient quantity for home consumption, has latterly become an occasional article of export. Most part of the jerked beef, and numbers of mules, are exported to the Havannah and Brazil, and a growing quantity of River Plate beef to Europe. Hides, tallow, and wool, especially the first, are leading articles of export. Sir W. Parish estimated the total amount of the imports into the La Plata at about 2,110,000*l.*, of which about half might be for Buenos Ayres; but the trade is now much greater. Mr. Ford, in his excellent Report to the Foreign Office of Oct. 30, 1866, gives the following Tables:—

Comparative Statement of Goods imported into Buenos Ayres during the Years 1864–65.

	1864			1865		
	£	s.	d.	£	s.	d.
1. Different tissues; principally woollen and calicoes	1,007,915	4	0	1,412,739	12	0
2. Eatables; principally sugar, yerba maté, and rice	1,074,885	8	0	957,276	8	0
3. Divers fabricated articles; principally haberdashery, perfumery, and ready-made clothes	656,611	16	0	873,895	8	0
4. Drinkables; principally red wines and gin	628,236	16	0	813,172	4	0
5. Materials for industrial purposes; principally coal, iron, and wood	485,194	4	0	649,897	12	0
6. Groceries; principally tobacco, packing paper, and kerosene	275,947	0	0	345,969	12	0
7. Articles used for shipping; ironmongery and paint	217,846	12	0	315,417	4	0
8. Writing materials, paper &c.	28,467	8	0	52,935	8	0
Total	4,370,134	8	0	5,420,603	8	0

*** Increase of 24 per cent. in 1865 over 1864.

Statement of the Quantities and Values of each of the main Articles of Argentine Native Produce exported from Buenos Ayres in 1865.

Articles		Quantities	Values
			£
Wool	lbs.	115,842,430	2,378,251
Hides, ox and cow	no.	1,690,763	958,266
Grease and tallow	lbs.	28,8[illegible],799	363,152
Sheep skins	no.	17,263,333	241,698
Salt meat	lbs.	45,699,300	138,702
Horsehair	,,	3,286,127	85,799
Horse hides	no.	151,588	43,337
Ostrich feathers	lbs.	153,330	38,498
Bone ash	tons	6,989	13,761
Hide cuttings	lbs.	1,678,300	8,933
Bones	tons	2,917	6,515
Shin and shank bones	no.	4,800,000	4,875
Otter skins	lbs.	52,037	3,884
Tips of horns	no.	1,210,000	3,730
Deer skins	lbs	91,098	2,187
Shunk skins (unborn animals)	no.	109,539	1,599
Breeding rams	,,	4,756	1,253
Hoofs, salted tongues, animal oil, tiger and other skins, rags, and soap	—	—	20,122
Miscellaneous	—	—	88,793
Total			£4,399,355

The value of our exports to the Argentine Confederation in 1866 was 2,880,787*l.*, cottons being by much the most important article, and next to it woollens, iron &c. France supplies silks, wines (of which the imports have largely increased), jewellery, perfumery &c. The imports from the United States consist chiefly of unbleached cloths, spirits, soap, sperm candles,

dried and salted provisions, tobacco, furniture, and deals. Germany sends woollen and cotton goods, brandy and gin; Holland, sugar, gin, brandy, cigars, cheese &c.; Belgium, ironmongery, crockery &c. The Baltic furnishes iron, cordage, canvas, pitch, deals &c. The Mediterranean trade is principally in Spanish and Italian produce, particularly cheap wines, brandies, olive oil, maccaroni, dried fruits, and pepper. Spanish goods are in little demand, though some serges, handkerchiefs, and ribands, sewing silk, and salt, are imported. The value of Spanish wines imported in 1865 was alone upwards of 180,000*l*. The *yerba maté*, or Paraguay tea, formerly an import article of some consequence, has been nearly superseded, even in Buenos Ayres, by genuine tea, chiefly obtained from India. The trade with Chili and Peru is insignificant. The markets are well supplied with butcher's meat and fish. Poultry, vegetables, and fruit are generally dear. All the butter used is imported. (We have derived these details from the excellent work of Sir Woodbine Parish *On Buenos Ayres*, 2nd ed. pp. 349-369; the *Report* of Mr. Francis Clare Ford, late chargé d'affaires, 1866; and *The States of the River Plate*, by Wilfrid Latham, 2nd ed. 1868.)

Light.—At 4½ miles N.E. by E. ½ E. from the custom-house at Buenos Ayres is a hulk or stationary guard-ship, painted black, with three masts, which shows a *fixed red* light, visible 6 miles.

Outer Road.—There are two anchorages in front of Buenos Ayres, formed by the city bank and that of the Camaron, an extension or tongue of the great Palmas flat. Both are anchorages exposed to the winds from S.E. to E.N.E., which often bring in a heavy ground swell; vessels frequently drag, foul each other, and sometimes go on shore. It is necessary to have good ground tackling, to be cautious not to ground on the anchors, and to give a berth to the buoys of vessels in the road to prevent grazing on their anchors. The bottom is a fine dark sand; within the 12 feet line of soundings it is generally hard, and to 15 feet hard and soft; beyond 15 it is mostly soft muddy sand. There are always a large number of vessels lying here.

There are several dangerous sunken vessels in the roads; two nearly close together, showing at low water, lie in the outer road in line with the Catalina channel, and one farther in, and are marked by beacons. The great or outer road northward of the city bank, at about 3½ miles from the shore, is from 3 to 4 miles in length in a north-west and south-east direction, and from ½ to ¾ mile in breadth, with depths of 18 to 21 feet over soft mud. At the entrance to this anchorage there is a bar or flat with only 15 feet water on it at the mean level of the river, and at times not more than 12 feet, which obliges vessels of moderate draught to anchor at 6 or 7 miles from the town in 17 feet water, with the Residencia in the southern part of the city bearing S.W. by W.

The domes of the churches and the vessels at anchor in the outer road are seen at a distance of 10 or 11 miles. The bottom on the city bank or that southward of the outer road being hard, it is necessary to keep a little to the northward. Having passed the bar, the soundings slowly increase, and the bottom becomes softer; when in 17 feet water, soft mud, steer to the westward, and anchor in about 20 feet, with the guard-ship bearing S.E. by E. ¼ E., distant 2¼ miles; La Residencia S. by W. ¾ W.; the Custom-house S.S.W. ½ W.; and the church of La Recoleta, north-west of the town, S.W. ¾ W. A good berth will also be found near the sunken vessels, where the water is deepest and the position convenient for boats. It is not usual to moor in the outer roads, but to veer a long scope of cable, and be ready to drop a second anchor with south-easterly winds.

Inner Road.—The inner or little road off the north-east angle of the city is a space of about 1½ mile in length, in a N.N.W. and S.S.E. direction, and about 3 cables in breadth, having 12 and 13 feet water. It is formed between the city bank and the coast: the latter is bordered with a bank of rotten stone. To the northward of the inner road is the anchorage El Pozo, having about a foot more water. Vessels in the Pozo and inner road always moor N.E. and S.W., and great attention should be given to prevent grounding on the anchors, for frequently there are only 8 or 10 feet water, and vessels are often aground and unable to go to sea for 15 or 20 days. A large number of vessels are always here. But as the banks are constantly shifting, it is necessary when going into the inner road to employ a pilot, and particularly for the purpose of choosing a clear berth, and avoiding the many lost anchors in the roads.

Winds.—During summer, between August and March, the winds are from the eastward. In April, May, June, and July, the weather is variable. The barometer always rises with a S.E. wind, which brings clear dry weather; falls for a pampero or S.W. wind, but falls lowest with the wind from N. to W., which brings cloudy, rainy weather. It may be fine weather at sunset, and 2 hours after blowing a gale, but the barometer is sure to indicate it.

Tides.—It is high-water at Buenos Ayres, full and change, at about 12 h.; and the rise may be from 3 to 5 feet. The flood runs 5 hours, and the ebb 7 hours, at from 1 to 2 miles an hour. The winds from the S.E. cause the water to rise, and those from the N.W. depress it, and in some places cause a difference of 12 feet. A case has occurred when the wind from the N.W. has so depressed the water, that a person was able to walk dry to the vessels anchored in the inner road.

Rio Riachuel.—At about a mile southward of the town is the little river Riachuel, with 13 to 16 feet at low tides, over soft mud, which serves as a port of commerce to Buenos Ayres. This river being the deepest on the south coast, was the cause of the town being placed on the neighbouring plain. Its mouth is obstructed by banks, so that vessels drawing less than 10 feet alone can enter when the water is high from the S.E. winds, 3 feet only being on the bar at low tides. Large numbers of coasters load and unload here.

At high tides vessels of less than 8 feet draught can navigate to the Conchas, where there is an excellent port. In strong winds from the S.E. many vessels leave the roads of Buenos Ayres to seek shelter there, but it is necessary to have a good pilot, as all this western part of the La Plata is obstructed by the great flat and bank of Las Palmas, on which near the coast the depths are irregular, the channel winding, and subject to frequent changes. There are in places 13 or 14 feet water, but the deepest is in front of the shore forming Olivos Point, where there are from 12 to 17 feet.

Above Las Conchas the shore is broken by a great number of little rivers, outlets from the Parana. At 25 miles N.N.E. of Las Conchas is the mouth of the Great Parana. The latter is the only one vessels of any size can enter.

Next in importance to Buenos Ayres come the Argentine ports of Rosario, Corrientes, Uruguay, San Nicolas, and Gualeguaychú. In 1866 there were 326 miles of Argentine Railways open to traffic.

Money.—The currency of Buenos Ayres was formerly an irredeemable paper money, issued by a bank, under authority of special laws passed from time to time, and was by law legal tender. This paper money, having no specie basis, was affected in value, as compared with gold, by over issues and by politics, and has fluctuated 50 per cent. in one day; but by a new Currency Law, January 4, 1867, the Provincial Bank of the State of Buenos Ayres is authorised to pay 25 paper dols. for every patacon, and also to give 1 patacon for every 25 dols. (paper). If paper money should exceed 25 per patacon, and the bank has paid away the specie received in exchange for the amount of the present emission, the bank shall still continue to give gold at 25 p. d. per patacon as long as sufficient coin exists. Parties indebted to the bank or state may pay in gold or paper money at the rate of 25 dols. per patacon. In 1865 the revenue of the Argentine Republic amounted to 1,659,014*l.*, and the expenditure to 1,375,233*l.* Official financial accounts are made up in hard dollars, one of these being about equal to 4*s.*

The following are the statistics of the shipping and trade of Buenos Ayres:—

Number and Tonnage of Sailing Vessels Entered and Cleared at the Port of Buenos Ayres in each of the Years 1861–65.

Years	With Cargoes				In Ballast			
	Entered		Cleared out		Entered		Cleared out	
	Ships	Tons	Ships	Tons	Ships	Tons	Ships	Tons
1861	707	200,239	469	134,073	12	2,400	262	78,801
1862	642	186,692	549	157,958	20	6,128	139	41,535
1863	733	215,853	632	173,511	11	2,440	85	29,537
1864	825	253,827	806	229,203	6	422	10	883
1865	906	237,239	930	255,351	2	1,000	9	1,361
Total	3,813	1,093,870	3,386	940,097	51	12,390	505	152,117

Number and Tonnage of Vessels, of each Nation, Entered and Cleared at the Port of Buenos Ayres in the Year 1863.

Nationality	Entered		Cleared	
	Vessels	Tons	Vessels	Tons
Swedish and Norwegian	11	3,556	8	2,041
Danish	32	5,338	23	4,041
Dutch	66	12,797	66	12,807
Bremen	11	3,992	15	5,058
Hamburg	17	5,238	14	3,061
Hanoverian	14	2,284	11	1,999
Belgian	15	5,372	14	4,233
British	142	44,944	110	31,567
French	88	30,913	73	24,590
Italian	81	21,669	72	19,470
Spanish	117	26,703	100	21,916
North American	64	33,979	63	31,508
Argentine	25	5,643	35	5,877
Brazilian	29	7,261	23	5,442
Other countries	29	5,164	18	5,415
Total	735	215,853	645	179,025

The following is an account of the exports of wool from Buenos Ayres for fourteen years, supplied by Mr. Newton, Vice-President of the Argentine Rural Society:—

Years	Number of Bales	Increase per cent.	Arrobas, 25 lbs. each, of 32 to the bale	Number of Sheep at rate of 7 fleeces to each Arroba
1852-53	20,514	—	656,448	4,597,136
1853-54	22,456	9·43	718,400	5,028,800
1854-55	25,769	11·78	824,608	5,772,256
1855-56	32,624	26·60	1,043,968	7,307,776
1856-57	37,543	15·06	1,201,376	8,409,632
1857-58	39,252	4·52	1,256,064	8,792,448
1858-59	48,737	24·15	1,559,584	10,919,088
1859-60	42,276	Less.	1,352,800	9,469,600
1860-61	60,734	43·65	1,943,488	13,604,416
1861-62	67,161	10·58	2,149,152	15,044,064
1862-63	88,780	32·19	2,808,960	19,656,720
1863-64	96,679	8·90	3,093,728	21,656,096
1864-65	130,860	35·36	4,187,520	29,312,640
1865-66	136,400	4·24	4,364,800	30,553,600

Total Value of Imports and Exports, with the Amount of Duties Collected thereon, at the Port of Buenos Ayres in each of the Years 1861–63.

Years	Imports		Exports		Duties			
					Import		Export	
	paper dollars	£	paper dollars	£	paper dollars	£	paper dollars	£
1861	413,420,674	3,751,671	218,559,909	1,981,450	60,498,918	548,478	10,812,187	98,023
1862	445,011,060	4,318,675	259,452,212	2,518,114	66,149,284	642,037	12,930,992	125,507
1863	593,811,401	5,061,703	351,127,514	2,879,082	85,016,004	717,526	17,506,036	147,749

Pilotage.—Vessels drawing 10 ft. *Burgos*, pay 40 Sp. dols.; 11 ft. 50 dols.; 12, 60 dols.; 13, 70 dols.; 14, 90 dols.; 15, 110 dols.; 16, 130 dols.; 17, 150 dols.; 18, 180 dols.; 19, 210 dols.; 20, 240 dols.; and 21 ft. 260 Sp. dols. N.B. 100 ft. English = 109 ft. Burgos; 100 ft. French = 115 ft. Burgos; 100 ft. Norwegian = 112 ft. Burgos; and 100 ft. Swedish = 106 ft. Burgos. Un palmo (a palm) = 9⅞ Spanish inches.

All vessels, excepting packets, if requiring a pilot to enter the inner roads, pay 200 dols. currency. When leaving, whether taking a pilot or not, they are bound to pay the 200 dols. Any vessel that may enter the inner roads without a pilot, and wishing to be moored or to change anchorage, must pay 100 dols.

Port Charges.—1. National vessels sailing for ports beyond sea pay 3 dols. per ton.

2. Foreign vessels 4 dols. per ton, except those which, in virtue of existing treaties, are assimilated to national vessels.

3. Foreign vessels pay, for visit of health officer, 25 dols., and the same amount for bill of health.

4. Foreign vessels belonging to nations having no consul, 40 dols. for do.

5. The duties to be paid one half on entrance and the other on departure.

6. National and foreign vessels, which do not leave nor receive cargoes, pay one-half of these duties.

Customs Duties: Imports by Water.—1. Gold and silver, coined or in bullion, books, printing-paper, plants of all kinds, fresh fruits, ice, fire-wood, charcoal, and cattle for breeding are free of duty, as also maize (Indian corn) and flour of maize imported by land.

2. The Executive Power may admit free, seeds destined for agriculture, articles exclusively des-

tined to religion, instruments or utensils for scientific purposes, machines for the amalgamation of metals, and the formation of new fabrics or industries, the furniture and tools of immigrants, and things exclusively destined to their establishment.

3. Unset precious stones, gold and silver worked, or manufactured with or without precious stones, every instrument or utensil with handle or ornament of the same metals, when these shall augment their value one-third, to pay 8 per cent. of their value.

4. All articles not excepted in the previous, 15 per cent.

5. The impost of wharfage for articles of direct despatch to be 5 cents for every 8 arrobas of weight, or its equivalent in bulk.

6. The leakage granted to wines, spirits, liqueurs, beer in casks, and vinegar, to be calculated thus:—at 10 per cent. for the ports situated the other side of the Line, at 6 per cent. for the ports on this side, and 3 per cent. for ports within the Capes. Loss granted to wines, spirits, liqueurs, beer, vinegar, and oil, in bottles, 5 per cent. for breakage.

Exports by Land and Water.—7. The following to pay 5 per cent. of their value on exportation:—Horse and cow hides of all kinds, those of mules and sheep, skins in general, jerked and salted beef, hide-cuttings, salt tongues, ostrich feathers, bones, bone-ash, horns, horn-clippings, horsehair, washed and dirty wool, animal oil, tallow, and fluid and solid grease; cattle, horses, and sheep.

8. Every other production or manufacture not expressed in the preceding Article, such as gold and silver, coined or in bullion, is free of all export duty.

Of Deposit and Transit.—9. The Custom-houses duly authorised shall admit to deposit every article which is introduced liable to import duty.

10. The deposit to be made at the discretion of the Government, either in Government or private stores, the fiscal not being responsible for losses or damages of merchandise in private deposits; and further, if convenient to the Government, it can oblige the removal of the goods from the private stores to those of the State.

11. In all cases the Executive regulates the deposits in private stores.

12. Merchandise may be in deposit for two years from the entry of the vessel: this time elapsed, their despatch, for consumption or transit, is obligatory, though the deposit may be renewed, after examination of the goods and paying of the warehousage and wharfage.

13. The impost of warehousage and wharfage to be paid on goods in deposit, according to a tariff to be revised yearly.

14. The impost for a month to be paid for goods in deposit for a portion of a month.

15. The fiscal is responsible for the effects deposited in his own warehouses, saving accident beyond control, or injury arising from the inherent nature of the goods or their coverings.

16. The Custom-house to allow the free transit of merchandise in deposit from one port to another.

17. The Custom-house will likewise permit, free of duty, the transhipment of all goods within forty days from the day of entry of the vessel bringing the same, or presenting a copy of the manifest, excepting those for which the copy of the manifest is not necessary, or those which the parties declare, on the entry of the vessel, have only arrived in transit for foreign ports.

Of the manner of calculating the Duties.—18. The duties to be arranged by overseers, accompanied by valuators, and to be calculated on imports by their value in deposit, and on exports at their market value at the time of shipment, except those previously classified and valued, which duties shall be calculated by a tariff of valuation formed upon the same basis of prices.

19. Every six months a valuation to be made of the merchandise and produce to be included in the tariff spoken of in the preceding Article.

20. The merchandise which appears damaged at the time of despatching it shall be valued by the price it obtains in public auction, with the deduction of the corresponding duty, the account of which must be rendered within thirty days from the day of despatch.

21. In case of a difference arising between the overseer, valuator, and the interested party, respecting the valuation of any merchandise or product of the country not included in the tariff of valuation, its despatch shall be put off until the difficulty is overcome; and this not being accomplished within eight days, the Custom-house shall have the right, and may likewise be obliged, to hold the article at the valuation it may see fit to put upon it, paying for it in Treasury bills.

22. From the merchants shall be accepted bills payable at three and six months, when the amount of duty passes 50 dols.; under this sum it shall be paid in ready cash.

23. The duties of exportation shall be paid in ready cash, and at the port of loading, the goods being despatched directly for a foreign port; neither can they be embarked in transit from one point to another of the Republic without their having been despatched by paying the duties, or a security given in the form to be determined by the Executive Power.

Additional Duties.—24. All goods and merchandise subject to import duty to pay a duty of 2½ per cent.

25. The produce of the country subject to export duty shall pay an additional duty of 5 per cent.

26. These additional to be collected separately from the ordinary duties.

Additional Import Duties commencing January 1, 1867.—Additional impost of 5 per cent. on all imports, excepting such articles as are comprised in Art. 3 of the present Custom-house Law, and 2 per cent. on all exports, payable cash down; to count from 30 days after the promulgation of this law.

BUFF (Ger. büffel, büffelhäute; Fr. buffle, peau de buffles, et peaux passées en buffles; Ital. bufalo, cuojo di bufalo). A sort of leather prepared from the skin of the buffalo, dressed with oil, after the manner of chamois. The skin of elks, oxen, and other like animals, when prepared after the same manner as that of the buffalo, is likewise called *buff*. It is used in making sword-belts and other articles where great thickness and firmness are required.

BUGLES. Small glass beads of different colours. They are in considerable demand in Africa, to which they are mostly exported.

BULLION. Uncoined gold and silver in the mass. [GOLD; PRECIOUS METALS; SILVER.]

BUOYS. Pieces of wood, cork, or hollow metallic substance, moored and floating on the water. Those of wood are sometimes solid, and sometimes hollow, like a cask, and strongly hooped; they are made of various shapes and sizes; and are either private or public.

Private Buoys are so called from their belonging to private individuals. They are principally employed to mark the place of the ship's anchor, being fastened to it by a rope or chain, so that the men who go in the boat to weigh it may readily find out where it is.

By 1 & 2 Geo. IV. c. 75 s. 11 it is enacted that if any person or persons shall wilfully cut

away, cast adrift, remove, alter, deface, sink, or destroy, or in any way injure or conceal, any buoy, buoy-rope, or mark, belonging to any ship or vessel, or which may be attached to any anchor or cable belonging to any ship or vessel, whether in distress or otherwise, such person or persons so offending shall upon conviction be adjudged guilty of felony, and shall be liable to be transported for any term not exceeding 7 years, or to be imprisoned for any number of years, at the discretion of the court.

Public Buoys, being intended for the public service, cannot be placed, altered, or removed, except by competent authority. They are generally of a pretty large size, and are firmly moored by chains or cables to rocks, large stones, anchors &c. By floating on the surface of the water they serve at once to mark the channels through which it is safe to steer, and to point out dangers to be avoided, such as sunken rocks, shoals, wrecks of vessels &c. The places in, and the purposes for which, buoys are exhibited, are always specified in good charts; and as the leading buoys are generally of a peculiar figure or colour, which is also indicated in the chart, the navigator, as soon as he recognises them, shapes his course accordingly. Hence the great importance of having buoys properly placed, and of their being carefully marked in charts.

The 6 Geo. IV. c. 125 s. 91 enacts that every person who shall ride by, make fast to, remove, or wilfully run down or run foul of any vessel placed to exhibit lights, or any buoy or beacon belonging to the corporation of the Trinity House of Deptford Strond, or to any other corporation having authority to place such vessel, buoy, or beacon, shall, besides making good all damage occasioned thereby, forfeit for every such offence any sum not exceeding 50*l.* nor less than 10*l.*

Subjoined is an account specifying the buoys and beacons under the control of the Trinity House, Deptford Strond, with the rates of charges on account of the same on British and foreign ships and the produce of the rates, in each of the undermentioned years. (Corrected to 1868.)

It would appear, from the Report of the Com-

	Rates of Charges		Amount collected			Estimate for 1868
	Coasters	British and Foreign Vessels Overseas, per Ton	1850	1851	1852	
			£ s. d.	£ s. d.	£ s. d.	£ s. d.
For the buoys and beacons in the channels leading to the river Thames and port of London, including loadsmanage and primage, also including the dues formerly returned under the head of Trinity House duties from strangers' ships.	In the port of London the following rates are payable for the inward passage only: viz.— The rates vary from ½ penny to 1 farthing per ton, according to the description of the vessels' cargoes, and the places whence they arrive.	1 penny -	13,382 16 11½	14,424 19 0½	14,442 10 11½	11,542 16 0
Sheerness - -	¼d. per ton - -	¼ penny -				
The London rates of duty are also received at Gravesend, Rochester, Faversham, Leigh, Maldon, Colchester, Ipswich, Woodbridge, Harwich, and Aldborough, at which they are payable for the inward passage only.						
Buoys off Yarmouth -	⅛ farthing per ton	⅛ farthing	3,226 13 1	3,184 9 3½	3,333 6 1½	2,572 2 8
Buoys and beacons in the river Tees :—						
Coasters, British and foreign,	4*d.* per vessel under 40 tons. 6*d.* ,, on all others.		998 4 0	959 19 8	1,009 4 6	799 10 8
Exeter buoys :—						
Coasters (not stone boats) -	¼d. per ton per voyage.		148 18 11	144 6 9	143 8 6	106 19 0
Stone boats - -	5*s.* per vessel per annum.					
British and foreign - -	¼d. per ton per voyage.					
Conway buoys - -	3 farthings per ton, each and every time of passing.		22 9 7½	21 2 9½	28 16 7½	25 10 4
Carmarthen buoys -	3 farthings per ton, each time of passing.		147 16 4½	152 11 6	138 10 7	69 19 0
Aberdovey buoys - -	1 halfpenny per ton.	1 penny.	30 15 9	26 4 0	26 19 2	23 13 0
Woodbridge beacon &c. :—						
On all vessels entering the port of Woodbridge :—						
Under 50 tons - -	1*s.* per vessel.					
50 and under 100 tons	2*s.* ,,		89 12 0	31 19 0	30 16 0	21 13 4
100 tons and upwards	3*s.* ,,					
Total - - - -		£	17,997 6 8	18,948 12 7	19,153 12 5½	14,962 4 0

These rates are subject at this time (1868) to a discount or abatement of 50 per cent., so that practically they are just one-half.
The inspection of lights, buoys, and beacons is, by the Merchant Shipping Amendment Act, vested in the General Lighthouse Authorities. [Lighthouses.]

missioners on Lights, Buoys, and Beacons, laid before Parliament in 1861, that there were belonging to the United Kingdom 1,109 buoys in position, while of beacons of some magnitude there were 261 in position.

BURDEN OF A SHIP. [Tonnage.]

BURGUNDY. [Wine.]

BURGUNDY PITCH (Fr. poix de Bourgogne, poix jaune, poix blanche). A resin, the produce of the *Pinus Abies*, or spruce fir. It is obtained by making incisions in the bark down to the wood, whence it flows thickly and languidly, immediately concreting into flakes that adhere firmly to the tree. These being taken off are melted in boiling water, and strained through coarse cloths. It is of a close consistence, rather soft, has a reddish brown colour, and a not unpleasant smell; it is very adhesive. The true Burgundy pitch comes chiefly from the department of the Vosges, and certain hilly regions in the centre and south-east of France. It is asserted that the best is derived from the *Abies picea*, or silver-fir tree. A fictitious sort is made in England, and found in the shops under the title of *common* Burgundy pitch: it may be distinguished by its friability, want of viscidity and of the odour which characterises the genuine sort. Burgundy pitch is used chiefly in medicine. In 1866, 69,685 cwt. of pitch were imported, valued at 31,909*l.*

A species of Burgundy pitch exudes spontaneously from the Norway spruce fir. This, which undergoes no preparation, is the *resin* or *thus* of the old London Pharmacopœias. It is imported in the form of tears or small masses packed in casks, each containing from 1 to 2 cwt. It fetches about half the price of that which is strained. (Gray's *Supplement to the Pharmacopœias*; Thomson's *Dispensatory*.)

BUSHEL. A measure of capacity for dry goods, as grain, fruit, dry pulse &c. containing 4 pecks, or 8 gallons, or ⅛ quarter.

The Winchester bushel contains 2150·42 cubic inches, while the Imperial bushel contains 2218·192. Hence, to convert Winchester bushels

into Imperial, multiply by the fraction $\frac{2152 \cdot 42}{2218 \cdot 192}$ or ·969447, or approximately deduct $\frac{1}{30}$ and $\frac{1}{200}$; and if great accuracy be required, $\frac{1}{2000}$ and $\frac{1}{2000}$ more. To convert prices per Winchester bushel into prices per Imperial bushel, multiply by the fraction $\frac{2218 \cdot 192}{2150 \cdot 42}$, or 1·0315157.

By 5 Geo. IV. c. 74 s. 7 the bushel shall be the standard measure of capacity for *coals, culm, lime, fish, potatoes,* or *fruit*, and all other goods and things commonly sold by heaped measure. The bushel shall contain 80 lbs. avoirdupois of distilled water, being made round, with a plain and even bottom, and being 19¼ inches from outside to outside. Secs. 7 and 8 direct the mode in which the bushel shall be used for heaped measure. [WEIGHTS AND MEASURES.]

The standard measure of capacity, by this Act, as well for liquids as for dry goods not measured by heaped measure, shall be the *gallon*, containing 10 lbs. avoirdupois weight of distilled water weighed in air at the temperature of 62° of Fahrenheit's thermometer, the barometer being at 30 inches; and such measure shall be the Imperial standard gallon (containing 277·274 cubic inches), and all measures shall be taken in parts or multiples, or certain proportions, of the said Imperial standard gallon; and the quart shall be the fourth part, and the pint shall be an eighth, of such standard gallon; and 2 such gallons shall be a peck, and 8 such gallons shall be a bushel, and 8 such bushels a quarter of corn or other dry goods not measured by heaped measure.

BUSHIRE or ABUSHIRE. A seaport town of Persia, in the province of Fars, on the north-east coast of the Persian Gulf, lat. 29° N., long. 50° 50′ E. Population uncertain, but estimated by Major Wilson at from 15,000 to 20,000. Bushire is situated at the northern extremity of a sandy peninsula, to the north and east of which is the bay. There is a convenient anchorage for large ships due west from the town, 3 or 4 miles distant, in from 25 to 28 feet water; but ships of 300 tons burden or thereby lie in the inner roads, to the north, about 6 miles from shore; the anchorage is pretty good; but during violent north-westerly gales they are sometimes obliged to cut their cables, and bear up for Karak, a small island about 15 leagues W.N.W. of Bushire. The water immediately to the east of the town is deep, but the passage to it is obstructed by a bar, which cannot be passed by vessels drawing more than 8 or 9 feet water, except at spring tides, when there is a rise of from 8 to 10 feet. The variation in 1811 was 4° 43′ W. (*Chart of the Persian Gulf*, by Captain Ritchie; &c.) The climate here, as in all the other ports of the Persian Gulf, is extremely hot, particularly June, July, and August. The unhealthy season is in the fall of the year.

Trade &c.—Bushire has a good deal of trade, particularly with Calcutta, Bombay, and Madras. Its merchants supply almost all Persia with Indian commodities, as also with a good many of those brought from Europe. Of the imports from India, indigo, sugar, sugar candy, and spices are the most important; the steel of India is preferred in Persia to every other, and is made into excellent sabres; tin is brought from Banca; and coffee is principally supplied by Mocha and other ports on the Arabian Gulf. English cotton goods, notwithstanding the admitted inferiority of our red dyes—a colour in great esteem in Persia—have already gone far to supersede those that were formerly brought from Hindostan; and the demand for them is rapidly extending, and is susceptible of an almost indefinite increase. Besides those imported at Bushire, a good many are introduced through Bussorah, and some through Turkey and Russia; the latter by way of the Black Sea, the former of Smyrna and Constantinople. Hitherto, indeed, a considerable part of the cottons imported through the last-mentioned channels have been supplied by Switzerland and Germany—their fabrics having been, in some respects, better fitted than ours for the Turkish and Persian markets; but they seem to have lost this advantage, as our exports of cottons to Turkey are now rapidly increasing. Woollen goods, cutlery, watches &c. sent to India from England are thence exported to Bushire. Imitation shawls, of the proper size and pattern, are said to meet with a fair sale. The exports principally consist of raw silk, Kerman wool, Kerman and Cashmere shawls, carpets, horses, silk goods, dried fruits, wine, grain, copper, turquoises, asafœtida, gall-nuts, pearls, and other articles of minor importance. Turkey annually supplies Persia with a very considerable amount of bullion, most part of which is sent to India.

Of the Persian exports, raw silk is the most important. It is produced to some extent in every province; but Gheelan and Mazunderan are those which are most celebrated for its growth. In the former, about 900,000 lbs. are annually raised. Russia is a large consumer of this article. Dried fruits and dates are sent in considerable quantities to India. Horses are largely exported to India both by sea and land; they serve for mounting our Indian cavalry, and for supplying the large private demand that always obtains in Hindostan for this noble animal. Though neither so swift nor so beautiful as those of Arabia, the Persian horses are large, more powerful, and, all things considered, better for cavalry. They are capable of supporting an extraordinary amount of fatigue. Wine of Shiraz enjoys a degree of celebrity to which, judging from the few samples we have seen, it seems but ill entitled. Mr. Fraser says that it is made in so careless a manner, that, in choosing it, not more than 1 bottle in 4 or 5 can be made use of. Persian tobacco and yellow dye berries are highly esteemed: the former enters to a considerable extent into the trade to Turkey as well as to India; the berries bring a very high price in our markets, but the imports hitherto have been inconsiderable. Turquoises, asafœtida, and various sorts of drugs, rose water, with other minor articles, form part of the exports. Sheep's and goats' wool is also exported. The best is that of Kerman. The down furnished by the goats of this province is almost as fine as that of the Thibet or shawl goats. Cotton is extensively produced in Persia; the Russians carry away some, but the greater part is used in the country. Grain is sent to Muscat, but not in large quantities. The pearl trade is now principally centred at Muscat. The copper exported from Bushire is principally the produce of the Persian mines, mixed, however, with some Russian copper from Georgia. Of manufactured articles, the principal are carpets of the most beautiful fabric; shawls, partly native and partly brought from Cashmere; velvets, silk goods, gold and silver brocades, and a few other articles. The trade between Persia and Russia by the Caspian Sea is not very considerable. Most part of the paper used in the former is supplied by the latter. The furs of Russia find a ready market in Persia. The Russian provinces on the Caspian derive their supplies of indigo from Persia by way of Bushire.

The entire trade between British India and the Persian Gulf amounts to about 1,500,000*l.* a-year. This, however, includes the trade to Muscat and Bussorah as well as to Bushire, and we have no means of discriminating the separate amount of each.

Water at Bushire is excessively bad and dear;

but excellent water, and in great abundance, may be had at Karak. The anchorage at this island is safe at all times, and ships may lie close to the beach. Sir John Malcolm suggested that the permanent possession of Karak would be an object of considerable importance; and we are rather inclined to agree with him. It is of no value to the Persians, and there seems little doubt that they would be glad to cede it for a trifling consideration. Its possession would not only enable us to command the navigation of the Persian Gulf, but it would form a depôt where goods destined for Bushire, Bussorah &c. might be kept in perfect safety, and in a situation the most convenient, being readily accessible to all sorts of Arabian vessels. A taste for British cottons and woollens is now forming in all the vast countries watered by the Euphrates and the Tigris, or which derive their supplies from the emporia erected on their banks; and it is of the greatest consequence that nothing be omitted that may serve to facilitate the diffusion of this taste, and the means of gratifying it.

Money.—Accounts are kept in tomans of 50 abasses, or 100 mamoodis. The toman is a Persian gold coin, containing, according to the report of the Bombay mint, from 71·5 to 67 *gr.* pure metal, being consequently equal to from 12*s.* 7¾*d.* to 11*s.* 11*d.* sterling. The toman of Bussorah is worth about 36*s.*, and that of Gombroon about 24*s.* These, with Persian and foreign silver coins of all denominations, are found at Bushire; but the rates of the foreign coins are perpetually varying, and the weight of the native coins is also subject to frequent changes.

Weights and Measures.—Gold and silver are weighed by the miscal of 2 dwt. 23 7·12 gr. or 3 dwt. very nearly.

The commercial weights vary according to the commodities sold, and the places where they are used. The maund tabree weighs 6¾ lbs. avoirdupois at the Custom-house, but only 6¼ lbs. at the bazaar. This weight is used by dealers in sugar, coffee, copper, and all sorts of drugs. The maund copra is 7¾ lbs. at the Custom-house, and from 7¼ to 7½ lbs. at the bazaar. Dealers in rice and other articles of provision use this weight. The maund shaw is double the maund tabree, or 13½ lbs.

Pearls are weighed by the abbas = 2·25 gr. Troy.

There are various sorts of guz's or cubits. One called the royal guz = 37½ Eng. inches; the common guz is two thirds of the former, or 25 inches.

The Persian league or parasang is $\frac{1}{25}$ of a degree of the equator, and should, therefore, be equal to 3 miles 3 furlongs and 25 poles English.

The artaba, or principal corn measure, is equivalent to about 2 Winch. quarters.

For further particulars, see Niebuhr, *Voyage en Arabie*, tome ii. p. 75; Kinneir's *Memoir of the Persian Empire*, p. 70; Fraser's *Travels on the Shores of the Caspian, Appen.* pp. 352–384; *Parl. Paper* No. 735, 2nd Sess. 1832, pp. 632–688; Kelly's *Oriental Metrology*; Thornton's *E. Indian Calculator*; &c.

BUSS. A small sea-vessel, used by us and the Dutch in the herring fishery, commonly from 50 to 60 tons burden, and sometimes more. A buss has two small sheds or cabins; one at the prow, and the other at the stern: that at the prow serves for a kitchen. [FISHERY.]

BUSSORAH or BASRAH. A city of Arabia, on the western bank of the Shat-el-Arab (the name given to the river formed by the junction of the Tigris and the Euphrates), above 70 miles from its mouth, lat. 30° 30′ N., long. 47° 32′ E. Population about 60,000, consisting of Arabs, Turks, Persians, Armenians, Jews &c. The houses and streets are mean and filthy. There is a vast area within the walls, occupied principally by gardens and plantations of date trees, and intersected by canals, on which are numerous small craft.

The bar at the mouth of the Shat-el-Arab has only about 12 feet water, but the channel within is deep, so that ships of 500 tons burden, provided they cross the bar at the springs, may without difficulty ascend the river as far as the city; and both its grand branches may be navigated to a great distance by smaller vessels. Bussorah is the principal inlet on the east, through which Indian and other Eastern products find their way into the Turkish Empire. Its commerce is, therefore, even at present, pretty considerable; and were the rich and extensive countries traversed by the Tigris and the Euphrates occupied by a civilised and industrious people, it would be very great. Its imports from India and Europe are similar to those at BUSHIRE; from Persia it imports shawls, pearls from Bahrein &c. and coffee from Mocha. Mr. Vice-Consul Johnston reports that of British and British Indian coasters the unusual number of 27 steamers and 25 sailing vessels of 29,960 total tonnage entered and cleared this port in the year ended March 12, 1867; but the 27 steamers brought only 743 tons of cargo to, and took 369 from Bussorah—1,366 other vessels of 104,844 tons in all, chiefly Turkish and Persian, visited the port. Its exports are principally bullion, pearls, dates, grain, wool, horses, gall nuts, and drugs. In 1866–67 the value of the exports paying customs' duties in Bussorah, and exclusive of those on which duties were levied in the interior, was 81,762*l.*, of which dates formed $\frac{1}{8}$. The value of the imports from British India and the United Kingdom was 269,613*l.*, and of those from Persia and the Persian Gulf ports 55,822*l.* The commerce with the interior is conducted by means of caravans to Aleppo and Bagdad; but it might be carried on to much more advantage by means of steam-boats. It was at one time proposed to forward mails from India by steam by the Shat-el-Arab and the Euphrates to Bir, thence by land to Scanderoon, and again by steam to Gibraltar and England; but this project was very wisely given up in favour of the route by the Red Sea.

Money.—Though the Persian keran is now almost the only coin in circulation, purchases and sales continue to be effected exclusively in shamis, the keran and other coins being accepted at the rate of the day when payments fall due. Notwithstanding this, the demand for shamis does not appear to lessen.

Coins	1866-67
Shamis per 100 German Crowns - - -	216
Shamis per 100 Persian Kerans - - -	44
Shamis per 100 Rupees - - - - -	102
Grand Signor Piastres per Shami - - -	10½
Grand Signor Piastres per £ sterling - -	110

Weights and Measures.—Gold and silver are weighed by the *cheki* of 100 *miscals*, or 7,200 Eng. grains.

The commercial weights are the *maund atteree*, the *maund sofy* or *sesse*, and the *oke of Bagdad*. 1 *vakia* = 19 oz. avoirdupois; 2½ vakias = 1 oke of Bagdad = 47½ oz. avoir.; 1 maund atterce = 28 lbs. 8 oz. avoir.; 1 maund sofy = 90 lbs. 4 oz. avoir.; 1 *cutra* of indigo = 138 lbs. 15 oz. avoir.

These are the weights used by the Europeans settled at Bussorah; those used by the Arabians differ a little from the above, and frequently also among themselves—a circumstance to which the merchant must pay particular attention.

The long measures are the Aleppo yard for silks and woollens = 2 feet 2·4 inches; the Hadded do. for cottons and linens = 2 feet 10·2 inches; the Bagdad do. for all purposes = 2 feet 7·6 inches.

For further details as to the commerce of Busso-

rah, see the last *Consular Report*; Kinneir's *Memoir on the Persian Empire*, p. 283; Kelly's *Oriental Metrology*; Thornton's *East Indian Calculator*, p. 424. Niebuhr has given a plan of Bussorah, *Voyage en Arabie*, tome ii. p. 170. [BUSHIRE.]

BUTLERAGE. [PRISAGE.]

BUTT. A vessel or measure for wine, containing 2 hogsheads, or 126 wine gallons.

BUTTER (Dan. smör; Dutch, boter; Fr. beurre; Ger. butter; Ital. burro, butiro; Lat. butyrum; Pol. maslo; Port. manteiga; Russ. masslo korowe; Span. manteca; Swed. smör). A fat, unctuous, and, in temperate climates, a pretty firm substance, obtained from milk, or rather from cream, by the process of churning.

The various circumstances attending the introduction and use of butter in antiquity have been investigated by Beckmann with great learning and industry. The conclusion at which he arrives is, 'that butter was not used either by the Greeks or Romans in cooking or the preparation of food, nor was it brought upon their tables by way of dessert, as is everywhere customary at present. We never find it mentioned by Galen and others as a food, though they have spoken of it as applicable to other purposes. No notice is taken of it by Apicius; nor is there any thing said of it in that respect by the authors who treat of agriculture, though they have given us very particular information with respect to milk, cheese, and oil. This, as has been remarked by others, may be easily accounted for, by the ancients having accustomed themselves to the use of good oil: and in the like manner butter is very little employed at present in Italy, Spain, Portugal, and the southern parts of France.' (*History of Inventions*, vol. ii. p. 413, Eng. ed.)

Beckmann has further shown that the little butter that was used by the ancients was in an oily or liquid state; and such is its usual state in all hot countries. It is rather singular that he does not allude to the consumption of butter by the Arabs, by whom it has been very extensively used from a remote period.

'Arab cookery is extremely *friant*, more so than even the Italian; but no oil is used for culinary purposes, except in frying fish. Butter is their universal sauce, and of it the consumption is immense; their vegetable dishes float in butter; with it they work their *adjoue* (paste made of dates) into a proper consistency; dried corn, or bread crumbs, boiled in butter, is a common breakfast with all classes; and in the desert, the *kemmayes* are prepared for use in the same manner. Arab butter is made from the milk of sheep and goats, that of camels not being used for that purpose. The home supply is not nearly sufficient for the consumption, and butter consequently forms an important article of importation.' (*Geographical Dictionary*, ed. 1841, art. 'Arabia.')

Butter is very extensively used in this and most other northern countries; that of England and Holland is reckoned the best. In London, the butters of Epping, Cambridge, and Yorkshire, once so famous, are all but entirely superseded, Aylesbury, Dorset, and Devonshire being now in the highest repute. The Aylesbury butter, which brings the highest price in the London market, comprises the best produce of the dairies of Buckinghamshire and Oxfordshire. It is generally packed in 'flats,' each containing from 18 to 30 lumps of 2 lbs. a piece, while the Dorset butter is packed in tubs.

The butter of Somersetshire and Gloucestershire is very good; it is made up in 1 lb. prints, packed in square baskets, and sent to the London market by railway. The butter of the mountains of Wales and Scotland, and the moors, commons, and heaths of England, is of excellent quality when it is properly managed; and though not equal in quantity, it often is confessedly superior to that produced by the richest meadows. Much butter, but of second and third rate qualities, is now imported from Jersey chiefly in tubs resembling wash tubs.

Considerable quantities of butter are made in Ireland, and it forms a prominent article in the exports of that country: generally, it is very inferior to that of Britain; but this is a consequence rather of the want of attention than of any inferiority in the milk. It is not much used in London. However, some of the best Irish butter brought to London, after being washed and re-packed, is sold as Dorsetshire butter.

The salt butter of Holland, when unadulterated, is superior to that of every other country; and large quantities of it are annually exported. It forms about one-third of all the foreign butter we import, the rest being brought from France, Germany, Belgium &c. Latterly the supplies of Ostend butter have materially increased, the qualities ranging from the very best, which is occasionally sold for Aylesbury, to the very worst description, or imitation butter. It is generally imported in long boxes, containing about 1 cwt. each.

The production and consumption of butter in Great Britain are very great. The consumption in the metropolis may, it is believed, be averaged at about 8 lbs. a year for each individual; and supposing this estimate to be nearly accurate, and the population to amount to 3,200,000, the total annual consumption would, on this hypothesis, be 25,600,000 lbs., or 11,428 tons; but to this may be added 3,000 tons for the butter required for the victualling of ships and other purposes; making the total consumption, in round numbers, 14,428 tons, or 32,320,000 lbs., which at 1*s.* per lb. would be worth 1,616,000*l.*

The average yield of milk by a cow in England is stated by Mr. Horsfall (*Jour. Roy. Agric. Soc.* vol. xvii. p. 267, quoted from Muspratt's *Chemistry*) to be from 160 to 180 lbs. daily, and the average yield of butter 8 or 9 oz. or 1 oz. per quart, equal to about 1 lb. for every 16 quarts.

The average produce per cow of the butter dairies is estimated by Mr. Marshall at 168 lbs. a-year; but owing to the improvements that have been made in the interval, the yield per cow may now be safely estimated at 180 lbs.; so that, supposing we are nearly right in the above estimates, about 180,000 cows will be required to produce an adequate supply of butter for the London market.

In 1852 the entries of butter for consumption amounted to 287,266 cwts., producing a nett revenue of 143,341*l.* The duty of 10*s.* a cwt. on butter from a foreign country was reduced in 1853 to 5*s.* a cwt.; that on butter from a British possession was continued at 2*s.* 6*d.* per cwt. The duty was repealed in 1859.

Account of the Quantity and Value of Butter imported into the United Kingdom in 1866 *from each of the undermentioned Countries.*

	cwts.	£
Denmark	67,305	319,528
Hanse Towns	113,231	621,667
Holland	383,225	1,979,070
Belgium	76,067	426,714
France	432,196	2,476,495
Canada	58,442	165,385
Other parts	35,912	172,668
Total	1,165,081	5,902,456

Imports of butter have increased enormously since the abolition of the duty, as will be seen from the subjoined table:—

Year	cwts.	Year	cwts.
1855	447,266	1861	994,774
1856	515,392	1862	1,037,371
1857	441,606	1863	986,709
1858	387,566	1864	1,054,617
1859	425,663	1865	1,083,717
1860	840,112	1866	1,165,081

The principal sources of foreign supply have been the Hause Towns, Holland and Belgium, France, and Denmark. The price, which in 1854 was about 4*l.* 5*s.* the cwt., has since risen steadily, and is now about 5*l.* 2*s.* for the same quantity.

The average contract prices of the butter furnished to Greenwich Hospital from 1730 to 1868 have been as follow:—

Year	Prices per lb.	Year	Prices per lb.	Year	Prices per lb.
	s. *d.*		*s.* *d.*		*s.* *d.*
1730	0 5	1790	0 6½	1830	0 6½
1740	0 5	1800	0 11½	1835	0 7½
1750	0 5½	1810	1 1½	1840	0 10
1760	0 5½	1815	1 2	1849	0 10
1770	0 6½	1820	0 9½	1858	0 11½
1780	0 6½	1825	0 10½	1868	0 9½

In order to obviate the practice of fraud in the weighing and packing of butter, different statutes have been passed, particularly the 36 Geo. III. c. 86 and 38 Geo. III. c. 73, the principal regulations of which are subjoined. It is very doubtful, however, whether they have been productive of any good effect. It might be proper, perhaps, to order the weight of the butter, exclusive of the vessel, and the dairyman's or seller's name, to be branded on the inside and outside of each vessel; but most of the other regulations, especially those as to the thickness of the staves, and the weight of the vessels, seem to be at once vexatious and useless.

Every cooper or other person who shall make any vessel for the packing of butter shall make the same of good, well-seasoned timber, tight and not leaky, and shall groove in the heads and bottoms thereof; and every vessel made for the packing of butter shall be a tub, firkin, or half-firkin, and no other.

Every tub shall weigh of itself, including the top and bottom, not less than 11 lbs. nor more than 15 lbs. avoirdupois; and neither the top nor the bottom of any such tub shall exceed in any part five eighths of an inch in thickness.

Every firkin shall weigh at least 7 lbs. including the top and the bottom, which shall not exceed four eighths of an inch thick in any part.

Half-firkins to weigh not less than 4 lbs. nor more than 6 lbs. including the top and the bottom, which shall not exceed the thickness of three eighths of an inch in any part; upon pain that the cooper or every other person making any such vessel, in any respect contrary to the preceding directions, shall forfeit every such vessel and 10*s.*

Every cooper &c. shall brand every cask or vessel before going out of his possession, on the outside, with his name, in legible and permanent letters, under penalty of 10*s.*, together with the exact weight or tare thereof.

Every dairyman, farmer, or seller of butter, or other person packing the same for sale, shall pack it in vessels made and marked as aforesaid, and in no other, and shall properly soak and season every such vessel; and on the inside, and on the top on the outside, shall brand his name at length, in permanent and legible letters; and shall also, with an iron, brand on the top on the outside, and on the bouge or body of every such cask, the true weight or tare of every such vessel, when it shall have been soaked and seasoned; and also shall brand his name at length, on the bouge or body of every such vessel, across two different staves at least, and shall distinctly, and at length, imprint his Christian and surname upon the top of the butter in such vessel when filled, on pain of forfeiting 5*l.* for every default thereof.

Every tub of butter shall contain, exclusive of the tare of good and merchantable butter, 84 lbs.; every firkin 56 lbs.; every half-firkin 28 lbs.; and no old or corrupt butter shall be mixed, or packed in any vessel whatever, with any butter that is new and sound; nor shall any butter made of whey be packed or mixed with butter made of cream, but the respective sorts shall be packed separately, and the whole vessel shall, throughout, be of one sort and goodness; and no butter shall be salted with any great salt, but all butter shall be salted with small salt; nor shall more salt be intermixed with the butter than is needful for its preservation, under penalty of 5*l.* for offending against any of these regulations.

No change, alteration, fraud, or deceit shall be practised by any dealers or packers of butter, either with respect to the vessel or the butter so packed, whether in respect to quantity or otherwise, under a penalty of 30*l.* to be imposed on every person engaged in the offence.

Every cheesemonger, dealer in butter, or other person, who shall sell any tubs, firkins, or half-firkins of butter, shall deliver, in every such cask or vessel respectively, the full quantity appointed by this Act, or, in default thereof, shall be liable to make satisfaction to the person who shall buy the same for what shall be wanting, according to the price for which it was sold, and shall be liable to an action for recovery of the same, with full costs of suit.

No cheesemonger, dealer in butter &c. shall repack for sale any butter, under penalty of 5*l.* for every tub, firkin, or half-firkin so repacked.

Nothing in this Act shall extend to make any cheesemonger, dealer in butter, or other person, liable to any penalties for using any of the tubs, firkins, or half-firkins, after the British butter used in such vessels shall have been taken thereout, for the repacking for sale of any foreign butter, who shall, before he so repack such foreign butter, entirely cut or efface the several names of the original dairyman, farmer, or seller of butter from every such vessel, leaving the name and tare of the cooper, and the tare of the original dairyman, farmer, or seller thereon; and, after the names are so effaced, shall, with an iron, brand his Christian and surname, and the words *foreign butter*, upon the bouge of every such vessel, across two staves at least, to denote that such butter is foreign butter.

Persons counterfeiting or forging any such names or marks shall for every such offence forfeit 40*l.*

Penalties not exceeding 5*l.* to be determined by one justice, upon the evidence of one witness, and the whole shall go to the informer.

Penalties above 5*l.* to be recovered by action of debt, or information, in the courts at Westminster, and the whole to the informer.

Nothing to extend to the packing of butter in any pot or vessel which shall not be capable of containing more than 14 lbs.

Previously to 1826 no butter could be sold in any public market in Ireland, or exported from it, without being previously examined and branded by a public inspector; but compliance with this regulation is no longer compulsory, but is left to the discretion of the parties.

It is enacted by statute 4 Wm. III. c. 7 that every warehouse-keeper, weigher, searcher, or shipper of butter and cheese, shall receive all butter and cheese that shall be brought to him for the London cheesemongers, and ship the same without undue preference; and shall have for his pains 2*s.* 6*d.* for every load; and if he shall make default, he shall, on conviction before one justice, on oath of one witness, or confession, forfeit for every firkin of butter 10*s.*, and for every weigh of

cheese 5*s.*; half for the use of the poor, and half to the informer.

And every such person shall keep a book of entry of receiving and shipping the goods, on pain of 2*s.* 6*d.* for every firkin of butter and weigh of cheese.

The master of a ship refusing to take in butter or cheese before he is full laden (except it be a cheesemonger's own ship sent for his own goods) shall forfeit for every firkin of butter refused 5*s.*, and for every weigh of cheese 2*s.* 6*d.*

This Act does not extend to any warehouse in Cheshire or Lancashire.

The total product of butter in the United States in 1850 was 313,345,306 lbs., and in 1860 459,681,372 lbs. The States in which the largest amounts are produced are New York, Pennsylvania, Ohio, Illinois, Indiana, Michigan, Missouri, Iowa, Maine, Kentucky. Each of these States produced in 1860 over 10,000 lbs.

Butter made in hot countries is generally liquid. In India it is denominated *ghee*, and is mostly prepared from the milk of buffaloes; it is usually conveyed in duppers, or bottles made of hide, each of which contains from 10 to 40 gallons. Ghee is an article of considerable commercial importance in many parts of India.

BUTTONS (Dutch, knoopen; Fr. bouton; Ger. knöpfe; Ital. bottoni; Russ. pogowizü; Span. botones). Well-known articles, serving to fasten clothes &c. They are manufactured of an endless variety of materials and forms.

The chief seat of the button manufacture in England is Birmingham, which fifty years ago not only enjoyed the supposed advantages of a rigorous protective system, but exported largely to the Continent and the United States. At first it seems buttons were made with the needle, and various Acts of Parliament were passed in favour of the persons engaged in this industry. The gilt button trade commenced about 100 years ago. Covered buttons made by machinery were introduced at the beginning of the present century, and the flexible shank button was patented in 1825. Linen buttons for underclothing were first manufactured in 1841.

Since this time various materials have been employed. The use of hoofs for the manufacture of 'horn buttons' commenced in France. These were followed by the vegetable ivory button, a material of which we are informed fifteen to sixteen tons a-week are consumed in Birmingham. In 1860 Mr. Manton patented a mineral button, the use of which is rapidly increasing. Metal buttons have still maintained their ground, being needed for military and other uniforms, though they are not manufactured in equal quantities to those of twenty-five years ago. Mr. Wright, of Birmingham, computes the consumption of metal in such buttons at from nine to twelve tons a-week.

Pearl buttons are manufactured from shells. The finest of these are called Macassar, and the shells are worth from 140*l.* to 160*l.* the ton. The Manilla shells are worth from 100*l.* to 120*l.*, those of Bombay and Alexandria from 70*l.* to 80*l.*, if of good quality, the poorest being those from Panama, and worth from about 20*l.* to 30*l.* The manufacture of pearl buttons is declining. Glass buttons are also made.

The number of persons engaged in the Birmingham button trade is calculated by Mr. Turner at about 6,000.

The chief seats of foreign manufacture are the Rhenish provinces, Bohemia, Vienna, and Paris. The production is so considerable in the United States as to have met the enormous demand during the late war without any foreign importation. (*The Industries of Birmingham &c.*)

It might have been supposed that the manufacture of such an article as this would have been left to be carried on according to the views and interests of those concerned, individuals being allowed to select any sort of button they pleased. Such, however, has not been the case; and various statutes have been passed, pointing out the kind of buttons to be worn, and the way in which they are to be made! Most of these regulations have luckily fallen into disuse, but they still occupy a place in the statute-book, and might, we presume, be enforced.

In 1866, metal buttons to the value of 27,298*l.*, and other kinds to the value of 97,689*l.*, were imported into the United Kingdom, principally from Holland, Hamburg, and France.

C

CABLES. Strong ropes or chains, principally used in the anchoring or mooring of ships.

1. *Rope Cables* are, in Europe, principally manufactured of hemp; but in the East they are very frequently made of *coir*, or the fibrous part of the cocoa-nut, and in some places, particularly on the Red Sea, of the coating of the branches of the date-tree. Hemp cables are for the most part formed of three principal strands, every strand of three ropes, and every rope of three twists; the latter having more or fewer threads according to the greater or less thickness of the cable. But very large cables, or those used by the largest ships, are usually formed by a combination of smaller ropes twisted round their common axis. Cables of this sort are stronger than the others, harder, and more compact, so that they are frequently constructed in this way even when their thickness is not very great. The reduction of length by twisting may be taken at about ⅛ the length of the yarn. Large vessels have ready for service three cables, which are usually designated the *sheet* cable, the *best bower* cable, and the *small bower* cable; but besides these, most ships have some spare cables. The ordinary length of a cable is from 100 to 120 fathoms.

2. *Wire Ropes* were first employed in the silver-mines of the Hartz mountains, having proved more economical than flat hempen ropes.

The use of wire ropes for mining commenced in this country about 1840. Now, however, the use of this material is gradually being adopted in shipping. In the case of steamers and iron ships wire rigging is almost invariably used, and even in wooden ships, though there has been a prejudice against its employment, it is rapidly coming into favour, and the export of it to the shipping and ship-building ports abroad is increasing. It is calculated that the produce of wire ropes in the Tyne, Wear, and Tees district was 4,500 tons in 1864, and was of the value of 170,000*l.* Wire ropes, weight for weight, are less costly than hempen fabrics. (*Industrial Resources of the Tyne, Wear, and Tees.*)

3. *Iron Cables.*—The application of strong iron chains or cables to the purposes of navigation is a

late and important discovery, for which we are indebted to Captain Samuel Brown, R.N. In 1812 the Admiralty adopted chain cables in the navy. It is singular, indeed, that this application should not have been made at a much earlier period. On rocky bottoms, or where coral is abundant, a hempen cable speedily chafes, and is often quite destroyed in a few months, or perhaps days. A striking instance of this occurred in the voyage of discovery under the orders of M. Bougainville, who lost *six* anchors in the space of nine days, and narrowly escaped shipwreck; a result, says that able seaman, which would not have happened 'si nous eussions été munis des quelques chaines de fer. C'est une précaution que ne doivent jamais oublier tous les navigateurs destinés à de pareils voyages.' (*Voyage autour du Monde*, p. 207, 4to ed.) The work from which this extract is taken was published in 1771; and yet it was not till nearly *forty* years after that any attempt was made practically to profit by so judicious a suggestion. The difficulties in the way of importing hemp from 1808 to 1814, and its consequent high price, gave the first great stimulus to the manufacture of iron cables.

Iron cables are constructed in different ways. (*Encyc. Metrop.*) Their great weight contributes to their strength, inasmuch as the impulse of the ship is checked before the cable is brought nearly to a straight line, or that the strain approaches to a maximum. Bolts and shackles are provided at every fathom or two fathoms, by striking out which the ship may, if necessary, be detached from her anchors with less difficulty than a hempen cable can be cut.

If properly made, iron cables are a great deal stronger than those of hemp; and as to durability no sort of comparison can be made. No wonder, therefore, that they should be rapidly superseding the latter, which are now almost wholly laid aside in the navy, and, to a great extent, also in the merchant service.

Testing of Iron Cables.—In addition to iron cables, iron chains are now frequently used in the rigging of ships; and there can be no doubt that both the one and the other are great improvements, provided they are properly made, and of the proper degree of strength. The latter, however, is a sine quâ non, without which ships, their cargoes and crews, are exposed to the greatest danger. And hence we are clearly of opinion that all chain cables, chain ropes, and anchors should not be left to be tested by the maker, but that before being offered for sale they should be carefully tested in public proof-houses. We regret to have to state that there can be no possible doubt that cables, anchors, and iron chains of a very worthless description were till lately sent in large quantities into the market, and that a great deal of property and many valuable lives were consequently lost. A shameless abuse of this sort ought to be put down at all hazards: it is injurious alike to the public and the honest manufacturer, and is a disgrace to the Government by whom it is tolerated. And do what we will, it cannot be suppressed except by prohibiting the sale of all cables, chains, and anchors not subjected to a public test, and marked as approved by the examiners. We might refer, were it necessary, in proof of the statements now made, to a paper put forth by the operative chain-makers. The abuses which it discloses are of the most discreditable character, and call imperatively for redress. [Anchors.]

We subjoin an abstract of the Act 27 & 28 Vict. c. 27, passed to remedy the evils complained of:—

1. Any corporation, public body, or company may erect and maintain proving establishments, apparatus, and machinery suitable for the testing of chain cables or anchors, and may raise money for that purpose.

2. The Board of Trade may grant to any corporation, public body, or company, person or persons erecting any suitable proving establishment, apparatus, and machinery, license to test chain cables and anchors under this Act, and the board may suspend or revoke any such license so granted; and the expression 'tester' in this Act applies to every corporation, public body, or company, person, or persons to whom such license shall be granted, such license not to be granted until the proving establishment, apparatus, and machinery erected have been inspected and certified as efficient by an inspector appointed under this Act.

3. The Board of Trade to appoint a fit person to act as inspector of such proving establishments, apparatus, and machinery, and may at pleasure remove such inspector from his office, who must conform to any regulations made by the Board.

4. Any license granted to be renewable annually, but not until the proving establishment, apparatus, and machinery, in respect whereof such license was granted, have been inspected and certified by the inspector within that year.

5. On the original grant, and on every annual renewal of such license, a fee not exceeding fifty pounds to be paid to the Board of Trade, and to be by them paid into the Exchequer.

6. The inspector to receive such salary and allowances as may be directed by the Board of Trade and Treasury, out of money to be provided by Parliament for the purpose.

7. Every tester shall, with all reasonable despatch, subject every chain cable or anchor that shall be brought to his proving establishment to the same tensile strain as that to which chain cables and anchors respectively of similar size, weight, or description are subjected before being used in her Majesty's naval service, and shall stamp every five fathoms in length of every such chain cable, and also every such anchor, with a stamp or die to be provided for that purpose by the tester, and approved by the Board of Trade, denoting that such chain cable or anchor has been 'proved,' and which shall bear the mark of the tester.

8. Every tester may make such charges as he thinks fit for the testing and stamping with proof mark any chain cable or anchor not exceeding the scale authorised by the Board of Trade; and such tester shall affix upon some conspicuous part of the proving establishment a table of the charges so authorised, and such table shall distinctly be painted on a board or boards, or printed in legible characters on paper affixed to such board or boards; and it shall not be lawful for such tester to make any alteration in such table or charges until such alteration be approved by the Board, and the tester shall have caused written or printed notice of the intended alteration to be affixed to such table for not less than three months.

9. Any tester may detain any chain cable or anchor so tested until such charge shall be paid; and if not paid within three months after the testing he may sell the cable or anchor by auction, and out of the purchase money deduct the expenses of sale, and all other expenses incurred by such with respect to the cable or anchor, and shall pay the surplus (if any), on demand, to the owner or to the captain or master of the vessel, or other person on whose application the cable or anchor had been tested.

10. When any tester shall have tested and

stamped any chain cable or anchor, he shall, if requested by the person on whose application the same was tested, within one month after such testing, deliver, free of charge, to such person a certificate of such testing.

11. After first July one thousand eight hundred and sixty-five it shall not be lawful for any maker of or dealer in chain cables or anchors to sell or contract to sell for the use of any vessel any chain cable whatever or any anchor exceeding in weight one hundred and sixty-eight pounds, unless such chain cable or anchor shall have been previously tested and duly stamped; and if any person acts in contravention of this provision, he shall for every such offence, upon a summary conviction for the same before a justice of the peace, or in Scotland before any sheriff, justice, or magistrate, be liable to a penalty not exceeding fifty pounds.

12. If any person shall stamp or assist in stamping any chain cable or anchor with the stamp of any tester, or with a stamp or mark purporting to be the stamp of any tester, without the authority of the tester whose stamp shall have been so used or counterfeited, or with any other stamp or mark, for the purpose or with the intention of passing such chain cable or anchor, or of allowing or assisting in the same being passed as a chain cable or anchor duly tested and stamped under the powers of this Act, or if any person, knowing any such chain cable or anchor to have been so wrongfully marked or stamped as aforesaid, shall sell the same, or shall deliver the same to any person to be taken or used as part of the equipment of any vessel, or if any person shall write out and deliver to any person any certificate or document purporting to be a certificate under this Act, that any chain cable or anchor has been tested and stamped under the provisions of this Act, knowing that the chain cable or anchor referred to in such certificate or document had not been so tested or stamped, every person so offending shall be guilty of a misdemeanor, or in Scotland of an offence, and for every such misdemeanor or offence shall be liable, in the discretion of the court, to be imprisoned for any term not exceeding two years, with or without hard labour, and with or without solitary confinement.

13. No maker of, or dealer in, chain cables or anchors, ship-owner, or other person, shall by reason of this Act, or of anything done thereunder, be relieved from any responsibility in respect of any chain cable or anchor made, sold, or used by him to which, but for this Act, he would have been subject.

14. Nothing in this Act shall affect any contracts made by the Admiralty for the supply of any chain cables or anchors to any of her Majesty's dockyards or for the use of any of her Majesty's ships.

15. This Act shall continue in force to first July one thousand eight hundred and seventy-two.

CADIZ. A large commercial city and seaport of Spain, on its south-western coast, on the rocky and elevated extremity of a narrow, low peninsula, or tongue of land, projecting from the Isla de Leon, N.N.W. about 4½ nautical miles. It is surrounded on all sides, except the south, where it joins the land, by the sea, and is fortified. Population, in 1860, 71,521. It is well built, and has, at a distance, a very striking appearance. The tower or lighthouse of St. Sebastian stands on the western side of the city, being, according to Tofiño, in lat. 36° 31′ 36″ N., long. 6° 18′ 30″ W. It is a most conspicuous object to vessels approaching from the Atlantic. The light, which is 160 feet high, is of great brilliancy, red and white, revolves twice a minute, and in fair weather may be seen 24 miles off.

Bay of Cadiz.—The entrance to this noble basin lies between the city and the town and promontory of Rota, bearing N.W. by N., distant about 1¾ league. The bay is of very great extent, affording, in most places, good anchorage. The port is on the eastern side of the city, where a mole of considerable dimensions has been constructed; but the water is not sufficiently deep to allow large vessels to approach nearer than within about ¾ mile, where they anchor in from 5 to 7 fathoms. The rocks called the Cochinos, the Puercas, and the Diamante, lie to the north of the city in the entrance to the bay; the first two at about ¾ mile distant, and the Diamante at rather more than 1½ mile from the city. Vessels may enter between the Puercas and the Diamante; but none, except those not drawing more than 15 feet water, and well acquainted with the channel, ought to attempt entering between the Cochinos and Puercas and the city. The town of St. Mary's, on the opposite side of the bay, is famous for being the depôt of the wines of Xeres. The outer bay, or that of Cadiz properly so called, is separated from the inner bay by the promontory having at its extremity the castle of Matagorda, which approaches within about ¾ mile of the Puntales castle on the Isla de Leon. Within the inner bay is the famous arsenal of the Caraccas, the town of San Carlos, the canal of Trocadero &c. At spring tides the water in the bay rises 10 or 11 feet, but at neaps the rise does not exceed 6 feet. (For further particulars, see the excellent *Chart of the Bay of Cadiz*, by Tofiño; Malham's *Naval Gazetteer*; and Purdy's *Sailing Directions for the Bay of Biscay*, &c.)

History, Trade &c.—Cadiz is a very ancient city, having been founded by the Phœnicians about 1,200 years before the Christian æra. The temple which they erected in it in honour of Hercules was one of the most celebrated in antiquity. (Sainte Croix, *des Anciennes Colonies*, p. 14; Pomp. Mela, lib. iii. c. vi.) Its excellent port, and its situation, favourable alike for commerce and security, have made it, whether possessed by Carthaginians, Romans, Moors, or Christians, and under every vicissitude, a place of considerable commercial and political importance. It has long been the principal station of the Spanish naval force. In 1720 the commerce with Spanish America, which had previously been exclusively carried on from Seville, was transferred to Cadiz. It enjoyed this valuable monopoly till 1765, when it was partially relaxed by the trade to Cuba, St. Domingo, Porto Rico, and the other islands, being opened to all the greater ports of Spain. The benefits resulting from this relaxation were so very great, that in 1778 the trade to all parts of America was opened to ships from every considerable Spanish port, except those of Biscay, which, not being subject to the general laws of the kingdom, were not allowed to participate in this privilege. In consequence, however, of her situation, the great capital of her merchants, and their established connections, Cadiz continued, notwithstanding the abolition of the monopoly, to preserve by far the largest share of the American trade. But since the colonies achieved their independence, her commerce has been contracted within comparatively narrow limits; and though considerably increased of late years, it will not attain to anything like the extent to which it might arrive without a total change of policy on the part of the Spanish Government. Barcelona is at present the principal seat of Spanish commerce. (Robertson's *America*, b. viii. passim; Townsend's

Travels in Spain, vol. ii. pp. 395–401, 2nd edit.; Mr. Gordon's *Consular Report*, 1864.)

The white wines of Xeres in its vicinity form by far the principal article of export from Cadiz. The quantity exported may amount to about 35,000 pipes a-year. The prices vary from 12*l.* to 65*l.* per pipe; but, as the lower qualities predominate, the price may be taken, at a medium, at about 25*l.*, making the total value of the exports 850,000*l.* More than ¾ of the whole comes to England. The other articles of export are quicksilver, brandy, oranges and other fruits, oil, provisions, flour, salt, wool &c. The imports consist principally of sugar and coffee from the Havannah and Porto Rico, cocoa, hemp, flax, linens, dried fish, hides, cotton wool and cotton manufactures, coal and iron, rice, spices, indigo, staves and timber &c.

Account of the Quantities and Values of the Principal Articles Imported from Spain into the United Kingdom during each of the three Years ending with 1866.

Principal and other Articles		Quantities			Computed Real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Animals: oxen and bulls	no.	8,281	8,209	8,490	142,175	145,724	174,294
Copper ore	tons	3,772	2,744	1,635	20,614	42,094	15,327
unwrought and part wrought	,,	1,415	1,658	1,510	124,466	137,787	115,987
	,,	188	67	193	6,580	2,345	6,755
Cork	lbs.	78,153	200,071	369,802	4,255	10,940	20,035
Corks, ready-made	,,	1,824	125,561	572,035	887	60,874	338,794
Corn: wheat	cwts.		8,395	235,195	73	5,763	207,864
wheatmeal and flour	,,	125	851		187,837	7,507	1,042
Cotton, raw	,,	14,510	80,055	146	16,945	10,910	27,353
Eggs	great hundreds	54,465	31,728	12,641	62,117	44,461	68,271
Fruit: almonds, not bitter	cwts.	10,277	10,083	12,458	4,372	5,238	8,969
figs	,,	6,104	7,994	40,774	35,102	29,315	45,754
grapes	bushels	44,827	30,397	2,812	4,576	246	1,038
nuts, chestnuts	,,	10,001	1,198	225,939	133,169	186,975	164,623
small nuts	,,	179,482	220,151	618,705	142,412	241,491	326,506
oranges and lemons	,,	279,651	470,273	288,287	349,335	420,862	406,446
raisins	cwts.	253,635	260,445		32,857	29,476	22,160
Iron ore	tons	45,287	37,121	27,619	473,301	522,163	694,163
Lead, pig and sheet	,,	23,706	27,474	31,075	2,303	1,706	473
Liquorice, juice and paste	cwts.	938	741	210	16,018	5,015	—
Madder	,,	8,848	3,726	—	57,236	78,038	125,316
Manganese ore	tons	16,332	21,356	22,259	176,577	621,446	165,533
Oil, olive	tuns	3,134	11,919	2,927	2,546	249	17
Ore, unenumerated	value	—	—	—	44,813	53,500	36,944
Pyrites of iron or copper	tons	15,529	16,393	11,910	483,096	130,576	219,495
Quicksilver	lbs.	4,510,350	1,264,250	2,401,315	—	—	—
Rags and other materials for making paper: viz. Vegetable fibre	tons	41,339	47,239	68,859	202,650	246,251	295,197
	no.	5,167	5,159	3,312	5,050	8,301	6,483
Saffron	lbs.	669	1,128	418	20,150	57,741	22,610
Silver ore	tons	500	3,545	11,851	1,967	12,998	48,587
Spelter	,,		—	—	2,879,598	1,559,047	1,959,675
Wine	galloons	7,791,025	5,891,993	6,479,557	58,679	9,774	9,782
Wool, sheep and lambs	lbs.	712,141	115,611	125,058	170,247	104,295	109,430
All other articles	value	—	—	—	—	—	—
Total		—	—	—	5,879,705	4,769,277	5,553,133

Account of the Quantities and Values of the Principal Articles of British and Irish Produce Exported from the United Kingdom to Spain in each of the three Years ending with 1866.

Principal and other Articles		Quantities			Declared Real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Alkali, soda	cwts.	52,312	61,586	50,345	27,761	35,359	36,254
Arms and ammunition: fire arms (small)	no.	25	16	36	339	194	216
gunpowder	lbs.	22,490	500	60,704	660	995	995
Apparel and haberdashery	value	—	—	—	46,755	37,045	48,158
Bacon and hams	cwts.	366	71	18	994	219	59
Carriages of all sorts	no.	817	43	14	94,894	4,825	1,203
Coals, cinders, and culm	tons	534,246	465,816	514,054	280,773	254,164	297,498
Copper, wrought and unwrought	cwts.	2,152	2,180	1,612	12,482	10,349	7,664
Cotton yarn	lbs.	154,946	195,979	188,515	21,668	29,521	25,749
Cottons, entered by the yard	yards	3,412,238	2,446,942	2,933,323	131,970	94,640	104,140
at value	value	—	—	—	16,185	12,440	13,144
Drugs and chemical products	,,	—	—	—	12,150	12,958	9,759
Earthenware and porcelain	,,	—	—	—	3,515	2,689	2,087
Fish: cod and ling	cwts.	33,900	31,179	24,280	34,817	33,948	28,338
all other sorts	value	—	—	—	4,435	3,407	1,247
Glass manufactures	cwts.	16,179	12,176	13,469	80,615	61,203	68,731
Hardwares and cutlery, unenumerated	tons	63,335	37,708	18,992	433,466	264,599	179,810
Iron, wrought and unwrought	lbs.	15,599,094	11,892,072	11,830,714	936,100	703,156	742,040
Linen yarn	yards	1,640,119	1,242,572	891,479	88,790	69,388	56,465
Linens, entered by the yard	value	—	—	—	1,168	3,829	4,379
at value	,,	—	—	—	113,907	77,708	22,149
Machinery: steam engines	,,	—	—	—	127,824	75,289	69,826
all other sorts	gals.	164,671	64,653	78,185	21,910	9,134	11,745
Oil, seed	value	—	—	—	11,340	7,044	5,285
Painters' colours	,,	—	—	—	2,485	679	2,298
Provisions, not otherwise described	lbs.	2,751	1,202	287	1,960	918	229
Silk, thrown and yarn	value	—	—	—	21,943	16,068	10,939
manufactures	,,	—	—	—	2,956	2,751	1,765
Telegraphic wire	cwts.	3,536	2,478	3,173	18,879	12,208	14,063
Tin, unwrought	value	—	—	—	58,705	37,562	41,917
plates	lbs.	35,618	22,774	22,930	7,060	5,999	5,674
Woollen and worsted yarn	yards	2,347,084	1,237,235	1,037,091	161,989	101,403	78,461
Woollens, entered by the yard (including those formerly entered by the piece)	value	—	—	—	12,771	9,258	4,204
entered at value	,,	—	—	—	249,140	205,365	215,137
All other articles		—	—	—	5,084,778	4,177,146	4,095,828
Total		—	—	—			

In the years 1861–3 the shipping of Cadiz was as follows:—

	1861	1862	1863
Entered and cleared with cargoes	2,981	2,155	2,378
Tonnage of ditto	500,646	511,507	539,141
Tonnage of coasting trade, entered	180,005	218,284	224,505
Ditto cleared	135,696	164,732	199,206

In 1865, 409,497 tons of coal and coke were imported into various Spanish ports.

The wine exports of Cadiz for 1866 (taking Xeres and Port St. Mary together) are estimated by Mr. Consul Dunlop at 60,000 butts. See also Mr. Savile Lumley's note of May 4, 1867, on the *Wine Trade of Spain*, published among the Reports of Secretaries of Embassy and Legation.

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The total amount of salt exported from Spain in the year 1863 was 2,327,844 hectolitres, chiefly to Brazil, Prussia, Russia, Sweden, and Uruguay.

Mr. Consul Graham Dunlop gives the following table in his Report of May, 1867, showing the number and nationality of vessels which entered Cadiz in 1866:—

	Number
English	412
French	154
Swedish and Norwegian	56
Italian	54
Dutch	47
Russian	42
Portuguese	20
American	12
Prussian	8
Austrian	1

Bank of Cadiz.—This joint-stock bank was established with special privileges, and was permitted to issue notes. In 1864 the notes fell to a discount, but are still in circulation. The bank is therefore in discredit.

Banks.—Some other smaller banks exist in Cadiz, joint-stock and private; but most of the legitimate discounting is accomplished by the more respectable of the merchants of the place, who advance on wine, and do other ordinary banking business.

Money.

Gold Isabella of	100 reals or 5 dols.		Silver ¼ dollar of	10 rs.		
piece of	80	„ 4 „	pesets of	5	„	
	40	„ 2 „	„	4	„	
	20	„ 1 „	½ peseta of	2	„	
Silver dollar of	20	„	coin of	1	„	

Accounts are kept in reals and cents. There are sometimes also doubloons and half-doubloons in circulation, and French five-franc pieces of silver which pass currently for 19 reals, called always in Cadiz 'Napoleons.' English gold and silver are rarely seen, and do not pass current.

Weights and Measures.—The ordinary quintal is divided into 4 *arrobas*, or 100 lbs. of 2 marcs each: 100 lbs. Castile = 101½ lbs. avoirdupois. The common Spanish pound of weight is about 2 lbs. English. The yard, or *vara* = ·927 English yard, or 100 varas = 92¾ English yards. The *cahiz*, or measure for corn, is divided into 12 *fanegas*, or 144 *celeminas*, or 576 *quartillas*; 100 cahiz = 19·7 Winch. quarters, and 5 fanegas = 1 quarter. The *cantaro*, or *arroba*, the measure for liquids, is divided into 8 *azumbres*, and 32 *quartillos*. There are two sorts of arrobas, the greater and the lesser; they are to each other as 32 to 25; the former being equal to 4¼ English wine gallons, the latter to 3¾ do. A *moyo* of wine = 16 arrobas. The *botta* = 30 arrobas of wine, or 38½ of oil. A *pipe* = 27 arrobas of wine, or 34½ of oil. Hence the botta = 127½ English wine gallons, and the pipe 114¾ do.

Port and other Charges at Cadiz, fixed January 3, 1852.—The ships of all the nations which concede an equal benefit in their respective territories to the vessels of the Spanish marine to be put on an equality in the Peninsula and adjacent islands with Spanish vessels for the exaction of navigation and port dues, i. e. of lighthouses, anchorage, and loading and unloading, established in the law of April 11, 1849, and in the royal decree of December 16, 1851.

Shipping charges &c. at Cadiz are heavy.

Pilotage (ordinary for every vessel) 9 dollars 50 cents.
If to Trocadero about 4*l.* 5*s.* sterling
Carraca about 4*l.* sterling

For every change of anchorage 3 dols. 25 cents.

Besides this, from 1 to 5 dols. are allowed to every pilot for the hire of his boat.

Puntales Port dues (every vessel passing) 75 reals
Captain of port, 4 reals to 8, according to tonnage and rig
Lighthouse dues 1 real per Spanish ton
Anchorage dues 1 „ „

If quarantined a vessel pays 25 reals per Spanish ton, daily.

N. B. *All* vessels arriving with a bill of health *not* countersigned by a Spanish consul or authority are quarantined, generally for 3 or 4 days.

There is also a small tax on vessels leaving, called 'consumos-dues,' which is levied according to crew and passengers. A most important branch of the import trade of Spain is the smuggling, which is now managed in the Custom-houses as well as by the contrabandistas. This is said to be an understood matter, and in the South of Spain, where free-trade doctrines are more prevalent than in Catalonia, it would be impossible to prevent smuggling, except by free-trade.

Customs Regulations.—Art. 1. Shippers of merchandise in foreign countries shall present to the Spanish consul a statement in duplicate, and without corrections or erasures, of the goods they embark, expressing the name and nature of the vessel, and of the master, port of destination, description of the bales, boxes, packages &c. &c. to be shipped, their marks and numbers, class, quality, and quantity of the merchandise contained in each, in Spanish weight or measure, the consignees thereof, of what nation the produce and manufacture; if of the country whence shipped; and if not, of what other nation or fabric may be their origin, concluding the statement or note with a declaration that it details the true contents of the packages, and that they contain nothing else. There must be separate notes from each shipper and for each consignee.

Art. 3. From all these notes the consul is to form a general summary, with a copy of which, and one of each of the notes of the shippers, he is to form a true register of the cargo, to be delivered to the master in a sealed despatch (with wax and wafer), addressed to the administrador of the custom-house at the port of destination. No merchandise can go on board after delivery of the register to the master without subjecting all to seizure on arrival in Spain.

Art. 8. The master who, in the act of receiving pratique, shall not deliver to the administrador the sealed despatch or register handed to him by the Spanish consul shall pay a fine of 400 dols., the cargo discharged and stored until the consul shall remit a certified copy of the original notes presented by the shippers, and for which the administrador shall apply.

Art. 10. On examination by the administrador, in presence of the master, of these sealed despatches or register, if they manifest marks or evidences of having been previously opened, the master shall be fined 100 dols. for this alone, and—

Art. 11. In case amendments and alterations are observed in the notes, the master shall answer before the tribunal of finance for the crime of forgery, which he may be guilty of.

Art. 12. Where no consul resides, shippers must send their notes to the one nearest resident, and the master shall receive from him these registers, with the understanding that merchandise from a foreign country shall not be admitted to entry which shall not come with the requisites detailed.

Art. 14. The exceptions to the above are cargoes of lumber, staves, codfish, hides, coals, which it shall be evident come to the order of the master in search of a market; but in such cases a document of origin must be presented from the place of loading, specifying the quantity aboard of the vessel.

Art. 23. Within twenty-four hours after anchoring (being visited), the master shall present to the administrador of the custom-house a manifest of the cargo &c.

Art. 27. Fine of 100 dols. if the manifest be not presented within twenty-four hours.

Art. 38. Fine of 100 dols. for every package in excess, and 50 dols. for every one manifested less than what is expressed in the register made up by the Spanish consul.

Art. 39. If the manifest does not specify minutely the contents of the packages of prohibited merchandise manifested in the transitu, they shall be landed and examined.

Art. 42. All goods must be manifested to specified consignees, in no case to 'order.' The general term *merchandise* is not recognised nor admitted, in which case the goods shall be landed and examined in the presence of the master or his agent, and if they shall be found to be illicit goods, they shall be forfeited, and the master fined 25 per cent. if they be worth more than 2,000 dols., and if less 500 dols. If the goods be of licit traffic, half the sums.

Art. 181. Transhipments prohibited.

Art. 182. Merchandise cannot be manifested in transitu for the port from which the vessel originally sailed, nor those touched at in the voyage.

TREASURY DEPARTMENT—ORDER IN COUNCIL.

'Your Excellency will please to notify to H.M. consuls abroad that under no pretence they give course to the declarations or notes of shippers unless exactly in conformity with the customs regulations, nor despatch registers including articles of prohibited traffic, under the understanding that for the confiscations and fines which shall be imposed for defects in consular documentation the consuls themselves shall be responsible, notifying them also that all the documents which they give course to must, without exception, be made in the Spanish language.

'*Madrid, September* 26, 1850.

In the *Gaceta* of Madrid of April 2, 1865, occurs an official notice with a royal decree, showing the exact state of the present Spanish Navigation laws, viz.—

'It is decreed that *flour* imported into the islands of Cuba and Puerto Rico shall pay duty (from July 1, 1865) on each barrel of 92 kilograms = 200 lbs. of Spain, as follows:—

	dols.
1. Flour, the produce of Spain, coming from Spanish ports under Spanish flag	2
2. Coming from Spanish ports under a foreign flag	4
3. Foreign flour under Spanish flag	7
4. Foreign flour under foreign flag	10

The railway from Cadiz to Madrid has been completed. This will open a large inland trade advantageous for Cadiz. The railway to Malaga has also been finished, and that to Granada and some interior towns will soon be opened. The journey from Cadiz to the capital per rail is now (1868) performed in about 25 hours.

Cadiz is the port of the whole district, including Port St. Maria, Port Real, San Fernando, Puntales, Rota, Jeres, Seville, San Lucar, Cordova.

Although there is a good deal of fruit &c. shipped in small steamers at Seville, and taken abroad, the long river navigation is against Seville.

Spanish Commercial Policy.—It is the peculiar misfortune of Spain that every part of her political system has been alike vicious and objectionable. Had her commercial policy been liberal, it would, in some degree, have compensated for the defects in the distribution of property and political power, and would, no doubt, have given a powerful stimulus to industry. But, unluckily, it has been in perfect harmony with her other institutions, and was, in all respects, worthy of the favourite seat and stronghold of the Inquisition. From the reign of Ferdinand and Isabella down almost to yesterday, the grand object of the Spanish Government, next to the extirpation of heresy, has been to exclude foreign manufactures from the Peninsula, and to preserve a monopoly of its markets, as well as of those of the colonies, to the home manufacturers. It is, however, almost needless to say that their efforts to bring about this result have been signally unsuccessful. Oppressive taxes, with the multiplication of fasts and holidays, the Government monopolies, and the badness of the roads and other means of communication, made it impossible for the Spanish manufacturers, even if they had evinced greater enterprise and industry than they have done, to produce manufactured articles as cheap as the English, French, and others less unfavourably situated; and such being the case, it is plain that the prohibition of certain descriptions of commodities, and the oppressive duties laid on others, could have no effect except to suppress the legitimate commerce of the country, and to throw it wholly, or almost wholly, into the hands of smugglers. Any one who takes up a map of Spain must be satisfied at a glance that it would be impossible for an army of customs officers to prevent her being deluged with smuggled products, provided they were materially cheaper than her native products; for, besides her extensive sea frontier, they may be introduced by way of France and Portugal, and also through the Basque Provinces, which have distinct laws, and enjoy an exemption from the commercial code inflicted on the rest of the kingdom. We need not, therefore, be surprised that every effort to prevent the clandestine introduction of foreign products completely failed. The severities occasionally inflicted on the smugglers, instead of abating, seem really to have increased, the evil. The contraband trade has long been a favourite occupation, and has been eagerly followed by the adventurous, the necessitous, and the desperate. It is believed that for nearly three centuries from 100,000 to 150,000 individuals have been pretty constantly engaged in this occupation; that is, they have been engaged in trampling on the laws, obstructing their officers, and committing acts of violence and blood. A few years ago about 3,000 actions were annually instituted against *contrabandistas* and others engaged in illicit trade, which terminated in the ruin of a vast number of families; at the same time that the courts of law were filled with perjury, and the country with bloody conflicts; and yet these atrocities secured no one object Government had in view.

Notwithstanding their being absolutely prohibited, English and French cotton goods might, in 1848, be bought in every shop in Madrid, and generally throughout Spain; the former at from 20 to 30 per cent. above their price in Gibraltar, where they are about as cheap as in Manchester; and the latter at from 20 to 30 per cent. above their price in Bayonne, which is nearly identical with their price in Rouen! While Cadiz was a free port, about 6,000 persons are said to have been employed in it twisting cigars, which, as soon as finished, were forthwith smuggled into the interior. Three-fourths, in fact, of the foreign trade of Spain were then in the hands of the *contrabandistas*, who carried it on in defiance of the law; and when such was the case, need we wonder at the low state of industry, or at the prevalence of those predatory and ferocious habits that uniformly mark the character of the smuggler?

And, strange to say, notwithstanding the ruinous influence of this wretched system was long since exposed by Ulloa, Campomanes, and other distinguished Spaniards, and by Mr. Townsend and other foreigners who had visited the country, and notwithstanding all the vicissitudes Spain has

undergone during the previous half century, it continued to maintain its ascendancy down to 1849. But the leading Spanish statesmen having been, at length, satisfied of the disastrous influence of the old system, a vigorous effort was made, in the year now mentioned, to introduce a more rational tariff; and notwithstanding the selfish and short-sighted opposition of the Catalans and others, the new tariff was happily passed into a law. It is true that it leaves much to be desired; but it is, at the same time, a vast improvement on the system by which it was preceded; and it is especially valuable as being the first step in the introduction of a new and more liberal and rational policy. In a few cases the duties on importation were increased, but in the great majority of instances they were reduced, and the greater number of the articles that were formerly prohibited are now admitted on payment of duties. The following are the bases of the new tariff, viz.—

'Machines and instruments necessary for agricultural, manufacturing, and mining operations, to pay a duty of from 1 to 14 per cent. ad valorem.

'Raw material not abundantly produced by Spain, and used in the operations of the national industry, whatever be the form or the increase of value that it may acquire, to pay from 1 to 14 per cent.

'Raw material similar to that abundantly produced by Spain, productive agents in the same case, such as coal and coke, and articles of merchandise of foreign manufacture which may compete with those of the same kind and quality manufactured in Spain, to pay from 25 to 50 per cent.'

N.B.—Cottons and silks come under this class. The duties on the former are generally about 35 per cent. ad valorem.

'Foreign produce and manufacture required for consumption, and not supplied by the national industry, to pay a maximum of 15 per cent., and at the utmost 20 per cent. in every exceptional case.

'The duties hitherto levied on the colonial produce of foreign countries to be suitably increased.

'A discriminating duty of 20 per cent. to be charged on articles imported in foreign bottoms; and on those articles which contribute most to the support of the national navigation the discriminating duty may be raised to 50 per cent.'

The prohibited imports are arms, projectiles, and munitions of war, including all kinds of gunpowder; quicksilver; charts, published by the Admiralty, and reprinted abroad; maps and plans by Spaniards, during copyright; cinnabar; vessels constructed of wood of less burden than 300 tons, of 20 quintals each; grain, flour, biscuit, bread, and maccaroni &c. for soup, not admitted by the corn laws; books and prints in Spanish, by Spanish authors, if not imported by those individuals during copyright; missals, breviaries, and other books of liturgy (dictionaries, vocabularies, insignias, devices, and military ornaments are not included in this prohibition); pictures &c. offensive to morality, or ridiculing the Catholic religion; common salt, tobacco, shoes, and ready-made clothing, except for the private use of travellers; chemical preparations forbidden by the sanitary laws.

Moderate export duties to be levied on antimony or galena, not argentiferous; black copper, roughly melted; litharge containing less than an ounce of silver per quintal; pig lead, raw silk.

Prohibited Exports.—Cork in the bark of the province of Gerona; litharge containing an ounce and upwards of silver per quintal; argentiferous galena; lead containing 24 drachms and upwards of silver per quintal; cotton, hempen, and woollen rags, and worn-out articles of those materials.

The high discriminating duty on goods imported on foreign bottoms is the most objectionable feature in the Spanish tariff; though we can hardly be surprised at the Spaniards continuing to act on a principle that was acted upon down to a very recent period by the English and the Americans. We believe, however, that it will be far more injurious to themselves than to any one else; and that its effect will be to lessen and embarrass their trade without really providing employment for Spanish merchantmen.

To the other facilities for smuggling in Spain must be added the venality and corruption of the customs officers. Notwithstanding his *españolism*, Mr. Ford bears testimony to its universality. He says, 'Every lock in Spain is to be picked with a silver key, and every difficulty smoothed by a properly administered bribe. The customs *empleados* have been defined to be gentlemen, who, under the pretence of searching portmanteaus, take money on the highway without incurring the disgrace of begging or the danger of robbing; and practically they worry honest travellers who won't pay them, as much as they facilitate those who will.' But, in truth, this venality is not confined to the revenue officers, but pervades and debases all classes, from the highest to the lowest.

The following information has been supplied to the editor by an eminent Spanish merchant:—

'To pass through the custom-house requires a regular education on the part of the merchant. The amount of duty to be paid depends more on mutual understanding than on law. Such laws as are supposed to be in force are imperfectly worded as well as badly administered, and references to the Board of Customs at Madrid are incessant and vexatious. There is little or no official honesty; there is a price for everything, business being vastly expedited by presents. This general corruption of Government officials is almost necessitated by the low rate at which they are paid. Of course uncertainty is fatal to successful trade.'

The writer illustrates the utter want of system in Spanish finance by referring to the fact that during the late dearth of cotton the exporters of Spanish goods to Cuba wished the Government to allow the importation of Spanish goods into that colony duty free, so as to expedite the export of Cuban cotton. The Government assented, but in practice neutralised the boon by annexing a condition that the duty should be paid in Cuba, but repaid to the exporter in Spain. This neither met the difficulty nor checked smuggling: at last the Government saw and acknowledged its error; but the opportunity had passed away.

We incline to think that, allowing for smuggling, the import and export trade of Spain might each be estimated, previously to the late change in the tariff, at about 4,000,000*l.* sterling, or perhaps a little more; and the good effects of that change are already obvious, both importation and exportation having greatly increased, and a corresponding stimulus having been given to industry. This has been further increased by the opening of railways, the formation of companies for steam-navigation, banking &c. In 1856 the duties on imports and exports amounted to 352,936,000 reals. The trade of Spain by sea during that year employed in the out and home voyages 9,660 Spanish vessels of the aggregate burden of 500,870 tons, and 9,357 foreign ships of the aggregate burden of 1,217,488 tons, showing that the foreign vessels employed were more than double the size of the Spanish.

The great articles of export from Spain consist (exclusive of silk manufactures) of raw products. Of these, wine, olive oil, wool, fruits of various kinds, lead, quicksilver, brandy, cork-wood, salt, raw silk, wheat &c. are the most important, and are almost all susceptible of an indefinite increase.

The great articles of import are colonial products, obtained principally from Cuba, Porto Rico &c.; cottons and cotton wool; linens, linen yarn, woollens, with, of late years, large quantities of iron and machinery, coal &c. from England; salted fish, hardware, glass, and earthenware; timber, rice, hides, butter and cheese &c. Subjoined is

An Account of the Value of the Principal Articles (including Bullion and Specie) Exported from Spain and the Balearic Islands in each of the Years 1861, 1862, *and* 1863.

Principal Articles	1861	1862	1863
	reales	reales	reales
Animals, living	10,079,102	17,615,750	16,401,702
Books, printed	1,852,800	1,569,500	2,342,236
Coals, vegetable	9,545,430	6,421,425	1,223,306
Cork, in sheets and ready-made	38,496,644	33,456,774	31,222,843
Fish, of all kinds	2,565,208	3,365,709	4,215,758
Flour	145,242,460	86,511,352	75,001,402
Fruit:—			
Olives	1,701,420	2,137,900	3,106,851
Almonds			12,286,539
Dry, not otherwise named			2,090,953
Fresh	108,335,726	143,003,454	8,199,339
Nuts, small			9,960,375
Oranges and lemons			20,586,258
Raisins			71,482,854
Grain, vegetables and seeds	61,297,818	30,363,577	31,241,560
Hemp:—			
Dressed	1,129,200	761,200	1,799,504
Manufactures of, and of cotton	3,583,184	6,062,747	523,138
Hides, of all kinds	5,931,328	5,514,875	6,020,051
Liquorice, juice and paste	3,304,380	4,164,446	4,331,917
Meat, salted	3,717,476	3,016,656	3,025,193
Metals	132,536,276	141,414,875	157,274,330
Oil:—			
Almond	2,928,069	863,487	1,325,874
Olive	84,126,120	58,670,180	96,016,726
Ores, of all kinds	25,682,901	33,476,570	44,157,126
Paper, of all kinds	6,348,009	6,125,630	14,602,824
Plants and herbs	6,089,468	12,971,085	3,450,796
Preserves	4,140,045	2,495,760	7,203,665
Saffron	8,995,000	18,000,000	17,081,325
Salt, common	16,706,744	20,536,254	16,759,767
Shoes, of all kinds	8,157,776	11,655,536	11,825,500
Silk:—			
Manufactures of	4,100,050	2,112,516	1,205,650
Raw and waste	4,[illegible]778	4,101,370	4,002,537
Soap, hard	21,000,150	20,628,520	18,566,040
Esparto grass, stemmed and unstemmed	5,879,470	9,713,970	13,169,661
Spirits and liqueurs	21,[illegible]400	20,133,240	13,772,718
Sugar	5[illegible]4,715	2,[illegible]552	5,[illegible]510
Wine	331,[illegible]190	313,114,950	348,107,581
Wool:—			
Manufactures of	2,097,785	1,750,551	980,452
Washed, unwashed, and waste	30,098,749	30,961,078	26,019,291
Silver coin	95,[illegible]541	48,[illegible]496	59,[illegible]884
Total of principal and other articles — reales	1,269,[illegible]460	1,110,[illegible]970	1,219,871,094
Total of principal and other articles — £	12,695,005	11,105,322	12,198,710

The importance of the trade that Spain formerly carried on with her vast possessions in the New World was, at all times, much exaggerated; and she, in truth, was little better than an agent in the business, the greater part of the goods sent on Spanish bottoms to the colonies being, in reality, the property of foreign merchants. Spain, notwithstanding the emancipation of Mexico and South America, has still some very valuable colonies; and, if nothing else can, the astonishing progress made by Cuba and Porto Rico since the abolition of the prohibitive system should satisfy her of its ruinous tendency.

Wool used to be a leading article of import into this country from Spain; but now, though our imports of wool have vastly increased, they are principally supplied by our possessions in Australia, Africa, India &c. The quantities brought from Spain have, indeed, become quite inconsiderable; so much so, that while in 1866 she supplied us with only 123,058 lbs., our total imports amounted to the immense quantity of 239,358,689 lbs.! Wine, raisins, olive oil, nuts, lead, copper ore, cattle, and quicksilver are at present the principal articles imported into the United Kingdom from Spain in ordinary years. Sometimes, however, she supplies us with large quantities of wheat and flour. And the completion of the railway from Santander to Leon and Estremadura, two of the finest wheat-growing provinces of Europe, will make the Peninsula one of the principal sources whence we may at all times draw large supplies of these indispensable articles. Previously to the alteration of the tariff in 1849 the declared value of the direct exports from the United Kingdom to Spain varied from 500,000*l.* to 800,000*l.* a-year; whereas they amounted, at an average of 1865 and 1866, to 3,079,257*l.* a-year, while our imports thence in 1867 are valued at 6,088,389*l.* This is a great increase; still it may be safely affirmed that our trade with Spain does not yet amount to ¼ of what it would be were she to adopt a really free commercial system.

Some portion, though far less now than formerly, of the exports to Portugal, Gibraltar, and Malta find their way, by the intervention of the smuggler, into Spain.

Owing to the badness of the roads, and their unfitness for carriages, the principal carriers of merchandise are the *arrieros*, or muleteers, who traverse the country in all directions along beaten tracks, many of which are accessible only to them. They form a large portion of the provincial population, and, on the whole, have a good character for honesty to their employers, though they are nearly all, more or less, engaged in smuggling transactions. The extent of this traffic may be estimated from the fact that about three-fourths of the entire inland traffic in corn is carried on by their means. Waggons have, however, been introduced on all the practicable roads; and should the latter be improved, the business of the *arrieros* will proportionally fall off.

There can be no reasonable doubt that, but for the system of misrule to which Spain has been subjected, her commerce would have been very extensive. Her natural advantages, superior to most, and not inferior to those enjoyed by any other kingdom; her wines, brandies, fruits &c.; her wheat, of which she might produce the largest supplies; her wool; her iron, which is of the best quality; her lead and quicksilver mines, respectively the most productive in the world; the number and excellence of her harbours; the enterprising and adventurous character of her inhabitants, and her favourable situation, would, were she permitted to avail herself of them, raise her to a very high rank among commercial nations. Let the Government follow up what it has so well begun, by ceasing to counteract the intentions of nature; let moderate duties take the place of prohibitions, and freedom of regulation, and all sorts of industrious pursuits will revive from the deadly lethargy in which they have been so long sunk.

[We are indebted to Mr. Graham Dunlop, her Majesty's consul at Cadiz, for corrections in this article, as well as to his Report of May 20, 1867, for further information.]

CAGLIARI. The capital of the island of Sardinia, on the north-east shore of a spacious bay on the south coast of the island, lat. 39° 12′ 13″ N., long. 9° 7′ 44″ E. Population, in 1862, 30,905. The city stands on a rising ground, and has an imposing effect from the sea. The public buildings and churches are numerous, and some of them

splendid; but the streets are, for the most part, narrow, steep, and filthy.

The Gulf of Cagliari extends from Pula on the west to Cape Carbonara on the east, a distance of about 24 miles across, and about 12 in depth, with good anchorage everywhere after getting into soundings. A mole projects from the Pratique office, and ships usually lie about 1 mile S.W. by S. from it, in 6 or 8 fathoms water, on an excellent bottom of mud. There is a very convenient pier harbour at the south angle of the tower wall, capable of containing 14 or 16 vessels of a tolerable size, besides small craft. Altogether, Cagliari is one of the best and safest ports in the Mediterranean.

There are two lighthouses, one on Fanale Point, the other at the entrance of the harbour. The former gives a red flash every two minutes. The harbour lights are also red.

Imports and Exports.—Almost all the trade of Sardinia is carried on by strangers; and even the fish on its coast and in its harbours is caught by Sicilians, Neapolitans, Tuscans, and Genoese. Corn is the principal article of export. In good years the exports from the whole island may amount to 400,000 starelli, or about 500,000 bushels, of wheat, 200,000 starelli of barley, 6,000 ditto of maize, 100,000 ditto of beans, 200,000 ditto of peas, 1,000 ditto of lentils. Were the projected railways made, no doubt these exports would increase. The culture of vines is gradually becoming of more importance; and about 3,500 Catalan pipes are exported, principally from Alghero and Ogliastro. Cheese is an important object in the rural economy of Sardinia, and considerable quantities are exported. Salt is a royal monopoly, and affords a considerable revenue. Flax, linseed, hides, oil, saffron, rugs, alquifoux &c. are among the articles of export. The tunny and coral fisheries employ a good many hands; but, as already observed, they are almost wholly managed by foreigners.

Almost every article of dress, whether for the gentry or the peasantry, is imported. Soap, stationery, glass, earthenware, and furniture, as well as sugar, coffee, drugs, spices &c. are also supplied by foreigners; and, notwithstanding the Sards possess many rich mines, several of which were successfully wrought in antiquity, and are once more becoming productive, they import all their iron and steel. The only manufactures carried on in the island are those of gunpowder, salt, tobacco, and woollen caps.

By far the largest portion of the exports from the island is forwarded to the continental states of the kingdom. The quantity of these exports is said to have amounted, at an average of the 8 years ending with 1863, to—

Almonds	lbs. 267,083	Corkwood	cwts. 21,330
Bacon and salt meat	lbs. 315,399	Fish salt	lbs. 1,038,880
Barilla	cwts. 5,880	Lead ore	cwts. 280,873
Beans, barley, pulse	qrs. 13,071	Olive oil	lbs. 1,277,652
Cattle	no. 22,914	Salt	tons 81,729
Cheese	cwts. 49,284	Skins	lbs. 1,250,600
Coral	lbs. 70,192	Wheat	qrs. 25,353
		Wine	gals. 722,026
		Wool	lbs. 385,063

But the returns for 1864 and 1865 show a striking falling off in each item of export except lead ore.

The following was the tonnage of Cagliari in 1864 and 1866:—

		1864		1866	
		vessels	tons	vessels	tons
Entered	Foreign	372	90,100	810	185,668
	Coasting	843	32,602	106	30,791
Cleared	Foreign	375	90,299	696	157,041
	Coasting	846	79,642	77	23,763

The following represents the amount of British trade with the island of Sardinia for the years 1861–5:—

	1861	1862	1863	1864	1865
	£	£	£	£	£
Imports	45,977	26,532	9,395	29,318	49,501
Exports	5,232	37,232	7,974	67,117	57,053
Ditto Colonial and foreign	2,975	9	21	1,675	331
Total	54,184	63,773	17,020	98,435	106,885

Money, Weights, and Measures.—Accounts are kept in lire, reali, and soldi. 5 soldi = 1 reale = 4½*d.*; 4 reali = 1 lira = 1*s.* 6*d.*; 10 reali = 1 scudo = 3*s.* 9*d.* The paper money consists of notes for 5, 10, and 20 scudi.

Farm produce and the coarser metals are weighed by the *pesi di ferro:* 12 Sard. oz. = 1 lb. = 14 *oz.* 5 dr. avoirdupois; 26 lbs. = 1 rubbo; 4 rubbi = 1 cantaro = 93 lbs. 0 oz. 8 dr. avoirdupois.

The starello, or corn measure, is equivalent to 1 bush. 1¼ peck Eng. The *palm* = 10¼ Eng. inches.

Causes of the depressed State of Sardinia.—The above statements sufficiently show that the commerce of Sardinia is very far from being what might naturally be expected from her extent, fertility, admirable situation, and the excellence of her many harbours. She contains an area of about 9,500 square miles, being, in point of size, but little inferior to Sicily; and in antiquity was reckoned, along with the latter, a principal granary of Rome. 'Siciliam et Sardiniam benignissimas urbis nostræ nutrices.' (Val. Max. lib. vi. c. 6.)

> Utraque frugiferis est insula nobilis arvis:
> Nec plus Hesperiam longinquis mensibus ullæ,
> Nec Romana magis complerunt horrea terræ.
> *Lucan*, lib. iii. 65.

But the establishment of the feudal system in its worst form, and the unfavourable political and municipal regulations under which the island has latterly been placed, have gone far to neutralise the advantages it owes to nature. The agriculturists of Sardinia principally consist of two great classes—those who cultivate small farms on the *métayer* principle, and those who work on the estates of others, getting, in most instances, a patch of land for their support, and cultivating it at such times as they are not employed on the lord's lands. Both classes are excessively poor. The agreements under which the former class hold are seldom for more than a year; the landlord furnishing the seed as well as the land, and receiving half the produce. Those who occupy land for which they are obliged to pay a rent in corvées, or other feudal services, are, if possible, still worse off; having usually to borrow the seed either from the landlord or from the *Monti Frumentarii* established for that purpose, and having also to defray the tithe and a host of other burdens. Another disadvantage under which all classes labour is the want of houses on their farms; the peasants live together in villages, and have frequently to perform a journey of several miles in going to and coming from their farms.

Lands belonging to a canton or commune are frequently cultivated on a kind of partnership system, being divided into three portions: one of these, called *vidazzone*, comprises all the lands that are in cultivation, and which are distributed by lot among certain individuals, while the other two portions are occupied in common as pasture. But, as a new distribution takes place every year, it is plain that no individual can take any interest in the improvement of the soil; and this sort of tenure becomes, in fact, the most effectual that can be devised for the extinction of industry. Latterly, however, the Government has been making efforts to promote the formation of inclosures and the division of the lands, which, though opposed by the prejudices of the people, have made some progress. (Marmora, *Voyage en Sardaigne*, lib. v. ch. i.)

Even these are not, perhaps, the greatest discouragements to agriculture. As if to annihilate the possibility of the peasantry emerging from their depressed condition, and to oblige them to confine their industry to the supply of their indispensable wants, it has been enacted that no corn shall be exported if its price exceed 30 reals the *starello*; and a heavy duty is laid on all that is exported, as a substitute for a general land-tax. Most other articles of export have been loaded with similar duties; and it would really seem that every device that ignorance and short-sighted rapacity could suggest had been practised to reduce this 'benignant nurse' of imperial Rome to a state of poverty and destitution.

Happily, as already seen, the bounty of nature has proved an overmatch for the perverse ingenuity of man; and such is the fertility of this fine island, that, notwithstanding the influence of the duty now referred to, and the wretched system of agriculture, it exports in good years considerable quantities of corn. The culture of the vine is gradually increasing in importance, and about 3,500 Catalan pipes are exported, chiefly from Alghero and Ogliastro. Olive oil, owing to the little care taken in its preparation, and its consequent bad quality, has hitherto been but little exported; it is susceptible, however, of an indefinite increase, and might be made an important article. Tobacco is a royal monopoly, and brings about 7,000,000 livres a-year into the public treasury. Flax, linseed, saffron, hemp, and barilla are grown to some extent; silk is produced only in limited quantities, but its produce might, no doubt, be vastly increased; some cotton is produced, and also small quantities of madder, which last grows wild in the island. The mountains are clothed with forests of oak, beech, chestnut, and other timber; but, from the want of roads, these are nearly useless. The agricultural implements and processes are excessively rude. The Sardinian plough, the counterpart of that described by Virgil, does little more than scratch the ground. It is without a coulter, and is very frequently wholly constructed of wood. Oxen only are used in ploughing and other field labour. The corn is left in the fields till it be thrashed, an operation effected by the primitive practice of treading with horses and oxen.

During the present century, however, some very important changes for the better have been introduced into the island, and some of the worst of the abuses previously noticed have been obviated. In 1836, in pursuance of enquiries previously commenced, feudal jurisdictions were completely abolished; and since then the feudal system has been wholly subverted. According to a law passed in 1839, all lands were declared to be the property of individuals, communes, or the crown; the latter becoming the possessor of all waste lands, or those to which neither private parties nor communes could show any title. Lands which have been cultivated or applied to use, whether enclosed or not, were assigned in perpetuity to the occupiers, undisturbed possession being held to confer a sufficient right to the property in the absence of any other title: those whose interests were at all affected by the new changes received compensation in money or lands, or by an assignment of public funded property. The king substituted himself in the place of the barons; he took all the feudal rents into his own hands; and their value being estimated at 20 years' purchase, public securities to the amount, bearing 5 per cent. interest, were made over to the nobles in exchange for the privileges of which they had been deprived. All kinds of vassalage were, at the same time, made redeemable; and courts of law placed under the direct control of the state were substituted in the place of the feudal jurisdictions where the barons were at once suitors and judges. It is impossible to overrate the importance of these changes; and there cannot be a doubt that they will have the greatest and most beneficial influence. (Von Raumer, *Italy &c.* i. 295–301.) We may also mention, in proof of the improvement of the island, that the population, which in 1816 amounted to only 352,000, had increased in 1838 to 524,633, and in 1862 to 573,115. A good road has been constructed, uniting Cagliari and Sassari, and cross roads have been carried from it to some of the more considerable places in the island. A railway commenced in 1861, to join Cagliari, Oristano, and Sassari, is expected to be finished in 1869, and will no doubt give an impetus to trade and commerce. Stringent measures have recently, also, been adopted for the suppression of the banditti, with which the island has long been infested. And should these measures of improvement be properly carried out, the administration of justice simplified and freed from the abuses and venality by which it has long been disgraced, and all restraints on exportation abolished, it may be confidently predicted that Sardinia will gradually become more and more prosperous; that the revenues of the crown will be increased in a tenfold proportion; and that the population will cease to be conspicuous only for ferocity, idleness, and contempt of innovation. (See *Geographical Dictionary*, art. 'Sardinia,' and the authorities therein referred to; Mr. Consul Craig's *Report* of June, 1867; &c.)

CAJEPUT OIL. The volatile oil obtained from the leaves of the cajeput tree (*Melaleuca cajaputi*, Linn.). The name is a corruption of the Malay words *cayu-puti*, that is, white-wood oil; because the bark of the tree which yields it has a whitish appearance, like our birch. This tree is common in Amboyna and other Eastern islands. The oil is obtained by distillation from the dried leaves of the smaller of two varieties. It is prepared in great quantities in Banda, and sent to Holland in copper flasks. 'It is very mobile, transparent, of a fine pale bluish-green colour. It has a strong, agreeable odour, and a warm, aromatic taste.' (*British Pharmacopœia*, 1867.) It burns entirely away without leaving any residuum. It is often adulterated with other essential oils, coloured with resin of milfoil.

The colour of cajeput oil is not, as has been frequently said, derived from the presence of copper. It has been found that when the oil is distilled, at first a light colourless oil comes over, and then a green and denser oil.

Cajeput oil not being used except in the *materia medica*, only small quantities are imported. In July 1831 it sold in bond at about 7*d.* per oz.; but an idea having then got abroad that it was one of the most efficient remedies in cases of cholera, its price rose in November 1831 to no less than 11*s.* per oz.! But it soon after fell into discredit with the faculty, and additional supplies having been obtained from Holland, its price declined almost as fast as it had risen. It is not now worth more than from 4*d.* to 9*d.* per oz.

CALABAR SKIN (Fr. petit-gris; Ger. grauwerk; Ital. vaor. vajo; Russ. bjelka; Span. gris pequeno). The Siberian squirrel skin, of various colours, used in making muffs, tippets, and trimmings for clothes.

CALABASHES. Gourds, the skins or rinds of which, after the pulp has been extracted, are used by the native Indians of America as cups, bottles &c. Many kinds of resins and other drugs are run into gourds, as convenient vessels for carriage.

CALAMANDER WOOD. A beautiful species of timber brought from Ceylon. It is so hard that common edge-tools cannot work it, so that it must be rasped and almost ground into shape. It is singularly remarkable for the variety and admixture of colours. The most prevailing is a fine chocolate, now deepening almost into absolute black, now fading into a medium between fawn and cream colours. It arrests the eye from the rich beauty of the intermingled tints, not from any undue showiness. It takes a very high polish, and is wrought into chairs, and particularly into tables. Sir Robert Brownrigg, late governor of Ceylon, had the doors of the dining-room of his seat in Monmouthshire made of calamander. It is scarce in Ceylon, and is not regularly imported; all that is in Great Britain has been imported by private gentlemen, returning from the colony, for their own use. It is by far the most beautiful of all the fancy woods. The nearer it is taken from the root of the tree, the finer it is. (Milburn's *Orient. Com.*; *Lib. of Entertaining Knowledge*, 'Vegetable Substances,' p. 179.)

CALCUTTA. The principal city of the Presidency of Bengal, the capital of the British dominions in India. Its citadel is in lat. 22° 34′ 49″ N., long. 88° 27′ 16″ E. It is about 100 miles from the sea, being situated on the eastern bank of the western branch of the Ganges, denominated the Hooghly River, which is the only arm of the Ganges navigable to any considerable distance by large ships. At high water the river opposite to the town is about a mile in breadth; but during the ebb the side opposite to Calcutta exposes a long range of dry sand-banks. Owing to the length and intricacy of the navigation from the sea, it is generally undertaken with a pilot.

In 1717 Calcutta was but a small village. In 1837 the population of what is properly called the town amounted to only 229,700, and in 1861 it was 413,182, of which the European portion was only 8,892. But this is exclusive of about 180,000 persons who reside at night in the suburbs, or neighbouring villages, coming into Calcutta early in the morning to their respective employments. The small number of English resident in Calcutta (where, however, they are far more numerous than in any other part of India) may well excite surprise. It was supposed that the cessation of the Company's monopoly, and of the prohibition of European resort to India, would occasion an influx of British settlers and capital; but this anticipation has not been realised. Scarcely a single English agriculturist, with capital sufficient to cultivate 100 acres of land, has established himself in India, except for the cultivation of indigo and tea, and there has been no immigration of artisans. And this, after all, is only what might have been expected; the country being too fully occupied, the burden on the lands too heavy, and the wages of labour far too low, to admit of anything like an extensive European immigration. The Eurasians, the progeny of white fathers and native mothers, are mostly employed as clerks in the Government offices and mercantile establishments, and are said to be an industrious and useful class. (*Bengal & Agra Gazetteer*, vol. i. part iii. p. 10 &c.) The town, excluding suburbs, extends about 4½ miles along the bank of the river, with an average breadth inland of about 1½ mile. Fort William, the citadel, lies on the same side of the river, a little lower down. It is a strong regular fortification, but so extensive that it would require a garrison of 10,000 men for its effectual defence. Calcutta possesses great natural advantages for inland navigation; all sorts of foreign produce being transported with great facility on the Ganges and its subsidiary streams to the north-western quarters of Hindostan, over a distance of at least 1,000 miles, while the productions of the interior are received by the same easy channels.

The principal merchants and traders consist of British and other Europeans, Portuguese born in India, Armenians, Jews, Persians from the coast of the Persian Gulf (commonly called Parsees), Moguls, Mohammedans of Hindostan, and Hindoos; the latter usually either of the Brahminical or mercantile castes, and natives of Bengal.

The principal foreign business is conducted by English merchants; but other parties also, either in partnership with the English or on their own account, speculate largely to Europe, America, and especially to China. The brokers known under the name of Sircars and Baboos are all Hindoos. The general rates of agency commission are as follow:—

Schedule of Commission Charges revised and adopted by a Special General Meeting of the Bengal Chamber of Commerce, held on June 18, 1861, with effect from January 1, 1862.

	per cent.
1. On the sale, purchase, or shipment of bullion, gold dust, or coin	1
2. On the purchase (when in funds) or sale of indigo, raw silk, silk piece goods, opium, pearls, precious stones, or jewellery	2½
3. On purchasing ditto, when funds are provided by the agent	5
4. On the sale or purchase of all other goods—the commission in all cases to be charged upon the gross amount of sales, and in regard to purchases upon both cost and charges	5
5. On returns for consignments, if made in produce	2½
6. On returns of consignments, if in bills, bullion, or treasure	1
7. On accepting bills against consignments	1
8. On the sale or purchase of ships, factories, houses, lands, and all property of a like description	2½
9. On goods and treasure consigned, and all other property of any description referred to agency for sale, whether advanced upon or otherwise, which shall afterwards be withdrawn; and on goods consigned for conditional delivery to others and so delivered (on invoice amount at 2s. per rupee)	half com.
10. On making advances or procuring loans of money for commercial purposes, when the aggregate commission does not exceed 5 per cent.	2½
11. On ordering or receiving and delivering goods, or superintending the fulfilment of contracts, or on the shipment of goods, where no other commission is derived	2½
12. On guaranteeing bills, bonds, or other engagements, and on becoming security for administration of estates or to Government for the disbursement of public money	2½
13. On *del-credere*, or guaranteeing the due realisation of sales	2½
14. On the management of estates for executors or administrators	2½
15. On chartering ships or engaging tonnage for constituents for vessels to proceed to out-ports for loading	2½
16. On advertising as the agents for owners or commanders of ships for cabin passengers on the amount of passage money, whether the same shall pass through the agent's hands or not	2½
17. On procuring freight for a ship by shipping order or charter, or on procuring employment for a ship on monthly hire, or acting as agents for owners, captain, or charterers of a vessel, upon the gross amount of freight, brokerage inclusive	5
18. On engaging Asiatic emigrants for a ship to the Mauritius, the West Indies, or elsewhere, upon the gross amount of earnings	5
19. On engaging troops for a ship to Great Britain or elsewhere, on the gross amount of passage money for rank and file	2½
20. On realising inward freight, inward troop, emigrant, or cabin passage money	2½
21. On landing and re-shipping goods from any vessel in distress, or on landing and selling by auction damaged goods from any such vessel, and acting as agent for the master on behalf of all concerned—on the declared value of all such goods as may be re-shipped, and on the net proceeds of all such goods as may be publicly sold	5
If opium, indigo, raw silk, or silk piece goods	2½
If treasure, precious stones, or jewellery	1
22. On effecting insurances, whether on lives or property	½
23. On settling insurance claims, losses, and averages of all classes, and on procuring returns of premium	2½
24. On drawing, purchasing, selling, or negotiating bills of exchange	1
25. On debts or other claims when a process at law or arbitration is incurred in claiming them	2½
Or if recovered by such means	5
26. On bills of exchange returned dishonoured	1
27. On collecting house rent	2½
28. On ships' disbursements	2½
29. On realising bottomry bonds, or negotiating any loan on *respondentia*	2½
30. On granting letters of credit	1
31. On sale or purchase of Government securities and bank or other joint-stock shares, and on every exchange or transfer not by purchase from one class to another	½
32. On delivering up Government securities and bank or other joint-stock shares, on the market value	½
33. On all amounts debited and credited within the year (less the balance brought forward) upon which no commission amounting to 5 per cent. has been charged	½

*** Brokerage when paid is to be separately charged.

Customs Tariff.—By Act No. XVII., called 'The Indian Customs Duties Act, 1867,' passed by the Governor-General of India on March 6, 1867, the following import and export tariffs are approved as applicable to every port in the territories of British India:—

Import Tariff.

No.	Description of Article	Value on which duty is assessed	Rate of duty
		rs. an.	
1	Apparel, including haberdashery, millinery &c.	ad valorem	7½ per cent.
2	Arms, ammunition, and military stores:		
	Gunpowder, common sporting	0 5 per lb.	7½ per cent., except as regards military and other regulation uniforms and accoutrements when imported for private use by persons in the public service, which are free.
		1 0 ,,	
	Fire-arms, and parts of do.	ad valorem	
	All other sorts, including military accoutrements, uniforms &c.	ad valorem	
3	Blacking: quarts	5 0 per doz.	7½ per cent.
	small	2 8 ,,	
	in tins	0 3 ,,	
4	Cabinet ware	ad valorem	7½ per cent.
5	Candles: wax, composition, and other kinds:		
	wax	1 0 per lb.	7½ per cent.
	paraffine	0 8 ,,	
	spermaceti	0 8 ,,	
	composition, and other sorts	0 6 ,,	
6	Carpets and carpeting:		
	single carpets	ad valorem	5 per cent.
	carpeting in rolls	ad valorem	
7	Carriages	ad valorem	7½ per cent.
8	Chemicals	ad valorem	7½ per cent.
9	China and Japan ware, other than lacquered ware, which is free	ad valorem	7½ per cent.
10	Clocks, watches, and other timekeepers	ad valorem	7½ per cent.
11	Coach-builders' materials	ad valorem	7½ per cent.
12	Coffee:		
	Persian Gulf and Red Sea	30 0 per cwt.	7½ per cent.
	Other places	20 0 ,,	
13	Corks	1 8 per gross	7½ per cent.
14	Cotton:		
	Thread, sewing thread, white and coloured	0 12 per lb.	7½ per cent.
	sewing thread, in reels, or on cards not exceeding one hundred yards *	2 8 per gross reel	
	Gen and country	30 0 per cwt.	
	Twist, mule, under No. 15	0 7 per lb.	
	Nos. 16 to 24	0 11 ,,	
	25 — 32	0 12 ,,	
	33 — 42	0 13 ,,	
	43 — 52	0 14 ,,	
	53 — 60	1 1 ,,	
	70	1 2 ,,	
	80	1 3 ,,	
	90	1 4 ,,	3½ per cent.
	100	1 5 ,,	
	110 to 150	1 10 ,,	
	160 — 200	1 14 ,,	
	Water 90	0 12 ,,	
	30	0 13 ,,	
	40	0 15 ,,	
	50	1 1 ,,	
	Above 50	1 4 ,,	
	Turkey red twist, all kinds †	1 6 per lb.	
	Twist, orange, red, and other colours †	1 2 ,,	3½ per cent.
	Piece goods:		
	Grey—shirtings, madapollams and printers	0 13 ,,	5 per cent.
	Long cloths, jeans, domestics, sheetings, drills, and T. cloth	0 11 ,,	
	Other sorts	ad valorem	
	Cotton rope	25 0 per cwt.	7½ per cent.
	Cotton goods, other kinds	ad valorem	
15	Drugs and medicines:		
	Acid, sulphuric	0 3 per lb.	7½ per cent.
	Alkali, country (Sajee Khar)	2 0 per cwt.	
	Aloes, hlack	10 0 ,,	
	Socotra	25 0 ,,	
	Alum	3 8 ,,	
	Arsenic	25 0 ,,	
	China, Munseel	8 0 ,,	
	Assafœtida (Hing)	55 0 ,,	
	coarse (Hingra)	10 0 ,,	
	Brimstone, flour	7 0 ,,	
	roll	6 0 ,,	
	rough	4 8 ,,	
	Camphor, Bhimseny (Barrus)	50 0 per lb.	
	refined cake	65 0 per cwt.	
	crude in powder	150 0 ,,	
	Cassia lignea	38 0 per cwt.	7½ per cent.
	Coova, red	ad valorem	
	Copperas, green	2 8 per cwt.	
	Quinine	50 0 per lb.	
	Sal ammoniac	22 0 per cwt.	
	Salep	50 0 ,,	
	Senna leaves	6 0 ,,	
	All other sorts	ad valorem	
16	Dyeing and colouring materials:		
	Cochineal	1 12 per lb.	7½ per cent.
	Gallnuts:		
	Country, myrobalan	3 0 per cwt.	
	Persian	55 0 ,,	
	Gamboge wood	20 0 ,,	
	Madder or munjeet	10 0 ,,	
	Orchilla weed	8 0 ,,	
	Saffron, Europe	16 0 per lb.	
	meadow, Soorunjan	10 0 per cwt.	
	Persian	12 0 per lb.	
	in cakes or lumps	3 0 ,,	
	Sapan wood and root	3 8 per cwt.	
	All other sorts	ad valorem	
17	Felt:		
	Sheathing 110 × 32 inches	0 4 per piece	7½ per cent.
	In rolls or in lengths	0 4 per yard	
	All other sorts	ad valorem	
18	Fireworks: China	50 0 per box of 13½ lbs.	7½ per cent.
	Other sorts	ad valorem	
19	Flax, manufactures of:		
	Piece goods	ad valorem	5 per cent.
	Other sorts	ad valorem	7½ per cent.
20	Fruits and vegetables:		
	Almonds, without shell	25 0 per cwt.	7½ per cent.
	with shell	10 0 ,,	
	Cajoo kernels	10 0 ,,	
	Cocoanuts	30 0 per 1000	
	kernel (Copra)	9 0 per cwt.	
	Currants, Europe	35 0 ,,	
	Persian	12 0 ,,	
	Dates, dry, in bags	4 0 ,,	
	wet, in bags	3 0 ,,	
	in pots	6 0 ,,	
	Figs, Europe	12 0 ,,	
	Persian, dried	6 0 ,,	
	Garlic	4 0 ,,	
	Pistachio nuts	14 0 ,,	
	Prunes, Bassorah	12 0 ,,	
	Raisins, Black, Persian Gulf, Red Sea, and Khumris	12 0 ,,	
	Monocka, Persian Gulf, and Red Sea	7 0 ,,	
	Other sorts	ad valorem	
	Walnuts, Akroot	5 0 per cwt.	
	Mangoes, dried	ad valorem	
	Prunes, Europe	ad valorem	
	Other sorts, except Bidmakh and Buzarbuttoo nuts, which are free	ad valorem	
21	Glass and glassware:		
	Bangles, glass, china, gilt	10 0 per 100 pairs	7½ per cent.
	not gilt	5 0 ,,	
	Beads: china	75 0 per cwt.	
	common	68 0 ,,	
	rubs of all sizes	0 12 per lb.	
	seed	0 10 ,,	
	small, scarlet and coral (false) Moorsun	0 10 ,,	
		0 8 per corge of 2000 beads	
	Broken	5 0 per cwt.	
	China, of all colours	40 0 per 12½ lbs.	
	Crown, coloured	10 0 per 100 supd. feet	7½ per cent.
	of sizes	6 0 per 100 supd. feet	
	Plate, not silvered	0 10 per foot	
	Pearls, false Bajeria	5 0 per lakh	
	Boria	1 0 per 1000	
	Jaurta	8 0 per lakh	
	Nathia	0 6 per 1000	
	Tachea	0 12 ,,	
	Watanah	10 0 per lakh	
	Glass ware of all other sorts, except bottles, which are free	ad valorem	
22	Gold leaf, Europe	4 0 per 100 leaves	7½ per cent.
23	Grass and other cloth of China manufacture	ad valorem	5 per cent.
24	Gums: ammoniac	10 0 per cwt.	7½ per cent.
	Arabic	16 0 ,,	
	bdellium, common gum	5 0 ,,	
	Benjamin	53 0 ,,	
	bysabole, coarse myrrh	12 0 ,,	
	copal	65 0 ,,	
	frankincense or oli banum	9 0 ,,	
	gambier (or kino)	8 0 ,,	
	myrrh	24 0 ,,	
	Persian (false)	3 0 ,,	
	rosin	8 0 ,,	
	All other sorts	ad valorem	
25	Groceries not otherwise described	ad valorem	7½ per cent.
26	Hides and skins:		
	Bombay hides, prepared	30 0 each	7½ per cent.
	Buffalo hides, country, tanned	80 0 per score	
	Calf skins	40 0 per doz.	
	Chamois skins	6 0 ,,	
	Cow hides, country, tanned	60 0 per score	

* Exceeding this length to be charged in proportion.

† Duty to be charged on the grey weight of the coloured yarn; when not ascertainable, the actual wharf weight or invoice weight to be taken.

Import Tariff—continued.

No.	Description of Article	Value on which duty is assessed	Rate of duty
		rs. an.	
	Rhinoceros leather	40 0 per cwt.	7½ per cent.
	Other sorts	ad valorem	
27	Horns: buffalo	11 0 per cwt.	7½ per cent.
	stag or deer	12 0 ,,	
	manufactures of	ad valorem	
28	Instruments, musical	ad valorem	7½ per cent.
29	Ivory and ivory ware:		
	Elephant's grinders	16 0 per cwt.	
	Tusks above 20 lbs.	200 0 ,,	
	Tusks 10 lbs. and not exceeding 20 lbs.	225 0 ,,	1 per cent.
	Tusks under 10 lbs.	125 0 ,,	7½ per cent.
	Sea cow or morse teeth, 5 lbs. and upwards	225 0 ,,	
	Sea cow or morse teeth, under 5 lbs.	75 0 ,,	
	Ivory, manufactures of	ad valorem	
30	Jewellery, including plate		
	Silver ware, plain	1 0 per tolah	
	Jewellery and plate of all other kinds, excepting precious stones and pearls, which are free	ad valorem	7½ per cent.
31	Jute, manufactures of	ad valorem	7½ per cent.
32	Lac: stick	16 0 per cwt.	7½ per cent.
	shell	28 0 ,,	
	all other sorts	ad valorem	
33	Leather and manufactures of		
	Leather	ad valorem	7½ per cent.
	Boots and shoes		
	Harness and saddlery		
	Other sorts		
34	Liquor: ale, beer, and porter cider and other fermented liquors	—	1 anna per imp. gallon
	Spirits	—	5 rupees the imperial gallon, and the duty to be rateably increased as the strength exceeds London proof. Provided that 10 per cent. ad valorem shall be charged on all spirits used exclusively in arts and manufactures, or in chemistry, subject to such rules as the local Governments shall from time to time prescribe, for ascertaining that such spirits are unfit for use as a beverage, and incapable of being converted to that purpose. And the officer in charge of the custom-house, subject to the general instructions of the local Government, shall decide what spirits fall within the proviso, and his decision thereon shall be final in law.
	Wines: Champagnes, sparkling wines, and liqueurs	—	1-8 per imp. gallon, or 6 qr. bottles.
	All other sorts	—	1-0 per do.
35	Marble, wrought, other than statuary	ad valorem	7½ per cent.
36	Mats, floor matting, China of all sorts	50 0 per 100	7½ per cent.
37	Metals, unwrought, wrought and manufactures of:		
	Brass beads, googree, China	0 12 per 1000	
	old	55 0 per cwt.	
	sheets, rolls very thin	80 0 ,,	
	Copper, Australian	48 0 ,,	
	bolt	60 0 ,,	
	brazier's	80 0 ,,	
	China cash	50 0 ,,	
	Japan	48 0 ,,	
	nails and composition nails	45 0 ,,	7½ per cent.
	old	40 0 ,,	
	pigs and slabs, foreign	45 0 ,,	
	sheet, sheathing, and plate	50 0 ,,	
	tiles, mauts, cakes, and bricks	47 0 ,,	
	China, white copper ware	1 4 per lb.	

No.	Description of Article	Value on which duty is assessed	Rate of duty
		rs. an.	
	foil dauk-pana, China	3 0 per book of 100 leaves	7½ per cent.
	Europe	4 0 ,,	
	Iron, beams	ad valorem	
	flat, square and bolt, including Scotch	85 0 per ton	
	hoop, plate, and sheet	115 0 ,,	
	nails	10 0 per cwt.	
	nail rod	95 0 per ton	
	old	2 8 per cwt.	1 per cent.
	pig	40 0 per ton	
	rod, round, British, under ½ inch diam.	110 0 ,,	
	Swedish, flat and square	110 0 ,,	
	rice bowls	3 4 per set of 10	
		1 10 per set of 5	
	rivets	11 0 per cwt.	
	Other sorts, except anchors, cables, and ventilegs, which are free	ad valorem	
	Lamenta: double reels	4 8 per score	
	single reels	2 4 ,,	
	Lead, pig	10 0 per cwt.	
	pipes	15 8 ,,	
	tinned	16 0 ,,	
	sheets (other than thin sheets for tea canisters, which are free)	12 0 ,,	
	Ore galena	13 0 ,,	
	Mock gold leaf	5 0 per 20 books	
	Orsidue or brass leaves, foreign: Europe	1 4 per lb.	
	China	0 14 ,,	
	Patent or yellow metals, sheathing and sheets	12 0 per cwt.	
	Pewter, dishes, old	53 0 ,,	
	Quicksilver	1 4 per lb.	
	Steel, bird	13 0 per cwt.	7½ per cent.
	Spelter nails	17 8 ,,	
	plate and other shapes	11 0 ,,	
	sheet or zinc-sheathing	15 0 ,,	
	Steel, bracelet	9 0 ,,	
	British	9 0 ,,	
	coat	14 0 ,,	
	spring	30 0 ,,	
	Swedish	10 0 ,,	
	Tin block	15 0 ,,	
	plates, large size, box not exceeding 14 lbs. and 100 plates, and pro rata	24 0 ,,	
	small size, not exceeding 1 cwt. and 225 plates, and pro rata	14 0 ,,	
	Wire, brass	0 8 per lb.	
	common iron, Nos. 1 to 40	2 8 per cwt.	
	copper	0 10 per lb.	
	Other sorts, including hardware, ironmongery, and cutlery; but excluding machinery, the component parts thereof, and agricultural implements, which are free	ad valorem	
38	Naval stores:		
	Cables, coir, tarred	10 0 per cwt.	7½ per cent.
	Canvas, country, cotton	50 0 ,,	5 per cent.
	Europe sail, not exceeding 40 yards	15 0 per bolt	
	Coir, rope, Maldive and Lacadive	10 0 per cwt.	
	Coir yarn of all kinds	9 0 ,,	
	Cordage, hemp, Europe	18 0 ,,	
	Manilla	20 0 ,,	
	Dammer	5 0 ,,	
	Pitch, American and Europe	13 0 per brl.	7½ per cent.
	Pitch, coal	4 8 not exceeding 3 cwt.	
	Tar, American	13 0	
	coal	6 8 do. do.	
	Swedish and Archangel	14 0	
	Twine, Europe sail	0 8 per lb.	
	All other sorts, except oakum, which is free	ad valorem	
39	Oils: Cardamom	10 0 per lb.	
	Cassia	4 0 ,,	
	Castor, cold drawn	4 8 p. doz. pts.	
	Cinnamon, Ceylon	10 0 per lb.	
	Cocoanut	20 0 per cwt.	
	Earth	10 0 ,,	
	Grass	2 0 per lb.	
	Jingelee or teel	20 0 per cwt.	
	Kerosene	1 12 p. imp. gl.	
	Linseed, country	18 0 per cwt.	
	Europe	2 4 p. imp. gl.	7½ per cent.
	Naphtha	30 0 per cwt.	
	Otto, of sorts	20 0 per oz.	
	Sandalwood	8 0 per lb.	
	Sorrel	20 0 per cwt.	
	Turpentine	2 0 p. imp. gl.	
	Whale and fish	15 0 per cwt.	
	Wood	15 0 ,,	
	All other sorts, except cocum and slush fat, which are free	ad valorem	

Import Tariff—continued.

No.	Description of Article	Value on which duty is assessed	Rate of duty
		rs. an.	
10	Oil and floor cloth -	ad valorem	5 per cent.
11	Paints, colours, and painter's materials:		
	Ochre, all colours -	3 0 per cwt.	
	Paints of sorts -	12 0 ,,	
	Prussian blue, China -	0 8 per lb.	
	Europe -	1 8 ,,	
	Red-lead -	14 0 per cwt.	
	Turpentine - -	2 0 p. imp. gl.	7½ per cent.
	Vermilion, Canton -	55 0 per box	
	Macao -	50 0 of 160 bundles	
	White lead - -	12 0 per cwt.	
	All other sorts, including brushes - -	ad valorem	
12	Perfumery:		
	Atary, Persian -	15 0 per cwt.	
	Rose flowers, dried -	10 0 ,,	
	Rose water - -	1 12 p. imp. gl.	7½ per cent.
	All other sorts - -	ad valorem	
13	Photographic apparatus and materials - -	ad valorem	7½ per cent.
14	Piece goods, not otherwise described - -	ad valorem	5 per cent.
15	Porcelain and earthen ware -	ad valorem	7½ per cent.
16	Provisions and oilmans stores:		
	Bacon in canisters, jowls and cheeks -	0 9 per lb.	
	Beef - -	60 0 per tierce of 3 cwt.	
		10 0 per barrel of ½ cwt.	
	Cheese - -	0 10 per lb.	
	Chocolate - -	0 8 ,,	
	Cocoa prepared - -	0 8 ,,	
	Fish mawes - -	50 0 per cwt.	
	Sounds and Singally, small - -	6 0 ,,	
	Flour - -	25 0 per brl. or sack of 200 lbs.	
	Ghee - -	30 0 per cwt.	
	Hams - -	0 8 per lb.	7½ per cent.
	Pork - -	60 0 per tierce of 3 cwts. and	
		34 0 per brl. of 2 cwt.	
	Sago - -	7 0 per cwt.	
	Shark fins - -	20 0 ,,	
	Tongues, salted - -	10 0 p. keg of 6	
	Vinegar in bottles or in wood, Europe -	1 8 p. imp. gl.	
	Do., do., Persian -	0 12 ,,	
	Do., do., country -	0 6 ,,	
	All other sorts, except buche de mer, butter, and salted fish, which are free -	ad valorem	
17	Railway materials:		
	Of iron - -	ad valorem	1 per cent.
	Other sorts - -	ad valorem	7½ per cent.
18	Rattans and canes:		
	Canes, Malacca -	1 0 per doz.	
	Rattans - -	7 0 per cwt.	7½ per cent.
	All other sorts - -	ad valorem	
19	Seeds: Anchuchuck -	10 0 per cwt.	
	Anise, Europe -	28 0 ,,	
	Ascilia - -	7 0 ,,	
	Cajoo - -	5 0 ,,	
	Castor - -	4 8 ,,	
	Cummin - -	12 0 ,,	
	black - -	5 0 ,,	
	Faulgeol - -	5 0 ,,	
	Linseed - -	5 0 ,,	
	Methee - -	5 0 ,,	
	Mustard - -	4 8 ,,	7½ per cent.
	Quinquenaul or bodana	50 0 ,,	
	Rape or surgee -	4 8 ,,	
	Sawjeerah - -	25 0 ,,	
	Tookmeria - -	7 0 ,,	
	All other sorts, excepting seeds imported by any patent society for gratuitous distribution, which are free -	ad valorem	
20	Shawls - - -	ad valorem	5 per cent.
21	Shells:		
	Chanks, 'large shells,' for cameos -	10 0 per 100	
	Chanks, white live -	6 0 ,,	
	dead -	3 0 ,,	
	Cowdas, Mozambique and Zanzibar -	3 0 ,,	
	Cowdas from other places -	0 8 ,,	
	Cowries, Bazaar, common -	4 0 per cwt.	7½ per cent.
	Maldive -	16 0 ,,	
	sunkies -	40 0 ,,	
	Yellow, superior quality -	8 0 ,,	
	Mother o' pearl - -	8 0 ,,	
	Tortoise shell - -	6 0 per lb.	
	nuck - -	1 0 ,,	
	Nuckla and other sorts -	ad valorem	
22	Silk:		
	Floss - - -	8 0 per lb.	
	Raw, Charon and Cochin China -	4 0 ,,	
	Mathow - -	1 12 ,,	
	other kinds of China	7 0 ,,	7½ per cent.
	Persian - -	5 0 ,,	
	Punjum and Cutchra	1 12 ,,	
	Siam - -	4 0 ,,	
	Sewing thread, China -	8 0 ,,	
	Other sorts - -	ad valorem	
	Silk piece goods of sorts -	ad valorem	5 per cent.

No.	Description of Article	Value on which duty is assessed	Rate of duty
		rs. an.	
55	Soap - - -	ad valorem	7½ per cent.
56	Spices:		
	Aloe wood - -	5 0 per lb.	
	Aniseed star - -	40 0 per cwt.	
	Betelnut, white, Sheeveedhun	18 0 ,,	
	all other kinds -	7 0 ,,	
	in husk - -	2 0 per 1000	
	Cassia buds, Neglecour, China - - -	0 8 per lb.	
	Chillies, dried - -	8 0 per cwt.	
	Cloves - - -	12 0 ,,	
	in seeds, Nutravung	8 0 ,,	7½ per cent.
	Mace - - -	0 9 per lb.	
	false - -	10 0 per cwt.	
	Nutmegs - -	0 10 per lb.	
	in shell - -	0 6 ,,	
	wild - -	12 0 per cwt.	
	Pepper, long and long -	15 0 ,,	
	white - -	25 0 ,,	
	All other kinds - -	ad valorem	
57	Stationery other than paper	ad valorem	7½ per cent.
58	Sugar and sugar-candy:		
	Sugar-candy, China -	60 0 per cwt.	
	loaf - -	25 0 ,,	
	soft - -	12 0 ,,	7½ per cent.
	All other sorts of saccharine produce - -	ad valorem	
59	Tallow and grease -	20 0 per cwt.	7½ per cent.
60	Tea - - -	1 0 per lb.	7½ per cent.
61	Telegraph stores: Of iron -	ad valorem	1 per cent.
	Other sorts -	ad valorem	7½ per cent.
62	Timber and woods:		
	Deal or pine planks and boards, superficial square foot, and 1 inch thickness -	55 0 p. 1000 ft.	
	Mahogany, in logs -	0 6 per superficial foot of 1 in. thickness	
	Australian -	60 0 per ton	
	Sandalwood - -	72 0 per cwt.	7½ per cent.
	Australian and bastard -	4 0 ,,	
	All other sorts, excepting ebony, lignum vitæ, lugurwood, and Pallegyra wood, which are free -	ad valorem	
	Manufactures of, including ship-pipes, staves, and casks	ad valorem	
63	Tobacco:		
	Manufactured - -	ad valorem	10 per cent.
	Unmanufactured -	ad valorem	
	Articles such as pipes &c. used in consumption of -	ad valorem	7½ per cent.
64	Toys and requisites for all games - - -	ad valorem	7½ per cent.
65	Trunks and boxes -	ad valorem	7½ per cent.
66	Umbrellas:		
	Cotton, steel ribs - -	0 13 each	
	cane ribs -	0 11 ,,	
	China paper kettisals	45 0 per box of 100	7½ per cent.
	All other sorts - -	ad valorem	
67	Woollen goods: Piece goods	ad valorem	5 per cent.
	Braid - -	ad valorem	7½ per cent.
	Other sorts -		

Export Tariff.

No.	Description of Article	Value on which duty is assessed	Rate of duty
		rs. an.	
1	Indigo - - -	—	3 rs. per maund
2	Opium of all sorts - -	—	3 an. per maund
3	Lac: Button - -	28 0 per cwt.	
	Dye - - -	45 0 ,,	
	Seed - - -	20 0 ,,	1 per cent.
	Shell - - -	25 0 ,,	
	Stick - - -	16 0 ,,	
	Other sorts - -	ad valorem	
4	Oils: Castor - -	16 0 per cwt.	
	Cocoanut - -	20 0 ,,	
	Fish - - -	15 0 ,,	
	Grass - - -	2 0 per lb.	
	Jingeely or teel -	20 0 per cwt.	
	Linseed - - -	18 0 ,,	3 per cent.
	Mhowa - - -	12 0 ,,	
	Mustard - - -	16 0 ,,	
	Poppy - - -	20 0 ,,	
	Rape or surgee -	16 0 ,,	
	Sandalwood - -	8 0 ,,	
	Other sorts - -	ad valorem	
5	Seeds:		
	Castor seed (errundee) -	4 8 per cwt.	
	Coriander seed - -	4 0 ,,	
	Cummin seed - -	12 0 ,,	
	Black (coteejeera) -	5 0 ,,	
	Ground nuts, with shell -	5 0 ,,	
	without shell	6 0 ,,	
	Jingeely or teel seed -	6 0 ,,	3 per cent.
	Linseed - - -	5 0 ,,	
	Methee seed - -	5 0 ,,	
	Mustard seed - -	4 8 ,,	
	Poppy seed - -	5 8 ,,	
	Rape or surgee seed -	4 8 ,,	
	Other sorts - -	ad valorem	
6	Shawls - - -	ad valorem	5 per cent.
7	Cotton goods:		
	Piece goods: Baftahs -	30 0 per score	3 per cent.
	Ourrah - -	20 0 ,,	

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Export Tariff—continued.

No.	Description of Article	Value on which duty is assessed	Rate of duty
		Rs. an.	
	Kharwah	25 0 per score	3 per cent.
	Mamoodie	32 0 ,,	
	Mirzapore chinta	15 0 ,,	
	Patna	30 0 ,,	
	Shans	40 0 ,,	
	Tunjeeb, Oude	26 0 ,,	
	Other sorts	ad valorem	
	Twist, country, No. 10	0 7 per lb.	
	No. 20	0 9 ,,	
	No. 30	0 10 ,,	
	Hand spun	0 5 ,,	
	All other kinds of cotton goods	ad valorem	
8	Hides and skins tanned:		
	Hides:		
	Buffalo, country, tanned	70 0 per score	5 per cent.
	Cow	50 0 ,,	
	Skins: Goat and sheep	10 0 ,,	
	Lamb	5 0 ,,	
	Any other sorts of hides and skins	ad valorem	
9	Spices. Aloe wood	5 0 per lb.	3 per cent.
	Betelnut in husk	2 0 per 1000	
	Cardamoms	200 0 per cwt.	
	large bastard	40 0 ,,	
	Chillies, dried	8 0 ,,	
	Ginger, dry (rough) Malabar	10 0 ,,	
	Bengal	7 0 ,,	
	(scraped)	15 0 ,,	
	Pepper	15 0 ,,	
	Turmeric	7 0 ,,	
	All other sorts	ad valorem	

Remarks on the above Duties.—The policy of charging duties on exported articles seems very questionable. The great difficulty under which India labours, in a commercial point of view, consists principally in her inability to furnish equivalents for foreign imported goods, and to make the necessary payments abroad; and, when such is the case, it is certainly not a little contradictory to lay duties on exports. The most obvious considerations of expediency and common sense would suggest that they should be allowed to be exported duty free. There can be no doubt that the stimulus this would give to their production would, by increasing the public wealth, infinitely more than compensate the Government for the loss of the inconsiderable sum produced by the duties with which they are charged.

Tonnage Schedule for the Port of Calcutta, which has been in operation since January 1, 1860.

Articles	Cwt. per ton nett	Cubic feet per ton
Aloes, in bags and boxes	20	—
Alum, ditto	20	—
Aniseed, in bags	8	—
Arrowroot, in cases	—	50
Asafœtida, in bags and boxes	20	—
Apparel, in boxes	—	50
Bark, in bags	8	—
Bees' wax	20 cwt. gross	
Barilla	20	—
Betel nut	20	—
Books	—	30
Borax or tincal	25	—
Brimstone	20	—
Bullion	at per cent.	
Cake-lac, in bags	16	—
Camphor, in cases	—	50
Cardamoms, in rubbins	8	—
boxes	—	50
Cassia, in boxes	—	50
bags	12	—
China root, in bags	11	—
boxes	—	50
Chiretta	—	50
Cigars	—	50
Cloves, in bags	8	—
boxes	—	50
Coals	20	—
Cochineal	—	50
Coffee, in bags	15	—
casks	16	—
Coral, rough	20	—
Cotton in bales, 5 to the ton, not to exceed	—	52
Cowries	20	—
Cutch, in bags	18	—
Dates, wet	20	—
dry	16	—
Dhall	20	—
Elephants' teeth, in bulk	20	—
Furniture	—	50
Garlic and onions	12	—
Ginger	16	—
Gram	20	—
Gums, in cases	—	50
Gunny bags and gunny cloth	—	50
Gunjah	—	50
Hemp, in bales, per ton of 5 bales, not to exceed	—	52
Hides, buffalo or cow, cured	14	—
Hoofs, horn shavings and tips	20	—
Horns, cow, buffalo, or deer	20	—
Indigo	—	50
Jute, 5 bales to the ton, not exceeding	—	52
Lac dye	—	50
Lard	20 cwt. gross	
Linseed	20	—
Mace	—	50
Machinery	20	—
Metals	20	—
Myrobalans	16	—
Molasses	2 puncha. or 4 hhds.	
Mother o'pearl, in bags	20	—
chests	20	—
Munjeet	—	50
Mustard or rape seed	20	—
Nutmegs, in cases or casks	—	50
Nux vomica	16	—
Oats	16	—
Oil, in cases	—	50
casks	4 hogsheads per chest	
Opium	16	—
Paddy	20	—
Peas	12	—
Pepper, long	14	—
black	—	50
Planks and deals	20	—
Poppy seed	10	—
Putchuck	10	—
Raw silk, in bales	20	—
Rattans for dunnage	20	—
Red wood for ditto	—	52
Rhea, in bales, per ton of 5 bales, not exceeding	20	—
Rice	50	—
Roping, in coils	16	—
lines and twines, in bundles	2 puncha. or 4 hhds.	
Rum, in casks	—	52
Safflower, in bales, per ton of 5 bales, not exceeding	20	—
Sago, in cases	20 cwt. gross	
Salammoniac, in bags	20	—
boxes	20	—
Saltpetre	20	—
Sal	20	—
Sapan wood for dunnage	—	50
Sealing wax, in cases	—	50
Seed-lac, in cases	16	—
bags	—	50
Senna	—	50
Shells, rough, in bags	20	—
Shellac, in cases	—	50
bags	16	—
Silk, piece goods	—	50
Skins	14	—
Soap, country, in cases	—	50
bags	13	—
bar	20	—
Stick lac, in cases	—	50
bags	16	—
Sugar	20	—
Tallow, in cases or casks	20	—
Talc	20	—
Tamarinds, in cases or casks	20	—
Tapioca	—	50
Tea	—	50
Teel seed	10	—
Timber, round	—	40
square	—	50
Tobacco, in bales	16	—
Tortoise shell, in chests	—	50
Turmeric	16	—
Wool	20	—
Wheat	—	50

Bengal Bonded Warehouse Association, Established 1838.

Table of Rents chargeable on Goods and Packages Received and Stored in the Bengal Bonded Warehouse.

	per month. Rs. a. p.
Aniseed, per br. md.	0 1 0
Beer, in hogsheads, per hogshead	0 6 0
bottled, in casks or cases, per dozen quarts	0 1 0
ditto ditto, per dozen pints	0 0 8
Betel-nut, per br. md.	0 0 6
Bottles, in crates, per dozen bottles	0 0 6
Camphor, per case	0 3 0
Canvas, per bale	0 3 0
Cardamoms, per br. md.	0 1 0
Cigars, per case	0 8 0
Cloves, per br. md.	0 1 0
Coffee, per br. md.	0 1 0
Cordage, per cwt.	0 1 0
Cotton, per screwed bale of 300 lbs.	0 6 0
Cow hides, per large bale	0 12 0
Ditto, per smaller bale	0 8 0
Cummin seed, per br. md.	0 1 0
Cutch, per 100 br. mds.	2 0 0
Earthenware, per cask	1 0 0
Ginger, per 100 br. mds.	3 0 0
Glassware, per cask	1 0 0
Goat skins, per bale	0 8 0
Gunnies, per large bale	0 8 0
Ditto, per smaller bale	0 6 0
Hemp, per screwed bale of 300 lbs.	0 6 0
Indigo, per chest	0 8 0

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Bengal Bonded Warehouse—continued.

		per month. Rs.	a.	p.
Jute	per screwed bale of 300 lbs.	0	6	0
Lac dye	per chest	0	6	0
Metals	per br. md.	0	0	6
Oils, turpentine, linseed and other vegetable oils	per br. md.	0	1	0
Paint	per keg of 56 lbs.	0	0	6
Pepper	per br. md.	0	1	0
Piece Goods, British and Foreign	p. case or b. not exceeding 10 c. ft.	0	0	6
Ditto ditto	p. case or b. exceeding 10 c. ft., and not exceeding 15	0	8	0
Ditto ditto	15 c. ft., and not exceeding 20	0	10	0
Ditto ditto	20 c. ft., „ 30	1	0	0
Ditto ditto	30 c. ft., „ 40	1	8	0
Quicksilver	per br. md.	0	2	0
Rice	per br. md.	0	0	6
Rosin or dammar	per br. md.	0	1	0
Safflower	per bale	0	8	0
Seeds	per 100 br. mds.	0	0	6
Shellac	per chest	0	6	0
Silk	per bale	0	8	0
Silk piece goods	per case	0	8	0
Spirits	per butt or pipe	2	0	0
Ditto	per half pipe or hogshead	1	0	0
Ditto	per quarter pipe	0	8	0
Ditto in bottle	per dozen quarts	0	1	0
Ditto	per dozen pints	0	0	8
Sugar	per br. md.	0	0	6
Tea	per whole chest	0	3	0
Ditto	per smaller box	0	2	0
Tin plates	per box	0	0	6
Tobacco, American	per case not exceeding 5 cubic feet	0	4	0
Turmeric	per 100 br. mds.	3	0	0
Twist of all sorts	per bale of 200 or 300 lbs.	0	6	0
Ditto	per bale of 400 or 500 lbs.	0	8	0
Ditto	per bale above 500 lbs.	0	12	0
Wines	per butt or pipe	2	0	1
Ditto	per half pipe or hogshead	1	0	0
Ditto	per quarter pipe	0	8	0
Ditto in bottle	per dozen quarts	0	1	0
Ditto	per dozen pints	0	0	8

*** All goods not enumerated or comprehended in the above list will be charged for per agreement.

Cargoes of vessels put back from sea will be received into the warehouse—saltpetre and damaged goods excepted; and it will be optional with the Association to apply the above rates, or charge rent according to the space occupied.

Where parties desire to engage accommodation by the month or for a longer period, the Association lets space by measurement: for instance, a range 100 feet long by 20 feet wide on the *upper* storeys would rent for 150 Rs. a month. Ditto on the *ground* floor for 200 Rs. per month.

Rent commences from the moment goods are brought within the premises of the warehouse; and if goods are left in the compound of the warehouse, they will remain there at the risk and expense of depositors.

Rent will not be charged for a shorter period than half a month; and thereafter the shortest broken period for which it will be charged is a quarter of a month.

The Association does not undertake to store goods, or to supply labour for that purpose, and is not responsible for any loss or damage that may arise in their receipt or delivery.

Coins, Weights, Measures, Exchanges, &c.

Calcutta in Bengal. Coins.—Accounts are kept here in rupees, with their sub-divisions annas and pie: 12 pie make 1 anna; 16 annas, 1 rupee.

The standard of the Bengal money has ever been silver. Gold is occasionally coined, but the great bulk of the currency is silver.

A lakh of rupees is 100,000; and a crore, 100 lakhs or 1,00,00,000 rupees; and in accounts sums are distinguished into crores, lakhs, and single rupees, by marks or divisions, as in the foregoing examples.

Cowries, small, white, glossy shells, are made use of for small payments in the bazaar, and are generally thus reckoned:—

4 cowries, 20 gundas } equal to { 1 gunda. 1 pun.

4 puns, 4 annas } equal to { 1 anna. 1 kahun, which is about ¼ of a rupee.

But they rise and fall according to the demand there is for them, and the quantity in the market.

Coinage.—The *Act No. XIII. of* 1862 provides for a new silver and a new copper coinage, thus:—

That from November 1, 1862, no silver or copper coins, except those mentioned below, shall be coined at the Mints in British India:—

Silver Coin.

A rupee to be called the Government rupee.
A half rupee.
A quarter rupee or four anna piece.
An eighth of a rupee or two anna piece.

Copper Coin.

A double pice or half anna.
A pice or quarter anna.
A half pice or one-eighth of an anna.
A pie, being one third of a pice, or one-twelfth of an anna.

That the rupee so coined shall be 180 grains troy, and the standard as follows:—$\frac{11}{12}$ or 165 grains of pure silver; $\frac{1}{12}$ or 15 grains of alloy. The other silver coins shall be of proportionate weight and of the same standard.

The copper coins, viz.:

The double pice shall weigh	200	grains troy.			
The pice	„	„	100	„	„
The half pice	„	„	50	„	„
The pie	„	„	33⅓	„	„

Until the Governor-General in Council shall otherwise order, the silver and copper coins so coined shall bear on the obverse the likeness and the name of her Majesty Queen Victoria, and the inscription *Victoria Queen*, and on the reverse the designation of the coins in English filled by the word *India*, with such date and embellishments on each coin as the Governor-General in Council shall from time to time direct.

British-Indian Weights and Measures.—The tola is the unit of the British-Indian ponderary system. Its advantages are—1. That the maund, formed from the modified weight, would be precisely equal to 100 English troy pounds; and, 2. That 35 seers would also be precisely equal to 72 pounds avoirdupois: thus establishing a simple connexion, void of fractions, between the two English metrical scales and that of India. The tola weighs 180 grains English troy weight. From it upwards are derived the heavy weights, viz. *Chittack*, *Seer*, and *Mun* (or Maund); and by its sub-division the small or jeweller's weights, called *Mashas*, *Ruttees*, and *Dhans*.

The following scheme comprehends both of these in one series:

Mun	Pusseree	Seer	Chittack	Tola	Masha	Ruttee	Dhan
1	8	40	640	5200	38400	307200	1228800
	1	5	80	400	4800	38400	153600
		1	16	80	960	7680	30720
			1	5	60	480	1920
				1	12	96	384
					1	8	32
						1	4

The *Mun* (or that weight to which it closely accords in value, and to which it is legally equivalent in the new scale) has been hitherto better known among Europeans by the name of *Bazaar Maund*, but upon its general adoption, under Regulation VII. of 1833, for all transactions of the British Government, it should be denominated the British Maund (in Hindee *Ungrezee Mun*), to distinguish it at once from all other weights in use throughout the country. In the same way the Madras, Bombay, and Furruckabad rupee (when the Sicca rupee is abolished, and an English device adopted) may be called the *British rupee*, and in the native language *Ungrezee rupya*.

The *Pusseree* is, as its name denotes, a five seer weight, and therefore should not form an integral point of the scale, but as its use is very general, it has been introduced for convenience of reference.

The *Seer* being the commonest weight in use in the retail business of the bazaars in India, and being liable, according to the pernicious system hitherto prevalent, to vary in weight for every article sold as well as for every market, is generally referred to the common unit in native mercantile dealings, as 'the seer of so many *tolas*' (or sicca, bhurrees, takahs &c.); the standard or *bazaar seer* being always 80 *tolas*.

The *Chittack* is the lowest denomination of the gross weights, and is commonly divided into halves and quarters (called in Bengalee *kacha*); thus marking the line between the two series, which are otherwise connected by the relation of the seer &c. to the tola.

The *Tola* is chiefly used in the weighing of the precious metals and coin; all bullion at the mints is received in this denomination, and the tables of bullion produce *are calculated* per 100 tolas. It is also usual at the mints to make the sub-divisions of the tola into annas (sixteenths) and pie, in lieu of mashas and ruttees.

Comparison of the Tola and Maund with the Gold and Silver or Troy Weights of other Countries.

Place	Denomination	Weight of single lb. mark &c. in tolas	Number equal to 1 maun, or 100 lbs. troy
Aleppo	Metical	0·405	7890·410
Busorah	Miscal	0·450	8000·000
Cairo	Rottolo	36·065	86·564
Calicut	Miscal	0·383	8547·826
China	Tale	3·221	993·416
Constantinople	Chequee	27·538	116·199
Damascus	Ounce	2·680	1252·173
Denmark	Mark	20·183	158·546
England	Pound	32·000	100·000
France	Kilogramme	85·745	37·320
Germany	Cologne mark	20·014	159·645
Holland	Mark	21·100	151·658
Italy	Florence and Leghorn lib	29·111	109·923
Mocha	Vaka	2·655	1205·020
Pegu	Tical	1·318	2427·307
Persia	Dirhem	0·839	3812·297
Portugal	Mark	19·675	162·612
Prussia	Mark	20·050	159·600
Rome	Libbra	29·077	110·019
Russia	Pound	35·102	91·161
Spain	Mark	19·725	162·230
Venice	Mark	20·452	156·457
Vienna	Mark	24·072	132·933

Mashas, *Ruttees*, and *Dhans* are used chiefly by native goldsmiths and jewellers. They are also employed in the native valuation by assay of the precious metals: thus 10 mashas fine signifies 10-12ths pure, and corresponds to '10-oz. touch' of the English assay report of silver. There is a closer accordance with the English gold assay scale, inasmuch as the 96 ruttees in a tola exactly represent the 96 carat grains in the gold assay pound, and the *dhan* the quarter grain.

British-Indian weights	English troy weights				French weights
	lbs.	oz.	dwt.	grs.	grammes
One maund	100	0	0	0	37320·182
seer	2	6	0	0	933·005
chittack		1	17	12	58·310
tola			7	12	11·662
masha				15	0·972
ruttee				1·875	0·122

For particulars of Madras and Bombay Weights and Measures, *vide* respective Directories.

Comparison with Troy Weights.—For the conversion of English troy weights into those of India, the following scale will suffice, since the simplicity of their relation renders a more detailed table unnecessary.

Lb. Tr.	Oz.	Dwt.	Grs.	Tolas and Dec.
1	12	240	5760	3·2000
	1	20	480	2·6666 &c.
		1	24	0·1333 &c.
			1	0·0055 &c.

The accordance of the *maun* weight with the 100 lbs. troy of England affords a ready means of ascertaining its relative value in the standards of other countries employed in weighing the precious metals, since tables of the latter are generally expressed in lbs. troy. The following are a few of those valuations for the principal weights of Europe &c. extracted from Kelly's *Cambist*, page 222. The weights in troy grains have been converted into *tolas* by dividing them by 180.

Required the equivalent of 57,353 *muns* 35 *seers and* 6 *chittacks in avoirdupois pounds.*

Taking the numbers opposite to 57, 35, and 30 respectively, and removing the decimal point—in the first, three places to the right hand; in the second, one place to the right; and in the third, one place to the left, we have

57,000 maunds=	4690286·
350	38800·
3	246·857
37 seers	76·114
6 chit.	771
lbs. 479409·742	12 oz. nearly.

Since 35 seers are exactly equal to 72 lbs. avoirdupois, the following simple and accurate rules for their mutual conversions will be found equally convenient with the table:

Rule I.—To convert Indian Weight into Avoirdupois Weight.

1. Multiply the weight in *seers* by 72 and divide by 35: the result will be the weight in lbs. avoirdupois; or

2. Multiply the weight in *maunds* by 36 and divide by 49: the result will be the weight in cwt. avoirdupois.

One ton = 27·222 *maunds*, or 27¼ *maunds* nearly.

Rule II.—To convert Avoirdupois weight into Indian weight.

1. Multiply the weight in *lbs. av.* by 35, and divide by 72: the result will be the weight in *seers*; or

2. Multiply the weight in *cwt.* by 49, and divide by 36: the result will be the weight in *maunds*.

One *maund* = 82⅔ lbs. avoir. exactly.

For converting Avoirdupois Weights into British-Indian Weights.

Tons	Muns or Bazaar Maunds			Cwt.	Muns or Bazaar Maunds			lbs.	Muns or Bazaar Maunds		
	mds.	srs.	chit.		mds.	srs.	chit.		mds.	srs.	chit.
100	2722	10	10	19	25	34	7½	100	1	8	9½
90	2450	1	9	18	24	20	0½	90	1	3	12½
80	2177	32	8	17	23	5	9½	80	0	38	14½
70	1905	23	7	16	21	31	2	70	0	34	0
60	1633	14	6	15	20	16	10½	60	0	29	2½
50	1361	5	5	14	19	2	3½	50	0	24	4½
40	1088	36	4	13	17	27	12½	40	0	19	7
30	816	27	3	12	16	13	5½	30	0	14	9½
20	544	18	2	11	14	38	14½	20	0	9	11½
10	272	9	1	10	13	24	7½	10	0	4	13½
9	245	0	2½	9	12	10	0½	9	0	4	6
8	217	31	4	8	10	35	9½	8	0	3	14½
7	190	22	5½	7	9	21	1½	7	0	3	6½
6	163	13	7	6	8	6	10½	6	0	2	14½
5	136	4	8½	5	6	32	3½	5	0	2	7
4	108	35	10	4	5	17	12½	4	0	1	15½
3	81	26	11½	3	4	3	5½	3	0	1	7½
2	54	17	13	2	2	28	14½	2	0	0	15½
1	27	8	14	1	1	14	7½	1	0	0	7½

The salt maund is 2½ per cent. heavier than the bazaar maund, having 82 tolas to the seer.

Coins.

2 double, 12 pie, small, 16 annas, 16 rupees } make { 4 single pysa, 1 anna, 1 rupee, 1 gold mohur

When accounts are kept in rupees, they use the imaginary pie of 12 to an anna. A small copper coin of the value of a pie has recently been put in circulation.

Small shells, called cowries, are also made use of for paying coolies &c. which are reckoned as follows:—

4 cowries, 20 gundahs, 8 puns } make { 1 gundah, 1 pun, 1 anna

But these rates vary from time to time. The anna a few years ago was valued at 5 puns.

A Comparative View of the relative Value of the several Denominations of Rupees generally used in keeping accounts.

	Current rupees
100 sicca rupees (Calcutta)	=116 0 0
100 Sonat rupees	111 0 0
100 Bombay rupees	110 0 0
100 Arcot rupees	108 0 0

	Sicca rupees.
100 Arcot rupees	=93 11 7 25·29
100 Bombay rupees	94 13 2 26···
100 Sonat rupees	95 11 9 22·29

Bazaar or Great Weights.

5 sicca weight, 16 chittacks, 40 seers } make { 1 chittack, 1 seer, 1 maund

The different Weights made use of in Bengal, with their Value in Sicca Weights.

80 sicca weight	make	1 Calcutta bazaar seer
80 „ „		1 Serampore seer
82 „ „		1 Hooghly seer
84 „ „		1 Benares seer
96 „ „		1 Lucknow seer
84 „ „		1 Mirzapore seer
96 „ „		1 Allahabad seer
82 Sa. Wt. 11 ans. 2 puns. 10 gunda. 3 cows. 75 dec.		1 Calcutta factory seer

N. B. One Sicca weight is equal to 6 drachms 57066 decimals avoirdupois weight.

The Bengal Factory Maund and its Fractional parts, reduced to English Avoirdupois Weight, according to the Standard received from Europe in 1787.

	lbs.	oz.	drs.	dec.
1 maund	=74	10	10	666
20 seers	37	5	5	333
10 „	18	10	10	666
5 „	9	5	5	333
4 „	7	7	7	466
3 „	5	9	9	599
2 „	3	11	11	733
1 „	1	13	13	866
8 chittacks	0	14	14	933
4 „	0	7	7	466
2 „	0	3	11	733
1 „	0	1	13	366

The Bengal bazaar maund is 10 per cent. better than the fy. maund, and is equal to 82 lbs. 2 oz. 2 drs. 366 dec.

Gold and Silver Weights.

4 punkho or quarter grain	= 1 gram or dhan
4 dhans	1 ruttee
6½ ruttees	1 anna
8 ruttees	1 massa
100 ruttees or 12½ massas or 16 as.	1 tola or sa. re.
106¼ ruttees or 13·28-15ths massa or 17 as.	1 gold mohur

A gold mohur weighs 7·22 and nine-tenths troy weight, containing 187·651 fine gold and 17·059 alloy.

A sicca rupee weighs 7 : 11 and two-thirds troy weight, containing 175·925 fine silver and 15·993 alloy.

Cloth Measure.

3 corbe	= 1 ungoolee
3 ungoolees	1 geerah
8 geerahs	1 hauth or cubit, 18 inches
2 hauths	1 guz or yard

Reckoning by the Tale.

3 particulars	= 1 gundah
4 gundahs or 20 particulars	1 cooree or corge

Liquid Measure.

5 sicca rupees weight of liquor	= 1 chittack
4 chittacks	1 powah
4 powahs	1 seer
40 seers	1 maund

5 seers make 1 puseree or measure
6 puserees or measure make 1 maund
The covid in cloth measure is 9 inches

Land Measure.

1 beegah makes 20 cottahs	
1 cottah or 16 chittacks	720 square feet
8 chittacks or ½ a cottah	360 „
4 chittacks or ¼ powah	180 „
2 koonkees or ½ a powah make	90 „
1 ditto	45 „
½ ditto	22½ „
¼ ditto	11¼ „

Grain Measure.

5 chittacks	= 1 koonkee
4 koonkees	1 raik
4 raiks	1 pally
20 pallies	1 soally
16 soallies	1 kahoon or 40 maunds

For the mutual Conversion of Bengal, Madras, and Bombay Maunds.

Bengal Maunds	Madras Maunds	Bombay Maunds	Madras Maunds	Bengal Maunds	Bombay Maunds	Bengal Maunds
1000	3291·428	2986·775	1000	303·820	1000	340·271
100	329·143	293·877	100	30·382	100	34·028
90	296·229	264·192	90	27·344	90	30·625
80	263·315	234·104	80	24·306	80	27·222
70	230·401	205·716	70	21·268	70	23·819
60	197·487	176·328	60	18·230	60	20·416
50	164·571	146·938	50	15·191	50	17·014
40	131·656	117·552	40	12·152	40	13·612
30	98·742	88·164	30	9·114	30	10·209
20	65·828	58·776	20	6·076	20	6·806
10	32·914	29·388	10	3·038	10	3·403
1	3·291	2·939	1	0·304	1	0·340
Seers 30	2·469	2·205	Seers 30	0·228	Seers 30	0·255
20	1·646	1·469	20	0·152	20	0·170
10	0·823	0·734	10	0·076	10	0·085
5	0·411	0·367	5	0·038	5	0·042
4	0·329	0·294	4	0·030	4	0·034
3	0·246	0·220	3	0·022	3	0·025
2	0·164	0·147	2	0·015	2	0·017
1	0·082	0·073	1	0·008	1	0·008

The word *mun*, of Arabic or Hebrew origin, is used throughout Persia and Northern India: but, as might be expected, it represents very different values in different places: thus the *mun* of Tabriz is only 6½ lbs. avoir., while that of Palloda, in Ahmednuggur, is 163¼ lbs.

It is probable that the seer or *sér*, a Hindoo weight (*sétak*), was more uniform than the maund, since it was founded upon the tola (*tolaha*), which, with its sub-division, the *massa*, must, in very ancient times, have been extensively known throughout commercial Asia: there can be little doubt that the *tale* and *mace* of the Chinese are identical in origin.

It may be generally assumed that the maund system follows the common scale, viz.:—

16 chittacks = 1 seer
40 seers = 1 maund
20 maunds = 1 candy or mannee

The use of a five-seer weight also universally prevails under the name of *pusseree*, *dhuree*, or *via*. The dhuree, from its name, however, seems to be properly a measure: and accordingly while in Malwa it is equal to 5 seers, in other places it is found of 4, 4½, 5¾, 10, 11, and 12 seers. The terms *adhola*, *adhelee* (half), *pao*, *powah* (quarter), *adhpao* (half-quarter), frequently occur: they explain themselves.

Weight.—The sub-divisions of the ponderary systems, throughout the whole of British India, generally agree in name, though they differ in value. Thus in every case

(variable) dhan = 1 ruttee
8 ruttees = 1 massa
12 massas = 1 tola
(variable) tola = 1 chittack
16 chittacks = 1 seer
40 seers = 1 maund

The number of dhans in a ruttee, and the number of tolas in a chittack, are arbitrary. The annexed tables show all the varieties that have been brought to notice. To save needless repetition, we shall refer to them as may be necessary, and give in detail only the peculiar systems of each district.

Table I.

4 or 8 dhans = 1 ruttee
8 ruttees = 1 massa
12 massas = 1 tola

Table II.

Measure.—The linear measures of India generally are based on the following system:—

5 ungoolees or fingers' breadth = 1 mooshtika or palm
6 mooshtikas = 1 hasta, or hauth, or cubit

Also—

14 jussoos or lengths of the first joint of the thumb	= 1 hauth or cubit
20 jussoos	= 1 guz or clothier's yard
24 jussoos	= 1 guz or artificer's yard
42 ungoolees	= 1 Mahomedan guz or yard

From the very careful investigations of Major Jervis, as given in his works on Indian Meteorology, it appears that

1 cubit or hauth of 14 jussoos or 24 ungoolees	= 19·5489 inches
1 guz of 20 jussoos	= 27·9271 ,,
1 guz of 24 jussoos	= 33·5125 ,,
1 guz of 42 ungoolees	= 31·2106 ,,

The standard of Ilahee guz used in the land settlement of the North-Western provinces has been fixed at 33 inches, whence

33 inches = 1 Ilahee guz
3 guz = 1 bans or measuring rod
20 × 20 = 400 sq. bans = 1 beegah = 3025 sq. yards

In Bengal the hauth or cubit has been assumed to be 18 inches in length, and thus generally—

4	square hauths	= 1	square cowrie or kurra	
4	,, cowries	= 1	,, gunda	
20	,, gundas	= 1	,, kutta	
20	,, kuttas	= 1	beegah = 1,600 sq. yards	

These are the beegahs most in use, and are the only values referable to fixed standards. The hauth may be said to vary between 15 and 30 inches, and the beegah between 1,500 and 3,000 square yards. The data at present before us are not sufficiently precise, and we have consequently not affected an accuracy which in truth we could not attain.

Banks.—The Bank of Bengal was established in 1809. Its authorised capital, according to Thacker's *Bengal Directory* for 1868, is 3,00,00,000 rupees, which, at 2*s.* the rupee, gives 3,000,000*l.*, of which 2,200,000*l.* has been paid up. The shares are now selling at a high premium. The management is conducted by nine directors—three appointed by Government, and six elected by proprietors: time of service for the latter three years. This bank possesses peculiar advantages, and consequently its circulation extends over a very large area, its notes being received at all public offices, in payment of revenue, by the collectors of the various districts. Besides this (exclusive of savings' banks) there are 18 other banks, or branches of banks, of which 13 are 'limited.' The nominal capital of these amounts in the aggregate to about 14,000,000*l.*, the paid up capital, however, falling much short of this amount.

Insurances.—The fire, life, and marine insurance business is conducted by 62 establishments and agencies, 8 of which are local, the nominal capital amounting in aggregate to over 30,000,000*l.* The larger proportion appear to conduct marine insurance exclusively.

Pilotage, Port Charges &c.—The Marine Board at Calcutta have issued the following regulations as to pilotage, port charges &c.:—

1. Commanders are requested, prior to quitting their vessels, on arrival off Calcutta, to fill up and certify, or cause to be filled up and certified, a form of certificate showing the actual registered tonnage, the draught of water, and whether the vessel has or has not been tugged by a steamer any part of the way, or has not had the use of a row-boat. This form will be furnished to the pilot, in order to the bills of the vessel being correctly made out.

2. Commanders are further requested, as early after their arrival as possible, to notify in writing to the master attendant the name and residence of the reference for the payment of their vessels' bills.

3. On the receipt by the master attendant of the above certificate and written reference for payment, a single bill will be prepared, including inward pilotage, port dues, and row-boat hire (if any), which, together with the certificate, will be forwarded to the collector of customs for collection within fifteen days of the arrival of the vessel, and having on it the name and residence of the party referred to for payment, which commanders are requested to furnish to the master attendant in writing, as early after their arrival as practicable: that officer will more readily be enabled to present it. By this arrangement all the charges connected with the vessel up to her arrival off Calcutta will be embodied in one bill, instead of, as hitherto, being made in separate bills.

4. In the event of the vessel's docking, or being transported at the desire of the commander, it is requested that a certificate may be given by the commanding officer of the operation having been performed, in order to its accompanying the bill when presented for payment to the referee.

5. The charges for hauling to the chain moorings, for their monthly hire, and for hauling from the moorings, will be in separate bills, including the charge for hauling to the moorings, that for occupying them, and that for hauling from them; and commanders are requested to give, or cause their commanding officers to give, to the master attendant or the harbour-master certificate of the date of hauling to and from the moorings, which certificate, as before, will accompany the bill when presented for payment. The hire of the moorings will be charged for the day on which the vessel is hauled thereto, without reference to the period of the day; and in like manner no charge will be made for the day on which she hauls from her moorings, however late in the day she may quit them.

6. The system of charging outward pilotage on an estimated draught of water, with an addition of 10 per cent., subject to adjustment after the vessel has sailed, and of charging a certain number of days for a row-boat, subject to a like adjustment, is abolished; and in future the outward pilotage and charge for row-boat hire on outward-bound vessels will be made as follows:—

When the vessel is finally laden, the commander is to give notice thereof to the master attendant, when the draught of water is to be ascertained and certified by the commander or commanding officer on the part of the vessel, and by the pilot on the part of Government, subject, in case of dispute, to the decision of the master attendant. On receipt of the certificate, the master attendant will cause a bill to be made out for the regular amount of pilotage, and for the row-boat hire. The bill and certificate will be presented in due course for payment.

7. As, however, it frequently happens that vessels are taking in cargo or filling their water up to the last day of their departure, or that from other causes the bills for the chain moorings and outward pilotage cannot be made out till the eve of departure, owners, agents, and commanders are, in such cases, particularly requested, with a view to despatch, to cause an individual to attend at the Bankshall and expedite the transmission of the bill and certificate to the collector of customs for collection.

8. In the event of a vessel being tugged any part of the way down by steam, or not having the use of a row-boat, commanders are to obtain from the pilot at Kedgeree a certificate to that effect, which they should forward by dak to their agents. On receipt thereof, agents are requested to make out a bill against her Majesty's Government for the ½ deduction from the pilotage allowed if tugged by steam, or for the row-boat hire paid, as the case may be, and to forward it, together

with the certificate, to the civil paymaster for audit and payment.

9. In cases where a vessel leaves Calcutta, avowedly intending to fill up cargo at some place below, the pilotage will be charged at the draught at which she leaves Calcutta in like manner, though at the reduced amount, as if she had proceeded to sea; and with respect to the subsequent pilotage charge from the place at which the vessel takes in the additional cargo to sea, owners or agents of vessels will be required to furnish a special guarantee to pay the amount chargeable according to a certificate of the draught of water to be signed by the commander or commanding officer and pilot.

10. Two sets of moorings at Diamond Harbour having been fitted specially to enable vessels arriving in distress from loss of anchors and cables to be readily moored, the charge will be Co.'s Rs. 10 for mooring and unmooring, and the daily hire the same as for the moorings at Calcutta. The moorings will of course be available to vessels not in distress from loss of anchors and cables, but the harbour-master will be instructed at all times to keep two sets vacant during the SW. monsoon to meet casualties.

11. Annexed is a statement of the several port and pilotage charges; and the master attendant trusts that, with these and the certificates of the commanders or commanding officers before them, owners and agents of vessels will at all times be enabled readily to ascertain the correctness of the bills, and to discharge them on presentation:—

Pilotage Chargeable on Vessels: Intermediate or Broken Pilotage.

Draught of Water	Full Pilotage		1/12		2/12		3/12		4/12		5/12	
	Co.'s Rs.		Co.'s Rs.		Co.'s Rs.		Co.'s Rs.		Co.'s Rs.		Co.'s Rs.	
	Inward	Outward	Inward	Outward	Inward	Outward	Inward	Outward	Inward	Outward	Inward	Outward
Under 8 feet	62 8 0	62 8 0	5 3 4	5 3 4	10 6 8	10 6 8	15 10 0	15 10 0	20 13 4	20 13 4	26 0 8	26 0 8
8 to 9 ,,	100 0 0	100 0 0	8 5 4	8 5 4	16 10 8	16 10 8	25 0 0	25 0 0	33 5 4	33 5 4	41 10 8	41 10 8
9 to 10 ,,	137 8 0	150 0 0	11 7 4	12 8 0	22 14 8	25 0 0	34 6 0	37 8 0	45 13 4	50 0 0	57 4 8	62 6 0
10 to 11 ,,	162 8 0	175 0 0	13 8 8	14 9 4	27 1 4	29 2 8	40 10 0	43 12 0	54 2 8	58 5 4	67 11 4	72 14 8
11 to 12 ,,	187 8 0	200 0 0	15 10 0	16 10 8	31 4 0	33 5 4	46 14 0	50 0 0	62 8 0	66 10 8	78 2 0	83 5 4
12 to 13 ,,	212 8 0	225 0 0	17 11 4	18 12 0	35 6 8	37 8 0	53 2 0	56 4 0	70 13 4	75 0 0	88 8 8	93 12 0
13 to 14 ,,	250 0 0	262 8 0	20 13 4	21 14 0	41 10 8	43 12 0	62 8 0	65 10 0	83 5 4	87 8 0	104 2 8	109 6 0
14 to 15 ,,	287 8 0	300 0 0	23 15 4	25 0 0	47 14 8	50 0 0	71 14 0	75 0 0	95 13 4	100 0 0	119 12 8	125 0 0
15 to 16 ,,	337 8 0	362 8 0	28 2 0	30 3 4	56 4 0	60 6 8	84 6 0	90 10 0	112 8 0	120 13 4	140 10 0	151 0 8
16 to 17 ,,	400 0 0	450 0 0	33 5 4	37 8 0	66 10 8	75 0 0	100 0 0	112 8 0	133 5 4	150 0 0	166 10 8	187 8 0
17 to 18 ,,	462 8 0	525 0 0	38 8 8	43 12 0	77 1 4	87 8 0	115 10 0	131 4 0	154 2 8	175 0 0	192 11 4	218 12 0
18 to 19 ,,	525 0 0	587 8 0	43 12 0	48 15 4	87 8 0	97 14 8	131 4 0	146 14 0	175 0 0	195 13 4	218 12 0	244 12 8
19 to 20 ,,	600 0 0	675 0 0	50 0 0	56 4 0	100 0 0	112 8 0	150 0 0	168 12 0	200 0 0	225 0 0	250 0 0	281 4 0
20 to 21 ,,	675 0 0	750 0 0	56 4 0	62 8 0	112 8 0	125 0 0	168 12 0	187 8 0	225 0 0	250 0 0	281 4 0	312 8 0
21 to 22 ,,	737 8 0	812 8 0	61 7 4	67 11 4	122 14 8	135 6 8	184 6 0	203 2 0	245 13 4	270 13 4	307 4 8	338 8 8
22 to 23 ,,	800 0 0	875 0 0	66 10 8	72 14 8	133 5 4	145 13 4	200 0 0	218 12 0	266 10 8	291 10 8	333 5 4	364 9 4
23 to 24 ,,	875 0 0	962 8 0	72 14 8	80 5 4	145 13 4	160 6 8	218 12 0	240 10 0	291 10 8	320 13 4	364 9 4	401 0 8

	6/12		7/12		8/12		9/12		10/12		11/12	
Under 8 feet	31 4 0	31 4 0	36 7 4	36 7 4	41 10 8	41 10 8	46 14 0	46 14 0	52 1 4	52 1 4	57 4 8	57 4 8
8 to 9 ,,	50 0 0	50 0 0	58 5 4	58 5 4	66 10 8	66 10 8	75 0 0	75 0 0	83 5 4	83 5 4	91 10 8	91 10 8
9 to 10 ,,	68 12 0	75 0 0	80 5 4	87 8 0	91 10 8	100 0 0	103 2 0	112 8 0	114 9 4	125 0 0	126 0 8	137 8 0
10 to 11 ,,	81 4 0	87 8 0	94 12 8	102 1 4	108 5 4	116 10 8	121 14 0	131 4 0	135 6 8	145 13 4	148 15 4	160 6 8
11 to 12 ,,	93 12 0	100 0 0	109 0 0	116 10 8	125 0 0	133 5 4	140 10 0	150 0 0	156 4 0	166 10 8	171 14 0	183 5 4
12 to 13 ,,	106 4 0	112 8 0	123 15 4	131 4 0	141 10 8	150 0 0	159 6 0	168 12 0	177 1 4	187 8 0	194 12 8	206 4 0
13 to 14 ,,	125 0 0	131 4 0	145 13 4	153 2 0	166 10 8	175 0 0	187 8 0	196 14 0	208 5 4	218 12 0	229 2 8	240 10 0
14 to 15 ,,	143 12 0	150 0 0	167 11 4	175 0 0	191 10 8	200 0 0	215 10 0	225 0 0	239 9 4	250 0 0	263 8 8	275 0 0
15 to 16 ,,	168 12 0	181 4 0	196 14 0	211 7 4	225 0 0	241 10 8	253 2 0	271 14 0	281 4 0	302 1 4	309 6 0	332 4 8
16 to 17 ,,	200 0 0	225 0 0	233 5 4	262 8 0	266 10 8	300 0 0	300 0 0	337 8 0	333 5 4	375 0 0	366 10 8	412 8 0
17 to 18 ,,	231 4 0	262 8 0	269 12 8	306 4 0	308 5 4	350 0 0	346 14 0	393 12 0	385 6 8	437 8 0	423 15 4	481 4 0
18 to 19 ,,	262 8 0	293 12 0	306 4 0	342 11 4	350 0 0	391 10 8	393 12 0	440 10 0	437 8 0	489 9 4	481 4 0	538 8 8
19 to 20 ,,	300 0 0	337 8 0	350 0 0	393 12 0	400 0 0	450 0 0	450 0 0	506 4 0	500 0 0	562 8 0	550 0 0	618 12 0
20 to 21 ,,	337 8 0	375 0 0	393 12 0	437 8 0	450 0 0	500 0 0	506 4 0	562 8 0	562 8 0	625 0 0	618 12 0	687 8 0
21 to 22 ,,	368 12 0	406 4 0	430 3 4	473 15 4	491 10 8	541 10 8	553 2 0	609 6 0	614 9 4	677 1 4	676 0 8	744 12 8
22 to 23 ,,	400 0 0	437 8 0	466 10 8	510 6 8	533 5 4	583 5 4	600 0 0	656 4 0	666 10 8	729 2 8	733 5 4	802 1 4
23 to 24 ,,	437 8 0	481 4 0	510 6 8	561 7 4	583 5 4	641 10 8	656 4 0	721 14 0	729 2 8	802 1 4	802 1 4	882 4 8

Pilotage Charges.

Outwards.—From within the Port of Calcutta.

1. To below Fort Gloucester - - - - 1-12
2. To below Hog River Obelisk - - - - 2-12
3. To below the Anchoring Creek - - - 3-12
4. To below Diamond Harbour telegraph station - 4-12
5. To below Rangafulla Obelisk (SE.) - - - 5-12
6. To below Mud Point telegraph station (ESE.) - 6-12
7. To below the Fairway buoy of Bedfords in that channel, or the lowermost buoy of the Auckland, if in that channel - - - - - 7-12
8. To below the apex buoy of Bedfords, or the apex buoy of the western channel, according to the channel used - 8-12
9. To below a line E. or W. of Saugor anchoring buoy, or of the H. buoy for the western channel - - 9-12
10. To below a line ENE. or WSW. of the Lower Gasper light-vessel for the eastern channel, or WSW. of the lower eastern reef head passage buoy for the south channel - - - - - - 10-12
11. To below a line ENE. of the spit buoy for the eastern channel, or WSW. of the south channel reef buoy for the south channel - - - - - 11-12
12. To below a line drawn east and west of the lower reef buoy, or the pilot station - - - full pilotage

Inwards.—To within the Port of Calcutta.

1. From below Fort Gloucester - - - - 1-12
2. From below Hog River Obelisk - - - 2-12
3. From below the Anchoring Creek - - - 3-12
4. From below Diamond Harbour telegraph station - 4-12
5. From below Rangafulla Obelisk (SE.) - - 5-12
6. From below Mud Point telegraph station (ESE.) - 6-12
7. From below the Fairway buoy of Bedfords in that channel, or the lowermost buoy of the Auckland, if in that channel - - - - - 7-12
8. From below the apex buoy of Bedfords, or the apex buoy of the western channel, according to the channel used - 8-12
9. From below a line east or west of Saugor anchoring buoy, or of the H. buoy for the western channel - - 9-12
10. From below a line ENE. or WSW. of the Lower Gasper light-vessel for the eastern channel, or WSW. of the lower eastern reef head passage buoy for the south channel - - - - - - 10-12
11. From below a line ENE. of the spit buoy for the eastern channel, or WSW. of the south channel reef buoy for the south channel - - - - - 11-12
12. From below a line drawn east and west of the lower reef buoy, or the pilot station - - - full pilotage

Remark.—Intermediate or broken pilotage is calculated by simple subtraction of the proportion leviable for the shorter distance from that chargeable for the greater.

Illustration.—What proportion of the outward pilotage should be paid for conducting a ship outwards from Fultah to Saugor Roads?

Proportion for Fultah, *below Hog River Obelisk* - - 2-12
Proportion for Saugor Roads, *below Apex Bedfords* - 8-12
Proportion payable - - 6-12

Table of Port Dues leviable in the Port of Calcutta under Act No. XXX. of 1857.

	Per ton. rs. as. p.
Sea-going vessels of 20 tons and upwards - -	0 4 0
No port dues chargeable on vessels compelled, by stress of weather, to re-enter port.	
Dhonies or country vessels employed in the coasting trade chargeable not oftener than once in 60 days - -	0 2 0
Vessels entering the port in ballast - - -	0 3 0
Tug steamers belonging to the port, once every 6 months, viz., once from January 1 to June 30, and once from July 1 to December 31, annually - - -	0 4 0

All Vessels occupying Government Moorings, fixed or swinging, shall be liable to pay for the same according to the following revised scale :—

	From Nov. 1 to May 31, per diem			From June 1 to October 31, per diem		
	rs.	a.	p.	rs.	a.	p.
Vessels up to 199 tons - -	1	8	0	3	0	0
from 200 up to 299 tons -	2	0	0	4	0	0
300 „ 399 „ -	2	8	0	5	0	0
400 „ 499 „ -	3	0	0	6	0	0
500 „ 599 „ -	3	8	0	7	0	0
600 „ 999 „ -	4	0	0	8	0	0
1,000 and up to 1,249 -	5	0	0	10	0	0
1,250 to 1,499 tons -	6	0	0	12	0	0
1,500 „ 1,749 „ -	7	0	0	14	0	0
1,750 „ 1,999 „ -	8	0	0	16	0	0
2,000 tons and upwards -	9	0	0	18	0	0
Swinging moorings - -	2	0	0	4	0	0

Table of Port Fees leviable in the Port of Calcutta under Act XXX. of 1857.

	rs.
Hauling to or from chain moorings, each operation -	16
Hauling to or from swinging moorings, each operation	10
Re-mooring - - - - -	16
Hauling in or out of dock, each operation - -	50
Use of buoy hauling in or out of dock - -	10
Removing from one part of the port to another -	25
Removing from one mooring to another, at the request of the agent or master - - - - - -	50
Hooking - - - - - -	16
Measuring - - - - - -	50

Customs Wharfage Rules and Scale of Charges.—The following new Wharfage Rules and Scale of Charges have been in operation from January 1, 1860 :—

I. Goods lying on the Wharf or in the Custom House Compound, and not under cover, to be allowed to remain four days without incurring any charge for rent, after that period single rent (at the rates enumerated in the annexed Table) to be charged for four days, and double rent for any further number of days.

II. Goods lying under cover within the Custom House to be allowed two days rent-free, two days single rent, and for any number of days in excess of that period double rent.

III. Goods landed at the Custom House and Goods remaining in the shade on the Ghaut beyond twenty-four hours shall be charged Double Wharfage, and if remaining beyond eight days Treble Wharfage.

IV. The day of landing and that of removal to be reckoned as one day; Sundays and holidays are not reckoned in the rent-free terms. When delay is caused by the inability of the Custom House Officers to examine and pass the goods after application in due course for that purpose, the days of such delay are not to reckon in any term.

Scale of Charges.

	Per month rs.	a.	p.
Beer—whole pipe, butt, or puncheon - -	0	12	0
half pipe, or hogshead - - -	0	6	0
quarter pipe - - - -	0	3	0
Large cask, containing glass or earthenware -	1	0	0
Tierce „ „ „ „ or provisions -	0	12	0
Large crate „ „ 12 „ dozen bottles -	0	6	0
Smaller crate „ 8 or 6 dozen, or more or less	0	4	0
Wine—butt or pipe - - - - -	2	0	0
half pipe or hogshead - - -	1	0	0
quarter pipe - - - -	0	8	0
chest above 12 dozen size - -	0	8	0
chest of 12 dozen size, or above 6 dozen -	0	6	0
chest of 6 dozen size, or above 3 dozen -	0	3	0
quarter chest or 3 dozen - -	0	2	0
all boxes under 3 dozen and above 1 dozen size	0	1	0
one dozen box - - - -	0	0	9
Spirits, per pipe - - - - -	2	0	0
per hogshead - - - -	1	0	0
in bottle case as 1 dozen - -	0	1	0
above 1 and under 3 dozens - -	0	1	6
3 dozens - - - -	0	2	0
above 3 and under 6 dozens - -	0	3	0
6 dozens - - - -	0	4	0
for every dozen in excess of 6 dozens -	0	0	9
British piece goods, per case above 12 dozen size	0	8	0
per case of 12 dozen size or above 6 dozens	0	6	0
per case of 6 dozen size or above 3 dozens	0	3	0
per case of 3 dozen size or less - -	0	2	0
per bale of size of twist of 400 to 500 lbs.	0	6	0
per bale of smaller size - -	0	4	0
Twist, of all sorts, per bale of 400 or 500 lbs. -	0	6	0
per bale of smaller size - -	0	4	0
Canvas, per bale - - - - -	0	3	0
Silk, per bale - - - - -	0	6	0
Silk piece goods, per case - - - -	0	6	0
Indigo, per chest - - - - -	0	6	0
Opium, per chest - - - - -	0	6	0
Cotton, hemp, jute, and safflower, per screwed bale of 300 lbs. - - - - -	0	4	0
Sugar, rice, and seeds, per 100 br. mds. - -	2	8	0
Cutch, per 100 br. mds. - - - -	2	0	0
Shell lac and lac dye, per chest - - -	0	4	0
Vermilion, per box - - - - -	0	2	0
Arsenic, per box - - - - -	0	3	0
Brass leaf, per box - - - - -	0	2	0
China paper, per case - - - -	0	2	0
China cases of nankin, cassia, camphor, silks, aniseed &c. per case - - - - - -	0	3	0
Ginger and turmeric, per 100 br. mds. - -	3	0	0
Betel-nut, per br. md. - - - -	0	0	6
Cloves, per br. md. - - - - -	0	1	0
Coffee, pepper, cardamom, cumminseed, aniseed, in bags or bls., p. br. md. - - - - - -	0	1	0
Sugar, spices, and any other similar articles, in hogsheads, per hogshead - - - - -	0	8	0
Sugar, in tierces, per tierce - - - -	0	4	0
Tea, per whole chest - - - -	0	2	0
per smaller box - - - -	0	1	0
Sugar candy, per tub - - - -	0	0	6
Paint, per keg of 56 lbs. - - - -	0	0	6
Salmon, herrings, or other fish, per keg - -	0	0	6
Turpentine, linseed, and other vegetable oils, per jar -	0	2	0
All cordage, per cwt. - - - - -	0	1	0
Rosin or Dammar, per br. md. - - - -	0	1	0
Tobacco, unmanufactured, per 1 md. bale - -	0	2	0
Gunnies, per larger bale - - - -	0	8	0
per smaller bale - - - -	0	5	0
Cow hides, per larger bale - - - -	0	12	0
per smaller bale - - - -	0	8	0
Goat skins, per bale - - - - -	0	8	0
Quicksilver, per br. md. - - - -	0	2	0
Tin plates, per box - - - - -	0	0	6
Metals, per br. md. - - - - -	0	0	6

New Wharfage Rules.—Importers and others landing goods at the Custom House are to appoint watchmen to take care of them: such watchmen are to have in their possession the badge or written authority of the persons appointing them, and which is to be produced when required by an officer of Customs.

Wharf Assistants are strictly cautioned from receiving packages containing matches, acids, crackers, gunpowder, gun-caps, saltpetre, or other inflammable articles within their sheds, and to bring to the notice of the Controller as soon as they find from their boat notes or information otherwise received that such articles are about to be landed. Any person bringing such goods into the Sheds and Godowns of the Custom House will be liable to a fine of 500 Rupees, and to make good all damages arising therefrom.

No packages are allowed to be opened on the Wharf without the Collector's orders, or if for appraisement, under direction of one of the Appraisers.

No full casks or cases of wine, beer, or any other liquor are to be passed out until the empty ones covered by the same Perwannah are removed first. This rule is applicable in cases where parties are allowed to fill up beer, spirits, tar &c., on the wharf before passing.

As the Out-Sheds are only intended for the accommodation of goods landed before the opening and after the closing of the gates, unless under special permission of the Collector, and with certain exceptions, no goods are allowed to be placed therein between the hours of 10 A. M. and 5 P. M.

The following goods only are allowed to be landed outside at all hours :—Timbers and planks of all descriptions, heavy anchors and chains, tar, rosin, pitch, and all heavy packages which require the use of the crane.

All expenses incurred for advertising and removing packages are to be paid by the owners or consignees thereof at the time of passing.

An extra Officer and a Peon to be appointed to all private bond Godowns at the expense of the bonders. The former to receive and the latter to accompany the goods passing into private bond. An officer is also appointed, at the expense of the bonders, to pass out goods from private bond on which duty has been paid.

A Peon (if one be available) will be appointed

by the Officer at the Bonded Warehouse to accompany goods into public bond, otherwise a fee of 4 annas must be paid for an extra Peon.

The rate to be charged by the extra Officer has been fixed from 10 A.M. to 1 P.M. at 1 rupee and 8 annas; and any further time beyond the above up to 5 P.M., 3 rupees. From 5 to 6 P.M. an extra charge of 12 annas will be made, and 1 rupee from 3 to 6-30 P.M., after which time Officers are not expected to work. Fee for Peons, 4 annas each per day.

A conveyance fee of 1 rupee to be paid to the extra Officer when required to attend at a Godown the distance of which from the Custom House exceeds ½ a mile.

Instances having occurred in which goods could not be received and duly secured in the Bonded Warehouse on account of passing out late from the Wharf, Assistants will not allow any goods intended for private bond to be carted after 4 P.M., and for public bond after 4-30 P.M.

No work will be allowed on Sundays and Christian holidays.

Work before and after hours, and on general holidays, will be allowed only on payment of fees, and under sanction of the Collector.

The rate for working on those holidays, and before and after hours, i.e., from 7 to 10 A.M. and from 5 P.M. to sunset, is fixed at 5 rupees for each requisition for the Assistants, and 8 annas to the Peons; if after sunset, extra fees of 5 rupees and 8 annas, respectively, will be charged.

All applications for working on holidays should be sent in to the Collector the day previous, and in time to allow the necessary arrangements to be made.

Goods lying under cover within the Custom House to be allowed four days rent-free, two days single rent, and for any number of days in excess of that period, double rent up to fourteen days (exclusive of the rent-free and single rent terms), after that to treble rent for ten days more, and quadruple rent for any period in excess of that term. These rates to be calculated by the single rates fixed in Government Order No. 2796, dated November 15, 1859, published in the *Calcutta Gazette* on January 4, 1860.

All empty Cargo Boats lying for more than twenty-four hours on the River bank within the limits of the Custom House, i.e., from Coilah Ghaut to Clive-street Ghaut, will be charged a rent of 5 rupees per day.

Country timber landed within the above limits will be charged, from the date of landing, a rent of 1 rupee per log per day.

Scale of Charges for Use of Custom-house Crane.

		Rs.	a.	p.
Cases, carriage		1	0	0
piano		0	8	0
saws		0	4	0
sundries, size not exceeding 6 dozens		0	4	0
above 6 dozens and not exceeding 12 dozs.		0	8	0
above 12 dozens		1	0	0
piece goods		0	2	0
Casks, rice bowls		0	6	0
sundries, size not exceeding 6 dozens		0	4	0
above 6 dozens and not exceeding 12 dozs.		0	8	0
above 12 dozens		1	0	0
butts, puncheons, wines or spirits		0	12	0
hogsheads		0	6	0
barrels, quarter casks		0	3	0
Bales, cow hides		0	4	0
goat skins		0	2	0
canvas		0	2	0
paper		0	2	0
piece goods		0	2	0
Crates, earthenware, china &c., large		0	3	0
small		0	2	0
Machinery, metals, and weighable articles packed or unpacked, per maund		0	1	0

N.B.—A second charge of half the above rates will be made on all packages not carted when lifted from the boat.

Trade of Calcutta.—During the present century the trade of Calcutta has experienced some very striking vicissitudes. Previously to the opening of the trade in 1814–15 cotton piece goods formed the principal article of export from India; the value of those exported from Calcutta, at an average of the five years from 1814–15 to 1818–19, being (at 2*s.* per sicca rupee) 1,260,736*l.* a-year. The extreme cheapness of labour in India, and the excellence to which the natives had long attained in several departments of the manufacture, would, it might have been supposed, have sufficed to place this important department beyond the reach of foreign competition. But the wonderful genius of our mechanics, the admirable skill of our workmen, and our immense capital, have far more than countervailed the apparently insuperable drawback of high wages, and the expense of bringing the raw material of the manufacture from America, and even India itself; and have enabled our manufacturers to bear down all opposition, and to triumph over the cheaper labour, contiguous material, and traditional art of the Hindoos. The imports of British cottons and twist into India have increased since 1814–15 with a rapidity unexampled in the annals of commerce; and the native manufacture has sustained a shock from which it is not very likely it will ever recover. The influence of these circumstances on the trade in piece goods has been very striking. During the year 1857–58 the value of those exported from Bengal was no more than 73,231*l.*, being only about $\frac{1}{18}$ of what it amounted to 36 or 37 years previously! In 1862–3 it fell, including twist and yarn, to 23,878*l.*, but rose to 119,576*l.* in 1863–4, and was 78,357*l.* in 1864–5.

The importation of bullion into Calcutta has fluctuated in an extreme degree since the opening of the trade in 1814. Bullion had from the earliest period been one of the most advantageous articles of export to the East, and it continued to be largely imported into Calcutta down to 1827–28. But from that period the imports declined, and were comparatively inconsiderable down to 1837–38; indeed, in 1831–32, and 1832–33, the exports of bullion exceeded the imports; but since 1837–38 its importation has again become greater than ever. [EAST INDIES; PRECIOUS METALS.]

It does not, however, appear to be very difficult to account for these variations. Formerly the export of bullion to India, though influenced by other causes, was mainly occasioned by the difficulty under which we were then placed of providing articles of merchandise suitable for the Indian markets sufficient to balance our imports. The astonishing increase of our exports of cotton goods and yarn to India has, however, gone far to obviate this difficulty: in truth, the fair presumption seems to be, that in future the circumstances of the case will be reversed, and that the difficulty of procuring return cargoes of produce suitable for our markets will, in ordinary years, be found to be the principal obstacle to the extension of our trade with Hindostan as well as with China. There seems to be no limit other than the necessity of furnishing equivalents in their stead, to the indefinite sale of our products in the East; and in so far, at least, as India is concerned, the facilities for furnishing such equivalents will, most likely, be gradually increased. The soil and climate of Bengal seem to be peculiarly well suited to the production of grain, sugar, indigo, opium, silk, cotton, saltpetre, jute, tea, spices, and a host of other articles; and as the inhabitants are not deficient in industry, nor in the desire to improve their condition, it would seem that there wants only a reduction of the land-tax, which is so heavy as to paralyse all their energies, to enable them to increase their articles of export to an indefinite extent, and to

render their country comparatively flourishing and prosperous.

Calcutta is the chief port for carrying on the trade of Bengal; the minor ports being Balasore, Chittagong, Cuttack, and Pooree. The subjoined figures and statements, therefore, will represent mainly the external trade of the Bengal Presidency. Of the principal articles exported from this part of India, opium goes to China chiefly; cotton to the United Kingdom, France, and China (in this article there has been of late years a largely increased export arising from the late disturbances in America); indigo to the United Kingdom, America, France, and Germany; jute to United Kingdom, Europe, and America; rice to United Kingdom, France, Mauritius, America, Arabian and Persian Gulfs; grain of other kinds principally to Mauritius; raw silk to United Kingdom and France; saltpetre to United Kingdom and America, China, and France; spices to United Kingdom, America, Mauritius, and Straits Settlements; seeds to United Kingdom and America; sugar and tea chiefly to the United Kingdom, though of the former New South Wales receives largely.

Imports.—The principal articles of import into Calcutta consist of cotton twist and yarn, and piece goods, chiefly British manufacture; wearing apparel of all kinds, books and stationery, machinery, malt liquors, metals (raw) consisting of copper, iron, tin, spelter, manufactured metals, naval and military stores, railway materials, spirits and wines, salt, woollen goods, also bullion, or treasure.

The following tables will show the state of the trade of Bengal at different periods :—

Account of the Number and Tonnage of Vessels of each Nation (including Steamers) Cleared at Ports in the Presidency of Bengal in the 2 undermentioned Years ended April 30.

Nationality of Vessels	1864		1865	
	Vessels	Tons	Vessels	Tons
British	1,224	697,538	1,532	899,318
American	78	61,486	23	19,826
Arabian	7	4,311	3	1,112
Australian	1	457	—	—
Austrian	—	—	—	—
Belgian	—	—	1	417
Burmese	—	—	—	—
Danish	11	2,671	6	3,523
Dutch	4	2,306	—	—
French	140	67,478	124	57,833
German	14	6,927	12	8,106
Italian	—	—	—	—
Norwegian	—	—	—	—
Persian	—	—	—	—
Portuguese	—	—	—	—
Prussian	1	995	3	1,570
Russian	1	443	1	796
Sardinian	—	—	—	—
Spanish	—	—	—	—
Swedish	3	1,042	3	1,840
Turkish	—	—	—	—
Total	1,482	845,702	1,708	995,511
Native craft	175	15,327	215	16,988
Total	1,657	861,029	1,923	1,010,539

An Account showing the Principal Articles Imported into Bengal.

Articles	1850-51	1853-54	1860-61	1863-64
	£	£	£	£
Apparel	195,599	172,141	199,331	204,949
Coals and coke	31,680	51,518	113,116	132,729
Books and stationery	93,831	95,593	159,431	193,729
Cotton: Twist and yarn	710,317	400	1,110,425	618,703
Cotton: Goods	2,202,916	3,406,367	3,495,948	4,191,325
Fruits and nuts	63,831	70,073	83,638	66,053
Jewellery and precious stones	85,895	86,567	107,911	119,820
Machinery	14,401	27,345	716,204	374,184
Malt liquor	48,538	77,758	115,028	218,819
Metals: manufactured	187,489	191,199	203,747	161,285
Metals: unmanufactd.	868,969	354,110	921,888	1,213,789
Salt	666,146	111,121	304,287	315,552
Silk goods	50,930	54,753	112,567	185,557
Railway materials	—	—	799,462	479,154
Wines and spirits	225,676	153,093	270,211	355,364
Woollen goods	132,480	66,173	117,478	265,723
Gross imports	6,158,813	5,673,367	12,080,634	10,243,680
Bullion or treasure	1,145,872	2,085,984	3,569,642	4,836,539
Total import trade	7,304,685	7,759,351	15,650,277	15,080,219

Account of the Value of Principal Articles Exported from the Bengal Presidency to all parts out of India.

Articles	1850-51	1853-54	1860-61	1863-64
	£	£	£	£
Cotton: Raw	251,267	169,651	76,536	3,074,403
Cotton: Goods, twist and yarn	117,214	40,592	27,462	119,578
Dyes: Indigo	1,716,174	1,701,049	1,562,679	1,993,050
Dyes: Other kinds	80,802	70,941	151,107	56,744
Grain: Rice	308,240	737,357	2,319,280	2,135,422
Grain: Other sorts	18,850	50,243	138,692	229,910
Gunnies and gunny bags	166,009	174,229	359,192	104,555
Hides and skins	308,179	375,598	510,912	727,639
Jute	196,936	214,768	469,372	1,507,037
Lac	135,784	102,349	172,564	239,620
Oils	97,250	18,036	64,297	46,405
Opium	3,155,075	3,688,903	3,575,114	5,207,236
Saltpetre	361,306	501,202	593,467	692,101
Seeds of all kinds	262,129	267,111	763,077	1,137,725
Shawls, Cashmere	17,580	22,109	39,433	70,014
Silk: Raw	605,866	605,368	961,281	948,476
Silk: Goods	332,657	311,911	101,752	80,199
Sugar and candy	1,521,303	535,678	719,936	595,178
Tea	19,821	24,515	107,038	223,464
Timber and woods	4,174	107,440	150,706	55,279
Tobacco	1,033	13,742	11,050	16,404
Gross exports	9,907,528	10,133,304	13,198,759	18,640,222
Bullion or treasure	276,329	437,913	457,747	688,544
Total export trade	10,273,857	10,571,217	13,656,509	19,328,766

Statement of the Number of Ships and their Tonnage entered and cleared into and from Bengal.

1853-54	Entered		Cleared	
	Ships	Tonnage	Ships	Tonnage
British	658	379,235	700	461,572
Foreign	322	159,220	327	149,867
Native craft	397	52,423	511	52,481
Total	1,377	580,878	1,538	663,920
1863-64				
British	1,430	809,824	1,224	697,538
Foreign	285	172,131	258	148,164
Native craft	262	20,170	175	15,327
Total	1,980	1,002,125	1,657	861,029

In 1865-66, 1,089 vessels of 801,170 tons entered the port, and 1,120 of 854,440 tons cleared out.

Remarks on Exports.—The reader will elsewhere find [CANTON; OPIUM] pretty ample information in relation to the trade in opium. It is sufficient here to state that it has rapidly grown in magnitude and importance. At an average of the years 1830-31 and 1831-32 the exports from Calcutta were 7,273 chests, worth 1,121,560*l.*; whereas during the year 1857-58 the exports had increased to 38,874 chests, worth 746,083*l.* In 1863-4 the value of the exports from Bengal was 5,207,236*l.*, and in 1864-5 4,724,300*l.* China is not the principal merely, but almost the only market for opium, so that the trade between Calcutta and her is now second only to that between Calcutta and England. It is true that large quantities of opium are shipped for Singapore and other intermediate ports, but China is its ultimate destination.

Towards the close of last century the exports of indigo from Calcutta were comparatively trifling; but about that period Europeans began to engage in the business; and the culture of the plant was, in consequence, so much extended, and the preparation of the drug so much improved, that it has been for a lengthened period an article of primary commercial importance. Of late years, however, the growth of indigo appears to have increased but slowly; the shipments in 1830-31 and 1831-32 being 2,856 tons, and those in 1857-58 only 3,071 tons. The value of the exports from Bengal in 1864-5 (1,426,883*l.*) is, however, higher than that of 1863-4. The stationary state of the trade has been ascribed partly to the influence of importations from Java, where indigo is now very extensively raised, and partly to the alleged decrease in the use of blue cloth. France is, next to England, the great market for indigo.

We had occasion to remark, in a former edition

Abstract View of the External Trade of Bengal.

Countries	Imports				Exports			
	1862–63		1863–64		1862–63		1863–64	
	Merchandise	Treasure	Merchandise	Treasure	Merchandise	Treasure	Merchandise	Treasure
	£	£	£	£	£	£	£	£
United Kingdom	4,805,474	895,398	8,802,654	457,398	4,909,715	7,151	9,430,825	13,[illegible]
Aden	192	7,399	420	2,617	7,471	..	18,017	..
Africa	..	..	26,773	..	..	..	..	..
America	84,392	1,489	64,184	..	251,967	..	763,958	..
Arabian and Persian Gulf	67,218	10,499	89,285	19,328	164,999	..	191,092	..
Austria	..	..	1,725	..	..	..	..	..
Belgium	12,927	..	..	..	17,144	..	1,892	..
Cape of Good Hope	1,215	399	8,075	240	11,688	..	70,803	[illegible]
Cape de Verde Islands	..	..	..	..	25	..	..	..
Ceylon	17,571	244	23,074	267,152	25,711	36,386	378,270	655,[illegible]
China	216,160	148,824	167,185	251,749	3,[illegible],178	260,699	4,8[illegible]	[illegible]
France	110,436	143,[illegible]	204,569	1,125,129	385,925	..	561,292	..
Germany	1,[illegible]	..	56,193	..	9,077	..	3[illegible]	..
Holland	108	..	..	..	30,542	..	..	..
Java and Sumatra	..	..	8,139	15,[illegible]	4,100	..	10,501	..
Madeira	880	..	..	..	..	..	..	..
Maldive Islands	11,535	..	19,893	..	6,055	..	27,[illegible]	..
Mauritius and Bourbon	14,908	70,731	1,007	38,415	229,110	38,260	845,158	..
Mediterranean ports	16,884	[illegible]	12,[illegible]	1,[illegible]	24,624	..	610	..
New South Wales	23,[illegible]	9[illegible],181	243,[illegible]	1,95[illegible],280	12,[illegible]	500	162,5[illegible]	..
Spain and Portugal	20,818	[illegible],[illegible]	2,[illegible]	..	..	..	..	..
Straits Settlements	155,[illegible]	70,[illegible]	561,[illegible]	619,[illegible]	754,881	74,617	1,917,[illegible]	15,[illegible]
St. Helena	..	..	..	..	1,748	..	1,[illegible]	..
Suez	42,[illegible]	478,[illegible]	93,959	97,437	89,272	500	101,[illegible]	[illegible]
Sweden	5	..	..	..	..	..	..	..
Turkey	..	..	..	..	..	..	1,[illegible]	..
West Indies	66	..	..	..	24,[illegible]	..	3[illegible]	..
Total	[illegible],[illegible]	[illegible],[illegible]	10,215,[illegible]	[illegible],[illegible]	10,135,[illegible]	437,913	18,[illegible],[illegible]	[illegible]

Account showing the Value of the Imports into and of the Exports from Bengal of Merchandise and Treasure in the following 25 Years, ended April 30.

Year	Imports			Exports		
	Merchandise	Treasure	Total	Merchandise	Treasure	Total
	£	£	£	£	£	£
1841	4,590,755	918,808	5,509,563	8,060,566	146,205	8,206,771
1842	4,262,919	989,618	5,252,548	8,066,384	159,156	8,225,540
1843	5,915,185	1,648,712	7,563,897	7,505,456	72,934	7,156,370
1844	4,474,473	1,772,376	6,246,849	9,891,111	185,794	10,076,905
1845	5,955,490	1,581,365	7,515,355	9,822,197	396,143	10,218,340
1846	5,232,617	991,006	6,223,623	9,815,676	287,079	10,102,755
1847	5,513,443	1,536,229	6,649,672	9,234,393	285,104	9,519,707
1848	4,671,362	747,225	5,418,586	7,961,857	995,071	8,956,928
1849	4,356,914	1,414,009	5,770,923	9,058,861	780,878	9,839,739
1850	5,283,170	1,211,865	6,495,035	10,148,059	354,205	10,502,264
1851	6,114,202	1,189,484	7,303,686	9,997,528	276,729	10,275,257
1852	7,087,106	2,599,471	9,686,577	10,425,071	250,588	10,674,[illegible]
1853	4,995,675	3,593,987	8,587,662	10,738,555	476,375	11,214,[illegible]
1854	5,673,366	2,086,396	7,759,762	10,135,394	437,913	10,571,217
1855	6,369,184	945,124	7,314,308	10,656,456	391,566	11,047,[illegible]
1856	7,838,696	5,479,864	13,338,560	12,656,800	112,536	12,[illegible],336
1857	7,747,912	6,425,273	14,172,185	12,914,542	529,425	13,443,967
1858	7,774,791	7,186,211	14,960,502	13,324,182	205,249	13,529,431
1859	10,596,109	5,660,321	16,196,427	14,430,046	85,892	14,[illegible],938
1860	12,947,119	7,770,179	20,717,298	12,308,490	599,289	12,[illegible],779
1861	12,080,634	3,529,645	15,610,277	13,108,759	457,747	13,656,506
1862	10,250,394	4,076,264	14,307,658	12,955,001	155,838	13,[illegible],839
1863	10,241,561	4,737,495	14,979,056	14,169,923	458,564	14,628,487
1864	10,543,683	4,536,539	15,080,219	18,080,221	688,244	19,328,765
1865	10,237,919	7,022,284	17,260,203	17,759,175	255,321	18,014,496

of this work, that of the various articles brought from India, sugar seemed to be the one in which an increase of importation would most likely take place. In 1835 the duty on East India sugar, previously comparatively high, was reduced to the amount of that on West India sugar; and that circumstance, and the continued high price of sugar in this country, gave a powerful stimulus to its culture in and exportation from India. But the great increase in the exports of sugar from 1830 down to 1840 has not been continued; and now that the sugar trade is placed on a proper footing by the abolition of the discriminating duties on foreign sugars, the importations from India will, perhaps, be but slowly increased.

In consequence of the American civil war the exports of cotton from Bengal increased enormously, the value having risen from 76,536*l.* in 1860–61 to 3,074,403*l.* in 1863–4; but it fell to 2,152,759*l.* in 1864–5, and the average export for subsequent years will probably be much less.

The exports of saltpetre from India have not, as many anticipated, been affected by the competition of nitrate of soda from South America. In 1830–31 the exports from Calcutta were 424,729 fact. maunds; whereas, in 1856–57, they amounted to 946,801 Ind. maunds. The value of the exports from Bengal, however, fell from 843,101*l.* in 1862–3 to 529,010*l.* in 1864–5.

The exports of rice from Bengal fluctuate very greatly. This is not caused so much by variation in the crops of the country as by variations in those of other countries; for, when a scarcity occurs in almost any parts of continental Asia or in any of its islands, recourse is most frequently had to Bengal to supply the deficiency, and the demands thence arising have been sometimes enormous. In 1831–32, for example, the exports of rice from Calcutta to the coast of Coromandel amounted to only 16,545 maunds, whereas in 1833–34 they amounted to 1,252,056 maunds. (Bell's *Comparative View of* 1832–33 *and* 1833–34, p. 41. The value of the exports of rice from Bengal in 1864–5 was 2,611,759*l.* It is worthy of remark that while Bengal is shipping immense supplies of rice and other grain to distant parts, a large part of her own population is frequently in a state of great want and suffering. Ireland is not therefore, the only country in which the most abject poverty and wretchedness on the part of the inhabitants are found combined with great fertility of soil and a large exportation of food.

Besides the articles of native Indian produce exported from Calcutta, she re-exports pretty considerable quantities of various articles brought from other parts. The value of the British cotton goods re-exported amounts to about 200,000*l.* a-year

They are principally bartered with the Burmese for silver. The conveyance of the latter out of the Burmese dominions is strictly prohibited; but in Burma, as in England and elsewhere, the ingenuity of the smuggler is too much for the vigilance of the Government, and the trade is carried on without much difficulty. [EAST INDIES.]

CALICO (Ger. kattun; Dutch, katoen; Dan. kattun; Swed. cattun; Fr. coton, toile de coton; Ital. tela bambagina, tela dipinta; Span. tela de algodon; Port. pano de algodao; Russ. wüboika; Pol. bawelnika; Chinese, pú). Cloth made of cotton; so called from Calicut, on the Malabar coast, whence it was first imported. In England, all white or unprinted cotton cloths are denominated calicoes; but in the United States this term is applied to those only that are printed.

Historical Notice of the Art of Calico Printing.—This art, though apparently one of the most difficult, has been practised from a very remote era. Herodotus mentions (lib. i. s. 202) that a nation on the shores of the Caspian were in the habit of painting the figures of animals on their clothes, with a colour formed from the leaves of trees bruised and soaked in water; and he adds that this colour was not effaceable, and was as durable as the clothes themselves. It is difficult to imagine that the colours could have been so permanent, had not those using them been acquainted with the use of mordants. There is, however, a passage in Pliny (*Hist. Nat.* lib. xxxv. sec. 11), which, though in some respects obscure, shows that the ancient Egyptians were fully acquainted with the principle of calico printing. 'They paint,' says he, 'the clothes, not with colours, but with drugs (sorbentibus medicamentis) that have no colour. This being done, they immerse them in a vat full of boiling dye, and leave them there for a little: when they take them out, they are painted of various colours. It is extraordinary, seeing that there is only one colour in the vat (unus in cortina color), that a variety of colours should be produced by the operation of the drugs.' Pliny further states that the colours were so adhesive they could not be washed out; and that clothes were the stronger for being dyed. A similar process is known to have been followed in India from the earliest times. The chemical and mechanical inventions of modern ages have been the cause of vast improvements in this ingenious and beautiful art; but the passage now quoted shows distinctly that we have, in this instance, been only perfecting and improving processes practised in the remotest antiquity.

Calico Printing in this Country. Duties on Calicoes.—In Great Britain the printing of cottons has formed, for a considerable period, a very important and valuable business, which may be truly said to have grown up amongst us in despite of repeated efforts for its suppression. To prevent the use of calicoes from interfering with the demand for linen and woollen stuffs, a statute was passed in 1721, imposing a penalty of 5*l.* upon the weaver, and of 20*l.* upon the seller, of a piece of calico! Fifteen years later this extraordinary statute was so far modified, that calicoes manufactured in Great Britain were allowed to be worn, 'provided the warp thereof was entirely of linen yarn.' This was the law with respect to calicoes till after the invention of Sir Richard Arkwright introduced a new era into the history of the cotton manufacture, when its impolicy became obvious to everyone. In 1774 a statute was passed, allowing printed goods, wholly made of cotton, to be used, after paying a duty of 3*d.* per yard (raised to 3½*d.* in 1806); and enacting some regulations as to the marks to be affixed to the ends of the pieces, the stripes &c.

This Act continued in force down to 1831; but, though an improvement upon the old law, it was much, and justly, complained of. Its injustice and injurious operation were very forcibly pointed out by Mr. Poulett Thomson (afterwards Lord Sydenham), in his excellent speech on taxation, on March 26, 1830. 'It is a matter of surprise to me,' said the right hon. gent., 'that this most impolitic impost should have been allowed to continue, especially when it was declared by the committee of 1818 to be "*partial and oppressive*, and that its repeal was most desirable:" who, indeed, can examine it and not feel the truth of this observation? Is it credible, that, in order to raise a nett revenue of 599,669*l.*, a gross tax should be imposed of 2,019,737*l.*? and yet this was the return, according to the paper on your table, for 1828. And these figures are still far from showing the real cost of the collection of this tax;—that must be taken upon the gross produce: and supposing the rate of the collection for the excise to be 5 per cent., which is less than it really is, you have a cost of 20 per cent. on the nett produce of this tax, for charges. In addition to this, from all the enquiry I have been able to make, the increased cost to the manufacturer is fully 5 per cent. upon the whole quantity made; so that you have thus two sums, each of 100,000*l.*, levied on the public, for the sake of exacting a duty of 600,000*l.* But the revenue is again, in this case, far from being the measure of the injury you inflict. The inequality of the tax constitutes its chief objection. The duty is levied upon the square yard, at 3½*d.* per yard. Thus, the piece of calico which sells for 6*d.*, duty paid, contributes equally with that which is worth 5*s.* a yard. You levy an onerous and oppressive tax of 100 or 150 per cent. upon the poor, who are the purchasers of inferior cottons; whilst the rich, who buy only the finest kinds, pay but 10 or 15 per cent.'

It is due to Mr. Thomson to state that, besides giving this forcible exposition of the inequality and injurious operation of the duty on printed goods, one of his first measures, on coming into office, was to propose its repeal.

In consequence, partly of the abolition of the tax, but principally, no doubt, of the extraordinary increase of the cotton manufacture, the business of calico printing has increased prodigiously since 1830. In proof of this we may mention that in 1829, about twelve months previously to the abolition of the duty, 89,862,433 yards of all descriptions of printed goods were exported to foreign parts; whereas, in 1841, there were exported, of printed cottons only, the enormous quantity of 329,240,892 yards, of the declared value of 7,772,735*l.*! Our exports of printed cottons in 1866 amounted to 897,825,547 yards, valued at 22,095,216*l.*, and in 1867 to 880,619,835 yards, valued at 19,405,384*l.* [COTTON.]

CAMBRIC or CAMBRICK (Ger. kammertuch; Dutch, kamerykadoek; Fr. cambray batiste; Ital. cambraja; Span. cambrai; Port. cambraia; Russ. kamertug). A species of very fine white linen, first made at Cambray, in French Flanders, whence it derives its appellation. It is now produced, of an equally good quality, in Great Britain.

CAMEL (Fr. chameau; Ital. and Span. camelo; Ger. kameel; Arab. djimel; Lat. camelus; Gr. Κάμηλος). This animal is indigenous to Arabia, and we only mention it in this place on account of its extreme importance in the commerce of the East.

The camel is one of the most useful of the animals over which the inhabitants of Asia and Africa have acquired dominion. These continents

are intersected by vast tracts of burning sand, the seats of desolation and drought, so as apparently to exclude the possibility of any intercourse taking place between the countries that they separate. 'But as the ocean, which appears at first view to be placed as an insuperable barrier between different regions of the earth, has been rendered, by navigation, subservient to their mutual intercourse; so by means of the camel, which the Arabians emphatically call *the ship of the desert*, the most dreary wastes are traversed, and the nations which they disjoin are enabled to trade with one another. By the wise economy of Providence, the camel seems formed on purpose to be the beast of burden in those regions where he is placed, and where his service is most wanted. In all the districts of Asia and Africa, where deserts are most frequent and extensive, the camel abounds. This is his proper station, and beyond this the sphere of his activity does not extend far. He dreads alike the excesses of heat and cold, and does not agree even with the mild climate of our temperate zone.' (Robertson's *Disquisition on Ancient India*, Note 53.)

The first trade in Indian commodities of which we have any account (Genesis xxxvii. 25) was carried on by camels; and they still continue to be the instruments employed in the conveyance of merchants and merchandise throughout Turkey, Persia, Arabia, Egypt, Barbary, and many contiguous countries. The merchants assemble in considerable numbers, forming themselves into an association or CARAVAN, for their mutual protection against the attacks of robbers, and the dangers incident to a journey through such rude and inhospitable countries. These caravans are often very large, and usually consist of more camels than men. The capacity of the camel to endure fatigue, and the small supply of provisions that he requires, are almost incredible. 'His ordinary burden,' says Volney, 'is 750 lbs.; his food, whatever is given him—straw, thistles, the stones of dates, beans, barley &c. With a pound of food a-day, and as much water, he will travel for weeks. In the journey from Cairo to Suez, which is 40 or 46 hours, they neither eat nor drink; but these long fasts, if often repeated, wear them out. Their usual rate of travelling is very slow, hardly above 2 miles an hour: it is in vain to push them; they will not quicken their pace; but, if allowed some short rest, they will travel 15 or 18 hours a-day.' (*Voyage en Syrie*, tom. ii. p. 383.)

The Arabians regard the camel as a sacred animal, the gift of Heaven, without whose aid they could neither subsist, nor trade, nor travel. Its milk is their ordinary food; they also eat its flesh, especially that of the young camel, which they reckon excellent; its hair, which is renewed every year, is partly manufactured into stuffs for their clothes and furniture, and partly sent abroad as a valuable article of merchandise; and even its fæces serve them for fuel. (See the admirable description of the camel in Buffon.)

But, however useful to the inhabitants of parched, sandy deserts, it may be worth while, perhaps, to remark that the camel is of very little service elsewhere. He cannot walk 100 yards on wet or slippery ground without stumbling. He is totally unknown in all hilly or woody countries; and, with few exceptions, may be said to be as great a stranger in the Eastern Islands, Japan, the southern parts of China, the whole country lying between China and India, and all the southern parts of the latter, including Bengal, as he is in Europe. In all those vast countries the ox is the most useful of the lower animals. It is used for draught (for which the camel is totally unfit), in the cart and plough, in the carrying of burdens, in treading corn, in the oil-press &c., and finally as food.

CAMEL'S HAIR (Ger. kameelhaar; Fr. poil de chameau, laine de chevron; Ital. pelo di camello; Span. pelo ó lana de cámello). The hair of the camel imported into this country is principally used in the manufacture of fine pencils for drawing and painting. In the East, however, it is an important article of commerce, and is extensively used in the arts. It serves for the fabrication of the tents and carpets of the Arabs, and for their wearing apparel. Cloth is also manufactured of it in Persia and other places. The most esteemed hair comes from Persia. It is divided into three qualities—black, red, and grey. The black is the dearest, and the grey is only worth half the red. Considerable quantities of camel's hair are exported from Smyrna, Constantinople, and Alexandria. It is used in the manufacture of hats, particularly by the French. (Rees's *Cyclopædia*, art. 'Camelus.') In 1866 there were imported into the United Kingdom 336,392 lbs. of camel's hair, valued at 10,500*l*.

CAMLET or CAMBLET (Ger. and Dutch, kamelot; Fr. camelot; Ital. ciambellotto; Span. camelote; Russ. kamlot). A plain stuff, manufactured on a loom, with 2 treadles, as linens are. There are camlets of various colours and sorts; some wholly of goats' hair; others, in which the warp is of hair, and the woof half hair and half silk; others, again, in which both the warp and the woof are of wool; and, lastly, some, of which the warp is of wool and the woof of thread: some are striped, some watered, and some figured.

CAMOMILE or CHAMOMILE (Fr. camomille; Ital. camomilla; Span. manzanilla; Lat. chamomilla). A well-known plant (the *Anthemis nobilis* of Linnæus) whose flowers are used for medicinal purposes. Both varieties, single and double, but especially the former, are bitter and very aromatic. (*British Pharmacopœia* of the Medical Council.) Most of what is brought to the London market is grown about Mitcham, in Surrey. The imports, however, are not inconsiderable, having amounted in 1852 to 82,262 lbs.; the exports, during the same year, were only 1,000 lbs. A duty of 1*d*. per lb. formerly laid on this article was repealed in 1845.

CAMPHOR or CAMPHIRE (Ger. kampfer; Dutch, kamfer; Fr. camphre; Ital. canfora; Span. alcanfor; Russ. kamfora; Lat. camphora; Arab. and Pers. kāfoor; Malay, kaafur). There are two descriptions of this valuable article, which must not be confounded.

1. *Camphor of Commerce*, or that met with in Europe, is obtained by boiling the timber of a species of laurel (*Laurus Camphora*), a tree found in the forests of Fokien, in China, near the city of Chinchew, very commonly in Formosa, and in certain localities in Japan. Most of the camphor imported into Europe comes from China; but a small quantity, considered of superior quality, comes from Japan by way of Batavia. The exports from Canton may be estimated at about 3,000 piculs, or 400,000 lbs.; and if to this we add the exports from Batavia of Japan camphor, amounting to about 500 piculs, the total annual exports will be about 466,000 lbs. It is brought to this country in chests, drums, and casks; and is in small, granular, friable masses, of a dirty white or greyish colour, very much resembling half-refined sugar. When pure, the camphor of commerce has a strong, peculiar, fragrant, penetrating odour, and a bitter, pungent, aromatic taste. It is in reality a concrete essential oil. Camphor, when refined, is in thin hollow cakes of a beautiful virgin white-

ness, and, if exposed to the air, totally evaporates. Great care is therefore requisite in packing camphor, to prevent serious loss. The imports and exports of camphor, in 1866, were respectively 7,466 cwt. and 9,356 do.

2. *Camphor Malay*, commonly called, to distinguish it from the last, camphor of Barus, from the port of Sumatra, where it is mostly shipped. It is a product of the *Dryobalanops Camphora*, a forest tree, confined to Sumatra, Borneo, and the Malay peninsula. It is found in concrete masses in the fissures of the wood: there are, however, but very few trees that afford it; and those that do, only in small quantities.

The younger trees seldom possess this concretion, and only a few of the old ones. It is found only after diligent search, for hundreds of trees may be examined before any camphor is discovered. Should any be found, the tree is cut down, sawn into logs, and the substance extracted by instruments. The wood of the tree is fragrant, and being therefore less liable to the attacks of insects is much esteemed for carpentry.

This species of camphor is less biting and pungent than that yielded by the laurel, and is in high repute among the Chinese, by whom it is almost wholly consumed. There is an immense disparity in the prices of the two species in China; the finest Chinese camphor being sometimes quoted at 30 dollars per picul, while the Malay camphor is quoted at 30 dollars per catty, making the price of the latter 100 times greater than that of the former!

The virtues of this kind of camphor have been over estimated. Specimens brought to Europe possess indeed the qualities of ordinary camphor, but in an inferior degree. The Chinese call it *ping pien*, *lung-nau*, and *po-lo-hiang*. They use it in medicine, employing the common camphor for fire-works.

Camphor is exceedingly apt to taint other goods, if stowed with them.

Malay camphor is wholly unknown in Europe as an article of trade.

CAMPHOR OIL (Malay, *Minyak*). A fragrant essential oil, obtained in large quantities by heating the wood of the *Dryobalanops Camphora*. It is nearly as cheap as spirits of turpentine, but is not held in any esteem by the Chinese. It might, perhaps, be profitably imported into England as a substitute for spirits of turpentine in the arts, and for medicinal purposes. We may add that the timber of the *Dryobalanops Camphora* is not inferior to any produced in the countries where it grows, for the purposes of house and ship building. (*Private information*; and Crawfurd's *Indian Archipelago*, vol. i. p. 516.)

CAMWOOD. A red dyewood, first brought to Europe from Africa by the Portuguese. It is principally obtained from the vicinity of Sierra Leone, where it is called *kambi*; whence its name of cam or kam wood has obviously been derived. The colouring matter which it affords differs but little from that of ordinary Nicaragua wood, either in quality or quantity; and it may be employed with similar mordants. (Bancroft *On Colours*; Dampier, vol. ii. part ii. p. 58.) The imports of this valuable article amounted, in 1866, to 397 tons, while the exports amounted to only 33 tons. The use of the article is declining.

CANAL, CANALS. A canal is an artificial channel, filled with water kept at the desired level by means of locks or sluices, forming a communication between two or more places.

1. *Historical Sketch of Canals. Ancient Canals.*—The comparative cheapness and facility with which goods may be conveyed by sea or by means of navigable rivers seem to have suggested, at a very early period, the formation of canals. The best authenticated accounts of ancient Egypt represent that country as intersected by canals conveying the waters of the Nile to the more distant parts of the country, partly for the purpose of irrigation and partly for that of internal navigation. The efforts made by the old Egyptian monarchs, and by the Ptolemies, to construct a canal between the Red Sea and the Nile, are well known, and evince the high sense which they entertained of the importance of this species of communication. (Ameilhon, *Commerce des Egyptiens*, p. 76.)

Greece was too small a territory, too much intersected by arms of the sea, and subdivided into too many independent states, to afford much scope for inland navigation. Attempts were, however, made to cut a canal across the Isthmus of Corinth; but they did not succeed.

The Romans did not distinguish themselves in canal navigation. Their aqueducts, the stupendous ruins of which attest the wealth and power of their founders, were intended to furnish supplies of water to some adjoining city, and not for the conveyance of vessels or produce.

2. *Chinese Canals.*—In China, canals, partly for irrigation and partly for navigation, have existed from a very early period. The most celebrated amongst them is the Imperial or Grand Canal, commencing at Hang-tchou, near the mouth of the Tching-tang-chiang river, in about lat. 30° 22′ N., long. 119° 45′ E.; it then stretches north, and crossing the great rivers Yang-tse-Kiang and Hoang-ho, terminates at Lin-ting, on the Eu-ho river, in about lat. 37° N., long. 116° E. The direct distance between the extreme limits of the canal is about 512 miles, but, including its bends, it is above 650 miles in length; and as the Eu-ho, which is a navigable river, unites with the Pei-ho, also navigable, an internal water-communication is thus established between Hang-tchou and Pekin across 10° of lat. But apart from its magnitude and utility, the Grand Canal does not rank high as a work of art. A vast amount of labour has, however, been expended upon it; for though it mostly passes through a flat country, and winds about to preserve its level, its bed is in parts cut down to a great depth, while in other parts it is carried over extensive hollows, and even lakes and morasses, on vast mounds of earth and stone. The sluices, which preserve its waters at the necessary level, are all of very simple construction, being merely intended to elevate or depress the height of the water by a few inches; as, excepting these, there is not a single lock or interruption to the navigation throughout the whole length of the canal. It is seldom more than 5 or 6 feet in depth, and in dry seasons is sometimes considerably less. The vessels by which it is navigated are sometimes rowed, and sometimes dragged by men, so that the navigation is for the most part slow. The canal is frequently faced with stone. The construction of this great work is usually ascribed to the Tartars, but the Chinese allege that it was merely repaired and renovated by the latter, and that it had been completed in the remotest period of their history. (Barrow's *China*, p. 335 &c.; La Lande, *Canaux de Navigation*, p. 529 &c.)

3. *Italian Canals.*—The Italians were the first people in modern Europe that attempted to plan and execute canals. They were principally, however, undertaken for the purpose of irrigation; and the works of this sort executed in the Milanese and other parts of Lombardy, in the eleventh, twelfth, and thirteenth centuries, are still regarded as models, and excite the warm admiration of

every one capable of appreciating them. In 1271 the Navilio Grande, or canal leading from Milan to Abbiate Grasso and the Tesino, was rendered navigable. (Young's *Travels in France &c.* vol. ii. p. 170.)

4. *Dutch Canals.*—No country in Europe contains, in proportion to its size, so many navigable canals as the kingdom of the Netherlands, and particularly the province of Holland. The construction of these canals commenced as early as the twelfth century, when, owing to its central and convenient situation, Flanders began to be the entrepôt of the commerce between the north and south of Europe. Their number has since been astonishingly increased. 'Holland,' says Mr. Phillips, in his *History of Inland Navigation*, 'is intersected with innumerable canals. They may be compared in number and size to our public roads and highways; and as the latter with us are continually full of coaches, chaises, waggons, carts, and horsemen going from and to the different cities, towns, and villages; so, on the former, the Hollanders in their boats and pleasure barges, their treckschuyts, and vessels of burden, are continually journeying and conveying commodities for consumption or exportation from the interior of the country to the great cities and rivers. An inhabitant of Rotterdam may, by means of these canals, breakfast at Delft or the Hague, dine at Leyden, and sup at Amsterdam, or return home again before night. By them, also, a most prodigious inland trade is carried on between Holland and every part of France, Flanders, and Germany. When the canals are frozen over, they travel on them with skates, and perform long journeys in a very short time; while heavy burdens are conveyed in carts and sledges, which are then as much used on the canals as on our streets.

'The yearly profits produced by these canals are almost beyond belief; but it is certain, and has been proved, that they amount to more than 250,000*l.* for about 400 miles of inland navigation, which is 625*l.* per mile, the square surface of which mile does not exceed two acres of ground; a profit so amazing, that it is no wonder other nations should imitate what has been found so advantageous.

'The canals of Holland are generally 60 feet wide and 6 deep, and are carefully kept clean; the mud, as manure, is very profitable. The canals are generally levels; of course, locks are not wanted. From Rotterdam to Delft, the Hague, and Leyden, the canal is quite level, but is sometimes affected by strong winds. For the most part the canals are elevated above the fields or the country, to enable them to carry off the water which in winter inundates the land. To drain the water from Delftland, a province not more than 60 miles long, they employ 200 windmills in spring-time to raise it into the canals. All the canals of Holland are bordered with dams or banks of immense thickness, and on these depends the security of the country from inundation; of course it is of great moment to keep them in the best repair; to effect which there is a kind of militia, and every village has a magazine of proper stores and men, whose business it is to convey stones and rubbish in carts to any damaged place. When a certain bell rings, or the waters are at a fixed height, every man repairs to his post. To every house or family there is assigned a certain part of the bank, in the repair of which they are to assist. When a breach is apprehended, they cover the banks all over with cloth and stones.

5. *Canal from Amsterdam to Nieudiep, near the Helder.*—The object of this canal, which is the greatest work of its kind in Holland, and probably in the world, is to afford a safe and easy passage for large vessels from Amsterdam to the German Ocean. This city has 40 feet of water in the road in front of its port, but the pampus or bar at the junction of the Y with the Zuyder Zee, 7 miles below, has only a depth of 10 feet; and hence all ships of any considerable burden entering or leaving the port must unload and load part of their cargoes without the bar. As the Zuyder Zee is everywhere full of shallows, all ordinary means of improving the access to Amsterdam were necessarily ineffectual; and the resolution was, therefore, at length adopted, of cutting a canal from the city to the Helder, the most northern point of the province of Holland. The distance between these extreme points is 41 English miles, but the length of the canal is about 50½. The breadth at the surface of the water is 124½ English feet (120 Rhinland feet); the breadth at bottom 36; the depth 20 feet 9 inches. Like the Dutch canals generally, its level is that of the highest tides, and it receives its supply of water from the sea. The only locks it requires are, of course, two tide-locks at the extremities; but there are, besides, two sluices, with floodgates in the intermediate space. It is crossed by about 18 drawbridges. The locks and sluices are double, i.e. there are two in the breadth of the canal; and their construction and workmanship are said to be excellent. They are built of brick, for economy; but bands of limestone are interposed at intervals, and these project about an inch beyond the brick, to protect it from abrasion by the sides of vessels. There is a broad towing-path on each side, and the canal is wide enough to admit of two frigates passing. (For the expense of towing, see AMSTERDAM.)

The line which the canal follows may be easily traced on a map of Holland. From the Y at Amsterdam it proceeds north to Purmerend; thence west to Alkmaar Lake; again north by Alkmaar to a point within 2 miles of the coast, near Petten; whence it runs nearly parallel to the coast till it joins the sea a little to the east of the Helder, at the fine harbour of Nieudiep, formed within the last 50 years. At the latter place there is a powerful steam-engine for supplying the canal with water during neap-tides, and other purposes. The time spent in towing vessels from Nieudiep to Amsterdam is 18 hours. The Helder is the only spot on the shores of Holland that has deep water; and it owes this advantage to its being opposite to the Texel, which, by contracting the communication between the German Ocean and the Zuyder Zee to a breadth of about a mile, produces a current which scours and deepens the channel. Immediately opposite the Helder there are 100 feet water at high tides, and at the shallowest part of the bar to the westward there are 27 feet. In the same way, the artificial mound which runs into the Y opposite Amsterdam, by contracting the water-way to about 1,000 feet, keeps a depth of 40 feet in the port (at high water), while above and below there is only 10 or 12.

The canal was begun in 1819, and finished in 1825. The cost was estimated at 10,000,000 or 12,000,000 florins, or about 1,000,000*l.* sterling. If we compute the magnitude of this canal by the cubic contents of its bed, it is the greatest, we believe, in the world, unless some of the Chinese canals be exceptions. The volume of water which it contains, or the *prisme de remplissage*, is twice as great as that of the New York Canal, or the Canal of Languedoc, and two and a half times as great as that of the artificial part of the Caledonian Canal. In consequence, however, of the facility with which the Dutch canal was dug, and of the evenness of the ground through which it passes,

the difficulties with which the engineer had to contend in making it were trifling compared to those which had to be overcome in constructing the canals now mentioned. We have not learned what returns this canal yields; most probably it is not, at least in a direct point of view, a profitable concern. Even in Holland, notwithstanding the lowness of interest, it would require tolls to the amount of 40,000*l.* a-year to cover interest and expenses; and so large a sum can hardly, we should think, be raised by the very moderate tolls laid on the ships passing through it. [AMSTERDAM.] This, however, is not the only consideration to be attended to in estimating the value of a work of this sort. Its influence in promoting the trade of Amsterdam, and, indeed, of Holland, may far more than compensate for its cost. It is evident, too, that the imposition of oppressive tolls would have effectually counteracted this advantage; that is, they would have defeated the very object for which the canal was constructed. (We have derived these details, partly from an able article in the *Scotsman*, and partly from *private information.*)

At the present time (1867) a new canal is in course of formation in Holland from the Zuyder Zee at Vuurtoren to Amsterdam, through the Het-ij, Wij-Ker-meer to the North Sea near Breesaap. The estimated cost of the work is 18,000,000 florins, and it is computed that it will be completed by 1870. The entrance into the North Sea will be by two jetties, that on the north 2,000 mètres in length, that on the south 1,500. The canal is designed to drain 6,000 hectares (15,000 acres) of land, and will shorten the journey from Amsterdam to the sea by 56 kilomètres.

It is almost unnecessary to say that railways have superseded the use of canals for passenger traffic, and that the service of the latter is confined almost entirely to the carriage of goods.

6. *Danish Canals.*—The Holstein Canal, formerly belonging to Denmark, is of very considerable importance. It joins the river Eyder with Kiel Bay on the north-east coast of Holstein, forming a navigable communication between the North Sea, a little to the north of Heligoland, and the Baltic; enabling vessels to pass from the one to the other by a short cut of about 100 miles, instead of the lengthened and difficult voyage round Jutland, and through the Cattegat and the Sound. The Eyder is navigable for vessels not drawing more than 9 feet water from Tonningen, near its mouth, to Rendsburg, where it is joined by the canal, which communicates with the Baltic at Holtenau, about 3 miles north of Kiel. The canal is about 26 English miles in length, including about 6 miles of what is principally river navigation. The excavated portion is 95 feet wide at top, 51 feet 6 inches at bottom, and 9 feet 6 inches deep (Eng. measure). Its highest elevation above the level of the sea is 24 feet 4 inches; to which height vessels are raised and let down by 6 locks or sluices. It is navigable by vessels of 120 tons burden, or more, provided they are constructed in that view. The total cost of the canal was about 500,000*l.* It was opened in 1785, and has so far realised the views of its projectors as to enable coasting vessels from the Danish islands in the Baltic and the east coast of Holstein, Jutland &c. to proceed to Hamburg, Holland, England &c. in less time, and with much less risk, than, in the ordinary course of navigation, they could have cleared the point of the Skaw; and conversely with ships from the west. The smaller class of foreign vessels, particularly those under the Dutch and Hanseatic flags, navigating the Baltic and North Seas, have largely availed themselves of the facilities afforded by this canal. About 3,000 vessels pass annually through the canal. This is a sufficient evidence of its utility. It would, however, be much more frequented, were it not for the difficult navigation of the Eyder from the sea to Rendsburg. The dues are moderate. (Coxe's *Travels in the North of Europe*, 5th ed. vol. v. p. 239, where there is a plan of the canal; Catteau, *Tableau des Etats Danois*, tom. ii. pp. 300—304; and *private information.*)

7. *Swedish Canals.*—The formation of an internal navigation connecting the Cattegat and the Baltic has long engaged the attention, and occupied the efforts, of the people and Government of Sweden. Various motives conspired to make them embark in this arduous undertaking. The Sound and other channels to the Baltic were commanded by the Danes, who were able, when at war with the Swedes, greatly to annoy the latter by cutting off all communication by sea between the eastern and western provinces of the kingdom. Hence, in the view, partly of obviating this annoyance and partly of facilitating the conveyance of iron, timber, and other bulky products from the interior to the coast, it was determined to attempt forming an internal navigation, by means of the river Gotha, and the lakes Wener, Wetter &c., from Gottenburg to Soderkœping on the Baltic. The first and most difficult part of this enterprise was the perfecting of the communication from Gottenburg to the lake Wener. The Gotha, which flows from the latter to the former, is navigable, through by far the greater part of its course, for vessels of considerable burden; but, besides others less difficult to overcome, the navigation at the point called Tröllhætta is interrupted by a series of cataracts about 112 feet in height. Owing to the rapidity of the river, and the stubborn red granite rocks over which it flows, and by perpendicular banks of which it is bounded, the attempt to cut a lateral canal, and still more to render it directly navigable, presented the most formidable obstacles. But, undismayed by these impediments, on which it is, indeed, most probable he had not sufficiently reflected, Polhem, a native engineer, undertook, about the middle of last century, the Herculean task of constructing locks in the channel of the river, and rendering it navigable! Whether, however, it were owing to the all but insuperable obstacles opposed to such a plan, to the defective execution, or deficient strength of the works, they were wholly swept away, after being considerably advanced, and after vast sums had been expended upon them. From this period down to 1793 the undertaking was abandoned; but in that year the plan was proposed, which should have been adopted at first, of cutting a lateral canal through the solid rock, about 1½ mile from the river. This new enterprise was begun under the auspices of a company incorporated for the purpose in 1794, and was successfully completed in 1800. The canal is about 3 miles in length, and has about 6½ feet water. This is the statement of Catteau, *Tableau de la Mer Baltique*, tome ii. p. 77; Oddy, in his *European Commerce*, p. 306, and Balbi, *Abrégé de la Géographie*, p. 385, say that the depth of water is 10 feet. It has 8 sluices, and admits vessels of above 100 tons. In one part it is cut through the solid rock to the depth of 72 feet. The expense was a good deal less than might have been expected, being only about 80,000*l.* The Lake Wener, the navigation of which was thus opened with Gottenburg, is very large, deep, and encircled by some of the richest of the Swedish provinces, which now possess the inestimable advantage of a convenient and ready outlet for their products.

As soon as the Trollhætta canal had been completed, there could be no room for doubt as to the practicability of extending the navigation to Soderkœping. In furtherance of this object, the lake Wener was joined to the lake Wetter by the Gotha canal, which admits vessels of the same size as that of Trollhætta; and the prolongation of the navigation to the Baltic from the Wetter, partly by two canals of equal magnitude with the above, and partly by lakes, has since been completed. The entire undertaking is called the Gotha Navigation, and deservedly ranks among the very first of the kind in Europe.

Besides the above, the canal of Arboga unites the lake Hielmar to the lake Maelar; and since 1819 a canal has been constructed from the latter to the Baltic at Södertelje. The canal of Strömsholm, so called from its passing near the castle of that name, has effected a navigable communication between the province of Dalecarlia and the lake Maelar &c. The total revenue of the 6 Swedish canals in 1864 was 36,436*l.* (*Report* of Mr. Hamilton, Secretary of Legation, of February 9, 1867; Coxe's *Travels in the North of Europe*, 5th ed. vol. iv. pp. 253–266, and vol. v. pp. 58–66; Thomson's *Travels in Sweden*, p. 35; &c.)

8. *French Canals.*—The first canal executed in France was that of Briare, 34½ English miles in length, intended to form a communication between the Seine and Loire. It was commenced in 1605, in the reign of Henry IV., and was completed in 1642, under his successor, Louis XIII. The canal of Orleans, which joins the above, was commenced in 1675. But the most stupendous undertaking of this sort that has been executed in France, or indeed on the Continent, is the canal of Languedoc. It was projected under Francis I., but was begun and completed in the reign of Louis XIV. It reaches from Narbonne to Toulouse, and was intended to form a safe and speedy means of communication between the Atlantic Ocean and the Mediterranean. It is 64 French leagues in length, and 6 feet deep; and has, in all, 114 locks and sluices. In its highest part it is 600 feet above the level of the sea. In some places it is conveyed, by bridges of great length and strength, over large rivers. It cost upwards of 1,300,000*l.*; and reflects infinite credit on the engineer, Riquet, by whom it was planned and executed.

Besides this great work, France possesses several magnificent canals, such as that of The Centre, connecting the Loire with the Saône; of St. Quentin, joining the Scheldt and the Somme; of Besançon, joining the Saône, and consequently the Rhone, to the Rhine; of Burgundy, joining the Rhone to the Seine &c. Some of these are of very considerable magnitude. The canal of the Centre is about 72 English miles in length. It was completed in 1791, at an expense of about 11,000,000 francs. Its summit level is about 240 feet above the level of the Loire at Digoin; the breadth at the water's edge is about 48 feet, and at bottom 30 feet; depth of water 5½ feet; number of locks 81. The canal of St. Quentin, 28 English miles in length, was completed in 1810. The canal joining the Rhone to the Rhine is the most extensive of any. It stretches from the Saône, a little above St. Jean de Losne, by Dol, Besançon, and Mulhouse, to Strasburg, where it joins the Rhine—a distance of about 200 English miles. From Dol to Vogeaucourt, near Montbéliard, the canal is principally excavated in the bed of the Doubs. It is not quite finished. The canal of Burgundy will, when completed, be about 242 kilom. or 150 English miles in length; but at present it is only navigable to the distance of about 95 kilom. In addition to these, a great many other canals have been finished, while several are in progress, and others projected. There is an excellent account of the French canals in the *Histoire de la Navigation Intérieure de la France*, by M. Dutens, in 2 vols. 4to., and to it we beg to refer the reader for further details. He will find at the end of the second volume a very beautiful map of the rivers and canals of France.

The railroads now constructed in France have, however, checked the progress of canals. [Bordeaux.] We may observe, too, that the state of the law in France is very unfavourable to the undertaking and success of all great public works; and we are inclined to attribute the comparative fewness of canals in France, and the recent period at which most of them have been constructed, to its influence. In that country, canals, docks, and such like works, are mostly carried on at the expense and for behoof of Government, under the control of its agents. No scope has been given to the enterprise of individuals or associations. Before either a road or a canal can be constructed, plans and estimates must be made out and laid before the Minister of the Interior, by whom they are referred to the prefect of the department, and then to the *Bureau des Ponts et des Chaussées*; and supposing the project to be approved by these, and the other functionaries consulted with respect to it, the work must after all be carried on under the superintendence of some public officer. In consequence of this preposterous system, very few works of this description have been undertaken as private speculations; and while not a few of those begun by Government remain unfinished and comparatively useless, those that are completed have, as was to be expected, rarely proved profitable. There are some good remarks on this subject in the useful work of M. Dupin on the *Forces Commerciales* of Great Britain.

9. *Prussian Canals.*—The Prussian states are traversed by the great navigable rivers the Elbe, the Oder, and the Vistula; the first having its embouchure in the North Sea, and the others in the Baltic. The formation of an internal navigation to join these great *water-ways* excited the attention of Government at a distant period; and this object has been successfully accomplished partly by the aid of the secondary rivers falling into the above, and partly by canals. In 1662 the canal of Muhlrose was undertaken, uniting the Oder and the Spree; the latter being a navigable river falling into the Havel, also a navigable river joining the Elbe near Havelburg. But the navigation from the Oder to the Elbe by this channel was difficult and liable to frequent interruption; and to obviate these defects, Frederick the Great constructed, towards the middle of last century, the Finnow canal, stretching from the Oder at Oderburg to the Havel near Liebenwalde; the communication is thence continued by the latter and a chain of lakes to Plauen, from which point a canal has been opened joining the Elbe near Magdeburg.

The Elbe being in this way connected with the Oder by a comparatively easy navigation, the latter has been united to the Vistula, partly by the river Netze, and partly by a canal joining that river to the Brahe, which falls into the Vistula near Bromberg. A vast inland navigation has thus been completed, barks passing freely through the whole extent of country from Hamburg to Dantzic; affording the means of shipping the products of the interior, and of importing those of foreign countries, either by the North Sea or the Baltic, as may be found most advantageous. (Catteau, *Tableau de la Mer Baltique*, tome ii. pp. 11—18.)

10. *Russian Canals.*—The inland navigation of Russia is of vast extent, and very considerable importance. The reader will find some details with respect to it under the art. PETERSBURG.

11. *Bavarian Canals.*—A grand canal which was for a lengthened period in progress in Bavaria was completed in 1846, and promises to become of great public utility. It extends from Dietfurth on the Altmühl, a navigable affluent of the Danube, to Bamberg on the Mayn, a distance of 23½ German, or about 112 English miles. It is on a large scale, and has cost above 1,000,000*l.* This magnificent undertaking, which carries an inland navigation through the centre of Europe, and realises the project of Charlemagne for uniting the Black Sea with the German Ocean, is conducted by a joint-stock company, with the assistance of the Bavarian Government. But the navigation of the Mayn and the Danube must be considerably improved before this grand channel of communication can acquire all the importance which, most probably, it is destined to obtain.

12. *Austrian Canals.*—The Austrian empire is traversed in its whole extent by the Danube; but the advantages that might result to the foreign trade of the empire from so great a command of river navigation have been materially abridged by the jealousy of the Turks, who command the embouchure of the river, and by the difficulties in some places incident to its navigation. Two pretty extensive canals have been constructed in Hungary. That called the Bega Canal is 73 English miles in length: it stretches from Fascet through the Bannat by Temeswar to Becskerek, whence vessels pass by the Bega into the Theiss a little above its junction with the Danube. The other Hungarian canal is called after the Emperor Francis. It stretches from the Danube by Zambor to the Theiss, which it joins near Foldvar, being 62 English miles in length; its elevation where highest does not exceed 27 feet. Besides the above, the canal of Vienna establishes a communication between that city and Neustadt. It is said to be the intention to continue this canal to Trieste; but however desirable, we doubt much whether this be practicable. A railroad has been made from Munchausen on the Danube to Budweiss on the Moldau, a navigable river that falls into the Elbe, which promises to be a highly useful communication. (Bright's *Travels in Hungary*, p. 246; Balbi, *Abrégé de la Géographie*, p. 216.)

13. *Spanish Canals.*—Nowhere are canals more necessary, both for the purposes of navigation and irrigation, than in Spain; but the nature of the soil, and the poverty and ignorance of the Government as well as of the people, oppose formidable obstacles to their construction. During the reign of Charles II. a company of Dutch contractors offered to render the Mançanares navigable from Madrid to where it falls into the Tagus, and the latter from that point to Lisbon, provided they were allowed to levy a duty for a certain number of years on the goods conveyed by this channel. The Council of Castile took this proposal into their serious consideration, and after maturely weighing it pronounced the singular decision—'That if it had pleased God that these two rivers should have been navigable, He would not have wanted human assistance to have made them such; but that, as He has not done it, it is plain He did not think it proper that it should be done. To attempt it, therefore, would be to violate the decrees of His providence, and to mend the imperfections which He designedly left in His works'! (Clarke's *Letters on the Spanish Nation*, p. 284.) But such undertakings are no longer looked upon as sinful; and many have been projected since the accession of the Bourbon dynasty, though few have been perfected. The canal of the Ebro, begun under the Emperor Charles V., is the most important of the Spanish canals; but it is only partially completed, and during dry seasons it suffers from want of water. It runs parallel to the right bank of the Ebro, from Tudela in Navarre to below Saragossa; the intention being to carry it to Sastago, where it is to unite with the Ebro. The canal of Castile is intended to lay open the country between the Douro and Reynosa, and to facilitate the conveyance of grain from the interior to Santander and Bilbao. It passes by Valladolid, Palencia, and Aguilar del Campos; a small part has been executed, and is now in operation. A company has also undertaken, what the Dutch contractors formerly offered—to render the Tagus navigable from Aranjuez to Lisbon; the free navigation of the river having been stipulated at the Congress of Vienna. A project for deepening the Guadalquivir, and some others, are also on foot. (*Geographical Dictionary*, ii. 710.) It would appear from Mr. Sackville West's Report to the Foreign Office, of January 1, 1867, that on December 31, 1865, the total amount of canal shares and subventions was 211,040,251 reals vellon, or 2,110,402*l.*, and that the sum estimated as necessary for their completion was 11,816,190 reals vellon, or 118,561*l.* (*Reports of Secretaries of Legation*, No. 5 of 1867.)

14. *British Canals.*—Owing partly to the late rise of extensive manufactures and commerce in Great Britain, but more, perhaps, to the insular situation of the country, no part of which is very distant from the sea or from a navigable river, no attempt was made, in England, to construct canals till a comparatively recent period. The efforts of those who first began to improve the means of internal navigation were limited to attempts to deepen the beds of rivers, and to render them better fitted for the conveyance of vessels. So early as 1635, Mr. Sandys, of Flatbury, Worcestershire, formed a project for rendering the Avon navigable from the Severn, near Tewkesbury, through the counties of Warwick, Worcester, and Gloucester, 'that the towns and country might be better supplied with wood, iron, pit-coal, and other commodities.' This scheme was approved by the principal nobility and landowners in the adjoining counties; but the civil war having broken out soon after, the project was abandoned, and does not seem to have been revived. After the Restoration and during the earlier part of last century various Acts were at different times obtained for cheapening and improving river navigation. For the most part, however, these attempts were not very successful. The current of the rivers gradually changed the form of their channels; the dykes and other artificial constructions were apt to be destroyed by inundations; alluvial sand-banks were formed below the weirs; in summer the channels were frequently too dry to admit of being navigated, while at other periods the current was so strong as to render it quite impossible to ascend the river, which at all times, indeed, was a laborious and expensive undertaking. These difficulties in the way of river navigation seem to have suggested the expediency of abandoning the channels of most rivers, and of digging parallel to them artificial channels, in which the water might be kept at the proper level by means of locks. The Act passed by the Legislature in 1755 for improving the navigation of Sankey Brook on the Mersey gave rise to a lateral canal of this description, about 11¼ miles in length,

which deserves to be mentioned as the earliest effort of the sort in England.

But before this canal had been completed, the celebrated Duke of Bridgewater, and his equally celebrated engineer, the self-instructed James Brindley, had conceived a plan of inland navigation independent altogether of natural channels, and intended to afford the greatest facilities to commerce, by carrying canals across rivers and through mountains, wherever it was practicable to construct them.

The Duke was proprietor of a large estate at Worsley, 7 miles from Manchester, in which were some very rich coal-mines, which had hitherto been in great measure useless, owing to the cost of carrying coal to market. Being desirous of turning his mines to some account, it occurred to him that his purpose would be best accomplished by cutting a canal from Worsley to Manchester. Mr. Brindley, having been consulted, declared that the scheme was practicable; and an Act having been obtained, the work was immediately commenced. 'The principle,' says Mr. Phillips, 'laid down at the commencement of this business reflects as much honour on the noble undertaker as it does upon his engineer. It was resolved that the canal should be perfect in its kind; and that, in order to preserve the level of the water, it should be free from the usual obstruction of locks. But in accomplishing this end many difficulties were deemed insurmountable. It was necessary that the canal should be carried over rivers, and many large and deep valleys, where it was evident that such stupendous mounds of earth must be raised as would scarcely, it was thought by numbers, be completed by the labour of ages; and, above all, it was not known from what source so large a supply of water could be drawn, even on this improved plan, as would supply the navigation. But Mr. Brindley, with a strength of mind peculiar to himself, and being possessed of the confidence of his great patron, contrived such admirable machines, and took such methods to facilitate the progress of the work, that the world soon began to wonder how it could be thought so difficult.

'When the canal was completed as far as Barton, where the Irwell is navigable for large vessels, Mr. Brindley proposed to carry it over that river by an aqueduct 39 feet above the surface of the water in the river. This, however, being considered as a wild and extravagant project, he desired, in order to justify his conduct towards his noble employer, that the opinion of another engineer might be taken, believing that he could easily convince an intelligent person of the practicability of the design. A gentleman of eminence was accordingly called, who, being conducted to the place where it was intended that the aqueduct should be made, ridiculed the attempt; and, when the height and dimensions were communicated to him, he exclaimed, "I have often heard of castles in the air, but never was shown before where any of them were to be erected." This unfavourable verdict did not deter the Duke from following the opinion of his own engineer. The aqueduct was immediately begun; and it was carried on with such rapidity and success as astonished those who, but a little before, thought it impossible.'

Before the canal from Worsley to Manchester had been completed, it occurred to the Duke and his engineer that it might be practicable to extend it by a branch, which, running through Chester parallel to the river Mersey, should at length terminate in that river below the limits of its artificial navigation, and thus afford a new, safer, and cheaper means of communication between Manchester and its vicinity and Liverpool. The execution of this plan was authorised by an Act passed in 1761. This canal, which is above 29 miles in length, was finished in about 5 years. It was constructed in the best manner, and has proved equally advantageous to its noble proprietor and the public.

'When the Duke of Bridgewater,' says Dr. Aikin, 'undertook this great design, the price of carriage on the river navigation was 12*s.* the ton from Manchester to Liverpool, while that of land carriage was 40*s.* the ton. The Duke's charge on his canal was limited by statute to 6*s.*; and together with this vast superiority in cheapness, it had all the speed and regularity of land carriage. The articles conveyed by it were, likewise, much more numerous than those by the river navigation; besides manufactured goods and their raw materials, coals from the Duke's own pits were deposited in yards at various parts of the canal, for the supply of Cheshire; lime, manure, and building materials were carried from place to place; and the markets of Manchester obtained a supply of provisions from districts too remote for the ordinary land conveyances. A branch of useful and profitable carriage, hitherto scarcely known in England, was also undertaken, which was that of passengers. Boats, on the model of the Dutch treckschuyts, but more agreeable and capacious, were set up, which, at very reasonable rates and with great convenience, carried numbers of persons daily to and from Manchester along the line of the canal.' (Aikin's *Description of the Country round Manchester*, p. 116.)

The success attending the Duke of Bridgewater's canals stimulated public-spirited individuals in other districts to undertake similar works. Mr. Brindley had early formed the magnificent scheme of joining the great ports of London, Liverpool, Bristol, and Hull by a system of internal navigation; and though he died in 1772, at the early age of 56, he had the satisfaction to see his grand project in a fair way of being realised. The Trent and Mersey, or as it has been more commonly termed, the Grand Trunk Canal, 96 miles in length, was begun in 1766 and completed in 1777. It stretches from near Runcorn on the Mersey, where it communicates with the Duke of Bridgewater's Canal, to Newcastle-under-Line; thence southwards to near Titchfield; and then north-westerly, till it joins the Trent at Wilden Ferry, at the north-western extremity of Leicestershire. A water communication between Hull and Liverpool was thus completed; and by means of the Staffordshire and Worcestershire Canal, which joins the Grand Trunk near Haywood in the former, and the Severn near Stourport in the latter, the same means of communication was extended to Bristol. During the time that the Grand Trunk Canal was being made, a canal was undertaken from Liverpool to Leeds, 130 miles in length; another from Birmingham to the Staffordshire and Worcestershire Canal, joining it near Wolverhampton; and one from Birmingham to Fazeley and thence to Coventry. By canals subsequently undertaken, a communication was formed between the Grand Trunk Canal and Oxford, and consequently with London, completing Brindley's magnificent scheme. In 1792 the Grand Junction Canal was begun, which runs in a pretty straight line from Brentford, on the Thames, a little above the metropolis, to Braunston, in Northamptonshire, where it unites with the Oxford and other central canals. It is about 90 miles in length. There is also a direct water communication, by means of the river Lea navigation, the Cambridge Junction Canal &c. between London and the Wash. In addition to

these, an immense number of other canals, some of them of great magnitude and importance, have been constructed in different parts of the country; so that a command of internal navigation has been obtained, unparalleled in any European country, with the exception of Holland.

In Scotland, the great canal to join the Forth and Clyde was begun in 1768, but it was suspended in 1777, and was not resumed till after the close of the American war. It was finally completed in 1790. Its total length, including the collateral cuts to Glasgow and the Monkland Canal, is 38¾ miles. Where highest it is 150 feet above the level of the sea. It is on a larger scale than any of the English canals. Its medium width at the surface is 56, and at the bottom 27 feet. Originally it was about 8 feet 6 inches deep; but its banks have been raised, so that the depth of water is now about 10 feet. It has, in all, 39 locks. In completing this canal many serious difficulties had to be encountered. These, however, were all successfully overcome; and though unprofitable for a while, it has for many years past yielded a better return to its proprietors. Swift boats on the plan of those subsequently described were established on this canal in 1832. (Cleland's *Statistics of Glasgow*, p. 170 &c.)

The Union Canal joins the Forth and Clyde Canal near Falkirk, and stretches thence to Edinburgh, being 31½ miles in length. It is 40 feet wide at the top, 20 at bottom, and 5 deep. It was completed in 1822. But it appears to have been an extremely ill-advised undertaking; so much so that its proprietors have sold it at a heavy loss to the Edinburgh and Glasgow Railway Company, who employ it in the conveyance of coal and other heavy goods.

A canal intended to form a communication between Glasgow, Paisley, and Ardrossan was commenced in 1807; but only that portion connecting Glasgow with Paisley and the village of Johnstoun has hitherto been finished. This part is about 12 miles long; the canal being 30 feet broad at top, 18 at bottom, and 4½ deep. It was here that the experiments were originally made on quick travelling by canals, which are said to have demonstrated that it was practicable to impel a properly constructed boat, carrying passengers and goods, along a canal at the rate of 9 or 10 miles an hour, without injury to the banks! (See post.)

The Crinan Canal across the peninsula of Kintyre, admitting vessels of 160 tons burden, is 9 miles in length, and 12 feet in depth.

The Caledonian Canal is the greatest undertaking of the sort attempted in the empire. It stretches S.W. and N.E. across the island from a point near Inverness to another near Fort William. It is chiefly formed by Loch Ness, Loch Oich, and Loch Lochy. The total length of the canal, including the lakes, is 60½ miles; but the excavated part is only about 23 miles. At the summit it is 96½ feet above the level of the Western Ocean. It is mostly constructed upon a very grand scale, being intended to be 20 feet deep, 50 feet wide at bottom, and 122 at top; the locks are 20 feet deep, 172 long, and 40 broad; and had it been wholly executed as was originally intended, frigates of 32 guns and merchant ships of 1,000 tons burden might have passed through it. It was opened in 1822, being executed entirely at the expense of Government, from the designs and under the superintendence of Thomas Telford, Esq. The entire cost amounted, exclusive of interest, on the 1st of May, 1853, to 1,347,780*l.* It would appear, however, to have been projected without due consideration, and has been a most unprofitable speculation. The revenue of the canal amounted in 1852–53 to only 5,889*l.*, whereas the expenditure during the same year, exc. any allowance for wear and tear, and inc. only 900*l.* for repairs, amounted to 7,429*l.*! But this is not all. Owing to a wish to lessen the expense and to hasten the opening of the canal, parts of it were not excavated to their proper depth, while others were executed in a hurried and insufficient manner. Hence the canal does not really admit vessels of above 250 or 300 tons burden, and previously to steam tugs being provided on the lakes, they were frequently delayed in making their passage across for a lengthened period. During 1837 and 1838 the works sustained considerable damage; and the reader needs not be surprised to hear that it was gravely debated whether it would not be better entirely to break up and abandon the canal!

There was naturally, however, an extreme disinclination to destroy a work which, how inexpedient soever originally, has been executed at an enormous expense; and various schemes have been suggested for relieving the public from the expense of keeping it up without involving its destruction. Among others it has been proposed to assign it to a joint-stock company, on their agreeing to complete the works and keep them in repair; and an Act authorising such transfer was passed in 1840. But hitherto it has not been found possible to dispose of the canal in this way, and Parliament has since voted large sums for the partial repair of the works, which, though a good deal improved, will every now and then require fresh outlays.

Some other canals have been projected and completed in different parts of Scotland. Of these the Monkland Canal, for the supply of Glasgow with coal, has been the most successful.

15. *Irish Canals.*—Various canals have been undertaken in Ireland, of which the Grand Canal and the Royal Canal are the principal. The Grand Canal was begun in 1765, by a body of subscribers; but they could not have completed the work without very large advances from Government. The canal commences at Dublin, and stretches in a westerly direction, inclining a little to the south, to the Shannon, with which it unites near Banagher, a distance of 85 statute miles, and thence on the west side of the river to Ballinasloe, 14 miles. But exclusive of the main trunk, there is a branch to Athy, where it joins the Barrow, a distance of about 27 miles; and there are branches to Portarlington, Mount Mellick, and some other places. The total length of the canal, with its various branches, is about 164 Eng. miles. Its summit elevation is 200 feet above the level of the sea at Dublin. It is 40 feet wide at the surface, from 24 to 20 feet at bottom, has 6 feet water, and cost, in all, above 2,000,000*l.*

Two capital errors seem to have been committed in the formation of this canal—it was framed on too large a scale, and was carried too far north. Had it been 4 or 4½ instead of 6 feet deep, its utility would have been but little impaired, while its expense would have been very materially diminished. But the great error was in its direction. Instead of joining the Shannon about 15 miles above Lough Derg, it should have joined it below Limerick. By this means barges and other vessels passing from Dublin to Limerick, and conversely, would have avoided the difficult and dangerous navigation of the Upper Shannon; and the canal would have passed through a comparatively fertile country; and it would not have been necessary to carry it across the bog of Allen, in which, says Mr. Wakefield, 'the company have buried more money than would have cut a spacious

canal from Dublin to Limerick.' (*Account of Ireland*, vol. i. p. 642.)

The Royal Canal was undertaken in 1789. It stretches westward from Dublin to the Shannon, which it joins near Tormanbury. Its entire length is about 92 miles, exclusive of a branch of 5 miles from Kilashee to Longford: its highest elevation is 322 feet above the level of the sea. At bottom it is 24 feet wide, having 6 feet depth of water. It had cost, exclusive of interest on stock, loans &c. advanced by Government, in February 1823, 1,421,954*l.*

This canal seems to have been planned in the most injudicious manner. It has the same defect as the Grand Canal, of being extravagantly large; and throughout its whole course it is nearly parallel to, and not very distant from, the latter. There are consequently two immense canals where there ought, perhaps, to be none. At all events, it is abundantly certain that one canal of comparatively moderate dimensions would have been quite enough for all the business of the district, even if it were much greater than it is at this moment, or than it is ever likely to become.

It appears from *Thom's Almanac* for 1868, that in 1866 the gross revenue of the Royal Canal was 10,504*l.*, while the net revenue of the Grand Canal for the first half of 1866 was 7,535*l.*; and deducting from these sums the expense attending the working of the canals, and allowing for their ordinary wear and tear, it is extremely doubtful whether these great public works, which have cost between 5,000,000*l.* and 6,000,000*l.*, produce a sixpence of clear revenue.

Besides the above, there are some other canals, as well as various river excavations, in Ireland, the chief of which is the Ulster, 48 miles long; but hardly one of them yields a reasonable return for the capital expended upon it. They have almost all been liberally assisted by grants of public money; and their history, and that of the two great canals now adverted to, strikingly corroborates the caustic remark of Arthur Young, that '*a history of public works in Ireland would be a history of jobs.*' (*Tour in Ireland*, part ii. p. 66, 4to. ed.) Those who wish to make themselves fully acquainted with the history and state of the canals of Ireland may consult the Report by Messrs. Henry Mullins and M'Mahon, in the Appendix to the *Report of the Select Committee of* 1830 *on the State of Ireland*, and the valuable *Report on Railways*.

16. *American Canals.*—The United States are pre-eminently distinguished by the spirit with which they have undertaken, and the perseverance they have displayed in executing, the most magnificent plans for improving and extending internal navigation. Besides many others of great, though inferior, magnitude, a canal has been formed connecting the Hudson with Lake Erie. This immense work is 363 miles in length, the rise and fall along the entire line being 692 feet. It was originally 40 feet wide at the surface, 28 feet at bottom, and 4 feet deep. But these dimensions being found, from the rapidly increasing traffic and importance of the canal, to be far too limited, an Act was passed in 1835, providing for its enlargement. Under this Act the canal has been increased, so as to be 70 feet wide on the surface, 42 feet at the bottom, and 7 feet in depth, the locks being of corresponding dimensions. The original cost of the canal was 9,027,456 dols.; and the cost of the enlargement has been about 25,000,000 dols., or nearly three times its first cost. The Erie Canal is the property of the state of New York, and is one of the greatest and most important works of its kind in the world. Notwithstanding the contracted scale on which it was originally constructed, it has completely verified the predictions of its projector, De Witt Clinton, having been at once extremely profitable as a mercantile speculation, and of singular advantage in a public point of view to the State of New York and the Union generally.

The *Chesapeake and Ohio* Canal would, had it been completed, have been a great and useful work. It begins at the tide water of the Potomac River above Georgetown in the district of Columbia, and is intended to terminate at Pittsburg, in Pennsylvania, a distance of 341½ miles. Its dimensions are nearly identical with those of the new Erie Canal; its breadth at the surface being from 60 to 80 feet, ditto at bottom 50 feet, with a depth of water varying from 6 to 7 feet. Several tunnels occur in the line which crosses the Alleghany ridge. The cost of this work was estimated at 22,275,000 dols., which were to be subscribed partly by individuals, and partly by the United States and the States of Maryland and Pennsylvania. Owing, however, to the inability, or rather disinclination, of the two last-mentioned states to make good their engagements, the works on the canal have been suspended, after about 10 millions of dollars have been expended upon them. But the probability is that they will be resumed and completed at some future period; their completion being the only means by which the capital already expended upon them can be made to yield any thing.

A great many other canals have been completed and are in progress in different parts of the Union. Of the former, the Ohio Canal, uniting the Ohio with Lake Erie, is by far the most important, and is, if at all, only less advantageous than the Erie Canal. Cleveland, where the canal unites with Lake Erie, has become one of the greatest emporiums on the Lakes.

17. *Canadian Canals.*—The British Government has expended a very large sum upon the Rideau River and Canal, stretching from Kingston, on Lake Ontario, to Bytown, on the Ottawa, or Grand River, an affluent of the St. Lawrence. But this work was undertaken as much in the view of improving the military defences of Canada as of protecting its commerce, though in the latter respect it has been of considerable utility. The British Government has also constructed the Welland Canal, uniting Lakes Erie and Ontario, the navigation between which by the river is interrupted by the Falls of Niagara. This canal has become a well-frequented commercial channel, and is every day rising in importance.

18. *Utility of Canals.*—The utility of canals, when judiciously contrived, and opening an easy communication between places capable of maintaining an extensive intercourse with each other, has never been better set forth than in a work published in 1765, entitled 'A View of the Advantages of Inland Navigation,' &c. But the following extract from Macpherson's *Annals of Commerce* (anno 1760) contains a brief, and at the same time eloquent, summary of the principal advantages resulting from their construction:—'They give fresh life to established manufactures, and they encourage the establishment of new ones by the ease of transporting the materials of manufacture and provisions; and thence we see new villages start up upon the borders of canals in places formerly condemned to sterility and solitude. They invigorate, and in many places create, internal trade, which, for its extent and value, is an object of still more importance than foreign commerce, and is exempted from the many hardships and dangers of a maritime life and changes of climate. And

they greatly promote foreign trade, and consequently enrich the merchants of the ports where they, or the navigable rivers they are connected with, terminate, by facilitating the exportation of produce from, and the introduction of foreign merchandise into, the interior parts of the country, which are thus placed nearly on a level with the maritime parts; or, in other words, the interior parts become coasts, and enjoy the accommodations of shipping. The price of provisions is nearly equalised through the whole country; the blessings of Providence are more uniformly distributed; and the monopolist is disappointed in his schemes of iniquity and oppression by the ease wherewith provisions are transported from a considerable distance. The advantages to agriculture, which provides a great part of the materials, and almost the whole of the subsistence, required in carrying on manufactures and commerce, are pre-eminently great. Manure, marl, lime, and all other bulky articles, which could not possibly bear the great expense of cartage, and also corn and other produce, can be carried at a very light expense on canals; whereby poor lands are enriched, and barren lands are brought into cultivation, to the great emolument of the farmer and landholder, and the general advantage of the community, in an augmented supply of the necessaries of life and materials of manufactures; coals (the importance of which to a manufacturing country few people not actually concerned in manufactures are capable of duly appreciating), stone, lime, iron ore, and minerals in general, as well as many other articles of great bulk in proportion to their value, which had hitherto lain useless to their proprietors by reason of the expense, and, in many cases, impossibility, of carriage, are called into life, and rendered a fund of wealth, by the vicinity of a canal; which thus gives birth to a trade, whereby, in return, it is maintained.'

19. *Increased Speed of Travelling by Canals.*—Great as have been the advantages derived from the formation of canals, their progress has been to a considerable degree checked by the formation of Railroads. We believe, however, that canals will always be preferred for the conveyance of coal and other bulky and heavy products; and even passengers could be conveyed along them with a rapidity that would previously have been supposed impossible. This new system was introduced on the Paisley and Glasgow Canal, by Mr. Houston, in June 1831. The results are described in the following statements, to which it is unnecessary to call the reader's attention:—

Mr. Thomas Grahame, civil engineer, in his *Letter to Canal Proprietors and Traders*, says, 'The experiments of great velocity have been tried and proved *on the narrowest, shallowest, and most curved canal in Scotland*, viz. the Ardrossan or Paisley Canal, connecting the city of Glasgow with the town of Paisley and village of Johnstoun—a distance of 12 miles.' The result has disproved every previous theory as to difficulty and expense of attaining great velocity on canals, and as to the danger or damage to their banks by great velocity in moving vessels along them.

'The *ordinary speed* for the conveyance of passengers on the Ardrossan Canal has, for nearly 2 years, been *from nine to ten miles an hour*; and, *although there are fourteen journeys along the canal per day, at this rapid speed, its banks have sustained no injury.* The boats are 70 feet in length, about 5 feet 6 inches broad, and, but for the extreme narrowness of the canal, might be made broader. They carry easily from 70 to 80 passengers; and, when required, can and have carried upwards of 110 passengers. The entire cost of a boat and fittings up is about 125*l.* The hulls are formed of light iron plates and ribs, and the covering is of wood and light oiled cloth. They are more airy, light, and comfortable than any coach. They permit the passengers to move about from the outer to the inner cabin, and the fares per mile are *one penny* in the *first*, and *three farthings* in the *second cabin.* The passengers are all carried under cover; having the privilege also of an uncovered space. These boats are drawn by 2 horses (the prices of which may be from 50*l.* to 60*l.* per pair), in stages of 4 miles in length, which are done in from 22 to 25 minutes, including stoppages to let out and take in passengers, each set of horses doing 3 or 4 stages alternately each day. In fact, the boats are drawn through this narrow and shallow canal at a velocity which many celebrated engineers *had demonstrated, and which the public believed, to be impossible.*

'The entire amount of the whole expenses of attendants and horses, and of running one of these boats 4 trips of 12 miles each (the length of the canal) or 48 miles daily, including interest on the capital, and 20 per cent. laid aside annually for replacement of the boats, or loss on the capital therein vested, and a considerable sum laid aside for accidents and replacement of the horses, is 700*l.* some odd shillings; or, taking the number of working days to be 312 annually, something under 2*l.* 2*s.* 4*d.* per day, or about 11*d.* per mile. The actual cost of carrying from 80 to 100 persons a distance of 30 miles (the length of the Liverpool Railway), at a velocity of nearly 10 miles an hour, on the Paisley Canal, one of the most curved, narrow, and shallow in Britain, is therefore just 1*l.* 7*s.* 6*d.* sterling. Such are the facts, and, incredible as they may appear, they are facts which no one who enquires can possibly doubt.'

Boats on this principle were for a time established on a great many British canals, and on the Grand and Royal Canals in Ireland.

20. *Profits of Canals.*—It is a well-known fact, that canals, at an average, and allowing for the length of time that must elapse from the first outlay of capital before they yield any return, are not very productive. When, indeed, they connect places that have an extensive intercourse, and when no very extraordinary difficulties have to be surmounted in their construction, they most commonly yield very large profits; but, generally speaking, this does not appear to be the case; and, on the whole, they seem to have been more beneficial to the public than to their projectors.

It is customary to insert clauses in the Acts authorising canals to be cut, limiting the charge which the proprietors shall be entitled to impose upon the goods conveyed by them. But we think that the dividend ought also to be limited; and that it should be stipulated that whatever a moderate toll yielded over and above defraying this dividend, and providing for the repair of the canal, should be accumulated as a fund in order to buy up the stock of the canal, so that the toll may ultimately be reduced to such a sum as may suffice merely to meet the necessary repairs. We are not aware that any good objection could be made to a plan of this sort; and had it been adopted in this country, there are several instances in which it would have been very advantageous for the public. When the canal of Languedoc was completed, the most likely method, it was found, of keeping it in constant repair was to make a present of the tolls to Riquet the engineer. 'These tolls constitute,' says Dr. Smith, 'a very large estate to the different branches of the family of that gentleman, who have, therefore, a great interest to keep the work in constant repair. But

had these tolls been put under the management of commissioners, who had no such interest, they might, perhaps, have been dissipated in ornamental and unnecessary expenses, while the most essential parts of the work were allowed to go to ruin.' Dr. Smith ought, however, to have mentioned that Riquet advanced *a fourth* part of the entire sum laid out upon the canal (Dutens, *Navigation Intérieure de la France*, tom. i. p. 119 &c.); and that officers were appointed by the Crown to see that the tolls were not rendered oppressive, and the canal kept in good order. At the Revolution most part of the property of the canal was confiscated; but at the restoration of the Bourbons in 1814 such parts of the confiscated property as had not been sold were restored to the successors of M. Riquet, who have at this moment the principal management of the canal.

CANARY SEED. [SEED.]

CANDLE (Ger. lichter, kerzen; Dutch, kaarzen; Fr. chandelle; Ital. candelle; Span. and Port. velas; Russ. swjetschi; Lat. candela). A taper of tallow, wax, or spermaceti, the wick of which is commonly of several threads of cotton spun and twisted together.

Dr. Ure gives the following table, as containing the result of certain experiments he had made in order to determine the relative intensity of the light, and the duration of different sorts of tallow candles:—

Number in a Pound	Duration of a Candle	Weight in Grains	Consumption per Hour, in Grains	Proportion of Light	Economy of Light	Candles equal one Argand
10 mould	5h. 9m.	682	132	12½	68	5·7
10 dipped	4 56	672	150	15	65½	5·25
8 mould	6 51	856	132	10½	59½	6·6
6 „	7 24	1,160	165	14½	66	5·0
4 „	9 36	1,787	186	20½	80	3·5
Argand oil flame	—	—	512	69·4	100	—

'A Scotch mutchkin,' says Dr. Ure, 'or ⅛ of a gallon of good seal oil, weighs 6,010 gr., or 13$\frac{1}{10}$ oz. avoirdupois, and lasts in a bright Argand lamp 11 hours 44 minutes. The weight of oil it consumes per hour is equal to 4 times the weight of tallow in candles 8 to the pound, and 3¼ times the weight of tallow in candles 6 to the pound. But its light being equal to that of 5 of the latter candles, it appears from the above table that 2 lbs. weight of oil, value 9*d.* in an Argand, are equivalent in illuminating power to 3 lbs. of tallow candles, which cost about 2*s.* The larger the flame in the above candles, the greater the economy of light.'

See, for ample information on the kinds and manufacture of candles, Hunt's *Ure's Dictionary*.

Until 1831, when it was repealed, candles were, for a lengthened period, subject to an excise duty; and their consumption was, in consequence, pretty exactly ascertained.

Year	Tallow	Rate of Duty per lb.	Wax	Rate of Duty per lb.	Spermaceti	Rate of Duty per lb.	Nett Revenue
	lbs.	*d.*	lbs.	*d.*	lbs.	*d.*	£ *s.* *d.*
1820	88,352,461	1	692,705	3½	195,463	3½	373,455 14 5
1821	93,816,346	—	697,196	—	165,647	—	395,911 8 7
1822	98,311,801	—	682,241	—	179,208	—	415,609 15 3
1823	102,161,879	—	694,194	—	180,401	—	433,557 15 8
1824	109,810,900	—	759,751	—	179,154	—	466,042 16 1
1825	114,187,550	—	851,370	—	208,377	—	485,014 8 9
1826	110,102,615	—	705,615	—	201,790	—	467,069 12 1
1827	114,939,578	—	713,655	—	226,277	—	487,318 3 4
1828	117,342,157	—	748,293	—	270,263	—	497,770 2 9
1829	115,156,808	—	716,052	—	303,683	—	489,059 1 9

In 1866 our export of British stearine candles amounted to 6,145,136 lbs. valued at 222,467*l.*, and in 1867 to 4,831,427 lbs. valued at 182,792*l.*; and of foreign candles, in 1866, 4,446,624 lbs. valued at 136,145*l.* More than half of these exports was consigned to Australia, and nearly the whole of the remainder to other British colonies.

CANDLE, SALE OR AUCTION BY INCH OF, is where bystanders are allowed to bid for merchandise while a small piece of candle is burning, and the commodity is adjudged to the last bidder whenever the candle is burnt out.

CANELLA ALBA (Fr. canelle blanche; Ger. weisser Zimmet; Ital. canella bianca; Span. canella blanca; Lat. canella alba). The inner bark of the *Canella alba*, a tree growing in the West Indies. It is brought to this country packed in casks and cases, in long pieces, some rolled in quills and others flat; the quilled sort is considerably thicker than cinnamon, and the flat nearly ¼ inch in thickness. The quilled pieces are yellow on both sides; the flat pieces are yellow on the outside and pale brown within. They have an aromatic, clove-like odour, and an acrid, peppery taste. The virtues of canella reside in a volatile oil which may be extracted by distillation. (*British Pharmacopœia.*)

CANES. [BAMBOO; RATTANS.]

CANNA STARCH. A kind of starch, known by the French under the name of *tous les mois*, is found in commerce. It is uncertain from which species of Canna (Nat. Order *Marantaceæ*) it is derived, but it is known that 3 tubers of the *Canna Achiras* are used as food in Peru and Chile, and that similar economical uses belong to the tubers of the *Canna edulis* of the West Indies, in which islands it is regularly cultivated. Canna starch is said to be superior to even the best arrow-root. The granules are whiter than those of ordinary feculæ, are said to be larger, and to present a different appearance under the microscope.

CANNON, CANNONS (Dutch, kanonen; Fr. canons; Ger. kanonen; Ital. cannoni; Pol. dziala; Port. canhoes; Russ. puschki; Span. canones; Swed. kanon). A kind of long hollow engines for throwing iron, lead, or stone balls by the force of gunpowder. They are commonly made of iron, but frequently also of a mixture of copper, tin, and brass. They are either cast hollow, or solid and then bored; those made in the latter way being very superior. Brass cannons, or cannons made of mixed metal, are said not to be so well calculated for hard service, or quick and continued firing, as those made of iron. The proportions of the ingredients used in making the former do not differ materially in different countries, though they rarely coincide. To 240 lbs. of metal fit for casting, we commonly put 68 lbs. of copper, 52 lbs. of brass, and 12 lbs. of tin. To 4,200 lbs. of metal fit for casting, the Germans put 3,687$\frac{3}{41}$ lbs. of copper, 204$\frac{11}{41}$ lbs. of brass, and 307$\frac{29}{41}$ lbs. of tin. Others,

again, use 100 lbs. of copper, 6 lbs. of brass, and 9 lbs. of tin; and others, 100 lbs. of copper, 10 lbs. of brass, and 15 lbs. of tin.

It seems to be the general opinion that cannon were first made use of in 1336 or 1338; but Don Antonio de Capmany has produced some statements which render it almost certain that some sort of artillery was used by the Moors in Spain so early as 1312. (*Questiones Criticas*, p. 181 &c.) Cannons were certainly used by the English in 1347 at the siege of Calais, and by the Venetians at Chioggia in 1366, and in their wars with the Genoese in 1379 and 1380. The Turks employed them at the sieges of Constantinople, in 1394 and 1453. When first introduced, they were for the most part very heavy and unwieldy, and threw balls of an enormous size: they were, however, owing to their frequently bursting, about as dangerous to those using them as to their opponents. There is a valuable article on the construction and history of cannons in Rees's *Cyclopædia*; but it was published before the appearance of Capmany's work. In 1866 we exported 17,166 cwt. of cannon and mortars of British manufacture, valued at 97,394*l.* (Brande and Cox, *Dictionary of Science*, s. v. 'Guns;' 'Rifled Cannons.')

CANTHARIDES or SPANISH FLY (Fr. cantharides, mouches d'Espagne; Ger. spanische fliegen; Ital. cantarelle; Lat. cantharis; Russ. hischpanskie muchi; Span. cantaridas). Many coleopterous insects possess peculiar medicinal properties, and owe them to a peculiar principle called *cantharidin* by chemists, and which is said to reside in certain parts only of the insect's body.

The *Cantharis vesicatoria*, which supplies the greater part of that found in commerce, is an insect from eight to ten lines in length, by two or three in breadth. It is of a bright and shining metallic green colour. When alive, this animal has a fetid odour. They are found feeding on the leaves of the white poplar, ash, privet, elder, and lilac. They are abundant in Hungary, Spain, Italy, and Southern France, and also in Western Asia. They are usually collected in May and June, at sunrise, when they are torpid. Persons having their faces protected by masks, and their hands by gloves, beat or shake the trees, and catch the insects in linen cloths spread underneath. They are then plunged into diluted vinegar, or exposed to the vapour of vinegar, and subsequently dried and packed in casks, carefully protected from the atmosphere. The best cantharides come from the southern provinces of Russia, and are of a more coppery colour than those of the Mediterranean countries. In 1866 we imported 21,361 lbs. of cantharides, valued at 2,465*l.*

If Spanish flies are exposed to damp, they putrefy, and lose their powers. They are also attacked by mites. Powdered flies are occasionally mixed with euphorbium.

The *Cantharis vittata*, *Mylabris cichorii*, and several kinds of *Melæ* possess the active principle in as large or larger quantity than the common fly. The physicians of the United States have discovered that several indigenous insects possess the same medical properties with the Spanish fly. (*British Pharmacopœia*; Wood and Bache's *United States Dispensatory.*)

CANTON. Once the chief commercial mart of China, is the capital of Kwang-tung, one of the 18 provinces of China Proper, in Lat. 23° 7′ 10″ N., Long. 113° 14′ 30″ E., on a broad and navigable tidal stream, the Chu-Kiang, or Pearl River, forming one of the channels by which the united waters of two great interior streams, the North and West Rivers, reach the sea. Canton is situated in the most southerly of the provinces on the sea-bord of China. This province is traversed from west to east, from north to south, and from east to west, by three magnificent streams, of which the two latter are navigable by heavily-laden boats for distances of from 200 to 300 miles, whilst the former is derived from the remotest interior, being accessible for fully 700 miles along its own channel, and navigable also by large steamers for nearly 300 miles from the sea. The North and West Rivers join about 30 miles to the westward and northward of Canton, whence, in a noble channel of more than a mile broad, known as the Lower West River, or the Broadway, they pursue a direct southerly course to the sea. A portion of the united West and North Rivers is, however, diverted at the junction through a narrow channel in an easterly direction, and, after passing the important trading and manufacturing town of Fat-shan (Fu-shan), expands at Canton into the broad tidal river, branching into two channels (eventually subdivided into an intricate network around numberless flat, alluvial islands), which has the name of Chu-Kiang. 12 miles farther down the river is the safe and commodious anchorage of Whampoa, and 10 miles lower the East River joins, discharging itself by several mouths channelled through an alluvial plain. The bold shore a few miles lower down, and some rocky islets, compress the stream into a considerably narrower channel, called by the Chinese Hu Mun, or Tiger's Mouth, and by the Portuguese Boca Tigris, and hence 'The Bogue.' This was a fortified position from a very early period; but after having been thrice taken and dismantled at different times within the last thirty years by British squadrons, the once famous batteries of the Bogue are now (1868) only masses of battered masonry. On leaving the Bogue the river expands to a breadth of several miles, joining by numerous tortuous channels the waters of the Lower West River, until it is finally lost in the sea about 80 miles from Canton. The breadth of the estuary is fully 70 geographical miles. At the extreme eastern limit lies the island forming the British colony of Hong Kong, 40 miles to the westward of which, and close to the Broadway Channel, is the Portuguese settlement of Macao.

The facilities offered to commerce by so extensive a river-system and its accessibility from the sea made Canton at a very early date the principal seaport of the empire. This distinction it retained despite the drawback it suffers by its distance from the rich producing districts of Central China. The Northern harbours having silted up as early as the fifteenth and sixteenth centuries, the export and import trade centred at Canton, and as early as the eighth century trade with the ports of the Red Sea and the Indian Ocean was carried on here by Arabian vessels. Of European nations, the Portuguese were the first to reach China. In 1517 Fernao Peres de Andrade visited Canton, and Spanish, Dutch, and English adventurers soon followed. In 1637 the first British vessels reached this port after an encounter with the Bogue forts. Subsequently the prospect of a lucrative trade in silks, drugs, and tea led the East India Company to strive persistently to establish themselves here independently of the Portuguese, who again sought, at their settlement of Macao, to monopolize all communication with China. By the end of the reign of Charles II. the Company had planted several agencies at different ports along the coast, and about 1685 its factory was established at Canton. The first duty upon tea imported into England (5*s.* per lb.) was imposed about 1689. For exactly a century and a half, down to 1834, the trade between the United Kingdom and China

was monopolised by the East India Company; but in that year this monopoly was happily abolished, and the trade with China thrown open to all classes under the conditions specified in the Act 3 & 4 Wm. IV. c. 93.

The only real difficulty in trading with China originated in the despotism, pride, and jealousy of the Government, and in the general corruption of its officers. The former affected to treat all foreigners with contempt, and exposed them to frequent insult; while the latter endeavoured to multiply and enforce vexatious regulations and demands, that they might profit by the douceurs given for their evasion. We submitted, with exemplary forbearance, for a lengthened period, to every petty indignity the Chinese Government chose to inflict; but the proceedings connected with the seizure and destruction, in 1839, of the opium belonging to British subjects—[OPIUM]—led to hostilities between this country and China; and these, as every one knows, have been productive of events which must powerfully influence the future intercourse of Englishmen, and of foreigners generally, with the Chinese.

Our military and naval operations resulted in the signature of a treaty at Nanking, on August 29, 1842, by which four additional ports (Shanghai, Ningpo, Fu-chow, and Amoy) were thrown open to foreign trade, the rights of residence in and access to all these cities as well as the surrounding country were conceded, a fixed tariff was proclaimed, the Cohong or Chinese mercantile monopoly abolished at Canton, and the Island of Hong Kong ceded to the British.

From this period our commercial relations with China vastly increased, but the preeminence of Canton gradually declined. Several years elapsed, indeed, before the new ports drew to themselves any considerable share of trade.

Tea has always been by far the principal article of import from China; and it is mainly owing to the diffusion of the taste for it, and its consumption by all ranks and orders of the people, that the trade with China has attained its present importance; and, as already seen, we believe we must look principally to the increased consumption of tea that will, no doubt, follow the effectual reduction that has been made in the exorbitant duties with which it was formerly loaded, for the future increase of the trade. The other articles of import are raw silk and silk manufactures, cassia lignea, and a few more; but they are of very inferior value and importance as compared with tea.

The great articles of export from this country to China consist of cotton stuffs and yarn, woollen goods, linen &c., earthenware, iron, and steel &c. Bullion used to be largely exported to China, but for some years past that has not been the case. [PRECIOUS METALS.]

Previously to the abolition of the monopoly, in 1834, the real value of the merchandise annually exported from the United Kingdom to China did not exceed 600,000*l.*; whereas it had increased in 1836 to 1,826,388*l.* The interruption of the regular trade by the disturbances and hostilities that afterwards ensued prevents any conclusions in regard to its real amount being deduced from the returns for 1839, 1840, and 1841.

War of 1856.—The Treaty of 1842 did not prove to be so lasting as many supposed it would be. It was, in truth, in many respects vague and indefinite, and disputes, of one sort and another, could hardly fail to arise out of its provisions. But that which led to, or was a pretext for, the war of 1856 was about as worthless as could well be imagined. On the 8th of October of that year a species of vessel called a *lorcha*, registered at Hong Kong, and said (though that has been stoutly denied) to have had the British flag flying, was boarded near Canton by a party of Chinese, who seized a portion of her crew (natives) and hauled down the alleged British flag. The consul and the governor of Hong Kong took, or pretended to take, fire at this real or imaginary insult to the majesty of the British nation; and the Chinese governor having refused to humour their prejudices by making an apology, they proceeded forthwith to bombard Canton, and to destroy the war junks in the river. When the intelligence of these violent proceedings arrived in England, they gave rise to much diversity of opinion. They were disapproved of by the House of Commons; but on its being dissolved, and an appeal made to the country, the bellicose propensities of the latter were fully developed, and a House was returned pledged to inflict signal vengeance on the Chinese for their insult to our flag and dignity! An expedition was in consequence fitted out to accomplish this and other objects. Happily it was accompanied by an able diplomatist, the Earl of Elgin, who was authorised to negotiate a treaty with the Chinese. It would be useless, and it would also be foreign to the object of this work, to enter into any details in regard to the proceedings of Lord Elgin's expedition. It is enough to say that they were completely successful; and a portion of the English forces, accompanied by a small French squadron, having proceeded up the Peiho to Tien-tsin, within 80 miles of Peking, a treaty of peace was agreed to on June 26, 1858, between the British (by whom it was in fact dictated) and Imperial commissioners; and similar treaties were subsequently agreed to with the plenipotentiaries of France, Russia, and the United States.

The allied occupation of Canton was prolonged through the attempt of the Chinese Government in 1859 to resist the advance of the British and French Ministers towards Peking, or the ratification of the treaties concluded by Lord Elgin and Baron Gros in the previous year. This resistance led to the successful campaign of 1860, which brought the British army under Sir Hope Grant to the gates of Peking. Here the treaty of 1858 was fully ratified, and an additional convention wrung from the Chinese commissioners.

The following is a synopsis of the treaty of Tien-tsin :—

Summary of the Treaty between her Majesty and the Emperor of China, signed at Tien-tsin, June 26, 1858.

Art. 1. Confirms the treaty of Nankin of 1842, and abrogates the supplementary treaty and general regulations of trade.

2. Provides for the appointment of ambassadors, ministers, or other diplomatic agents on the part of either country at the courts of Pekin and St. James's.

3. Contains provisions for the permanent establishment of a British minister, his family and suite at Pekin, and the forms to be observed in his communications with the Imperial Government.

4. Makes arrangements for the travelling and the transmission of the correspondence of the minister and the employment by him of special couriers.

5. The Emperor of China consents to nominate one of the secretaries of state, or some high officer, to transact business with the British minister either personally or in writing, on a footing of perfect equality.

6. The same privileges are to be granted to the Chinese minister in London.

7. Consuls may be appointed in China, and may

reside in any of the open ports, and their official rank and position as regards the Chinese local authorities are determined.

8. The Christian religion, as professed by Protestants or Roman Catholics, to be tolerated, and its professors protected.

9. British subjects to travel for pleasure or trade into all parts of the interior, with passports from their consuls, countersigned by the local authorities. The regulations as regards these passports are determined. The provisions of the article not to be applied to ships' crews, for the due restraint of whom regulations are to be drawn up by the consul and the local authorities. No pass to be given to Nankin, or cities in the hands of the rebels.

10. British merchant ships are to be allowed to trade up the great river (Yang-tsze), but in the present disturbed state of the upper and lower valley no port is to be opened for trade with the exception of Chin Kiang, which is to be opened in a year from the signature of the treaty. When peace is restored, British vessels are to be admitted to trade at such ports, as far as Hankow, not exceeding three in number, as the British minister, after consulting with the Chinese secretary of state, shall determine.

11. In addition to the present ports, New Chwang, Tang Chow, Tai Wan (Formosa), Chow Chow (Swatow), and Kiung-Chow (Hainan) are to be opened, and the right of residence and holding landed property is conceded.

12. British subjects are to make agreements for landed property at the rates prevailing among the people.

13. No restrictions to be placed on the employment by British subjects of Chinese subjects in any lawful capacity.

14. The hire of boats for transport of goods or passengers to be settled between the parties themselves without the interference of the Chinese Government. The number of the boats not to be limited, and no monopoly allowed. If any smuggling takes place, the offender to be punished according to law.

15. All questions in regard to rights of property or person between British subjects to be subject to the jurisdiction of the British authorities.

16. Chinese subjects guilty of any criminal act towards British subjects to be arrested and punished by the Chinese authorities according to the law of China; British subjects committing any crime in China to be tried and punished by the consul or other public functionary according to the laws of Great Britain.

17. Determines the mode of procedure in the matter of complaints on the side either of British or Chinese subjects.

18. Provides for the protection of the persons and property of British subjects.

19. If any British merchant vessel in Chinese waters is plundered by robbers or pirates, the Chinese authorities are to use every endeavour to capture and punish the offenders, and to recover the stolen property.

20. Wrecked or stranded vessels, or vessels under stress of weather, are to be afforded relief and security in any Chinese port; and the crews are to be furnished by the Chinese, if necessary, with the means of conveyance to the nearest consular station.

21. Chinese criminals taking refuge in Hong Kong, or on board of British ships, shall, upon the requisition of the Chinese authorities, be given up; the same also if taking refuge in the houses or on board the vessels of British subjects at the open ports.

22. The Chinese authorities to do their utmost to arrest Chinese subjects failing to discharge their debts to British subjects or fraudulently absconding, and to enforce recovery of the debts. The British authorities to do likewise as regards British subjects indebted to Chinese.

23. Debts incurred by Chinese at Hong Kong must be recovered in the courts of justice on the spot. If the debtor should abscond, and should possess real or personal property in the Chinese territory, the Chinese authorities, in concert with the British consul, are to see justice done between the parties.

24. British subjects shall pay on all merchandise imported or exported the duties prescribed by the tariff, but in no case shall they pay other or higher duties than the subjects of other foreign nations pay.

25. Import duties to be considered payable on the landing of the goods, and duties of export on the shipment of the same.

26. The tariff fixed by Article 10 of the treaty of Nankin to be revised by a commission of British and Chinese officers to meet at Shanghai, so that the revised tariff may come into operation immediately after the ratification of the treaty.

27. Either contracting party may demand a further revision of the tariff and of the commercial articles of the treaty at the end of ten years; but six months' notice must be given, or the tariff is to remain in force for ten years more, and so at the end of each successive ten years.

28. It is agreed that within four months of the signature of the treaty, the Chinese collector of duties at ports already opened and hereafter to be opened to British trade shall be obliged, on application of the consul, to declare the amount of duties leviable on produce between the place of production and the port of shipment, and upon imports between the consular port in question and the inland markets named by the consul; and a notification thereof shall be published in English and Chinese. British subjects may, however, clear their goods of all transit duties by payment of a single charge; the amount of the charge to be calculated as near as possible at the rate of 2½ per cent. ad valorem duty, and it is to be fixed for each article at the conference to be held at Shanghai.

The payment of transit dues by commutation is in no way to affect the tariff duties on imports or exports, which will continue to be levied separately and in full.

29. Regulates the amount of tonnage dues. British merchant vessels of more than 150 tons burden to pay at the rate of 4 mace per ton; if of 150 tons and under, at the rate of 1 mace per ton.

Vessels engaged in the coasting trade, or clearing for Hong Kong from any of the open ports, shall be entitled to a special certificate exempting them from all further payment of tonnage dues in any open port of China for a period of 4 months from the date of port clearance.

30. The master of any British merchant vessel may within 48 hours after his arrival, but not later, depart without breaking bulk; in which case he will not be subject to pay tonnage dues. No other fees or charges upon entry or departure shall be levied.

31. No tonnage dues to be paid on passenger boats, or boats conveying baggage, letters, articles of provision, or other articles not subject to duty. All cargo boats, however, conveying merchandise subject to duty, shall pay tonnage dues once in 6 months, at the rate of 4 mace per register ton.

32. The consuls and superintendents of customs

to consult together respecting the erection of buoys and light ships, as occasion may demand.

33. Duties to be paid to the authorised Chinese bankers, either in sycee or in foreign money, according to the assay made at Canton, July 13, 1843.

34. Sets of standard weights and measures to be delivered by the superintendent of customs to the consul at each port, to secure uniformity.

35. British merchant vessels to be at liberty to engage pilots to take them into any of the open ports, and to convey them out, after they have discharged all legal dues and duties.

36. The superintendent of customs shall depute one or more customs officers to guard a British merchant ship on arriving off one of the open ports. They shall stay either in a boat of their own or on board ship; their food and expenses shall be supplied from the custom house, and they shall be entitled to no fees from the master or consignee.

37. Ships' papers, bills of lading &c., to be lodged in the hands of the consul twenty-four hours after arrival, and full particulars of the vessel to be reported to the superintendent of customs within a further period of twenty-four hours: omission to comply with this rule within forty-eight hours punishable by a fine of 50 taels for each day's delay. The total amount of penalty not to exceed 200 taels. The master responsible for the correctness of the manifest: a false manifest subjects the master to a fine of 500 taels, but he will be allowed to correct any mistake within twenty-four hours without incurring the penalty.

38. If the master shall begin to discharge any goods without the permit from the superintendent of customs, he shall be fined 500 taels, and the goods discharged shall be confiscated wholly.

39. British merchants must apply to the superintendent of customs for a special permit to land or ship cargo. Cargo landed or shipped without such permit will be liable to confiscation.

40. No transhipment from one vessel to another can be made without special permission, under pain of confiscation of the goods transhipped.

41. The superintendent of customs shall give a port clearance when all dues and duties have been paid, and the consul shall then return the ship's papers.

42. If the British merchant cannot agree with the Chinese officer in fixing a value on goods subject to an ad valorem duty, each party shall call in two or three merchants, and the highest price at which any of the merchants would purchase them shall be assumed to be the value of the goods.

43. Provides that duties shall be charged upon the nett weight of each article, making a deduction for the tare weight of congee &c., and regulates the manner in which the tare on any article, such as tea, shall be fixed. The British merchant may appeal to his consul within twenty-four hours.

44. Upon all damaged goods a fair reduction of duty shall be allowed, proportionate to their deterioration. If any disputes arise, they shall be settled in the manner pointed out in the clause of this treaty having reference to articles which pay duty ad valorem.

45. British merchants who have imported merchandise into an open port and paid duty may reimport their goods under certain regulations without payment of any additional duty.

British merchants desiring to re-export duty-paid imports to a foreign country to be entitled, under similar regulations, to a drawback certificate, which is to be a valid tender in payment of customs duties.

Foreign grain brought into a Chinese port in a British ship, if no part has been landed, may be re-exported without hindrance.

46. The Chinese authorities at the ports to adopt the means they may judge most proper to prevent the revenue suffering from fraud or smuggling.

47. British merchant-vessels not to resort to other than the ports declared open; not unlawfully to enter ports, or to carry on clandestine trade along the coasts. Vessels violating this provision to be, with their cargoes, subject to confiscation by the Chinese Government.

48. If a British merchant-vessel be concerned in smuggling, the goods to be subject to confiscation by the Chinese authorities, and the ship may be prohibited from trading further, and sent away as soon as her accounts shall have been adjusted.

49. All penalties or confiscations under the treaty to belong and be appropriated to the public service of the Chinese Government.

50. All official communications addressed by British diplomatic or consular agents to the Chinese authorities are henceforth to be written in English. For the present they will be accompanied by a Chinese version; but it is understood that in case of there being any difference of meaning between the English and Chinese text, the English Government will hold the sense expressed in the English text to be the correct sense. This provision is to apply to the present treaty, the Chinese text of which has been carefully corrected by the English original.

51. The character '1' (barbarian) not to be applied to the British Government or to British subjects in any Chinese official document issued by the Chinese authorities.

52. British ships of war coming for no hostile purpose, or being engaged in the pursuit of pirates, to be at liberty to visit all the Chinese ports, and to receive every facility for procuring necessaries, or, if required, for making repairs. The commanders of such ships to hold intercourse with the Chinese authorities on terms of equality and courtesy.

53. The contracting parties agree to concert measures for the suppression of piracy.

54. Confirms all advantages secured to the British Government by previous treaties, and stipulates that the British Government shall participate in any advantages which may be granted by the Emperor of China to any other nation.

55. The conditions affecting indemnity for expenses incurred, and loss sustained, in the matter of the Canton question, to be included in a separate article, which shall be in every respect of equal validity with the other articles of the treaty.

56. Ratifications to be exchanged within a year after the day of signature.

Separate article provides that a sum of 2,000,000 taels, on account of the losses sustained by British subjects through the misconduct of the Chinese authorities at Canton, and a further sum of 2,000,000 taels on account of the expenses of the war, shall be paid to the British representative in China by the authorities of the Kwang Tung province.

The arrangements for effecting these payments to be determined by the British representative in concert with the Chinese authorities at Kwang Tung.

The British forces are not to be withdrawn from Canton until the above amounts are discharged in full.

We also annex an abstract of the trade regulations annexed to the treaty.

Rule 1. *Unenumerated Goods.*—Articles not enumerated in the list of exports, but enumerated

in the list of imports, when exported will pay the amount of duty set against them in the list of imports; and, similarly, articles not enumerated in the list of imports, but enumerated in the list of exports, when imported will pay the amount of duty set against them in the list of exports.

Articles not enumerated in the list, nor in either list of duty-free goods, will pay an ad valorem duty of 5 per cent. calculated on their market value.

Rule 2. *Duty-free goods.*—Gold and silver bullion, foreign coins, flour, Indian meal, sago, biscuit, preserved meats and vegetables, cheese, butter, confectionery, foreign clothing, jewellery, plated ware, perfumery, soap of all kinds, charcoal, firewood, candles (foreign), tobacco (foreign), cigars (foreign), wine, beer, spirits, household stores, ships' stores, personal baggage, stationery, carpeting, druggeting, cutlery, foreign medicines, and glass and crystal ware.

The above pay no import or export duty, but, if transported into the interior, will, with the exception of personal baggage, gold and silver bullion, and foreign coins, pay a transit duty at the rate of 2½ per cent. ad valorem.

A freight or part freight of duty-free commodities (personal baggage, gold and silver bullion, and foreign coins excepted) will render the vessel carrying them, though no other cargo be on board, liable to tonnage-dues.

Rule 3. *Contraband goods.*—Import and export trade is alike prohibited in the following articles: Gunpowder, shot, cannon, fowling-pieces, rifles, muskets, pistols, and all other munitions and implements of war; and salt.

Rule 4. *Weights and Measures.*—In the calculations of the Tariff, the weight of a picul of one hundred catties is held to be equal to one hundred and thirty-three and one-third pounds avoirdupois; and the length of a chang of ten Chinese feet to be equal to one hundred and forty-one English inches.

One Chinese chih is held to equal fourteen and one-tenth inches English; and four yards English less three inches to equal one chang.

Rule 5. *Regarding certain Commodities heretofore Contraband.*—The restrictions affecting trade in opium, cash, grain, pulse, sulphur, brimstone, saltpetre, and spelter are relaxed, under the following conditions:

1. Opium will henceforth pay thirty taels per picul import duty. The importer will sell it only at the port. It will be carried into the interior by Chinese only, and only as Chinese property; the foreign trader will not be allowed to accompany it. The provisions of Article 9 of the Treaty of Tien-tsin, by which British subjects are authorised to proceed into the interior with passports to trade, will not extend to it, nor will those of Article 28 of the same treaty, by which the transit-dues are regulated; the transit-dues on it will be arranged as the Chinese Government see fit; nor, in future revisions of the Tariff, is the same rule of revision to be applied to opium as to other goods.

2. *Copper Cash.*—The export of cash to any foreign port is prohibited; but it shall be lawful for British subjects to ship it at one of the open ports of China to another, on compliance with the following Regulation:—The shipper shall give notice of the amount of cash he desires to ship, and the port of its destination, and shall bind himself, either by a bond with two sufficient sureties, or by depositing such other security as may be deemed by the Customs satisfactory, to return, within six months from the date of clearance, to the collector at the port of shipment, the certificate issued by him, with an acknowledgment thereon of the receipt of the cash at the port of destination, by the collector at that port, who shall thereto affix his seal; or, failing the production of the certificate, to forfeit a sum equal in value to the cash shipped. Cash will pay no duty inwards or outwards; but a freight or part freight of cash, though no other cargo be on board, will render the vessel carrying it liable to pay tonnage-dues.

3. The export of rice and all other grain whatsoever, native or foreign, no matter where grown or whence imported, to any foreign port, is prohibited; but these commodities may be carried by British merchants from one of the open ports of China to another, under the same conditions in respect of security as cash, on payment at the port of shipment of the duty specified in the Tariff.

No import duty will be leviable on rice or grain; but a freight, or part freight of rice or grain, though no other cargo be on board, will render the vessel importing it liable to tonnage-dues.

4. *Pulse.*—The export of pulse and bean-cake from Tang-chau and New-chwang under the British flag is prohibited. From any other of the open ports they may be shipped, on payment of the tariff duty, either to other ports of China or to foreign countries. The restriction as to the ports of Tang-chau and New-chwang was abolished in January 1862.

5. Saltpetre, sulphur, brimstone, and spelter, being munitions of war, shall not be imported by British subjects, save at the requisition of the Chinese Government, or for sale to Chinese duly authorised to purchase them. No permit to land them will be issued until the Customs have proof that the necessary authority has been given to the purchaser. It shall not be lawful for British subjects to carry these commodities up the Yang-tsze-kiang, or into any port other than those open to the seaboard, nor to accompany them into the interior on behalf of Chinese. They must be sold at the ports only, and, except at the ports, they will be regarded as Chinese property.

Infractions of the conditions, as above set forth, under which trade in opium, cash, grain, pulse, saltpetre, brimstone, sulphur, and spelter may be henceforward carried on, will be punishable by confiscation of all the goods concerned.

Rule 6. *Liability of Vessels entering Port.*—To prevent misunderstanding, it is agreed that the term of twenty-four hours, within which British vessels must be reported to the Consul under Article 37 of the Treaty of Tien-tsin, shall be understood to commence from the time a British vessel comes within the limits of the port; as, also, the term of forty-eight hours allowed her by Article 30 of the same Treaty to remain in port without payment of tonnage-dues.

The limits of the ports shall be defined by the Customs, with all consideration for the convenience of trade, compatible with due protection of the revenue; also the limits of the anchorages within which lading and discharging are permitted by the Customs; and the same shall be notified to the Consuls for public information.

Rule 7. *Transit Dues.*—It is agreed that Article 28 of the Treaty of Tien-tsin shall be interpreted to declare the amounts of transit dues legally leviable upon merchandise imported or exported by British subjects, to be one half of the tariff duties, except in the case of the duty-free goods liable to a transit duty of 2½ per cent. ad valorem, as provided in Article 2 of these rules. Merchandise shall be cleared of its transit dues under the following conditions:—

In the case of Imports.—Notice being given at the port of entry, from which the imports are to be forwarded inland, of the nature and quantity

of the goods; the ship from which they have been landed; and the place inland to which they are bound, with all other necessary particulars, the Collector of Customs will, on due inspection made, and on receipt of the transit duty due, issue a transit-duty certificate. This must be produced at every barrier station, and viséd. No further duty will be leviable upon imports so certificated, no matter how distant the place of their destination.

In the case of Exports.—Produce purchased by a British subject in the interior will be inspected, and taken account of, at the first barrier it passes on its way to the port of shipment. A memorandum, showing the amount of the produce and the port at which it is to be shipped, will be deposited there by the person in charge of the produce; he will then receive a certificate, which must be exhibited and viséd at every barrier, on his way to the port of shipment. On the arrival of the produce at the barrier nearest the port, notice must be given to the Customs at the port, and the transit dues due thereon being paid, it will be passed. On exportation the produce will pay the tariff duty.

Any attempt to pass goods inwards or outwards otherwise than in compliance with the rule here laid down will render them liable to confiscation.

Unauthorised sale, in transitu, of goods that have been entered as above for a port, will render them liable to confiscation. Any attempt to pass goods in excess of the quantity specified in the certificate will render all the goods of the same denomination named in the certificate liable to confiscation. Permission to export produce which cannot be proved to have paid its transit dues will be refused by the Customs until the transit dues shall have been paid. The above being the arrangement agreed to regarding the transit dues, which will thus be levied once and for all, the notification required under Article 28 of the Treaty of Tien-tsin, for the information of British and Chinese subjects, is hereby dispensed with.

Rule 8. *Foreign Trade under Passport.*—It is agreed that Article 9 of the Treaty of Tien-tsin shall not be interpreted as authorising British subjects to enter the capital city of Peking for purposes of trade.

Rule 9. *Abolition of the Meltage Fee.*—It is agreed that the percentage of one tael two mace, hitherto charged in excess of duty payments, to defray the expenses of melting by the Chinese Government, shall be no longer levied on British subjects.

Rule 10. *Collection of Duties under one System at all Ports.*—It being, by Treaty, at the option of the Chinese Government to adopt what means appear to it best suited to protect its revenue, accruing on British trade, it is agreed that one uniform system shall be enforced at every port.

The high officer appointed by the Chinese Government to superintend foreign trade will, accordingly, from time to time, either himself visit, or will send a deputy to visit, the different ports. The said high officer will be at liberty, of his own choice, and independently of the suggestion or nomination of any British authority, to select any British subject he may see fit to aid him in the administration of the Customs revenue; in the prevention of smuggling; in the definition of port boundaries; or in discharging the duties of harbour-master; also in the distribution of lights, buoys, beacons, and the like, the maintenance of which shall be provided for out of the tonnage-dues.

The Chinese Government will adopt what measures it shall find requisite to prevent smuggling upon the Yang-tsze-kiang when that river shall be opened to trade.

The following is a synopsis of the Supplementary Convention of Peking, signed October 24, 1860:—

Art. I. Expresses the regret of the Emperor of China for the breach of friendly relations in 1859.

Art. II. Establishes the right of residence at Peking on the part of the British Ambassador.

Art. III. Provides for the payment of a war-indemnity of six millions of taels (2,000,000*l.*) in addition to two million taels previously demanded as indemnity for the losses of British merchants at Canton.

Art. IV. Opens the Port of Tien-tsin to trade.

Art. V. Authorises the emigration to foreign countries of Chinese with their families.

Art. VI. Cedes to the Queen of Great Britain and Ireland a tract of land known as Kow-loon, on the mainland opposite Hong Kong.

Art. VII. Provides for the immediate operation of the Treaty of 1858.

Art. VIII. Provides for the publication throughout the Empire of the treaty and convention.

Art. IX. Contains agreements with respect to the evacuation of the sundry places of which possession had been taken.

High expectations were now entertained, and with reason, of a vastly extended commerce with China, and large European settlements sprang up at the ports newly thrown open. The diffusion of trade over so wide an area could not, however, but be prejudicial to the prosperity of Canton, already seriously undermined by the hostilities of 1856–1858. The teas and other exports which were formerly brought by a land journey of 600 miles from the producing districts of Hu-peh across the mountains, and down the North River to the Canton market, were now purchased at Hankow, in the centre of the producing districts, and despatched by steamers navigating the Yang-tsze to Shanghai, whence they were shipped to England direct. Imports in like manner were introduced at half a dozen eligible points to the markets of the interior.

Hong Kong, too, in 1854 suddenly rose in importance, owing to the prevalence of the rebellion around Canton, which caused many of the native traders to seek security in Hong Kong either as residents or by transporting merchandise thence in steamers to Canton. Two years later the entire foreign community was removed from Canton, owing to the pending hostilities, and a large accession to the importance of Hong Kong as a settlement was the natural consequence. The proximity of our colony to the seat of trade gave encouragement to merchants to maintain their dépots and residences in the island, inducing the Chinese dealers to visit them there for the purchase of imports. For the introduction of these into the interior, exceptional facilities were afforded by the numerous branches of the Canton river, through which merchandise, and especially opium, can be clandestinely conveyed, and the payment of customs duties at Canton avoided. Under these circumstances Hong Kong grew rapidly, at the expense of Canton; and when tranquillity was restored, it became apparent, after a year or two, that the great mercantile houses need no longer make the latter place their head quarters. The number of foreign residents has dwindled year by year in proportion to the growth of Hong Kong, whilst the introduction of powerful river steamers built in the United States, and making the voyage between Canton and Hong Kong daily in less than six hours, has rendered it still more easy for the Chinese dealers to visit the colony and supply their wants from the importers there in the cheapest and most

expeditious manner. In consequence of this revolution in the method of conducting trade, many of the principal firms have withdrawn altogether from Canton, whilst others are still represented by assistants employed for the purchase of tea and silk; but a large and increasing proportion of the trade has passed into the hands of commission agents, whilst the Chinese themselves are learning very rapidly to do business on their own account, or through the medium of the foreign commission agencies, thus progressively curtailing the importance of those few celebrated houses which once drew to themselves all but a fractional part of the entire outward and inward trade. Rapidity of intercommunication, the employment of steam, the extended use of the English language, and the vast influx of competitors from all parts of the world, are rapidly reducing the power of capital to a level with that of energy and enterprise, native as well as foreign; but with the more uniform distribution of the advantages of trade are entailed the evils of commercial insecurity and unsettled markets, with the attendant calamities of periodical failure and panics.

Perhaps at no distant time, instead of having the trade of China to a great extent engrossed by a few wealthy British houses, we may have Chinese native agencies in the various commercial marts of Europe, as we already see them flourishing in Australia and California, in Java and Singapore.

This diversion of trade from Europeans to Chinese must be steadily borne in mind in any reflections upon the diminished returns of customs revenue and of exports and imports which will be shown farther on. This diminution does not really represent the actual falling off in the amount of trade so much as the transfer of a large portion of the business done to Chinese hands. The statistics annually published have no reference to the latter, respecting which little or no information is accessible. At the other open ports, indeed, this is not the case, as the necessity of carrying on all outward commerce in foreign bottoms brings the trade within the cognisance of the Customs establishments; but at Canton the river communication with Hong Kong is so easy and safe, that much merchandise is carried by native junks plying regularly between the two places, and the imports or exports by which pay duty under a purely native tariff, apart from the jurisdiction of the foreign Inspectorate of Customs whence the returns of trade are derived.

The administration of the Maritime Customs of China demands a brief explanation here. Duties on imports and exports, as well as on the internal transit of merchandise, have been for 1,500 years one of the recognised sources of revenue in China, and have usually been made productive of profit to court favourites, farming the income under highly lucrative conditions. The revenue required to be paid annually by the Superintendent of Customs at Canton was fixed in 1800 at 800,000 taels (267,000*l.*) per annum, but the actual receipts were usually above 1,000,000 taels. The system pursued at this and other ports was one of constant bargaining between the Custom-house and the merchant, and a well-understood system of corruption was usually at work. A nominal tariff existed, but was seldom the rule for levying duty. This demoralising system was profitable to many, who proved, naturally, its warm supporters, but was equally injurious to the Chinese Government and to the higher class of merchants.

An accidental circumstance (the capture of Shanghai by rebels in 1853) led to the placing of the Chinese Collectorate of Customs at that port in the hands of a commission of three Europeans, appointed by the Consuls of Great Britain, France, and the United States. The honesty and regularity with which business was transacted under them commended the services of foreigners to the notice of the Chinese authorities, by whom the system was continued, with the tacit consent of the Cabinet of Peking, even after the expulsion of the rebels.

A few years later, a clause of the Treaty of Tien-tsin placed the employment of foreigners in the Customs department on a recognised footing. The system was soon extended to all the open ports, with beneficial results. At Canton (as elsewhere) a European Commissioner is stationed, with a staff of clerks, tide-waiters &c., by whom the entire working of the tariff is conducted, with the exception of money payments. These remain entirely in the hands of the Chinese. The papers of all vessels entering port are deposited with the Consul of the nation to which they belong, and report is then made to the Custom-house, which completes the *entry* of the vessel. The master or consignee obtains from the Custom-house his permit to load or discharge cargo, and, on payment into the Chinese Customs' Bank of all duties and tonnage-dues, a clearance (called the Grand Chop) is issued under the seal of the Chinese Superintendent of Customs, on production of which at his Consulate the master receives back his papers and can proceed to sea.

The following statement shows the state of the commerce at Canton down to 1865:—

Year	Value of Imports	Value of Exports	Total Value in Mexican dollars
	dollars	dollars	
1860	18,100,000	16,[illegible],000	34,600,000
1861	12,900,000	15,[illegible],000	28,[illegible],000
1862	10,500,000	17,[illegible],000	28,[illegible],000
1863	9,500,000	16,000,000	25,[illegible],000
1864	8,100,000	13,600,000	21,[illegible],000
1865	7,900,000	13,500,000	21,[illegible],000

The duties have fallen off proportionately: the total collection for—

1860	amounted to	1,496,000 taels
1861	,,	1,[illegible],000 ,,
1862	,,	1,[illegible],000 ,,
1863	,,	950,000 ,,
1864	,,	727,000 ,,

It is thus shown that the value of the foreign trade of Canton for 1864 was about ⅗ what it was in 1860, and the amount of duties received is less than ½ of what it was 5 years previously. On the other hand while in 1842 the exports from the United Kingdom to China amounted to 969,311*l.*, in 1843 they were 1,456,180*l.*, and in 1845 they rose to the then unprecedented amount of 2,394,827*l.* But though they declined in 1848 to 1,445,950*l.*, they have since progressively risen till, in 1866, they amounted to, exclusive of Hong Kong and Macao, 5,008,474*l.*, and inclusive of these two ports 7,677,633*l.* Great as this amount may seem, most probably it would, at no distant period, be very much increased but for the difficulty the Chinese experience in making returns; a difficulty which will, however, be now very materially diminished.

Although Canton is situated nearly in the same parallel of latitude as Calcutta, there is a considerable difference in their temperature; the former being much cooler, and requiring fires during the winter months. The streets are very narrow, paved with little round stones, and flagged close to the sides of the houses. The front of every house is a shop, and those of particular streets are laid out for the supply of strangers. China-street is appropriated to Europeans; and here the productions of almost every part of the globe are to be found. One of the shopkeepers is always to be found sitting on the counter, writing with a

camel's-hair brush, or calculating with his swan-pan, on which instrument a Chinese will perform operations in numbers with as much celerity as the most expert European arithmetician.

The Chinese, considered as traders, are eminently active, persevering, and intelligent. They are, in fact, a highly commercial people; and the notion that was once very generally entertained, of their being peculiarly characterised by a contempt of commerce and of strangers, is as utterly unfounded as any notion can possibly be. Business is transacted at Canton with great despatch; and nowhere in the world may cargoes be sold and bought, loaded and unloaded, with more business-like speed and activity.

Provisions and refreshments of all sorts are abundant in Canton, and, in general, of an excellent quality; nor is the price exorbitant. Every description of them, dead and alive, is sold by weight. It is a curious fact that the Chinese make no use of milk, either in its liquid state or in the shape of curds, butter, or cheese. Among the delicacies of a Chinese market are to be seen horse-flesh, dogs, cats, hawks, and owls. The country is well supplied with fish from the numerous canals and rivers by which it is intersected.

The British settlement at Canton is designated the Shamien Site, and is an artificial island constructed in 1860–1 at an expense of 325,000 dols., of which one-fifth was defrayed by the French Government, to whom a proportionate allotment of the area was made.

Steamers of heavy burden can ascend the river to an anchorage immediately facing the Shamien Site; and although the limits of the port of Canton are officially held not to extend above the anchorage of Whampoa, the advantage to trade which is entailed by the loading and discharging of steamers at Canton is so great that a tacit permission is given to the practice. Several large steamers trade regularly between Canton, Shanghai, and Tien-tsin, carrying almost exclusively native merchandise, such as drugs, dried fruits, iron and brass ware, paper (of which large quantities are manufactured near Canton from the macerated hull of the bamboo) &c. The great variety of these miscellaneous articles of commerce can best be estimated by a review of the Custom-house returns, in which they are included in virtue of their shipment in British bottoms. It is rarely, however, that foreign traders are concerned in these shipments. The great staples of tea and silk, opium and cotton goods, may still be said to occupy almost exclusively the attention of foreign merchants. Continental (chiefly German) houses do, indeed, import some quantities of petty European manufactures, among which watches and fire-arms take the lead; but the importance of this trade is not great. Among the articles of the second class to be enumerated are matting and fire-crackers (largely shipped to the United States) and drugs. Guano has of late years been introduced, and has found a ready sale. The price obtained has been on an average about 300 dols. per picul (133⅓ lbs.)

A very considerable trade in Indian cotton, imported from Bombay by Parsee and Koja traders, for the most part is carried on in ordinary years; but the flow of cotton eastwards was interrupted during 1862–1864, when this article of merchandise was for the first time exported from China (principally from Shanghai) to meet the English demand consequent upon the war in the United States. Indian cotton is considered by the Chinese inferior to their own staple, but its cheapness causes it to be extensively employed. Rice is another article very largely imported, as the production in China has never kept pace with the demand. The carrying trade in rice forms one of the principal sources of employment for sailing vessels during the winter months, when tea and other freights are slack. It is brought from Siam, Burmah, Manila, and Saigon, and is usually transhipped at Hong Kong on board native junks.

As regards the manner of purchase and sale, it must be borne in mind that imports are seldom brought to Canton by the European merchants, who, as has already been said, prefer attracting the Chinese buyers to Hong Kong. Propositions to establish bonded warehouses at Canton have hitherto been negatived by the Chinese Government, and have also been unfavourably viewed by the residents of Hong Kong. Exports, however, must be purchased on the spot from the Chinese brokers. To buyer and seller alike the brokers are as essential in China as in other countries, and by their intervention trade is carried on at Canton with great facility. Tea is brought from the interior by companies of traders, who purchase and prepare it for the market in the producing districts. The owners of a lot or *chop* of tea (usually 500 to 600 chests) place their merchandise in the hands of a broker, who obtains for them from the native banks an advance of some 75 per cent. of its value, and circulates among the foreign merchants samples or 'musters' of its quality. When a purchase is decided upon, the *chop* is examined by the tea inspector of the firm, but seldom more than one per cent. of the chests is opened. If, as is usually the case, the tea in bulk is approved of as 'equal to muster,' it is immediately prepared for shipment, a guarantee or *security chop* being usually given by the broker, who thus becomes responsible for its good quality throughout until its arrival in England and examination by sworn brokers. Silk is similarly examined and guaranteed.

The commercial honesty of the Chinese is remarked upon by all who have dealings with them, but is giving way gradually before the influx of eager foreign competition and the admission of a lower class of natives to participation in international dealings.

Moneys.—The currency at Canton in European transactions is the Mexican dollar, but the dollar coined at Hong Kong since May 1866 is expected to supersede this gradually. The Chinese have no silver coin, and keep their accounts in taels, mace, candareens, and cash, forming a decimal system, of which only the lowest member is represented by a coin. Weight of silver is, indeed, the basis of their notation in this respect. A tael or *liang* equals 1⅓ oz. of silver, and is divided into 10 mace (*tsien*), the mace into 10 candareens (*fun*), and the candareen into 10 *li*, to which 1 cash in copper should precisely correspond. Owing, however, to the decline in the value of the *cash*, which for nearly half a century has undergone progressive depreciation in the mintage, the average value of the tael is 1,400 copper cash (*t'ung-ts'ien*). These coins are cast in moulds, with a square hole occupying the centre, around which, on the obverse, are Chinese characters, denoting the reign, with the words 'Circulating Value,' and on the reverse the name of the mint in Manchu characters.

In large native transactions, pure silver, known as sycee, is the basis of exchange. The silver is cast in ingots, called *shoes*, from a fancied resemblance in shape; these weigh from ½ a tael to 100 taels. Silver of the highest standard of purity is produced at the Customs Bank by melting and refining the foreign dollars received in payment of

duties, and is known as Hai-Kwan (i. e. Customs') sycee. It stands at a premium as regards the dollar currency of from 3 to 10 per cent. according to the respective abundance of the two commodities.

Exchange.—The tael used to be reckoned at 6*s.* 8*d.* sterling in the books of the East India Company; but its value varies, and is generally computed according to the price paid per ounce for Spanish dollars in London. The tables given for this proportional value may be calculated in pence sterling, by the multiplier 1·208. Thus, if the price of the Spanish dollar be 60*d.* per oz., the value of the tael will be 60 × 1·208 = 72·48*d.*; if at 66*d.*, the value of the tael will be 79·728*d.*; and for any other price in the same proportion.

Fineness of Gold and Silver.—The fineness of gold and silver is expressed by dividing the weight into 100 parts, called toques or touch; similar to the modern practices of France. Thus, if an ingot be 93 touch, it is understood to contain 7 parts of alloy and 93 of pure metal, making in the whole 100.

The fineness of the precious metals, expressed in these decimal proportions, may be converted into English proportions by the following analogies:—Suppose gold is 91·66 touch, say, as 100 : 91·66 : : 12 : 11, the standard, and vice versâ; and to convert standard silver into touch, say, as 240 : 222 : : 100 : 92·5, the touch of sterling silver.

Gold.—Gold is not considered as money, but as merchandise: it is sold in regular ingots of a determined weight; the largest of these weigh 10 taels each; and the gold is reckoned 94 touch, though it may be only 92 or 93.

Weights.—Gold and silver are weighed by the catty of 16 taels; the tael is divided into 10 mace, 100 candareens, or 1,000 cash. 100 taels are reckoned to weigh 120 oz. 16 dwt. troy, which makes the tael equal to 579·8 English grains, or 37·566 grammes.

The principal weights for merchandise are the picul, the catty, and the tael; the picul being divided into 100 catties, or 1,600 taels.

	lbs.	oz.	dwts.	
1 tael weighs, avoirdupois -	0	1	5·333 =	1⅓ oz.
16 taels, or 1 catty -	1	5	5·333 =	1⅓ lb.
100 catties, or 1 picul -	133	5	5·333 = 133⅓	lbs.

Hence the picul weighs 60·472 kilogrammes, or 162 lbs. 0 oz. 8 dwts. 13 grs. troy.

Long Measure.—That used in China is the covid or *chih*; it is divided into 10 inches (*ts'un*), and is equal to 0·3713 mètres, or 14·625 English inches.

The Chinese have numerous variations of the *chih*, of which nearly 100 are enumerated in the *Chinese Commercial Guide*, ed. 1863, page 284. The most important are the following:—

		inches
Canton.	Tailor's *chih*, called *pai-ts'ien-chih* -	14·685
	Mercer's measure for buying wholesale	14·721
	retailing -	14·37
	Architect's measure - -	12·7
Peking.	Land surveyor's rule - -	12·875

Land Measure.—Land is measured in large parcels by the *k'ing* and *mow*. At Canton, the *tsing*, = 100 square *pai-ts'ien-chih* (= 149·756 sq. feet), is much employed in measuring small plots of ground; 60 of these = 1 *mow*, at which rate 4·847 *mow* = 1 English acre. The standard of measurement adopted at the British Consulate, based on official enquiries, is as follows: 66 inches = 1 *pu*, and 2 *pu* = 1 *chang* (or 10 *chih*). Hence 7,260 sq. feet English = 1 square *mow*.

The li contains 180 fathoms, each 10 feet—the foot, called engineer's, measuring 12·65 English inches; therefore the li = 1,897½ English feet; and 192½ lis measure a mean degree of the meridian nearly; but European missionaries in China have divided the degree into 200 lis, each li making 1,826 English feet; which gives the degree 69·166 English miles, or 11·131 French myriamètres.

Measures of Capacity.—Thirteen divisions of a decimal scale are enumerated by the Chinese, but only four are in actual use. These are the *ho*, *shing*, *half shing*, and *tow*. The tow measures usually about 1½ gallon, containing 10 *shing*.

The following tables, extracted from the *Chinese Commercial Guide*, will be found useful:—

EQUIVALENTS OF CHINESE WEIGHTS ETC. IN ENGLISH DITTO.

Table for converting Chinese Money Weight into English Troy Weight.

taels	oz.	dwts.	grs.	mace	oz.	dwts.	grs.
100	120	16	0	8	0	19	7·872
50	60	8	0	7	0	16	21·888
25	30	4	0	6	0	14	11·904
24	28	19	20·16	5	0	12	1·920
23	27	15	16·32	4	0	9	15·936
22	26	11	12·48	3	0	7	5·952
21	25	7	8·64	2	0	4	19·968
20	24	3	4·80	1 or 10			
19	22	19	0·96	candar.	0	2	9·984
18	21	14	21·12	9	0	2	4··856
17	20	10	17·28	8	0	1	22·8·72
16	19	6	13·44	7	0	1	16·8888
15	18	2	9·60	6	0	1	10·7904
14	16	18	5·76	5	0	1	4·9920
13	15	14	1·92	4	0	0	23·1936
12	14	9	22·08	3	0	0	17·3952
11	13	5	18·24	2	0	0	11·5968
10	12	1	14·40	1	0	0	5·7984
9	10	17	10·56	cash			
8	9	13	6·72	9	0	0	5·21856
7	8	9	2·88	8	0	0	4·63872
6	7	4	23·04	7	0	0	4·05888
5	6	0	19·20	6	0	0	3·47904
4	4	16	15·36	5	0	0	2·899·0
3	3	12	11·52	4	0	0	2·31936
2	2	8	7·68	3	0	0	1·73952
1	1	4	3·84	2	0	0	1·15968
mace				1	0	0	0·57984
9	1	1	17·856				

Formulæ for reducing Chinese, English, and Indian Weights.

One pound troy is equal to taels 9·933 nearly.

One pound avoirdupois is equal to ¾ catty, or 12 tls.

One hundred weight is equal to 84 catties.

Ninety catties seda at Macao are equal to 1 picul balance.

One ton is equal to 16 piculs 80 catties.

One ton is equal to 27·222 Indian maunds, or nearly 27¼ maunds.

One Indian maund is 82⅔ lbs. avoirdupois exactly.

One maund or 100 lbs. troy is equal to 993·446 taels.

One tola is equal to 3·221 taels.

One Bengal factory maund is equal to 56 catties.

One Bengal bazaar maund is equal to 61·6 catties.

To convert taels into pounds troy.—Divide by 10, and to the quotient add 2–3rds of 1 per cent.

To convert piculs into pounds avoirdupois.—Add a third to the number of catties.

To convert pounds avoirdupois into piculs.—Subtract a quarter, and divide by 100.

To convert hundred weights into piculs.—Multiply by 84 catties, and divide by 100.

To convert Bengal factory maunds into piculs.—Multiply by 56, and divide by 100.

To convert piculs into hundred weights.—Multiply by 100, and divide by 84; or if minute exactness is not required, add 1–5th, and from the result deduct 8 per mil.

To convert piculs into Bengal factory maunds.—Multiply by 100, and divide by 56; or if minute accuracy is not required, add ¾, and 2 per cent. upon the result.

To convert Bengal bazaar maunds into piculs.—Multiply by 616, and divide by 1,000.

To convert piculs into Bengal bazaar maunds.—Multiply by 1,000 and divide by 616; or if minute accuracy is not required, add 62½ per cent.

To convert Indian weights into avoirdupois weights.—1. Multiply the weight in seers by 12, and divide by 35; the result will be the weight in

pounds avoir. Or 2. Multiply the weight in maunds by 36, and divide by 49; the result will be the weights in pounds avoir.

Chinese, Indian, and English large Weights compared.

A picul is equal to	A cwt. is equal to			lbs.
5·333	4·480	Madras maunds of 8 viz. or	-	25·000
4·761	4·000	Bombay maunds of 10 Bombay seers, or		28·000
4·535	3·809	42 ,,		29·400
3·571	3·000	Surat maunds of 40 Surat seers, or		37·333
3·184	2·926	41* ,,	-	38·266
3·401	2·857	42 ,,	-	39·199
3·303	2·774	43‡ ,,	-	40·346
3·246	2·727	44 ,,	-	41·066
1·785	1·500	Bengal factory maunds of 40 seers, or		74·666
1·625	1·365	Bengal bazar ,,		82·133

			lbs.	cwt.	pcls.	cat.
A Madras candy of 20 maunds is		-	500	4·464	5	75
A Bombay candy of 20			560	5·000	4	20
	21	maunds,	588	5·250	4	41
	22	each	616	5·500	4	62
A Surat candy of	20	maunds 10	746‡	6·666	5	60
	21	seers, is	784	7·000	5	88
	22		821¼	7·333	6	16

* By this weight China sugar is sold at Bombay.
† By this weight Malwa opium is sold at Damaun and in the interior of India.
‡ By this weight cotton is sold at Bombay.

To convert avoirdupois weight into Indian weights.—1. Multiply the weight in pounds avoir. by 35, and divide by 72; the result will be the weight in seers. Or 2. Multiply the weight in cwts. by 49, and divide by 36; the result will be the weight in maunds.

The following table shows to the nearest farthing the charge upon each lb. at the different rates of freight, allowing, as a *fair* average, 7 bales of 103 lbs. each to 1 ton of 50 cubic feet; and from this table the cost may be computed for any rate of freight.

			per lb.
At 5*l.* per ton of 50 feet	-	-	1*d.*
5*l.* or 4*l.* 10*s.*	,,	-	1¼*d.*
4*l.* 10*s.*	,,	-	1½*d.*
5*l.* or 3*l.* 10*s.*	,,	-	1¾*d.*
4*l.*	,,	-	2*d.*
6*l.* 10*s.* or 7*l.*	,,	-	2¼*d.*
7*l.* 10*s.*	,,	-	2½*d.*
8*l.*	,,	-	2¾*d.*

The emigration of Chinese Coolies to the British West Indies has been successfully carried on through an official agency since 1859. From the 22nd January, 1860, to 31st March, 1866, 19 vessels were despatched, carrying in all 6,329 emigrants to Demerara and Trinidad. Down to 1866 the emigration from Canton was carried on under regulations arranged by the British Consul and Chinese authorities, but on the 5th of March, 1866, a convention was signed at Peking by the British and French Ministers and the Prince of Kung, regulating the emigration of Chinese from all parts of the Empire.

One of the objects of this convention is to enable labourers to be obtained under the French flag for Cuba and Peru.

For particulars respecting customs' regulations, pilotage, docks &c. see WHAMPOA.

CANTON. RIVER STEAMER REGULATIONS.

Import Manifest.—On entering port, masters of river steamers must have their import manifests in readiness to hand to the customs' officer, who will board the vessel on arrival. For cargo to be discharged at Whampoa, a separate manifest will be required, to be handed to the customs' officer at that place.

The customs must in all cases be furnished with import manifest before any cargo can be discharged.

Landing of Cargo.—Consignees are not required to make application to the customs for permission to remove consignments from the steamers, but all goods imported in such vessels must on being discharged be taken for examination to the customs' jetty.

Shipment of Cargo.—All exports for shipment by river steamers must be sent to the customs' jetty for examination, on which a permit to ship will be granted.

Export Manifest.—Manifest of cargoes exported must be handed to the customs on the return trip of the steamers.

Landing or Shipment of Cargo en route.—River steamers must not land or ship cargo at any other place in the river than Canton and Whampoa. Any breach of these regulations respecting the shipment or discharge of goods exposes such goods to seizure and confiscation.

Office Hours.—The Custom-house is open for the transaction of business from 10 A.M. to 4 P.M., and the River Steamer Office from sunrise to sunset, Sundays and holidays excepted.

All applications regarding customs business should be addressed to the 'Commissioner of Customs.'

Office of Maritime Customs, Canton.

CANTON AND WHAMPOA. CUSTOM-HOUSE REGULATIONS.

Ship's Papers.—Masters must deposit their ship's papers and manifest with their consul (if they have no consul, with the customs) within 48 hours after entering the port.

Import Manifest.—The import manifest must contain a true account of the nature of the cargo on board, and must be handed to the customs before any application to break bulk can be attended to.

Applications to land Cargo.—The import manifest having been received and ship's papers duly lodged with the consul or the customs, permits to land goods will be granted, on the receipt of applications specifying the number of packages, with their marks, weight, quantity, and such like particulars.

Applications to Ship Cargo.—Before shipment of goods, permits to ship must in like manner be obtained.

Exclusion of Cargo.—Cargo for which a permit has been issued, but which cannot be received on board, must be brought to the Custom-house jetty for examination before being relanded.

Export Manifest.—When a vessel has received on board the whole of her outward cargo, the customs must be furnished with an export manifest.

Payment of Duties.—After examination of goods, consignees or shippers will be supplied with a memo., for which early application should be made, of the duties payable.

They may then pay in the amount to the Hai Kwan Bank or Receiving Office, when they will be furnished with a duty receipt in Chinese, which they must bring to the customs.

Import duties are due upon the landing of the goods, and export duties on their shipment. Amendment in respect of weight or value must be made within 24 hours after the landing or shipment of the goods.

Customs' Clearance.—On application being made for the customs' clearance, if the customs are satisfied that the import and export manifests are correct, and that all dues and duties have been paid, the clearance will be issued.

Transhipment.—In all cases of transhipment, application must be made for a tranship permit. Goods transhipped before receipt of such permit are liable to confiscation.

Goods conveyed to and from Whampoa in Cargo Boats.—Cargo boats conveying goods from Canton to Whampoa for shipment there, must be taken for examination to the customs' jetty before the goods can be put on board the ship. On arrival at Whampoa their permits must be exhibited at the floating Custom-house, for countersignature; in like manner, the permits of cargo boats conveying goods to Canton from ships at Whampoa must be countersigned at the Whampoa floating Custom-house, and on arrival at Canton they must repair to the customs' jetty for examination.

Account of the Average Weights and Measurements of the Principal Goods.

Articles	Nett Weight	Measurement	Packages in a Ton of 40 Feet	Packages in a Ton of 50 Feet
		cubic feet		
Teas: Congou - - - - chests	85 lbs.	4·5	9	11
" - - - - half chests	40 "	2·5	16	20
Souchong - - - - chests	80 "	4·5	9	11
" - - - - half chests	37 "	2·6	16	20
Flowery Pekoe - - - - chests	65 "	4·5	9	11
Orange " - - - - half chests	50 "	2·5	16	20
Powchong - - - - "	50 "	2·2	18	23
Ningyong and Oolong - - - - "	36 "	2·5	16	20
Hyson - - - - chests	70 "	4·3	9·3	11·6
" - - - - half chests	46 "			
Young hyson - - - - "	55 "			
Gunpowder - - - - "	58 "	3·1	13	16
Imperial - - - - "	53 "			
Twankay - - - - "	49 "			
Hyson skin - - - - chests	68 "	4·2	9½	12
Raw silk - - - - bale	80 catties	6·0	6⅔	8½
" - - - - case	50 lbs.	2·6	15·4	19¼
Cassia, in mats - - - - bundle	50 catties	4·0	10	12½
cases - - - - cases	50 "	5·8	7	8½
Rhubarb - - - - "	50 "	5·6	11	14
Cassia buds - - - - "	1 picul	5·2	7·7	9·6
Star anise - - - - "	1 "	3·5	4·7	5·9
Camphor - - - - "	1 "	4·1	9·7	12·2
Cassia oil - - - - "	¼ "	2·8	11·3	17·9
Anise - - - - "	½ "	2·5	16	20
Vermilion - - - - "	¼ "	1·2	33	41·7
Split rattans - - - - bundle	¼ "	5·6	11	14
Preserves - - - - cases	6 jars	3·83	22	27·3
Fire crackers - - - - "	40 packs	6·12	95	120
Rattan chairs - - - - bundle	4 chairs	15·75	3	3·6
Matting, size 2 - - - - roll	40 yards	3·6	11	14
3 - - - - "	"	4·8	8⅓	10·4
4 - - - - "	"	6·0	6⅔	8⅓
5 - - - - "	"	7·2	5·6	7
6 - - - - "				

Foreign Merchants.—These consist of British, American, French, Dutch, Danish, Swedish, Spanish, and Portuguese, with Parsee and Indian Mahommedan British subjects. The Americans, French, and Dutch have each consular agents recognised by the Imperial Government. The same privileges have been, or are to be, conceded to all foreigners that have been granted to the English.

Rates of Commission in China, agreed upon in November 1831, *and revised by the Chamber of Commerce, March* 1838.

1. On all sales of opium, cotton, cochineal, camphor barras, birds' nests, diamonds, and other precious stones, pearls, ships and houses	3	per cent.
2. On sales of all other goods	5	"
3. On returns, if in goods	2½	"
4. On returns, if in treasure, bullion, or bills	1	"
5. On purchases, not being returns for goods sold:		
1. Of raw silk	3	"
2. Of manufactured silk	5	"
3. Of all other goods	5	"
6. On inspecting teas, whether for returns or otherwise, an additional charge of	½	"
7. On sale, purchase, or shipment of bullion	1	"
8. On drawing, sale, or negotiation of bills when not involving responsibility as drawer or indorser	1	"
9. On drawing, sale, or negotiation of bills when guaranteed by the agent as drawer or endorser, and not covered by adequate security	2½	"
10. On purchasing bills, or effecting remittance by bills, of the agent or otherwise	1	"
11. On negotiating loans or respondentia	2	"
12. On guaranteeing bills, bonds, or other engagements	2½	"
13. On guaranteeing sales when especially required without including responsibility for remittances	2½	"
14. On guaranteeing both sales and remittance of proceeds	1	"
15. On bills of exchange, returned noted, or protested	1	"
16. On letters of credit for mercantile purposes	2½	"
17. On all advances of money for purposes of trade, whether the goods are consigned to the agent or not, and where a commission of 5 per cent. is not charged	2½	"
18. On ordering goods or superintending the fulfilment of contracts, where no other commission is derived	2½	"
19. On all goods, treasure &c. consigned, and afterwards withdrawn or sent to auction, and for goods consigned for additional delivery to others	½	commission
20. On procuring freight, or advertising as agents for owners or commanders, on the amount of freight, whether the same passes through the hands of the agent or not	5	per cent.
21. On receiving inward freight	1	"
22. On ships' disbursements	2½	"
23. On chartering ships for other parties	2½	"
24. On effecting insurance, or writing orders for insurance	½	"
25. Settling insurance losses, total or partial, and on procuring return of premium	1	"
26. Debts, where a process at law or arbitration is necessary, 2½ per cent.; and if recovered	5	"
27. Collecting house rent	2½	"
28. Acting for the estates of persons deceased, as executors or administrators	5	"
29. The management of the estates of others, on the amount received	2½	"
30. All cash receipts, not serving for the purchase of goods, and not otherwise specified above	1	"
31. Shroffing	½	per mill.
32. Transhipping goods	1	per cent.
33. All advances not punctually liquidated, the agent to have the option of charging a second commission, as upon a fresh advance, provided the charge does not occur twice in the same year	1	"
34. At the option of the agent, on the amount debited or credited within the year, including interest, and excepting only items on which a commission of 5 per cent. has been charged	1	"

N.B.—This charge not to be applied to paying over a balance due on an account made up to a particular period, unless where such balance is withdrawn without reasonable notice.

Port Charges are fixed under the new treaty at 4 mace per ton for vessels of more than 150 tons burden, and at 1 mace per ton on vessels of less than 150 tons.

The Act 6 & 7 Vict. c. 80 authorises the superintendent of the trade of her Majesty's subjects in China, being at the same time governor of Hong Kong, to issue, with the advice of the legislative council of the island, laws and ordinances for the government of British subjects in China, or within 100 miles of the same. Laws and ordinances so issued are to be laid before Parliament.

TRADE OF UNITED KINGDOM ETC. WITH CHINA.

Value of the Exports from British India to China in the Fifteen Years 1853–65.

	£		£
1853 -	7,600,815	1860 -	10,178,416
1854 -	7,424,778	1861 -	11,489,960
1855 -	6,855,959	1862 -	10,467,229
1856 -	6,665,603	1863 -	12,197,597
1857 -	8,016,681	1864 -	10,966,755
1858 -	9,560,808	1865 -	10,874,692
1859 -	11,817,969		

This account includes Japan for the last year.

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Account of the Quantities and Values of the Principal Articles imported into the United Kingdom from China, inc. Hong Kong, in each of the 5 Years ending with 1866.

Principal and other Articles		Quantities				
		1862	1863	1864	1865	1866
Canes or sticks, of all sorts	value	—	—	—	—	—
Cassia lignea	lbs.	22,487	138,535	296	99,125	—
China or Porcelain ware and earthenware	cwts.	1,226	2,036	947	858	695
Cotton, raw	,,	14,695	145,134	459,847	209,946	29,715
piece goods	pieces	26,922	1,500	1,262	—	308
Galls	cwts.	—	72	1,666	3,172	3,634
Ginger, preserved	lbs.	148,349	55,680	175,289	186,838	146,887
Hemp	cwts.	6,238	17,224	3,914	873	3,969
Japanned and Lacquered ware	,,	118	387	126	99	138
Mats and matting	value	—	—	—	—	—
Rhubarb	lbs.	142,371	116,343	55,628	74,310	44,821
Silk, raw	,,	3,263,575	1,679,531	450,484	128,483	91,637
waste, knubs or husks	cwts.	1,279	3,039	2,048	2,952	3,631
thrown	lbs.	3,162	740	—	—	—
Silk manufactures:						
Crape shawls, scarfs, and handkerchiefs, and crape in pieces	,,	3,292	5,677	5,142	6,751	15,129
Pongees and Pongee handkerchiefs	pieces	15,889	7,931	2,257	54	922
Unenumerated	value	—	—	—	—	—
Sugar, unrefined	cwts.	7,528	10,589	11	4	1
Tea	lbs.	105,313,950	127,130,187	112,128,032	109,805,895	127,486,120
Tin	cwts.	—	36	2,548	—	—
Wax, vegetable	,,	—	1,681	—	141	2,142
Wool, sheep and lambs'	lbs.	342,873	429,647	142,164	9,426	50,008
All other articles	value	—	—	—	—	—
Total		—	—	—	—	—

		Computed Real Value				
		1862	1863	1864	1865	1866
		£	£	£	£	£
Canes or sticks, of all sorts	value	8,342	13,984	12,910	7,970	6,559
Cassia lignea	lbs.	936	5,482	12	4,116	—
China or Porcelain ware and earthenware	cwts.	11,579	17,269	11,376	9,242	8,470
Cotton, raw	,,	101,736	1,125,220	3,671,904	1,061,346	128,798
piece goods	pieces	3,610	210	2,003	—	200
Galls	cwts.	—	52	5,355	9,753	11,358
Ginger, preserved	lbs.	4,953	1,747	7,502	8,173	6,288
Hemp	cwts.	5,519	28,006	4,741	821	7,988
Japanned and Lacquered ware	,,	2,538	4,205	1,746	1,150	1,239
Mats and matting	value	3,140	1,838	4,128	6,777	8,555
Rhubarb	lbs.	19,945	16,136	10,366	25,024	14,043
Silk, raw	,,	3,028,002	1,611,585	461,080	161,955	110,719
waste, knubs or husks	cwts.	18,991	34,036	26,768	64,795	59,941
thrown	lbs.	3,162	684	—	—	—
Silk manufactures:						
Crape shawls, scarfs, and handkerchiefs, and crape in pieces	,,	4,837	10,063	10,076	14,730	22,388
Pongees and Pongee handkerchiefs	pieces	14,268	6,503	1,862	74	1,126
Unenumerated	value	2,219	2,069	2,013	1,176	925
Sugar, unrefined	cwts.	8,165	10,182	17	4	2
Tea	lbs.	8,418,194	9,869,722	8,386,629	9,081,486	10,178,070
Tin	cwts.	—	199	13,322	—	—
Wax, vegetable	,,	—	5,465	—	757	12,591
Wool, sheep and lambs'	lbs.	10,958	15,277	5,558	353	1,861
All other articles	value	28,523	46,998	27,722	39,318	39,331
Total		11,699,964	12,826,757	12,667,190	10,499,034	10,620,452

Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture exported from the United Kingdom to China, including Hong Kong, in each of the 5 Years ending with 1866.

Principal Articles		Quantities					Declared Real Value				
		1862	1863	1864	1865	1866	1862	1863	1864	1865	1866
							£	£	£	£	£
Apparel and haberdashery	val.	—	—	—	—	—	21,338	38,550	26,585	12,577	17,875
Arms and ammunition	,,	—	—	—	—	—	23,726	69,273	59,399	24,438	39,639
Beer and ale	brls.	5,074	10,333	5,713	3,790	4,618	20,455	42,285	23,244	14,259	20,295
Coals, cinders, and culm	tons	120,369	107,284	79,362	84,039	54,761	59,588	55,279	35,102	30,377	32,585
Cotton yarn	lbs.	939,966	13,949	168,449	218,180	237,800	50,735	1,356	22,011	22,762	23,393
Cottons, entered by the yard	yards	60,648,421	30,730,941	50,907,843	88,867,357	141,900,987	955,803	778,162	1,402,753	1,961,102	3,316,123
Cottons, entered at value	val.	—	—	—	—	—	4,237	4,072	2,513	838	3,923
Hardwares and cutlery, unenumerated	cwts.	1,669	4,121	4,076	1,580	887	9,858	22,934	18,972	8,472	5,167
Iron, wrought and unwrought	tons	6,237	11,279	10,625	7,904	5,620	62,323	132,038	118,057	69,101	56,305
Lead and shot	,,	4,250	7,610	3,619	1,241	1,326	91,439	162,191	78,300		
Pickles and sauces	val.	—	—	—	—	—	7,520	22,917	11,599	26,571	50,901
Provisions, unenumerated	,,	—	—	—	—	—	9,621	24,036	13,147	5,426	8,200
Woollens, entered by the yard	yards	4,966,534	8,482,836	13,643,551	16,245,721	20,306,251	490,248	732,614	1,048,228	1,303,548	1,381,227
Woollens, entered at value	val.	—	—	—	—	—	4,501	8,448	4,134	1,910	1,239
All other articles	,,	—	—	—	—	—	215,204	324,510	227,153	114,562	124,587
Total		—	—	—	—	—	2,024,118	2,416,705	3,092,611	3,603,595	5,090,074

Quantities and Value of the Principal and other Articles Imported at the Port of Canton in each of the Years 1862–64.

Principal Articles		1862 Quantities	1862 Value	1863 Quantities	1863 Value	1864 Quantities	1864 Value
Cotton piece goods:			dols.		dols.		dols.
Drills, American	pieces	30,965	162,466	7,106	15,791	4,562	29,442
Shirtings, grey	,,	126,589	480,704	48,969	195,433	41,216	221,080
white	,,	49,788	154,345	44,695	193,876	42,326	201,286
T cloths, 36 yards	,,	1,870	9,778	6,075	24,262	—	—
24 ,,	,,	20,601	47,382	28,802	76,623	92,362	85,173
Cottons, dyed, figured, plain	,,	21,627	73,532	20,100	85,302	14,457	65,057
Blue mottles	,,	—	—	1,274	12,096	746	6,155
Damasks	,,	3,667	22,002	3,006	22,149	—	—
Printed	,,	11,382	23,902	15,842	41,048	6,280	20,262
Muslins	,,	510	510	1,984	2,365	34	34
Handkerchiefs	dozens	28,057	56,071	27,151	34,786	29,734	37,168
Velveteens	pieces	1,711	11,977	4,815	47,715	1,508	15,080
Velvets	,,	1,060	9,540	2,625	22,092	1,092	11,242
Yarn	piculs	20,351	1,016,713	14,519	1,106,171	9,501	773,156
Cotton, Bombay, raw	,,	35,928	718,565	188	10,022	—	—
Woollen manufactures:							
Blankets	pairs	3,510	21,060	3,849	24,198	3,625	19,880
Broad cloths	pieces	137	8,792	148	8,456	1,068	88,371
Camlets	,,	4,447	73,005	6,689	117,085	2,982	57,073
Flannels	,,	271	6,000	352	7,091	117	3,087
Habit and medium cloths	,,	566	24,621	1,196	66,014	—	—
Lastings	,,	3,441	56,656	4,641	74,785	4,050	68,850
Long ells	,,	8,080	79,740	11,863	106,143	6,748	57,158
Spanish stripes	,,	9,097	177,192	7,418	141,333	6,793	122,274
Woollen and cotton mixtures	,,	3,769	51,809	5,769	34,602	11,330	150,850
Iron manufactures	piculs	43,241	140,783	24,991	344,421	24,023	81,055
Lead	,,	25,806	210,756	60,655	468,268	54,853	337,318
Quicksilver	,,	3,536	79,239	4,054	169,877	3,246	261,426
Tin	,,	2,244	62,965	810	27,559	1,285	35,989
Opium, Malwa	,,	1,668	1,213,909	1,775	1,793,656	—	772,065
Patna	,,	2,245	1,137,198	2,006	1,096,579	—	550,803
Chinese cargoes &c., chiefly coast and carrying trade in foreign bottoms		—	4,176,676	—	3,673,162	—	4,478,091
Total of principal and other articles	dols.	—	10,780,908	—	9,305,285	—	8,434,102
	£	—	2,412,51*	—	2,281,319	—	2,053,539‡

* Rate of Exchange, 4*s.* 7*d.* † 4*s.* 9½*d.* ‡ 4*s.* 9¾*d.*

Quantities and Value of the Articles (exclusive of Treasure) Exported from the Port of Canton in each of the Years 1862–64.

Articles		1862 Quantities	1862 Value	1863 Quantities	1863 Value	1864 Quantities	1864 Value
			dols.		dols.		dols.
Tea, black	lbs.	25,589,332	6,170,927	18,057,591	4,134,456	10,943,186	2,571,925
green	,,	6,304,702	1,689,491	6,419,820	1,527,812	3,006,738	772,753
Silk, raw	piculs	6,091	2,548,067	5,408	2,235,408	2,735	1,154,593
thrown	,,	—	—	296	125,551	123	52,416
coarse	,,	5,215	361,926	3,914	374,001	3,400	329,580
refuse	,,	794	35,744	695	31,307	771	34,696
cocoons	,,	17	1,918	—	—	—	—
Cotton, Bombay	,,	38,773	775,494	—	—	—	—
China	,,	—	—	938	25,339	833	22,088
Chinese cargoes &c., chiefly of the coast, and carrying trade in foreign bottoms		—	6,239,028	—	7,528,883	—	4,875,275
Total	dols.	—	17,742,591	—	16,083,062	—	9,813,711
	£	—	4,060,746*	—	3,362,039†	—	2,361,421‡

* Rate of Exchange, 4*s.* 7*d.* † 4*s.* 9½*d.* ‡ 4*s.* 9¾*d.*

Quantities of Black and Green Teas Exported to various Countries from the Port of Canton in each of the Years 1862–64.

Countries to which Exported	1862 Black	1862 Green	1862 Total	1863 Black	1863 Green	1863 Total	1864 Black	1864 Green	1864 Total
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Great Britain, Australia, Bombay	22,604,599	3,139,566	25,744,165	14,713,319	3,048,033	17,761,352	9,234,066	1,473,344	10,707,410
Hong Kong	*1,650,866	976,577	2,627,443	*1,514,266	1,246,262	2,760,528	857,778	379,360	1,237,138
United States, South America	622,366	1,831,063	2,453,429	223,208	1,338,309	1,561,517	490,791	871,057	1,361,848
Other countries	711,501	357,496	1,068,997	1,606,598	787,216	2,393,814	360,551	289,977	613,528
Total	25,589,332	6,304,702	31,894,034	18,057,591	6,419,820	24,477,411	10,943,186	3,006,738	13,949,924

* By river steamers, lorchas, and Chinese boats.

Number and Tonnage of Vessels of various Nations entered at the Port of Canton in 1862–64.

Nationality of Vessels	1862 Vessels	1862 Tons	1863 Vessels	1863 Tons	1864 Vessels	1864 Tons
British	108	58,390	96	57,425	99	50,762
River steamers and lorchas	118	18,154	167	22,262	12	8,352
American	48	39,782	27	19,565	9	7,783
River steamers	380	120,555	490	172,268	617	250,954
Other countries	59	16,265	97	29,000	110	34,898
Total	723	253,146	887	300,520	847	351,749

Quantities of the different Kinds of Silk Exported from the Port of Canton in each of the Years 1862–64.

Description of Silk	1862	1863	1864
	lbs.	lbs.	lbs.
Raw	798,661	719,264	363,735
Thrown	16,952	39,368	16,359
Coarse	694,212	520,562	452,333
Refuse	103,908	92,568	102,245
Cocoons	2,274	—	—
Total	1,618,010	1,371,762	934,990

From this table it will be seen that the silk

trade is declining. The export of tea fell from 263,000 piculs in 1860 to 109,742 piculs in 1865.

Consular Fees.

	£	s.	d.
For every declaration made before the consul in forms B. C. F. G. H. and L. in the schedule of the Merchant Shipping Act	0	5	0
Endorsing a memorandum of change of master upon certificate of registry	0	2	0
For granting a provisional certificate of registry	0	10	0
For recording a mortgage of a ship	0	10	0
Transfer of do.	0	7	0
Discharge of do.	0	7	6
Sale of ship	0	10	0
Inspection of register	0	1	0
Every seaman engaged before consul	0	2	0
Alteration in agreement	0	2	0
Seaman discharged	0	2	0
Desertion certified	0	2	0
Attesting seaman's will	0	2	0
Examination of provisions and water, to be paid by party in default	0	10	0
Salvage bond (17 & 18 Vict. c. 104 s. 488)	2	0	0
Disbursements for distressed seamen	2½ per cent.		

In all these cases the consul's interposition is required by law.

In matters of voluntary jurisdiction, the following fees are claimable:—

	£	s.	d.	
Noting protest, with certified copy if needed	0	5	0	
Order of survey, with do.	0	5	0	
Extending a protest with do.	1	0	0	
If beyond 200 words, for each additional 100 words	0	2	6	
Preparing and attesting bottomry or arbitration bond	1	0	0	
Attesting do. when not prepared by consul	0	5	0	
Attendance at shipwreck out of consular office with travelling expenses	1	1	0	per diem
Attending valuation of goods under 200*l.*	0	10	6	
Do. if above, for each day's attendance	1	1	0	
Attending sale of goods under 200*l.*	1	1	0	
Do. if above, for each day's attendance	2	2	0	
Certificate of due landing of goods from United Kingdom	0	9	0	
Bill of health	0	10	0	
Visé of passport	0	2	0	
Opening will of British subject (not being seaman)	1	1	0	
Management of property of do.	2½ per cent.			
Registration of documents	0	2	6	
If exceeding 100 words, for every 100 additional	0	0	6	
Every certified copy of document not before mentioned	0	2	6	
If beyond 100 words, for each 100	0	0	6	
Administering oath and attesting signature, if required	0	2	0	
Attesting signature	0	2	0	
Annexing official seal to any document not previously named	0	5	0	

No fee to be taken for custody of or endorsement on ship's articles and papers deposited with the consul in accordance with 17 & 18 Vict. c. 104 s. 279.

Where the fee is fixed in preceding tables for any particular act, no additional fee to be demanded for signature, attestation, or annexing seal of office.

The above fees, if not paid in English money, are to be calculated at the current rate of exchange.

The payment of our consuls by fees is much, and we believe justly, objected to at Canton. It is a bad practice anywhere, and especially so in China.

A Chinese ship or junk is seldom the property of one individual. Sometimes 40, 50, or even 100 different merchants purchase a vessel, and divide her into as many different compartments as there are partners; so that each knows his own particular part in the ship, which he is at liberty to fit up and secure as he pleases. The bulk-heads, by which these divisions are formed, consist of stout planks, so well caulked as to be completely watertight. A ship thus formed may strike on a rock and yet sustain no serious injury; a leak springing in one division of the hold will not be attended with any damage to articles placed in another; and from her firmness she is qualified to resist a more than ordinary shock. A considerable loss of stowage is, of course, sustained; but the Chinese exports generally contain a considerable value in small bulk. It is only the very largest class of junks that have so many owners; but even in the smallest class the number is very considerable.

Population of China.—For some remarks on the conflicting accounts and theories that have been put forth with respect to the population of this empire, the reader is referred to the *Geographical Dictionary*, art. 'China.'

CANVAS (Fr. toile à voile; Ger. segeltuch; Ital. canevazza, lona; Russ. parussnoe polotno, parussina; Span. lona). Unbleached cloth of hemp or flax, chiefly used for sails for shipping. Masters of ships used to be required to make entry of all foreign-made sails and cordage, not being standing or running rigging, in use on board their respective ships, under a penalty of 100*l.* But this and all other restrictions and regulations in regard to foreign canvas are now repealed. It had been the practice for a considerable period to grant bounties on the exportation of canvas or sail-cloth: these, however, finally ceased on the 1st of January, 1832. By an Act passed in the reign of Geo. II. new sails were ordered to be stamped with the maker's name and place of abode; but this regulation was repealed by the 10 Geo. IV. c. 43 s. 9.

'It is usually made in pieces or "bolts" from 24 to 30 inches wide, and 38 to 40 yards long. A bolt of navy canvas (always of the best quality) is about 40 yards long. Each bolt of canvas is numbered, to show its quality, and bolts 39 yards long and 24 inches broad ought to weigh, No. 1 quality, 46 lbs.; No. 2, 43 lbs.; No. 3, 40 lbs.; No. 4, 36 lbs.; No. 5, 33 lbs.; No. 6, 30 lbs.; No. 7, 27 lbs.; No. 8, 25 lbs.; No. 9, 23 lbs.; and No. 10, 21 lbs. The two last are uncommon.' (Young's *Nautical Dictionary.*)

Prices of Sail-cloth paid by Trinity House.

		per yard s.	d.
For sails, canvas No. 1	1863	1	4
	1864	1	5
	1865	1	5

Falling ¼*d.* per yard each number.

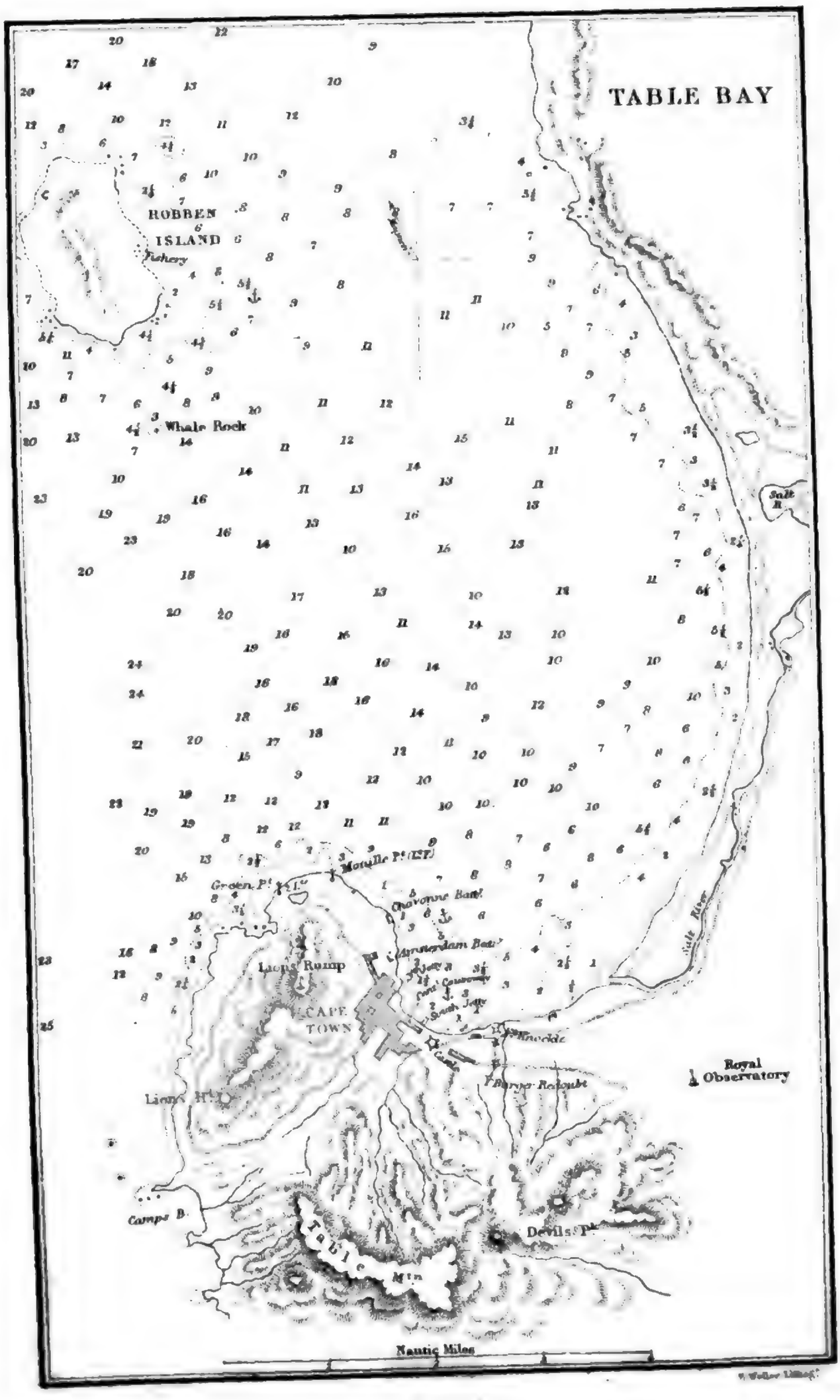
The price fixed for the value of imports of sails and sail-cloth in 1866 was 1*s.* per square yard.

CAOUTCHOUC (Ger. federharz; Dutch, elastick gom; Fr. caoutchouc; Ital. gomma elastica; Span. ule resina elastica). 'Caoutchouc, gum elastic, or India-rubber, are the general names for a substance now so well known, familiar, and important, that it seems matter for surprise that the latter half of the preceding century should have passed away before it was made known to Europe by memoirs read to a learned body: for the remainder of the century its extraordinary property of elasticity and the grotesque objects made by the Indians caused it to be met with in the cabinets of the curious; its general knowledge and use was confined to erasing marks of black lead pencil from paper, and in this country it received the common name of lead-eater.' (Ure's *Dictionary*, by Hunt.)

The chief source of the 'India rubber' of commerce is the juice of several kinds of siphonia, and especially the Siphonia elastica of Central and South America. The largest quantity of caoutchouc is imported from Pará in Brazil.

Caoutchouc comes either in large flat pieces, or moulded on a framework of clay, in the shape of a bottle. The latter are formed by concreting successive layers of fresh juice on a clay mould. In order to facilitate the drying of these layers, the mass is exposed to smoke, which gives the substance a black colour. When it is not so treated, the mass is a yellowish white. It is said that acids, and especially alum, cause a more rapid coagulation, and that ammonia retards the process.

The properties of caoutchouc were first made known by Bouguer and La Condamine, who had been sent to Peru, by the Academy of Sciences in Paris, in order to measure a meridional arc in


TABLE BAY
ROBBEN ISLAND
Fishery
Whale Rock
Salt R.
Mouille Pt (LT)
Green Pt
Chavonne Batt
Amsterdam Batt
Lions Rump
CAPE TOWN
Lions H.D
Camps B.
Table Mt.
Devils Pk
Royal Observatory
Nautic Miles

1736. The tree producing the substance was first described by Aublet in 1768.

The following are the importations of caoutchouc since 1851:—

Year	cwts.	Year	cwts.
1851	15,269	1860	43,639
1852	19,607	1861	57,854
1853	17,326	1862	59,703
1854	27,588	1863	65,749
1855	44,703	1864	71,097
1856	28,763	1865	71,792
1857	22,000	1866	72,126
1858	25,135	1867	79,756
1859	21,311		

These figures indicate the increase in the use of this valuable material.

In a report by Messrs. Neumann & Co., and given in the 'Economist' in March 1866, the price of rubber is stated to be 2*s.* 2½*d.* per lb., or 100 per cent. higher than its price in 1857.

CAPERS (Fr. capres; Ger. kappern; Dutch, kappers; Ital. cappari; Span. alcaparras; Russ. kaperszll; Lat. capparis). The pickled buds of the *Capparis spinosa*, a low shrub, generally growing out of the joints of old walls, and the fissures of rocks, in most of the warm parts of Europe. Capers are imported into Great Britain from different parts of the Mediterranean—the best from Toulon in France. Some small salt capers come from Majorca, and a few flat ones from about Lyons. In 1866, 209,967 lbs. capers were imported, valued at 8,750*l.* In 1853 the duty of $6\frac{3}{10}$*d.* per lb. on their importation was reduced to 1½*d.* per ditto, and was repealed in 1860.

CAPE-TOWN. The capital of the British territory in South Africa, at the bottom of Table Bay, about 32 miles north from the Cape of Good Hope, and on the western side of the territory to which it gives its name; lat. 30° 55′ 56″ S., long. 18° 21′ E. The town was founded by the Dutch in 1650, and remained, with the territory subject to it, in their possession till it was taken by the British in 1795. It was restored to the Dutch by the Treaty of Amiens; but being again captured by the British in 1806, it was finally ceded to us in 1815. The streets are laid out in straight lines, crossing each other at right angles; many of them being watered by canals, and planted on each side with oaks. The population in 1842 amounted, according to the *Cape Almanac*, to 22,543, of whom about a third were blacks, and in 1856 according to the *Geographical Dict.* to 26,420. The town is defended by a castle of considerable strength. Table Bay is capable of containing any number of ships; but it is exposed to the westerly winds, which, during the months of June, July, and August, throw in a heavy swell—a cause of many distressing accidents. This, in fact, is the great drawback upon Cape-Town, which in all other respects is most admirably fitted for a commercial station. At the proper season, however, or during the prevalence of the easterly monsoon, Table Bay is perfectly safe; while the cheapness and abundance of provisions, the healthiness of the climate, and above all its position, render it a peculiarly desirable resting-place for ships bound to or from India, China, Australia &c.

Port Instructions.—Art. 1. On the arrival of merchant vessels in Table Bay, a proper berth will be pointed out to the masters thereof by the port captain when he boards them; and no master of a merchant vessel shall shift his berth without permission from the port captain unless in case of extreme emergency, when he must report his having done so as early as possible at the Port-Office.

2. Should it be the intention of a master of a vessel to discharge or receive on board any considerable quantity of merchandise, a berth will be pointed out to him as close to the jetty or other landing-place as the safety of the vessel and other circumstances will admit; and the master will then moor with two bower anchors, with an open hawse to the NNE., taking especial care, in so mooring, not to overlay the anchors of any other ship, or in any way to give the vessel near him a foul berth. Ships and vessels touching in Table Bay for water and refreshments alone may ride at single anchor in the outer anchorage; but in this case it is particularly recommended to veer out 80 or 90 fathoms, if they ride by a chain cable, as the liability of starting or fouling the anchor, or breaking the chain, will thereby be greatly lessened; and if riding by a rope or coir cable, to run out a stream or good kedge, to steady the ship; and in both cases the other bower anchor should be kept in perfect readiness to let go. When the vessel is properly moored with bower anchors or well secured with a bower and stream anchor, and with good cables, buoys, and buoy ropes, the master will then take the exact place of the ship by the bearings of 2 land-marks, and the depth of the water; and should accident occur, by which the vessel may drift from this situation, or lose her anchors, a good bearing and depth of water must be taken at the time, and the same must be notified in writing to the port captain. It is particularly recommended that vessels be kept as snug as possible, to counteract the effects of the periodical winds, which at times blow with considerable violence.

Cape Colony, extending as it does from Cape-Town on the west to the Keiskamma River on the east, is of very great extent, and contains every variety of soil, from the richest level land to the wildest mountain, and tracts destitute of even the appearance of vegetation. The climate fluctuates between the two extremes of rain and drought. On the whole, its advantages and disadvantages seem to be pretty equally balanced, and the prospects which it holds out to the industrious emigrant, if not very alluring, are certainly not discouraging.

Population.—According to the official returns, the population of the Cape Colony in 1866 amounted to 496,381, of whom 314,789 were coloured.

Produce.—Large quantities of corn of a very good description are produced in the immediate neighbourhood of Cape-Town, and in other parts of the colony; but agriculture is crippled by the Dutch law of succession, which, by dividing a man's property equally among his children, hinders the accumulation of capital in masses, and the formation of proper farming establishments. (Thomson's *Travels in Southern Africa*, p. 324.)

Natal is the principal market for the corn of the Cape, and efforts are being made to improve its harbour. The exports of wool have increased with astonishing rapidity, having risen from 113,077 lbs. in 1833, to 1,754,757 lbs. in 1843, to above 16,000,000 lbs. in 1858, and in 1865 to 32,806,246 lbs., valued when exported at 1,681,565*l.* It is now by far the most important article sent from the colony. The native breed of sheep is very inferior: its fleece is worth nothing, and it is remarkable only for the size of the tail, which sometimes weighs 20 lbs. But fine-woolled Spanish merinos, Saxon and English sheep succeed remarkably well, and their wool fetches a high price. The eastern district of Albany is especially suitable for sheep.

Large quantities of wine, and of what is called brandy, are produced at the Cape; but, with the exception of Constantia, they are very inferior. The effect of allowing the importation of Cape wines into the United Kingdom at a comparatively low duty is, not to occasion their direct consumption, but to cause them to be employed as a con-

venient means of adulterating others; so that besides being injurious to the revenue, such reduction of duty promotes fraudulent practices, and detracts from the comforts of the public.

Considerable quantities of hides, skins, and horns are exported. They are principally brought from Algoa Bay, on the eastern side of the colony; and the trade has increased very fast during the last 15 years. Aloes are an important product; and wool, butter, beef, ivory, argol, and various other articles are among the exports. The latter also include dried fish, whale and seal oil &c., the Cape fisheries being of considerable value. Copper ore is also become an important article of export.

The imports of the Cape consist of woollens, cottons, hardware, furniture, haberdashery, paper, books, and portions of most articles used in this country. Piece goods and teak timber are imported from India, tea from China, sugar from India, the Mauritius &c.

Trade.—The trade between the colonists and the independent natives is subjected to various restraints, of which it is not always very easy to discover the policy. The sale of gunpowder and firearms to the natives has been prohibited; a regulation which might have been a judicious one, had they not been able to obtain them from any one else. The Americans have, however, traded with the eastern coast, and have liberally supplied the natives with these and various other articles; so that by keeping up the regulation in question we merely exclude ourselves from participating in what might be an advantageous trade. Since we have taken possession of Natal, this intercourse may perhaps have been stopped.

Account of the Quantities and Values of Domestic Products and Manufactures exported from the United Kingdom to the Cape Colony in each of the 5 Years ending with 1866.

Principal and other Articles		Quantities				
		1862	1863	1864	1865	1866
Apparel and haberdashery	value	—	—	—	—	—
Arms and ammunition; viz.						
Fire-arms (small)	no.	7,725	5,492	2,811	2,308	2,732
Gunpowder	lbs.	238,295	224,351	265,457	221,764	219,806
Bags, empty	dozen	25,469	23,071	48,875	37,784	26,607
Beer and ale	barrels	16,991	11,153	16,764	18,065	12,827
Books, printed	cwts.	1,281	1,333	1,631	1,198	1,253
Brass	,,	1,120	1,510	1,070	473	190
Copper, wrought and unwrought	,,	1,507	1,069	926	808	1,254
Candles	lbs.	849,319	848,958	609,176	308,624	515,754
Coals, cinders, and culm	tons	36,076	25,390	57,167	39,396	27,432
Cottons, entered by the yard	yards	11,042,141	5,558,169	12,123,752	8,956,938	12,129,594
at value	value	—	—	—	—	—
Drugs and chemical products	,,	—	—	—	—	—
Earthenware and porcelain	,,	—	—	—	—	—
Furniture: cabinet and upholstery wares	,,	—	—	—	—	—
Glass manufactures	,,	—	—	—	—	—
Hardwares and cutlery, unenumerated	cwts.	17,311	14,499	22,856	17,019	11,043
Hats, of all sorts	dozen	14,151	11,317	17,437	9,802	5,794
Iron, wrought and unwrought	tons	9,564	7,708	9,185	4,795	2,534
Leather, wrought and unwrought	value	—	—	—	—	—
saddlery and harness	,,	—	—	—	—	—
Linens, entered by the yard	yards	724,980	443,651	735,779	568,787	524,982
at value	value	—	—	—	—	—
Machinery and millwork	,,	—	—	—	—	—
Paper, of all sorts, including paper hangings	cwts.	5,227	5,083	6,121	4,656	4,063
Silk manufactures	value	—	—	—	—	—
Soap	cwts.	21,031	38,447	33,110	16,616	12,043
Stationery, other than paper	value	—	—	—	—	—
Sugar, refined	cwts.	7,725	4,807	4,559	4,675	3,643
Woollens, entered by the yard	yards	1,233,042	984,597	1,635,502	1,170,434	801,353
at value	value	—	—	—	—	—
All other articles	,,	—	—	—	—	—
Total		—	—	—	—	—

		Declared Real Value				
		1862	1863	1864	1865	1866
		£	£	£	£	£
Apparel and haberdashery	value	377,868	281,151	509,543	459,115	377,452
Arms and ammunition; viz.						
Fire arms (small)	no.	37,028	26,735	11,273	8,296	9,061
Gunpowder	lbs.	9,070	7,960	9,165	8,558	8,673
Bags, empty	dozen	24,041	23,656	59,720	40,178	26,255
Beer and ale	barrels	70,245	44,503	66,815	66,566	47,528
Books, printed	cwts.	20,654	20,433	25,622	21,698	20,443
Brass	,,	6,129	7,183	5,810	2,491	987
Copper, wrought and unwrought	,,	6,800	4,765	4,854	3,559	5,117
Candles	lbs.	33,789	29,879	19,936	9,587	18,371
Coals, cinders, and culm	tons	19,198	14,286	28,542	23,012	16,398
Cottons, entered by the yard	yards	257,353	147,008	383,084	265,978	518,364
at value	value	18,423	13,220	18,745	12,519	15,476
Drugs and chemical products	,,	17,975	14,847	22,379	22,512	17,373
Earthenware and porcelain	,,	20,111	16,490	22,032	16,972	10,546
Furniture: cabinet and upholstery wares	,,	27,490	22,179	30,266	17,198	10,625
Glass manufactures	,,	26,113	18,780	25,942	16,953	12,805
Hardwares and cutlery, unenumerated	cwts.	83,198	62,884	81,953	65,514	42,069
Hats, of all sorts	dozen	26,913	20,431	30,769	20,514	12,491
Iron, wrought and unwrought	tons	146,171	115,867	154,944	89,267	45,307
Leather, wrought and unwrought	value	109,857	86,221	116,678	80,684	48,345
saddlery and harness	,,	33,236	20,626	29,411	23,356	8,925
Linens, entered by the yard	yards	25,443	17,617	32,497	24,729	20,339
at value	value	1,297	920	2,502	1,278	1,463
Machinery and millwork	,,	29,652	23,513	39,706	20,346	11,564
Paper, of all sorts, including paper hangings	cwts.	16,999	15,876	21,027	15,576	11,670
Silk manufactures	value	14,364	15,291	9,920	6,196	1,582
Soap	cwts.	21,624	36,212	33,885	15,864	12,341
Stationery, other than paper	value	18,263	18,925	11,753	11,265	1,690
Sugar, refined	cwts.	22,038	8,544	7,207	7,350	6,566
Woollens, entered by the yard	yards	119,334	100,011	156,778	120,177	79,125
at value	value	10,410	9,236	11,933	6,167	4,645
All other articles	,,	299,785	281,737	294,250	197,805	188,469
Total		1,991,428	1,532,383	2,271,616	1,701,060	1,399,024

Account of the Quantities and Values of the Principal Articles, the Produce of the Colony, exported thence to the United Kingdom in each of the 5 Years ending with 1866.

Principal and other Articles		Quantities				
		1862	1863	1864	1865	1866
Aloes	lbs.	221,045	440,305	474,763	731,777	791,594
Arrowroot	cwts.	1,046	1,136	1,554	1,250	2,865
Coffee	lbs.	18,360	37,197	49,199	88,168	401,215
Copper ore	tons	2,960	3,155	4,584	4,086	4,138
Cotton, raw	cwts.	6,546	34,082	1,702	1,111	4,845
Feathers, ostrich	lbs.	8,820	11,215	15,047	17,892	17,995
Hides, not tanned	cwts.	12,181	13,161	14,454	12,019	13,099
Horns, horntips, and pieces of horn	tons	63	86	62	87	66
Indigo	cwts.	—	—	66	—	331
Oil, train or blubber	tuns	11	30	47	64	164
spermaceti or head matter	,,	—	40	151	8	—
Petroleum	,,	—	—	—	—	637
Rice, not rough nor in the husk	cwts.	625	6,830	—	11,270	24,043
rough or in the husk	qrs.	197	—	—	2,084	1,275
Skins, goat, undressed	no.	225,991	248,994	189,762	366,874	302,610
seal	,,	8,505	3,129	1,084	1,125	3726
sheep, undressed	,,	643,066	516,721	551,279	980,262	762,904
Sugar, unrefined	cwts.	1,139	17,540	39,584	54,235	31,111
Teeth, elephants'	,,	1,194	2,232	1,110	896	925
Tobacco, manufactured	lbs.	118	419	6,285	225,738	465
Wine	gallons	19,155	105,167	29,155	93,301	23,695
Wool, sheep and lambs'	lbs.	18,930,886	20,166,617	19,880,905	29,220,343	29,249,000
All other articles	value	—	—	—	—	—
Total		—	—	—	—	—

		Computed Real Value				
		1862	1863	1864	1865	1866
		£	£	£	£	£
Aloes	lbs.	4,093	8,893	9,929	12,866	12,443
Arrowroot	cwts.	2,267	3,994	5,092	3,906	7,801
Coffee	lbs.	611	1,080	1,387	2,889	12,864
Copper ore	tons	74,305	82,824	110,379	93,656	75,572
Cotton, raw	cwts.	35,196	196,042	15,457	8,047	29,406
Feathers, ostrich	lbs.	41,553	108,918	170,284	112,291	105,973
Hides, not tanned	cwts.	24,443	27,149	31,652	25,980	26,980
Horns, horntips, and pieces of horn	tons	2,176	2,643	1,570	2,099	1,871
Indigo	cwts.	—	—	1,576	—	7,656
Oil, train or blubber	tuns	447	1,229	2,144	2,795	7,944
spermaceti or head matter	,,	—	3,220	10,020	718	—
Petroleum	,,	—	—	—	—	9,424
Rice, not rough nor in the husk	cwts.	376	3,828	—	7,173	13,933
rough or in the husk	qrs.	354	—	—	1,792	2,295
Skins, goat, undressed	no.	25,119	41,295	31,365	60,803	46,635
seal	,,	7,229	1,889	745	2,092	5,375
sheep, undressed	,,	65,668	56,000	53,364	88,273	79,486
Sugar, unrefined	cwts.	1,653	21,312	70,741	78,000	52,560
Teeth, elephants'	,,	27,193	62,571	56,415	28,027	19,779
Tobacco, manufactured	lbs.	7	21	534	9,444	19
Wine	gallons	5,853	10,610	9,744	9,037	2,010
Wool, sheep and lambs'	lbs.	1,151,412	1,213,132	1,424,799	1,837,183	2,179,969
All other articles	value	39,699	45,067	24,991	40,295	45,140
Total		1,517,851	1,919,843	1,975,853	2,415,485	2,719,325

But we should fall into the greatest error if we supposed that either the whole or even the greater portion of this produce was shipped from Cape-Town. On the contrary, Port Elizabeth, on the W. side of Algoa Bay, with an excellent harbour, being situated in the most fertile district of the colony, and the most suitable for the growth of wool, is become the centre of a considerable trade, its exports in some years having exceeded those of Cape-Town. The recent annexation of British Kaffraria, however, will no doubt increase the relative importance of Cape-Town. The following table shows the comparative commercial importance of the places referred to:—

Statement showing the Number and Tonnage of the Vessels that entered each of the undermentioned Ports of Cape Colony in 1863–65.

Ports	Entered					
	1863		1864		1865	
	Vessels	Tons	Vessels	Tons	Vessels	Tons
Cape Town	391	177,873	392	177,081	353	154,807
Port Beaufort	2	995	—	—	2	948
Mossel Bay	8	1,607	10	1,573	5	768
Simon's Town	37	20,932	49	26,994	42	27,094
Port Elizabeth	188	51,332	208	67,977	172	71,135
Port Alfred	—	—	—	—	1	159
Total	629	252,739	659	273,925	555	254,931
Coastwise:						
Cape Town	119	14,918	210	27,555	193	29,755
Port Beaufort	18	2,844	—	—	13	2,307
Mossel Bay	39	5,475	36	4,242	39	6,647
Simon's Town	19	3,967	19	3,927	21	4,377
Port Elizabeth	60	17,973	65	18,807	77	22,838
Total coastwise	285	44,777	330	54,531	347	66,924
Total	914	297,516	989	328,456	902	321,855

In the 5 years 1862–6 we exported to the Cape foreign and colonial produce and manufactures of the values of 113,315*l.*, 102,424*l.*, 108,825*l.*, 57,360*l.*, and 60,989*l.*

Custom-house Regulations, Duties, Fees etc.

On Admission of a Ship to Entry, observe—

1. The ship's register must be lodged in the Custom-house until the vessel clear again for sea.

2. The manifest of the cargo on board for this place must be deposited there.

3. The cockets of cargoes shipped from any place in Great Britain or Ireland for this place must also be deposited there.

From the endorsement of such cockets an extract is to be made, which will show the contents of the different packages on board, and facilitate the making out of the entries.

4. In making out the declarations, the value by invoice of the different commodities must be given by the importer, in order to enable the Custom-house to estimate the duties payable, and to send in to Government, annually, the required statement of the total duties received upon the several articles imported.

In the clearing of a Ship outwards, observe—

1. The master must produce a certificate from the harbour-master that the tonnage duties of the port have been paid.

2. The export manifest must be examined with the permits granted, in order to ascertain whether packages have been shipped without a permit.

3. Export declarations must be sent in by the several shippers of the quality and value of goods or produce shipped by them, in order to ascertain the amount of the exports of the colony.

4. When Cape wine is shipped for exportation to England, affidavit of the particular description of such wine must be delivered, and a certificate granted, by the collector or comptroller of customs, to the master, of his having received such affidavit.

5. Manifests, in triplicate, of such goods as are shipped from the Cape for Great Britain, must be delivered signed and sworn to by the master, before the collector or comptroller.

The original of which is to be returned to the master to accompany the cargo.

The duplicate to be forwarded, by the first conveyance sailing subsequently to the vessel containing the original, to the commissioners of customs in England or Scotland respectively, as the case may happen.

And the triplicate, written on or covered with a stamp, to remain as an office copy.

N.B.—Ships taking in cargoes for other parts of the world are required to deliver only original and duplicate manifests.

6. When whale oil or whale bone is shipped from the Cape for England, the proprietor of the whale fishery is to make oath before the collector or comptroller that the same were bonâ fide the produce of fish, or creatures living in the sea, actually taken and caught wholly by her Majesty's subjects usually residing in this colony; and the collector or comptroller is to grant a certificate under his hand and seal to the master, testifying that such oath hath been made before him.

7. When salted seal skins are shipped from the Cape for England, the shipper is to make oath before the collector or comptroller that the same are really and bonâ fide the skins of seals taken and caught on the coasts appertaining to the Cape of Good Hope, wholly by her Majesty's subjects usually residing in this colony; and that all the salt used in the curing or preserving of the same was not made in, or exported from, Great Britain or Ireland; and the collector or comptroller is to grant a certificate to the master accordingly.

8. The original manifest, and a copy thereof, of ships touching at the Cape of Good Hope, with cargoes from the eastward for England, to be delivered and sworn to by the master before the collector or comptroller. The original to be returned to the master, and the copy forwarded from the Custom-house to the commissioner of customs.

9. If any part of such cargo shall be discharged at the Cape of Good Hope, the collector or comptroller is to endorse upon the manifest the part of the cargo so discharged, and verify the same.

A Table of Duties of Customs payable on Goods, Wares, and Merchandise imported into the Colony of the Cape of Good Hope, per Act I. 1855.

Goods		Duty £	s.	d.
Ale or beer, viz.:—				
in bottles	gal.	0	0	3
not in bottles	gal.	0	0	2
Cheese	cwt.	0	10	0
Cinnamon or cassia	lb.	0	0	3
Cloves	lb.	0	0	4
Coffee	cwt.	0	12	6
Flour, wheaten	bar. of 196 lbs.	0	3	0
Fruits, dried, viz.:—				
currants, raisins, or figs	cwt.	0	5	0
Ginger, viz.:—				
dry	lb.	0	0	1
preserved or chowchow	lb.	0	0	1
Gunpowder	lb.	0	0	6
Guns, or gun-barrels	bar.	1	0	0
Mace	lb.	0	0	9
Meat, salted or cured	cwt.	0	3	0
Nutmegs	lb.	0	0	6
Pepper	cwt.	0	10	0
Pistols, or pistol barrels	each	0	10	0
Rice	cwt.	0	2	0
Spirits of all sorts, not exceeding the strength of proof by Sykes's hydrometer, and so in proportion for any greater strength	gal.	0	3	0
Liqueurs, cordials, or sweetened spirits	gal.	0	4	0
Sugar, viz.:—				
unrefined	cwt.	0	3	6
refined, or candy	cwt.	0	5	0
molasses	cwt.	0	2	0
Tea	lb.	0	0	6
Tobacco, viz.:				
not manufactured	cwt.	1	8	0
manufactured (not cigars), or snuff	cwt.	2	16	0
cigars (at the option of the officers of customs)	1000	0	12	6
or the lb.		0	1	3
Wine, viz.:—				
in bottles	gal.	0	2	6
not in bottles	gal.	0	2	0
Wood, unmanufactured	cubic foot	0	0	2
Goods not being enumerated or described, nor otherwise charged with duty, and not prohibited to be imported into, or used in, the Colony of the Cape of Good Hope, for every 100*l.* value		7	10	0

Foreign reprints of books, originally published in the United Kingdom, and there protected by copyright, may now (Act Col. Parl. No. 4, 1854) be imported here on paying an ad valorem duty of 20 per cent. on the bonâ fide value of such reprints.

Free.

Animals, living.
Books and music printed.
Bottles of common glass, imported full of spirits, wine, beer, or ale.
Bullion or coin.
Coals, coke, or patent fuel.
Diamonds.
Guano.
Ice.
Maps or charts.
Pictures.
Provisions or stores of every description, imported or supplied for the use of her Majesty's land or sea forces, when the customs duties shall not have been paid thereon.
Seeds, bulbs, or plants.
Specimens illustrative of natural history.
Wine, imported or taken out of bond for the use of military officers serving on full pay in this colony or in British Kaffraria, and also for the use of officers of her Majesty's navy serving on board any of her Majesty's ships: subject, however, to such regulations as the governor shall think fit to make; and provided that if any such wines shall be subsequently sold in this colony, except for the use or consumption of any of her Majesty's military or naval officers serving as aforesaid, the same shall be forfeited, and be liable to seizure accordingly.
All articles of naval or military uniform or appointments imported by officers stationed in this colony, or British Kaffraria, for their own use.

Custom House Fees.—All fees abolished by Ordinance No. 6 of 1853.

Queen's Warehouse Rent.—A certain sum per week is charged upon goods, in proportion to their bulk and value.

Commission.—The following rates of commission are charged and allowed, namely:—

	Per cent.
1. On the net amount of all sales of goods by public sale, and on the gross amount of all other sales	5
2. Goods consigned, and afterwards withdrawn	2½
3. On purchases effected from the proceeds of goods on which a commission has already been charged	2½
4. On all other purchases, or shipments of goods	5
5. On the sale or purchase of ships, house-, or lands	2½
6. On ships' disbursements	5
7. On procuring freight	5
8. On collecting freight on ships bound to this place	2½
9. On guaranteeing bills or bonds by indorsement or otherwise	2½
10. On collecting debts without recourse to law	2½
Ditto where legal proceedings are taken	5
11. On effecting remittances by bills of exchange	1
12. On the negotiation of bills	1
13. On effecting insurances	0½
14. On the administration of estates	5
15. On cash advances	2½
16. On the debtor and creditor sides of cash accounts, on which no other commission is charged	1

Money.—Accounts are either kept in pounds, shillings, pence, and farthings, or in rix-dollars, schillings, and stivers.

1 stiver	= ½ of a penny
6 stivers	½ pence, or 1 schilling
8 schillings	18 pence, or 1 rix-dollar

The Commissariat department grant bills on the Treasury at a premium of 1½ per cent.

Revenue and Expenditure.—In 1865 the revenue of Cape Colony amounted to 499,812*l.*, of which 275,559*l.* was derived from the Customs. During the same year the expenditure amounted to 651,515*l.*

Banks &c.—Five joint-stock banking companies have been established in Cape Town, viz. the Cape of Good Hope Bank, established in 1837, with a paid up capital of 70,000*l.*; the South African Bank, established in the following year, with a paid-up capital of 60,000*l.*; the Colonial Bank, established in 1844; the Union Bank in 1847; and the Commercial Bank in 1854. These banks transact ordinary banking business, and allow interest on deposits, but the first only issues notes. Joint-stock companies have also been formed for conducting the business of insurance and for other purposes.

Weights and Measures.—The weights made use of in the Cape are derived from the standard pound of Amsterdam; and those assized are from 50 lbs. down to 1 loot, or the 32nd part of a pound, which is regarded as unity.

Liquid Measure.

16 flasks =	1 anker
4 ankers	1 aam
4 aams	1 leaguer

Corn Measure.

4 schepels =	1 muid
10 muids	1 load

107 schepels=82 Winch. bushels, or 4 schepels=3 imp. bushels, very nearly.

The muid of wheat weighs, at an average, about 110 lbs. Dutch, being somewhat over 196 lbs. English.

Cloth and Long Measure.

12 Rhyniand inches =	1 Rhyniand foot
27 ditto	1 Dutch ell
144 ditto	1 square foot
144 square feet	1 rood
600 roods	1 morgen

Colonial Weights and Measures compared with those of England.

Weights.

100 lbs. Dutch = nearly 109 lbs. English avoirdupois
100 lbs. English = nearly 92 lbs. Dutch

Wine or Liquid Measure.

1 flask	= 0·6	old gallon, or	4·316	imperial gallons
1 anker	9½	,,	7·9	,,
1 aum	38	,,	31½	,,
1 leaguer	152	,,	126·6	,,
1 pipe	110	,,	91·6	,,

Saldanha Bay, in lat. 33° 6′ S., long. 17° 58′ 15″ E., being 16½ leagues North of Cape-Town, is one of the best and most commodious harbours in the world. It is perfectly safe at all seasons.

Besides the *Cape Almanac* for 1865, one of the best of that class of publications, and the other authorities referred to, we have derived part of the above details from the *Geographical Dictionary*, the papers of the Board of Trade &c.

CAPITAL. In Political Economy, comprises those portions of the produce of industry that may be directly employed either to support human beings or to assist in production. (*Principles of Political Economy*, 5th ed. p. 47.) But in commerce, and as applied to individuals, capital is understood to mean the sum of money which a merchant, banker, or trader adventures in any undertaking, or which he contributes to the common stock of a partnership. It signifies likewise the fund of a trading company or corporation; in which sense the word *stock* is generally added to it. Thus we say the *capital stock* of the Bank &c.

The profit derived from any undertaking is estimated by the *rate* which it bears to the capital that was employed.

CAPSICUM. [Pepper.]

CARAT. [Coins; Diamonds; Weights and Measures.]

CARAVAN. An organised company of merchants, or pilgrims, or both, who associate together in many parts of Asia and Africa, that they may travel with greater security through deserts and other places infested with robbers, or where the road is naturally dangerous. The word is derived from the Persian *kervan*, or *cârvân*, a trader or dealer. (Shaw's *Travels in the Levant*, p. 9, 4to ed.)

Every caravan is under the command of a chief or aga (*caravan-bachi*), who has frequently under him such a number of troops or forces as is deemed sufficient for its defence. When it is practicable, they encamp near wells or rivulets, and observe a regular discipline. Camels are used as a means of conveyance, almost uniformly, in preference to the horse or any other animal, on account of their wonderful patience of fatigue, eating little, and subsisting 3 or 4 days or more without water. There are generally more camels in a caravan than men. [Camel.]

The commercial intercourse of Eastern and African nations has been principally carried on, from the remotest period, by means of caravans. During antiquity the products of India and China were conveyed either from Suez to Rhinoculura, or from Bussorah, near the head of the Persian Gulf, by the Euphrates, to Babylon, and thence by Palmyra, in the Syrian desert, to the ports of Phœnicia on the Mediterranean, where they were exchanged for the European productions in demand in the East. Sometimes, however, caravans set out directly from China, and, occupying about 250 days in the journey, arrived on the shores of the Levant, after traversing the whole extent of Asia. (Gibbon, vol. vii. p. 93.) The formation of caravans is, in fact, the only way in which it has ever been possible to carry on any considerable internal commerce in Asia or Africa. The Governments that have grown up in those continents have seldom been able, and seldomer indeed have they attempted, to render travelling practicable or safe for individuals. The wandering tribes of Arabs have always infested the immense deserts by which they are intersected; and those only who are sufficiently powerful to protect themselves, or sufficiently rich to purchase an exemption from the predatory attacks of these freebooters, can expect to pass through territories subject to their incursions without being exposed to the risk of robbery and murder.

Since the establishment of the Mohammedan faith, religious motives, conspiring with those of a less exalted character, have tended to augment the intercourse between different parts of the Eastern world, and to increase the number and magnitude of the caravans. Mohammed enjoined all his followers to visit, once in their lifetime, the Caaba, or square building in the temple of Mecca, the immemorial object of veneration amongst his countrymen; and in order to preserve continually upon their minds a sense of obligation to perform this duty, he directed that, in all the multiplied acts of devotion which his religion prescribes, true believers should always turn their faces towards that holy place. In obedience to this precept large caravans of pilgrims used to assemble annually in every country where the Mohammedan faith is established; and though, owing either to a diminution of religious zeal, or the increasing difficulties to be encountered in the journey, the number of pilgrims has of late

years declined greatly, it is still very considerable. Few, however, of the pilgrims are actuated only by devotional feelings. Commercial ideas and objects mingle with those of religion; and it redounds to the credit of Mohammed that he granted permission to trade during the pilgrimage to Mecca, providing at the same time for the temporal as well as the lasting interests of his votaries. 'It shall be no crime in you if ye seek an increase from your Lord *by trading during the pilgrimage*.' (Sale's *Koran*, c. ii. p. 36, ed. 1764.)

The numerous camels of each caravan are loaded with those commodities of every country which are of easiest carriage and readiest sale. The holy city is crowded during the month of Dhalhajja, corresponding to the latter part of June and the beginning of July, not only with zealous devotees, but with opulent merchants. A fair or market is held in Mecca and its vicinity on the 12 days that the pilgrims are allowed to remain in that city, which used to be one of the best frequented in the world, and continues to be well attended.

'Few pilgrims,' says Burckhardt, 'except the mendicants, arrive without bringing some productions of their respective countries for sale; and this remark is applicable as well to the merchants, with whom commercial pursuits are the main object, as to those who are actuated by religious zeal; for, to the latter, the profits derived from selling a few articles at Mecca diminish, in some degree, the heavy expenses of the journey. The Moggrebyns (pilgrims from Morocco and the north coast of Africa) bring their red bonnets and woollen cloaks; the European Turks, shoes and slippers, hardware, embroidered stuffs, sweetmeats, amber, trinkets of European manufacture, knit silk purses &c.; the Turks of Anatolia bring carpets, silks, and Angora shawls; the Persians, Cashmere shawls and large silk handkerchiefs; the Afghans, tooth-brushes, called Mesouak Kattary, made of the spongy boughs of a tree growing in Bokhara, beads of a yellow soapstone, and plain coarse shawls manufactured in their own country; the Indians, the numerous productions of their rich and extensive region; the people of Yemen, snakes for the Persian pipes, sandals and various other works in leather; and the Africans bring various articles adapted to the slave-trade. The pilgrims are, however, often disappointed in their expectations of gain; want of money makes them hastily sell their little adventures at the public auctions, and often obliges them to accept very low prices.' (*Travels in Arabia*, vol. ii. p. 21.)

The two principal caravans which yearly rendezvous at Mecca are those of Damascus and Cairo. The first is composed of pilgrims from Europe and Western Asia, the second of Mohammedans from all parts of Africa.

The Syrian caravan is said by Burckhardt to be very well regulated. It is always accompanied by the pacha of Damascus, or one of his principal officers, who gives the signal for encamping and starting by firing a musket. On the route, a troop of horsemen ride in the front, and another in the rear to bring up the stragglers. The different parties of pilgrims, distinguished by their provinces or towns, keep close together. At night torches are lighted, and the daily distance is usually performed between three o'clock in the afternoon and an hour or two after sunrise on the following day. The Bedouins or Arabs, who carry provisions for the troops, travel by day only, and in advance of the caravans, the encampment of which they pass in the morning, and are overtaken in turn and passed by the caravan on the following night, at their own resting place. The journey with these Bedouins is less fatiguing than with the great body of the caravan, as a regular night's rest is obtained; but their bad character deters most pilgrims from joining them.

At every watering place on the route is a small castle and a large tank, at which the camels water. The castles are garrisoned by a few persons, who remain the whole year to guard the provisions deposited there. It is at these watering-places, which belong to the Bedouins, that the sheikhs of the tribe meet the caravan, and receive the accustomed tribute for allowing it to pass. Water is plentiful on the route; the stations are nowhere more distant than 11 or 12 hours' march; and in winter, pools of rain-water are frequently found. Those pilgrims who can travel with a litter, or on commodious camel-saddles, may sleep at night, and perform the journey with little inconvenience; but of those whom poverty, or the desire of speedily acquiring a large sum of money, induces to follow the caravan on foot, or to hire themselves as servants, many die on the road from fatigue. (*Travels in Arabia*, vol. ii. pp. 3—9.)

The caravan which sets out from Cairo for Mecca is not generally so large as that of Damascus, and its route along the shores of the Red Sea is more dangerous and fatiguing. But many of the African and Egyptian merchants and pilgrims sail from Suez, Cosseir, and other ports on the western shore of the Red Sea, for Djidda, whence the journey to Mecca is short and easy.

The Persian caravan for Mecca sets out from Bagdad; but many of the Persian pilgrims are now in the habit of embarking at Bussorah, and coming to Djidda by sea.

Caravans from Bagdad and Bussorah proceed to Aleppo, Damascus, and Diarbeker, laden with all sorts of Indian, Arabian, and Persian commodities; and large quantities of European goods, principally of English cottons, imported at Bussorah, are now distributed throughout all the eastern parts of the Turkish empire by the same means. The intercourse carried on in this way is, indeed, every day becoming of more importance.

The commerce carried on by caravans, in the interior of Africa, is widely extended and of considerable value. Besides the great caravan which proceeds from Nubia to Cairo, and is joined by Mohammedan pilgrims from every part of Africa, there are caravans which have no object but commerce, which set out from Fez, Algiers, Tunis, Tripoli, and other states on the sea-coast, and penetrate far into the interior. Some of them take as many as 50 days to reach the place of their destination; and as their rate of travelling may be estimated at from 18½ to 22 miles a day, as they are heavy or light, the extent of their journeys may easily be computed. As both the time of their outset and their route are known, they are met by the people of the countries through which they travel, who trade with them. Indian goods of every kind form a considerable article in this traffic; in exchange for which, the chief commodity the inhabitants have to give is slaves.

Three distinct caravans are employed in bringing slaves and other commodities from Central Africa to Cairo. One of them comes direct from Mourzouk, the capital of Fezzan, across the Libyan desert; another from Senaar; and the third from Darfur. They do not arrive at stated periods, but after a greater or less interval, according to the success they have had in procuring slaves, ivory, gold dust, drugs, and such other articles as are fitted for the Egyptian markets. The Mourzouk caravan is said to be under the best regulations. It is generally about 50 days on its passage, and seldom consists of less than 100,

or of more than 300. travellers. The caravans from Senaar and Darfur used formerly to be very irregular, and were sometimes not seen in Egypt for 2 or 3 years together; but since the occupation of the former by the troops of Mohammed Ali, the intercourse between it and Egypt has become comparatively frequent and regular. The number of slaves imported into Egypt by these caravans was said to amount, at one time, to about 10,000 a-year. The departure of a caravan from Darfur is looked upon as a most important event; it engages for a while the attention of the whole country, and even forms a kind of era. (Browne's *Travels in Africa*, 2nd ed. p. 78.) A caravan from Darfur is considered large if it has 2,000 camels and 1,000 slaves. Many of the Moorish pilgrims to Mecca cross the sea from Souakin and Massouah to the opposite coast of Arabia, and then travel by land to Mecca; and Burckhardt states that of all the poor pilgrims who arrive in the Hedjaz, none bear a more respectable character for industry than those from Central Africa.

Caravans are distinguished into *heavy* and *light*. Camels loaded with from 500 to 600 lbs. form a heavy caravan; light caravans being the term applied to designate those formed of camels under a moderate load, or perhaps only half loaded.

The safety of a caravan depends materially on the conduct of the *caravan-bachi*, or leader. Niebuhr says that when the latter is intelligent and honest, and the traveller understands the language, and is accustomed to the Oriental method of travelling, an excursion through the desert is rarely either disagreeable or dangerous. But it is not unusual for the Turkish pachas to realise considerable sums by selling the privilege of conducting caravans; and it is generally believed in the East that leaders so appointed, in order to indemnify themselves, not unfrequently arrange with the Arabian sheikhs as to the attack of the caravans, and share with them in the booty! At all events, a leader who has paid a large sum for the situation, even if he should be honest, must impose proportionally heavy charges on the association. Hence the best way in travelling with caravans is, to attach oneself to one conducted by an active and experienced merchant, who has a considerable property embarked in the expedition. With ordinary precaution, the danger is then very trifling. It would be easy, indeed, were there any thing like proper arrangements made by Government, to render travelling by caravans, at least on all the great routes, abundantly secure. (Niebuhr, *Voyage en Arabie*, tome ii. p. 194, ed. Amst. 1780.)

No particular formalities are required in the formation of a caravan. Those that start at fixed periods are mostly under the control of Government, by whom the leaders are appointed. But, generally speaking, any dealer is at liberty to form a company and make one. The individual in whose name it is raised is considered as the leader, unless he appoint some one else in his place. When a number of merchants associate together in the design, they elect a chief, and appoint officers to decide whatever controversies may arise during the journey. (For further details with respect to caravans, see the *Modern Part of the Universal History*, vol. xiv. pp. 214—243; Robertson's *Disquisition on Ancient India*, note 54; Rees's *Cyclopædia*, art. 'Caravan,' most of which is copied from Robertson, though without a single word of acknowledgment; Burckhardt's *Travels in Arabia*, vol. ii. passim; Urquhart on *Turkey and its Resources*, pp. 137, 151; Vambéry's *Travels in Bokhara*; &c.)

CARAVANSERA. A large public building or inn appropriated for the reception and lodgment of the caravans. Though serving in lieu of inns, there is this radical difference between them—that, generally speaking, the traveller finds nothing in a caravansera for the use either of himself or his cattle. He must carry all his provisions and necessaries with him. They are chiefly built in dry, barren, desert places, and are mostly furnished with water brought from a great distance and at a vast expense. A well of water is, indeed, indispensable to a caravansera. Caravanseras are also numerous in cities, where they serve not only as inns, but as shops, warehouses, and even exchanges.

CARAWAY-SEED (Fr. carvi, cumin des prés; Ger. keummel, brodkümmel; Ital. carvi; Span. alcaravea). A small seed, of an oblong and slender figure, pointed at both ends, and thickest in the middle. It is the produce of a biennial plant (*Carum carui*), Nat. Order *Umbelliferæ*, with a taper root like a parsnip, but much smaller. It should be chosen large, new, of a good colour, not dusty, and of a strong, agreeable smell. It is principally used by confectioners, and is extensively cultivated in several parts of Essex. The Russian liqueur *kümmel* derives its flavour from the caraway seed.

This plant is a native of southern Europe, but it has been naturalised in most countries, growing wild as well as being cultivated. The root improved by culture is edible, and is used for food in northern Europe. In 1866, 13,793 cwts. were imported into England, almost entirely from Holland, and were valued at 1*l.* 15*s.* 4*d.* per cwt.

CARBON, BISULPHIDE OF. (*Dictionary of Manufactures.*)

CARBONATE. [Diamond.]

CARBUNCLE (Ger. karfunkel; Fr. escarboukle; Ital. carbonchio; Span. carbunculo; Lat. carbunculus). A precious stone of the garnet kind, of a very rich glowing blood-red colour, highly esteemed by the ancients. The term *carbuncle* among jewellers is applied to such garnets as are cut *en cabochon*, i.e., with a flat base, and a smooth convex top. If they are pure, of large size, and are free from spots, they are, says Mr. Emanuel, occasionally worth as much as 20*l.*

CARD (Fr. cardes; Ger. kardätschen, karden, wollkratzen; Ital. cardi; Russ. bardü; Span. cardas). An instrument, or comb, for arranging or sorting the hairs of wool, cotton &c. Cards are either fastened to a flat piece of wood, and wrought by the hand; or to a cylinder, and wrought by machinery; or are made to move over 2 cylinders. The spikes with which carding cloth is armed range from fine wire, used to hackle delicate tissues, to strong wire, employed to dress coir &c. The machinery by which carding cloth is manufactured is very elaborate.

CARDAMOMS (Fr. cardamomes; Ger. kardamom; Ital. cardamomi; Span. kardamomos; Hind. gujarati elachi; Arab. ebil; Chinese, peh-tau-kau). This spice, the name of which is derived from the Greeks, has been imported from the East into Europe uninterruptedly for many centuries. It was known to our forefathers under the name of grains, or grains of Paradise, and was the cheapest of the Oriental spices introduced by the Italian merchants into mediæval Europe. (Rogers's *Agriculture and Prices in England*, vol. i. p. 609.)

The spice is the seed of various kinds of Scitamineæ, as the *Elettaria major*, *Amomum cardamomum*, *Amomum angustifolium*, *Amomum grana Paradisi*, and especially *Elettaria cardamomum*. The first of these, according to Dr. Pereira, is the produce of Ceylon. The pod contains numerous angular, rug-

ged, yellowish-red seeds, which have a peculiarly fragrant odour. The second, which is identified with the Ἄμωμον of Dioscorides, and is the 'round cardamom' of commerce, grows in Sumatra, Java, and other East Indian islands. The capsules, rather smaller than a cherry, contain a number of cuneiform seeds. Sometimes the capsules are sent into the market in their native clusters, and then form the *Amomum racemosum*, or *amome à grappes* of the French. This kind is chiefly sent to the south of France. The third or Java cardamom is of very inferior quality. The fourth is obtained from Madagascar, where it grows in marshy ground. The fifth, known also as Guinea grains, grains of Paradise, or Maleguetta pepper, are obtained from western Africa, are strongly hot and peppery, are of a round or ovate form, often angular and cuneiform, rough, brown externally, and white within. They have but a feeble aromatic odour. Similar seeds have been sent from Trinidad, and are probably to be procured from other West Indian islands. They are chiefly used in veterinary practice, and to give a factitious strength to beer and spirits. The various plants, in short, called *Scitaminea* have a wide geographical range within the tropics.

The true cardamom of pharmacy is the last named. The fruit is a three-celled capsule, containing many seeds.

The plant is a native of the Malabar mountains. When the forests and undergrowth are removed, it springs up everywhere spontaneously. It yields fruit at the end of the fourth, and continues to bear for many years. The ripe capsules are collected, dried over a gentle fire, and then rubbed by the hands from the foot-stalk and calyx. They contain numerous small angular, irregular, rough, brown seeds. The seeds are about 74 per cent. in weight.

According to Pereira, three varieties are distinguished in British commerce — shorts, longlongs, and short-longs—the distinctions being founded on the shape of the capsules.

It is said, and with obvious probability, that the purchase of the seed collected by the natives is made a Government monopoly, the agents sent to collect the produce putting a fixed price on the article, and selling it to the merchants at enhanced rates. Such a custom is very general in the East, and ought assuredly to be put an end to.

Cardamoms are used in cookery as an ingredient in curries, and largely in medicine. The consumption of this article is very considerable among Eastern nations. They should be kept whole, as they lose their virtues in powder. These virtues depend on a peculiar volatile oil, which when extracted, though air be carefully excluded, loses its peculiar odour and taste. (Wood and Bache's *Dispensatory*.)

CARDS or PLAYING CARDS (Dutch, kaarten, speelkarden; Fr. cartes à jouer; Ger. karten, spiel karten; Ital. carte da giuoco; Russ. kartu; Span. carras, naipes; Swed. kort). The only thing necessary to be noticed in this place with respect to cards is the regulations as to their manufacture, sale, and the payment of the duty.

It was regulated by the 9 Geo. IV. c. 18, that an annual license duty of 5*s.* shall be paid by every maker of playing cards and dice. The duty on every pack of cards was 1*s.*, and was to be specified on the ace of spades. Cards were not to be made in any part of Great Britain except the metropolis, nor in Ireland except in Dublin and Cork, under a penalty of 100*l.* Cards are to be enclosed in wrappers, with such marks as the Commissioners of Stamps may appoint. Before license can be had, bond must be given to the amount of 500*l.* for the payment of the duties &c. Selling or exposing to sale any pack of cards not duly stamped, subjected a licensed maker to a penalty of 50*l.*, and any one else to a penalty of 10*l.* Any person having in his possession, or using, or permitting to be used, any pack of cards not duly stamped, to forfeit 5*l.* Second-hand cards may be sold by any person, if sold without the wrapper of a licensed maker; and in packs containing not more than 52 cards, including an ace of spades duly stamped, and enclosed in a wrapper with the words 'Second-hand Cards' printed or written in distinct characters on the outside; penalty for selling second-hand cards in any other manner, 20*l.*

The former duty of 1*s.* per pack on cards produced, in 1861, the sum of 13,637*l.*; showing that 272,740 packs had been disposed of. But in 1862 the stamp duty was reduced to 3*d.* a pack. At the same time the license of cardmakers was raised, in case the maker also sold them, from 5*s.* to 1*l.* Dealers only previous to the Act of 1862 exempt from license pay 2*s.* 6*d.* Since the change the produce of the stamp duty has been very uniform, being a little less on the average than 9,000*l.*, the license duty yielding 1,040*l.* in 1866-7. The customs duty on foreign playing cards is 3*s.* 9*d.* per dozen packs.

CARMEN, of the city of London, are constituted a fellowship by act of common council. The rates which they are allowed to charge, and the regulations by which they are to be guided, are settled at the quarter sessions. In other respects they are subjected to the rule of the president and governors of Christ's Hospital, to whom the owner of every cart pays an annual license duty of 17*s.* 4*d.*

Carmen are to help to load and unload their carts; and if any carman exacts more than the regular rates, upon due proof, before the Lord Mayor or any two magistrates, he shall suffer imprisonment for the space of 21 days.

If any person shall refuse to pay any carman his hire, according to the regular rates, upon complaint made, the president of Christ's Hospital, or a justice of the peace, may compel payment.

Merchants or other persons may choose what cart they please, except such as stand for wharf-work, tackle-work, crane-work, at shops and merchants' houses, which are to be taken in turn; and every carman standing with his empty cart next to any goods to be loaded shall, upon the first demand, load the same for the accustomed rates; and if any person shall cause a carman to attend at his house, shop, warehouse, or cellar, with his loaded cart, the carman being willing to help to unload the same, he shall pay the carman after the rate of 12*d.* for every hour after the first half hour for his attendance.

Every licensed carman is to have a piece of brass fixed upon his cart, upon which is to be engraven a certain number; which number, together with the carman's name, is registered in a register kept at Christ's Hospital; so that, in case of any misbehaviour, the party offended, by taking notice of the number of the cart, may search for it in the register, and the name will be found.

Carmen not conforming to these rules, or working without a numbered piece of brass fixed on the cart, may be suspended from their employment.

Carmen riding upon the shafts of their carts, or sitting within them, not having some person on foot to guide the horses, shall forfeit 10*s.*

CARMINE (Ger. karmin; Dutch, karmyn; Fr. carmine; Ital. carminio; Lat. carminium). A powder of a very beautiful red colour, bordering upon purple, and used by painters in miniature. It is a species of *lake*, and is formed of finely pulverised

cochineal. It is high priced, but its value has been considerably affected by the discovery of *aniline* colours.

CARNELIAN. [AGATE.]

CAROB BEANS or LOCUST BEANS. The seed in the pods of the carob tree, the *Ceratonia siliqua*, St. John's bread; one of the Natural Order of the *Leguminosæ*. (Syn. Ger. karobbaum, Johannisbrodbaum; Span. algarrobo; Port. algarrobe; Ital. carrubio, caruba; Arab. kharoob.) The carob tree grows in southern Europe, in Asia, and all the Mediterranean coasts. At Malta it is almost the only tree that grows. The pods contain a sweet, nutritious pulp, and are used as a common article of human food where the tree is a native. They are principally used, however, in most of the southern countries of Europe, and in Egypt and Asiatic Turkey, as a nutritious and fattening food for cattle and horses. They are at present also used to a small extent in England in the preparation of artificial food for cattle. In the island of Cyprus great attention has of late years been devoted to the cultivation of the carob tree. The sale of carobs in that island was formerly a Government monopoly, but since its abolition about 40 years since the production has largely increased. In 1852, 27,000 cwt. were exported from the island; and in 1864 the export had increased to 7,087 tons, of the value of 31,500*l*. The tree grows wild in Cyprus, but is more particularly abundant in the districts of Limassol and Kerinea: the finest trees are found at Lefcara. (*From Consular Reports and other sources.*)

CARPET, CARPETS (Ger. teppiche; Dutch, tapyten, vloer-tapyten; Fr. tapis; Ital. tappeti; Span. alfombras, alcatifas, tapices; Port. tapetes, alcatifas; Russ. kowrü, kilimi). Indian, Persian, and Turkish carpets are the most esteemed. In England, carpets are principally manufactured at Kidderminster, Durham, Halifax, Wilton, Cirencester, Worcester, Axminster &c.; and in Scotland, at Glasgow and Kilmarnock. Those made at Axminster are believed to be very little, if anything, inferior to those of Persia and Turkey. In 1866 there were exported 7,600,511 yards of carpets and druggets, the produce of the United Kingdom, valued at 1,217,682*l*. (For much curious and instructive matter on carpets, tapestry &c. in connection with the Paris Exhibition, see Mr. Digby Wyatt's *Report*, in vol. ii., presented to Parliament 1868.)

CARRIAGES. [COACHES.]

CARRIERS. Persons undertaking for hire to carry goods from one place to another.

Proprietors of carts and waggons, masters and owners of ships, hoymen, lightermen, bargemen, ferrymen &c. are denominated common carriers. The master of a stage coach who *only carries passengers for hire* is not liable for goods; but if he undertake to carry *goods and passengers*, then he is liable for both as a common carrier. The Postmaster-General is not a carrier in the common acceptation of the term, nor is he subjected to his liabilities.

1. *Duties and Liabilities of Carriers.*—Carriers are bound to receive and carry the goods of all persons for a reasonable hire or reward; to take proper care of them in their passage; to deliver them safely, and in the same condition as when they were received (excepting only such losses as may arise from *the act of God or the queen's enemies*); or, in default thereof, to make compensation to the owner for whatever loss or damage the goods may have received while in their custody, that might have been prevented.

Hence a carrier is liable, though he be robbed of the goods, or they be taken from him by irresistible force; and though this may seem a hard rule, yet it is the only one that could be safely adopted; for if a carrier were not liable for losses unless it could be shown that he had conducted himself dishonestly or negligently, a door would be opened for every species of fraud and collusion, inasmuch as it would be impossible in most cases to ascertain whether the facts were such as the carrier represented. On the same principle a carrier has been held accountable for goods accidentally consumed by fire while in his warehouse. In delivering the opinion of the Court of King's Bench on a case of this sort, Lord Mansfield said—'A carrier, by the nature of his contract, obliges himself to use all due care and diligence, and is answerable for any neglect. But there is something more imposed upon him by custom, that is, by the common law. *A common carrier is in the nature of an insurer.* All the cases show him to be so. This makes him liable for everything except the act of God and the king's enemies; that is, even for *inevitable accidents*, with those exceptions. The question, then, is, *What is the act of God?* I consider it to be laid down in opposition to the act of *man*; such as lightning, storms, tempests, and the like, which could not happen by *any human intervention*. To prevent litigation and collusion, the law presumes negligence except in those circumstances. An armed force, though ever so great and irresistible, does not excuse; the reason is, for fear it may give room for collusion, which can never happen with respect to the act of God. We all, therefore, are of opinion that there should be judgment for the plaintiff.' (*Forward* v. *Pittard*, 1 *T. R.* 27.)

A carrier is not obliged to have a new carriage for every journey: it is sufficient if he provide one that, without any extraordinary accident, may be fairly presumed capable of performing the journey.

A carrier may be discharged from his liability by any fraud or concealment on the part of the individual employing him, or of the bailor; as if the latter represent a parcel as containing things of little or no value, when in fact it contains things of great value. But when the carrier has not given a notice limiting his responsibility, and when he puts no questions with respect to the parcel to the bailor, the latter need not say anything with respect to it; and though the bailor should represent the thing delivered to the carrier as of no value, yet, *if the latter know it to be otherwise*, he will be responsible in the event of its being lost or damaged. If the bailor deliver goods imperfectly packed, and the carrier *does not perceive it*, he is not liable in the event of a loss occurring; but if the defect in the package were such that the carrier could not but perceive it, he would be liable. On this principle a carrier was made to answer for the loss of a greyhound that had been improperly secured when given to him.

A carrier may refuse to admit goods into his warehouse at an unseasonable time, or before he is ready to take his journey; but he cannot refuse to do the ordinary duties incumbent on a person in his situation.

It is felony if a carrier open a parcel and take goods out of it with intent to steal them; and it has been decided that if goods be delivered to a carrier to be carried to a specified place, and he carry them to a different place, and dispose of them for his own profit, he is guilty of felony; but the embezzlement of goods by a carrier without a felonious taking merely exposes to a civil action.

No carrier, waggonman, carman, or wainman, with their respective carriages, shall travel on Sundays, under a penalty of 20*s*. (3 Ch. I. c. 1.)

A carrier is always, unless there be an express agreement to the contrary, entitled to a reward for

his care and trouble. In some cases his reward is regulated by the Legislature, and in others by a special stipulation between the parties; but though there be no legislative provision or express agreement, he cannot claim more than a *reasonable* compensation.

2. *Limitation of Responsibility.*—Until the Act of 1830 a carrier might, by express stipulation, giving *public notice* to that effect, discharge his liability from all losses by robbery, accident, or otherwise (except those which arose from *misfeasance and gross negligence*, from which no stipulation or notice could exempt him), and provided the notice did not contravene the express conditions of an Act of Parliament.

Notices generally bore that the carrier would not be responsible for more than a certain sum (usually 5*l.*) on any one parcel, the value of which had not been declared and paid for accordingly; so that a person aware of this notice, entering a box worth 1,000*l.* without declaring its value, or entering it as being worth 200*l.*, would, should it be lost, have got in the first case only 5*l.*, and in the latter only 200*l.*, unless he could have shown that the carrier had acted fraudulently or with gross negligence. But, to avail himself of this defence, the carrier was bound to show that the bailor or his servant was acquainted with the notice at the time of delivering the goods. No particular manner of giving notice was required. It might be done by express communication, by fixing it up in a conspicuous place in the carrier's office, by insertion in the public papers or Gazette, by the circulation of handbills &c.; it being in all cases a question for the jury to decide whether the bailor was really acquainted with the notice of the limitation; since, if he were not, he was entitled to recover, whatever efforts the carrier may have made to publish it. Thus, a notice stuck up in a carrier's warehouse, where goods were delivered, was of no avail against parties who could not read; neither was it of any avail against those who could read, and who had seen it, *unless they had actually read it.* On this principle it was held that a notice in a newspaper is not *sufficient*, even when it was proved that the bailor read the newspaper, unless it could also be proved that he had read the notice itself.

These attempts to limit responsibility gave rise to a great deal of litigation and uncertainty; and to obviate the inconveniences thence arising, the important statute 1 Wm. IV. c. 68 was passed. This Act declares that carriers *by land* shall not be liable for the loss of certain articles specified in the Act, when their value exceeds 10*l.*, unless the *nature and value* of such articles be stated at the time of their delivery to the carrier, and an increased charge paid or agreed to be paid upon the same. It is further declared that no publication of any notices by carriers shall have power to limit their responsibility at common law for all other articles except those specified in the Act. But as the Act is of great importance, we subjoin it.

From and after the passing of this Act, no mail-contractor, stage-coach proprietor, or other common carrier *by land* for hire, shall be liable for the loss of or injury to any article or articles or property of the description following, viz. gold or silver coin of this realm or of any foreign state, or any gold or silver in a manufactured or unmanufactured state, or any precious stones, jewellery, watches, clocks, or timepieces of any description, trinkets, bills, notes of the Governor and Company of the Banks of England, Scotland, and Ireland respectively, or of any other bank in Great Britain or Ireland, orders, notes, or securities for payment of money, English or foreign stamps, maps, writings, title-deeds, paintings, engravings, pictures, gold or silver plate or plated articles, glass, china, silks in a manufactured or unmanufactured state, and whether wrought up or not wrought up with other materials, furs, or lace, or any of them, contained in any parcel or package which shall have been delivered, either to be carried for hire or to accompany the person of any passenger in any mail or stage coach or other public conveyance, when the value of such article or articles or property aforesaid contained in such parcel or package shall exceed the sum of 10*l.*, unless at the time of the delivery thereof at the office, warehouse, or receiving house of such mail contractor &c. the value and nature of such article or articles or property shall have been declared by the person or persons sending or delivering the same, and such increased charge as hereinafter mentioned, or an engagement to pay the same, be accepted by the person receiving such parcel or package. (Sec. 1.)

When any parcel or package containing any of the articles above specified shall be so delivered, and its value and contents declared as aforesaid, and such value shall exceed the sum of 10*l.*, it shall be lawful for such mail contractors, stage coach proprietors, and other common carriers to demand and receive an increased rate of charge, to be notified by some notice, affixed in legible characters in some public and conspicuous part of the office, warehouse, or other receiving house, where such parcels or packages are received by them for the purpose of conveyance, stating the increased rates of charge required to be paid over and above the ordinary rate of carriage, as a compensation for the greater risk and care to be taken for the safe conveyance of such valuable articles; and all persons sending or delivering parcels or packages containing such valuable articles as aforesaid at such office shall be bound by such notice, without further proof of the same having come to their knowledge. (Sec. 2.)

Provided always, that when the value shall have been so declared, and the increased rate of charge paid, or an engagement to pay the same shall have been accepted as hereinbefore mentioned, the person receiving such increased rate of charge or accepting such agreement shall, if required, sign a receipt for the package or parcel, acknowledging the same to have been insured, which receipt shall not be liable to any stamp duty; and if such receipt shall not be given when required, or such notice as aforesaid shall not have been affixed, the mail contractor, stage coach proprietor, or other common carrier as aforesaid, shall not have or be entitled to any benefit or advantage under this Act, but shall be liable and responsible as at the common law, and be liable to refund the increased rate of charge. (Sec. 3.)

And be it enacted, that from and after the 1st day of September 1830, no public notice or declaration heretofore made or hereafter to be made shall be deemed or construed to limit or in any wise affect the liability at common law of any such mail contractors, stage coach proprietors, or other public common carriers as aforesaid, for or in respect of any articles or goods to be carried and conveyed by them; but that all and every such mail contractors, stage coach proprietors, and other common carriers as aforesaid shall, from and after the said 1st day of September, be liable, as at the common law, to answer for the loss of any injury [*so in the Act*] to any articles and goods in respect whereof they may not be entitled to the benefit of this Act, any public notice or declaration by them made and given contrary thereto, or in

anywise limiting such liability, notwithstanding. (Sec. 4.)

And be it further enacted, that for the purposes of this Act, every office, warehouse, or receiving house, which shall be used or appointed by any mail contractor, or stage coach proprietor, or other such common carrier, for the receiving of parcels to be conveyed as aforesaid, shall be deemed and taken to be the receiving house, warehouse, or office of such mail contractor, stage coach proprietor, or other common carrier; and that any one or more of such mail contractors, stage coach proprietors, or common carriers, shall be liable to be sued by his, her, or their name or names only; and that no action or suit commenced to recover damages for loss or injury to any parcel, package, or person, shall abate for the want of joining any co-proprietor or co-partner in such mail, stage coach, or other public conveyance by land for hire as aforesaid. (Sec. 5.)

Provided always, and be it further enacted, that nothing in this Act contained shall extend or be construed to annul or in anywise affect any special contract between such mail contractor, stage coach proprietor, or common carrier, and any other parties, for the conveyance of goods and merchandises. (Sec. 6.)

Provided also, and be it further enacted, that where any parcel or package shall have been delivered at any such office, and the value and contents declared as aforesaid, and the increased rate of charges been paid, and such parcels or packages shall have been lost or damaged, the party entitled to recover damages in respect of such loss or damage shall also be entitled to recover back such increased charges so paid as aforesaid, in addition to the value of such parcel or package. (Sec. 7.)

Provided also, and be it further enacted, that nothing in this Act shall be deemed to protect any mail contractor, stage coach proprietor, or other common carrier for hire, from liability to answer for loss or injury to any goods or articles whatsoever, arising from the felonious acts of any coachman, guard, book-keeper, porter, or other servant in his or their employ, nor to protect any such coachman, guard, book-keeper, or other servant, from liability for any loss or injury *occasioned by his or their own personal neglect or misconduct.* (Sec. 8.)

Provided also, and be it further enacted, that such mail contractors, stage coach proprietors, or other common carriers for hire, shall not be concluded as to the value of any such parcel or package by the value so declared as aforesaid, but that he or they shall in all cases be entitled to require, from the party suing in respect of any loss or injury, proof of the actual value of the contents by the ordinary legal evidence; and that the mail contractors, stage coach proprietors, or other common carriers, as aforesaid, shall be liable to such damages only as shall be so proved as aforesaid, not exceeding the declared value, together with the increased charges as before mentioned. (Sec. 9.)

And be it further enacted, that in all actions to be brought against any such mail contractors &c., the defendant or defendants may pay the money into court. (Sec. 10.)

It will be observed that carriers continue, notwithstanding this Act, liable, as before, for the felonious acts of their servants, and their own misfeasance or gross negligence. It is not possible, however, to lay down any general rule as to the circumstances which constitute this offence. Differing as they do in almost every case, the question, when raised, must be left to a jury. But it has been decided, that the *misdelivery* of a parcel, or its *non-delivery within a reasonable time*, is a misfeasance that cannot be defeated by any notice on the part of the carrier limiting his responsibility. In like manner, the sending of a parcel by a different coach from that directed by the bailor, the removing it from one carriage to another, are misfeasances. Where a parcel is directed to a person at a particular place, and the carrier, knowing such person, delivers the parcel to another who represents himself as the consignee, such delivery is gross negligence. Leaving parcels in a coach or cart unprotected in the street is also gross negligence.

At common law, there is no distinction between carriage performed by sea or land; but by the 7 Geo. II. c. 15, and 26 Geo. III. c. 86, corrected and amended by the 53 Geo. III. c. 159, it is enacted that ship owners are not to be liable for any loss or damage happening to goods on board through the fraud or neglect of the master, without their knowledge or privity, further than the value of the vessel and the freight accruing during the voyage. [OWNERS.]

3. *Commencement and Termination of Liability.*—A carrier's liability commences from the time the goods are actually delivered to him in the character of carrier. A delivery to a carrier's servant is a delivery to himself, and he will be responsible. The delivery of goods in an inn yard or warehouse, at which other carriers put up, is not a delivery so as to charge a carrier, unless a special notice be given him of their having been so delivered, or some previous intimation to that effect.

A carrier's liability ceases when he vests the property committed to his charge in the hands of the consignee or his agents by actual delivery; or when the property is resumed by the consignor, in pursuance of his right of stopping it in transitu. It is in all cases the duty of the carrier to deliver the goods. The leaving goods at an inn is not a sufficient delivery. The rule in such cases, in deciding upon the carrier's liability, is to consider whether anything remains to be done by the carrier as such; and if nothing remains to be done, his liability ceases, and conversely.

A carrier has a lien upon goods for his hire. Even if the goods be stolen, the rightful owner is not to have them without paying the carriage.

In order to obviate any risks which might be incurred on the part of the public in consequence of the actual monopoly possessed by railway and canal companies, whose interests are now generally united, the Railway and Canal Traffic Act was passed in 1854 (17 & 18 Vict. c. 31), and inter alia provided: That every railway and canal company shall be liable for the loss of or any injury done to any horses, cattle, and other animals, or to any articles, goods, or things in the receiving, forwarding, or delivering thereof, occasioned by the neglect or default of such company or its servants, notwithstanding any notice, condition, or declaration made or given by such company contrary thereto or in anywise limiting such liability—every such notice, condition, or declaration being hereby declared to be null and void; provided always, that nothing herein contained shall be construed to prevent the said companies from making such conditions with respect to the receiving, forwarding, or delivering of any of the said animals, articles, and goods or things as shall be adjudged by court or judge before whom any question relating thereto shall be heard, to be *just and reasonable.* It then provides that the maximum value of a horse shall be 50*l.*, of cattle 15*l.*, of sheep or pigs per head 2*l.*, unless a previous *declaration* should be made of higher value, in which case the company may demand a reasonable per centage in ad-

dition to cover the extra risk: proof of the value to lie on the claimant. It then provides that no special contract between such company and any other parties respecting the receiving, forwarding, or delivering of any animals, articles, goods, or things as aforesaid, shall be binding upon or affect any such party unless the same be *signed by him or by the person delivering such animals, articles, goods, and things* respectively for carriage.

The following interpretation was put by Chief-Justice Jervis on this clause, which is confessedly obscure: 'The fair meaning of this section, as it seems to me, is this: the first branch of it declares that all notices, conditions, and declarations made and given by the company shall be null and void in so far as they go to release the company from liability for loss or injury to goods &c. in the receiving, forwarding, and delivering thereof, occasioned by the neglect or default of the company or its servants. But then it goes on to provide, in the next branch, that this shall not prevent the company *from* making such conditions, which shall be adjudged by the court or judge before whom any question relating thereto shall be tried, to be just and reasonable; and further, though just and reasonable, such condition or special contract shall not be binding unless signed by the person sending or delivering the goods. The result seems to be this: a general notice is void; but the company may make special contracts with their customers, provided they are just and reasonable, and signed; and whereas the monopoly created by railway companies compels the public to employ them in the conveyance of their goods, the Legislature have thought fit to impose the further security that the court shall see that the condition or special contract is just and reasonable.' The Court of Exchequer took a different view, and held that the first part of the Act applies only to notices, conditions, and declarations *by the company*; and that the parties were, by a special contract signed by the person sending the goods, at liberty to make whatever arrangements they pleased; and where there was such a signed and special contract, the question of reasonableness and unreasonableness of its terms did not arise. Ultimately the Court of Exchequer Chamber overruled this decision of the court below, and adopted and confirmed Chief Justice Jervis's construction. (Smith's *Mercantile Law*, ed. 1865, p. 290.)

For further details as to this subject see Jeremy *On the Law of Carriers*, passim; Chitty's *Commercial Law*, vol. iii. pp. 369-386; and Smith's *Mercantile Law*. There are some excellent observations with respect to it in Sir William Jones's *Essay on the Law of Bailments*. (For an account of the regulations as to the conveyance of passengers in stage coaches, see COACHES, STAGE.)

CARROT (*Daucus carota*, Linn.) (Fr. carotte; Ger. gemeine mahre, gelle rube; Ital. carota; Span. zanahoria). A biennial plant, a native of Britain. Though long known as a garden plant, its introduction into agriculture has been comparatively recent. The uses of the carrot in domestic economy are well known. It is extensively cultivated in Suffolk, whence large quantities are sent to the London market. Horses are remarkably fond of carrots. In 1866, 426 cwt. of carrot seed were imported into the United Kingdom.

CARTS. Every cart &c. for the carriage of anything to and from any place, where the streets are paved, within the bills of mortality, shall contain 6 inches in the felly. No person shall drive any cart, waggon &c. within 5 miles of the General Post Office, unless the name, surname, and place of abode of the owner be painted in conspicuous letters, at least 1 inch in height, on the right or off side thereof, under a penalty of 5*l*. Any person may seize and detain any cart, waggon &c. without such mark. (1 & 2 Wm. IV. c. 22.)

CASCARILLA. [BARK.]

CASH. In Commerce, the ready money, bills, drafts, bonds, and all immediately negotiable paper in an individual's possession. [CANTON.]

CASH ACCOUNT. In Book-keeping, an account to which nothing but cash is carried on the one hand, and from which all the disbursements of the concern are drawn on the other. The balance is *the cash in hand*. When the credit side more than balances the debit or disbursement side, the account is said to be *in cash*; when the contrary, to be *out of cash*.

CASH ACCOUNT. In Banking, the name given to the account of the advances made by a banker in Scotland to an individual who has given security for their repayment. [BANKS (*Scotch*).]

CASHEW NUTS (Ger. akajunüsse, Westindische anakarden; Dutch, catsjoenooten; Fr. noix d'acajou; Ital. *acaju*; Span. nueces d'acaju; Port. nozes d'acaju). The produce of the *Anacardium occidentale*, a native of the West Indian Islands and tropical America. They are externally of a greyish or brownish colour, of the shape of a kidney, somewhat convex on the one side, and depressed on the other. The shell is very hard; and the kernel, which is sweet and of a very fine flavour, is covered with a thin film. Between this and the shell is lodged a thick, blackish, inflammable oil, of such a caustic nature in the fresh nuts, that if the lips chance to touch it, blisters immediately follow. The kernels are used in cooking, and in the preparation of chocolate.

CASPIAN SEA. [TAGANROG.]

CASSIA. There are 4 species of cassia in the market, viz. *Cassia lignea* or *Cassia Bark*; *Cassia fistula*; *Cassia Buds*; and *Cassia Senna*.

1. *Cassia lignea*, or *Cassia Bark* (Fr. casse; Ger. cassia; Port. cassia lenhosa; Arab. seleekeh; Hind. tuj; Malay, kayū-legi). The bark of a tree (*Laurus cassia*, Linn.) growing in Sumatra, Borneo, the Malabar coast, Philippine Islands &c.; but chiefly in the provinces of Quantong and Kingsi, in China, which furnish the greatest part of the cassia met with in the European markets. The tree grows to the height of 50 or 60 feet, with large, spreading, horizontal branches. The bark resembles that of cinnamon in appearance, smell, and taste, and is very often substituted for it; but it may be readily distinguished; it is thicker in substance, less quilled, breaks shorter, and is more pungent. It should be chosen in thin pieces; the best being that which approaches nearest to cinnamon in flavour: that which is small and broken should be rejected. A good deal of the cassia in the Indian markets is brought from Borneo, Sumatra, and Ceylon. Malabar cassia is thicker and darker coloured than that of China, and more subject to foul packing: each bundle should be separately inspected. (Ainslie's *Materia Indica*; Milburn's *Orient. Com.*; &c.)

2. *Cassia Buds*, the dried fruit or berry of the tree (*Laurus cassia*) which yields the bark described in the previous article. They bear some resemblance to a clove, but are smaller, and, when fresh, have a rich cinnamon flavour. They should be chosen round, fresh, and free from stalk or dirt. Cassia buds are the produce of China. (Milburn's *Orient. Com.*; *Anglo-Chinese Kalendar*; and *Parl. Paper* No. 257, Sess. 1843.)

3. *Cassia fistula* (Fr. casse; Ger. rhonkasie; Ital. polpa di cassia; Lat. cassiæ pulpa; Arab. khyar sheber) is a tree which grows in the East and West Indies, and Egypt (*Cassia fistula*, Linn.).

The fruit is a woody, dark brown pod, about the thickness of the thumb, and nearly 2 feet in length. Those brought to this country come principally from the West Indies, packed in casks and cases; but a superior kind is brought from the East Indies, and is easily distinguished by its smaller smooth pod, and by the greater blackness of the pulp. In 1866, 14,321 lbs. were imported, 8,747 exported. (*British Pharmacopœia*, 1867.)

4. *Cassia Senna.* [SENNA.]

The duties on cassia were $1\frac{1}{20}d.$ and $3\frac{3}{20}d.$ per lb. They are now repealed.

In 1866 the imports of cassia buds amounted to 78,048 lbs. and the exports to 22,881 lbs. Cassia buds are worth in the London market about 9*l.* per cwt. The imports of Cassia lignea in 1866 were 349,449 lbs., and its price from 4*l.* 15*s.* to 5*l.* 4*s.* 7*d.* per cwt.; that from China being 4*l.* 18*s.* 6*d.* Of Cassia vera 115,782 lbs. were imported from Holland.

CASTOR (Fr. castoreum; Ger. bibergeil, kastoreunt; Dutch, beevergeil; Russ. babrowaja struja; Ital. castoro; Span. castoreo). The produce of the beaver. In the inguinal region of this animal are found four bags, a large and a small one on each side: in the two large ones there is contained a softish, greyish yellow, or light brown substance, which, on exposure to the air, becomes dry and brittle, and of a brown colour. This is castor. It has a heavy but somewhat aromatic smell, not unlike musk; and a bitter, nauseous, and subacrid taste. The best comes from Russia, and is obtained in autumn and winter, but of late years it has been very scarce; and all that is now found in the shops is the produce of Canada. The goodness of castor is determined by its sensible qualities: that which is black is insipid, inodorous, oily, and unfit for use. It is said to be sometimes counterfeited by a mixture of some gummy and resinous substances flavoured with castor; but the fraud is easily detected. In 1866 the imports were 4,989 lbs., valued at 1,122*l.*; the exports 3,696 lbs.

CASTOR OIL (Fr. huile du ricin; Ger. rizinusohl; Ital. olio di ricino; Span. aceite de ricino) is obtained from the seeds of the *Ricinus communis*, or *Palma Christi*, an annual plant found in most tropical countries, and in Greece, the south of Spain &c. The oil is separated from the seeds either by boiling them in water or by subjecting them to the action of the press. It is said that though the largest quantity of oil may be procured by the first method, it is less sweet, and more apt to become rancid, than that procured by expression, which in consequence is the process now most commonly followed. Good expressed castor oil is nearly inodorous and insipid, but the best leaves a slight sensation of acrimony in the throat after it is swallowed. It is thicker and heavier than the fat oils, being viscid, transparent, and colourless, or of a very pale straw colour. That which is obtained by boiling the seeds has a brownish hue; and both kinds, when they become rancid, thicken, deepen in colour to a reddish brown, and acquire a hot, nauseous taste. It is very extensively employed in the materia medica as a cathartic. (Thomson's *Dispensatory*.)

The duty of 1*s.* 3*d.* per cwt. on castor oil was repealed in 1845. In 1866 the imports amounted to 23,037 cwt., and the exports to 6,103 cwt.

CATECHU (Fr. cachou; Ger. kaschu; Hind. cutt; Mal. gambir). An extract prepared from the wood of the Acacia Catechu. The acacia which produces it is a small tree about 12 feet in height, growing abundantly in Hindostan and the Burmese empire. It is said to be also common in Jamaica. The wood of the tree abounds in astringent matter which is extracted by boiling and inspissating the product. Before its source was discovered it was supposed to be a kind of earth. Hence its commercial name, *terra japonica*. After it was found to be of vegetable origin, it was taken to be an extract of the betel nut; but the real nature of the drug was first determined by Mr. Kerr, of the Bengal Civil Hospital, an eye-witness of the manufacture. Catechu, or *terra japonica*, is also called *cutch* by the English traders, who have derived this name from the Hindostanee *cutt*.

Catechu has several uses. It has long been employed as an astringent medicine, being the most powerful of the kind. It is consumed in large quantities by the natives of tropical Asia, who mix the substance with a small quantity of lime and aromatic drugs, and wrapping it in the leaf of the piper betel, use it as a masticatory. It is used for this purpose in France, made into small pills or lozenges.

But its most important economical use is as a dye and tanning drug. It owes these properties to the large amount of tannic acid it contains, amounting occasionally to more than half the weight of the substance. It is said that a pound of catechu has as much tanning power as seven or eight pounds of oak bark.

Catechu is derived from many countries and in various forms. The following have been enumerated: 1. Cake catechu, in quantities weighing from a few ounces to 2 pounds. This is resinous in its fracture, and bears marks of having been inspissated in saucers or similar flat vessels. 2. Pegu catechu, imported in masses of large size, sometimes nearly a hundred weight. This is of excellent quality, compact, dark brown in colour, and resinous in character. 3. Bengal catechu, in quadrangular cakes, about 2 to 3 inches in length and breadth, and similar in character to those mentioned above; and 4. A catechu in balls, the quality of which is generally inferior.

As the plants producing catechu are so widely distributed, the cost of the article depends in great degree upon the cost of labour and carriage. The quantities sent to Europe are increasing. The price of catechu varies at the Eastern ports from 10*s.* to 15*s.* the cwt. (Wood and Bache, *United States Dispensatory*, from which excellent and exhaustive work the above has been chiefly compiled.)

CAT'S EYE. A mineral of beautiful appearance. Its colours are grey, green, brown, red, of various shades. Its internal lustre is shining, its fracture imperfectly conchoidal, and it is translucent. It has derived its name from a peculiar play of light, arising from white fibres interspersed. The French call the appearance *chatoyant*. Among jewellers this gem is also known by the names of *cat's eye*, *chrysoberyl*, and *cymophane*. It is found in Ceylon, Brazil, Moravia, the Ural Mountains (where a beautiful variety is known as Alexandrite), and in the United States. Good cat's eyes, according to Mr. Emanuel, are worth from 100*l.* to 300*l.*, and are becoming more valuable than formerly. It scratches quartz, is easily broken, and resists the blow-pipe. It is set by the jewellers as a precious stone.

CAT SKINS. The skin or fur of the cat is used for a variety of purposes, but is principally dyed and sold as false sable. It appears from evidence taken before a Committee of the House of Commons (1859) that it is a common practice in London to decoy the animal and kill it for the sake of its skin. The fur of the wild cat is, however, far more valuable than that of the domestic cat. The

wild cat skins imported into this country are brought almost wholly from the territories of the Hudson's Bay Company. The animal from which they are taken is a good deal larger than the English wild cat, and is sometimes called the *loup cervier*, or Canadian lynx. It is very courageous. At an average about 30,000 cat skins are annually imported, of which more than a half are retained for home consumption.

CATTLE. A collective term applied to designate all those quadrupeds that are used either as food for man or in tilling the ground. By *neat* or *horned cattle* is meant the two species included under the names of the ox (*Bos*) and the buffalo (*Bubulus*); but as the latter is hardly known in this country, it is the former only that we have here in view.

The raising and feeding of cattle, and the preparation of the various products which they yield, have formed, in all countries emerged from the savage state, an important branch of industry.

It would be quite inconsistent with the objects and limits of this work to enter into any details with respect to the different breeds of cattle raised in this or other countries. They are exceedingly various. In Great Britain they have been vastly improved, in the weight of carcase, the quality of the beef, and the abundance of the milk, by the extraordinary attention that has been given to the selection and crossing of the best breeds, according to the objects in view. This sort of improvement began about the middle of last century, or rather later, and was excited and very much forwarded by the skill and enterprise of two individuals—Mr. Bakewell of Dishley, and Mr. Culley of Northumberland. The success by which their efforts were attended roused a spirit of emulation in others; and the rapid growth of commerce and manufactures since 1760 having occasioned a corresponding increase in the demand for butchers' meat, improved systems of breeding, and improved breeds, have been very generally introduced.

But the improvement in the size and condition of cattle has not been alone owing to the circumstances now mentioned. Much of it is certainly to be ascribed to the great improvement that has been made in their feeding. The introduction and universal extension of the turnip and clover cultivation has had, in this respect, a most astonishing influence, and has wonderfully increased the food of cattle, and consequently the supply of butchers' meat.

It was stated in the First Report of the Select Committee of the House of Commons on Waste Lands (printed in 1795), that cattle and sheep had, at an average, increased in size and weight about *a fourth* part since 1732; but there are strong grounds for supposing that the increase had been much more considerable than is represented by the committee.

The average *price* of oxen, during part of the thirteenth and the whole of the fourteenth centuries, as exhibited in Mr. Rogers's work *On Agriculture and Prices in England*, 1259–1400, was 13*s.* 1½*d.*, of cows 9*s.* 6*d.*, of bulls 10*s.* 4¾*d.* These averages have been derived from many thousand entries, and indicate that the oxen were on the whole intended to be used as meat, since the price is considerably in excess of that at which cows were sold, and that no general attempt was made to improve the herd, since bulls were cheaper than oxen.

The average weight of an ox in the year 1547, if we can rely on a victualling bill of the navy, preserved in the Public Record Office, and containing the weights of 40 oxen, was 4 cwts. It is possible that the herd may have improved during the century and a half which follow on the period comprised in the work referred to. (*Agriculture and Prices in England*, vol. i. p. 53.)

According to an estimate of Dr. Davenant in 1710, the average weight of the *nett* carcase of black cattle was only 370 lbs., of calves 50 lbs., and of sheep only 28 lbs.; but according to Sir F. M. Eden (*History of the Poor*, vol. iii. Appendix p. 88) and Mr. Middleton (*Agriculture of Middlesex*, 2nd ed. p. 541), the average nett weight of the carcase of bullocks killed in London might be taken, about the end of the last or the beginning of this century, at 800 lbs., calves at 140 lbs., sheep at 80 lbs., and lambs at 50 lbs.

Consumption of Butchers' Meat in London.—The number of head of cattle, sheep, and lambs sold in Smithfield market, each year from 1732 to 1852, has been as follows:—

Year	Cattle	Sheep	Year	Cattle	Sheep
1732	76,210	514,700	1793	116,848	728,480
1733	80,169	555,050	1794	109,448	719,120
1734	78,810	566,910	1795	131,092	745,640
1735	85,894	590,970	1796	117,152	758,840
1736	87,606	587,120	1797	108,377	693,510
1737	89,862	607,350	1798	107,470	753,010
1738	87,010	589,470	1799	122,986	834,400
1739	86,787	568,980	1800	125,073	842,210
1740	84,810	501,020	1801	134,546	760,560
1741	77,714	556,180	1802	126,389	743,470
1742	79,601	503,260	1803	117,551	767,430
1743	76,175	468,120	1804	115,019	905,940
1744	76,618	490,620	1805	125,043	912,410
1745	74,188	565,990	1806	120,250	858,570
1746	71,582	620,790	1807	134,526	924,030
1747	71,150	621,780	1808	144,042	1,015,280
1748	67,681	610,060	1809	137,600	989,250
1749	72,206	624,220	1810	132,155	962,750
1750	70,765	636,510	1811	125,012	966,400
1751	69,589	631,890	1812	133,854	953,630
1752	73,708	642,100	1813	137,770	891,240
1753	75,252	648,140	1814	135,071	870,880
1754	70,437	631,350	1815	124,948	962,840
1755	74,290	647,100	1816	120,439	964,560
1756	77,957	624,710	1817	129,888	1,044,710
1757	82,612	574,960	1818	138,047	965,250
1758	84,252	550,930	1819	135,226	949,900
1759	86,439	584,260	1820	132,933	947,990
1760	88,594	622,210	1821	129,125	1,107,230
1761	86,514	666,010	1822	142,043	1,340,160
1762	102,831	772,160	1823	149,552	1,264,920
1763	80,851	653,110	1824	163,615	1,239,720
1764	75,168	556,360	1825	156,985	1,130,310
1765	81,630	537,900	1826	143,460	1,270,530
1766	75,534	574,790	1827	138,563	1,335,100
1767	77,324	571,050	1828	147,698	1,288,460
1768	79,660	626,170	1829	158,313	1,240,300
1769	82,151	642,910	1830	159,907	1,287,070
1770	86,890	649,090	1831	148,768	1,189,010
1771	93,573	631,860	1832	166,224	1,364,180
1772	89,403	609,540	1833	152,093	1,167,820
1773	90,133	609,740	1834	162,485	1,257,360
1774	90,119	585,290	1835	170,525	1,381,540
1775	93,581	623,950	1836	164,351	1,219,510
1776	96,372	671,700	1837	172,435	1,329,010
1777	93,714	714,870	1838	183,362	1,403,400
1778	97,360	658,540	1839	180,780	1,360,250
1779	97,352	676,540	1840	177,497	1,371,670
1780	102,383	706,850	1841	166,922	1,310,220
1781	102,543	743,350	1842	175,347	1,438,960
1782	101,176	728,970	1843	175,133	1,371,760
1783	101,840	701,610	1844	186,191	1,609,150
1784	98,143	616,110	1845	192,180	1,441,980
1785	99,047	641,470	1846	199,875	1,458,880
1786	92,270	665,910	1847	220,862	1,438,280
1787	94,946	668,570	1848	220,193	1,343,770
1788	97,829	679,100	1849	223,560	1,514,130
1789	93,969	693,700	1850	229,744	1,555,270
1790	103,708	749,660	1851	213,541	1,577,260
1791	101,164	740,360	1852	236,948	1,575,540
1792	107,348	760,859			

The number of *fatted calves*, exclusive of sucklers, of which no account is taken, sold annually in Smithfield from 1821 to 1852 inclusive, was as follows:—

Date	Number	Date	Number
1821	21,768	1837	17,716
1822	24,255	1838	18,655
1823	22,739	1839	18,143
1824	21,949	1840	17,154
1825	20,956	1841	17,034
1826	22,118	1842	19,648
1827	20,729	1843	19,118
1828	20,852	1844	19,085
1829	20,879	1845	18,734
1830	20,300	1846	19,864
1831	—	1847	24,732
1832	19,522	1848	28,706
1833	18,374	1849	26,422
1834	19,721	1850	30,278
1835	20,852	1851	33,275
1836	18,900	1852	36,093

The contract prices of butchers' meat per cwt. at Greenwich Hospital, since 1730, have been as below:—

	£	s.	d.		£	s.	d.
1730 -	1	5	8	1820 -	3	10	4½
1740 -	1	8	0	1825 -	2	19	6½
1750 -	1	6	6	1830 -	2	3	6
1760 -	1	11	6	1835 -	2	0	7½
1770 -	1	8	6	1840 -	2	14	0
1780 -	1	12	6	1845 -	2	6	9
1790 -	1	16	10	1850 -	2	1	5½
1800 -	3	4	4	1855 -	2	18	9
1810 -	3	12	0	1860 -	2	17	5½
1815 -	3	8	0	1865 -	3	12	7

But it should be remarked that since January 1, 1860, the quality of the meat contracted for has been 'prime.' The mutton for the hospital now (1868) consists entirely of legs and loins, and the beef of buttocks and thick flanks free from bone.

We suspect, from what we have heard from practical men of great experience, that the weights assigned by Sir F. M. Eden and Mr. Middleton to the cattle sold in Smithfield were, at the time when their estimate was framed, decidedly in excess; but the great improvements since made in the breeding and feeding of cattle in all parts of the empire have materially increased their average size; so that the above weights are now, we have been well assured, not far from the mark. In order to be within bounds, we shall take the nett weight of the cattle at 750 lbs.; and supposing this and the other estimates to be nearly right, we should be able, provided we knew the respective numbers of sheep and lambs, to estimate the total quantity of butchers' meat furnished for London by Smithfield market, exclusive of hogs and pigs. Sheep and lambs are not, however, distinguished in the returns; but it is known that the former are to the latter nearly as 3 to 1; so that we may estimate the average weight of the sheep and lambs at about 70 lbs.

Average Number of Animals sold in Smithfield in each of the 3 years ending Dec. 31, 1852	Gross Weight	Offal	Nett Weight	Butchers' Meat
	lbs.	lbs.	lbs.	lbs.
243,411 cattle -	1,000	250	750	182,558,250
1,569,530 sheep and lambs - -	90	20	70	109,866,100
33,192 calves -	175	35	140	4,646,880
Total - -				297,071,530

This quantity, estimated at the average price of 6*d.*, would cost 7,426,788*l.*; at 8*d.* it would cost 9,902,384*l.*

But exclusive of the above, or of the beef properly so called, a large portion of the offal, including the head and tongue, heart, tripe, fat &c., is used as food.

A part of the cattle sold in London go to supply the towns in the vicinity; but, on the other hand, many cattle are sold in the adjoining towns, and slaughtered for the use of London, of which no account is taken. We have reason to think that the latter quantity rather exceeds the former; but, supposing that they mutually balance each other, the above quantity of 297,071,530 lbs. may be regarded as forming the annual supply of butchers' meat required for London (in 1853); exclusive, however, of the offal used as food, and of hogs, pigs, suckling calves &c., and exclusive also of bacon, hams, and salted provisions brought from a distance. The quantities thus omitted from the account are very large indeed; and since the introduction of steam navigation great numbers of cattle and sheep are killed in Scotland and other distant parts of the empire, the carcases of which are sent up for sale in the London market. We have no means of forming any correct conclusion on such a subject, but we are inclined to think that the carcases so sent up, added to the offal used as food, and the hogs killed in town, may be considered as fully equivalent to the butchers' meat used in the *victualling of ships*. On this hypothesis there will remain 297,071,530 lbs. of butchers' meat for the supply of the metropolis, which, taking the population (for 1853) at 2,400,000, gives 123¾ lbs. for the consumption of every individual, exclusive of bacon, hams, and salted provisions, and also of poultry. If the population of the metropolis be taken at 3,000,000, the quantity required, on the preceding calculation, will be 371,121,530 lbs.

This, though not nearly so great as has been sometimes represented, is, we believe, a larger consumption of animal food than takes place any where else by the same number of individuals. Mr. Middleton (*Agriculture of Middlesex*, p. 643) estimates the consumption of animal food in London, exclusive of fish and poultry, at 234 lbs. a-year for every individual! And he further estimates the total average annual expense incurred by each inhabitant of the metropolis, for *all* sorts of animal food, at 8*l.* 8*s.* According to M. Chabrol, the consumption of butchers' meat in Paris amounts to between 85 lbs. and 86 lbs. for each individual. At Brussels the consumption is a little greater, being supposed to average 89 lbs. each individual; being rather more than 3 lbs. above the mean of Paris, and 34¾ lbs. under the mean of London.

There were 342,398 cattle, 40,207 calves, 1,624,405 sheep, and 30,803 pigs brought into the Metropolitan Cattle Market in 1865.

In estimating the weights of the animals killed in country towns, a lower standard must be adopted than that taken for London; first, because the largest and finest cattle are brought to the metropolis; and secondly, because a very large proportion of the calves killed in country towns are sucklers, which are excluded from the London accounts. Neither is the consumption so great in country towns as in the metropolis; and supposing the consumption in the latter to be at the rate of 123 lbs. per individual, it does not probably exceed 100 lbs. per do. in Manchester, Glasgow, Liverpool, and other great provincial towns. In 1851 there were slaughtered in Glasgow 29,569 oxen, 4,443 calves, 123,188 sheep and lambs, and 5,157 pigs. And this statement taken in connection with the fact that very large quantities of fresh and salted meat are imported into Glasgow, and that, so late as 1760, the slaughter of bullocks for the supply of the public market was unknown in that city, sets the wonderful improvement that has taken place in the food of the Scotch people in the most striking point of view. Previously to 1780 it was customary in Glasgow, Edinburgh, and the principal Scotch towns, for families to purchase in November what would now be reckoned a small half-fed cow or ox, the salted carcase of which was the only butchers' meat they tasted throughout the year. In the smaller towns and country districts this practice prevailed till the present century; but it is now everywhere abandoned. We believe, indeed, that there has never been, in any country, a more rapid increase in the quantity, or a greater improvement in the quality, of the food brought to market, than has taken place in Scotland since 1770. In so far as respects butchers' meat, this has been occasioned partly by the growing numbers and opulence of all classes, and partly by the vast increase in the food of cattle consequent on the introduction of green crops, and of an improved system of cultivation. [BREAD.]

The introduction of steam navigation, and the improved means of communication by railroads

and otherwise, have already had, and will no doubt continue to have, a material influence over the supply of butchers' meat. Owing to the difficulty and expense of their conveyance, cattle could not formerly be conveniently fattened at any very considerable distance from the great markets; but steam navigation has gone far to remove this difficulty. Instead of selling their cattle, lean or half-fed, to the Norfolk graziers, by whom they were fattened for the London market, the producers, in various districts of Scotland, now fatten them at home, either sending the live animals or the carcases by steam to London, Liverpool &c. This practice is indirectly as well as directly advantageous to the farmer, inasmuch as it enables him to turn his green crops to better account, and to raise larger supplies of manure. The same practice is also extending in Ireland; and will, no doubt, spread itself over every part of the country where feeding can be carried on, that has the required facility of transport.

Exclusive of the cattle raised in Great Britain, we import considerable supplies of beef and of live cattle from Ireland.

Account of the Number of Cows and Oxen, and of the Quantities of Beef, imported into Great Britain from Ireland in the undermentioned Years.

Year	Cows and oxen	Beef
	no.	barrels
1801 - -	31,543	58,911
1805 - -	21,862	88,519
1810 - -	44,553	71,605
1815 - -	33,809	60,307
1820 - -	59,014	52,591
1825 - -	63,519	63,557

In 1825 the trade between Great Britain and Ireland was placed on the footing of a coasting trade, so that there are no means of continuing this account to a later date from official returns. But the following statement collected by the Customs from non-official sources has been continued from 1860 to 1866 from the valuable Statistics of Ireland, published in Mr. Thom's *Almanac* for 1868:—

Imports of Cattle, Sheep, and Swine from Ireland into Great Britain during each of the undermentioned Years ending with 1866.

Year	Oxen, bulls, and cows	Calves	Sheep and lambs	Swine
1846	186,483	6,363	259,257	480,827
1847	189,960	9,992	321,170	106,407
1848	196,042	7,086	255,682	110,787
1849	201,811	9,831	241,061	68,053
1850	184,616	4,462	176,945	109,170
1851	183,760	2,474	151,807	136,162
1860	255,687	31,933	419,704	367,912
1861	334,304	24,360	407,476	358,187
1862	367,151	41,868	538,631	364,634
1863	390,264	42,387	517,232	357,938
1864	329,210	19,076	370,781	338,543
1865	231,652	14,082	332,831	383,452
1866	364,881	31,350	398,846	504,224

The average annual value of the total imports for the last seven years being 7,279,376*l.*

Number of Head of Cattle in Great Britain.—It would, on many accounts, be very desirable to have an accurate estimate of the number and value of the stock of cattle in Great Britain, and of the proportion annually killed and made use of; but owing to the little attention that has been paid to such subjects in this country, where most branches of statistical knowledge are at a low ebb, there are no means of arriving at any conclusions that can be depended upon. The following details may not, however, be unacceptable.

Arthur Young has given, both in his *Eastern* and *Northern Tour*, estimates of the number and value of the different descriptions of stock in England. The greatest discrepancy, unaccompanied by a single explanatory sentence, exists between them; but there can be no doubt that the following estimate (*Eastern Tour*, vol. iv. p. 456), though, perhaps, rather under the mark, is infinitely nearer the truth than the other, which is about twice as great:—

Number of draught cattle - - -	681,491
cows - - -	741,532
fatting cattle - - -	513,369
young cattle - - -	914,656
	2,852,048

Now, taking this number at the round sum of 3,000,000, and adding a half to it for the increase since 1770, and 1,500,000 for the number of cattle in Scotland, we shall have 6,000,000 as the total head of cattle of all sorts in Great Britain. The common estimate is, that about a *fourth* part of the entire stock is annually slaughtered; which, adopting the foregoing statement, gives 1,500,000 head for the supply of the kingdom; a result which all that we had heard down to 1859 inclined us to think was not far from the mark.

But in 1866 an enumeration of the cattle, sheep, and pigs was taken for England, Wales, and Scotland. The number in Ireland has been stated for some years past. This census gives 4,785,846 as the total number of cattle in Great Britain. Of these, 3,307,054 were returned for England, 541,401 for Wales, 937,411 for Scotland. In Ireland the cattle were 3,493,414; those in the Isle of Man and the Channel Islands 37,700: making a total of 8,316,960 for the United Kingdom.

The cattle reared and held in the United Kingdom is considerably less than that held on an average in foreign countries. We subjoin a table of the population and number of cattle in several of these countries according to the latest returns, the countries being arranged according to the number of their population.

Countries	Date of return of live stock	Population	Cattle
Russia - -	1859-63	74,139,391	25,441,000
France - -	1862	37,386,313	14,197,360
Austria - -	1863	36,207,644	16,257,116
United States -	1860	31,445,080	16,911,475
United Kingdom -	1866	29,070,952	8,316,960
Prussia - -	1862	18,491,220	5,631,500
Spain - -	1865	15,658,531	2,901,598
Bavaria - -	1863	4,807,440	3,185,882
Belgium - -	1856	4,529,161	1,257,619
Sweden - -	1860	3,859,728	1,016,658
Holland - -	1864	3,618,459	1,333,847
Saxony - -	1861	2,225,840	638,460
Hanover - -	1861	1,880,070	949,179
Würtemberg -	1861	1,720,708	957,178
Denmark - -	1861	1,602,734	1,118,774
Baden - -	1861	1,429,199	621,486
Hesse - -	1865	853,315	316,653
Holstein - -	1861	561,831	290,572
Mecklenburg Schwerin	1857	559,258	266,837
Nassau - -	1864	468,311	200,645
Schleswig - -	1861	421,186	390,001
Oldenburg - -	1852	279,637	219,843

These figures will show how much less is the proportion of cattle to head of population in the United Kingdom than is to be found in some other communities.

Importation of Cattle.—Previously to 1842 the importation of horned cattle, sheep, hogs, and other animals used as food was strictly prohibited; but this prohibition was then withdrawn, and the importation of the animals in question permitted on paying a duty of 20*s.* a head on oxen and bulls, 15*s.* on cows, 3*s.* on sheep, 5*s.* on hogs &c. This certainly was one of the boldest and most important inroads ever made on the prohibitive system, and reflected the greatest credit on the administration of Sir Robert Peel. It was supposed at the time that this change would lead to a very heavy fall in the prices of all sorts of stock, a supposition which was in some degree realised

by the panic which it occasioned. But there was no good foundation for such anticipations; and this we endeavoured to show, in the edition of this Dictionary published soon after the repeal of the prohibition.

The home producer was not affected adversely by the change—indeed no real change occurred during the prevalence of these duties. Hence in 1846 Sir R. Peel completed his reform in the cattle trade by admitting animals duty free. The result has been a considerable importation of lean stock, the fattening of which has been the profitable business of farmers and graziers. Cattle imported are rarely in condition for the butcher, for the confinement and hardships of a sea voyage tell severely upon lean stock, and would involve a serious loss on beasts shipped in prime condition.

A temporary check, however, was given to the importation of foreign cattle by the late prevalence of the cattle plague. In the period from June 24, 1865 to November 10, 1866, 198,481 cattle in England were attacked, of which but 21,589 recovered, while 38,443 healthy beasts were slaughtered to prevent the spread of the disease. (*Miscellaneous Statistics*, p. 323.)

Account showing the Number and Declared Real Value of the Foreign Cattle, Sheep &c. Imported into the United Kingdom in 1865–67 (*Statistical Abstract*, 1868).

	1865		1866		1867	
	Number	Value	Number	Value	Number	Value
		£		£		£
Oxen, bulls, cows, and calves -	283,271	4,401,182	237,739	4,092,941	177,948	3,054,310
Sheep and lambs - -	914,170	1,787,886	790,880	1,504,312	540,326	945,661
Total - -	—	6,189,368	—	5,597,253	—	3,999,971

According to the last Report on the Trade in Animals (July 16, 1866, Parl. Paper No. 427), the chief sources of cattle imports into Great Britain are Spain, Portugal, France, Belgium, Holland, Schleswig, Denmark, and Sweden. The market is also supplied from Orkney and Shetland to the Scotch ports, and from Scotland and Ireland to England. Importations are permitted to certain ports only, these having been approved by the Customs authorities, the regulation being practically a measure of quarantine. The chief ports for foreign cattle are Liverpool, London, Harwich, Hull, Newcastle, Leith, and Granton; and for Irish cattle, Glasgow, Silloth, Morecambe Bay, Liverpool, and Bristol. Scotch cattle are generally carried to Liverpool and London.

The following are extracts from the Report of the House of Commons' Committee of 1866 appointed to enquire into the manner in which the home and foreign trade in animals is conducted:—

Transit.—The sea-borne cattle arrive generally in good condition. The vessels are, with some exceptions, specially fitted up for the purpose, and have divisions for every four or six animals, windsails or other means to secure ventilation, and in some cases shelter for the cattle on deck. The cattle, however, in well-ventilated vessels appear to suffer from the want of a free current of air when the vessels are coming up the Thames or are waiting for the tide to discharge their cargo, as at Newcastle, Hull, Bristol, and Leith, where the cattle cannot be landed at all states of the tide.

The animals carried between decks are usually tied with their heads to the sides of the vessel, though the best mode is to tie them with their heads to the centre, because this latter method affords greater facility for feeding and watering, and for good ventilation; the Irish store cattle are brought over loose.

There is no rule respecting the numbers put on board, but with the exception of some cases in the Irish and Bremen trade, the vessels do not appear to be overcrowded.

It is in evidence that in Ireland much injury arises to cattle from bad treatment received from drovers, and that cattle landed from Oporto and Spain arrive in a better state than those from Ireland.

In the voyage from Oporto, each animal is allowed space to lie down, and is fed with compressed food, and watered; in other cases the animals are packed close to one another, so as to prevent their lying or being shaken down, and sometimes are neither fed nor watered until landed.

The animals are chiefly made to walk on and off board, and the practice of slinging is nearly abandoned.

It has always been the practice to cleanse the ships, more or less, after each voyage, and recently disinfectants have been used.

On the railways cattle are often overcrowded and badly treated, especially in Ireland, and are carried for 36 to 48 hours without being fed or watered.

It is bad for the cattle and troublesome to untruck them, while there is some difficulty in watering them while in a truck—a difficulty, however, which is not insuperable.

A journey, whether by sea or rail, causes cattle to deteriorate in value, and makes them feverish, and tends to produce, if it does not actually cause, the foot and mouth disease. These evils are very much increased if cattle are ill-treated or not properly watered.

Since the recent Orders in Council, the cattle trucks appear to have been properly cleansed as far as is possible. Possibly the floors might be constructed so as to admit of a more thorough cleansing than is at present practicable.

The Committee is of opinion that it should be made imperative upon all railway companies or steamboat proprietors who are engaged in the carriage of animals, to thoroughly cleanse and disinfect the trucks, steamboats, and pens used by them after every journey or voyage; and that provision should be made under Government superintendence for the proper ventilation of all vessels employed in carrying cattle by sea; and also that similar provision should be made with respect to the vessels employed in carrying cattle from Ireland and Scotland.

The laws relating to cruelty to animals might be often enforced with advantage in the case of both vessels and railways.

Home Trade.—If London and other large towns could be supplied entirely with meat killed in the country, a great deal of the traffic in cattle, and consequently a great deal of the chance of spreading infectious diseases, would be avoided.

London and other large towns can, except in hot weather, be supplied, to a great extent, with dead meat from a distance; and frequently country-killed meat, though not so good looking, is better and keeps longer than town-killed meat.

At present, the cost of sending carcases by rail is larger than that of sending live cattle; but, with proper arrangements, the cost of carriage might be diminished.

If animals are slaughtered in districts which are thinly peopled, there is great difficulty in disposing of the offal, which does not bear the expense of carriage. It would be a loss to the farmer in such districts to be obliged to send his cattle to distant markets, dead instead of alive, and to the poor of London and large towns, who are great consumers of offal, and who would be deprived of it if those places were supplied by dead meat only.

The trade generally object to a dead-meat system; they say that the supply is very irregular, and that prices are only kept from violent fluctuations by the live-meat market.

Moreover, while admitting that the general demand is tolerably uniform, they say that their individual demand varies—that they can only meet this irregularity by buying cattle and keeping them alive in their own lairs to slaughter when required.

Many butchers and contractors who supply the suburbs of London are dependent for their meat on the metropolitan markets. If they could only obtain dead meat at these markets, it would be impossible to supply meat in as good a condition as they do at present.

The Committee is of opinion that it is not possible at present to dispense with a live-meat market in the metropolis and other large towns.

Both in London and in the provincial towns, butchers of the suburbs or neighbouring places have been in the habit of purchasing cattle in the live markets, and removing them to their own premises, and keeping them there until required for slaughter. These persons have suffered great inconvenience and extra expense by the recent prohibition of such removal, by the Orders in Council made in consequence of the cattle plague.

There does not seem to be any general desire permanently to restrain the general home traffic in cattle, but the Committee recommend that the Metropolitan Market should be confined to animals intended for immediate slaughter; and that all animals exhibited therein should be branded, and not allowed to be exhibited for sale in any other market, but should be slaughtered within 10 days, and that, subject to this regulation, the animals might be moved so as to allow butchers to take them to their own places and slaughter them.

The Committee does not recommend that any permanent restrictions, other than those above suggested, should be placed on the home traffic in cattle. That they are of opinion that the wilful exposure for sale in a public market of animals suffering from infectious disorders, such as rinderpest, sheep pox, pleuro-pneumonia, or glanders, or the knowingly driving such animals upon the public highways, or conveying them upon railway or boat, should be rendered an offence punishable in a summary manner; and, if necessary, a Bill to effect this should be introduced into Parliament.

The great inconvenience of cattle driving in the streets of London and other towns arises partly from cattle being driven to the live-meat markets and partly from cattle being driven from those markets to private slaughter-houses.

The live markets are not unhealthy in themselves, nor are slaughter-houses, if properly kept, though they usually attract several trades which, in crowded localities, are injurious to public health.

The private slaughter-houses are occupied by two classes, carcase butchers and retail butchers.

The carcase butchers kill animals for the purpose of selling them wholesale in the dead-meat market. This slaughtering could be carried on at a public slaughter-house adjoining the live market as well as at private slaughter-houses; and if this were done, the number of cattle driven through the streets would be very much reduced, and the noxious trades which are connected with them would be removed.

The slaughter-houses of the retail butchers stand on a different footing. Their abolition would cause great hardship to many butchers who have slaughter-houses adjoining their shops, and can slaughter animals as they require them under their own superintendence.

For the public interest it would be advisable as far as practicable to adopt a system of public slaughter-houses, and in all cases slaughter-houses should be placed under regulations and proper inspection, as is the case at present in some of the provincial towns; and this Committee is of opinion that power should be given by a general Act to local authorities to acquire land for the erection of slaughter-houses, and to make regulations respecting them.

That the system of inspection at present existing in the City of London should be extended to the whole metropolitan district, although no entirely satisfactory inspection of meat can be carried out until all meat is killed in specified public slaughter-houses.

Foreign Trade.—The importation of foreign cattle is very important, for, as the home supply of cattle is reduced, the importation tends to keep down the price of meat, and it appears impossible to supply dead meat from foreign ports, to any but a very small extent.

The introduction of disease is, to a great extent, prevented by the system of inspection, which makes importers careful to send sound animals. The inspection is at present carried out effectually, though the accommodation at some wharves is deficient.

Diseased animals are slaughtered, but the rest of the cargo is sold, except in cases of rinderpest, when the whole cargo is slaughtered. Store stock affected with foot and mouth disease are, in some cases, detained until cured.

Inspectors cannot discover undeveloped seeds of disease in an animal, and therefore, with the view of preventing the importation of disease from abroad, many persons are desirous of placing store cattle in quarantine, and of maintaining the present regulation as to slaughtering fat cattle at the port of discharge within four days from their arrival.

The compulsory slaughter of all foreign cattle at the port of discharge, under the recent Orders in Council, has prevented the importation of any store cattle or sheep (which was an increasing trade), much to the detriment of the Scotch farmers, who have been unable to stock their lands, and has diminished the importation of fat cattle, a trade which would otherwise have increased.

The temporary inconvenience of insufficient accommodation for slaughtering at the wharves could no doubt be removed, but the evil of causing a large amount of additional slaughtering in large towns, as Liverpool and Hull, is more difficult to deal with.

Compulsory slaughter at a port, like compulsory slaughter at a market, is more expensive to the butcher, hampers the trade, and will diminish the importation, and raise the price to the consumer.

The Committee recommends that all imported

fat cattle should be subject to the same rule as English fat cattle when exposed in a market.

That the Privy Council shall declare any country, in which they have reason to believe the cattle plague is existing, to be an infected country, and to prohibit the importation altogether of animals therefrom, or to declare that such importation shall only take place at certain ports, and that animals so imported shall not be taken into any market, but be slaughtered at the port of entry within four days of their being landed.

Besides the general question of slaughtering at the port of discharge, it was suggested that there might be a separate market for foreign fat stock in London close to the wharves, and that foreign stock might be excluded from the metropolitan market, or on the banks of the Thames.

The plan would prevent the chance of introducing infection from foreign cattle into the metropolitan market, and would stop the inconvenience of driving cattle through the streets from Blackwall to Copenhagen Fields, many of which are brought back to Whitechapel.

It is objected to by several inspectors, and by nearly all the butchers and salesmen, who alleged that the separation of the home and foreign markets would be inconvenient, would decrease the competition, and tend to diminish the importation; while by giving additional trouble to the butchers it would increase the price, and would 'give an unfair advantage to owners of English stock.'

Although to some extent one class of butchers purchase foreign, and another class English fat cattle, yet there are many who purchase both. The separation of the markets would exclude these men from one or the other market.

Such a separation of the two markets seems therefore undesirable. The evil of the cattle driving in the streets might be much diminished if the cattle were landed lower down the river than at present, and brought up by rail, while this course would also bring the cattle in better condition, and allow of better accommodation at the wharves.

The chance of infection will also be much diminished if the metropolitan market be made exclusively a fat meat market, as in that case all the cattle would be, according to our previous recommendations, killed within 10 days.

It seems desirable, where practicable, in large towns to separate the fat and store cattle markets.

Any system of quarantine will require extensive accommodation at the port of arrival, and in some cases (as Liverpool and London) there will be great difficulty in providing this.

The objections urged to any system of quarantine are the expense, the interference with trade, and the deterioration of the animal during the quarantine, while it is said that the animal might catch the disease from the place where it is quarantined. A quarantine would, no doubt, act as a tax on importation, and if it did not stop importation altogether, would diminish it, and raise the price to the purchaser.

It is alleged on the other hand that a purchaser would gladly pay an increased price, as he would have a kind of warranty of the soundness of the animal; but it may be doubted whether the quarantine furnishes an adequate security that the animal is free from disease.

The only disease for which quarantine appears to be at all reasonable is the rinderpest.

Where countries like Spain or Denmark are not only free from rinderpest, but are not a channel for the exportation of cattle from infected inland countries, there seems to be no reason for a quarantine for cattle exported from them.

The Committee is of opinion that a permanent department of the Council Office should be appointed to keep up communications with the Board of Customs and her Majesty's consuls abroad, in order to have accurate accounts as to the existence or otherwise of the cattle plague, upon whose recommendation the Council could, if they thought fit, order a quarantine, or impose such restrictions upon the trade in animals as circumstances might appear to them to justify.

Laws as to Cattle.—No salesman, broker, or factor, employed in buying cattle for others, shall buy for himself in London, or within the bills of mortality, on penalty of double the value of the cattle bought and sold. (31 Geo. II. c. 40.)

Cattle not to be driven on Sunday, on penalty of 20*s*. (3 Ch. I. c. 1.)

Any person unlawfully and maliciously killing, wounding, or maiming any cattle shall be guilty of felony, and, upon conviction, may be transported, at the discretion of the court, beyond seas for life, or for any term not less than 7 years, or be imprisoned for any term not exceeding 4 years, and kept to hard labour; and, if a male, may be once, twice, or thrice publicly or privately whipped, if the court shall think fit so to order. (7 & 8 Geo. IV. c. 30.)

Persons wantonly and cruelly abusing, beating, or ill-treating cattle may, upon being convicted before a justice of such offence, be fined in any sum not exceeding 5*l*. and not below 10*s*.; and upon non-payment of fine may be committed to the house of correction for any time not exceeding 3 months.

Complaint must be made within 10 days after the offence. Justices are instructed to order compensation to be made, not exceeding 20*s*., to persons vexatiously complained against. (3 Geo. IV. c. 71.)

CAVIAR or CAVIARE (Fr. caviar, cavial; Ger. kaviar; Ital. caviario, caviale; Span. caviario; Russ. ikra; Lat. caviarium). A substance prepared in Russia, consisting of the salted roes of large fish. The best, which is made of the roe of the sturgeon, appears to consist entirely of the eggs, and does not easily become fetid. It is packed in small casks or kegs; the inferior sort being in the form of dry cakes. Caviar is highly esteemed in Russia, and considerable quantities are exported to other countries. It is principally made of the roe of the sturgeon caught in the Wolga, in the neighbourhood of Astrachan, as many as 30,000 barrels of caviar having been exported from that city in a single season. In 1866, 128 cwts. of caviar were imported into Great Britain, valued at 2,313*l*. (*Geog. Dict.* art. 'Astrachan.')

CAYENNE PEPPER or GUINEA PEPPER. [PEPPER.]

CEDAR (Ger. zeder; Dutch, ceder; Fr. cèdre; Ital. and Span. cedro; Russ. kedr; Lat. cedrus). The cedar of Lebanon, or great cedar (*Pinus cedrus*) of the Old Testament. It grows to a very great size. The timber is resinous, has a peculiar and powerful odour, a slightly bitter taste, a rich yellowish brown colour, and is not subject to the worm. Its durability is very great; and it was on this account (*propter æternitatem*, Vitruvius, lib. ii. sec. 9) employed in the construction of temples and other public buildings, in the formation of the statues of the gods, and as tablets for writing upon. In the time of Vitruvius cedars were principally produced in Crete, Africa, and some parts of Syria. (Loc. cit.) Very few are now found on Lebanon; but some of those that still remain are of immense bulk, and in the highest preservation.

Cedar exceeds the oak in toughness, but is very inferior to it in strength and stiffness. Some very fine cedars have been produced in England.

There are several other kinds of timber that are usually called cedar: thus a species of cypress is called white cedar in America; and the cedar used by the Japanese for building bridges, ships, houses &c. is a kind of cypress, which Thunberg describes as a beautiful wood, that lasts long without decay. The *Juniperus oxycedrus* is a native of Spain, the south of France, and the Levant; it is usually called the brown-berried cedar. The Bermudian cedar (*Juniperus Bermudiana*), a native of the Bermuda and Bahama islands, is another species that produces valuable timber for many purposes, such as internal joiners' work, furniture, and the like. The red cedar, so well known from its being used in making black lead pencils, is produced by the Virginian cedar (*Juniperus Virginiana*), a native of North America, the West India islands, and Japan. The tree seldom exceeds 45 feet in height. The wood is very durable, and, like the cedar of Lebanon, is not attacked by worms. It is employed in various ways, but principally in the manufacture of drawers, wardrobes &c., and as a cover to pencils. The internal wood is of a dark red colour, and has a very strong odour. It is of a nearly uniform texture, brittle, and light. (Tredgold's *Principles of Carpentry*; *Library of Entertaining Knowledge, Vegetable Substances*; Rees's *Cyclopædia*; &c.)

The duties on cedar, which produced only a trifling sum, were repealed in 1845. A duty of 1*s.* per ton was, however, imposed on cedar in 1860, but the importation has been free since March, 1866. The imports in 1866 were 5,647 tons, valued at 59,224*l.* The use of cedar in pencil making has been superseded to a considerable extent by other and cheaper woods.

CEMENT. Another name for hydraulic mortar, i. e. mortar which solidifies under water, and thereupon becomes impermeable to it. These cements always contain alumina and silica, and the rationale of their action is the formation of a hydrated silicate of lime, alumina, and occasionally magnesia. The sources of hydraulic lime are—1. The septariæ of the oolite and London clay, found on the coasts of Kent, the Isles of Sheppey and Thanet, Yorkshire, Somerset, and the Isle of Wight, as well as in many continental countries. 2. The blue lias cement stones found in South Wales, Somerset, Lyme Regis, and Nottinghamshire. 3. The isle of Portland cements of similar character may also be made artificially by the calcination of lime with silica and similar compounds. (Ure's *Dictionary*.)

The value of British cement exported in 1866 was 280,916*l.*, about the average of the former 3 years.

CERTIFICATES, in the Customs. *Certificates of origin* were required in respect of all goods which are entitled to any exemption from or remission of duty, or other peculiar advantage, on their being imported. They were required, for example, in the case of sugar and spirits from the British possessions in America and the Mauritius, of sugar from places within the limits of the East India Company's charter, of wine from the Cape of Good Hope &c. The clauses with respect to them were embodied in the Customs Consolidation Act. [Importation and Exportation.] The statute enacted that the Commissioners of the Treasury may by order under their hands declare that a certificate of production shall be required upon the exportation of any goods from any British possession abroad or other place, or upon the importation of such goods into the United Kingdom, and frame such regulations respecting such certificates and goods as they may think fit; and if any goods in respect of which such certificates are required be imported without such certificate, they shall be deemed to be foreign goods and liable to any duty attaching to them as such; and such orders of the Treasury shall be published in the London and Dublin Gazettes three times at least within three months from the date thereof respectively. (Sec. 78.)

The following clauses relate to the importation of goods from the Channel Islands:—

Goods of Guernsey, Jersey &c.—Any goods of the growth of the Channel Islands, and any goods manufactured in the said islands from materials of the growth of the said islands, or from materials not subject to duty in the United Kingdom, or from materials upon which the duty has been paid in the United Kingdom, and upon which no drawback has subsequently been granted, may be imported into the United Kingdom from the said islands respectively without payment of any duty, and such goods shall not be deemed to be included in any charge of duties imposed by any Act on the importation of goods generally from parts beyond the seas; but such goods shall be charged with any proportion of such duties as shall fairly countervail any duties of excise payable on the like goods the produce or manufacture of the part of the United Kingdom into which they shall be imported, or payable upon any of the materials from which such goods are manufactured; and all goods manufactured in any of the said islands from any other materials than the materials aforesaid shall be declared and taken to be foreign goods. (Sec. 82.)

Master to deliver Certificate of Produce.—Before any goods shall be entered as being the produce of the said islands (if any benefit attach to such distinction), the master of the ship importing the same shall deliver to the collector or comptroller of customs a certificate from the governor, lieutenant-governor, or commander-in-chief of the island whence such goods were imported, that proof had been made in manner required by law that such goods were of the produce of such island, stating the quantity and quality of the goods, and the number and denomination of the packages containing the same. (Sec. 83.) These regulations are now repealed.

CHAIN. In Surveying, a measure of length, composed of a certain number of links made of iron wire, serving to take the distance between two or more places. Gunter's chain contains 100 such links, each measuring $7\frac{92}{100}$ inches, consequently equal to 66 feet, or 4 poles.

CHAIN CABLES. [Anchors and Cables.]

CHALDRON. A dry English measure. 36 coal bushels make a chaldron, and 21 chaldrons a score. The coal bushel is 19½ inches wide from the outside, and 8 inches deep. It contains 2217·6 cubic inches; but when heaped, 2815·5, making the chaldron 58·65 cubic feet. There are 12 sacks of coal in a chaldron; and if 5 chaldrons be purchased at the same time, the seller must deliver 63 sacks: the 3 sacks additional are called the *ingrain*. But coals are now sold in London, and almost everywhere else, by the ton of 20 cwt. avoirdupois. The Newcastle chaldron of coals is 53 cwt., and is exactly double the London chaldron. [Coal.]

CHAMBER OF COMMERCE. An assembly of merchants and traders, where affairs relating to trade are treated of. There are several establishments of this sort in most of the chief cities in France; and in this country chambers of this kind have been erected for various purposes.

Chamber of Assurance, in France, denotes a society of merchants and others for carrying on

the business of insurance; but in Holland it signifies a court of justice where causes relating to assurance are tried.

CHAMPAGNE. One of the most esteemed and celebrated of the French wines. [WINE.]

CHANKS or CHANK SHELLS. Common conch shells (*Voluta Pyrum*) are fished up by divers in the Gulf of Manaar, on the coast opposite Jaffnapatam, in Ceylon, in about 2 fathoms water; and at Travancore, Tuticoreen, and other places. Large fossil beds of chanks have also been found. Chanks are of a spiral form. They are important as an article of trade in India, being in extensive demand all over the country. They are sawn into narrow rings or bracelets, and are worn as ornaments on the arms, legs, fingers &c. by the Hindoo women: many of them are also buried with the bodies of opulent and distinguished persons. Those which, from being taken with the fish, are called green chanks, are most in demand. The white chank, which is the shell thrown upon the beach by strong tides, having lost its gloss and consistency, is not worth the freight up to Calcutta. The value of the green chank depends upon its size. A chank opening to the right, called in Calcutta the right-handed chank, is so highly prized as sometimes to sell for 400, or 500, or even 1,000 rupees. (Bell's *Commerce of Bengal*; and *Private communications.*)

The fishery of chanks used to be monopolised by Government, who formerly let the banks for from 3,000*l.* to 4,000*l.* a-year. But of late years the fishery, partly from the poaching of the fishermen of the contiguous coasts, and partly from a decrease in the supply of chanks, declined so that the rental of the banks fell off to from 300*l.* to 400*l.* a-year; and this smaller sum was not paid, as formerly, for a license to dive for live chanks, but for permission to dig up the dead shells along the shore of the Gulf of Manaar. Under these circumstances Government have wisely abandoned the chank monopoly, which, without being of any value in a financial point of view, obstructed the employment of the inhabitants on the shores of the Gulf. (See the valuable *Report* of Sir J. E. Tennent, p. 55 of *Papers on Ceylon*, presented to Parliament in 1848.)

CHARCOAL (Fr. charbon; Ger. kohlenstoffe; Ital. carbone; Span. carbon). There are three forms of carbon—*diamond*, *graphite* or *plumbago*, and *charcoal*. The origin of the first two has not been determined; the latter is an artificial product. The most important kinds of artificial carbon are LAMP-BLACK, *vegetable charcoal*, and *animal charcoal*.

Vegetable charcoal is prepared by igniting wood and admitting as small a quantity of air as possible during the process of combustion. Branches of trees are piled in a conical shape, and are covered with turf, a few holes being left at the bottom of the pile, at which air is admitted. The pile is then ignited from below, and suffered to burn slowly till smoke ceases to be evolved. The apertures are then closed, and the charcoal suffered to cool. This method of manufacturing charcoal is very ancient, and has been practised in this country for centuries. The man who found the body of Rufus in the New Forest was a charcoal burner, and his descendants followed the occupation up to the close of the last century. Large quantities of charcoal are also produced by the distillation of wood in close vessels, in the manufacture of pyroligneous acid and wood naphtha. Coke is an impure variety of charcoal. The charcoal used in the manufacture of gunpowder is made of the young branches of various plants, the lighter and more vascular parts—excepting the bark, which contains more salts than the rest of the tree—being selected. These woods are charred in iron vessels at high temperatures, and the product reduced to an impalpable powder.

The economical uses of wood charcoal are considerable. It has powerful disinfectant and decolorising properties, and arrests putrefaction in animal and vegetable substances. These qualities appear to depend on its extraordinary power of absorbing gases, particularly those which are the result of putrefaction. Thus 1 volume of charcoal will absorb 90 volumes of ammoniacal gas, and 55 volumes of sulphuretted hydrogen, giving off these products on being heated. Hence charred casks are the safest vessels for water to be used in by sea voyagers, and piles charred at the end are much more able to resist rot than uncharred wood. Disagreeable odours are eliminated by charcoal. It also absorbs colours. Hence its power of bleaching water, and its familiar use as a filter. Its properties are most notable in proportion to its lightness, which varies greatly with its origin, since its specific gravity when solidified is 3·5, while some kinds of porous charcoal are as low as ·44.

Animal charcoal is obtained by submitting certain animal substances, generally bones, to a red heat, the vessel containing the material being closed. The product when obtained from bones is called bone black, or ivory black.

The extraordinary decolorising power of animal charcoal does not depend on the mere fact that the substance is carbonised, but on the minuteness to which the division of particles is carried. This division in the case of ordinary bone black is effected by the phosphate and carbonate of lime contained in the product, which being intimately blended with the charcoal, though only in a state of mechanical combination, render the surface of the charcoal, in which the decolorising power consists, more extended. By far the most powerful form in which animal charcoal can be obtained is from the ignition of dried blood, hair, albumen, and similar animal substances, with carbonate of potassa, and washing the product. Such a kind of charcoal, when compared with the decolorising power of ordinary bone black, the latter being taken as unity, exercises twenty times as much power in decolorising sugar, and fifty times as much in producing the same effect on a solution of indigo. If, however, the substance combined with the charcoal undergoes fusion, and so permanently coats the surface of the charcoal, the product is worthless.

Animal charcoal has great value in the art of the sugar refiner, in that of the dyer, and in various departments of economical chemistry.

CHARLESTON. A city and sea-port of the United States, in South Carolina, in lat. 32° 46′ 33″ N., long. 79° 49′ W. Population in 1860, 51,200, including the suburbs of Neck &c. beyond the limits of the city.

The situation of Charleston is not unlike that of New York, being built on a point of land between the Ashley and Cooper rivers, at their point of confluence. The exports principally consist of cotton and rice (particularly the former), which are the staple products of the state. There are a few other articles exported, such as naval stores, hams, bacon &c., but their value is inconsiderable. All the cotton sent from South Carolina to foreign countries is shipped at Charleston. In the year ending August 31, 1857, the shipments of cotton to foreign countries amounted to 229,185 bales; the shipments of cotton coastwise during the same year were estimated at 169,348 bales. But during and since the civil war which closed in 1865 the state of her trade has been abnormal. The imports from

foreign countries principally consist of cottons, woollens, linens and silks, hardware, iron and steel, coffee, sugar, tea, wine, spices &c. The greater part of the imports do not, however, come from abroad, but from the Northern and Middle States. The former supply her with fish, shoes, and all sorts of coarse manufactured goods for the use of the slave population; while the latter supply her with wheat, flour &c. The largest portion of the imports of foreign produce is also brought at second-hand from New York, which occupies the same rank in the Union that Liverpool and London do in Great Britain. In South Carolina the dollar is worth 4*s.* 8*d.* currency, so that 1*l.* sterling = 1*l.* 0*s.* 8$\frac{8}{9}$*d.* currency. *Weights and Measures* same as in England. [NEW YORK.]

Port.—Charleston Harbour is spacious and convenient; but the entrance to it is incommoded by a range of sandbanks, stretching from Sullivan's Island on the north to Folly Island on the south, about 2½ leagues. There are several channels through these banks, but only three (the middle or direct channel, the ship channel, and Lawford channel between the latter and the mainland) that ought to be attempted by ships of considerable burden. The entrance to the ship channel is in lat. 32° 40′. The depth of water on the shallowest part of the bar at ebb tide is 12 feet, and at flood from 17 to 18 feet; whilst the depth in the middle channel at low water does not exceed 9 feet, and in Lawford channel it does not exceed 10 or 11 feet. There are two lights on Morris Island, lat. 32° 41′ 56″ N., long. 79° 52′ 29″ W., and on the west of the Ship channel. There are two lights on the east end of Charleston Battery, and two in Charleston harbour. But the lighthouse system of this, like that of the other harbours in the Southern States, has been deranged by the late war. After getting into the channel, which is marked by the breakers and buoys on each side, the proper course for a ship to steer is to bring the lighthouse to bear NW. by W., and stand direct for it till you get within the banks, when the course is N. by W. But it is unnecessary to enter into further details on these points, as all ships entering Charleston harbour are bound, provided they are hailed by a licensed pilot off the bar, to pay him full pilotage fees, whether they accept his services or not. In point of fact, however, they are always accepted; for the shifting of the sands, the influence of the tides &c. render the entrance so difficult to those not perfectly familiar with it, that even the packet ships that sail regularly to and from New York uniformly heave-to without the bar for a pilot.

Ships usually moor alongside quays or wharves, where they are in perfect safety.

Shipping Charges.—The charges of a public nature paid by ships entering this port differ but little in amount on a native and a foreign ship. On a vessel supposed to be of 300 tons burden, entering, unloading, taking on board a mixed cargo and clearing out, they would be as under:—

	dols.	cts.		£	*s.*	*d.*
Fee on entry at the Custom-house	2	50	or	0	11	1½
Surveyor's fee, on a foreign ship	5	00	„	1	1	4½
ditto, on a native ship	3	00	„	0	12	9½
Harbour master's fee	2	00	„	0	8	6½
Port warden's survey, when required	10	00	„	2	2	8½
Fees on clearance at the Custom-house, of a native ship	3	50	„	0	14	11½
ditto, of a foreign ship	2	70	„	0	11	6½
Pilotage inwards and outwards, supposing the ship to draw 11 feet water	50	00	„	10	13	6½
Wharfage, per diem	1	00	„	0	4	3½

The difference in the fees on the clearance at the custom-house of a native and a foreign ship is owing to the former being obliged to give certain bonds which are not required of the latter.

The greater or smaller tonnage of the ship makes no difference on any of the above charges except that of pilotage, which is in proportion to her draught of water, and is the same whether for a foreign or a native ship.

Harbour fees are 1½ cent per ton, according to the tonnage in the vessel's register or papers, on all vessels of the United States, and upon all foreign vessels entering upon the same terms as vessels of the United States, payable every voyage, excepting steamboats and packets, and other vessels performing regular successive voyages from North Carolina and Georgia, which vessels pay 1 per cent. per ton, once in every quarter. Fees to be paid at the harbour-master's office 48 hours after arrival. All other foreign vessels not entering upon the same terms as vessels of the United States pay double, or 3 cents per ton. All vessels owned in the State of South Carolina, and steadily plying or trading within the limits of the same, are exempted from the above fees. (See Mr. Edwards's excellent *British Shipmaster's Guide*, Longmans, 1866.)

Rates of Commission.—The rates of commission or factorage usually charged and allowed at Charleston on transacting different sorts of business are as follows, viz.—

For selling domestic produce, 2½ per cent.
For selling foreign merchandise, 5 per cent.
For guaranteeing either of these sales, 2½ per cent. additional is commonly allowed.
For purchasing with funds in hand, or drawing domestic bills for reimbursement, 2½ per cent.
For purchasing goods and drawing foreign bills for reimbursement, 5 per cent. is charged.
For the sale of real or personal estate, the regular charge is 5 per cent.; but where the property to be sold is of any considerable value, the parties in general enter into an agreement beforehand, and a much lower rate of commission is allowed.

CHART (Ger. seekarten; Dutch, zeekarten; Fr. cartes marines; Ital. carte marine; Span. and Port. cartes de marear). This term is properly applied to a projection of some part of the sea, as the term *Map* is to a portion of the land; wherefore charts are sometimes denominated 'Hydrographical Maps.' They are distinguished into several kinds, as plane, globular, and Mercator charts.

CHARTERPARTY. The name given to a contract in writing, between the owner or master of a ship and the freighter, by which the former hires or lets the ship, or a part of the ship, under certain specified conditions, for the conveyance of the goods of the freighter to some particular place or places. Generally, however, a charterparty is a contract for the use of the whole ship: it is in commercial law what an indenture is at common law.

No precise form of words or set of stipulations is requisite in a charterparty. The forms subjoined to this article are those most commonly in use; but these may, and, indeed, in many cases must, be varied, to suit the views and intentions of the parties.

A charterparty is seldom under seal; for generally a printed or written instrument is signed by the parties, called a *memorandum of a charterparty*; and this, if a formal charterparty be not afterwards executed, is binding. The stamp in either case is the same.

Charterparties, when ships are let or hired at the place of the owners' residence, are generally executed by them, or some of them; but when the ship is in a foreign port, a charterparty must necessarily be executed by the master, and the merchant or his agent, unless the owners have

an agent in such port, having proper authority to act for them in such matters.

A charterparty made by the master in his name, when he is in a foreign port in the usual course of the ship's employment, and, therefore, under circumstances which do not afford evidence of fraud; or when it is made by him at home, under circumstances which afford evidence of the expressed or implied assent of the owners; is binding upon the latter. But, according to the law of England, no *direct* action can be maintained upon the instrument itself against the owners, unless it be signed and sealed by them, or unless they authorise the master (or agent, as the case may be) to enter into the contract, and unless it be distinctly expressed in the charterparty that he acts only as agent.

When a ship is chartered by several owners to several persons, the charterparty should be executed by each, or they will not be liable to an action for non-performance. But if the charterparty be not expressed to be made between the parties, but runs thus—'This charterparty indented witnesseth, that C, master of the ship W, with consent of A and B, the owners thereof, lets the ship to freight to E and F,' and the instrument contains covenants by E and F to and with A and B; in this case A and B may bring an action upon the covenants expressed to be made with them; but unless they seal the deed, they cannot be sued upon it. This, therefore, is a very proper form.

The general rule of law adopted in the construction of this, as of other mercantile instruments, is, that the interpretation should be liberal, agreeable to the real intention of the parties, and conformable to the usage of trade in general, and of the particular trade to which the contract relates.

The charterparty usually expresses the burden of the ship; and by the famous French Ordinance of 1681 it is required to do so. According to Molloy (bk. ii. ch. iv. s. 8), if a ship be freighted by the ton, and found of less burden than expressed, the payment shall be only for the real burden; and if a ship be freighted for 200 tons, or *thereabouts*, the addition of thereabouts (says the same author) is commonly reduced to *five* tons more or less; but it is now usual to say so many tons 'register measurement.'

The usual covenant, that the ship shall be seaworthy, and in a condition to carry the goods, binds the owners to prepare and complete every thing to commence and fulfil the voyage. But though the charterparty contained no such covenant, the owner of the vessel would be, at common law, bound, as a *carrier*, to take care that the ship should be fit to perform the voyage; and even though he should give notice, limiting his responsibility from losses occasioned to any cargo put on board his vessel, unless such loss should arise from want of ordinary care &c., he would be liable if his ship were not seaworthy. [SEAWORTHY.]

In all maritime transactions expedition is of the utmost consequence; for even by a short delay, the object or season of a voyage may be lost; and therefore, if either party be not ready by the time appointed for the loading of the ship, the other may seek another ship or cargo, and bring an action to recover the damages he has sustained.

The manner in which the owner is to lade the cargo is, for the most part, regulated by the custom and usage of the place where he is to lade it, unless there be any express stipulation in the charterparty with respect to it. Generally, however, the owner is bound to arrange the different articles of the cargo in the most proper manner, and to take the greatest care of them. If a cask be accidentally staved in letting it down into the hold of the ship, the master must answer for the loss.

If the owner covenants to load a full and complete cargo, the master must take as much on board as he can do with safety, and without injury to the vessel.

The master must not take on board any contraband goods, whereby the ship or cargo may be liable to forfeiture and detention; nor must he take on board any false or colourable papers; but he must take and keep on board all the papers and documents required for the protection and manifestation of the ship and cargo by the law of the countries from and to which the ship is bound, by the law of nations in general, or by any treaties between particular states.

If the master receive goods at the quay or beach, or send his boat for them, his responsibility commences with the *receipt* in the port of London. With respect to goods intended to be sent coastwise, it has been held that the responsibility of the wharfinger ceases by the delivery of them to the mate of the vessel *upon the wharf*. As soon as he receives the goods, the master must provide adequate means for their protection and security; for even if the crew be overpowered by a superior force, and the goods taken while the ship is in a port or river within the country, the master and owners are liable for the loss, though they may have committed neither fraud nor fault. This may seem a harsh rule; but it is necessary, to put down attempts at collusive or fraudulent combinations.

The master must, according to the terms of the charterparty, commence the voyage without delay, as soon as the weather is favourable, but not otherwise.

The courts of law have recently given some important decisions on the subject of delay, and other contingencies arising from local customs.

Thus there is a custom at Newcastle that coal should be loaded by *turns*. In a case in which the cargo was to be coke, and an action was brought for delay, the Court of Common Pleas held that there should be evidence alleged that the custom extended to coke.

Again, it was held that, a custom prevailing at Liverpool, by which 3 months' interest or discount might be deducted from freights payable under bills of lading on goods coming from New Orleans, and a shipowner demanding a full freight, the Court of Queen's Bench held that the custom was not repugnant to the written contract.

Again, when it was agreed by the charterparty that the ship 'should load with all possible despatch in the customary manner a full and complete cargo of coke, to be loaded in regular turn,' it was held that evidence was not admissible to show that, according to a custom at the port of lading under a contract so framed, the shipowner was bound (provided reasonable despatch was used) to wait his turn, according to a list kept by a coke manufacturer, who was not named in the contract, but whose name was mentioned at the time when it was entered into. The court held that such evidence would be inconsistent with the terms of the charterparty. (Maude and Pollock, p. 238.)

Several important decisions have been made, subsequent to the Russian war, on the fulfilment of the terms of a charterparty after a declaration of war, and an agreement made, previous to this declaration, to sail to a port which, by the fact of war being declared, became hostile. In the case of Exposito *v.* Bowen it was decided by the Court of

Queen's Bench that the plea alleged was not sufficient, for that the contract might have been performed either by purchasing a cargo before notice of declaration or from a British subject at Odessa. But the Court of Exchequer Chamber, on appeal, reversed this decision, on the ground that a shipment of cargo from an enemy's port was, primâ facie, illegal, and therefore that the contract was dissolved. (Maude and Pollock, p. 247.)

For the effects of blockade on contracts of affreightment, see CONTRABAND and NEUTRALITY.

Sometimes it is covenanted and agreed upon between the parties, that a specified number of days shall be allowed for loading and unloading, and that it shall be lawful for the freighter to detain the vessel a further specified time, on payment of a daily sum as DEMURRAGE. If the vessel be detained beyond both periods, the freighter is liable to an action on the contract. The rate of demurrage mentioned in the charterparty will, in general, be the measure of the damages to be paid; but it is not the absolute or necessary measure; more or less may be payable, as justice may require, regard being had to the expense and loss incurred by the owner. When the time is thus expressly ascertained and limited by the terms of the contract, the freighter is liable to an action for damages if the thing be not done within the time, *although this may not be attributable to any fault or omission on his part*; for he has engaged that it shall be done. (Abbott *On the Law of Shipping*, part iii. c. 1.)

If there has been any undertaking or warranty to sail with convoy, the vessel must repair to the place of rendezvous for that purpose; and if the master neglect to proceed with convoy, he will be answerable for all losses that may arise from the want of it.

The owners or master should sail with the ship for the place of her destination with all due diligence, and by the usual or shortest course, unless in cases of convoy, which the master must follow as far as possible. Sometimes the course is pointed out in the charterparty. A *deviation* from the usual course may be justified for the purpose of repairs, or for avoiding an enemy or the perils of the seas, as well as by the sickness of the master or mariners, and the mutiny of the crew.

By an exception in the charterparty, not to be liable for injuries arising from the act of God and the queen's enemies, the owner or master is not responsible for any injury arising from the sea or the winds, unless it was in his power to prevent it, or it was occasioned by his imprudence or gross neglect. 'The question,' said Lord Mansfield, in an action brought by the East India Company, 'is, whether the owners are to pay for the damage occasioned by the storm, the act of God; and this must be determined by the intention of the parties, and the nature of the contract. It is a charter of freight. The owners let their ships to hire, and there never was an idea that they insure the cargo against the perils of the sea. What are the obligations of the owners which arise out of the fair construction of the charterparty? Why, that they shall be liable for damages incurred by their own fault, or that of their servants, as from defects in the ship, or improper stowage &c. If they were liable for damages occasioned by storms, they would become insurers.' The House of Lords confirmed this doctrine by deciding (May 20, 1788) that the owner is not liable to make satisfaction for damage done to goods by storm.

The expression *perils of the sea* is held to cover the following losses:—A 'loss by pirates,' 'accidental collision,' 'the swell of the tide in a dry harbour,' 'the wilful but not barratrous act of the crew in throwing ballast overboard,' and a stranding rendered necessary by leakage produced by the careless loading of the cargo.

But on the other hand it was not held to include losses caused by the injury of worms at sea, by another vessel firing into the ship by mistake, or injury to goods by rats. Losses when a vessel has been under repair on the beach, or by alteration in the banks of a navigable river due to natural causes, or by the rising and falling of a vessel with the tide while moored in harbour, are not losses by sea perils.

In one case when the defendants agreed to convey some boxes of gold-dust from the Pacific across the Isthmus of Panama to London, and provided against *robbers*, dangers of roads, of whatsoever nature or kind, the court held that *robbers* did not protect the defendants from liability for the loss of one of the boxes stolen from a railway truck between Southampton and London, for that robber meant robber by force, and danger of roads must be that arising from the condition of roads, e. g. the overturning of carriages.

The charterer of a ship may lade it either with his own goods, or, if he have not sufficient, may take in the goods of other persons, or (if not prevented by a clause to that effect in the charterparty) he may wholly underlet the ship to another. (For further details, see Abbott *On the Law of Shipping*, part iii. c. 1; Chitty's *Commercial Law*, vol. iii. c. 9 &c.; and the articles BILL OF LADING, FREIGHT, MASTER, &c.)

Forms of Charterparties.—The following is one of the most usual forms of a charterparty:—

'This charterparty, indented, made &c. between A B, &c. mariner, master, and owner of the good ship or vessel, called &c. now riding at anchor &c. of the burden of 200 tons, or thereabouts, of the one part, and C D of &c. merchant of the other part, witnesseth, that the said A B, for the consideration hereinafter mentioned, hath granted and to freight letten, and by these presents doth grant and to freight let, unto the said C D, his executors, administrators, and assigns, the whole tonnage of the hold, stern-sheets, and half-deck of the said ship or vessel, called &c. from the port of London to &c. in a voyage to be made by the said A B with the said ship, in manner hereinafter mentioned, (that is to say,) to sail with the first fair wind and weather that shall happen after &c. next, from the port of London with the goods and merchandise of the said C D, his factors or assigns, on board, to &c. aforesaid (the act of God, the queen's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind, in so far as ships are liable thereto, during the said voyage, always excepted), and there unlade and make discharge of the said goods and merchandises; and also shall there take into and on board the said ship again the goods and merchandises of the said C D, his factors or assigns, and shall then return to the port of London with the said goods, in the space of &c. limited for the end of the said voyage. In consideration whereof, the said C D, for himself, his executors and administrators, doth covenant, promise, and grant, to and with the said A B, his executors, administrators, or assigns, by these presents, that the said C D, his executors, administrators, factors, or assigns, shall and will well and truly pay, or cause to be paid, unto the said A B, his executors, administrators, or assigns, for the freight of the said ship and goods, the sum of &c. (or so much per ton), within twenty-one days after the said ship arrived, and goods returned, and discharged at the port of London

aforesaid, for the end of the said voyage; and also shall and will pay for demurrage (if any shall be by default of him, the said C D, his factors or assigns) the sum of &c. per day, daily, and every day, as the same shall grow due. And the said A B, for himself, his executors and administrators, doth covenant, promise, and grant, to and with the said C D, his executors, administrators, and assigns, by these presents, that the said ship or vessel shall be ready at the port of London to take in goods by the said C D, on or before &c. next coming. And the said C D, for himself, his &c. doth covenant and promise, within 10 days after the said ship or vessel shall be thus ready, to have his goods on board the said ship, to proceed in the said voyage; and also, on arrival of the said ship &c. within &c. days to have his goods ready to put on board the said ship, to return on the said voyage. And the said A B, for himself, his executors and administrators, doth further covenant and grant, to and with the said C D, his executors, administrators, and assigns, that the said ship or vessel now is, and at all times during the voyage shall be, to the best endeavours of him, the said A B, his executors and administrators, and at his and their own proper costs and charges, in all things made and kept stiff, staunch, strong, well-apparelled, furnished, and provided, as well with men and mariners sufficient and able to sail, guide, and govern the said ship, as with all manner of rigging, boats, tackle, and apparel, furniture, provision, and appurtenances, fitting and necessary for the said men and mariners, and for the said ship during the voyage aforesaid. In witness &c.'

The great variety of circumstances under which different voyages are made produce a corresponding diversity in charterparties. The charterparty of which the following is a copy affords a good example of the more complex species of these instruments:—

'It is this day mutually agreed between Mr. T. B. Rann, owner of the good ship or vessel called the *Mermaid*, William Henniker master, of the measurement of 472 tons, or thereabouts, now in the river Thames, and Mr. David Thomson, of the firm of Messrs. Thomson, Passmore, and Thomson, of Mauritius, merchants, that the said ship, being tight, staunch, and strong, and every way fitted for the voyage, shall, with all convenient speed, sail and proceed to Calcutta, with leave to take convicts out to New South Wales, and from thence troops, merchandise, or passengers, to the aforementioned port of Calcutta, with leave to touch at Madras on her way thither, if required on owner's account, or so near thereunto as she may safely get, and there load, from the factors of the said merchants at Calcutta, a full and complete cargo of rice, or any other lawful goods which the charterer engages to ship, and proceed with the same to Port Louis, in the Isle of France, and deliver the same free of freight; afterwards load there a full and complete cargo of sugar in bags, or other lawful merchandise of as favourable tonnage, which the charterer engages to ship, not exceeding what she can reasonably stow and carry over and above her tackle, apparel, provisions, and furniture; and, being so loaded, shall therewith proceed to London, or so near thereunto as she may safely get, and deliver the same on being paid freight, viz. for such quantity of sugar equal to the actual quantity of rice, or other goods, that may be shipped at Calcutta, at the rate of 5*l.* 12*s.* 6*d.* per ton of 20 cwt. nett, shipped there; and should the vessel deliver more nett sugar in the port of London than the quantity of rice, or other goods, actually shipped in Calcutta, the owners to be paid on the excess at the regular current rate of freight for sugar which other vessels, loading at the same time at Port Louis, receive; the tonnage of the rice, wheat, or grain, to be reckoned at 20 cwt. nett per ton; that of other goods at the usual measurement (the act of God, the queen's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, during the said voyage, always excepted). The freight to be paid on unloading and right delivery of the cargo, as is customary in the port of London. Ninety running days are to be allowed the said merchant (if the ship is not sooner despatched) for loading the ship at Calcutta, discharging the cargo at Port Louis, and loading the cargo there; the said lay days to commence on the vessel being ready to receive cargo, the master giving notice in writing of the same at Calcutta, and to continue during the loading there; and from the time of her arrival at Port Louis, and being ready to discharge, till the final loading at that port, and to be discharged in the port of London with all possible despatch; and 20 days on demurrage over and above the said laying days at 12*l.* per day. Penalty for non-performance of this agreement, 4,000*l.* The cargo to be brought to and taken from alongside at the expense and risk of the merchants. The necessary cash for the disbursements of the vessel at Calcutta, not exceeding 350*l.*, to be advanced by the charterer's agents; they taking the master's drafts on the owner for the same, at the regular current rate of exchange, and at three months' sight; and if the said bills be not regularly accepted and paid when due, the same to be deducted from the freight payable by this charterparty. The vessel to be disbursed at Port Louis by the chartering agents; sum not to exceed 300*l.*, free of commission; and the amount to be deducted from the freight at the final settlement at the port of London. Captain not to ship goods without consent. In the event of the ship being prevented, by damage or any other cause, reaching the Mauritius on or before the 1st day of January, 1843, the charterer or his agents shall be at liberty to employ the vessel for one or two voyages to Calcutta, at the rate of 2*l.* per ton of rice, or other goods, delivered at Mauritius. Fifty running days, to load and discharge, to be allowed on each voyage; it being understood that the charterer or his agents shall load the ship, as before agreed, either at the end of the first or second voyage, as the case may be. The freight on the intermediate voyages (if any) to be paid on delivery of the cargo, in cash, or by bills on London at usance, at the option of the master. The vessel to be addressed, both at Calcutta and Isle of France, to the agents of the charterer. In witness whereof, the said parties have hereunto set their hands and seals, at London, the 2nd day of December, 1841.'

Stamp Duties on Charterparties.—By the 55 Geo. III. c. 184, charterparties were made liable to a duty of 1*l.* 15*s.* In case the document contained more than 2,160 words, every entire quantity of 1,080 words above the first 1,080 was liable to a further stamp duty of 1*l.* 5*s.*

But by 5 & 6 Vict. c. 79 these duties were repealed, and in place it was enacted that every charterparty, or agreement or contract for the charter of any ship, and every memorandum, letter, or other writing between the captain, master, or owner of any ship and any other persons for or relating to the freight or conveyance of any moneys, goods, or effects on board any ship, must be stamped with a 5*s.* stamp. By 28 & 29 Vict. c. 96, the duty was further reduced from

5s. to 6*d.* The stamp may be impressed, without the payment of any penalty, within 14 days after the charterparty bears date, and has been executed by the party who first executed it. Within a month from this time the stamp may be obtained on payment of a penalty of 10*l.*: beyond this period it cannot be affixed at all.

CHAY OR CHOY ROOT. The roots of a small biennial, rarely triennial, plant, the *Oldenlandia umbellata*, Nat. Order *Rubiaceæ*, growing spontaneously in light, dry, sandy ground near the sea; and extensively cultivated, especially on the coast of Coromandel. The cultivated roots are very slender, and from 1 to 2 feet in length, with a few lateral fibres; but the wild are shorter, and supposed to yield one fourth part more of colouring matter, and of a better quality. The root gives a yellow colour to cold, a reddish to hot water, which becomes bright red by alkalis. The basis of the dye is *alizarine*. The roots are employed to dye the durable reds for which the Indian cotton yarn and chintzes have been long famous, and which can only be equalled by the Turkey red.

Chay root forms a considerable article of export from Ceylon. Only a particular set of people are allowed to dig it. It used to be all bought up by Government, who paid the diggers a fixed price of 75 or 80 rix-dollars a candy, and sold it for exportation at about 175 rix-dollars. (Bertolacci's *Ceylon*, p. 270.)

This root has been imported into Europe, but with no success. Dr. Bancroft suspects it may be injured by the long voyage; but he adds, that it can produce no effect which may not be more cheaply produced from madder. It is a very bulky article, and is consequently burdened with a very heavy freight. (*Permanent Colours*, vol. ii. pp. 282–303.)

CHECKS, CHEQUES, or DRAFTS. Orders addressed to some person, generally a banker, directing him to pay the sum specified in the check to the person named in it, or bearer on demand. The following is the usual form:—

£100. *London*, 10*th November*, 1853.
Pay A. B. Esq., or bearer, One Hundred Pounds on account of *C. D.*

Messrs. Glyn, Mills, and Co.

In point of form, checks nearly resemble bills of exchange. They are assignable by delivery only, and are payable instantly on presentment, without any days of grace being allowed. But by the custom of London, a banker has until 5 of the afternoon of the day on which a check is presented for payment, to return it; so that where a check was returned before 5, with a memorandum of 'cancelled by mistake' written under it, it was held a refusal to pay. If a check upon a banker be lodged with another banker, a presentment by the latter at the clearing-house is sufficient. Checks are usually taken conditionally as cash; for unless an express stipulation be made to the contrary, if they be presented in due time and not paid, they are *not* a payment. It is difficult to define what is the due or reasonable time within which checks, notes, or bills should be presented. A man, as Lord Ellenborough has observed, is not obliged to neglect all other business that he may immediately present them: nevertheless it is the safest plan to present them without any avoidable delay; and if received in the place where payable, they had better be presented that day, or next at furthest. If a check be not presented within a reasonable time, the party on whom it is drawn will be justified in refusing to pay it; and the holder will lose his recourse upon the drawer. (Chitty *On Commercial Law*, vol. iii. p. 591; Woolrych *On Commercial Law*, ch. iii. s. 2 &c.)

In consequence of the alteration of the law effected by the 16 & 17 Vict. c. 59, checks were for a time of two sorts, viz. those on unstamped or plain paper, and those on paper impressed with a penny stamp.

1. In plain checks the place of issue and the date of issue had to be correctly stated, and to be drawn upon bankers having their place of business within 15 miles of the locality where the checks are issued; and not payable to order, but to bearer.

2. Checks on stamped paper enjoyed sundry privileges. Thus it was not necessary to affix the date or the place of their issue; they might be drawn upon any one, whether banker or not; they might be issued at any distance from the place where they were to be paid; and they might be payable either to bearer or to order. If made payable to order, it was essential that they 'purport to be indorsed' by the payee; but the party on whom they were drawn, provided he was a banker, was not bound to enquire whether such indorsement was genuine. By 21 Vict. c. 20 the stamp duty is extended to all checks.

If the party on whom a stamped check payable to order is drawn be not a banker, his responsibilities are not affected by the late Acts, and we apprehend that to make himself secure he should be satisfied, before paying the check, of the authenticity of the signature of the payee.

The system of drawing checks on a balance held by a banker is almost peculiar to our monetary system. The practice commenced about a century ago, when the London bankers adopted it in place of issuing their own notes. It is only, however, within the last twenty years that the use of the check-book has become almost universal, not only with traders, but with professional men, and even those who have fixed incomes, though of small amount. The exchange of checks [CLEARING HOUSE] has greatly aided the general adoption of the banking and check system.

To the economist and the merchant the check system presents some striking phenomena. It has infinitely facilitated business transactions; but it has also had a remarkable effect on the metallic and paper currency, economising the former, and contracting the latter, even under the circumstances of an incredible increase of home and foreign commerce.

In consequence of questions having arisen as to the legal effect of crossing a cheque, the 21 & 22 Vict. c. 79 provides that a cheque crossed with the name of a banker should be paid only to that banker; and if crossed with the words 'and Company,' or any abbreviation thereof, then only to some banker. [BANKS.]

CHEESE (Ger. käse; Dutch, kaas; Fr. fromage; Ital. formaggio, cacio; Span. queso; Russ. sur; Lat. caseus). The curd of the milk separated from the whey, or pressed or hardened. It has been used as an article of food from the earliest ages; vast quantities of it are consumed in Great Britain, and in most countries of Europe.

There is an immense variety of cheeses, the qualities of which depend principally on the richness and flavour of the milk of which they are made, and partly on the way in which they are prepared. England is particularly celebrated for the abundance and excellence of its cheese. Cheshire and Gloucestershire are, in this respect, two of its most famous counties: the cheese produced in the former has been estimated at 14,000 tons a-year. There are two kinds of Gloucester cheese, double and single; the first is made of the milk

and cream, the latter of the milk deprived of about half the cream. They are of various sizes: the double generally run from 30 to 40 lbs., and the single, or Berkeley, which are, however, fast going out of fashion, average 16 lbs. A great deal of cheese is also made in that part of Shropshire which borders upon Cheshire, and in North Wiltshire. The former goes under the name of Cheshire cheese; the latter was, till lately, called Gloucestershire cheese: now it receives its appellation from the county where it is made. A strong cheese, somewhat resembling Parmesan, is made at Cheddar in Somersetshire. This sort is either pale or coloured, and being much in favour brings the largest price. The celebrated rich cheese called Stilton is made in Leicestershire, principally in the villages round Melton Mowbray. It is not reckoned sufficiently mellow for cutting unless it be two years old; and is not saleable unless it be decayed, blue, and moist. A rich cheese is also made at Leigh, in Lancashire. The other cheeses made in England, which have acquired a peculiar name, either from the quantity made or from the quality, are the Derbyshire, Cottenham, and Southam cheeses. The last two are new milk cheeses, of a peculiarly fine flavour: the places where they are made are in Cambridgeshire. Bath, York, and Buckinghamshire are remarkable for their cream cheeses. The county of Warwick, and Banbury in Oxfordshire, are also remarkable for these cheeses; the former for the quantity made in it, very large supplies being sent from it to London and Birmingham. Banbury cheese is distinguished for its richness.

Scotland is not celebrated for its cheese; the best is called Dunlop cheese, from a parish in Ayrshire, where it was originally manufactured. Dunlop cheeses generally weigh from 20 to 60 lbs. each; and are, in most respects, similar to those of Derbyshire, except that the latter are smaller. Cheeses made to resemble those of Dunlop are now extensively produced in other parts of Scotland.

Large quantities of very good cheese are produced in Holland. In the manufacture of Gouda cheese, which is reckoned the best made in Holland, hydrochloric acid is used in curdling the milk instead of rennet. This renders it pungent, and preserves it from mites. Parmesan cheese, so called from Parma in Italy, where it is manufactured, is merely a *skim-milk* cheese, which owes its rich flavour to the fine herbage of the meadows along the Po, where the cows feed. The best Parmesan cheese is kept for 3 or 4 years, and none is ever carried to market till it be at least six months old. Swiss cheese, particularly that denominated Gruyère, from the bailiwick of that name in the canton of Friburg, is very celebrated. Gruyère cheeses are made of skimmed or partially skimmed milk, and are flavoured with herbs. They generally weigh from 40 to 60 lbs. each, and are packed for exportation in casks containing 10 cheeses each.

According to Mr. Marshall, the average yearly produce of cheese from the milk of a cow in England is from 3 to 4 cwt., or more than double the weight of the butter. (For further details, see *Statistical Account of British Empire*, i. 501, 3rd ed.)

The duty on all descriptions of foreign cheese amounted, previously to 1842, to 10*s.* 6*d.* per cwt.; but in that year the duty on cheese imported from a British possession was reduced to 2*s.* 6*d.* per cwt. In 1843 the duties were fixed at 5*s.* per cwt. and 1*s.* 6*d.* per cwt. respectively on cheese from foreign parts and from British possessions. And in 1853 the duty on cheese from a foreign country was further reduced to 2*s.* 6*d.* per cwt. The duty was wholly abolished in 1859.

In 1866, 872,342 cwts. of cheese were imported into the United Kingdom, of the value of 2,801,579*l.* Of this vast amount, 415,221 cwts. came from the North Atlantic ports of the United States, and 426,559 cwts. from Holland. The average value of American cheese was 3*l.* 6*s.* 8*d.* per cwt.; of Dutch 3*l.* 1*s.* 9*d.* In 1867 the imports had swelled to 905,476 cwts., valued, however, at but 2,555,265*l.*

CHERRIES. The fruit of a tree (*Prunus Cerasus*, Linn.) too well known to require any description.

They derive their name from Cerasus, a city of Pontus, whence the tree was brought by Lucullus, about half a century before the Christian æra. It soon after spread into most parts of Europe, and is supposed to have been carried to Britain about a century after it came to Rome. The principal supplies of cherries for the London market are brought from the cherry orchards in Kent and Herts. The wood of the cherry is close, takes a fine polish, and is not liable to split. (Rees's *Cyclopædia*; Loudon's *Encyclopædia of Agriculture*; &c.)

CHESTNUT. A forest tree (*Fagus castanea*) growing abundantly in most parts of the southern countries of Europe. It was at one time very common in England, and is still frequently met with. It is long lived, grows to an immense size, and is very ornamental. The wood is hard and compact: when young, it is tough and flexible; but when old, it is brittle, and often shaky. The chestnut contains only a very small proportion of sap-wood; and hence the wood of young trees is found to be superior to even the oak in durability. It is doubtful whether the roof of Westminster Hall be of oak or chestnut; the two woods being, when old, very like each other, and having been formerly used almost indifferently in the construction of buildings. A good deal of chestnut has been planted within the last fifty years. (Tredgold's *Principles of Carpentry*.)

CHESTNUTS. *Castanea vesca*, Nat. Order *Corylaceæ* (Fr. châtaignes; Ger. kastanien; Ital. castagne; Span. castañas; Russ. kaschtanü; Pol. kasztang). The fruit of the chestnut tree. Chestnuts grow in this country, but are very inferior both in size and perfection to those imported from the South of Europe. In some parts of the Continent they are frequently used as a substitute for bread, and form a large proportion of the food of the inhabitants. This is particularly the case in the Limousin, in Corsica, and several districts of Spain and Italy. The inhabitants of the Limousin are said to prepare them in a peculiar manner, which deprives them of their astringent and bitter properties. Chestnuts imported from Spain and Italy are frequently kiln-dried, to prevent their germination on the passage. In this country they are principally served up roasted at desserts.

The chestnut is very widely disseminated, being a native of all temperate regions of Europe, Asia, and America, but not of any part of Africa.

The chestnut contains a large quantity of starch, a peculiar sugar, and a small quantity of gluten, so small that the flour cannot be fermented. In France, where the chestnut is of great economical importance, the large chestnut is known by the name of *marron*. These sorts are chiefly grown in the hills of Vivarais, Forez, and Dauphiné, but being generally sold in Lyons, are called marrons de Lyon. The best chestnuts come from the neighbourhood of Périgord. There are from ten to twelve varieties of the edible chestnut.

The duty of 2*s.* a bushel on chestnuts, repealed in 1845, produced in 1842, 3,435*l.* 3*s.* nett, showing that the consumption must have amounted to

34,351 bushels. In 1866, 67,704 bushels were imported, chiefly from France. The imports were valued at 27,299*l.*

CHETWERT or TSCHETWERT. A measure of corn in Russia, equal to 5·77 Imperial bushels; hence 100 chetwerts = 72·12 Imperial quarters.

CHICA RED. A colouring matter analogous to indigo, obtained from the leaves of the *Bignonia* Chica, a tree found in Central America. It is used by the natives as a dye, and has been imported into this and other countries, under the name of Crajuru.

CHICORY or SUCCORY. The wild endive, or *Cichorium Intybus* of Linnæus. Natural Order *Synantheseæ* (Span. achicoria; Fr. chicorée; Ger. zichorien, wagwart; Ital. cicoria). This plant is said to be originally a native of China, and to have been introduced into Europe at the middle of the sixteenth century. It is now found growing wild on calcareous soils in England, and in most countries of Europe. In its natural state the stem rises from 1 to 3 feet high, but when cultivated it shoots to the height of 5 or 6 feet. The root, which runs deep into the ground, is white, fleshy, and yields a milky juice. In Germany, the Netherlands, and France, chicory has long been extensively cultivated for the sake of its root, which is used as a substitute for coffee. When prepared on a large scale, the roots are partially dried, and sold to the manufacturers of the article, who wash them, cut them in pieces, kiln-dry them, and grind them between fluted rollers into a powder, which is packed up in papers containing from 2 oz. to 3 or 4 lbs. The powder has a striking resemblance to dark ground coffee, and a strong odour of liquorice.

Chicory contains a large quantity of sugar, from 24 to 35 per cent. in the dry root. When it is kiln-dried, and partially charred, a portion of this sugar is converted into *caramel*, and it is to the production of this substance that the peculiar properties of roasted chicory are due. The admixture of chicory with coffee may be detected in various ways: 1. by the presence of sugar; 2. by the large quantity of silica contained in its ash; 3. by the red colour of its ash, due to the presence of iron; 4. by the fact that it gives a colour to cold water, in consequence of the caramel produced by roasting; 5. its structure may be detected under the microscope.

Chicory is destitute of the peculiar properties of coffee, those, namely, which render the latter exhilarating and restorative. It gives only bitterness and colour to the infusion. Hence, as it is a cheap product, and was not till lately subject to an excise duty, it is largely employed as a means for adulterating coffee.

If chicory be sold under its own proper name, there can be no fair objection to its culture, or to its being exempted from taxation; but if it be fraudulently sold under the name of coffee, which in truth and reality is the very purpose to which it has been applied, and used as a substitute for and a means of adulterating the latter, then there can be no question that justice to the coffee-growers and to the public requires that this abuse should be prevented, or that chicory should be subjected to the same duty as coffee. And yet, singular as it may appear, the fraudulent substitution of chicory for coffee was in effect legalised by a Treasury minute of August 4, 1840; and though much objected to, this minute was not rescinded till 1852, when a new minute was issued, prohibiting the sale of coffee mixed with chicory, but allowing coffee dealers to sell the latter in parcels marked as such. But though a great improvement on the previous practice, this arrangement was said not to realise all the advantages that were expected; and after a good deal of further enquiry and discussion a fresh minute was issued on February 25, 1853, permitting the sale of chicory mixed with coffee, provided the parcels containing such compound be labelled 'MIXTURE OF COFFEE AND CHICORY.' And notwithstanding the objections that have been taken to this minute, we do not well see what more can be required. It is illegal to sell coffee mixed with chicory without giving intimation that such is the case; but if parties aware of the circumstance prefer the mixture to pure coffee, it is merely an affair of taste, to the gratification of which, whatever we may think of it, there can be no good objection.

In 1860 a small excise duty was levied on chicory. This was gradually increased to 1*l.* 4*s.* 3*d.* the cwt., or to nearly the same rate as the customs' duty on coffee. But the produce of the excise tax on chicory in the year ending March 31, 1866, was only 13,273*l.* Foreign chicory when raw or kiln-dried pays 1*l.* 6*s.* 6*d.* the cwt., while roasted carries the same duty as roasted coffee, viz. 4*d.* the pound. In 1866 our imports of chicory were 103,763 cwts., raw or kiln-dried, of the value of 41,763*l.*

CHINA GRASS. The fibre of a species of nettle. A valuable Report by Mr. Abbot, United States Consul at Bradford, states that prepared China grass makes an excellent material for admixture with long staple woollen textiles, particularly for those requiring a stiff, strong, and cool texture, combined with a glossy silk appearance. The Report, which is of some length, is to be found in the United States *Commercial Relations with Foreign Countries for the Year ended September* 1865.

CHINA ROOT (Ger. chinawurzel; Dutch, chinawortel; Fr. squine, esquine; Span. raiz china, cocolmeca; Arab. rhubsinie). The root of a species of climber (*Smilax China*, Linn.). It comes from the West Indies as well as from China: but that from the latter is best. It is oblong and thick-jointed, full of irregular knots, of a brownish colour on the outside, and a pale red within; while new it will snap short, and look glittering within; if old, the dust flies from it when broken, and it is light and kecky. It should be chosen large, sound, heavy, and of a pale red colour internally. It is of no value if the worm be in it. It is used for the same purposes as SARSAPARILLA.

CHINA WARE. [PORCELAIN.]

CHIN-KIANG. [THE TREATY PORTS OF CHINA AND JAPAN.]

CHINTS or CHINTZ (Fr. indiennes; Ger. zitze; Ital. indiane; Russ. siz; Span. chites, zaraza). Fine printed calico, first manufactured in the East Indies, but now largely manufactured in Europe, particularly in Great Britain. [CALICO.]

CHIP HATS. [HATS.]

CHOCKING. [DUNNAGE.]

CHOCOLATE (Dutch, chocolade; Fr. chocolat; Ger. schokolate; Ital. cioccolata; Port. chocolate; Russ. schokolad; Span. chocolate). A kind of cake or confection, prepared principally from the cocoa nut. The nuts are first roasted like coffee; and being next reduced to powder and mixed with water, the paste is put into tin moulds of the desired shape, in which it speedily hardens, being, when taken out and wrapped in paper, fit for the market. Besides cocoa the Spanish use vanilla, sugar, maize &c. in the preparation of chocolate. This article, though celebrated for its nutritious qualities, is but little used in Great Britain; a circumstance which is probably, in

some considerable degree, ascribable to the fiscal regulations to which it has been subjected. Its importation used, indeed, to be prohibited; and though this prohibition no longer exists, yet, as the duties on it are proportionally heavier than upon cocoa, we manufacture at home almost all that is required for our consumption. British chocolate is said to be very largely adulterated with flour and Castile soap. (Edwards's *West Indies*, vol. ii. p. 364, ed. 1819.) In 1866 we imported (chiefly from France) 176,959 lbs. of cocoa paste, or chocolate, valued at 10,974*l.*, of which 171,227 lbs. were entered for consumption; the duty at 2*d.* per lb. amounting to 1,427*l.* [COCOA.]

'Alike easy to convey and employ as an aliment, it contains a large quantity of nutritive and stimulating particles in a small compass. It has been said with truth, that in Africa, rice, gum, and *shea* butter assist man in crossing the deserts. In the New World, chocolate and the flour of maize have rendered accessible to him the table-lands of the Andes and vast uninhabited forests.' (Humboldt's *Pers. Nar.* vol. iv. p. 234, Eng. trans.)

CHRISTIANIA. The capital of Norway, situated at the bottom of a fiord or gulf, in the province of Aggerhuus; in lat. 59° 55½′ N., long. 10° 48¾′ E. Population in 1860, 44,212. The average tonnage which entered the port in the three years 1862–4 was about 142,000, while about 130,000 cleared from it. Christiania is about 60 miles from the open sea: the gulf is in some places very narrow, and its navigation somewhat difficult; but it is sufficiently deep for the largest vessels, having 6 or 7 fathoms water close to the quay. It is compulsory on all ships to take a pilot on board at the mouth of the bay. The trade of the town is considerable. The principal exports are timber and deals, which are largely imported into the United Kingdom; glass, particularly bottles; iron and nails, bones, smalts, oak bark &c. Salted and pickled fish, one of the staple products of Norway, is principally exported from Bergen. The deals of Christiania have always been in the highest estimation; a consequence of the excellence of the timber, and of the care with which the sap-wood and other defective parts are cut away; and not, as Mr. Coxe seems to have supposed, of the skilful sawing of the plank. The saw mills were formerly licensed to cut a certain quantity only, and the proprietors were bound to make oath that it was not exceeded. (Coxe's *Travels in the North of Europe*, 5th edit. vol. iv. p. 28.) This absurd regulation no longer exists. Consul-General Crowe, in his *Report* of Feb. 1868, remarks, 'that the Norwegian timber has sensibly decreased of late years, owing to the injudicious and culpable system of felling, which undoubtedly has materially reduced this hitherto staple capital of the country.' There are far fewer restrictions on industry and commerce in Norway than in Sweden. In the former, British manufactured goods are admitted on moderate duties, and are very generally made use of. The principal articles of import are colonial produce; iron and hardware; machinery; woollen, linen, and cotton goods; coals, butter, wine, brandy &c.; corn is sometimes extensively imported.

Customs Regulations.—Within 24 hours after a vessel has got to her moorings, the master should deliver to the collector his general report as to ship and cargo, or present the requisite documents for having such report made out with the assistance of a ship broker, whose services masters of foreign vessels cannot entirely dispense with. On making this general report, the measuring bill is to be exhibited, and payment of the tonnage and other dues inward is to be made. If the ship have not been previously measured in Norway, and is, consequently, not provided with a Norwegian measuring bill, she is to be measured, to ascertain her burden in Norwegian commercial lasts, for the calculation of the tonnage duty.

The general report having been made, the Custom-house officers in charge of the vessel are furnished with the books for delivery, and the discharge of the cargo commences under their inspection; and the consignees may make their special reports under their responsibility and signature. If they are without precise information as to the contents of any or all of the packages or bales to their address, these bales or packages may, at their request, be opened in the presence of the officers before report is made. If a consignee omits availing himself of this permission, his pretending thereafter that more or other goods than he had ordered, or been advised of, have been sent to his address, will not be attended to. In the reports or entries is to be stated whether it is intended to pay the duties forthwith, whether the goods are intended for exportation, or whether they are to be landed.

Prior to commencing loading outwards, the master is to give verbal notice of his intention at the Custom-house. If he have no Norwegian measuring bill, the vessel is to be measured. This being done, the shipper or shippers of the outward-bound cargo are each of them to make their special entries as to the quality, weight, and measure of the goods they mean to load. A copy of such entries is to be deposited at the Custom-house, and the loading commences under the control of the officers. This applies to all mixed cargoes; but if the outward-bound cargo consist exclusively of wood, the shipper or shippers are only to notify that they intend loading wood, without specifying quantity, measure &c., as the export duty on wood is charged according to the burden of the vessel. When the master clears outwards, he produces the proper documents for showing the burden of his vessel, and to what port she belongs, and he is then, on proper application being made, provided with a pilot, who takes his vessel to sea.

Warehousing.—In Norway, goods brought from abroad may be bonded or warehoused, with a view to their being again exported at some future period. Goods entered for home consumption may also be bonded for a certain period, in order to facilitate the payment of the duties.

The former is called *transit oplag*, i.e. depositing or warehousing goods for exportation, subject to transit duties only. The latter is called *credit oplag*, i.e. warehousing or bonding on credit.

1. *Transit Oplag.*—Under this system, goods from abroad may be warehoused for exportation free of import duty, paying on exportation a transit duty, which, in most cases, is $\frac{1}{10}$ of what they would pay if entered for home consumption. If the goods are deposited in the Custom-house warehouses, they lie free of rent or dues during 14 days; and if in private warehouses, under the key and seal of the Customs during 6 months. If they remain long, viz. beyond 14 days in the one, and beyond 6 months in the other case, they pay rent or dues equal to $\frac{1}{8}$ of the transit duty per month; which, after the lapse of 3 months, as regards goods in the Custom-house warehouses, is increased to $\frac{1}{4}$ of the transit duty per month.

2. *Credit Oplag.*—This system allows most goods imported from abroad to be placed in the owner's or importer's own warehouses, under his own lock, free of duty, for a given time, on his reporting to the Customs, every 3 months, how much he has

sold, otherwise consumed, or exported, and then paying the duty on such amount; the Custom-house officers, who are bound quarterly to examine the goods, convincing themselves by ocular demonstration that no more is missing than the quantity reported to have been taken away.

This credit on the duties in no case to exceed 2 years from the time the goods were imported.

By way of security for payment of the duties on which the credit is granted, Government reserve to themselves—

1. Priority of mortgage on all the goods in question.

2. Priority, or first right, in the property, goods, and effects of every description belonging to the trader availing himself of this credit, in as far as such property is not previously legally mortgaged.

3. Liberty for the Custom-house officers, when and as often as they shall deem it expedient, between the stated quarterly inspection, to look over the stock on hand, with a view of ascertaining whether there remains sufficient value for the duties; and if they see reason to doubt this, full right, in default of other satisfactory security being offered, to seize the stock, and to sell the whole, or as much as shall cover the duties.

4. In case of death or failure of the party, an equal right to sell forthwith the whole of his stock at public auction, and to retain as much of the proceeds as shall cover the duties; and in case of deficiency, an established claim for the remainder on the estate of the deceased or bankrupt, as the case may be.

In charging the duties, no allowance is made for waste or damage in the warehouses.

The warehouse rent charged on goods bonded under the transit system in the Custom-house warehouses is as follows:—

	Per month. s. d.
On a quarter of wheat, for the first 3 months	0 0·5538
Afterwards	0 1·1076
On a ton of raw sugar, for the first 3 months	0 11·5384
Afterwards	1 11·0769

Account of the Quantities and Values of the Principal Articles of British and Irish Produce and Manufacture exported from the United Kingdom to Norway, in each of the Five Years ending with 1866.

Principal and other Articles		Quantities				
		1862	1863	1864	1865	1866
Apparel and haberdashery	value	—	—	—	—	—
Alkali, soda	cwts.	12,194	13,557	9,846	13,079	14,097
Carriages	number	56	1	1	3	5
Coals, cinders, and culm	tons	149,015	122,054	179,917	177,938	193,140
Copper, wrought and unwrought	cwts.	1,850	5,097	2,544	5,652	1,980
Cotton yarn	lbs.	61,875	126,551	150,980	450,479	491,926
Cottons, entered by the yard	yards	1,697,173	1,802,546	2,262,127	3,132,118	4,555,797
at value	value	—	—	—	—	—
Cordage and twine	cwts.	877	1,844	1,580	1,163	1,587
Earthenware and porcelain	value	—	—	—	—	—
Hardwares and cutlery, unenumerated	cwts.	5,555	6,110	6,907	10,593	9,516
Iron, wrought and unwrought	tons	11,745	9,343	16,985	14,559	16,208
Lead and shot	,,	154	184	158	180	136
Leather, wrought and unwrought	value	—	—	—	—	—
Linen yarn	lbs.	67,291	216,769	579,663	65,782	84,605
Linens, entered by the yard	yards	293,329	546,965	895,755	519,815	456,096
at value	value	—	—	—	—	—
Machinery: steam engines	,,	—	—	—	—	—
all other sorts	,,	—	—	—	—	—
Oil, seed	gallons	61,762	77,099	88,747	76,441	21,842
Painters' colours	value	—	—	—	—	—
Salt	tons	11,746	10,740	9,807	12,463	14,092
Tin plates	value	—	—	—	—	—
Wool, sheep and lambs'	lbs.	102,318	10,071	30,526	24,217	25,380
Woollen and worsted yarn	,,	46,659	92,202	68,959	54,303	58,774
Woollens, entered by the yard	yards	1,031,199	1,096,291	1,176,356	972,895	1,016,991
at value	value	—	—	—	—	—
All other articles	,,	—	—	—	—	—
Total		—	—	—	—	—

		Declared Real Values				
		1862	1863	1864	1865	1866
		£	£	£	£	£
Apparel and haberdashery	value	27,701	25,284	24,305	13,756	21,895
Alkali, soda	cwts.	4,702	4,901	3,626	4,226	6,554
Carriages	number	8,409	200	35	100	1,537
Coals, cinders, and culm	tons	60,505	50,188	71,586	79,028	91,805
Copper, wrought and unwrought	cwts.	8,121	15,219	10,355	15,345	20,114
Cotton yarn	lbs.	3,872	10,448	14,995	33,597	38,138
Cottons, entered by the yard	yards	35,900	51,731	68,216	87,940	113,852
at value	value	6,345	9,194	13,143	18,448	24,678
Cordage and twine	cwts.	3,709	9,860	9,082	6,562	8,395
Earthenware and porcelain	value	12,960	15,557	12,755	10,913	12,503
Hardwares and cutlery, unenumerated	cwts.	28,806	32,799	37,404	42,584	48,309
Iron, wrought and unwrought	tons	85,859	81,807	136,928	122,097	144,793
Lead and shot	,,	5,507	5,969	5,749	5,884	5,144
Leather, wrought and unwrought	value	14,718	8,671	10,186	7,143	10,699
Linen yarn	lbs.	5,222	12,046	42,841	5,694	7,840
Linens, entered by the yard	yards	11,203	18,022	43,985	28,258	27,513
at value	value	8,624	7,415	9,759	9,307	8,293
Machinery steam engines	,,	6,349	790	5,845	6,011	2,689
all other sorts	,,	11,355	13,611	14,858	16,658	20,562
Oil, seed	gallons	10,271	12,993	15,508	10,403	5,294
Painters' colours	value	3,580	4,402	4,711	5,092	5,473
Salt	tons	3,432	5,169	4,452	6,178	8,802
Tin plates	value	4,751	3,415	5,735	4,877	6,424
Wool, sheep and lambs'	lbs.	6,747	740	2,284	1,778	2,566
Woollen and worsted yarn	,,	6,095	11,391	10,816	8,611	9,471
Woollens, entered by the yard	yards	62,750	72,006	88,564	64,635	78,965
at value	value	2,957	3,487	2,339	2,340	1,995
All other articles	,,	57,179	74,774	104,696	92,013	125,079
Total		366,266	550,979	772,093	677,007	854,318

Account of the Quantities and Values of the Principal Articles imported into the United Kingdom from Norway in each of the Five Years ending with 1866.

Principal and other Articles		Quantities				
		1862	1863	1864	1865	1866
Animals: oxen and bulls	number	9	—	—	222	271
cows and calves	"	41	5	1	80	98
Bones of animals and fish (except whalebone)	tons	970	475	490	1,017	797
Cobalt, oxide of	value	—	—	—	15	—
Copper ore	tons	684	1,137	798	1,499	1,651
unwrought and part wrought	"	115	131	174	150	76
Corn: oats	cwts.	96,594	97,993	46,664	118,600	139,047
Fish	"	71,014	61,864	127,230	153,174	185,249
Ice	tons	20,040	36,172	21,502	38,605	62,574
Iron, ore	"	514	570	1,784	4,800	4,857
in bars, unwrought	"	123	579	864	179	389
bloom	"	62	97	75	82	132
chromate of	"	122	455	151	195	—
Nickel, ore of	value	—	—	—	—	—
Oil, train or blubber	tuns	77	297	121	744	755
Oil-seed cake	tons	660	705	1,151	1,151	2,242
Pyrites of iron or copper	"	4,575	6,756	10,087	22,800	28,162
Skins, seal	number	52,264	93,455	11,871	21,402	29,252
Wood and timber, not sawn or split	loads	111,548	101,995	158,760	173,045	140,299
deals, battens, boards &c., sawn or split	"	211,504	260,299	290,951	287,559	307,771
staves	"	3	5	56	49	4,042
firewood	"	81,745	95,858	99,009	137,087	97,559
lathwood	"	52	858	41	199	8,051
birch and fir, for making herring barrels	"	5,069	4,517	6,204	5,459	5,132
All other articles	value	—	—	—	—	—
Total		—	—	—	—	—

		Computed Real Value				
		1862	1863	1864	1865	1866
		£	£	£	£	£
Animals: oxen and bulls	number	181	—	—	1,089	3,116
cows and calves	"	285	33	18	672	1,014
Bones of animals and fish (except whalebone)	tons	2,848	2,070	2,013	5,202	3,891
Cobalt, oxide of	value	2,193	2,264	2,000	11,065	6,210
Copper ore	tons	2,736	3,033	3,197	13,071	16,444
unwrought and part wrought	"	10,755	12,347	11,254	11,580	5,870
Corn: oats	cwts.	9,111	32,273	15,072	42,110	50,203
Fish	"	41,840	36,180	120,211	102,812	137,826
Ice	tons	17,022	32,854	22,253	55,746	56,137
Iron, ore	"	353	758	1,804	9,772	3,454
in bars, unwrought	"	1,328	5,913	9,881	1,995	4,056
bloom	"	174	257	675	738	1,216
chromate of	"	757	2,150	960	970	—
Nickel, ore of	value	2,985	1,871	57,283	11,148	10,833
Oil, train or blubber	tuns	3,444	14,564	14,571	18,162	18,015
Oil-seed cake	tons	4,761	5,482	10,814	9,598	17,844
Pyrites of iron or copper	"	9,249	10,101	25,569	54,990	67,763
Skins, seal	number	6,519	5,859	7,145	9,870	6,681
Wood and timber, not sawn or split	loads	242,072	214,787	296,705	256,004	248,755
deals, battens, boards &c., sawn or split	"	620,088	791,022	847,150	720,596	723,504
staves	"	29	51	726	584	56,980
firewood	"	77,660	93,365	94,059	130,423	86,645
lathwood	"	50	1,458	80	590	14,546
birch and fir, for making herring barrels	"	4,990	7,181	9,111	8,189	7,099
All other articles	value	24,329	28,719	50,742	36,738	37,295
Total		1,119,859	1,251,985	1,574,794	1,454,292	1,611,359

To these exports of produce from the United Kingdom there should be added, of foreign and colonial produce, coffee, raw cotton, wool, hides, tobacco, tea &c., the aggregate value of which in 1866 was 265,511*l.*, making the value of the total exports 1,119,859*l.* Of our imports from Norway the most important are timber, about two-thirds of the whole, fish, oats, iron and copper ore, oil, and ice. The trade in ice is of growing importance. It will be seen from the account that our total imports are valued for 1866 at 1,611,359*l.* The value of our imports from Sweden and Norway in 1867 was 6,477,865*l.*

For the *cod* and *herring* fisheries of Norway see Cod, Herring. Considerable quantities of salmon are sent per steamer from Christiansand to Hull and London, and shark fishing is now found to be a profitable employment in Norway.

Money, Weights, and Measures.—In Norway there are no gold coins. The principal silver coin, called a species dollar, is divided into 120 skillings. There are, also, half species, or 60-skilling pieces; $\frac{1}{3}$ species, or 24-skilling pieces; $\frac{1}{15}$ species, or 8-skilling pieces; and what is denominated skillemynt, or small change, i.e. 4 and 2 skilling pieces. The species dollar contains 390·58 English grs. pure silver, and is consequently worth 4*s.* 6$\frac{1}{2}$*d.* sterling, the par of exchange being 4 species dollars 42$\frac{6}{17}$ skill. = 1*l.* All Norway coins, except the small change, are alloyed with $\frac{1}{7}$ copper, so that the species dollar weighs 448·38 English grs., and its divisions in proportion. Small change coins are alloyed with three times their weight of copper. There are 1 and 2 skilling pieces of copper.

Weights and Measures same as at Copenhagen.

Shipping Charges.—The various charges of a public nature payable by a ship of about 300 tons burden, entering the port of Christiania with a mixed cargo on board, unloading there, taking on board another cargo, and clearing out, are as follows:—

1. *Charges Inwards.*

	£.	s.	d.
Pilotage from Farder, at the mouth of Christiania Bay, where all ships must take a pilot on board	2	2	2
Bill of health, assuming that the crew, including the master, consists of 14 persons	0	17	2
Tonnage dues and light money	9	16	9
Broker's fees	1	5	4
	£ 14	2	0

2. *Charges Outwards.*

Pilotage	0	9	2
Castle dues	0	1	7
Muster roll of crew	1	0	5
Pale or stake money	0	3	2
Measuring bill	2	4	5
Charity chest	0	1	7
Tonnage dues and light money	10	11	1
Highholm light	0	0	9
Pilotage to Farder	1	16	8
Broker's fees	1	18	11
	£ 18	6	11

N.B.—There is no difference between the charges on native ships in Norwegian ports, and privileged foreign ships, i.e. the ships of countries having reciprocity treaties with Norway; nor in

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the duties on goods imported by native ships and such privileged foreign ships. Great Britain is a privileged country.

The shipping of Norway has declined considerably of late years; a proof, if any such were wanting, of the groundlessness of the clamours kept up in this country as to the supposed pernicious influence of reciprocity treaties on our shipping.

We borrow from Consul-General Crowe's *Report* of Feb. 1868 the following

Review of the Aggregate Amount of Imports into and Exports from Norway during 1866, *with the Official Estimate of their Relative Value, reduced to British Sterling, with the Amount of Duties collected.*

Articles	Estimated Value		Duty Levied	
	Imports	Exports	On Imports	On Exports
	£	£	£	£
Live animals	15,412	2,475	41	—
Provisions—of animals	269,722	1,416,627	5,551	4,277
Cereals	1,353,709	52,093	68,850	—
Colonial goods	867,855	274	222,265	—
Fruits, garden stuffs &c.	76,969	6,490	15,863	—
Spirits and drinkables	120,452	1,859	53,399	—
Woven stuffs &c.	452,713	1,360	2	—
Yarn, ropemakers' work &c.	106,959	3,010	7,212	—
Manufactures of spun stuff	800,984	12,398	92,211	—
Hair, feathers, skins, horn &c.	150,784	166,143	7,213	234
Manufactures of ditto	27,165	43	2,166	—
Tallow, grease, oil, tar, gums &c.	86,101	421,057	9,730	2,771
Manufactures of ditto	33,731	20	4,383	—
Wood goods, unwrought and half wrought	61,921	1,638,972	1,165	34,362
wrought	20,138	599	1,597	—
Dye stuffs	61,117	756	2,598	—
Sundry vegetable substances	85,819	18,603	1,223	1
Paper and paper work	29,839	1,690	4,253	—
Other manufactures of vegetable substances	4,542	1,272	416	—
Minerals: raw stuff	324,878	110,658	22,353	—
Metals: manufactured	76,874	501	12,702	—
raw and half wrought	187,385	101,077	13	—
wrought	263,256	2,641	10,612	—
Ships, carriages, machinery &c.	362,547	4,429	3,330	—
Total	4,816,863	3,915,677	618,933	41,645

Banking.—There are no private banking establishments in Norway; but there is a public bank, having its principal office at Drontheim, with branches at Christiania, Bergen, and Christiansand. It was established by a compulsory assessment in 1816. Its capital consists of 2,000,000 species dollars, in transferable shares, divided amongst those who were forced to contribute to its formation. These shares are now at a premium of 30 per cent. Its managers are appointed by, and are accountable to, the Storthing or Norwegian Parliament. It issues notes for 100, 50, 10, and so low as 1 species dollar. These notes should be payable in specie on demand; but they are at a discount of 35 per cent., and are paid by the bank at that rate. It discounts bills at 2 and 3 months' date at 6 per cent. per annum; advances money on mortgage at 4 per cent.; and transacts the ordinary banking business of individuals. It does not allow interest on deposits.

Credit.—Goods are sold partly for ready money and partly on credit, but principally the former.

Commission &c.—The number of brokers in Christiania is limited to 4. Commission on the sale of goods, 2 per cent., or, *del credere* included, 3 per cent. Brokerage is fixed by law at $\frac{5}{8}$ per cent., which, in practice, is paid by the sellers.

Insurance.—All houses situated in Norwegian market towns must be insured in the General Insurance Company at Christiania, which is guaranteed by the state. The premium is moderate, being, on buildings situated in towns, $\frac{1}{4}$, and on those situated in the country $\frac{1}{8}$ per cent. Sometimes, however, when very destructive fires occur, it is raised.

Provisions &c.—Christiania is not a favourable place for careening and repairing ships; but supplies of beef, bread, water, and other sea stores may be had as cheap or cheaper than in any other port of Norway. The distance, however, of the city from the sea is too great to allow of its being visited by ships desirous merely of victualling. (We have derived these details from various sources, but principally from Consular Returns.)

Timber.—A standard Christiania deal is 11 feet long, 1¼ inch thick, and 9 inches broad; and 51·2 such deals make a load.

Freight of deals from Norway to England is calculated at the rate of single deals, the standard measure of which for Christiania and all the southern ports of Norway, except Dram (a small town on the Drammen, about 20 miles SW. of Christiania), is 11 feet long, and 1¼ inch in thickness. A single deal from Dram is reckoned 10 feet long, and 1½ inch thick.

Battens.—Three battens make 2 deals, retaining their own length and thickness. Half deals are only counted as deal ends if they run under 6 feet; but if they run 6 or 7 feet long, then 2 half deals are counted a deal, retaining their own thickness.

Ends of Deals.—Four ends of deals, although 5 feet long, make but a deal 11 feet long, retaining their thickness, which the owners and captains of ships think unreasonable; but as the freighters of ships seldom wish to have this assortment, which commonly run from 3 to 5 feet, and are taken on board as stowage, consequently for the advantage of the ship and not the freighter, the ship ought to bear the burden.

Ends of Battens, called *Larwick Palings.*—No less than 6 ought to be counted a single deal, 11 feet long and 1¼ inch thick.

Pale-boards, when they have their proper length, are 7 feet long; 3 pale-boards are counted a single deal.

Staves for hogsheads take up much room; in consequence of which more than 10 cannot be computed a single deal.

The width of deal is never noticed in the calculation of freight: a good deal ought to run 9 inches within the sap, which not a twentieth part of a cargo does at present; but, though some may be above 9 inches wide, many are only 8, therefore one must make up for the other.

Timber or *Hewn Goods* cannot be exactly computed according to the contents in deals, because it cannot be stowed in a ship in the same manner as deals: the freight is, therefore, agreed for by the lump, or according to the number of deals which the vessel may have taken on board on a former occasion.

One hundred deals = 120.

A ton = 40 solid feet of timber, cut to a square.

One load of balk, or timber, = 50 solid feet.

Two loads of timber are reckoned for 150 deals.

The several bills of lading contain together an exact account of the cargo which the captain has received on board his ship, consequently binding him to deliver according to their contents: when, therefore, the deals are mentioned as usual 9 and 10 feet, and 11 and 12 feet, he cannot insist on more freight than half of the length, according to its description.

One thousand Norway standard deals are reckoned equal to a keel of coals, which is 21 tons.

Bowsprits pay duty as masts; capravens are above 12 and under 18 inches in circumference at the middle, and without bark. Clapboard is exported in whole pieces and unquartered. Deals from Germany pass as Norway deals; spruce deals are upwards of 20 feet in length; deals from Norway, above 7 feet long, are counted as whole deals; above 5 feet, and not above 7 feet in length,

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are accounted as half deals, and two of them pass as one whole deal.

The difference between the Christiania and Dram standard being nearly $\frac{1}{11}$, the freights to Dram ought to be varied proportionally. It has sometimes happened that ships both for Christiania and Dram have been in company, and those for Christiania have got up, loaded, and sailed, before the others for Dram have got over Dramstroom, which runs very strong down in the spring of the year. (Rordansz' *European Commerce*; *Consular Reports*; &c.)

CHROMIUM. This metal, which was discovered by Vauquelin in 1797, is brittle, of a greyish white colour, and very hard. It is scarcely affected by any acids. The metal has no economical value, but its salts are of the greatest importance as dyes and colours.

CHUNAM. The name given in India to lime. The best, obtained by the calcination of shells, is employed in the composition of BETEL, to prevent, it is said, its injuring the stomach.

CIDER or CYDER (Fr. cidre; Ger. zider, apfelwein; Ital. cidro; Russ. sidor; Span. sidra). The juice of apples expressed and fermented. The produce of the duty on cider and perry (the expressed and fermented juice of pears) amounted, in 1828, to 37,220*l.*; which, as the duty was 10*s.* a barrel, shows that the quantity produced and brought to charge must have amounted to 74,440 barrels, exclusive of what might be clandestinely manufactured. The perry is supposed to have amounted to about a fourth part of this quantity. The duty was repealed in 1830. [APPLES.] Perhaps the total produce of cider and perry may now be estimated at from 100,000 to 110,000 barrels.

The manufacture of cider is also an important branch of industry in France, especially in the provinces of Normandy, Brittany, Picardy, and Artois. It is made from summer, autumn, and winter apples, which are not only distinguished by the time at which they reach maturity, but by the different quality of the beverage produced from them. Cider is also largely manufactured in Canada and the United States.

Good cider contains about 6 per cent. of proof spirit. Cider is sometimes adulterated with lead, with the object of masking tartness. This practice is exceedingly injurious, as lead is a dangerous poison. Common cider is also extensively used for the manufacture of spurious wine.

CIGARS. [TOBACCO.]

CINNABAR (Ger. zinnober; Dutch, cinaber, vermilioen; Fr. cinnabre; Ital. cinabro; Span. cinabrio; Russ. kinowar; Chinese, chú shá; Lat. cinnabrium).

1. *Native Cinnabar.*—A mineral substance, red, heavy, and brilliant. It is found in various places, chiefly in quicksilver mines, being one of the ores of that metal. The cinnabar of the Philippine Islands is said to be of the highest colour; but that of Almaden, in Spain, is the richest. It is also abundant in the central and western provinces of China. The best native cinnabar is of a high colour, brilliant, and free from earthy or stony matter. Only 24 cwts. of native cinnabar, valued at 336*l.*, were imported in 1866.

2. *Artificial Cinnabar.*—When 2 parts of mercury and 1 of sulphur are triturated together in a mortar, the mercury gradually disappears, and the whole assumes the form of a black powder, formerly called *Ethiops mineral*. When this mineral is heated red hot, it sublimes; and if a proper vessel be placed to receive it, a cake is obtained of a fine red colour. This cake was formerly called cinnabar; and, when reduced to a fine powder, is well known in commerce under the name of *vermilion*. Cinnabar, the ordinary ore of mercury, has been found in enormous quantities in California. [MERCURY.]

The production of cinnabar is considerably facilitated if the sulphur be previously melted. The pigment is prepared on a large scale in Holland, the sulphur being melted in a cast-iron vessel, and the mercury being finely divided, and also purified, by being squeezed through the pores of a chamois leather bag. As soon as the substances have combined, sublimation is allowed to begin. The larger the quantity of materials, the richer is the tint of the product. It is important also that both the sulphur and the mercury should be as pure as possible.

Enormous quantities of cinnabar are used in China. Red is the colour of rejoicing with the Chinese, and vermilion is therefore used in documents &c.

CINNAMON (Dutch, kaneel; Fr. cannelle; Ger. zimmet, kanehl; Ital. canella; Lat. cinnamomum, canella; Port. canella; Span. canela; Pers. and Hind. darchinie; Arab. darsini; Malay, kaimanis; Gr. Κινάμον; Chinese, jáu kwei; Cingalese, karundu; Tamil, karua puttay). The inner bark of the cinnamon tree (*Laurus cinnamomum*), Nat. Order *Lauraceæ*, a native of Ceylon, where it grows in great abundance, Cochin China, and perhaps of some other countries. It is brought home in bags or bales weighing 92½ lbs. each; and, in stowing it, black pepper is mixed with the bales to preserve the cinnamon. The best cinnamon is thin and rather pliable: it ought to be about the substance of royal paper, or somewhat thicker; is of a light yellowish brown colour, approaching nearly to that of Venetian gold; it is smooth and shining; fractures splintery; has an agreeable, warm, aromatic flavour, and a mild, sweetish taste; when chewed, the pieces become soft, and seem to melt in the mouth; it is not so pungent but that it may be borne on the tongue without pain, and is not succeeded by any after taste. Whatever is hard, thick as a half-crown piece, dark-coloured or brown, or so hot that it cannot be borne, should be rejected. Particular care should be taken that it be not false packed, or mixed with cinnamon of an inferior sort. (Milburn's *Orient. Comm.*; *British Pharmacopœia*, 1867; Marshall's *Essay*, quoted below.)

The cinnamon of Cochin China grows in the dry sandy districts lying N. W. of the town of Faifoe, between 15° and 16° N. lat. It is preferred in China to the cinnamon of Ceylon: the annual imports into Canton and other ports vary from 250,000 to 300,000 lbs. There are no fewer than 10 varieties of this species in the market. It is not cured, like that of Ceylon, by freeing it from the epidermis. (Crawfurd's *Embassy to Siam* &c. p. 475.)

Besides the produce of the inner bark of the *Laurus cinnamomum*, the bark of the root affords a volatile oil which is similar in flavour to oil of cinnamon, but has also a camphorous pungency. Another kind of oil is distilled from the leaves. The cinnamon-leaf oil of commerce is of two kinds; one fatty and probably procured from the fruit, the other volatile and similar in taste and odour to oil of cloves or oil of pimento.

The principal cinnamon gardens of Ceylon are near Colombo. The seeds are planted so that the shrub should grow in clumps or clusters. The shoots which are decorticated are generally from 1 to 3 inches in diameter. The finer and thinner the bark, the more valuable is the product. The cinnamon harvest lasts from May to October.

Cinnamon is obtained from China, the Malabar

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coast, Manilla, Java, Cayenne, the Leeward Islands, and the Isle of France. The produce of China is called Cassia.

Cinnamon Monopoly.—Down to 1833 the cultivation of cinnamon in Ceylon was restricted to a few gardens in the neighbourhood of Colombo: the production and sale of the article being wholly monopolised by Government. Upon the transference of the island from the East India Company to the King's Government, the former agreed to pay 60,000*l.* a-year for 400,000 lbs. or 4,342½ bales of cinnamon; it being stipulated that if the quantity collected exceeded this amount, *the surplus was to be burned!* (See an article by H. Marshall, Esq., Staff Surgeon to the Forces in Ceylon, in Thomson's *Annals of Philosophy*, vol. x. p. 356.) But this agreement was afterwards broken off; and the cinnamon was sent to England by Government, and sold on its account at quarterly sales. The nett revenue derived from the cinnamon monopoly in 1831 is said to have amounted to 127,961*l.* As the monopoly could not be enforced except by confining the culture of cinnamon to certain districts, it necessarily led to the most oppressive interferences with the rights of individuals, to the creation of numberless imaginary offences, and the multiplication of punishments, forming a heavy drawback upon the prosperity of the island. A sense of these disadvantages led at length to the abolition of the monopoly system in 1833, when we ceased to be amenable to the charge of upholding, without improving, the worst part of the Dutch policy, and restored to the natives their right to cultivate cinnamon anywhere and in any way they think fit.

Duties on Cinnamon.—Unluckily, however, the abolition of the old monopoly system was accompanied by the imposition of the exorbitant duty of 3*s.* per lb. on all cinnamon exported, without distinction of quality, reduced in 1837 to 2*s.* 6*d.* on the 1st and 2nd qualities, and 2*s.* on the 3rd or lowest quality, and in 1841 to 2*s.* on all qualities. We took the liberty to animadvert as follows on this system in a former edition of this work:—'The natural cost of cinnamon does not, we believe, exceed 6*d.* or 8*d.* per lb.; but taking it at 1*s.*, the duty is no less than 200 per cent.! So enormous a tax, by confining the export of cinnamon within the narrowest limits, will go far to deprive the island of the advantages it would otherwise derive from the repeal of the monopoly, and will be, in all respects, most injurious. It is contended, in vindication of this oppressive tax, that Ceylon having a natural monopoly of cinnamon, it is sound policy to burden it with the highest duty it will bear, as the largest revenue is thus obtained at the least expense to the island. But, in addition to the cinnamon produced in Cochin China, and which it is more than probable will speedily find its way to the European markets, the extent to which cassia lignea is substituted for cinnamon shows that the monopoly possessed by Ceylon is of trifling importance. And though it were otherwise, though cassia lignea did not exist, and cinnamon were to be found nowhere but in Ceylon, we should not the less object to so exorbitant an export duty. So long as it is maintained, it will confine within the narrowest limits what might otherwise become an important branch of industry, and a copious source of wealth to the island.

'Under the old system, the produce of cinnamon in Ceylon amounted to about 500,000 lbs.; and it is not at all probable that the exports will materially increase under the new system; but had the duty varied from about 6*d.* per lb. on the best, to 3*d.* or 4*d.* on the inferior sorts, we have little doubt, now that the culture is free, that the exports would, at no very distant period, have amounted to 1,000,000 lbs. It is the high price of cinnamon—a price not caused by its scarcity or the difficulty of its production, but by the oppressive monopolies and duties to which it has been subjected—that has made it be regarded as a luxury attainable only by the rich.

'Should the exports of cinnamon from Ceylon under the new plan amount to 500,000 lbs. a-year, Government will receive from it an annual revenue of 50,000*l.*; and supposing them to amount to 600,000 lbs., the revenue will be 60,000*l.* And to secure the immediate payment of this trifling sum, every ulterior consideration of profit and advantage has been sacrificed. It is, however, pretty clear that this short-sighted rapacity will be, in the end, no less injurious to the revenue than to the industry and trade of the island. Were cinnamon allowed to be exported for a few years under a low duty, or till such time as the taste for it was fully diffused throughout this and other countries, it might then be easy, by gradually raising the duty, to obtain from it, without materially checking the consumption, a *large revenue*; at least two or three times more than it will ever produce under the present plan.

'Suppose that we had had the power effectually to monopolise the inventions by which Sir Richard Arkwright and others have so prodigiously facilitated the spinning of cotton, what would have been thought of the policy of those who should have proposed laying a duty on exported cotton equivalent to the peculiar advantages we enjoyed in their production? Had this been done, we should have got a *monopoly value* for our exports of cotton; but instead of amounting, as at present, to 30,000,000*l.* a-year, they would not, under such a plan, have amounted to 200,000*l.*; and instead of affording subsistence for some 1,300,000 or 1,400,000 individuals, the cotton manufacture would not have supported 50,000! And yet this is the mischievous nostrum—for it would be an abuse of terms to call it a principle—on which we have proceeded *to regulate* the export of the staple product of Ceylon.'

Experience has more than confirmed the truth of these statements. Instead of increasing, as they certainly would have done but for the exorbitancy of the duty, the exports of cinnamon declined even below their amount during the monopoly. Notwithstanding the reduction of the duty in 1841 to 2*s.* per lb., the exports in that year amounted to only 323,461 lbs., producing a revenue of 33,111*l.*! This result was brought about, as we anticipated, partly by the high duty and its consequent high price restricting the demand for cinnamon; partly by the duty operating as a bounty to introduce the culture of the plant into other places; and partly and principally by its encouraging the use of *cassia lignea* and other substitutes in the place of the genuine article.

'It does not,' says Mr. Cook (formerly of the firm of Trueman and Cook, brokers), 'admit of a doubt, that unless the export duty of 2*s.* per lb. payable on the shipment of cinnamon at Ceylon be removed, the trade must speedily be annihilated. From 1798 to 1825 the cultivation was known in no other part of the world, and notwithstanding the impolicy even then of such an exorbitant charge, the trade was comparatively little affected: but in 1825 a successful attempt was made in Java by an experienced planter from Ceylon, and the shipments from that island, which, having since been annually increasing, were estimated (1842) at 117,000 lbs. at least, on which is levied a duty, on the value, of 4 per cent. only. The culture has also extended itself to Guiana and the West

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Indies: and, judging from a small parcel lately received from Jamaica, there can be no question it can be successfully produced in that quarter, and that a supply may at no distant period confidently be expected from thence, the duty there being only 2½ per cent. From Cochin China, Malabar &c. large quantities will also doubtless ere long find their way to Europe, their produce being comparatively free from fiscal charges. It is therefore evident that Ceylon cinnamon cannot, under existing circumstances, withstand the competition of that of other countries; and if the merits of the question were understood by the Government, this interesting trade would assuredly be no longer suffered to remain in its present anomalous state. Indeed, Ceylon cinnamon, independently of other adverse influences, would be very soon driven out of the European markets by the increased use of cassia lignea as a substitute. The question of revenue will no doubt engage the attention of Government, the cinnamon duty having yielded in 1833 as much as 160,000*l.*, or about half the revenue of the island; whereas in 1841 the governor estimated it at 47,000*l.* only, and it is doubtful if it will realise even this much—(in fact it only realised 33,111*l.*); so that the levying an impost so oppressive has proved as injurious to the collection of revenue as to the prosperity of the trade.'

Such conclusive statements could not be disregarded, and in 1844 the export duty on cinnamon was reduced to 1*s.* But even this was a great deal too high; and it soon became evident that the culture of the plant had taken such firm root in Java and elsewhere, and that the public taste had become so habituated to cassia and other substitutes, that the Ceylon planters would with difficulty maintain their ground, even if the duty were wholly repealed. And after being reduced to 4*d.* in 1848, and to 2*d.* in 1853, it was finally abolished in 1860. But it had continued long enough to inflict irreparable injury on the trade. The exports have, indeed, increased, though not very materially; but the quality of the spice has deteriorated, and now principally consists of the coarser and inferior varieties; so that, though the quantities exported are greater than formerly, their value is less. The consumption of the spice has not increased in the United Kingdom.

This brief notice of the legislation in regard to cinnamon affords an instructive and striking example of the risk attending the imposition of duties on the exportation of articles for which substitutes may be found, or that may be raised elsewhere. Had no duty been laid on the export of cinnamon in 1833, when the monopoly was set aside, it is all but certain that its production would have been incomparably greater than at present, and that it would have formed an important as well as interesting branch of Cingalese industry.

The imports of cinnamon from Ceylon into the United Kingdom have been:—

1845	-	621,856* lbs.	1862	-	810,684 lbs.
1850	-	688,237* ,,	1863	-	874,704 ,,
1855	-	695,155* ,,	1864	-	596,769 ,,
1856	-	721,632 ,,	1865	-	846,133 ,,
1857	-	686,875 ,,	1866	-	906,827 ,,
1861	-	732,940 ,,			

The years marked thus * include a few pounds weight from other places than Ceylon, but they are inconsiderable. The total imports of cinnamon from all quarters into the United Kingdom in the last three years were as follow:—

				lbs.
1865	-	-	-	896,731
1866	-	-	-	932,729
1867	-	-	-	859,034

The duty on cinnamon from a British possession, after being constant from 1840 at 3$\frac{3}{20}$*d.* per lb., was reduced in 1853 to 2*d.* per lb. The annual entries for consumption since the repeal of the duty in 1860 are not known. The average value of Cingalese cinnamon in 1866 was 1*s.* 9¼*d.* per lb. In the article COLOMBO we have given an account of the exports of cinnamon from Ceylon since 1840, and, for ample details on this subject, see Sir James Emerson Tennent's excellent work on Ceylon.

CINQUE PORTS. These are ancient trading towns, lying on the coast of Kent and Sussex, which were selected, from their proximity to France and early superiority in navigation, to assist in protecting the realm against invasion, and vested with certain privileges by royal charter.

'The ports so privileged, as we at present account them, are Dover, Sandwich, Romney, Hastings, Hythe, and the two ancient towns of Winchelsea and Rye; although the two latter places appear to have been originally only members. The services which they were appointed to perform were either honorary, viz. assisting at the coronation and sending members to Parliament; or auxiliary to the defence of the realm, as furnishing a certain supply of vessels and seamen, on being summoned to that service by the king's writ.

'In process of time the Cinque Ports grew so powerful, and by the possession of a warlike fleet so audacious, that they made piratical excursions in defiance of all public faith; on some occasions they made war, and formed confederacies as separate, independent states. It seems, however, that these irregularities were soon suppressed when the Government was strong, and sufficiently confident to exert its powers. So long as the mode of raising a navy by contributions from different towns continued, the Cinque Ports afforded an ample supply; but since that time their privileges have been preserved, though their separate or peculiar services have been dispensed with. Their charters are traced to the time of Edward the Confessor: they were confirmed by the Conqueror and by subsequent monarchs. William the Conqueror considering Dover Castle the key of England, gave the charge of the adjacent coast, with the shipping belonging to it, to the constable of Dover Castle, with the title of Warden of the Cinque Ports—an office resembling that of the Count of the Saxon coast (*Comes littoris Saxonici*) on the decline of the Roman power in this island. The lord warden has the authority of Admiral in the Cinque Ports and their dependencies, with power to hold a court of admiralty; he has authority to hold courts both of law and equity; is the general returning officer of all the ports—parliamentary writs being directed to him, on which he issues his precepts; and, in many respects, he was vested with powers similar to those possessed by the heads of counties palatine. At present the efficient authority, charge, or patronage of the lord warden is not very great; the situation is, however, considered very honourable, and the salary is 8,000*l.* He has under him a lieutenant and some subordinate officers; and there are captains at Deal, Walmer, and Sandgate Castles, Archcliff Fort, and Moats Bulwark.

'There is an exclusive jurisdiction in the Cinque Ports (before the mayor and jurats of the ports), into which exclusive jurisdiction the king's ordinary writ does not run; that is, the court cannot direct their process immediately to the sheriff, as in other cases. In the Cinque Ports, the process is directed to the governor of Dover Castle, his deputy or lieutenant. A writ of error lies from the mayor and jurats of each port to the lord warden of the Cinque Ports, in his court of Shepway, and from the court of Shepway to the

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King's Bench; a memorial of superiority reserved to the Crown at the original creation of the franchise; and prerogative writs, as those of habeas corpus, prohibition, certiorari, and mandamus, may issue, for the same reason, to all these exempt jurisdictions, because the privilege that the king's writ runs not, must be intended between party and party, and there can be no such privilege against the king.' (Chitty's *Commercial Law*, vol. ii. p. 12; Knocker's *Grand Court of Shepway*, &c., London, 1862.) The peculiar jurisdiction of the Cinque Ports was much modified by 18 & 19 Vict. c. 48, and other Acts, and the salary of the lord warden has been abolished.

CITRON (Ger. succade; Danish, sukkat; Ital. confetti di cedro; Span. acitron verde; Fr. citronat verd). An agreeable fruit, resembling a lemon in colour, smell, and taste. It is the *Citrus medica* of botanists, and is probably a mere variety of lemon. It is much larger than the lemon, of an ovoid shape, and with a very thick rind. The juice too is less acid than that of the lemon and lime. The cuticle of the rind is full of vesicles containing an essential oil, on which the flavour of the rind depends. The *Citrus medica* is a native of Asia, and was probably imported from Persia or Media, in the second century of our era. It is now cultivated in warm climates throughout the world. The candied rind is imported from Madeira, of the finest quality.

CIVET (Ger. zibeth; Dutch, civet; Fr. civette; Ital. zibetto; Span. algalia). A perfume derived from two animals—the *Viverra civetta* of Africa, and the *Viverra zibetha* of the East Indies. The substance is secreted in certain glands situated in the perineum of the animal. In order to obtain greater supplies, the civet cat has been domesticated, and the substance, the quantity of which may be increased by irritating the sac in which it is secreted, is collected.

Civet was once used as a medicine, but now solely as a perfume. Its odour is very strong, and even offensive when it is smelt in bulk or near: but when diluted and at a distance, it is considered to be very agreeable. When genuine it is worth 30*s.* or 40*s.* an ounce.

CIVITA VECCHIA. A fortified sea-port town of the Papal dominions, on the Mediterranean, lat. 42° 4′ 38″ N., long. 11° 44′ 52″ E. Population about 12,000.

Harbour.—The port of Civita Vecchia is artificial, and is formed by three large moles. Two of them projecting from the main land, inclined one to the north and the other to the south, form the sides of the harbour; while a third mole, or breakwater, constructed opposite to the gap between the other two, serves to protect the harbour from the heavy sea that would otherwise be thrown in by the westerly gales. There are 3 lights in this port: one, which revolves every 40 seconds, on Antemuzale, the S. end of the Breakwater; a second on Bicchiese Mole; a third on the Lazaretto Mole. Vessels may enter either by the south or north end of the outer mole, but the southern channel is the deepest, having from 8 to 6 and 4 fathoms. Ships may anchor within the port in from 16 to 18 feet water; or between it and the outer mole, where the water is deeper. Within the port are a dock and an arsenal.

Historical Notice.—This harbour, which is by far the best on the western side of the Papal dominions, owes its origin to the Emperor Trajan, and affords the most unequivocal proof, not of his power merely, but of his sagacity and desire to promote the interests of commerce and navigation. There is in one of Pliny's Letters (lib. vi. epist. 31) a clear and interesting account of this great work, which has obviously been planned and constructed with equal skill and judgment. The outer mole was mostly formed, precisely like the breakwater at Plymouth, by sinking immense blocks of stone into the sea, which became fixed and consolidated by their own weight, till by degrees it was raised above the waves. Originally it was called *Trajanus Portus*, and it is to be regretted that it did not always bear the name of its illustrious founder. But in the latter ages of the Roman empire it was called *Centum Cellæ*, and in modern times *Civita Vecchia*. (Cellarii *Notitia Orbis Antiquæ*, i. p. 734.)

Money.—Accounts are kept here, and throughout the Papal States, in crowns or *scudi*, called scudi Romani and scudi moneta. 1 *scudo* = 10 *paoli*, and 1 *paolo* = 10 *bajocchi*. The scudo contains 403 grains of English standard silver, and is, consequently, worth 4*s.* 4*d.* sterling. Payments above 5 scudi are made in *cedole*, or schedules, a species of bank notes; but these not being payable in specie on demand, are uniformly at a discount.

Weights.—The *libra* or pound of 12 *onci*, or 6,192 *grani*, contains 5,234 English grains. Hence, 100 Roman pounds = 74,771 lbs. avoirdupois = 90,868 lbs. troy = 33,906 kilogrammes = 70,008 lbs. of Hamburg. There are three different cantaros or quintals; viz. of 100, 160, and 250 lbs. The migliajo = 1,000 lbs.

Measures.—The Roman foot = 11·72 Eng. in.; the *canna* = 78·34 Eng. in.; the canna used by builders = 87·96 Eng. in.; the *barrel* of wine = 12,841 imp. gals., and the barrel of oil = 12·64 imp. gals.; the *soma* of oil = 36·13 imp. do.; the rubbio of corn = 8·143 imp. bbls. (Kelly's *Cambist*; Nelkenbrecher, *Manuel Universel.*)

Imports and Exports.—Though the wealth and population of the country round Civita Vecchia be much fallen off in modern times compared with antiquity, it still continues to be the entrepôt of Rome, with which it is connected by a railway, and engrosses almost the entire trade of the Papal dominions on the side of the Mediterranean. The imports consist principally of cotton stuffs and yarn; woollens, silks, and linens; iron and hardware; coffee, sugar, cocoa, and other colonial products; salt and salted fish, coal, wines, jewellery, glass and earthenware &c. The exports consist of staves and timber, corn, wool, cheese, potash, pumice-stone, alum from Tolfa, in the vicinity, cream of tartar, rags &c. The total value of the imports may be reckoned at from 700,000*l.* to 800,000*l.*: inasmuch, however, as a considerable portion of these are on account of the strangers resident in Rome, the exports are by no means so great, and do not, indeed, exceed from 250,000*l.* to 350,000*l.* Marseilles and Genoa have the largest share of the foreign trade of Civita Vecchia, and next to them England.

In addition to the ordinary sailing-vessels which frequent the port, it is now regularly visited by steam-packets from Malta, Marseilles, Genoa, Naples &c. by which from 10,000 to 12,000 passengers are annually conveyed on their way to and from Rome.

In 1866 the value of the exports of domestic produce from the United Kingdom (chiefly coal and iron) to the Papal dominions amounted to 15,293*l.*, and in 1867 to 15,313*l.* Our imports from the Papal dominions amounted to 5,491*l.* in 1866, and to 5,162*l.* in 1867.

In 1864, 2,028 vessels, of 331,890 tons, entered, and 1,996 vessels, of 336,569 tons, cleared, the port of Civita Vecchia.

Duties.—Civita Vecchia is a free port; i.e. a port into which produce may be imported, and either consumed or re-exported, free of duty.

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Quarantine regulations are strictly enforced; no vessel with a foul bill of health being permitted to enter any of the Papal ports. (*Annuaire du Commerce Maritime*, tom. ii. p. 366, &c.)

CLARET. A name of ancient origin, given in England to the red wines of Bordeaux. [BORDEAUX; WINE.]

CLEARING. In 1775 the London, or rather the 'City,' bankers established the 'Clearing-house.' This is a house to which each banker who deals with it is in the habit of daily sending a clerk, who carries with him the various bills and checks in the possession of his house that are drawn upon other bankers; the practice formerly being to exchange them for the bills and checks in the possession of those others that were drawn upon his constituents, and to pay the balance, on the one side or the other, in cash or Bank of England notes. By this means the bankers connected with the clearing-house were enabled to settle transactions to the extent of several millions a day, by the employment of not more, at an average, than from 200,000*l.* to 500,000*l.* in cash or Bank of England notes.

Latterly, however, the arrangements connected with the clearing-house have been so much simplified and improved, that neither notes nor coins are any longer required in settling the largest transactions. The clearing-house itself, and the various banking firms and joint-stock companies connected with it, have accounts at the Bank of England; and the balances that were formerly settled by a money payment are now settled by transfers from one account to another. The economy of money in the adjustment of large transactions, occasioned by this and other contrivances, accounts for the fact that the proportion of notes of 20*l.* and upwards issued by the Bank has considerably declined of late years, while that of 5*l.* and 10*l.* notes, which are used in ordinary dealings, has been materially increased.

Originally the convenience of the clearing was permitted to the private bankers only, but after a lapse of time the private banks gave way, and admitted the joint-stock banks to share its advantages. Latterly, too, the clearing system has been extended to the country banks, through their London correspondents. These difficulties arose as to the admission of these country establishments:—The adoption of the system was likely to involve some inconvenience to the London bankers in the loss of time and additional trouble which the concession would involve. Then, again, it was impossible to grant the convenience, in case the country bank deducted, as they sometimes did, a small commission or percentage on checks drawn on their own house. And lastly, it was not always easy to accommodate the system to that rule of law which requires the person in whose favour a check is drawn to present it as early as possible for payment. The Post-office obviated to a great extent the last difficulty, and ultimately a plan proposed by Sir John Lubbock was accepted, and put into operation. (For the details of this plan, see the *Journal of the Statistical Society*, September 1865.)

There is another service, that of railways, to which the advantages of a clearing are obvious. Railways have often running powers over each other's lines; and even if they have no legal power to use any neighbouring or adjoining line, which may join their own, they constantly find it to be a convenience to the public, and therefore an advantage to themselves, to issue through tickets which will enable the purchaser to complete his journey without being put to the pains of procuring a second, or even several tickets; or again to run their carriages on a neighbouring line, or receive carriages belonging to another company on their railroad; or lastly, to convey parcels through without a fresh booking and additional entries. But in order to balance their accounts readily, it is necessary to have a speedy settlement of these: hence they have established a *Railway Clearing*, the form of which is analogous to that established now nearly a hundred years by the London bankers.

CLEARING-HOUSE. The place where the operation termed clearing is carried on.

CLOCK, CLOCKS (Ger. uhren, grosse uhren, wiandunrhe; Dutch, uuren, uurwerken, horologien; Fr. horloges; Ital. orologgi, oriuoli; Span. relojes; Russ. tschasii). A kind of machine, put in motion by a gravitating body, and so constructed as to divide, measure, and indicate the successive portions of time with very great accuracy. Most clocks mark the hour by striking or chiming. It is a highly useful instrument, and is extensively employed for domestic and philosophical purposes. Clocks are made of an endless variety of materials and models, so as to suit the different uses to which they are to be applied, and the different tastes of their purchasers. Their price consequently varies from a few shillings to more than 100*l.* The Germans and Dutch are particularly celebrated for their skill in the manufacture of wooden clocks; while the English, French, and Genevese, especially the former, have carried the art of making metallic clocks, so as to keep time with the greatest precision, to a high degree of perfection.

The history of the invention, introduction, and successive improvements in the manufacture of clocks has been carefully investigated by some very learned and industrious antiquaries (see Beckmann's *History of Inventions*, vol. i. pp. 419–462, Eng. ed.; and Rees's *Cyclopædia*); but, notwithstanding these researches, the subject is still involved in considerable obscurity. It seems, however, that the middle of the fourteenth century may be regarded as the epoch when clocks, having weights suspended as a moving power, and a regulator, began to be introduced. The period when, and the individual by whom, the pendulum was first applied to clockwork, have been subjects of much contention. Galileo and Huygens have disputed the honour of the discovery. 'But whoever may have been the inventor, it is certain that the invention never flourished till it came into the hands of Huygens, who insists that if ever Galileo thought of such a thing, he never brought it to any degree of perfection. The first pendulum clock made in England was in the year 1662, by one Fromantel, a Dutchman.' (Hutton's *Mathematical Dictionary.*)

The clock manufacture is of considerable importance and value. It is carried on to a great extent in London.

Previously to 1842 an ad valorem duty of 25 per cent., which was then reduced to 10 per cent., was laid on all clocks when imported. In 1853 the duty was further reduced, and placed on a new footing. It was repealed in 1860. We subjoin

An Account of the Numbers and Values of the Clocks Imported in 1866, *specifying the Countries whence they came.*

Country	Number	Value
		£
Holland - -	39,055	9,525
France - -	80,177	190,321
United States - -	134,510	51,353
Other parts - -	612	1,682
Total - -	254,354	255,879

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On the other hand in 1866 we exported 5,774 clocks, other than British, valued at 5,518*l.*, besides British clock and watch movements of the value of 15,818*l.*

Clockmakers are obliged to engrave upon the dial-plate of all clocks made by them their names and the place of their residence. It is illegal to import except in transit, and subject to such regulations as the Treasury may direct, clocks and watches of any metal impressed with any mark or stamp appearing to be or to represent any legal British assay mark or stamp, or purporting by any mark or appearance to be of the manufacture of the United Kingdom. (16 & 17 Vict. c. 107 s. 44.)

It is said, however, not to be an uncommon practice among the less reputable portion of the trade to engrave their names and 'London' on foreign clocks and watches, and to sell them to the public as English work. The fraud may be detected by referring to any respectable watchmaker.

By a Treasury order of Sept. 4, 1828, clocks and watches for private use, though not marked in the manner now specified, may be admitted on payment of the duty, on the parties making affidavit of their entire ignorance of the law in question.

Persons hired by, or in the employment of, clock and watchmakers, who shall fraudulently embezzle, secrete, sell &c. any metal, material, or precious stone, with which they may happen to be intrusted, shall, upon trial and conviction before a justice of the peace, forfeit 20*l.* for the first offence; and for the second, and every subsequent offence, they shall forfeit 40*l.*; and, in default of payment, they are to be committed to the house of correction. (27 Geo. II. c. 7 s. 1.) [Watch.]

CLOTH. [Linen; Wool; &c.]

CLOVER (Ger. klee; Dutch, klaver; Fr. trefile, luzerne; Ital. trifoglio; Span. trebol; Russ. trilistnik; Lat. trifolium). A very important species of grass. Some of the species in cultivation are annual, others biennial or triennial, and others perennial. The seed used formerly to be principally imported from Holland, but that which is raised in this country is now said to be of a superior quality. (Loudon's *Encyclopædia of Agriculture.*) Culture for seed is, however, very precarious, and of uncertain profit.

We have been for a lengthened period in the habit of importing considerable quantities of clover seed; and there can be little doubt, despite the improvement of the home produce, that the imports would have been much greater but for the heavy duty of 20*s.* a cwt. with which foreign clover seed was formerly loaded. Such duty had the mischievous effect of tempting farmers to use seed of inferior quality, and fell with peculiar severity on Scotland and those parts of the country which grow no seed. We are, therefore, glad to have to state that after being reduced to 10*s.* a cwt. in 1842, and to 5*s.* per do. in 1846, the duty was finally repealed in 1853. In 1866 we imported 226,014 cwt. clover seed, valued at 726,004*l.*, of which nearly a half came from France, while our exports amounted to only 4,493 cwt. The price varied from 3*l.* 3*s.* to 3*l.* 7*s.* 6*d.* per cwt., that of France being 3*l.* 5*s.* In 1867 the imports were 150,968 cwts., valued at 503,669*l.*

CLOVES (Ger. näglein, gewurznelken; Dan. nelliker, krudenelliker; Dutch, kruidnagelen; Pol. gozdrik; Fr. clous de girofle, girofles; Ital. chiovi di garofana, garofani, garoffoli; Span. clavos de especia, clavillos; Port. craros da India, craros girofes; Russ. gwosdika; Arab. kerenful; Malay, chankee; Chinese, ting hiang tsz' ting hiang). The fruit, or rather cup, of the unopened flowers of the clove-tree, or *Caryophyllus aromaticus*, Nat. Order *Myrtaceæ*. It is not known when this spice was introduced into European markets. In the middle ages, however, it was brought by the Venetians and Genoese by the route over the highlands of Armenia, by that from Bagdad to Lycia, and by the Red Sea and the Nile. It was by far the costliest of Eastern spices. In 1329 the fellows of Merton College, Oxford, bought cloves at the rate of 1*l.* 1*s.* 4*d.* per lb. (troy) in money of the time; that is, at not less than 12*l.* 12*s.* in modern value. In 1719 cloves were purchased at 12*s.* per lb.

The clove-tree is a native of the Moluccas. Though its natural range was limited, it grew abundantly in all the islands; but the Dutch, for reasons given below, succeeded in extirpating the plant in all the islands except Amboyna and Ternate. A Frenchman, however, one Poirie, the governor of Mauritius and Bourbon, contrived to export several trees to the islands under his government: thence they have spread to Cayenne and the West Indies, to Brazil, to Sumatra, and Zanzibar.

They were first introduced into the islands of Zanzibar and Pemba about 1830 from the Mauritius: they throve, and the cultivation has now almost entirely superseded that of sugar and rice, formerly the chief products of those islands. The average crop of Zanzibar cloves is about 200,000 *furaslahs*, or about 7,000,000 lbs., valued at about 85,000*l.* Owing to the increased production, the price has fallen about 70 per cent. within a few years. In Colonel Pelly's Report for 1860, published in 1863, the value of the cloves exported from Zanzibar is stated as 55,666*l.*, the quantity having been 4,860,100 lbs. Export duties are not charged on the cloves shipped from Zanzibar.

Cloves are shaped like a nail; whence the name, from the French *clou*, nail; about 6 lines long, plump and heavy. They are imported from the Dutch settlements; the best in chests, and an inferior kind in bags. The best variety of the Amboyna cloves is smaller and blacker than the other varieties, very scarce, and, as a mark of pre-eminence, is termed the Royal clove. Good cloves have a strong, fragrant, aromatic odour; and a hot, acrid, aromatic taste, which is very permanent. They should be chosen large sized, perfect in all parts; the colour should be a dark brown, almost approaching to black; and, when handled, should leave an oily moisture upon the fingers. Good cloves are sometimes adulterated by mixing them with those from which oil has been drawn; but these are weaker than the rest, and of a paler colour; and whenever they look shrivelled, having lost the knob at the top, and are light and broken, with but little smell or taste, they should be rejected. As cloves readily absorb moisture, it is not uncommon, when a quantity is ordered, to keep them beside a vessel of water, by which means a considerable addition is made to their weight. Cloves contain a very large amount of volatile oil, the quantity being nearly 20 per cent. They are also, it is said, very rich in tannin. Every portion of the tree is aromatic, and has been subjected to distillation; but under existing circumstances the supply of this article, once so scarce and precious, is abundant. The use of cloves in cookery is familiar to every one, but they enter also largely into perfumery, and are used in the Pharmacopœias of this country and the United States. (Thomson's *Dispensatory*; Milburn's *Oriental Commerce*; *British Pharmacopœia*, 1867.)

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Policy of the Dutch as to the Trade in Cloves.—From the expulsion of the English from Amboyna in 1623, the Dutch have, a few short intervals only excepted, enjoyed the exclusive possession of the Moluccas, or Clove Islands. In their conduct as to the clove trade they exhibited a degree of short-sighted rapacity which has been, we believe, seldom equalled even in the annals of monopoly. The object of the Dutch East India Company was not to encourage the growth and trade of cloves, but to confine both within the narrowest limits. They preferred deriving a large profit from a stunted and petty trade, to a moderate profit from a trade that might have afforded employment for a very large amount of capital; and to prevent their narrow and selfish projects from being counteracted by the operations of the natives, they subjected them to the most revolting tyranny. 'That they might,' says Mr. Crawfurd, 'regulate and control production and price just as they thought proper, the clove-trees were extirpated everywhere but in Amboyna, the seat of their power; and the surrounding princes were bribed by annual stipends to league with them for the destruction of their subjects' property and birthright. This plan was begun about the year 1551. The contracts are still in force, and an annual fleet visits the surrounding islands to suppress the growth of cloves, which in their native country spring up with a luxuriance which these measures of Satanic rigour, and of sacrilege towards bountiful nature, can scarce repress. By the plan on which the clove trade is now conducted—a plan carried into effect through so much iniquity and bloodshed—the country of spices is rendered a petty farm, of which the natural owners are reduced to the worst condition of predial slavery; and the great monopoliser and oppressor is that Government whose duty it should have been to insure freedom and afford protection. Human ingenuity could hardly devise a plan more destructive of industry, more hostile to the growth of public wealth, or injurious to morals, than this system framed in a barbarous age; and it reflects disgrace upon the character of a civilised people to persevere in it.

'It is curious to remark how the monopolisers, in carrying the details of this system into effect, at once impose upon the natives and deceive themselves. The *nominal* price paid to the natives is actually above the natural price of the commodity, but they are cheated in the details. The cultivator brings his produce to the public stores, where it is subjected at once to a deduction of one-fifth for payment of the salaries of the civil and military officers. The price of the remainder is fixed at the rate of 9·6 Spanish dollars the picul: but before payment is made, another deduction of one-fifth is made; one-half of which is for the chiefs or *rajas*, and the other for the native *elders*, who are overseers of the forced culture. The real price, therefore, paid to the grower is 8 Spanish dollars per picul, or 3½*d.* per lb. avoirdupois, instead of 11$\frac{52}{100}$ Spanish dollars per picul, or 4¾*d.*, which is pretended to be given.

'When cloves have been sold on the spot, the price usually exacted has been about 64 Spanish dollars the picul, or 8 times the price paid to the cultivator. The average price in Holland, previously to the war of the French revolution, was about 6*s.* per lb., or 177$\frac{78}{100}$ Spanish dollars per picul, being 2,122 per cent. advance on the real cost of the commodity in the place of its growth. When brought direct to England, they cost at an average 3*s.* 8*d.* the lb., making 108$\frac{84}{100}$ Spanish dollars per picul, an advance on the natural export price of 1,258 per cent.' (*Eastern Archipelago*, vol. iii. pp. 388–390.)

But it would be most unfair to the Government and people of Holland not to mention that this oppressive system has been entirely abolished. As respects the culture of cloves, it is now carried on upon nearly the same plan that has been adopted in Java in respect to the culture of coffee and most other articles, and is not very different from that under which opium is raised in Bengal. A certain extent of land is assigned to each village for the growth of spices; and the produce, which the villagers are bound to raise, is delivered to the Government at certain fixed rates. And provided these are reasonable, which we are assured is the case, we incline to think that this is the best plan that can be pursued. If left to follow their own views, it is all but certain that the natives would confine their attention to the culture of the few articles necessary for their subsistence, and that the production of spices would be either wholly neglected or prosecuted only to a trifling extent. (Temminck, *Possessions Neerlandaises dans l'Inde Archipelagique*, iii. pp. 202—241.)

It was supposed for a lengthened period that cloves were a product peculiar to the Moluccas, and that they could not be raised elsewhere; and this notion seems to have stimulated the Dutch East India Company to obtain the monopoly of the trade. This notion is, however, far from being so well founded as was at first supposed. It is true that the attempts to cultivate the clove-tree in Surinam have not been very successful, and that in Java, where its prospects were believed to be highly favourable, it has not answered. This, however, is not the case with the plantations that have been tried in other places. Those, for example, that have been formed in Prince of Wales Island (formerly *Pulo Penang*) have been singularly successful, and furnish considerable supplies of the finest cloves. (Thornton's *East India Gazetteer*, iv. 175.) They are also pretty extensively grown in the Isle de Réunion (*ci-devant* Isle de Bourbon), at Bencoolen, in Sumatra, and other places.

Of 900,057 lbs. cloves we imported in 1857, no fewer than 873,716 lbs. are said to have been supplied by the British East Indies; but of these, considerable quantities were no doubt derived indirectly from the Dutch possessions, and from the Isle de Réunion, the Mauritius &c.

The Duty on Cloves was considerably reduced in 1819; and there was, in consequence, a considerable increase in the consumption of the article, though not nearly so great as it would have been had it been supplied under a more liberal system. It was farther reduced in 1842 to 6$\frac{3}{10}$*d.* per lb., and in 1853 to 2*d.* It was repealed in 1860. In 1866 we imported 1,213,467 lbs., valued at 18,845*l.*, and exported 1,441,817 lbs. In the London market, in June 1867, the price of cloves varied, Amboyna from 4½*d.* to 5¾*d.* per lb.; Penang and Bencoolen from 9¼*d.* to 1*s.* 0½*d.*; Zanzibar from 3*d.* to 3½*d.* per do.

COACHES. Vehicles for commodious travelling. They have sometimes two, and sometimes four wheels. The body of the coach is generally suspended, by means of springs, upon the framework to which the wheels are attached. They are usually drawn by horses, or impelled by steam. The forms and varieties of coaches are almost innumerable.

1. *Historical Notice.*—Beckmann has investigated the early history of coaches with his usual care and learning. It is certain that a species of coaches were used at Rome; but whether they were hung on springs, like those now made use of

is not certain. After the subversion of the Roman power, horseback was almost the only mode of travelling. About the end of the fifteenth century, however, covered carriages began to be employed by persons of distinction on great occasions. In 1550 there were at Paris only three coaches; one of which belonged to the queen; another to the celebrated Diana of Poitiers; and the third to a corpulent, unwieldy nobleman, René de Laval, lord of Bois-Dauphin. Coaches were seen for the first time, in Spain, in 1546. They began to be used in England about 1580, and were in common use among the nobility in the beginning of the seventeenth century. (*History of Inventions*, vol. i. pp. 111, 127, Eng. trans.)

2. *Manufacture of Carriages.*—This is a department of considerable value and importance. The best built and handsomest carriages are made in London, where only the trade of a coach currier is carried on; but the carriages made at Edinburgh and some other places are also very superior. Down to 1825 a duty was laid on all carriages made for sale; and, supposing that at an average carriages may last for 10 years, an annual supply of from 29,000 to 30,000 new carriages would be required to keep up the stock of those that are now (1866) charged with duty, ex hackney carriages.

3. *Duties on Carriages.*—These duties have been long imposed, and have fluctuated considerably at different periods. The table on page 306 shows the number of four-wheeled and other carriages (exclusive of hackney coaches) charged with duties in 1856 and 1866.

4. *Stage Coaches, Travelling by.*—Owing to the improvement in the breed of horses and the building of carriages, but above all to the extraordinary improvements that were effected within the last half century in the laying out, construction, and keeping of roads, the ordinary rate of travelling by stage coaches, previously to their all but total extinction by railways, was seldom under 9 or 10 miles an hour, stoppages included, and, on some roads, was as much as 11 or 12. The stages having been shortened, this speed was not found to be materially more injurious to the horses than the slower rate at which they previously travelled. The surface of the roads being perfectly smooth, and most sharp turns or rapid descents having been got rid of, travelling even at this rate was comparatively safe; and it was surprising, considering the number of coaches, how few accidents occurred. They were occasioned, for the most part, by the misconduct of the drivers, and principally by their endeavouring to make up by increased speed for time lost at stoppages, or by their attempting to pass each other. It is, perhaps, needless to add that since the opening of railways between all the principal places of the country, travelling by stage coaches no longer exists, except in a few remote districts, and has become a matter of history.

Law as to Stage Coaches.—This is chiefly embodied in the Acts 2 & 3 Wm. IV. c. 120, and 3 & 4 Wm. IV. c. 48.

Definition.—A stage coach is any carriage travelling along the road at the rate of 3 miles or more an hour, without regard to form, provided the passengers pay separate fares for their places therein; but all carriages used wholly on a railway, or impelled by steam, are excepted from this definition. (2 & 3 Wm. IV. c. 120 s. 4.)

Licenses, Duties &c.—The license duties imposed by this Act, and the mileage, or duty on passengers travelling by stage carriages, were repealed in 1853, and the following license duties imposed in their stead, viz.:—

Postmasters:—Licenses to Let Horses for Hire.

	£	s.	d.
Persons keeping 1 horse or 1 carriage - -	7	10	0
Not exceeding 2 ,, 2 carriages - -	12	10	0
4 ,, 5 ,, - -	20	0	0
8 ,, 6 ,, - -	30	0	0
12 ,, 9 ,, - -	40	0	0
16 ,, 12 ,, - -	50	0	0
20 ,, 15 ,, - -	60	0	0
Exceeding 15 carriages - - -	70	0	0
Exceeding 20 horses, then for every additional number of 10 horses, and for any additional number less than 10, over and above 20, or any other multiple of 10 horses, the further additional duty of - - -	10	0	0

The duty of 1s. 2*d.* per mile on every four passengers conveyed by railway, imposed by the 2 & 3 Wm. IV. c. 129, having been found to operate unequally and oppressively, was repealed in 1842 by the 5 & 6 Vict. c. 59. This Act imposed, at the same time, a duty of 5 per cent. on all receipts from passengers (restricted by the 7 & 8 Vict. c. 85 s. 9 to those paying more than 1*d.* per mile) by railways.

An important alteration in the excise laws regulating stage carriages was effected in 1863, 26 & 27 Vict. c. 32, which *inter alia* enacted that the duties then payable for the licenses and stage carriages thereinafter described should be reduced, and in lieu of these duties there should be paid in Great Britain for every original license, to be taken out yearly, to keep a stage carriage to carry not more than 8 passengers at one time, the duty of 10*s.*, and for every supplementary license for the same carriage, which shall be taken out in any case allowed by law during the period for which such original license was granted, the duty of 6*d.*

And for every mile which any such stage carriage shall be licensed to travel, the duty of ¼*d.*

Penalty on carrying more than 8 passengers 10*l.*

Licenses may be granted (at the discretion of the Commissioners of Inland Revenue) for short periods.

	s.	d.
For a carriage with 1 horse, - 1 day -	3	0
2 horses - ,, -	5	0
more than 2 horses ,, -	10	0

If for longer than one day, half the above rates for each additional day, up to six days.

Stage Coaches.—The duties levied on stage coaches by the Act 29 & 30 Vict. c. 36 are as follow:—

For every mile which any stage carriage shall be licensed to travel in Great Britain, the excise duty of ¼*d.* In the Eleventh Report of the Commissioners of Inland Revenue it is stated that the result of the reduction of the duty to ¼*d.* was an increase in the mileage in the year ended June 30, 1867, to 34,054,798, or 1,179,000 over the return of the previous year; but the mileage duty fell from 130,085*l.* to 40,742*l.*

The following are the rates payable for horses &c. let to hire under this Act after July 6, 1866:—

Where the person taking out a license shall keep at one and the same time and let to hire	£	s.	d.
1 horse or 1 carriage only - - -	5	0	0
3 horses and 2 carriages - - -	10	0	0
4 ,, 3 ,, - - -	15	0	0
5 ,, 4 ,, - - -	20	0	0
6 ,, 5 ,, - - -	25	0	0
8 ,, 6 ,, - - -	30	0	0
12 ,, 9 ,, - - -	40	0	0
16 ,, 12 ,, - - -	50	0	0
20 ,, 15 ,, - - -	60	0	0
Exceeding 15 carriages - - -	70	0	0
Exceeding 20 horses, then for each additional number of 10 horses, and for any additional number less than 10, over and above 20, or any other multiple of 10 horses, the further additional duty of - - -	10	0	0

in lieu of the duties now payable on such licenses.

Stage carriage licenses expire on the first Sunday of November.

Stage carriage licenses may be taken out for a quarter of a year. Each quarter to be deemed to commence on April 1, July 1, October 1, January 1, and the license payable being one-fourth of the annual sum due.

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Stage carriage licenses during their currency may be transferred by endorsement.

Want of License &c.—Keeping, using &c. any stage carriage without a license, or without plates, or with recalled plates, or contrary to their licenses, or with improper plates, are offences punishable each by a penalty of 20*l.* (2 & 3 Wm. IV. ss. 27, 28.)

Penalty on Drivers of Coaches without Plates, if not the owner, 10*l.*; if the owner, 20*l.* (Sec. 30.)

Forging Plates, a misdemeanor. (Sec. 32.)

Names of Proprietors &c. to be painted outside, in legible and conspicuous characters; the names of the extreme places between which such carriage shall be licensed to go; and also the greatest number of passengers licensed to be carried inside and outside. Penalty for neglecting this particular, 5*l.* (Sec. 36.)

Certain Carriages not to carry Outside Passengers or Luggage, viz. those the top or roof of which shall be more than 8 feet 9 inches from the ground, or the bearing of which on the ground, that is, the distance between the centres of the tracks of the wheels, shall be less than 4 feet 6 inches. Penalty, 5*l.* (Sec. 37.)

Luggage on the Roof not to exceed a certain Height, viz. 10 feet 9 inches from the ground on a carriage drawn by 4 or more horses; and 10 feet 3 inches from ditto if on a carriage drawn by 2 or 3 horses. Driver of any carriage where such offence is committed liable in a penalty of 5*l.* (Sec. 43.)

The clauses in the Act 2 & 3 Wm. IV. c. 120 relating to the distribution of outside passengers &c. have been repealed by the Act 3 & 4 Wm. IV. c. 48, which substitutes the following in their stead:—

Number of Outside Passengers &c.—Any licensed stage carriage with 4 wheels or more, the top or roof of which shall not be more than 8 feet 9 inches from the ground, and the bearing of which on the ground shall not be less than 4 feet 6 inches from the centre of the tracks of the wheels, if such carriage shall be licensed to carry any number not more than 9 passengers, shall be allowed to carry not more than 5 of such passengers outside; and if licensed to carry more than 9 and not more than 12 passengers, shall be allowed to carry not more than 8 of such passengers outside; and if licensed to carry more than 12 and not more than 15 passengers, shall be allowed to carry not more than 11 of such passengers outside; and if licensed to carry more than 15 and not more than 18 passengers, shall be allowed to carry not more than 12 of such passengers outside; and if licensed to carry any greater number than 18 passengers, shall be allowed to carry not more than 2 additional passengers outside for every 3 additional passengers which such carriage shall be so licensed to carry in the whole; provided that in no case a greater number of passengers shall be carried on the outside than is authorised by the license. If more be carried, driver to forfeit 5*l.* (Sec. 2.)

Driver, Guard, and Children in lap not to be counted as passengers: 2 children under 7 years reckoned as one passenger. (Sec. 3.)

No person to sit on Luggage on the Roof, nor more than 1 person besides driver on the box. Penalty 5*l.* (Sec. 14.)

Justices, Road-surveyors, Toll-keepers &c. authorised to cause stage carriages and luggage to be measured; any passenger authorised to require the driver to stop at a toll-gate and to require the gate-keeper to measure the carriage and luggage, and to count the number of inside and outside passengers. Penalty on driver refusing to stop, 5*l.*; on gate-keeper neglecting to provide a measure, or refusing to measure and count, 5*l.* (2 & 3 Wm. IV. c. 120 s. 45.)

Conduct of Drivers &c.—Drivers quitting the box before a proper person shall stand at the head of the horses; such person leaving the horses before some other person shall be placed in like manner, or have the command of the horses, or before the driver has resumed his seat on the box and taken the reins; driver allowing any passenger or other person to drive for him, or leaving the box without any reasonable occasion, or for a longer time than is absolutely necessary; concealing or misplacing plates; guard discharging fire-arms unnecessarily; driver, conductor, or guard neglecting to take care of luggage; asking more than the proper fare; neglecting to account to his employer; or assaulting or using abusive language to any person having travelled, or about to travel, as a passenger, or to any person accompanying the same; shall in each and every such case forfeit 5*l.* (Sec. 47.)

Drunkenness &c.—Drivers, conductors, or guards having the care of any stage carriage, endangering through intoxication, negligence, or wanton and furious driving, the safety of any passenger or other person, or the property of the owner of such carriage or other person, shall each person so offending forfeit 5*l.* (Sec. 49.)

Owners liable for penalties, when driver or guard is not known or cannot be found. (Sec. 49.)

Mail coaches are under the regulations of the Postmaster-General; and the enactments in this Act as to plates, inscriptions, outside passengers, and luggage do not extend to them; but the other regulations as to the conduct of drivers, guards &c. do apply to them. Mail coaches have only four outside passengers: one on the box, and three immediately behind the box. No passenger allowed to sit beside the guard. The rate of travelling, the time allowed for stoppages, the quantity of luggage to be carried &c. are all regulated by the Postmaster-General.

Rates of Duty on Carriages.—These are fixed by the 16 & 17 Vict. c. 90 as follows, viz.:—

	Annual Duty for each Carriage £ s. d.
For every such carriage with 4 wheels:	
Where the same shall be drawn by 2 or more horses or mules	3 10 0
And where the same shall be drawn by 1 horse or mule only	2 0 0
For every carriage with 4 wheels, each being of less diameter than 30 inches:	
Where the same shall be drawn by 2 or more ponies or mules, neither of them exceeding 13 hands in height	1 15 0
And where the same shall be drawn by 1 such pony or mule only	1 0 0
For every carriage with less than 4 wheels:	
Where the same shall be drawn by 2 or more horses or mules	2 0 0
And where the same shall be drawn by 1 horse or mule only	0 15 0
And where the same shall be drawn by 1 pony or mule only, not exceeding 13 hands in height	0 10 0
And where any such carriage shall be kept and used solely for the purpose of being let for hire	One half of the above-mentioned duties respectively
For every carriage used by any common carrier principally and bonâ fide for and in the carrying of goods, wares, or merchandise, whereby he shall seek a livelihood, where such carriage shall be occasionally only used in conveying passengers for hire, and in such manner that the stage carriage duty or any composition for the same shall not be payable under any license by the Commissioners of Inland Revenue:	
Where such last-mentioned carriage shall have 4 wheels	2 6 8
And where the same shall have less than 4 wheels	1 6 8

Rules for charging the said Duties.

1. The said duties to be respectively charged for every coach, landau, chariot, chaise, sociable, caravan, curricle, chair, or car, and for every other carriage constructed for the like purposes, by

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whatever name or names the same shall be called or known, and upon all such carriages hired by the year or any longer period, and upon all such carriages kept to be let out to hire.

2. The duty on carriages kept to be let out to hire to be paid by the person keeping the same for such purpose, and to be charged on the greatest number of such carriages which shall have been kept at any one time, and which shall have been actually let during the preceding year; provided that if a due return thereof shall not be made by the hirer of any such carriage, according to the directions of the Acts in force, stating therein the name and place of abode of the person letting the same to hire, such hirer shall be chargeable with the said duties.

Numbers of Stage and Hackney Carriages.—In the year ending March 31, 1867, 9,099 stage and hackney carriages paid Excise license duty in Great Britain, to the amount of 13,174*l.*, the proportion being about 36 in England for 1 in Scotland. The duty, for what reason it is not easy to divine, does not extend to Ireland. (For an account of HACKNEY COACHES, see the term; and Railway Carriages, see RAILWAYS.)

In 1866 we exported 798 carriages and carts, valued at 70,698*l.*, besides 1,057 railway passenger carriages of the value of 165,711*l.*, and 668 railway waggons and trucks worth 37,846*l.*

During the years ended April 5, 1856 and 1866, carriages were charged under Assessed Taxes, and produced as follows, viz.:—

	1856		1866	
	Articles Charged	Amount of Duty	Articles Charged	Amount of Duty
		£ s. d.		£ s. d.
Carriages with 4 wheels, drawn by 2 or more horses -	24,735	83,182 15 0	38,375	110,724 5 0
1 horse - -	47,761	54,794 10 0	79,558	144,590 10 0
with less than 4 wheels, drawn by 2 or more horses - - - - -	245	477 0 0	200	595 0 0
1 horse -	147,050	105,220 7 6	178,541	126,197 5 0
Ditto, used by carriers - - - -	5,471	9,199 13 4	6,772	11,123 6 8
Totals - - -	225,240	252,814 5 10	297,456	393,830 6 8

COAL (Dutch, steenkoolen; Fr. charbon de terre; Ger. steinkohlen; Ital. carboni fossili; Lat. lithanthrax; Port. carvoes de terra, ou de pedra; Russ. ugolj, kamennoe; Span. carbones de tierra, carbones de piedra; Swed. stenkol). This highly important mineral is recognised by mineralogists under three heads: 1. Lignite, brown or boghead coal; 2. Common or Bituminous Coal; 3. Anthracite. The second of these kinds contains an endless number of varieties.

Lignite.—Bovey coal, so called from its being worked at Bovey Tracey in Devonshire. It is of comparatively little importance, being used chiefly for pottery. Some of the varieties of lignite are of considerable value, as the boghead or brown cannel of Scotland, and similar products in Prussia and Austria.

Bituminous coal is the commonest kind. It is very widely distributed in Great Britain, being worked from Somerset to Sutherlandshire.

The Somerset and Gloucester collieries are those of the Forest of Dean and the Bristol coal-field. The produce of this region in the year 1864 was, inclusive of the Devonshire anthracite of Bideford, nearly 2,000,000 tons. The Bristol coal-field contains about 50 square miles.

South Wales Field.—This district, which supplied nearly 7,000,000 tons of coal and anthracite during the year 1864, is of great extent and thickness. It has been computed by S. W. Logan and Sir H. de la Bêche that the thickness of these carboniferous strata is not less than 11,000 to 12,000 feet.

Shropshire.—This contains the Coalbrook-dale field. The total thickness of the coal is from 16 feet to 55. Produce in 1864, 1,150,000 tons.

Stafford and Worcestershire.—This coal-field, which has been described minutely by Mr. Beete Jukes (see the *Birmingham Hardware Industries*), contains a peculiar and important bed of thick coal. The area is about 130 square miles, and the bed of thick coal is about 30 feet in thickness. The produce of the coal in the two counties was 11,459,851 tons in the year 1864.

Derbyshire and Nottinghamshire.—The produce from the first-named county was in the same year 4,470,750, that from the latter 796,700.

Leicestershire and Warwickshire.—The best coal of this district is that at Ashby de la Zouch. The produce of Leicestershire was in the same year 890,600 tons. The Warwickshire coal, between Tamworth and Coventry, supplied 754,000 tons.

Yorkshire.—This county comprises the important collieries of Barnsley, Halifax, Leeds, Bradford, Huddersfield &c. The produce was 8,809,600 tons.

Lancashire.—The area of this coal-field is about 250 square miles. In certain districts the aggregate thickness of the coal strata is 93 feet. It contains the thick and valuable seams of cannel coal at Wigan. The produce was 11,530,000 tons.

Cheshire.—Produce in 1864, 822,750 tons.

Monmouthshire.—Produce in 1864, 4,028,500 tons.

Cumberland.—This district is a narrow region about Whitehaven; the workings in some parts being carried under the sea. The produce in 1864 was 1,380,795 tons.

Durham and Northumberland.—This is the widest and most important area from which coal has been extracted, and that from which it has been longest obtained. The produce in 1864 was 23,248,367 tons.

North Wales.—This district comprises the coal measures of Flintshire and Denbighshire. In 1864 it supplied 1,987,060 tons.

Scotland.—There are three principal coal-basins in Scotland: 1, that of Ayrshire; 2, that of Clydesdale; 3, that of the valley of the Forth. It supplied 12,400,000 tons in 1864.

Ireland.—Although the Irish supply is at present very small, the island having produced only 125,000 tons in 1864, the area over which coal is distributed is very large. Anthracite is found in the Leinster and Munster districts, bituminous coal in Connaught and Ulster.

Anthracite.—This exceedingly important kind of fuel, which is a modification of coal, is extensively used in blast furnaces, for which it is especially fitted, for its great heating power. It contains very little volatile matter, and the best varieties have only a slight amount of ash. In fact, it is nearly pure carbon igniting with some difficulty, and giving out intense heat during combustion. Its localities in the United Kingdom are Bideford, the western division of the South Wales

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coal-field, and Ireland. Fifty years ago it was considered to be incombustible refuse, and was thrown away. (For particulars as to the value of anthracite as a fuel for furnace purposes, see Ure's *Dictionary*.)

The total coal area of the British Islands, according to Mr. Hunt, the Keeper of Mining Records, is 12,800 square miles, and therefore amounts to $\frac{1}{16}$ of the whole surface. In the United States the proportion is still higher, being according to the same authority $\frac{2}{15}$ of the whole. In France the coal-bearing strata are 1·100 of the area, in Belgium 1·22, in Bohemia 1·20, in British North America also 1·20, in Spain 1·52, in Prussia 1·90. But it is believed that the produce of the British mines is three or four times as much as that derived from all these countries put together.

The following observations as to the supply of coal in this country, and the relation in which it therefore stands to industry, have been supplied to the editor by his friend Mr. Phillips, the eminent Professor of Geology in the University of Oxford:—

'Coal is found and worked in our islands in two systems of strata—the *oolitic rocks*, which yield very little, and that of small value; and the *carboniferous rocks*, justly so named, which include mountain limestone, millstone grit, and proper coal formation, and occupy in the British Isles about 29,000 square miles. The total thickness of these strata may be taken as not exceeding 15,000 feet. In the northern part of England, and the southern part of Scotland, coal is found and worked in the midst of the mountain limestone strata, occasionally with valuable ironstone. In the North of England, between the Tweed and the Trent, coal is found and worked, but nowhere abundantly, in the millstone grit series.

'But in general, in all parts of Great Britain where coal is now obtained in large quantity, it is from the upper part, called exceptionally the true coal formation. Ireland, with 16,000 square miles of mountain limestone and millstone grit, has only a few square miles of valuable coal beds, near Kilkenny and Castle Comer, about the sources of the Shannon, in Tyrone, and at Ballycastle. Scotland possesses the largest coal-field in the British islands, about 1,600 square miles in the basin of the Forth and Clyde. This field is very rich both in coal and iron—is productive in the limestone above, as well as in the sandstone series below.

'The carboniferous system of the north of England, between the Tweed and the Trent, occupies between 9,000 and 10,000 square miles. With the exceptions of the limestone districts of Derbyshire and Yorkshire, coal is found and has been worked at intervals throughout this large tract; but the really productive tracts do not exceed 1,600 square miles, to which we may add, for coal known to occur or very likely to be found on the eastern borders, in Durham, Yorkshire, Derbyshire, and Nottinghamshire, about 600 more; in all 2,200 square miles. Of the other coal-fields of Great Britain, the largest is that in South Wales, about 900 square miles. The remainder, in Anglesea, Flintshire, the vale of the Severn, and the midland coal-fields, may be assumed at 400 square miles, or, including very probable extensions, at 700 square miles.

'Thus we have for a grand total, of productive coal area *actually known* about 4,500 square miles, and highly *probable extensions* 900 square miles, making a total of 5,400 square miles.

'Conjecturally we may believe that in Yorkshire, Derbyshire, and Nottinghamshire, under the plain of Cheshire, between the midland coal-fields, and in the valleys of the Severn and Avon, as much as 600 square miles of coal will be found workable. This makes in all 6,000 square miles of available British coal.

'The greatest total thickness of coal in any district of Britain probably occurs in South Wales—120 feet. In most parts of England it falls below 60 feet. The thickness is not to be assumed as equal over the whole area: in some parts the coal beds are in such condition as to faults, depth, and earlier workings as to be quite unworkable. Many of the beds are too thin to be workable. For these reasons we may take $\frac{2}{3}$ of the total quantity existing as really attainable.

'Sixty feet of coal existing, our estimate of available thickness is 40 feet, from which $\frac{1}{4}$ must be deducted for old workings and waste. 30 feet remain, which, on the usual calculation of 1,000 tons per acre for each foot in thickness, gives 30,000 tons per acre = 19,200,000 tons per square mile = 115,200,000,000, as the total quantity which according to reasonable estimates can ever be reached in these islands. $\frac{1}{4}$ of this quantity (1,500 square miles) has been admitted as probable; the remainder may be regarded as certainly available, but at *prices continually growing higher and higher* as the depths of the works continually augment, and as coal beds less in value or more expensive in working come into demand.'

As to foreign coal-fields, Mr. Phillips says:—

'Most of the coal of Europe, excepting our own, lies in tracts of no great extent, at considerable distances from the sea. The valuable coal-field of Belgium continued across the Rhine to Elberfeld is one of the nearest to shipping. Coal in fact reappears on the same line at Boulogne; but whether there be a continuous deposit from the vicinity of Valenciennes to near this port is not known: if it be so, the depth would probably be found in most parts too great for working. The principal coal-field of France, St. Etienne, is covered with industrial establishments, and is limited to a small area, viz. 100 square miles.

'The coal-fields of Saarbruck, Silesia, and Bohemia are all of considerable extent; Russia has several tracts of inferior coal south of Moscow; Poland a small basin of good thick coal; Spain some considerable tracts in the Asturias, and Portugal a small area on the Douro. The whole of these European fields would probably be found on strict enquiry not to contain so much coal as the coal-measures of Great Britain.

'In the Black Sea, at Heraclea, a small quantity of coal is known; in India several pretty large scattered tracts, some fairly productive. The coal of Borneo is used for steam purposes, and increased supplies will soon be drawn from New Zealand, Queensland, and New South Wales. Japan yields much coal, accessible from the sea; China contains coal far inland; Africa has coal on the Zambesi.

'British America has coal in the eastern provinces, especially in Nova Scotia and New Brunswick, the thickest beds being at Pictou. The United States possess tracts of productive coal-measures exceeding those of all the rest of the world, as at present known. The greatest fields of coal are on the western side of the Appalachian chain, *a thousand miles from the sea*; but a small tract of good coal appears on the eastern side of the range, near Richmond. Brazil, lately under examination by Agassiz, contains a large tract of coal in the interior.

'On the whole it appears that Britain, and the

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islands under the control of Britain, must be looked to for exports of coal "dum stabit fortuna," and that we can never hope to feed our own furnaces and work our own looms by the aid of fuel from other parts of the world.'

The great value of anthracite coal as a means for supplying heat is illustrated by the following results of Dr. Fyfe's experiments on the comparative powers of Scotch bituminous coal with anthracite:—

Fuel	Pounds burnt per hour	Duration of trial, hours	Temperature	Pounds of water evaporated from initial temperature by 1 lb. of coal	Pounds of water at 212° from 1 lb. of coal	Coal per hour on 1 sq. foot of grate	Time in seconds of consuming 1 lb. coal
Middlerig Scotch coal	81·33	9	41°	6·66	7·74	10·00	44·27
Anthracite	47·94	8½	45°	8·73	10·10	5·88	75·09

The number of collieries in existence in the year 1866 was 3,188, as contrasted with 2,397 in 1853. There are twelve inspectors of collieries: one for Northumberland, Cumberland, and the North division of Durham; one South Durham; one Yorkshire; one Derby, Notts, Warwick, Leicester; one Cheshire, Shropshire, North Stafford; one South Stafford; one North and East Lancashire; one St. Helen's and Wigan district in Lancashire, and for North Wales; one South-west of England and South-east Wales; one Glamorganshire and South-western Wales; one for the Western division of the Scotch field, and one for the Eastern. There is no inspector for Ireland.

Origin of Coal. Phenomena of Combustion &c.—Coal beds, or strata, lie among those of gravel, sand, chalk, clay &c., which form great part of the present surface of the earth, and have been evidently accumulated during remote ages by the agency of 'moving water,' similar to accumulations now in process of formation at the mouths of all great rivers, and in the bottoms of lakes and seas. When these strata had, by long contact and pressure, been solidified into a rocky crust to the earth, this crust, by subsequent convulsions of nature, of which innumerable other proofs remain, has been in various parts broken and heaved up above the level of the sea, so as to form the greater part of our dry or habitable land; in some places appearing as lofty mountains, in others as extended plains. In many situations the fracture of the crust exhibits the edges of the various distinct strata found in a given thickness of it. When the fracture has the form of a precipitous cliff, these edges appear one above another, like the edges of piled planks or books; but often also they are met with in horizontal succession along a plain, as the edges of a pile of books laid down upon a table; or they may be seen surrounding hills of granite, which protrude through them. Coal, and other precious minerals, were first discovered at the fractures of the strata above described, and by the continued digging of the strata or veins the vast excavations called mines have been gradually formed. When it was at last discovered that the mineral strata occur every where in nearly the same order or succession, so that the exposure of a portion of one stratum is a good indication of the other strata being near, the operations of the miner became of much surer result, and expensive boring through superior strata might be prudently undertaken, even where no specimen of the desired but more deeply buried substance had yet been seen.

Before the discovery of coal-mines, or the invention of cheap means of working them, wood was generally used as fuel; and in many countries where the arts have not much flourished, it continues to be principally employed as such. Coal, however, for many purposes, answers much better than wood; and, in fact, the two, although in appearance so different, are in their ultimate composition very nearly allied. They both have for their basis or chief ingredient the substance called by the chemists *carbon*, and for their chief other ingredient the substance called *hydrogen*, which, when separated, exists in the form of air or gas. The hydrogen is easily driven away or volatilised from either coal or wood by heating in a close place; and when it is caught and preserved, it forms the gas now used to light our streets and public buildings. What remains of coal, after being so treated, is the substance called *coke*; and what remains of wood, similarly treated, is the substance called *charcoal*—both being nearly pure carbon, but differing as to the states of compactness. This kindred nature of coal and wood does not surprise when the fact is known that much of our coal is really transformed wood; many coal-mines being evidently the remains of antediluvian forests, swept together in the course of the terrestrial changes already alluded to, and afterwards solidified to the state now seen. In these mines, the species of the plants or trees which formed them are still quite evident in abundant specimens, mixed often with the remnants of the animals which inhabited the earth at the same time. The extensive peat-mosses now existing on the surface of the earth consist chiefly of vegetable remains in an early stage of the kind of change which terminates in the formation of coal.

A substance which, like coal or wood, cheaply answers the purpose of producing great heat and light is called fuel, and the phenomenon of that production is called combustion. Now, modern discovery has ascertained that, in every instance, combustion is merely an appearance which accompanies the mutual action, when very intense, of two substances in the act of forming an intimate or chemical union. Where that act is less energetic, the heat produced is less intense, and there is no light. Thus, water and sulphuric acid when mixing produce great heat, but no light. Water and quicklime produce still greater heat; sufficient, it is known, to set fire to a ship in which the mixture unfortunately occurs. It is an occurrence of the same kind when heat is evolved from an acid dissolving a metal; and it is still of the same kind when a mass of coal or wood in a fire-grate is, with the appearance of combustion, undergoing solution in the oxygen of the atmosphere. In this last case, however, the temperature of the fuel is, by the very intense action, raised so much that the fuel becomes incandescent or luminous; an appearance assumed by every substance, whether burning or not—of a stone, for instance, or piece of metal—when heated beyond the temperature indicated by 800° of Fahrenheit's thermometer. The inferior degrees of such incandescence are called *red heat*; the superior degrees, *white heat*. The reason why any strongly heated body throws out light we cannot yet explain. When a quantity of wood or coal has been burned to ash in a confined portion of air, the whole of the fuel, vanished from view, is held in solution by the air, as salt is held in water, and is again recoverable

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by the art of the chemist. The phenomenon of common fire, or combustion, then, is merely the fuel being chemically dissolved in the air of the atmosphere. If the fuel has nothing volatile in it, as is true of pure carbon, and nearly true of coke and charcoal, it burns with the appearance of red-hot stones; but if there be an ingredient, as hydrogen, which, on being heated, readily assumes the form of air, that ingredient dilates before burning, and in the act produces the more bulky incandescence called flame.

The two great purposes which combustion serves to man are to give light and heat. By the former he may be said to lengthen considerably the duration of his natural existence: for he converts the dismal and almost useless night into what, for many ends, serves him as well as day; and by the latter, besides converting winter into any climate which he desires, he is enabled to effect most important mutations in many of the substances which nature offers for his use; and, since the invention of the steam-engine, he makes heat perform a great proportion of the work of society. From these considerations may be perceived the importance of having fire at command; and, as the cheapest means of commanding fire, of having abundance of coal.

As respects the supply of coal, Britain is singularly favoured; a large portion of the surface of the country having under it continuous and thick beds of this valuable mineral—vastly more precious to us than would have been mines of the precious metals, like those of Peru and Mexico; for coal, since it has been applied to the steam-engine, is really hoarded power, applicable to almost every purpose which human labour directed by ingenuity can accomplish. It is the possession of her coal-mines which has rendered Britain, in relation to the whole world, what a city is to the rural district which surrounds it—the producer and dispenser of the various products of art and industry.

The kinds or differences of coal depend on their comparative proportions of carbon and hydrogen, and of earthy impurities totally incombustible. While some species of coal contain nearly a third of their weight of hydrogen, others have not a fiftieth part. The former kinds are flaming coal, pleasing in parlour fires, and fit for the manufacture of gas. The other kinds—some of the Welsh stone coal, for instance—will only burn when in large heaps, or when mixed with more inflammable coal: they have no flame. When flaming coal is burned where a sufficiency of oxygen cannot pass through or enter above the fire, to combine with and consume the hydrogen as fast as it rises, a dense smoke is given out, consisting of hydrogen and carbon combined in the proportions which form a pitchy substance. The Welsh coal above mentioned can as little give out smoke as flame, and hence is now much used in great breweries, and in the steam-engine furnaces of towns, where smoke is a serious nuisance. The foliated or cubical coal, and slate coal, are chiefly used as fuel in private houses; the caking coals, for smithy forges; the slate coal, from its keeping open, answers best for giving great heats in a wind furnace, as in distillation on a large scale; and glance coal, found in Staffordshire, is used for drying grain and malt. The coals of South Wales contain less volatile matter than either the English or the Scotch; and hence, when employed in smelting the ore, produce a greater quantity of iron.

The following account of the produce of coal in England is taken from Mr. Hunt's *Mineral Statistics for* 1866:—

Summary of Coal Produce of the United Kingdom for 1866.

	Tons.		Tons.
Durham and Northumberland	25,194,550	Shropshire	1,220,700
Cumberland	1,490,181	Gloucestershire, Somersetshire, and Devonshire	1,850,700
Yorkshire	9,714,700	Monmouthshire	4,415,000
Derbyshire	4,750,520	South Wales	9,576,443
Nottinghamshire	1,683,360	North Wales	2,087,000
Leicestershire	806,540	Scotland	12,667,049
Warwickshire	755,000	Ireland	123,750
Staffordshire and Worcestershire	12,208,580	Total produce of the United Kingdom	101,630,544
Lancashire	12,320,500		
Cheshire	825,000		

Table showing the Increase in the Number of Collieries in the 10 *Years since* 1856.

Counties	1856	1866
ENGLAND.		
Durham and Northumberland	250	297
Cumberland	48	70
Cheshire	53	70
Lancashire	309	345
Yorkshire	204	347
Derbyshire	126	159
Leicestershire	14	11
Warwickshire	16	15
Nottinghamshire	24	25
North Staffordshire	123	197
South Staffordshire and Worcestershire	425	512
Shropshire	55	65
Gloucestershire	56	70
Somersetshire	20	35
Devonshire	2	0
WALES.		
Pembrokeshire	17	30
Carmarthenshire	52	80
Glamorganshire	169	254
Usk and Monmouthshire	65	100
Flintshire	42	40
Denbighshire	34	35
Anglesea	5	5
SCOTLAND.		
Lanarkshire	155	206
Ayrshire	93	97
Fifeshire	60	65
Clackmannan	10	5
Haddingtonshire	11	15
Edinburghshire	14	15
Linlithgowshire	15	16
Stirlingshire	35	47
Dumbartonshire	11	16
Renfrewshire	11	10
Other Counties	6	5
Ireland	22	39
Total	2,815	3,185

General Summary of the Quantities of Coal brought into the London District, Coastwise, by Inland Navigation, and Railways.

Year	Coastwise	Inland Navigation	Total
	tons	tons	tons
1834	—	—	2,080,547
1835	—	—	2,209,816
1836	—	—	2,709,551
1837	2,636,997	2,324	2,639,321
1838	2,581,085	1,685	2,582,770
1839	2,626,703	12,053	2,638,256
1840	2,568,899	22,188	2,592,087
1841	2,909,144	35,591	2,944,738
1842	2,723,280	31,439	2,754,719
1843	2,678,749	34,681	2,713,431
1844	2,490,910	72,256	2,563,166
		Railway and Canal	
1845	3,392,512	66,689	3,461,199
1846	2,920,362	39,987	2,960,349
1847	3,280,480	41,987	3,322,387
1848	3,418,310	60,879	3,479,189
1849	3,339,146	47,810	3,386,786
1850	3,545,304	85,579	3,630,883
1851	3,496,342	204,641	3,697,983
1852	3,330,428	414,917	3,745,345
1853	3,373,956	651,729	4,025,685
1854	3,399,561	977,210	4,376,771
1855	3,016,869	1,161,086	4,177,955
1856	3,119,883	1,271,700	4,391,584
1857	3,153,469	1,253,178	4,406,647
1858	3,496,446	1,210,985	4,707,431
1859	3,799,170	1,398,134	5,197,304
1860	3,373,377	1,497,138	5,070,515
1861	3,367,002	1,681,083	5,048,085
1862	3,443,402	1,524,947	4,967,349
1863	3,356,174	1,784,713	5,140,887
1864	3,116,703	2,551,512	5,668,215
1865	3,161,683	2,741,588	5,903,271
1866	3,035,193	2,980,073	6,015,266

The number of persons (all males) engaged in coal-mining was returned in the census of 1861

at 246,613. It is probable that although within the last five years the produce of coal-mines has materially increased, no great addition has been made to the number of coal-miners, since machinery is being employed for cutting coal to an extent which becomes annually greater. To these persons, however, we must add those who are engaged in the coal trade, the number of whom, according to the same authority, including coal-factors, contractors, coal-heavers, dealers &c., is 32,424.

Progressive Consumption of Coal down to 1866.—The following table exhibits the increase in the production of coal in Great Britain alone, and of the export from and the consumption in the United Kingdom, from 1855 to 1866:—

Year	Coals			Increase and Decrease of Home Consumption
	Raised *	Exported	Retained for Home Consumption	
	tons	tons	tons	tons
1855	61,507,459	4,976,902	59,330,557	—
1856	66,508,813	5,872,779	60,629,036	1,298,479+
1857	65,274,047	6,737,718	58,536,329	2,092,707—
1858	64,887,899	6,529,483	58,358,416	177,913—
1859	71,859,465	7,468,949	64,892,516	6,491,100+
1860	79,925,273	7,321,834	72,601,441	7,748,925+
1861	85,512,141	7,855,113	77,657,029	5,055,588+
1862	83,510,838	8,301,854	75,202,986	2,444,043—
1863	88,185,465	8,775,212	79,380,253	4,781,267+
1864	92,662,873	8,809,808	83,852,965	5,962,712+
1865	98,130,587	9,170,477	88,980,110	5,127,145+
1866	101,506,794	9,648,216	91,858,578	2,878,468+

* Ireland is omitted.

It will be plain from this table that the consumption of coal has increased within eleven years by nearly one-third. The importance of coal as a necessary of life, and the degree in which our superiority in arts and manufactures depends upon our obtaining supplies of it at a cheap rate, have naturally attracted a good deal of attention to the question as to the period when the exhaustion of the coal-mines may be anticipated. Frequent discussions on the subject led, at length, to the appointment of a Royal Commission, which is still (1868) pursuing its enquiries.

The test of scarcity is price. If the increased demand of a limited quantity is felt to so far affect supply as to threaten a check to its fulness, the price of the article inevitably rises. The more necessary the commodity is, the more incessant and undoubted is the demand, the more sensitive is the market. It does not appear, however, that the price of coal, in the London district at least, has been sensibly affected by the consumption. The table is taken from Mr. Hunt's *Mineral Statistics*.

The presence of coal in any estate is of course of great advantage to the owner, and it may be the case that even at present prices, which do not seem to suggest any notable increase during the last thirty-four years, the price has been kept down by the eagerness of colliery proprietors to realize the benefits of the property they possess. Still, even though this motive be operative, it would not be strong enough to hide the manifest advantage of checking supply and so of raising prices. Whatever may be the facts of the case, it is clear that at present the owners of coal-mines do not anticipate that they will be benefited in the future by diminishing the quantity sent to the market.

At some time, which will probably be not very remote, the annual produce and consumption of coal will reach its maximum, and scarcity will be felt. Such a scarcity will induce a rise in price, and with it an economy of the article. This economy, often a countervailing force to the scarcity, will be exhibited either in an abandonment of some forms of consumption, or in the discovery of processes by which the same result will be achieved with far less expenditure of fuel. The latter economy has often been realised even under present conditions. Small coal or waste, which used to be thrown aside as worthless, is now found to be valuable; improvements in the construction of furnaces have made it possible to consume smoke and inflammable gases which were previously lost; and most important of all, the use of the hot blast in iron-smelting has reduced the expenditure of coal in this branch of manufacture to at least ⅓ the quantity formerly used. Nay, the purification of cast iron in the Bessemer process is to a very great extent effected by the combustion of the impurities present in the raw material. In short it may be laid down as a general canon in prices, that the scarcity of any commodity, employed at once for objects of primary necessity and of merely economical importance, will affect the latter so continuously as to arrest consumption, and finally to limit it to the former use.

Prices of Coal at the London Coal Market during the Year 1866.

Week ending	Newcastle			Sunderland	Hartlepool
	Walls End	Tanfield	Hartley	Eden Main	W. E. Hetton
	s. d.	s. d.	s. d.	s. d.	s. d.
January 5	17 0	—	16 9	—	17 9
12	—	—	18 3	19 3	19 3
19	—	—	18 3	18 9	19 0
26	16 3	15 3	16 9	16 9	17 9
February 2	15 9	15 3	16 3	16 0	16 6
9	—	15 3	16 3	15 9	16 3
16	15 3	—	16 3	16 0	16 3
23	15 9	15 0	16 0	16 6	17 0
March 2	16 6	15 0	15 6	16 6	17 9
9	15 9	15 0	15 9	16 6	16 9
16	15 6	—	15 9	—	16 3
23	15 6	—	16 0	—	16 3
30	—	—	16 6	17 0	—
April 6	15 9	14 6	17 3	16 6	16 6
13	16 3	—	17 0	—	17 6
20	16 6	—	15 0	16 9	17 3
27	16 6	14 6	17 3	16 6	17 0
May 4	17 0	—	17 3	17 0	17 3
11	16 6	—	17 3	17 0	17 6
18	16 3	—	17 3	16 9	17 0
25	16 3	14 6	17 3	16 9	17 3
June 1	16 0	14 6	17 3	—	17 0
8	15 9	—	17 0	—	16 6
15	16 6	—	17 3	16 9	17 6
22	16 9	—	17 0	17 3	17 9
29	16 9	—	17 0	—	18 0
July 6	—	—	17 3	18 0	—
13	—	14 6	17 3	19 3	19 6
20	18 9	14 6	17 6	19 6	19 9
27	—	—	17 6	19 0	19 0
August 3	—	—	17 6	18 9	18 9
10	17 6	—	17 9	18 6	18 9
17	—	—	17 9	18 9	19 0
24	18 0	—	17 9	18 9	19 0
31	—	—	18 0	20 0	20 6
Sept. 7	—	—	18 0	20 9	21 3
14	—	15 6	18 3	21 0	—
21	20 6	15 6	—	21 0	21 6
28	20 6	—	18 0	20 9	21 0
October 5	19 6	—	18 0	—	—
12	19 3	—	17 9	—	20 6
19	19 6	—	17 9	—	20 6
26	19 3	—	17 9	—	19 9
Nov. 2	20 6	—	17 3	20 6	21 0
9	18 9	—	16 6	19 9	20 6
16	20 0	—	17 3	—	—
23	—	—	17 9	21 0	21 0
30	20 0	—	17 9	21 3	21 6
Dec. 7	19 6	—	18 0	21 0	—
14	19 0	—	18 0	20 0	20 0
21	18 6	—	18 0	—	19 6
28	17 9	15 6	17 9	18 6	—
Average for the year	17 9	15 0	17 0	18 3	18 6
Highest average of weekly sales	20 6	15 6	18 3	21 3	21 9
Lowest average of weekly sales	15 3	14 6	15 6	15 9	16 3

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The Prices of Newcastle and Sunderland Coal in the London Market during each Month of the Years 1832 to 1866, both inclusive.

Year	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1832	24 6	24 0	22 9	24 0	24 6	25 0	24 6	25 0	23 9	25 6	24 6	25 0	22 6	25 6	22 6	25 6	23 6	25 6	23 0	26 0	23 0	26 0	24 3	25 6
1833	24 0	24 3	24 8	25 6	25 6	25 6	25 6	25 6	24 8	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 0	25 9
1834	24 0	25 6	25 0	26 0	25 6	25 6	25 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6
1835	25 0	25 0	25 0	25 6	25 6	25 6	25 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6
1836	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6	24 6	25 6
1837	27 6	26 6	26 0	26 0	26 0	26 0	26 0	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0
1838	27 0	26 0	26 0	26 0	26 0	26 0	26 0	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0
1839	26 6	26 0	26 0	26 0	26 0	26 0	26 0	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0
1840	25 0	25 0	25 6	26 0	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6
1841	25 9	25 0	25 0	25 0	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6	25 6
1842	24 0	24 0	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6	24 6
1843	24 6	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0
1844	26 9	26 0	26 0	26 0	26 0	26 0	26 0	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0
1845	27 0	26 0	26 0	26 0	26 0	26 0	26 0	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0
1846	26 0	26 0	26 0	26 0	26 0	26 0	26 0	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0
1847	29 0	27 0	27 6	28 0	28 0	28 0	28 0	28 0	27 6	28 0	27 6	28 0	27 6	28 0	27 6	28 0	27 6	28 0	27 6	28 0	27 6	28 0	27 6	28 0
1848	26 6	26 0	26 0	26 0	26 0	26 0	26 0	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0
1849	26 0	26 0	26 0	26 0	26 0	26 0	26 0	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0
1850	26 0	26 0	26 0	26 0	26 0	26 0	26 0	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0
1851	27 0	26 0	26 0	26 0	26 0	26 0	26 0	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0
1852	27 0	26 0	26 0	26 0	26 0	26 0	26 0	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0	25 6	26 0
1853	28 0	27 0	27 0	27 0	27 0	27 0	27 0	27 0	26 6	27 0	26 6	27 0	26 6	27 0	26 6	27 0	26 6	27 0	26 6	27 0	26 6	27 0	26 6	27 0
1854	43 0	42 6	40 0	39 0	37 6	36 0	36 0	34 0	34 0	33 0	33 0	32 0	32 0	31 0	31 0	30 0	30 0	29 0	29 0	28 0	28 0	27 0	28 0	27 0
1855	36 0	34 0	34 0	33 0	33 0	32 0	32 0	31 0	31 0	30 0	30 0	29 0	29 0	28 0	28 0	27 0	27 0	26 0	26 0	25 0	25 0	24 0	25 0	24 0
1856	31 6	31 0	31 0	30 0	30 0	29 0	29 0	28 0	28 0	27 0	27 0	26 0	26 0	25 0	25 0	24 0	24 0	23 0	23 0	22 0	22 0	21 0	22 0	21 0
1857	30 0	29 0	29 0	28 0	28 0	27 0	27 0	26 0	26 0	25 0	25 0	24 0	24 0	23 0	23 0	22 0	22 0	21 0	21 0	20 0	20 0	19 0	20 0	19 0
1858	23 6	23 0	23 0	22 0	22 0	21 0	21 0	20 0	20 0	19 0	19 0	18 0	18 0	17 0	17 0	16 0	16 0	15 0	15 0	14 0	14 0	13 0	14 0	13 0
1859	30 0	29 0	29 0	28 0	28 0	27 0	27 0	26 0	26 0	25 0	25 0	24 0	24 0	23 0	23 0	22 0	22 0	21 0	21 0	20 0	20 0	19 0	20 0	19 0
1860	30 0	29 0	29 0	28 0	28 0	27 0	27 0	26 0	26 0	25 0	25 0	24 0	24 0	23 0	23 0	22 0	22 0	21 0	21 0	20 0	20 0	19 0	20 0	19 0
1861	30 0	29 0	29 0	28 0	28 0	27 0	27 0	26 0	26 0	25 0	25 0	24 0	24 0	23 0	23 0	22 0	22 0	21 0	21 0	20 0	20 0	19 0	20 0	19 0
1862	30 0	29 0	29 0	28 0	28 0	27 0	27 0	26 0	26 0	25 0	25 0	24 0	24 0	23 0	23 0	22 0	22 0	21 0	21 0	20 0	20 0	19 0	20 0	19 0
1863	30 0	29 0	29 0	28 0	28 0	27 0	27 0	26 0	26 0	25 0	25 0	24 0	24 0	23 0	23 0	22 0	22 0	21 0	21 0	20 0	20 0	19 0	20 0	19 0
1864	30 0	29 0	29 0	28 0	28 0	27 0	27 0	26 0	26 0	25 0	25 0	24 0	24 0	23 0	23 0	22 0	22 0	21 0	21 0	20 0	20 0	19 0	20 0	19 0
1865	30 0	29 0	29 0	28 0	28 0	27 0	27 0	26 0	26 0	25 0	25 0	24 0	24 0	23 0	23 0	22 0	22 0	21 0	21 0	20 0	20 0	19 0	20 0	19 0
1866	30 0	29 0	29 0	28 0	28 0	27 0	27 0	26 0	26 0	25 0	25 0	24 0	24 0	23 0	23 0	22 0	22 0	21 0	21 0	20 0	20 0	19 0	20 0	19 0

Profits of Coal-Mining. Coal-Owners' Monopoly &c.—Instead of the business of coal-mining being, generally speaking, an advantageous one, it is distinctly the reverse. Sometimes, no doubt, large fortunes have been made by individuals and associations engaged in this business; but these are rare instances. The opening of a mine is a very expensive and hazardous operation, and of very uncertain result. Collieries are exposed to an infinite number of accidents, against which no caution can guard. The chances of explosion have, it is true, been a good deal lessened by the introduction of Sir Humphry Davy's lamp; and some mines are now wrought, that, but for the invention of this admirable instrument, must have been entirely abandoned. But besides explosions, which are still every now and then occurring, from the carelessness of the workmen and other contingencies, mines are very liable to be destroyed by *creeps* or by the sinking of the roof, and by drowning or the irruption of water from old workings through fissures which cannot be seen and consequently cannot be guarded against. So great, indeed, is the hazard attending this sort of property, that it has never been possible to effect an insurance on a coal-work against fire, water, or any other accident.

Mr. Buddle informed the committee of the House of Lords, in 1829, that 'although many collieries, in the hands of fortunate individuals and companies, have been, perhaps, making more than might be deemed a reasonable and fair profit, according to their risk, like a prize in a lottery; yet, as a trade, taking the whole capital employed on both rivers, he should say that certainly it has not been so.' (*First Report*, p. 56.) Again, being asked, 'What have the coal-owners on the Tyne and Wear, in your opinion, generally made on their capital employed?' he replied, 'According to the best of my knowledge, I should think that *by no means* 10 *per cent. has been made at simple interest, without allowing any extra interest for the redemption of capital.*' (p. 57.)

In addition to the vast expense attending the sinking of shafts, the erection of steam-engines &c., and the risk of accidents, the coal, after being brought to the surface, has frequently to be conveyed 7 or 8 miles to the place of shipping; and those whose collieries are in that situation have to pay *way-leave* rents, amounting, in some cases, to 500*l.* a-year, for liberty to open a communication, or a railroad, through the properties lying between them and the shore.

Much has frequently been said of the monopoly of the coal-owners on the Tyne and the Wear; but we are satisfied, after a pretty careful investigation of the circumstances, that no such monopoly has ever existed; and that the high price of coal in the metropolis is to be ascribed wholly to the various duties and charges that have been laid upon it from the time that it has passed from the hands of the owner to the time that it is lodged in the cellar of the consumer. What means have the coal-owners of obtaining a *monopoly price* for their coal? They enjoy no exclusive privileges of any sort; they are a numerous body; and the trade is as open as any other to all capitalists to engage in. The number of places on the east and west coasts, both of England and Scotland, and the southern parts of Wales, from which coals are exported, render it quite visionary to suppose that any general agreement to keep up prices can take place amongst the various coal proprietors; and though such an agreement were entered into, it is impossible it could be maintained. The *power* of producing coal greatly exceeds the present demand; many new mines have been recently opened, and many others would be brought into activity were the price artificially enhanced. It is true that the coal-owners referred to, having experienced the ruinous effects of throwing a superabundant quantity of coal upon restricted and already glutted markets, have occasionally met together; and each having named the price he thinks his coal will command, and at which he intends to sell it, they have proceeded jointly to regulate, according to the probable demand, the quantity that each shall raise during any particular period. By means of this arrangement the supply and price of coal have been kept, during the

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time it has existed, comparatively steady. Common prudence prompts and justifies such an arrangement; but it also suggests the necessity of reducing the price of coal to the lowest level that will afford the customary rate of profit. For were the price demanded by the northern coal-owners raised above this level, new mines would be opened in Durham and Northumberland; the imports from the Tees, whence a large supply of excellent coal *is at present brought* to the London market, would be augmented; and fresh competitors, from Swansea and other places, would come into the field and undersell them. Government should encourage and promote this fair competition; but it ought, at the same time, to do equal justice by all the competitors. It is not to lend assistance to, or remove burdens from, one set of adventurers, which it does not lend to or remove from others. It is no part of its duty to say *how* coals, or any species of produce, shall be carried to market. It is bound to give every reasonable facility for the opening of new channels or modes of conveyance between all parts of the country; but it would be glaringly unjust to lay a tax on the coals conveyed by a particular channel from which those conveyed by other channels were exempted.

The aggregate capital employed by the coal-owners on the Tyne amounts to about 4,500,000*l.*, exclusive of the craft in the river: and supposing this estimate to be nearly correct, it will follow, allowing for the value of the ships, that the total capital employed in the coal trade may be moderately estimated at from 20 to 25 millions; an immense sum to be almost wholly at the risk of the owners, without any insurance upon it.

History of the Use of Coal. Duties and Regulations affecting it, particularly in the Port of London.—There are no mines of coal in either Greece or Italy; and no evidence has been produced to show that the ancients had learned to avail themselves of this most useful mineral. No evidence has as yet been adduced as to the time at which sea-coal was first employed for economical purposes. The following is from Mr. Rogers's work on *Agriculture and Prices in England*, vol. i. p. 422: 'Its appearance at so distant a place as Dover in 1279, the earliest entry which has come under my observation, suggests that the coasting traffic in this article must have been familiar. It was purchased for the use of the castle, and must, of course, have been burned in a fire-place with chimney. Again it is used at Waleton and Weston, two places in Suffolk and Herts, which formed part of the estate of Roger Bigod, the great Earl of Norfolk. It is found at Southampton in 1298. It is quoted in the accounts of Clare Castle and Clarette, part of the possessions of the Earl of Gloucester. It is bought at Bexley in Kent, and *Hoton* in Essex. It is found at Westbury in Wilts, probably from the Somersetshire measures. It may be added that among the various traders given in the taxing bill of Colchester, *Rot. Parl.*, vol. i., sea-coal dealers are mentioned at the close of the 13th century.' It occurs in a charter of Henry III., granting license to the burgesses of Newcastle to dig for coal. In 1281 Newcastle is said to have had a considerable trade in this article. About the end of this century, or the beginning of the fourteenth, coals began to be imported into London, being at first used only by smiths, brewers, dyers, soap-boilers &c. This innovation was, however, loudly complained of. A notion got abroad that the smoke was highly injurious to the public health; and in 1316 Parliament petitioned the king, Edward I., to prohibit the burning of coal, on the ground of its being an intolerable nuisance. His Majesty issued a proclamation conformably to the prayer of the petition; but it being very little attended to, recourse was had to more vigorous measures; a commissioner of oyer and terminer being issued out, with instructions to enquire as to all who burned sea-coal within the city, or parts adjoining; to punish them for the first offence by 'pecuniary mulcts;' and upon a second offence to demolish their furnaces: and to provide for the strict observance of the proclamation in all time to come.

But notwithstanding the efforts that were thus made to prohibit the use of coal, and the prejudice that was long entertained against it, it continued progressively to gain ground. This was partly, no doubt, owing to experience having shown that coal smoke had not the noxious influence ascribed to it, but far more to the superior excellence of coal as an article of fuel, and the growing scarcity and consequent high price of timber. In the reign of Charles I. the use of coal became universal in London, where it has ever since been used to the exclusion of nearly all other articles of fuel. At the Restoration the quantity imported was supposed to amount to about 200,000 chaldrons. In 1670 the imports had increased to 270,000 chaldrons. At the Revolution they amounted to about 300,000 chaldrons, and have since gone on increasing with the growing magnitude and population of the city; being, in 1750, about 500,000 chaldrons; in 1800, about 900,000 chaldrons; and in 1866 about 600,000,000 tons. (Campbell's *Political Survey of Great Britain*, vol. ii. p. 30; Edington *On the Coal Trade*, p. 41; &c.)

It might have been supposed, considering that coal is, in this country, a prime necessary of life, and by far the most important of all the instruments of manufacturing industry, that it would have been exempted from every species of tax, and that every possible facility would have been given for its conveyance from the mines to the districts in the south of England, and other places in want of it. But such has not been the case. The coal trade of Great Britain was, for more than a century and a half, subjected to the most oppressive regulations. From a very early period the corporation had undertaken the task of weighing and measuring the coal brought to London, and had been accustomed to charge 8*d.* a ton for their trouble. In 1613 the power to make this charge was confirmed to the city by royal charter, it being at the same time ordered that no coal should be unladen from any vessel till the Lord Mayor had given leave. The right to charge this sum according to the chaldron of coal has since been confirmed to the city by Act of Parliament; and as the labouring meters, notwithstanding they have been very well paid, have received only 5*d.* out of the 8*d.*, the balance of 3*d.* per chaldron, which produced about 20,000*l.* a-year, went to the city treasury.

But besides the above, duties for civic purposes have been laid on the coal imported into London from the reign of Charles II. downwards. They were originally imposed in 1667, after the great fire, in order to assist in the rebuilding of churches and other public edifices; and have ever since been continued, to enable the corporation to execute improvements in the city; though it is probable most of our readers will be inclined to think that few improvements could be so great as a reduction in the price of so very important an article as coal.

Exclusive of the corporation duties, a duty payable to Government was laid *on all sea-borne* coal in the reign of William III., which *only* ceased in 1831. This duty was at once glaringly unjust

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and oppressive: unjust, inasmuch as it fell only on those parts of the empire to which coals had to be carried by sea; and oppressive, inasmuch as it amounted to full *fifty* per cent. upon the price paid to the coal-owner for the coal. This tax, after being long stationary at 5*s.* per chaldron, was raised to 9*s.* 4*d.* during the late war, and was reduced to 6*s.* in 1824. But the inequality of the tax was not confined to its affecting those parts only of the empire to which coal had to be carried by sea. Even there its pressure was not equal; for, while it amounted to 6*s.* per chaldron, or 4*s.* per ton, in the metropolis and all the south of England, it only amounted to 1*s.* 7¼*d.* per ton on coal carried by sea to Ireland, and to 1*s.* 8*d.* on that carried to Wales; while Scotland was for many years entirely exempted from the duty.

Besides this striking partiality and injustice, various troublesome Custom-house regulations were required in consequence of distinctions being made between the duties on large and small coal, between those on coal and culm (a species of coal), and coal and cinders, and of coal being allowed to be imported duty free into Cornwall, Devon &c. for the use of the mines. These distinctions were, however, wholly abolished in 1830, and no duties exist on coal except those collected in London and a few other ports, and appropriated to local purposes.

A small supply of coal was of late years brought to London from Staffordshire by canal navigation. This coal was charged with a duty of 1*s.* per chaldron; but this is now also repealed.

The regulations to which the sale and delivery of coals were subjected in the city of London were, if possible, still more objectionable than the duties imposed on them. Instead of being sold by weight, all coals imported into the Thames were, previously to 1831, sold by measure. It is curious to observe the sort of abuses to which this practice has given rise. It is stated by the celebrated mathematician Dr. Hutton, who, being a native of Newcastle, was well acquainted with the coal trade, that, 'If one coal, measuring exactly a cubic yard (nearly equal to 5 bolls), be broken into pieces of a moderate size, it will measure 7½ bolls: if broken very small, it will measure 9 bolls; which shows that the proportion of the weight to the measure depends upon the size of the coals; therefore accounting by weight is the most rational method.' The shippers were well aware of this, and insisted upon the coal-owners supplying them with large coal only; and to such an extent was this principle carried, that all coal for the London market was *screened*, as it is technically termed, or passed over gratings, to separate the smaller pieces. Inasmuch, however, as coals were sold in all their subsequent stages by measure, no sooner had they been delivered by the owner than it was for the interest of every one else into whose hands they came before reaching the consumer, to break them into smaller portions. In fact, the profit of many of the retailers in London arose chiefly from the increase of measure by the breakage of coal. And Mr. Brandling, a very intelligent and extensive coal-owner, stated to the Commons' committee of 1829 that, in consequence of the breakage, coals are reduced in London to a size inferior to what they would be were they put on board *unscreened*, and subjected to no additional breakage.

The statements now made sufficiently evince the nullity of all the regulations enforcing the sale of coal by correct measures; for even though these regulations had been enforced, instead of being, as they usually were, wholly neglected, they would have been of almost no use; inasmuch as any dishonest dealer was as able to cheat by breaking his coals a little smaller than usual, as if he had sold them in deficient measures.

The loss occasioned by the useless process of screening has been very great. The quantity of coal separated by it has amounted in some cases to from 20 to 25 per cent. of the whole; and the greater part of this residue, containing a portion of the very best coal, is *burned on the spot*. 'I have known,' says Mr. Buddle, 'at one colliery, as many as from 90 to 100 chaldrons a day destroyed. If they were not consumed, they would cover the whole surface, and in the burnings of them they are extremely destructive; they destroy the crops a great way round, and we pay large sums for injury done to the crops, and for damage to the ground.' (*First Lords' Report*, p. 72.) The waste of coal has been in this way enormous; and the coal-owner has been obliged to charge a higher price upon the coal sold, in order to indemnify himself for the loss of so great a quantity, and for the mischief he does to others in burning.

The fact that so monstrous a system should have been persevered in for more than a century sets the power of habit in reconciling us to the most pernicious absurdities in a very striking point of view. Happily, however, the nuisance was at last abated; the sale of coal by weight taking away both the temptation to break coal, and the necessity of screening.

The duties of all sorts that were formerly paid to the corporation of the city of London were commuted in 1830 for a duty of 1*s.* 1*d.* per ton, which produced in 1851 a gross revenue of 187,991*l.* 16*s.* 4½*d.* (*Parl. Paper* No. 29, Sess. 1852.)

Most of the coals for discharging into barges are now brought to the Pool by screw steamers. The cost of the best Wallsend put into barges in the Pool would now (1868) be 19*s.* 3*d.*, made up as under:—

	s.	*d.*
Prime cost, free on board, in the North	12	0
Freight by screw steamers	5	0
City dues	1	1
Factor's charges, insurance, half metage &c.	1	2
	19	3

To which must be added charges incurred for conveyance from the vessel to the cellar of the consumer:—

	s.	*d.*
Lighterage (to any ordinary wharf between London and Vauxhall bridges)	0	10
Wharfage &c.	0	6
Loading	1	0
Small, i.e. cost of screening and loss on difference of selling price of the small *	2	0
Cartage	2	6
	6	10
	19	3
Average cost for the year 1867-68	25	1

* The loss by small is greater by screw steamers than by sailing vessels.

Steam ships are gradually superseding sailing vessels, as they can carry at a much cheaper rate.

There are many wharves *below bridge* where vessels unload alongside, and so save the cost of lighterage and reloading from the barges: but a different class of ship is required, the freight of which is dearer. The charges by this way would be:—

	s.	*d.*
Cost of coal, free on board	12	0
Freight	6	9
City dues	1	1
Factor's charges, insurance &c.	1	2
Wharfage, interest on outlay on machinery &c.	0	9
Loading, weighing &c.	0	4
Small (much less than by screw steamer)	1	3
Cartage (these wharves being necessarily below bridge, the average distance of delivery will be greater)	3	0
	25	4

No doubt, however, the expenses attending the delivery of coal to the consumer might be farther, and very materially reduced, were quays constructed at which ships could lie alongside, and discharge their cargoes without the intervention of lighters, and without being subject to the

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delays to which they are now exposed. It appears, also, that the practice of sending coals to the consumers in bags might in the great majority of cases be advantageously dispensed with. No such practice exists in Manchester, Liverpool, Glasgow, or other large towns; and, generally speaking, it seems to occasion not only a heavy, but a perfectly useless, expense. There is a very keen competition in the retail coal trade in London, and the individual who deals with a respectable coal merchant may be pretty well assured that he gets his coals at the lowest price at which, as matters now stand, they can be sold.

Eightpence per ton of the duty of 1*s.* 1*d.* would have ceased in 1862 but for the Act of 1861, which continued it in its entirety till 1872. By 26 & 27 Vict. c. 46 the duty to the extent of 1*s.* was further continued to 1882, ⅞ being mortgaged for the Thames Embankment, and ¼ for the Holborn Hill improvements. Again, by 31 Vict. c. 17 it has been still farther extended to 1889—the ¼ being diverted, however, to freeing certain suburban bridges from toll.

Account exhibiting the Quantities of the various Descriptions of Coal imported into London by Sea in 1858, and specifying also the Number of Ships or Cargoes.

Description of Coal	Ships or Cargoes	Tons
Newcastle Main	2,634	961,360
Newcastle Wallsend	804	227,394
Seaham	1,073	267,109
Sunderland	351	144,479
Sunderland Wallsend	1,857	646,092
Middlesbro'	257	60,859
Hartlepool and West Hartlepool	2,331	693,504
Blyth	175	45,067
Scotch	59	10,975
Welsh	534	155,312
Yorkshire &c.	376	99,947
Liverpool	3	502
Small coal	52	18,257
Culm	6	1,590
Cinders	91	8,387
Total, 1858	10,603	3,266,446

During the same year (1858) 1,213,464 tons were imported into London by land, that is, by canals, railways, and common roads.

Statement showing the Quantities of Coals &c. brought into the London District, by Railway, Canal, and by Sea, in 1866 *and* 1867.

By Railway and Canal.	1866 tons	1867 tons
London and North-western Railway	1,188,996	
Great Northern ,,	1,006,277	
Great Western ,,	367,908	
Great Eastern ,,	212,467	
Midland ,,	156,645	
South-western ,,	21,072	3,513,134
South-eastern ,,	9,734	
Chatham and Dover ,,	6,156	
Tilbury and Southend ,,	638	
Grand Junction Canal ,,	10,176	
Total	3,980,074	

By Sea.	1866 tons	1867 tons
Newcastle	1,502,517	1,542,281
Seaham	119,628	82,042
Sunderland	754,377	793,546
Middlesbro'	65,192	56,481
Hartlepool and West Hartlepool	445,468	410,484
Blyth	13,777	6,909
Scotland	39,421	39,442
Wales	32,308	40,150
Yorkshire	25,375	25,988
Duff	692	—
Small coal	24,128	9,316
Culm	590	—
Cinders	8,720	9,957
Total	3,033,193	3,016,416
Total by Rail, Canal, and Sea	6,013,263	6,529,550

Regulations as to Sale in London.—A seller's ticket is to accompany all coals sold within the city of London and its environs, specifying the species of coal, and the number of sacks and weight of coal sent. The coals may be either in bags containing 1 or 2 cwt., or in bulk. The carman is in all cases bound to carry a weighing machine with the coal, which machine is to be made conformably to regulation; and, upon being desired, he is to weigh any one sack, or the whole sacks in his waggon. Penalty on refusing to weigh, or otherwise obstructing the weighing, 20*l.*—Penalty on non-delivery of ticket to purchaser, 20*l.* In the event of the weight being deficient, a penalty is imposed of 10*l.* or 50*l.* according to deficiency. Quantities of less than 560 lbs. may be sold without being weighed. (1 & 2 Wm. IV. c. 76.)

To save trouble in collecting the duties that still attach to coal in the port of London, the corporation is authorised to compound with the owner or master of any ship or vessel importing coal, for the tonnage upon which the duties are to be paid. A certificate of such composition, expressing the number of tons of coal, cinders, or culm agreed to be taken as the cargo of the ship or vessel compounded for, is to be given to the master or owner of the same, and to be taken as evidence of the quantity on board.

When no composition is entered into, the coal is to be weighed in the presence of an officer of the customs *at the port of shipment*; and the duties are to be paid upon the weight so shipped.

The shipment of coal in the Tyne is regulated by the Act 5 Geo. IV. c. 72, commonly called the *Turn Act*. The object of this Act is to make all ships engaged in the trade of the Tyne be loaded in the order in which they arrive. It prevents any preference being given to particular ships, and renders it nearly impossible for any coal-owner to give constant employment to any vessel in the trade which he may wish to employ. In some respects this Act is probably advantageous, but, on the whole, its policy seems very questionable. Why should a coal-owner be prevented from employing certain ships in preference to others? Under this Act, if more ships engage in the trade than can be profitably employed in it, the loss produced by detention in port, and waiting for a cargo, instead of falling, as it naturally would, were the trade free, on particular ships, and driving them from the business, falls equally on every ship employed, and represses the whole trade. There is no regulation of this sort on the Wear.

Duty on Coal conveyed to London by Railway, Canal &c.—The 8 & 9 Vict. c. 101 has imposed the same duties on coals conveyed to the metropolis by railway, canal, or other inland carriage, that are imposed on them when conveyed by sea. It has farther enacted that 1*d.* per ton of the produce of such duties shall be accumulated from December 31, 1845, as a fund for the execution of improvements within the metropolis.

Duties on Coal when exported.—The question as to the policy of laying duties on the exportation of coal mainly depends (as the exhaustion of the mines need not be thought of) on the fact whether British coal be necessary or of considerable consequence to the progress of manufactures and arts in foreign countries. If it be, then certainly it would be good policy to preserve that superiority which we derive from the possession of coal by prohibiting its exportation, or burdening it when exported with a considerable duty; but if the possession of our coal be not necessary or of considerable importance to the foreigner, such prohibition or duty would encourage the working of foreign mines by discouraging the working of our own, without producing any corresponding advantage. It has been said that it is not easy to pronounce positively how the fact stands. On the whole, however, there does not appear to be much room for doubting that a supply of British coal, though it may not be indispensable to the foreigner, is of the greatest ser-

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vice to him, and enables him to carry on with advantage various undertakings in which he could not otherwise have engaged with much chance of success. The coal of Belgium is not so good as that of England, and is too far inland to come into successful competition with ours in the market of the world; and the same may be said of the coal of the United States. The latter, indeed, far from supplying others with coal, are large importers of English coal, having taken from us in 1865 133,875 tons. Such being the case, we have always regarded the repeal in 1845 of the duty of 4*s.* a ton on coal when exported as a most unwise proceeding. We are well convinced that its retention would not have materially affected the exportation of coal, at the same time that it would have yielded a considerable amount of revenue which (be it remembered) would have been wholly paid by the foreigner. But British coal (the total exports of which in 1866 were 9,648,216 tons, valued at 4,870,019*l.*) is of incomparably more importance to the foreigner now than it was in 1845; and we think that the imposition of a duty of 5*s.* a ton on it when exported would be a highly expedient measure. It will be no holiday task to show how a revenue of upwards of 2,400,000*l.* a-year may be raised with less inconvenience.

The following is an account of the number of tons of coals imported into the port of London during each of the years from 1861 to 1866 inclusive, and of the gross and nett amount of revenue received in each of those years from the duty on coals; showing also the quantity of coals brought landwise into the city of London and its limits, and the amount of duty received thereon, in each of these years:—

Account of the Total Quantities of Coal brought by Sea, Rail, and Canal within the Limits of the London Coal Duty Radius, and the Nett Proceeds of the Duties thereon, in each of the Years from 1861 *to* 1866, *both inclusive.* (*Parl. Paper* No. 212 of 1867.)

Year	Seaborne	Railway	Canal	Road	Total	Nett Proceeds of 9*d.* duty *	Nett Proceeds of 4*d.* duty †
	tons	tons	tons	tons	tons	£ *s.* *d.*	£ *s.* *d.*
1861	5,567,002	1,642,502	18,571	4,007	5,232,082	159,083 16 5	75,831 1 5
1862	5,112,402	1,513,296	11,651	6,474	4,975,823	151,067 8 10	68,576 3 2
1863	5,335,174	1,775,187	9,226	7,219	5,127,106	166,113 18 4	77,841 14 10
1864	5,116,703	2,342,140	8,902	8,381	5,176,126	171,719 4 3	76,319 12 11
1865	5,161,683	2,733,056	8,532	6,669	5,909,940	186,510 14 1	82,804 15 2
1866	5,033,193	2,969,996	10,176	6,917	6,020,182	187,102 9 3	83,156 12 10

* Proceeds applied by the Metropolitan Board of Works in effecting public works and improvements within the metropolis.
† Nett proceeds applied by the City of London in effecting public works and improvements in and adjacent to the said city.

An Account of the Quantities and Value of Coal exported from the United Kingdom in 1866, *specifying the Quantities and Values of the Coal sent to different Countries.*

Countries	Quantities	Value	Countries	Quantities	Value
	tons	£		tons	£
Russia	561,094	270,223	St. Thomas	199,544	54,711
Sweden	255,570	119,624	Martinique	52,262	16,013
Norway	185,115	85,788	United States:		
Denmark	529,565	249,966	North Atlantic ports	113,990	68,172
Schleswig Holstein	153,564	66,878	South Atlantic ports	12,591	8,501
Prussia	461,871	192,702	Pacific ports	7,491	7,269
Mecklenburg	49,026	20,856	Mexico	15,721	7,539
Hanover	70,434	32,168	New Granada	27,790	17,758
Oldenburg	22,305	10,180	Peru	60,960	41,310
Hamburg	559,889	259,442	Chili	130,686	65,656
Bremen	9,269	6,711	Brazil	215,138	149,660
Lubeck	26,192	12,064	Uruguay	118,016	69,943
Holland	237,758	113,986	Argentine Confederation	51,095	35,195
Belgium	66,141	32,793	Channel Islands	72,582	34,775
France	1,926,423	901,508	Gibraltar	75,201	41,286
Portugal, Azores, and Madeira	168,223	81,145	Malta	168,258	92,498
Spain and the Canaries	454,456	249,787	British Possessions in South Africa	26,449	15,543
Italy:			Mauritius	28,130	15,354
Sardinian States	309,333	160,438	Aden	70,361	37,831
Tuscany	29,309	14,193	British India:		
Naples and Sicily	220,733	112,542	Bombay and Scinde	213,598	118,766
Adriatic ports of Ancona and the Romagna	28,925	15,625	Madras	27,105	15,029
Venetia	42,221	21,432	Bengal and Pegu	41,075	22,658
Austrian Territories	61,842	34,744	Singapore and the Straits Settlements	64,617	36,589
Greece	29,960	16,872	Ceylon	65,174	33,625
Ionian Islands	50,997	17,265	Hong Kong	53,200	31,889
Turkey Proper	219,132	118,742	Australia	22,320	15,067
Egypt	278,145	147,177	British North America	187,811	96,230
Algeria	27,581	13,792	British West India Islands and British Guiana	137,287	80,048
Cape Verde Islands	41,505	21,569	Other countries	125,578	69,616
Java	18,082	8,933	Total	9,648,216	4,870,019
China (exclusive of Hong Kong)	54,736	32,535			
Japan	10,985	5,808			
Cuba	220,252	115,361			

The following is an account of the contract price of coal supplied to Greenwich Hospital in the undermentioned years:—

Year	Per Chaldron	Year	Per Chaldron	Year	Per Chaldron
	£ *s.* *d.*		£ *s.* *d.*		£ *s.* *d.*
1730	1 4 6	1750	1 17 3½	1830	1 12 11
1735	1 5 0	1785	1 14 2½	1833	0 16 8p.t.
1740	1 9 0	1790	1 14 4½	1840	0 19 8 ,,
1745	1 10 0	1795	1 19 9	1841	0 19 5 ,,
1750	1 7 7½	1800	2 11 7	1842	0 18 9 ,,
1755	1 8 7½	1805	2 11 8½	1845	0 18 9 ,,
1760	1 12 8	1810	3 0 8	1849	0 14 9 ,,
1765	1 12 4½	1815	2 15 6½	1855	1 1 11*,,
1770	1 9 1½	1820	2 5 9	1860	0 17 9†,,
1775	1 10 11½	1825	2 3 2	1868	1 0 0‖,,

* Best Wallsend. † Elsecar.

This table sets the beneficial influence of the abolition of the duty on coals, and of the other alterations that have been made in the management of the trade, in a very striking point of view.

Return of the Quantity of Coals exported from the United Kingdom in the following Years.

Year	Coals	Year	Coals	Year	Coals
	tons		tons		tons
1828	357,864	1841	1,848,294	1854	4,509,253
1829	371,271	1842	1,899,504	1855	4,976,902
1830	504,419	1843	1,866,211	1856	5,879,779
1831	510,831	1844	1,754,171	1857	6,737,718
1832	588,146	1845	2,051,282	1858	6,529,483
1833	634,148	1846	2,531,108	1859	7,806,919
1834	615,255	1847	2,485,161	1860	7,521,852
1835	736,060	1848	2,785,390	1861	7,855,115
1836	916,868	1849	2,829,059	1862	8,301,852
1837	1,113,610	1850	3,351,880	1863	8,275,212
1838	1,313,709	1851	3,468,545	1864	8,802,908
1839	1,149,417	1852	3,640,194	1865	9,170,477
1840	1,606,313	1853	3,955,062	1866	4,870,019

In 1867 our exports of coals were 10,052,759 tons, while coals, cinders, and culm reached 10,424,886 tons, valued at 5,400,358*l.*

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It is probable that coal will ere long be included among those articles that are reckoned contraband of war. Now that steam is destined to play an important part in naval warfare, the coal by which steam is produced is certainly entitled to a prominent place among *munitions de guerre*.

COASTING TRADE. The trade or intercourse carried on by sea between two or more ports or places of the same country.

It has been customary in most countries to exclude foreigners from all participation in the coasting trade. This policy began in England in the reign of Elizabeth (5 Eliz. c. 5), or, perhaps, at a more remote æra; and it was perfected by the Acts of Navigation passed in 1651 and 1660. A vast number of regulations have since been enacted having reference to this matter. And it was finally laid down in the Customs Consolidation Act of 1853 (16 & 17 Vict. c. 107 ss. 152, 191) that no goods or passengers should be carried coastwise from one part to another of the United Kingdom except in British vessels. But this restriction was repealed in the course of 1854 by the 17 Vict. c. 5, so that the coasting trade is now quite free.

Policy of the Repeal of Restrictions on Coasting Trade.—Much doubt has, for a considerable time, been entertained in regard to the policy of the monopoly of the coasting trade; and in 1849 it was proposed that it should be thrown open. It is not easy, indeed, to see any grounds on which this monopoly could be satisfactorily vindicated. In considering this question it is needless to refer to countries destitute of a commercial marine, for without the aid of foreigners they could have no coasting trade. And the shipowners of countries that have such a marine, and which also have any considerable facilities for carrying on navigation, have so many advantages on their side, that it is difficult to imagine that they should ever be superseded, in any considerable degree, by foreigners in carrying on the coasting trade. But while the admission of the latter to the privileges of engaging in that trade hinders the native shipowners from availing themselves of any peculiar circumstances (such as existed in 1853 and 1854) to charge oppressive rates of freight, it at the same time subjects them to that wholesome competition by which alone their inventive energies can be fully developed. The probability consequently is, that the introduction of a free system will be as advantageous in all that respects shipping and navigation as in most other things. Our naval pre-eminence is the result of our manufacturing and mercantile superiority, and of the greater facilities we enjoy for the construction of ships, and the breeding of sailors; and while the former will most likely be increased, the latter will not certainly be diminished, by the opening of the coasting trade to the ships of other nations.

Foreign ships engaged in the coasting trade are subjected in all respects to the rules and regulations (given below) laid on British ships engaged in the same trade. We subjoin an abstract of the Act admitting foreign ships to the coasting trade, the 17 Vict. c. 5.

Repeal of the recited Enactments.—Sections 152 and 191 of the Customs Consolidation Act, 1853, 16 & 17 Vict. c. 107, shall be repealed from the passing of this Act: Provided, that it shall be lawful for her Majesty to exercise, in respect of foreign ships employed in the coasting trade as aforesaid, and of goods carried coastwise in such ships, such or the like powers as are conferred on her Majesty by the 16 & 17 Vict. c. 107 ss. 324, 325, & 326, in respect of foreign ships employed in the oversea trade, and of goods exported or imported in such ships. (Sec. 1.)

Foreign Ships in Coasting Trade subject to same Rules as British Ships.—Every foreign ship which after the passing of this Act is employed in carrying goods or passengers coastwise from one part of the United Kingdom to another, or from the Islands of Guernsey, Jersey, Alderney, Sark, or Man to the United Kingdom, or from the United Kingdom to any of the said islands, or from any of the said islands to any other of them, or from any part of any one of the said islands to any other part of the same, shall be subject, as to stores for the use of the crew, and in all other respects, to the same laws, rules, and regulations to which British ships when so employed are now subject. (Sec. 2.)

Foreign Ships in Coasting Trade not subject to higher Rates than British Ships.—No foreign ship which after the passing of this Act is employed in the coasting trade as aforesaid, nor any goods carried in any such ship, shall, during the time such ship is so employed, be subject to any higher or other rate of dock, pier, harbour, light, pilotage, tonnage, or other dues, duties, tolls, rates, or other charges whatsoever, or to any other rules as to the employment of pilots, or any other rules or restrictions whatsoever, than British ships employed in like manner, or goods carried in such ships, any law, charter, special privilege, or grant to the contrary notwithstanding; nor shall any body corporate or person having or claiming any right or title to any such higher or other rates, dues, duties, tolls, or other charges as aforesaid be entitled to any compensation in respect thereof under any law or statute relating thereto, or otherwise howsoever. (Sec. 3.)

Foreign Steam Vessels carrying Passengers Coastwise subject to 14 & 15 Vict. c. 79.—And whereas it is expedient to provide for the safety of passenger steamers: be it enacted, that every foreign steam vessel carrying passengers from one place to another on the coasts of the United Kingdom and the Channel Islands shall be subject to the provisions of the Steam Navigation Act, 1851 (14 & 15 Vict. c. 79). (Sec. 4.)

Regulations under which Coasting Trade is conducted.—These, which have been very much simplified, are embodied in the Customs Consolidation Act, the 16 & 17 Vict. c. 107, and are as follows, viz.:—

All Trade by Sea from one part of the United Kingdom to another to be deemed Coastwise.—All trade by sea from any one part of the United Kingdom to any other part thereof shall be deemed to be a coasting trade, and all ships while employed therein shall be deemed to be coasting ships, and no part of the United Kingdom, however situated with regard to any other part, shall be deemed in law, with reference to each other, to be parts beyond the seas; and if any doubt shall at any time arise as to what or to or from what parts of the coast of the United Kingdom shall be deemed a passage by sea, the Commissioners of the Treasury may determine and direct in what cases the trade by water from one port or place in the United Kingdom to another of the same shall or shall not be deemed a trade by sea within the meaning of this or any Act relating to the Customs. (Sec. 151.)

Coasting Ship confined to Coasting Voyage.—No goods shall be carried in any coasting ship, except such as shall be laden to be so carried at some port or place in the United Kingdom, and no goods shall be laden on board any ship to be carried coastwise until all goods brought in such ship from parts beyond the seas shall have been unladen; and if any goods shall be taken into or put out of any coasting ship at sea or over the

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sea, or if any coasting ship shall touch at any place over the sea, or deviate from her voyage, unless forced by unavoidable circumstances, or if the master of any coasting ship which shall have touched at any place over the sea shall not declare the same in writing under his hand to the collector or comptroller at the port in the United Kingdom where such ship shall afterwards first arrive, the master of such ship shall forfeit the sum of 100*l.* (Sec. 153.)

Times and Places for Landing and Shipping.—If any goods be unshipped from any ship arriving coastwise, or be shipped or water-borne to be shipped to be carried coastwise, on Sundays or holidays, or unless in the presence or with the authority of the proper officer of the Customs, or unless at such times and places as shall be appointed or approved by him for that purpose, the same shall be forfeited, and the master of the ship shall forfeit the sum of 50*l.* (Sec. 154.)

Master of Coasting Vessel to keep a Cargo Book.—The master of every coasting ship shall keep or cause to be kept a cargo book, stating the names of the ship, the master, and the port to which she belongs, and of the port to which she is bound on each voyage, and shall at every port of lading enter in such book the name of such port, and an account of all goods there taken on board such ship, stating the descriptions of the packages and the quantities and descriptions of the goods therein, and the quantities and descriptions of any goods stowed loose, and the names of the respective shippers and consignees, so far as such particulars are known to him, and shall at every port of discharge of such goods note the respective days on which the same or any of them are delivered out of such ship, and the respective times of departure from every port of lading and of arrival at every port of discharge; and such master shall, on demand, produce such book for the inspection of any officer of Customs, who shall be at liberty to make any note or remark therein: and if upon examination any package entered in the cargo book as containing foreign goods shall be found not to contain such goods, such package, with its contents, shall be forfeited, or if any package shall be found to contain foreign goods not entered in such book, such goods shall be forfeited; and if such master shall fail correctly to keep such cargo book, or to produce the same, or if at any time there be found on board such ship any goods not entered in such book as laden, or any goods noted as delivered, or if any goods entered as laden or any goods not noted as delivered be not on board, the master of such ship shall forfeit the sum of 20*l.* (Sec. 155.)

Account previous to Departure to be delivered to Collector.—Before any coasting ship shall depart from the port of lading, an account, with a duplicate thereof, in the form or to the effect following, and signed by the master, shall be delivered to the collector or comptroller; and the collector or comptroller shall retain the duplicate, and return the original account, dated and signed by him; and such account shall be the clearance of the ship for the voyage, and the TRANSIRE or PASS for the goods expressed therein; and if any such account be false, the master shall forfeit the sum of 20*l.*

Port of TRANSIRE.

Ship's name	Tonnage	Port of registry	Master's name	Whither bound
Here state the Particulars according to the above Headings.				

Foreign goods, distinguishing warehoused goods removed under bond	Quantities of corn, grain, meal, flour, or malt	Goods liable to duty of excise or entitled to drawback thereof	Here state 'sundry other goods,' or 'no other goods,' as the case may be
Here state the Particulars according to the above Headings.			

(Signed) Master.

Cleared the Day of 186 .

(Signed) Collector or Comptroller.

Provided always that the Commissioners of Customs may, whenever it appears to them expedient, permit general transires to be given, under such regulations as they may direct, for the lading and clearance and for the entry and unlading of any coasting ship and goods, and the same may be revoked by notice in writing under the hand of the proper officer delivered to the master or owner of any ship, or any of the crew on board. (Sec. 156.)

Account of the Number and Tonnage of British and Foreign Vessels (Sailing and Steam) Entered and Cleared, Coastwise, in 1866, with Cargoes only, at Ports in the United Kingdom, distinguishing the Vessels Employed between Great Britain and Ireland.

	Entered						Cleared	
	British		Foreign		Total		British and Foreign	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
Employed between Great Britain and Ireland - - -	35,093	6,962,311	98	12,706	35,191	6,975,017	34,902	6,899,778
Other coasting vessels - -	107,433	11,528,038	522	91,865	107,955	11,622,903	111,343	11,677,913
Total - -	142,526	18,490,349	620	107,571	143,146	18,597,120	146,245	18,577,691

In 1867 the total tonnage of vessels (sailing and steam) entered with cargoes coastwise at ports in the United Kingdom was 18,445,981 tons, of which 18,348,998 were British, and 96,983 foreign.

Transire to be delivered in 24 Hours after Arrival.—Within 24 hours after the arrival of any coasting ship at the port of discharge, and before any goods be unladen, the transire, with the name of the place or wharf where the lading is to be discharged noted thereon, shall be delivered to the collector or comptroller, who shall note thereon the date of delivery; and if any of the goods on board such ship be subject to any duty of excise, the same shall not be unladen without the authority or permission of the proper officer of excise; and if any goods on board any coasting ship arriving in Great Britain or Ireland from the Isle of Man shall be the growth or produce of that isle, or manufactures of that isle from materials the growth or produce thereof, or from materials not subject to duty in Great Britain or Ireland, or from materials upon which the duty shall have been paid and not drawn back in Great Britain or Ireland, the same shall not be unladen until a certificate be produced to the collector or comptroller, from the collector or comptroller at

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the port of shipment, that proof had there been made in manner required by law that such goods were of such growth, produce, or manufacture, as the case may be; and if any goods shall be unladen contrary hereto, the master shall forfeit the sum of 20*l.*; and if any goods shall be laden on board any ship in any port or place in the United Kingdom, and carried coastwise, or, having been brought coastwise, shall be unladen in any such port or place contrary to this or any other Act relating to the Customs, such goods shall be forfeited. (Sec. 157.)

Officer may go on board and examine any Coasting Ship.—Any officer of the Customs may go on board any coasting ship in any port or place in the United Kingdom, or at any period of her voyage search such ship, and examine all goods on board, and all goods then lading or unlading, and demand all documents which ought to be on board such ship; and the collector or comptroller may require that all or any such documents shall be brought to him for inspection, and the master of any ship refusing to produce such documents on demand, or to bring the same to the collector or comptroller when required, shall forfeit and pay the sum of 20*l.* (Sec. 158.)

COBALT (Ger. kobalt: Dutch, kobal; Swed. cobolt; Fr. cobalt; Ital. cobalto; Russ. kobolt; Lat. cobaltum). A mineral of a grey colour, with a shade of red, and by no means brilliant. It has scarcely any taste or smell; is rather soft; specific gravity about 8·6. Sometimes it is composed of plates, sometimes of grains, and sometimes of small fibres adhering to each other. The oxide of cobalt is extensively used as a means of dyeing glass, and for glazing and colouring porcelain. The principal ores of cobalt are the arsenates, called *arsenical cobalt* and *grey cobalt*. They are found in Sweden, Saxony, Saalfeld, Hessia, and in England in Cumberland and Cornwall. A very small amount of oxide is sufficient to tinge a large quantity of glass. [SMALT.] In 1866 3 cwts. of cobalt, 429 tons of ore, and 14 tons of oxide, of the aggregate value of 24,608*l.*, were imported into the United Kingdom.

COCA. A stimulating drug masticated by the Indians of the Peruvian and Bolivian Andes.

COCCULUS INDICUS or INDIAN BERRY (Fr. coque de Levant; Ger. kokkels körner, fisch körner; Ital. galla di Levante; Sans. kakamari; Malay, tubabidgi). The fruit or berry of the *Menispermum Cocculus*, Nat. Order *Menispermaceæ*, a strong climbing tree or shrub found on the Malabar coast, in Ceylon &c.

The berry is kidney-shaped, dark brown, about the size of a large pea; but when dried and imported it is shrivelled and smaller. The outer layer encloses a woody shell, containing a yellowish kernel. *Cocculus Indicus* is acrid and intensely bitter. In some parts of the East it is used, when formed into a paste with moistened rice, as a bait by fishermen and bird-catchers, but especially the former. Being thrown into the sea, or scattered on the ground, it is greedily devoured by the fish and birds, which it either kills or stupefies, so that they are easily captured. It is said not to render the flesh of such animals poisonous, as strychnine does. Its effects on man have not been accurately determined; but if taken in large doses it would, no doubt, be fatal. When added to malt liquors it increases their intoxicating power; and provided it be not administered in excess, or does not exceed 3 lbs. cocculus to 10 qrs. malt, its use in this way is not supposed to have any injurious influence. (Pereira's *Materia Medica*, 3rd ed. p. 2153; Thomson's *Materia Medica*; Ainslie's *Materia Medica*, p. 131; &c.)

Its use in adulterating beer is illegal, being prohibited, along with a number of other articles, by the 56 Geo. III. c. 58, under a penalty of 200*l.* upon the brewer and of 500*l.* on the seller of the drug, over and above the confiscation of the beer and brewing utensils. But a statute of this sort had much better be repealed. It is binding only on such tradesmen as choose to respect the law, and is no check on those of a different character. Cocculus Indicus is imported in bags of about 1 cwt. each. In 1866 there were but 394 cwts. imported, valued at 70*l.*; and 203 cwts. exported.

COCHINEAL (Ger. koschenilje; Dutch, conchenilje; Fr. cochenille; Ital. cocciniglia; Span. cochinilla, grana; Port. cochenilha; Russ. konssenel). The female insect of the *Coccus cacti*, found in Mexico, Central America, and New Granada, the Canary Islands, Brazil &c. It has been introduced into Java, and promises to become an important product of that rapidly improving colony. Formerly it was in Mexico only that it was reared with care, and formed a valuable article of commerce; but its culture is now more or less attended to in many other places, and especially of late in the Canary Islands. Here its growth has been so very rapid that the exports, which amounted in 1832 to only 120 lbs., had increased in 1856 to no fewer than 1,511,716 lbs.! (*Consular Reports*, 1857, p. 149.) It is a small insect, seldom exceeding the size of a grain of barley; and was generally believed, for a considerable time after it began to be imported into Europe, to be a sort of vegetable grain or seed. There are two sorts or varieties of cochineal: the best or domesticated, which the Spaniards call *grana fina*, or fine grain; and the wild, which they call *grana sylvestra*. The former is nearly twice as large as the latter, probably because its size has been improved by the favourable effects of human care, and of a more copious and suitable nourishment, derived solely from the *Cactus cochinillifer*, during many generations. Wild cochineal is collected six times in the year; but that which is cultivated is only collected thrice during the same period. The insects, of which there are about 70,000 in a pound, being detached from the plants on which they feed by a blunt knife, are put into bags, and dipped in boiling water to kill them, after which they are dried in the sun. It is principally used in the dyeing of scarlet, crimson, and other esteemed colours. The watery infusion is of a violet crimson; the alcoholic, of a deep crimson; and the alkaline, of a deep purple, or rather violet hue. It is imported in bags, each containing about 200 lbs.; and has the appearance of small, dry, shrivelled, rugose berries or seeds, of a deep brown, purple, or mulberry colour, with a white matter between the wrinkles. In this state they suffer no change from length of keeping. Dr. Bancroft says that that cochineal is the best which is 'large, plump, dry, and of a *silver-white* colour on the surface.'

The species of cochineal called *granilla*, or dust, is supposed by Dr. Bancroft to be principally formed of *grana sylvestra*. The insects of which it consists are smaller than those composing the fine cochineal; and it does not yield more than a third part of the colouring matter that is yielded by the latter. The cochineal insect was introduced into India in 1795; but a very inferior sort only is produced. It has also been introduced into Java and Spain; but with what success remains to be seen. (Thomson's *Dispensatory*; Bancroft *On Colours*; &c.)

The duties on cochineal, after being reduced in 1842 to 1*s.* per cwt., were finally abolished in 1845.

In 1866 the imports and exports of cochineal, including granilla and dust, were respectively

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32,751 and 21,238 cwts.; the imports being valued at 594,818*l.* The consumption may, perhaps, be estimated at about 12,000 cwts. or 1,342,000 lbs.

The price of cochineal fluctuated very much during the war, partly on account of the obstacles which it occasionally threw in the way of importation, and partly on account of its being an article of direct Government expenditure. In 1814 the price of the best cochineal was as high as 36*s.* and 39*s.*; and it has since gone on regularly declining, with hardly a single rally, till, in 1850, it settled down to from 4*s.* to 6*s.* 4*d.* per lb. Previously to the war terminated in 1815, it had never been under 12*s.* or 13*s.* Lac dye has been employed to some extent in dyeing scarlet; but notwithstanding this circumstance, the consumption of cochineal, occasioned, no doubt, partly by its cheapness, and partly, perhaps, by some change of fashion, has been materially increased since 1835. This, however, has not had any material influence on its price, and it would appear, from the long continuance of low prices not only without any diminution, but with a large increase of imports, that they are quite sufficient to remunerate the growers of the article. (Tooke &c. *On High and Low Prices.*) In October, 1866, the price of cochineal in the London market varied from 3*s.* 4*d.* to 4*s.* 10*d.* per lb.

COCOA, or, more properly, CACAO (Fr. and Span. cacao; Ger. kakao). The seed or nuts of the cocoa tree (*Theobroma cacao*), Nat. Order *Malvaceæ*, Jussieu; *Sterculiaceæ*, Lindley; growing in the West Indies and in many parts of South America. It is said, by Mr. Bryan Edwards, to bear some resemblance, both in size and shape, to a young *blackheart cherry*.

The introduction of this article into Europe was due to Columbus, and for a long time the cultivation was carried on by the Spaniards in South America and the West Indies. Before the European occupation of the New World, it was used familiarly by the Mexicans. Cocoa attracted the attention of the English in Jamaica before the close of the 17th century.

The tree, if unchecked, reaches the height of about 30 feet, and will grow between the 25th parallels, but flourishes best within the 15th parallels, and at a height of not less than 500 feet above the level of the sea. The flowers are very small, and in clusters; the calyx is composed of 5 sepals; petals 5; stamens 5, with double anthers. The fruit is five-celled, without halves, about 7 to 9 inches in length, and 3 to 4 in breadth, of an elliptic oval pointed shape, something like the vegetable marrow, only more elongated and pointed at the end; tough and quite smooth; the colour varying, according to the season, from bright yellow to red and purple. The rind of the fruit is very thick, but quite tasteless. The seeds contained in each pod number from 20 to 40, embedded in a soft, pinkish white acid pulp. (Maugin's excellent and valuable work, *Le Cacao et le Chocolat*, Paris, 1860.)

The shell of the nut is of a dark brown colour, brittle, and thin; the kernel is, both internally and externally, brownish, divided into several unequal portions adhering together, but separating without much difficulty; it has a light, agreeable smell, and an unctuous, bitterish, rather rough and peculiar, but not ungrateful taste. The nuts should be chosen full, plump, and shining, without any mustiness, and not worm-eaten. They yield, by expression, a great deal of oil; but they are cultivated only that they may be employed in the preparation of the excellent beverage cocoa, and the manufacture of chocolate, of which they form the principal ingredient. The finest cocoa is said to be that of Xoconocho or Sonocusco. The principal importations were formerly derived from the Caracas and Guayaquil, particularly the former and now chiefly from the West India Islands, New Granada, Ecuador, and Brazil.

Von Humboldt estimated the consumption of cocoa in Europe, in 1806, at 23,000,000 lbs., of which from 6,000,000 to 9,000,000 were supposed to be consumed in Spain. The production of cocoa was languishing in the Caracas for several years previously to the commencement of the disturbances in South America; and latterly the cultivation of coffee seems to have been in most part gaining the ascendancy. (Humboldt, *Pers. Narrative*, vol. iv. pp. 236–247, Eng. trans.)

Duties. Consumption in England.—Down to a late period the consumption of cocoa in England was confined within very narrow limits; a result which we are inclined to ascribe to the oppressiveness of the duties with which it has been loaded and not to its being unsuitable to the public taste.

It is now many years since Mr. Bryan Edwards declared that the ruin of the cocoa plantations with which Jamaica once abounded, was the effect of '*the heavy hand of ministerial exaction*' (*History of West Indies*, ii. 363, ed. 1819); and, unaccountable as it may seem, this pressure was not materially abated till 1832, when the duties on cocoa from a British possession were reduced from 6*d.* to 2*d.* per lb. And such was the influence of this judicious measure, that the consumption of cocoa, which, at an average of the 3 years ending with 1831, amounted to 440,578 lbs. a-year, had increased, at an average of the 3 years ending with 1842, to 2,072,335 lbs.! The duty on foreign cocoa continued from 1830 down to 1842 to be (generally 6*d.* per lb.) *three* times as great as that on coffee from a British possession; and in consequence of this discrepancy, none of it was entered for home consumption under the duty, though it is worthy of remark that cocoa for the navy, paying no duty, was almost always taken from a foreign stock. In 1842 the duty on cocoa from a British possession was farther reduced $1\frac{1}{20}$*d.* per lb.; and it might have been expected that the ratio of protection in favour of plantation cocoa would then, also, have been diminished; but it was not till 1846 that the duty on foreign cocoa was reduced to $2\frac{1}{10}$*d.* per lb.

In 1853 the duties were finally equalised, and fixed at 1*d.* per lb., and on paste or chocolate at 2*d.* per do. The duties on husks and shells were then, also, fixed at $\frac{1}{2}$*d.* per lb., but were reduced to 2*s.* per cwt. in 1855.

In 1866, 4,053,133 lbs. and in 1867, 4,235,917 lbs. of cocoa were retained for home consumption.

In 1866 the imports of cocoa from the British West Indies amounted to 5,366,853 lbs., of which 3,619,081 lbs. were supplied by Trinidad, and 1,511,904 lbs. by Grenada. In the same year we imported 1,263,252 lbs. from Ecuador, and 1,870,374 lbs. from New Granada: the total imports being 10,308,298 lbs., valued at 346,579*l.* In 1867 they were 11,954,862 lbs., valued at 346,869*l.*

No abatement is made from the duty on cocoa on account of damage. (16 & 17 Vict. c. 107 s. 76.)

Prices current of Cocoa per cwt. October 26, 1866	Present prices		Prices at same date last year	
	s. d.	*s. d.*	*s. d.*	*s. d.*
Trinidad red - - -	86 0 to	114 0	67 0 to	100 0
fine marks (Caracas) -	105 0	126 0	90 0	105 0
grey - - -	75 0	90 0	58 0	66 0
Grenada, fine marks - -	78 0	85 6	63 0	73 6
grey to good red -	70 0	77 0	58 0	61 0
St. Lucia, Dominica &c. -	68 0	72 0	48 0	55 0
Para - - - -	72 0	75 0	58 0	60 0
Guayaquil - - -	75 0	77 0	68 0	82 6
Surinam - - -	80 0	96 0	56 0	80 0

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Cocoa husks and shells are brought not only from the West Indies, but from other places, being the refuse of the chocolate manufactories carried on in them.

British plantation cocoa was worth in bond in the London market, in 1866, from 6½*d.* to 8½*d.* per lb.

A bag of cocoa usually weighs 1 cwt., and a cask about 1¼ cwt.

COCO, COKER, or, more properly, COCOA NUTS (Ger. kokonüsse; Dutch, kokosnooten; Fr. and Span. cocos; Ital. cocchi; Russ. kokos; Sans. narikela). The fruit of a species of palm tree (*Cocos nucifera*, Linn.).

This tree is common almost everywhere within the tropics, and is extremely valuable; being to the palmivorous inhabitants of many parts of Ceylon, Brazil, and other intertropical regions, not merely their principal wealth, but almost their entire dependence. Every part of the tree is appropriated to some peculiar purpose; and an Indian with a garden containing 12 cocoa-nut trees and 2 jack trees is said to be comparatively independent! But we may observe that this facility of obtaining subsistence is not an advantage, but the reverse; indolence and a want of civilisation being its invariable accompaniment. The tree grows to the height of from 50 to 90 feet; it has no branches, but the leaves are from 12 to 14 feet in length, with a very strong middle rib. The fruit is nearly as large as a man's head; the external rind is thin, tough, and of a brownish red colour. Beneath this there is a quantity of very tough fibrous matter, which is used in the manufacture of cordage and coarse sail-cloth. It is buoyant, and extremely well suited for ropes of large diameter; and until the introduction of chain cables most of the ships which navigated the Indian seas were supplied with cables of this material. [Coir.] Within the fibrous coating is the shell of the nut, which is nearly globular, very hard, susceptible of a high polish, and used for many domestic purposes; the kernel is white, in taste and firmness resembling that of a hazel nut; it is hollow in the interior, the hollow being filled with a milky fluid. While the nut is green, the whole hollow of the shell is filled with fluid, which is refreshing, agreeable, and pleasant to the taste. The solid part of the ripe kernel is extremely nutritious, but rather indigestible. The kernels yield by expression a great deal of oil, which, when recent, is equal to that of sweet almonds; but it soon becomes rancid, and is then employed by painters. A tree generally yields about 100 nuts, in clusters near the top of about a dozen each. The wood of the tree is made into boats, rafters, the frames of houses, and gutters to convey water. The leaves are used for thatching buildings, and are wrought into mats, baskets, and many other things for which osiers are employed in Europe; so that every part of it is applied to some useful end.

If the body of the tree be bored, there exudes from the wound a white liquor, called palm wine or toddy. It is very sweet when fresh; kept a few hours it becomes more poignant and agreeable; but next day it begins to grow sour, and in the space of 24 hours is changed into vinegar. When distilled, it produces the best species of Indian arrack; it also yields a great deal of sugar. Toddy is obtained from several species of palms, but that of the *Cocos nucifera* is the best. (Marshall *On the Coco-Nut Tree*; Ainslie's *Materia Indica*; Rees's *Cyclopædia*; &c.)

An improvement effected in the preparation of cocoa oil has made it of much importance in the arts, by rendering it available in the manufacture of candles and soap, and for various purposes to which it was not previously applicable.

The palm oil met with in the market is not obtained from the *Cocos nucifera*, but from another species of palm. It is chiefly imported from the coast of Guinea. [Palm Oil.]

Cocoa nuts are produced in immense quantities in Ceylon, forming, with their products—oil, arrack, and coir—important articles of export from that island. They are also very abundant in the Maldive Islands, Siam, and on several places of the coast of Brazil. Cocoa oil is in very extensive use all over India, and large quantities are manufactured in the lower provinces of Bengal. This latter is said to be superior to that imported from Ceylon.

At an average of the 3 years ending with 1866, 117,440 gals. of cocoa-nut oil were exported from Ceylon.

A duty on cocoa nuts when imported into the United Kingdom, after being reduced in 1832, was suppressed in 1845. In 1866 we imported 3,329,163 nuts, which were almost wholly retained for consumption. They are used, instead of wedges, to fill up the interstices between casks and packages in the cargoes of ships, so that their freight costs but little. In the same year our imports and exports of cocoa-nut oil amounted respectively to 110,046 and 154,178 cwts.

COD (Ger. kabljau, bakalau; Dutch, kabeljaauw, baukaelja; Dan. kabliau, skreitorsk, bakelau; Swed. kabeljo, bakelau; Fr. morue, cabillaud; Ital. baccala, baccalare; Span. bacalao; Port. bacalhão; Lat. gadus). A species of fish, too well known to require any description. 'It is amazingly prolific. Lëuwenhoek counted 9,384,000 eggs in a cod-fish of a middling size: a number that will baffle all the efforts of man to exterminate. In our seas they begin to spawn in January, and deposit their eggs in rough ground, among rocks. Some continue in roe till the beginning of April.

'The cod is only found in the northern parts of the world: it is an ocean fish, and never met with in the Mediterranean. The great rendezvous of the cod-fish is on the banks of Newfoundland, and the other sand-banks that lie off the coasts of Cape Breton, Nova Scotia, and New England. They prefer those situations by reason of the quantity of worms produced in these sandy bottoms, which tempt them to resort there for food. But another cause of the particular attachment the fish have to these spots is their vicinity to the polar seas, where they return to spawn: there they deposit their roes in full security; but want of food forces them, as soon as the more southern seas are open, to repair thither for subsistence. Few are taken to the north of Iceland, but they abound on its south and west coasts. They are also found to swarm on the coasts of Norway, in the Baltic, and off the Orkney and Western Isles; after which their numbers decrease in proportion as they advance towards the south, when they seem quite to cease before they reach the mouth of the Straits of Gibraltar.

'Before the discovery of Newfoundland the greater fisheries of cod were on the seas of Iceland, and off our Western Isles, which were the grand resort of ships from all the commercial nations; but it seems that the greatest plenty was met with near Iceland. The English resorted thither before the year 1415; for we find that Henry V. was disposed to give satisfaction to the King of Denmark for certain irregularities committed by his subjects on those seas. In the reign of Edward IV. the English were excluded from the fishery by treaty. In latter times we find Queen Elizabeth condescending to ask permission to fish in those seas from Christian IV. of Denmark. In the reign of her successor, however, no fewer than 150 English

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ships were employed in the Iceland fishery; which indulgence might arise from the marriage of James with a princess of Denmark.' (Pennant's *British Zoology.*)

Cod is prepared in two different ways: that is, it is either gutted, salted, and then barrelled—in which state it is denominated green or pickled cod; or it is dried and cured—in which state it is called dried cod. Ready access to the shore is indispensable to the prosecution of the latter species of fishery.

Cod Fishery, British.—This fishery, including under the term not only that of common cod, but of haddock, ling, hake, torsk &c., is of very considerable value and importance. It consists of two grand departments, which may be respectively termed the *home*, and the *distant* or *colonial* fishery. The first is carried on in a great variety of places contiguous to the shores of the British islands; but the most productive and valuable of the adjacent fisheries are those in the neighbourhood of the Shetland and Orkney islands, and off the shores of Essex, Suffolk, Norfolk, Lincoln &c. Formerly the principal part of the cod brought to London was taken round the edges of the Dogger-bank, or rather in the hollows between it and the Well-bank; and the finest is still brought thence. But for a number of years the London market has been in great part supplied with cod taken between Yarmouth and the Nore; and in consequence of its being procured so much nearer home, the average price of cod has fallen from 30 to 50 per cent. below what it was from 1815 to 1820. (*Report on the Channel Fisheries*, p. 85.) This change has occasioned a great increase in the number of fishing smacks belonging to Barking, Gravesend, and other ports on the Thames; while those belonging to Harwich and the more distant ports have been materially reduced. The cod taken by the fishermen of Shetland and the Western Isles is mostly cured dried, but it is partially also cured green or in pickle; and it is sometimes, though much seldomer now than formerly, conveyed alive in wellet vessels to London. The haddocks taken on the Aberdeenshire coast, and cured at the village of Finnan, near Aberdeen, are held in the highest estimation. The haddocks taken in Dublin Bay are the largest of any taken on the British coasts.

There are no means by which to form any estimate either of the number of fishing vessels, or of the quantity or value of the fish annually taken in the home cod fishery; by far the larger portion being landed without account or notice of any kind, and disposed of fresh. The following account contains such particulars only as have been brought under the notice of the Commissioners for the Improvement of the British Fisheries:—

Account of the Total Quantity of Cod, Ling, or Hake, cured, punched, or branded, and exported, from 1830 *to* 1866, *in so far as the same has been brought under the Cognisance of the Officers of the Fishery Board.*

Periods	Total quantity of cod, ling, or hake cured			Total quantity of cod, ling, or hake punched or branded		Total quantity of cod, ling, or hake exported			
	Cured dried	Cured in pickle		Cured dried	Cured in pickle	Cured dried			Cured in pickle
Year ended	cwt.	cwt.	barrels	cwt.	barrels	cwt.	qrs.	lbs.	barrels
April 5, 1830	101,914	5,652½	8,836½	92,514½	8,164	16,369	3	15	—
,, 1835	44,152½	—	3,767½	9,492½	2,235	10,632	2	24	—
,, 1836	38,040½	—	6,276	6,766	3,014	10,992	2	20	—
,, 1837	66,892½	—	7,253	9,189½	3,286	10,195	2	17	1½
,, 1838	81,926½	—	10,363	9,259½	4,373	22,168	2	12	36
,, 1839	85,279½	—	10,071½	23,936½	5,095	26,701	3	0	150½
,, 1840	95,660½	—	6,653	21,689½	3,205	29,656	1	0	24
,, 1841	91,494½	—	9,480	21,029½	3,491	30,550	1	0	44
,, 1842	76,849	—	7,038½	13,285½	2,164	25,293	1	0	—
,, 1843	77,207½	—	6,451	10,050½	1,542	25,737	3	0	70
,, 1844	92,813½	—	5,125	20,810½	2,286½	33,476	0	0	4
,, 1846	92,383	—	5,057	14,572½	955	29,552	0	0	—
,, 1847	90,783½	—	6,341½	12,387½	1,492	34,435	1	0	15
,, 1848	86,624½	—	6,247½	8,145½	955	25,662	3	0	—
,, 1849	85,163	—	6,810½	9,549½	1,581	22,608	3	0	—
,, 1850	98,903	—	6,588	15,556	997	24,154	1	0	20
,, 1851*	90,658½	—	5,032	†—	—	24,504	1	0	—
,, 1852	92,083½	—	7,019½	—	—	17,141	2	0	—
Dec. 31, 1852	102,976½	—	6,886	—	—	18,994	2	0	—
,, 1853	105,596	—	5,128½	—	—	22,650	3	0	14
,, 1854	109,664½	—	6,166½	—	—	19,537	2	0	—
,, 1855	113,561½	—	6,516½	—	—	29,154	2	0	25
,, 1856	110,804½	—	6,642½	—	—	29,629	3	0	—
,, 1857	104,468½	—	4,295½	—	—	34,310	0	0	—
,, 1858	95,596½	—	4,284½	—	—	32,152	0	0	—
,, 1859	118,383½	—	5,364½	—	—	35,925	0	0	—
,, 1860	115,688½	—	4,339½	—	—	34,221	0	0	—
,, 1861	87,344½	—	4,145½	—	—	26,961	0	0	—
,, 1862	100,667½	—	7,753½	—	—	32,969	3	0	—
,, 1863	129,725½	—	7,257½	—	—	35,256	0	0	—
,, 1864	107,258½	—	7,963½	—	—	46,461	0	0	—
,, 1865	112,807½	—	7,678½	—	—	44,998	3	0	—
,, 1866	115,819½	—	9,957½	—	—	47,753	0	0	15

* Since this date for Scotland and the Isle of Man only.

† The branding and punching of cod and ling was discontinued on January 5, 1850, as well as the collection of returns for England.

N.B.—The books of the Fishery Board do not exhibit the total quantity of cod, ling, or hake cured till the year commencing April 5, 1825. The bounty from the commencement of this abstract to April 5, 1830, was near 4*s.* per cwt. for fish cured and dried, and 2*s.* 6*d.* per barrel for fish cured in pickle, taken by the crews of vessels or boats not on the tonnage bounty; while the bounty for vessels licensed for cod, ling, or hake fishery was 50*s.* per ton for tonnage and cargo to July 5, 1826; 45*s.* from thence to July 5, 1827; 40*s.* to July 5, 1828; and 35*s.* to April 5, 1830; when the bounties ceased altogether, and have not since been renewed.

Cod Fishery, Iceland.—The large cod remain near the island during the winter, the chief station being Faxebay. The earliest and best fishings commence in February or March, and extend to May or June. The Icelanders capture the fish either by small driftnets, deep sea or hand lines, or the ordinary long lines. The line fishing is carried on in from 18 to 20 fathoms water; but it would be possible to fish successfully in deeper water, were the islanders wealthier and more adventurous.

The export of cod from Iceland in 1862 and 1865 was as follows :—

		1862	1865
Clipfish	lbs.	6,621,824	2,468,000
Stockfish	"	730,752	55,000
Liver oil	barrels	6,557	—
Roe	"	1,489	—

The export of an average year is—clipfish 3,250,000 lbs., of stockfish 1,408,000 lbs.; of an abundant year, 5,280,000 lbs. clip, and 2,112,000 lbs. stockfish. In 1864, 62 decked boats, 1,190 open boats with 4 to 8 oars, 230 of from 8 to 12 oars, and 2,041 small boats were occupied by about 10,000 fishermen.

The French had in 1864, 260 vessels off the coast of Iceland, with an average burden of 90 tons. They are said to take about 30,000 cod per ship. (Consul-General Crowe's *Report* 1866.)

Cod Fishery, Norway.—These fisheries are carried on along the Norwegian coast from the Naze to the Varanger Fjord, near the Russian frontier, chiefly near the Loffodens. The fishery is a bank of from 20 to 30 fathoms in one part, of 40 to 50 in another, and of 90 to 120 fathoms in a third terrace. The fishing commences in December, and the best months are January and February. The number of persons engaged in the fishery in 1866 was, according to a return made in accordance with the law, 25,756, in 5,723 boats. In 1866 about 21,000,000 fish were taken at the Loffodens. It takes about 400 fish to supply a barrel of liver oil. The yield of oil in 1866 was about 26,000 barrels; of roe, 18,000 barrels.

The following gives the returns of fishings from 1860 to 1866 :—

Year	Loffoden	Finmark	Romsdal	Total catch
1861	20,000,000	5,000,000	3,500,000	28,500,000
1862	11,500,000	8,000,000	6,000,000	25,500,000
1863	17,500,000	5,000,000	4,000,000	26,500,000
1864	10,000,000	11,500,000	5,500,000	27,000,000
1865	19,000,000	9,000,000	9,500,000	37,500,000
1866	21,000,000	15,000,000	3,000,000	39,000,000

Exports of Cod &c. from 1815-65.

Year	Stockfish	Clipfish	Liver oil	Roes
	lbs.	lbs.	barrels	barrels
1815-19	17,363,360	3,261,000	19,193	8,545
1820-24	22,847,360	9,690,240	27,265	—
1825-29	34,698,720	12,851,200	40,458	22,146
1830-35	36,301,440	14,687,480	27,468	21,742
1836-40	32,955,040	22,513,760	38,561	21,356
1841-45	27,315,560	18,505,960	49,004	27,863
1846	35,049,760	26,070,320	60,504	21,149
1847	33,315,400	24,047,440	53,932	21,583
1848	30,321,720	29,591,720	55,500	25,657
1849	36,365,560	26,244,120	59,910	23,957
1850	35,719,520	26,244,000	54,750	21,269
1851	42,676,240	32,468,160	39,509	31,233
1852	38,596,600	24,328,800	45,571	24,499
1853	32,379,120	29,414,760	53,127	35,230
1854	35,575,040	25,888,920	47,487	23,215
1855	32,748,360	44,636,580	78,804	30,668
1856	40,173,760	43,217,920	76,694	39,816
1857	34,216,680	51,925,520	85,298	19,759
1858	27,221,520	34,664,680	56,562	24,109
1859	22,763,440	41,410,680	66,894	24,954
1860	29,119,440	41,536,280	72,634	34,064
1861	27,890,960	40,271,080	67,551	30,591
1862	29,633,680	36,422,240	63,181	26,165

Year	Stockfish	Clipfish	Cod salted in bulk in ships	Liver oil	Roes
	lbs.	lbs.	barrels	pots	barrels
1863	26,609,320	36,075,200	57,680	5,570,711	31,456
1864	27,047,200	50,832,000	61,169	7,577,574	33,636
1865	37,328,600	54,918,560	33,771	9,030,221	37,941
1866	—	—	—	—	—

The Norwegian 'pot,' or quart, is equal to 0·2124 gallon.

The barrel is equal to 3·1862 bushels, or 0·3983 qrs.

The export of cod salted in bulk and bartered to the Russian traders of the White Sea cannot be accurately ascertained; it is computed to average between 10,000 and 15,000 tons annually. The number of barrels above quoted is only the quantity cleared out from the custom-houses.

The chief exports of Norwegian fish are to the Mediterranean, Sweden, Holland, and Italy, which take together about 28,000,000 lbs. of stockfish; Spain, which consumes 45,000,000 lbs. of clipfish; the Hanse Towns and Holland, which take about 1,500,000 gallons of liver oil. (Consul-General Crowe's *Report* 1866.)

Distant Cod Fishery.—The great bank of Newfoundland, discovered by John or Sebastian Cabot in 1497, was long, and perhaps still is, the principal seat of the distant cod fishery. The extraordinary abundance of cod-fish on its banks having been speedily ascertained, the French, Portuguese, and Spaniards soon after engaged in the fishery. The English were later in coming into the field. In 1578 France had on the banks of Newfoundland 150 vessels, Spain 120 or 130, Portugal 50, and England from 30 to 50. During the first half of last century the fishery was principally carried on by the English, including the Anglo-Americans, and the French; but the capture of Cape Breton, and of their other possessions in America, gave a severe blow to the fishery of the latter. The American war divided the British fishery; that portion of it which had previously been carried on from New England being thereafter merged in that of the United States. Still, however, we contrived to preserve the largest share. At an average of the 3 years ending with 1789 we are said to have had 402 ships, 1,911 boats, and 16,856 men engaged in the American fisheries. During last war, the French being excluded from the fisheries, those of England attained to an extraordinary degree of prosperity; the total value of the produce of the Newfoundland fishery in 1814 having exceeded 2,800,000*l.* But since the peace the British fishery on the Newfoundland banks has rapidly declined, and can hardly, indeed, be said, at this moment, to exist. It is now carried on almost entirely by the French and the Americans; the facilities enjoyed by the latter for its prosecution being greater than those of any other people, and the former being tempted to engage in it by the extraordinary encouragements afforded by Government. At present the British fishery carried on by the inhabitants of Newfoundland is confined entirely to the shore or boat fishery; but this, though probably not so good a nursery of sailors as the bank fishery, is admitted to be 'the most productive of merchantable fish and oil.' (M'Gregor's *British America*, 2nd ed. vol. i. p. 206.) The average annual products of the fisheries of all sorts, including sea-salmon &c., exported from Newfoundland, during the 3 years ended with 1832, is stated by M'Gregor to have amounted to 516,417*l.* (Vol. i. p. 161.) A considerable fishery is also carried on from the ports and harbours of Nova Scotia and Cape Breton, New Brunswick &c. But next to that of Newfoundland, the principal British fishery is carried on along the coast of Labrador. We borrow from the valuable work now referred to, the following statements with respect to it :—

'During the fishing season from 280 to 300 schooners proceed from Newfoundland to the different fishing stations on the coast of Labrador, where about 20,000 British subjects are employed for the season. About one-third of the schooners make two voyages, loaded with dry fish, back to Newfoundland during the summer, and several merchant vessels proceed from Labrador with their cargoes direct to Europe, leaving, generally, full cargoes for the fishing vessels to carry to Newfoundland. A considerable part of the fish of

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the second voyage is in a green or pickled state, and dried afterwards at Newfoundland. Eight or nine schooners from Quebec frequent the coast, having on board about 80 seamen and 100 fishermen. Some of the fish caught by them is sent to Europe, and the rest to Quebec; besides which, they carry annually about 6,000*l.* worth of furs, oil, and salmon to Canada.

'From Nova Scotia and New Brunswick, but chiefly from the former, 100 to 120 vessels resort to Labrador. The burden of these vessels may amount to 6,000 or 7,000 tons, carrying about 1,200 seamen and fishermen. They generally carry the principal part of their cargoes home in a green state.

'One-third of the resident inhabitants are English, Irish, or Jersey servants, left in charge of the property in the fishing rooms, and who also employ themselves, in the spring and fall, catching seals in nets. The other two-thirds live constantly at Labrador, as furriers and seal-catchers on their own account, but chiefly in the former capacity, during winter, and all are engaged in the fisheries during summer. Half of these people are Jerseymen and Canadians, most of whom have families.

'From 16,000 to 18,000 seals are taken at Labrador in the beginning of winter and in spring. They are very large; and the Canadians, and other winter residents, are said to feast and fatten on their flesh. About 4,000 of these seals are killed by the Esquimaux. The whole number caught produce about 350 tuns of oil, value about 8,000*l.*' (Vol. i. p. 185.)

The total produce of the Labrador fishery in 1832 was estimated by M'Gregor at 302,650*l.*; and he farther estimated the total produce of the British fisheries in the various seas and rivers of America, including seal oil and skins, at an average of the five years ending with 1832, at 857,210*l.* a-year. (Vol. ii. p. 596.) But it is now considerably greater. We subjoin

An Account of the Quantities and Values of the Exports of the Produce of the Newfoundland Fishery (including that carried on at Labrador by Boats from Newfoundland) in 1863–5.

Articles	Quantities			Values		
	1863	1864	1865	1863	1864	1865
				£	£	£
Cod fish - - - quintals	811,777	849,339	801,339	761,275	795,169	706,332
Oil: cod - - - tuns	2,696	2,475	2,727	129,139	113,757	136,515
refined - - - ,,	224	172	419	23,000	26,380	27,911
seal - - - ,,	4,115	1,605	3,268	186,368	76,247	156,178
Skins, seal - - - number	247,111	125,950	242,471	43,073	18,893	37,886
Total - - - value	—	—	—	1,143,314	1,030,237	1,065,115

*** The number of ships employed in the fisheries cannot be ascertained; the number of boats is about 7,000.

About eight-tenths of the dried fish exported from Newfoundland by British subjects are sent to Spain, Portugal, Italy, and other Continental nations; the rest goes to the West Indies and to Great Britain.

The Act 5 Geo. IV. c. 51 contains several regulations with respect to the Newfoundland fisheries. Aliens are prohibited from fishing on the coasts, or in the bays or rivers of Newfoundland, excepting, however, the rights and privileges granted by treaty to foreign states at amity with his Majesty.

All British subjects may take, cure, and dry fish, occupy vacant places, cut down trees for building, and do other things useful for the trade. (Sec. 5.)

Certificates should be granted to vessels clearing out for the fishery; and on arrival at Newfoundland a report should be made of such certificate, and registered; and on leaving the fishery the usual clearance shall be obtained. Vessels having on board any goods other than fish &c. to forfeit the fishing certificate. (Sec. 4.)

Persons throwing out ballast &c. to the prejudice of the harbours in Newfoundland shall be subject to a penalty. (Sec. 5.)

A contract in writing, specifying wages, and how to be paid, must be entered into with seamen and fishermen. (Sec. 7.)

A fisherman is prohibited receiving more than three-fourths of his wages during service; but the balance due to him is to be paid immediately upon the expiration of the covenanted time of service. No fisherman to be turned off, except for wilful neglect of duty or other sufficient cause, under a penalty, for each offence, of not less than 5*l.*, nor more than 50*l.*

In order to fulfil the conditions in any treaty with a foreign state, his Majesty may empower the governor of Newfoundland to remove any works erected by British subjects for the purpose of carrying on the fishery between Cape St. John and Cape Ray, and to compel them to depart to another place. (Sec. 12.)

Every person so refusing to depart shall forfeit 50*l.* (Sec. 13.)

The governor is empowered to sell or lease places within the island called Ship-rooms. (Sec. 14.)

For the regulations &c. as to the importation of fish into Great Britain, see FISH.

It is doubtful whether the distant cod fishery may not have passed its zenith. Spain, Italy, and other Catholic countries have always been the great markets for dried fish; but the observance of Lent is every day becoming less strict; and the demand for dried fish will, it is most likely, sustain a corresponding decline. The relaxed observance of Lent in the Netherlands and elsewhere has done more than anything else to injure the herring fishery of Holland.

Cod Fishery, American.—The Americans have at all times prosecuted the cod fishery with great vigour and success. Their fishermen are remarkable for their activity and enterprise, sobriety and frugality; and their proximity to the fishing grounds, and the other facilities they possess for carrying on the fishery, give them advantages with which it would be very difficult to contend, even if they were not assisted by Government, which, however, is the case. In 1795 the Americans employed in the cod fishery about 31,000 tons of shipping; in 1807 they are said to have employed 70,306 tons; but it subsequently declined for several years, and was almost entirely suspended during the war ended 1815.

In the year ending June 30, 1858, the Americans had 110,896 tons shipping engaged in the cod fishery. During the same year they exported 161,269 quintals of dried, and 30,470 barrels and 3,375 kegs of pickled cod; their aggregate value being 684,448 dols. In 1864 they exported 192,505 cwt. of smoked and dried, and 73,756 cwt. of pickled fish, valued together at 1,476,486 dols. By far the larger portion of the dried and smoked fish went to Hayti, St. Domingo, and the Spanish West Indies.

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'The Americans follow two or more modes of fitting out for the fisheries. The first is accomplished by 6 or 7 farmers, or their sons, building a schooner during winter, which they man themselves (as all the Americans on the sea coast are more or less seamen as well as farmers); and after fitting the vessel with necessary stores, they proceed to the banks, Gulf of St. Lawrence, or Labrador; and, loading their vessel with fish, make a voyage between spring and harvest. The proceeds they divide, after paying any balance they may owe for outfit. They remain at home to assist in gathering their crops, and proceed again for another cargo, which is salted down, and not afterwards dried: this is termed mud-fish, and kept for home consumption. The other plan is, when a merchant, or any other, owning a vessel, lets her to 10 or 15 men on shares. He finds the vessel and nets. The men pay for all the provisions, hooks and lines, and for the salt necessary to cure their proportion of the fish. One of the number is acknowledged master; but he has to catch fish as well as the others, and receives only about 20*s.* per month for navigating the vessel; the crew have five-eighths of the fish caught, and the owners three-eighths of the whole.

'The first spring voyage is made to the banks; the second either to the banks, Gulf of St. Lawrence, or the coast of Labrador; the third, or fall voyage, is again to the banks; and a fourth, or second fall voyage, is also made, sometimes, to the banks.' (M'Gregor, vol. i. p. 220.)

An Account of the Tonnage of the Vessels engaged in the Cod Fishery of the United States, and of the Allowances &c. paid to them from* 1848 *to* 1857, *both inclusive.

Year	Tonnage employed	Allowances to Fishing Vessels	Sums due as Drawbacks	Excess of Bounty over Drawbacks
		dols.	dols.	dols.
1848	82,652	215,134	22,811 95	192,322
1849	73,882	257,[illegible]	21,809 66	235,794
1850	85,646	286,[illegible]	22,507 76	264,188
1851	87,476	28[illegible]	25,193 09	303,074
1852	102,659	340,[illegible]69	26,855 39	277,713
1853	99,990	322,[illegible]	24,847 41	298,341
1854	102,194	374,286	31,761 26	343,024
1855	102,928	346,196	32,484 07	313,712
1856	95,816	134,659	29,319 69	105,339
1857	101,[illegible]73	601,[illegible]53	29,[illegible]33 61	572,219
10 years	937,826	3,230,403	266,121 18	2,964,336
Average tonnage per annum for 10 years -				93,782·6
Average allowance per annum for 10 years dols.				323,046 30
Average sum due as drawback per annum for 10 years - - - - -				26,612 40
Average excess of bounty over drawbacks per annum for 10 years - - - -				296,433 60

It is stipulated in the first article of the convention between Great Britain and the United States, signed at London October 20, 1818, that the subjects of the United States shall have liberty to take all sorts of fish 'on that part of the coast of Newfoundland from Cape Ray to the Rameau Islands, on the western and northern coasts of Newfoundland from Cape Ray to the Quirpon Islands, on the Magdalen Islands, and also on the coasts, bays, harbours, and creeks from Mount Joly, on the southern coast of Labrador, to and through the Straits of Belleisle, and thence northwardly indefinitely along the coast, without prejudice, however, to any of the exclusive rights of the Hudson's Bay Company; and that the American fishermen shall also have liberty, *for ever*, to dry and cure fish in any of the unsettled bays, harbours, and creeks of the southern parts of the coast of Newfoundland here above described, and of the coast of Labrador; but so soon as the same, or any portion thereof, shall be settled, it shall not be lawful for the said fishermen to dry or cure fish without previous agreement for such purpose with the inhabitants, proprietors, or possessors of the ground. And the United States hereby renounce for ever any liberty heretofore enjoyed or claimed by the inhabitants thereof to take, dry, or cure fish on or within 3 marine miles of any of the coasts, bays, creeks, or harbours of his Britannic Majesty's dominions in America not included within the above-mentioned limits.' The American fishermen are, however, admitted into all bays &c. for the purpose of shelter, of repairing damages, of purchasing wood, and of obtaining water, and for no other purpose whatever; and when there, they are to be placed under such restrictions as may be necessary to prevent their abusing the privileges hereby reserved to them.

Cod Fishery, French.—France has always enjoyed a considerable share of the cod fishery. The following Table shows the extent to which she has latterly carried it on:—

***Quantities of Cod Fish and other Produce of the Cod Fishery Imported into France, with the Number, Tonnage, and Crews of Vessels in which the same were Imported, in each of the Years* 1862–4.**

	1862	1863	1864
Vessels:—			
number - -	494	484	501
tonnage - -	62,139	58,994	58,643
crews - -	13,523	11,800	10,117
Produce imported:—			
cod, wet kilos.	19,609,150	20,843,977	21,482,193
dry ,,	7,331,650	4,075,332	5,190,265
oil ,,	1,810,785	1,310,635	1,417,646
not purified ,,	333,933	177,309	316,640
roes ,,	131,560	224,767	187,503
other produce, sounds &c. ,,	814,164	656,292	822,894

***Quantities of Cod Fish Exported, under Bounties from France, to each Country, in each of the Years* 1862–4.**

Countries to which Exported	1862	1863	1864
	kilos.	kilos.	kilos.
Martinique - - -	377,044	38,234	37,119
Guadaloupe - - -	492,427	229,410	93,974
Cayenne - - -	12,209	16,661	5,054
Senegal - - -	270	700	405
Réunion - - -	311,855	5,469	12,559
Italy - - -	1,753,644	1,565,843	1,297,738
Other countries in Europe -	54,748	2,400	123,954
Algeria - -	230,901	226,390	223,068
Levant and Barbary - -	1,015,680	771,306	1,057,890
West Indies and America -	22,491	98,170	4,669
Total - -	4,301,199	2,753,985	2,958,428

*** The principal port from which these vessels are despatched is Dunkirk, but most of the French ports are concerned in the trade.

But notwithstanding the apparent prosperity of this branch of industry, it may be doubted whether it be really so beneficial to France as would at first sight appear. It depends more upon artificial regulations than upon anything else. Foreign cod is excluded from the French markets by the oppressive duty with which it is loaded; and the comparatively great demand for dried fish in Catholic countries renders this a very great boon to the French fisherman. But it is admitted that this would not be enough to sustain the fishery, and high bounties are paid to those engaged in it. These, however, have been reduced of late years; and they will probably, in no long time, undergo still further alterations.

St. Pierre and Miquelon, small islands on the coast of Newfoundland, belong to the French. Their right of fishing upon the shores of that island, and upon the Great Bank, was replaced, in 1814, upon the footing on which it stood in 1792. This concession has been much objected to by

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M'Gregor and others: we believe, however, that they have materially over-rated its influence.

COD LIVER OIL (Fr. huile de morue; Ger. stockfisch leberthran). The trade in this article illustrates the effect of a medical demand on an important branch of industry. This is a fixed oil extracted from the fresh liver of the common cod, but oil bearing this name is also procured from the ling, the coal-fish, the pollock, the hake, and the haddock.

The best cod liver oil is obtained by heating the livers, broken up into a mass, by means of steam, to a temperature not exceeding 180°. The livers should be as fresh as possible. This product is called *shore oil*, and is the purest. If the livers are left till putrefaction commences, oil rises to the surface, and if rapidly taken off, is of second quality, being known as *straits oil*. The residue left to putrefy and then boiled constitutes the *banks oil*, and is offensive both in taste and odour. Sometimes the oil is expressed, after heating the fresh livers: the product being filtered supplies a good variety of the oil.

Great use is made of cod liver oil, and especially of the coarser kinds, in the manufacture of shoe leather, which is most conveniently dressed with this substance. But its most important economical use is as a medicine. In what manner it operates is not determined, but it is said to be one of the most valuable alteratives and restoratives in cases of scrofula and consumption. In 1866 we imported 895 tuns of this oil, valued at 65,979*l.*, the chief supplies coming from Hamburg, British North America, and Norway.

Sorts of Cod Liver Oil.—In consequence of its great value as a drug, the article is frequently adulterated with other fixed oils of animal origin, and sometimes with fixed vegetable oils. Exact chemical analysis might detect some of these adulterations, but unfortunately the process, if possible, is exceedingly delicate and uncertain. The following are, according to the best authorities, the most trustworthy tests:—

1. The specific gravity of genuine oil ranges between ·915 and ·9195 at 72°. Shark liver oil, which is said to be substituted for the genuine article, is reported to have the specific gravity of ·866.

2. Genuine cod liver oil does not congeal at 14°.

3. The sulphuric acid test. A drop of this acid gives a centrifugal movement to the oil, and a fine violet colour, passing to a yellowish or brownish red. Sometimes the colour is red at once.

4. The nitric acid test. This acid when agitated with the oil gives a pinkish or rose red colour, afterwards becoming brown.

5. The sensible qualities of odour and taste. (*British Pharmacopœia*, 1867; and *Private information.*)

COFFEE (Ger. koffe, koffebohnen; Dutch, koffy, koffiboonen; Dan. kaffe, kaffebönner; Swed. koffe; Fr. Ital. and Port. caffé; Span. café; Russ. kofé; Pol. kawa; Lat. coffea, caffea; Arab. bun; Malay, kāwa; Persian, tochem, kéwéh; Turk. chaube). The berries of the coffee plant (*Coffea Arabica*, Linn.). They are generally of an oval form, smaller than a horse-bean, and of a tough, close, and hard texture; they are prominent on the one side and flattened on the other, having a deeply marked furrow running lengthwise along the flattened side; they are moderately heavy, of a greenish colour, and a somewhat bitterish taste.

Historical Notice of Coffee.—The coffee plant is a native of that part of Arabia called *Yemen—terris faba missa Sabæis;* but it is now very extensively cultivated in the southern extremity of India, in Java, the West Indies, Brazil &c. We are ignorant of the precise period when it began to be roasted, and the decoction used as a drink, though the discovery is not supposed to date further back than the early part of the fifteenth century. No mention of it is made by any ancient writer, nor by any of the moderns previously to the sixteenth century. Leonhart Rauwolf, a German physician, is believed to be the first European who has taken any notice of coffee. His work was published in 1573, and his account is, in some respects, inaccurate. Coffee was, however, very accurately described by Prosper Albinus, who had been in Egypt as physician to the Venetian consul, in his works *de Plantis Egypti*, and *de Medicina Egyptiorum*, published in 1591 and 1592.

A public coffee-house was opened for the first time, in London, in 1652. A Turkey merchant, of the name of Edwards, having brought along with him from the Levant some bags of coffee, and a Greek servant accustomed to make it, his house was thronged with visitors to see and taste this new sort of liquor; and, wishing to gratify his friends without putting himself to inconvenience, he allowed his servant to make and sell coffee publicly. In consequence of this permission, the latter opened a coffee-house in Newman's Court, Cornhill, on the spot where the Virginia Coffee-house now stands. Garraway's was the first coffee-house opened after the great fire in 1666. (See the learned and elaborate treatise of Moseley *On Coffee*, 5th ed. p. 15.)

Charles II. attempted, by a proclamation issued in 1675, to suppress coffee-houses, on the ground of their being resorted to by disaffected persons, who 'devised and spread abroad divers false, malicious, and scandalous reports, to the defamation of his Majesty's government, and to the disturbance of the peace and quiet of the nation.' The opinion of the Judges having been taken as to the legality of the proceeding, they resolved, 'That retailing coffee might be an innocent trade; but as it was used to nourish sedition, spread lies, and scandalise *great men*, it might also be a common nuisance!'

M. de la Roque mentions that the use of coffee was introduced into France between 1640 and 1660; and he further states that the first coffee-house for the sale of coffee in France was opened at Marseilles, in 1671. (*Voyage de la Syrie*, tom. ii. pp. 310–319.) It was hardly, however, known, except to a few travellers who had visited the East, till 1669, when it was introduced to the best society in Paris by Solyman Aga, ambassador from the Grand Seignior to Louis XIV. It immediately became fashionable; and the taste for it having been quickly diffused, a coffee-house was opened for its sale in 1672, which, in no long time, had several competitors. (See the excellent work of Le Grand d'Aussy, *Vie privée des Français*, iii. 127, ed. 1815.)

Some time between 1680 and 1690 the Dutch planted in the vicinity of Batavia coffee beans they had procured from Mocha. In 1690 they sent a plant to Europe; and it was from berries obtained from this plant that the first coffee plantations in the West Indies and Surinam were derived.

Progressive Consumption of Coffee in Great Britain. Influence of the Duties.—In 1660 a duty of 4*d.* per gallon was laid on all coffee made and sold. Previously to 1732 the duty on coffee amounted to 2*s.* per lb.; but an Act was then passed, in compliance with the solicitations of the West India planters, reducing the duty to 1*s.* 6*d.* per lb.; at which it stood for many years, producing, at an average, about 10,000*l.* a-year. In conse-

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quence, however, of the prevalence of smuggling, caused by the too great magnitude of the duty, the revenue declined, in 1783, to 2.869*l.* 10*s.* 10½*d.*; and it having been found impossible otherwise to check the practice of clandestine importation, the duty was reduced, in 1784, to 6*d.* The consequences of this wise and salutary measure were most beneficial. Instead of being reduced, the revenue was immediately raised to near *three* times its previous amount, or to 7,200*l.* 15*s.* 9*d.*, showing that the consumption of legally imported coffee must have increased in about *a ninefold proportion*!—a striking and conclusive proof, as Mr. Bryan Edwards has observed, of the effect of heavy taxation in defeating its own object. (*History of the West Indies*, vol. ii. p. 340, 8vo. ed.)

The history of the coffee trade abounds with similar and even more striking examples of the superior productiveness of low duties. In 1807 the duty was 1*s.* 8*d.* per lb.; and the quantity entered for home consumption amounted to 1,170,164 lbs., yielding a revenue of 161,245*l.* 11*s.* 4*d.* In 1808 the duty was reduced from 1*s.* 8*d.* to 7*d.*, and in 1809 no fewer than 9,251,847 lbs. were entered for home consumption, yielding, notwithstanding the reduction of duty, a revenue of 245,856*l.* 8*s.* 4*d.* The duty having been raised in 1819 from 7*d.* to 1*s.* per lb., the quantity entered for home consumption in 1824 was 7,993,041 lbs., yielding a revenue of 407,544*l.* 4*s.* 3*d.* In 1824, however, the duty being again reduced from 1*s.* to 6*d.*, the quantity entered for home consumption in 1825 was 10,766,112 lbs.; and in 1831 it had increased to 22,740,627 lbs., yielding a nett revenue of 583,751*l.*

The rapid increase in the consumption from 1825 to 1832 must not, however, be wholly ascribed to the reduction of the duty. This, no doubt, had the greatest influence; but a good deal is also owing to the low price of coffee from 1824 to 1830, and also to the great reduction during the same period in the price of low brown sugar (fully 1½*d.* per lb.), a cheap and abundant supply of which is indispensable to the extensive use of coffee.

These statements, which are principally deduced from the accompanying account, No. I., refer to the consumption of Great Britain only; but the account No. II. includes the United Kingdom, and is brought down to 1867 inclusive. The most remarkable features in this account are the reduction of the duty on coffee from the East Indies and Ceylon to the same level as that on coffee from the West Indies, and the farther reduction of the duty on coffee from British possessions in 1842 to 4½*d.* per lb. The equalisation of the duty on East and West India coffee had become indispensable after the rapid decline in the supplies from the West Indies consequent on the emancipation of the slaves; for as foreign coffee was burdened with a high discriminating duty, the price of British coffee must otherwise have risen to such a height as materially to interfere with the consumption. The latter, indeed, has not increased since 1837 in the ratio that might have been expected from the increasing population and wealth of the country; and since 1847, when the consumption amounted to 37,441,373 lbs., it has declined, having been in 1866 only 27,849,694 lbs.

The produce of colonial coffee as indicated by the imports has risen considerably. When the last edition of this work was published the imports of colonial coffee were little more than 24,000 tons: they were in 1865 considerably more than double this amount.

The stationary or declining state of the consumption of coffee may, however, be easily explained. We have seen how rapidly the growth of chicory has extended in this country [CHICORY]; and its substitution for coffee has no doubt prevented the increase of the latter. The adulteration of coffee with chicory was, indeed, authorised by a Treasury minute passed in 1840. But the well-founded objections made to this extraordinary attempt to legitimise a proceeding by which the revenue as well as the public was defrauded, led to the repeal of the minute referred to in 1852. The sale of coffee mixed with chicory was then prohibited. Inasmuch, however, as this prohibition could not be made effectual, a new minute was passed in 1853, permitting the sale of coffee intermixed with chicory, provided the parcels containing such compound be labelled MIXTURE OF COFFEE AND CHICORY. And we do not well see what more can be done in the matter. Dealers who supply chicory, or a mixture of coffee and chicory, to customers who order coffee, are swindlers who ought to be adequately punished; but if customers order chicory, or coffee alloyed with chicory, there neither is nor can be any good reason why they should not be supplied with the article they want.

Under such circumstances the best thing that can be done by those who have the opportunity, and who wish to make sure of getting genuine coffee, is to buy it before it is ground; and as a mill for grinding may be bought for a small sum, and coffee is sold ready 'roasted,' there is, in this way, no great difficulty in obviating adulteration. Those who use ground coffee will also be pretty secure against fraud if they resort only to first-class shops.

It is seen, from the accompanying tables, that the duty on foreign coffee was reduced in 1844 to 6$\frac{1}{16}$*d.* per lb.; and, following up the example set in the case of the sugar duties, it was farther reduced in 1851 to 3*d.* per lb., that is, to the same rate of duty that was then laid on British colonial coffee. The duty on all descriptions of coffee, after being raised to 4*d.* per lb. in 1855, was again reduced in 1857 to 3*d.* A duty equal to that on coffee has also been imposed on chicory. [CHICORY.]

I. *An Account of the Quantity of Coffee retained for Home Consumption in Great Britain, the Rates of Duty thereon, and the Produce of the Duties, in each Year from* 1789 *to* 1819, *both inclusive.*

Year	Quantities retained for Home Consumption	Rates of duty on			Nett revenue of Customs and Excise
		British plantation	East India		
	lbs.	per lb.	per lb.	per cent. ad valorem	
		s. *d.*	*s.* *d.*	£ *s.* *d.*	£ *s.* *d.*
1789	930,141	0 10½	2 0½	—	46,286 17 11
1790	973,110	—	—	—	50,799 7 4
1791	1,047,276	—	—	—	57,659 5 11
1792	946,666	—	—	—	48,825 6 2
1793	1,070,458	—	—	—	57,387 11 9
1794	969,512	—	—	—	74,450 4 6
1795	1,054,588	1 5½	2 6½	—	65,788 3 7
1796	896,953	—	—	—	50,048 6 11
1797	637,401	1 5½	3 7	—	97,459 5 11
1798	897,487	1 5½	2 7½	—	78,966 6 9
1799	682,432	1 5½	2 7½	2 0 0	74,001 2 2
1800	826,590	—	—	—	142,867 11 5
1801	730,861	1 5½	2 7	2 0 0	106,076 2 7
1802	829,135	1 6	2 7½	2 0 0	72,183 2 5
1803	905,532	1 6½	1 11½	2 16 3	74,893 16 8
1804	1,061,387	1 7½	2 0½	3 2 6	141,588 0 11
1805	1,201,756	1 7½	2 0½	3 5 9	190,172 18 7
1806	1,187,016	1 7½	2 0½	3 7 11	152,789 6 9
1807	1,170,164	—	—	—	161,245 11 4
1808	1,009,691	0 7	0 10	3 7 11	222,738 16 8
1809	9,251,847	0 7	0 10	3 6 8	245,856 8 4
1810	5,308,096	—	—	—	175,567 1 4
1811	6,390,122	—	—	—	219,999 19 10
1812	8,118,734	—	—	—	255,186 7 1
1813	8,788,601	0 7½	0 10½	5 19 9	Customs records destroyed
1814	6,321,267	0 7½	0 11½	—	213,513 18 4
1815	6,117,511	—	—	—	258,762 18 3
1816	7,357,471	—	—	—	288,834 0 11
1817	8,648,726	—	—	—	288,540 5 1
1818	7,967,857	—	—	—	230,106 4 10
1819	7,429,352	1 0	1 6	—	272,134 8 10

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II. *An Account of the Quantity, in Pounds Weight, of Coffee imported into the United Kingdom, the Quantity retained for Consumption, the Produce of the Duties, and the Rates of Duty on the same, in each Year from* 1820.

Year	Quantities imported into the United Kingdom	Quantities retained for home consumption in the United Kingdom	Amount of duty received thereon	Rates of duty per pound
	lbs.	lbs.	£	£ s. d.
1820	48,841,626	7,103,409	342,828	Of any British possession in America or Africa . 0 1 0 From any place within the limits of the East India Company's Charter . . . . 0 1 6 All other coffee 0 2 6
1821	45,237,869	7,593,001	384,283	"
1822	44,003,124	7,669,351	387,342	"
1823	45,055,375	8,454,920	425,613	"
1824	50,674,249	8,262,943	420,088	"
1825	52,597,518	11,092,970	515,804	Of any British possession in America . . . 0 0 6 Of any British possession within the limits of the East India Company's Charter . . . 0 0 9 Of any other place . . . . . 0 1 3 (From April 5.)
1826	42,017,103	13,199,235	536,570	Of any British possession in America . . . 0 0 6 Of Sierra Leone . . . . . 0 0 9 Imported from any British possession within the limits of the East India Company's Charter . . 0 0 9 Imported from any other place within those limits . 0 1 0 Otherwise imported . . . . . 0 1 3 (From July 5.)
1827	47,938,047	15,560,117	599,690	"
1828	41,069,751	17,114,535	440,215	"
1829	39,071,215	19,466,028	498,951	"
1830	40,954,163	22,669,253	579,363	"
1831	43,107,828	22,715,807	583,751	"
1832	49,982,939	22,252,527	598,038	"
1833	34,426,109	22,741,984	591,241	"
1834	41,865,111	23,785,095	614,434	"
1835	28,398,493	23,295,046	652,124	Of any British possession in America, or within the limits of the East India Company's Charter, or of Sierra Leone . . . . . 0 0 6 Imported from any British possession within the limits of the East India Company's Charter, not being the produce thereof . . . . 0 0 9 Imported from any other place within those limits . 0 1 0 3-4 Otherwise imported . . . . . 0 1 3 (From September 9.)
1836	34,054,857	24,917,690	691,616	"
1837	36,412,514	26,346,961	696,645	"
1838	37,932,279	25,768,673	685,082	"
1839	41,003,316	26,789,945	779,115	"
1840	30,250,766	28,664,341	921,551	Of any British possession in America, or within the limits of the East India Company's Charter, or of Sierra Leone . . . . . 0 0 6 3-10 Imported from any British possession within the limits of the East India Company's Charter, not being the produce thereof . . . . 0 0 9 9-20 Imported from any other place within those limits . 0 1 0 3-5 Otherwise imported . . . . . 0 1 3½ (From May 15.)
1841	43,317,762	28,370,857	887,747	"
1842	41,441,414	28,519,646	768,886	Of and from British possessions . . . 0 0 4 1-5 Of and from foreign countries . . . 0 0 8 2-5 (From July 9.)
1843	38,942,469	29,979,404	697,376	"
1844	46,523,188	31,352,362	681,616	Of and from British possessions . . . 0 0 4½ Of and from foreign countries . . . 0 0 6 3-10 (From June 6.)
1845	50,377,915	34,293,190	717,871	"
1846	51,813,651	36,754,554	756,838	"
1847	55,351,044	37,141,573	746,436	"
1848	57,063,450	37,077,516	709,632	"
1849	65,315,787	34,399,574	642,520	"
1850	50,803,152	31,166,556	565,559	Raw . . . { Of British possessions 0 0 4½ / Foreign . . 0 0 6 3-10 Kiln-dried, roasted or ground { Of British possessions 0 0 6 / Foreign . . 0 0 8 (From January 1.)
1851	53,110,660	32,501,545	444,670	Raw (from all parts) . . . . 0 0 3 Kiln-dried, roasted or ground . . . 0 0 6 (From April 15.)
1852	54,985,510	34,978,432	437,229	"
1853	55,654,733	36,983,122	462,367	Raw . . . . . 0 0 3 Kiln-dried, roasted, or ground . . . 0 0 4 (From June 4.)
1854	66,500,358	37,350,924	467,018	"
1855	64,061,479	35,764,561	546,264	Raw . . . . . 0 0 4 Kiln-dried, roasted, or ground . . . 0 0 5 (From April 21.)
1856	56,992,116	34,995,944	584,517	"
1857	58,892,726	34,353,123	434,727	Raw . . . . . 0 0 3 Kiln-dried, roasted, or ground . . . 0 0 4 (From April 6.)
1858	60,697,265	35,208,932	440,473	"
1859	65,350,000	34,330,000	425,895*	"
1860	82,770,000	35,500,000	441,437	"
1861	83,530,000	35,280,000	439,472	"
1862	91,040,000	34,450,000	439,078	"
1863	117,360,000	32,760,000	420,352	"
1864	109,280,000	31,360,000	410,700	"
1865	134,190,000	30,510,000	388,770	"
1866	127,044,816	30,939,813	371,495	"
1867	137,729,716	31,299,106	397,190	"

* To March 31.

The table No. III. (p. 328) is interesting, inasmuch as it not only shows the sources whence we derive our supplies of coffee, but the estimation in which the products of different countries are held in the mercantile world.

The introduction of tea and coffee, it has been well remarked, 'has led to a wonderful change in the diet of civilised nations, a change highly important both in a moral and physical point of view. These beverages have the admirable advantage of affording stimulus without producing intoxication, or any of its evil consequences. Lovers of tea or coffee are, in fact, rarely drinkers; and hence the use of these beverages has benefited both manners and morals.' (*Scotsman*, Oct. 17, 1827.)

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III. *An Account exhibiting the different Sources whence the Coffee imported into the United Kingdom in 1866 was derived, with the Quantities imported from each, the Total Quantities retained for Home Consumption, and the Computed Value of the Imports and the Duty.*

Countries	Imported	Retained for home consumption	Value	Price	Duty
	lbs.	lbs.	£	per cwt. £ s. d.	£
From Hamburg	102,200	3,019	2,603	2 17 1	39
Holland	70,257	15,510	2,292	3 12 1	194
France	142,105	14,492	3,871	3 1 0	186
Portugal	214,652	4,445	5,726	2 19 9	56
Egypt	375,121	41,113	14,476	4 6 5	552
West Africa: Portuguese possessions	171,923	2,920	5,365	3 10 2	37
Philippine Islands	726,978	19,446	21,708	3 6 11	243
Cuba	31,456	4,588	824	2 19 1	57
Porto Rico	489,795	28,177	15,116	3 9 2	352
Hayti and St. Domingo	2,225,177	7,825	61,032	8 1 6	98
United States: North Atlantic ports	979,491	9,148	31,340	3 11 8	115
South Atlantic ports	2,328	13	70	3 7 6	—
Ports on the Pacific	891,747	—	26,275	3 6 0	—
Central America	7,100,387	2,250,956	220,390	3 9 6	28,137
New Granada	2,981,816	543,190	80,563	3 0 6	6,790
Brazil	9,521,491	67,050	211,236	2 16 2	838
British possessions in South Africa	401,213	57,352	12,854	3 11 9	717
British India: Bombay and Sinde	921,750	660,976	31,148	3 15 8	8,252
Madras	12,167,555	4,441,724	421,417	3 17 7	55,532
Bengal and Pegu	6,871	7,949	237	3 18 0	100
Singapore and the Eastern Straits Settlements	97[illegible],125	37,515	26,553	3 1 3	469
Ceylon	81,428,370	21,537,082	2,702,352	3 14 4	269,214
British West India Islands	4,514,929	1,078,278	147,430	3 13 1	13,474
British Honduras	166,545	28,868	4,905	3 6 0	361
Other parts	341,734	75,227	9,556	3 2 7	945
Deduct exported on drawback, over-entered &c.	127,044,916	30,939,813 309,577	4,089,329	Repaid	386,762 3,669
		30,630,236			383,093

Supply and Consumption of Coffee.—Owing to the increasing consumption of coffee in this country, the Continent, and America, the great value of the article, the large amount of capital and labour employed in its production, and the shipping required for its transport, it has become a commodity of primary commercial importance. It deserves particular attention, too, inasmuch as there are few, if any, articles that exhibit such variations, not only of consumption, but also of growth and price. These are occasioned partly by changes of commercial regulations and duties, and partly also by the plant requiring 4 or 5 years before it comes to bear; so that the supply is neither suddenly increased when the demand increases, nor diminished when it falls off. St. Domingo used formerly to be one of the greatest sources of supply, having exported, in 1786, about 85,000 tons; and it is supposed that, but for the negro insurrection which broke out in 1792, the exports of that year would have amounted to 42,000 tons. The devastation occasioned by this event caused, for a series of years, an almost total cessation of supplies. They have again, however, increased, and were understood to amount, in 1866, to about 16,000 tons a-year. From Cuba the exports of coffee have, for some years, owing partly to the decline in its price and partly to the efforts of the planters having been more directed to the cultivation of sugar, greatly fallen off. They may at present amount, including Porto Rico, to 7,000 tons. In Java and Brazil the culture of coffee has increased with unprecedented rapidity [BATAVIA; RIO JANEIRO]. The exports from Java, which did not a few years ago exceed 18,000 tons, now (1867) amount to at least 55,000; while those from Brazil, which have increased in an equal degree, amount to above 140,000 tons. From Rio alone the exports in 1866 were 309,583,360 lbs. The growth of coffee in India and Ceylon has also been very greatly increased, especially in the latter, where the plantations have been so much extended that their produce is now equal to more than double the present consumption of the United Kingdom. There has, no doubt, been a serious decrease in the exports of coffee from the British West Indies; the imports into the United Kingdom having declined from 11,014 tons in 1832 to 2,015 in 1866; but when reference is made to the whole supply, this diminution is inconsiderable. On the other hand, the exports of coffee from the East Indies have increased from 132,819 lbs. in 1857 to 785,102 lbs. in 1866.

According to Mr. Palgrave, 'very little, so little indeed as to be quite inappreciable, of the Mocha or Yemen berry ever finds its way westwards of Constantinople. Arabia, Syria, and Egypt consume two-thirds; the remainder goes to Turks and Armenians. Even that which is exported is of inferior quality, the best grains being carefully selected for home use.'

The Mocha coffee quits its native land by three main lines of export—that of the Red Sea to Egypt, that of the inner Hejāz to Syria, and that of Rasam to Nejed and Shimer.

The second species of coffee is the growth of Abyssinia. Its berry is larger.

Another, and the commonest kind in the East, is Indian coffee. Mr. Palgrave adds that American coffee, in the judgment of Orientals, holds the very last rank. (*Arabia*, vol. i. p. 425.)

The Cingalese region in which coffee is principally cultivated is that near Gampola. This cultivation received its first impetus from the decline of the coffee produce in the West Indies after the emancipation of the negroes. The exports from Ceylon, which had been only 1,792,448 lbs. in 1827, were 67,453,680 lbs. in 1857, and the imports thence into the United Kingdom in 1866 were 81,428,870 lbs. According to a report of Mr. Ferguson contained in Sir E. Tennent's work *On Ceylon* (vol. ii. p. 239), there were, in 1857, 403 estates in the district, containing 80,950 acres, of which 63,771 were in bearing condition; the average crop per acre being 5·5 cwts. The number of coolie labourers required during crop time was 129,200.

The consumption of coffee in the United States has increased with great rapidity since 1821, in which year it amounted to only 5,306 tons. Part of this increase is, no doubt, to be ascribed to the reduction of the duty, first from 5 to 2 cents per lb., and its subsequent repeal: part to the fall in the price of coffee; and a part, perhaps, to the increase of temperance societies. The consumption, however, has been checked since the war, in consequence of the reimposition of high duties.

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Account of the Quantities and Values of the Coffee exported from Ceylon in each Quinquennial Period from 1837 to 1866, both inclusive.

Year	Quantity	Value	Year	Quantity	Value
	cwts.	£		cwts.	£
1837	34,164	105,999	1852	374,379	697,893
1838	49,511	112,642	1853	398,971	635,602
1839	41,865	126,365	1854	402,021	850,845
1840	68,906	214,379	1855	506,340	1,025,282
1841	80,544	196,048	1856	440,919	981,723
Total for 5 years	274,960	756,605		2,056,330	4,206,345
Average	54,872	151,320		411,266	841,269
1842	119,803	269,263	1857	601,635	1,495,898
1843	94,847	192,891	1858	544,635	1,337,466
1844	133,957	267,663	1859	589,998	1,468,092
1845	178,603	363,249	1860	632,449	1,599,293
1846	173,892	328,791	1861	650,317	1,667,874
Total for 5 years	701,104	1,422,367		3,019,034	7,563,623
Average	140,220	284,473		603,806	1,512,724
1847	293,221	456,625	1862	685,709	1,516,461
1848	280,010	387,180	1863	828,585	2,126,220
1849	373,593	545,545	1864	671,863	1,748,410
1850	278,475	609,362	1865	927,440	2,343,532
1851	349,957	638,156	1866	897,624	2,286,880
Total for 5 years	1,575,254	2,636,738		3,931,221	10,049,503
Average	315,050	537,347		786,244	2,009,900

Prices of Coffee in the London Market, April 15, 1868.

		s.	d.		s.	d.
Jamaica: Good middling to fine	per cwt.	80	0	to 105	0	
Low middling and middling	„	72	0	„ 79	0	
Fine ordinary	„	60	0	„ 70	0	
Good ordinary	„	54	0	„ 58	0	
Ordinary and triage	„	35	0	„ 53	0	
Ceylon: Native, fine bold	„	56	0	„ 64	0	
Good and fine ordinary	„	49	6	„ 54	6	
Small and ordinary	„	43	0	„ 49	0	
Plantation fine	„	90	0	„ 95	0	
Fine middling	„	85	0	„ 89	0	
Good middling	„	97	0	„ 84	0	
Middling	„	73	0	„ 78	6	
Fine ordinary to low middling	„	65	0	„ 72	0	
Mixed and triage	„	28	0	„ 54	0	
Other Brit. E. Indies: Fine and superior	per cwt.	86	0	to 93	0	
Good to fine	„	82	0	„ 85	0	
Middling to good middling	„	74	0	„ 81	0	
Fine ordinary to low middling	„	62	0	„ 73	0	
Good ordinary, native	„	52	0	„ 60	0	
Ordinary	„	52	0	„ 54	0	
Mocha: Fine garbled	„	115	0	„ 132	0	
Middling to good	„	92	0	„ 105	0	
Ungarbled	„	78	0	„ 86	0	
Java: Yellow	„	69	0	„ 86	0	
Pale and mixed	„	50	0	„ 67	0	
Manilla	„	40	0	„ 70	0	
Singapore	„	34	0	„ 72	0	
Sumatra	„	—		—		
Padang	„	—		—		
African	„	50	0	„ 63	0	
Brazil: Washed	„	62	0	„ 75	0	
Fine ordinary and superior	„	44	0	„ 58	0	
Good ordinary	„	42	0	„ 47	0	
Ordinary	„	36	0	„ 41	0	
La Guayra	„	55	0	„ 70	0	
Costa Rica: Middling to fine	„	69	0	„ 80	0	
Ordinary to fine ordinary	„	53	0	„ 67	0	
Guatemala	„	56	0	„ 72	0	
Cuba: Middling to fine	„	72	0	„ 81	0	
Fine ordinary and double fine ordinary	„	66	0	„ 71	0	
Ordinary and good ordinary	„	53	0	„ 65	0	
Porto Rico	„	60	0	„ 82	0	
St. Domingo	„	44	0	„ 66	0	

Coffee is sold in bond; the business being done in the public market either by private or public sales. It is always sold at landing weights and revenue tares; the latter being on casks, barrels, and boxes identical with the real tares, and an average rate on bales and bags. Draft is allowed for as follows: viz. on packages weighing under 1 cwt., 1 lb.; 1 cwt. and under 3 cwt., 2 lbs.; 3 cwt. and under 5 cwt., 4 lbs.; and 5 cwt. and upwards, 5 lbs.

The following is an account of the sale of coffee from Ceylon. Such sales are made out as if the goods were sold within one month from arrival. There is no charge for rent, as the consolidated rate covers that charge for twelve weeks. Coffee is always rent-free to the purchaser to the prompt day, and lies at the seller's risk till then unless paid for.

Pro formâ.

Account Sales of B 16 Casks Native Coffee ex *Jane*, Smith, @ Ceylon, sold at Public Sale May 14, 1868, on account and risk of Messrs. J. B. & Co. by the undersigned.

	cwts. qrs. lbs.	cwts. qrs. lbs.	s.	£ s. d.	£ s. d.
B 5 casks weighing, gross	44 0 4				
tare and draft	5 0 25	38 3 7	at 43	85 7 9	
5 casks weighing, gross	44 0 15				
tare and draft	5 1 1	38 3 14	at 45	83 11 8	
6 casks weighing, gross	52 1 27				
tare and draft	6 0 26	46 1 1	at 42	97 2 10	
16 casks				266 2 3	
		Discount 1 per cent.		2 13 2	263 9 1
	Charges				
To landing charges, warrants &c.				13 4 2	
freight on 150 cwt. 3 qrs. 7 lbs. at 60*s.* per 16 cwt.				24 10 6	
marine insurance on 300*l.* at 30*s.* per cent. and stamp				4 10 9	
fire insurance, 2 months, 300*l.* at 1*s.* 6*d.* per cent. and duty				5 3	
public sale expenses, advertising &c.				7 6	
brokerage, 1 per cent.				2 13 2	
commission, 2½ per cent.				6 12 11	
customs entry, postages, and petty expenses				6 3	
		Nett proceeds due June 20, 1868			232 10 6
					210 18 7

Errors and oversights excepted

London, July 3, 1868. (Signed) H. B. & Co.

Species of Coffee. Roasting &c.—The coffees of Jamaica, Ceylon, and Mocha are generally esteemed the best; then follow the coffees of Costa Rica, Dominica, Berbice, Demerara, Bourbon, Java, Martinique, and Hayti. Arabian or Mocha coffee is produced in a very dry climate, the best being raised upon mountainous slopes and sandy soils. The most fertile soils are not suitable for the growth of very fine coffee. Mr. Bryan Edwards observes that 'a rich deep soil, frequently ameliorated by showers, will produce a luxuriant tree and a great crop; but the beans, which are large, and of a dingy green, prove, for many years, rank and vapid.' And the same remark is made by Mr. Crawfurd with respect to the coffee of Java. (*East Indian Archipelago*, vol. i. p. 487.) Coffee is improved by being kept; it then becomes of a paler colour.

Mocha, or, as it is commonly called, Turkey coffee, should be chosen of a greenish light olive hue, fresh and new, free from any mustiness, the berries of a middling size, clean, plump, and without any intermixture of sticks or other impurities. Particular care should be taken that it be not false packed. Good West India coffee should be of a greenish colour, fresh, free from any unpleasant smell, the berries small and unbroken.

Coffee berries readily imbibe exhalations from other bodies, and thereby acquire an adventitious

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and disagreeable flavour. Sugar placed near coffee will, in a short time, so impregnate the berries and injure their flavour as to lower its value 10 or 20 per cent. Dr. Moseley mentions that a few bags of pepper, on board a ship from India, spoiled a whole cargo of coffee.

'The roasting of the berry to a proper degree requires great nicety: the virtue and agreeableness of the drink depend upon it; and both are often injured by the ordinary method. Bernier says, when he was at Cairo, where coffee is so much used, he was assured by the best judges that there were only two people in that great city who understood how to prepare it in perfection. If it be under-done, its virtues will not be imparted, and, in use, it will load and oppress the stomach: if it be over-done, it will yield a flat, burnt, and bitter taste, its virtues will be destroyed, and, in use, it will heat the body, and act as an astringent.' (Moseley, p. 39.)

Regulations with respect to Sale, Importation &c.—Roasted beans and rye, reduced to powder, have frequently been used to adulterate ground coffee; and the possession of such substitutes for coffee was formerly an offence punishable by the forfeiture of the articles and a penalty of 100*l.* But by the Act 3 Geo. IV. c. 53, persons who are *not dealers in coffee* may take a license for roasting and selling corn, peas, beans, or parsnips, labelling the parcels with the names, and conforming to the various regulations prescribed in the Act.

No coffee can be imported in packages of less than 100 lbs. *nett* weight.

No abatement of duties is made on account of any damage coffee may have received.

Coffee cannot be entered as being the produce of any British possession in America or of the Mauritius until the master of the ship in which the coffee is imported deliver to the collector or comptroller a certificate of its origin, and declare that the coffee is the produce of such place. (8 & 9 Vict. c. 86 s. 38.)

COINS. Pieces of metal, most commonly gold, silver, or copper, impressed with a public stamp, and frequently made legal tender in payment of debts, either to a limited or an unlimited extent.

1. *Circumstances which led to the Introduction and Use of Coins.*—When the precious metals first began to be used as money, or as standards by which to measure the value of different articles, and the equivalents for which they were most commonly exchanged, they were in an unfashioned state, in bars or ingots. The parties having agreed upon the quantity of metal to be given for a commodity, the exact amount was then ascertained by weight. But it is obvious that a practice of this sort must have been attended with a great deal of trouble and inconvenience. There can, however, be little doubt that the greatest obstacle to the use of unfashioned metals as money would be found in the difficulty of determining their quality, or the degree of their purity, with sufficient precision. The operation of assaying is one of great nicety and difficulty, and could not be performed in the early ages otherwise than in a clumsy, tedious, and inaccurate manner. It is, indeed, most probable that when the precious metals were first used as money, their quality would be appreciated only by their weight and colour. A very short experience would, however, be sufficient to show the extreme inexactness of conclusions derived from such loose and unsatisfactory criteria; and the devising of some method by which the fineness of the metal might be easily and correctly ascertained would very soon be felt as indispensable to the general use of gold and silver as money. Such a method was not long in presenting itself: it was early discovered that, to ascertain the purity of the metal, and also to avoid the trouble and expense of weighing it, no more was necessary than to mark each piece with a *stamp*, declaring its weight and fineness. This invention was made at a very early period; but the accounts which assign it to particular dates are mythical.

2. *Metal used in the Manufacture of Coins.*—Before the art of metallurgy was well understood, the baser metals were frequently used as money. Iron was the primitive money of the Lacedæmonians, and copper of the Romans. But both iron and copper deteriorate by being kept; and besides this defect, the rapid improvement of the arts, by lowering their price, rendered their bulk too great in proportion to their value to permit of their continuing to be used as money. Copper, indeed, is still used in the form of tokens, convertible into silver in very small payments. In this country copper or bronze pence and halfpence are rated at about 75 per cent. above their real value; but as their issue is exclusively in the hands of Government, and as they are only legal tender to the extent of one *shilling* in any one payment, this over-valuation is not productive of any bad effect. The use of copper in other countries is limited in much the same way; gold and silver being everywhere the only metals made use of in the manufacture of the coins used in considerable payments.

3. *Standard of Coins.*—By the standard of a coin is meant the degree of its purity, and its weight; that is, the fineness of the metal of which it is made, and the quantity of metal contained in it.

(1.) *Silver Coins.*—A pound troy, or 12 ounces, of the metal of which English silver coins are made, contains 11 oz. 2 dwts. pure silver, and 18 dwts. alloy. This pound is coined into 66 shillings; so that each shilling contains 80·727 grains fine silver, and 87·27 grains standard silver; and the *money pound*, consisting of 20 shillings, contains 1614·545 grains pure silver, and 1745·454 grains standard silver. From 1600 down to 1816 the pound weight of standard silver bullion was coined into 62 shillings. All the English silver coins have been coined out of silver of 11 oz. 2 dwts. fine, from the Conquest to this moment, except for the short period of 16 years, from the 34th Henry VIII. to the 2nd Elizabeth.

(2.) *Gold Coins.*—The purity of gold is not estimated by the weights commonly in use, but by an Abyssinian weight called a *carat*. The carats are subdivided into four parts, called grains, and these again into quarters; so that a *carat grain*, with respect to the common divisions of a pound troy, is equivalent to 2½ dwts. Gold of the highest degree of fineness, or pure, is said to be 24 carats fine. When gold coins were first made at the English mint, the standard of the gold put in them was of 23 carats 3½ grains fine, and ½ grain alloy; and so it continued, without any variation, to the 18th of Henry VIII., who, in that year, first introduced a new standard of gold of 22 carats fine, and 2 carats alloy. The first of these standards was called the old, and the second the new standard, or crown gold; because crowns or pieces of the value of 5*s.* were first coined of this new standard. Henry VIII. made his gold coins of both these standards under different denominations, and this practice was continued by his successors until 1633. From that period to the present the gold of which the coins of this kingdom have been made has been inva-

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riably of the *new* standard, or crown gold; though some of the coins made of the old standard, previously to 1633, continued to circulate till 1732, when they were forbidden to be any longer current. (Liverpool *On Coins*, p. 27.)

The purity of our present gold coins is, therefore, 11 parts fine gold and 1 part alloy. The sovereign, or 20 shilling piece, contains 113·001 grains fine gold, and 123·274 grains standard gold. The pound Troy of standard gold is coined into $46\frac{89}{123}$ sovereigns, or into 46*l.* 14*s.* 6*d.* The mint or standard price of gold is, therefore, said to be 46*l.* 14*s.* 6*d.* per lb. troy, or 3*l.* 17*s.* 10½*d.* per ounce.

The alloy in coins is reckoned of no value. It is allowed in order to save the trouble and expense that would be incurred in refining the metals so as to bring them to the highest degree of purity; and because, when its quantity is small, it has a tendency to render the coins harder, and less liable to be worn or rubbed. If the quantity of alloy were considerable, it would lessen the splendour and ductility of the metals, and would add too much to the size of the coins.

The standard of the coins of foreign countries may be learned at a glance by inspecting the *Table of Coins* subjoined to this article.

4. *Variations of the Standard.*—The value of all sorts of property being estimated, and the stipulations in almost all contracts for its purchase, sale, or hire, being made, in money or coins, it is plain that no change can take place in the value of such money or coins without virtually subverting these estimates and contracts, and enriching the debtor portion of society at the expense of the creditor portion, or vice versâ. As the cost of producing all commodities is liable to vary from improvements in the arts, the exhaustion of the present or the discovery of new sources of supply, none can be selected to serve as money or coin that may not vary in its real value. It is believed, however, that the precious metals vary less than any material that could be suggested. And with the exception of the extraordinary fall in their value caused by the discovery of the American mines, it seems to have been remarkably constant at other periods.

But in addition to the fluctuations naturally inherent in the value of coins, arising from variations in the cost of the metal of which they are made, their standard has been repeatedly changed. Notwithstanding that money or coin, from its being universally used as a scale by which to compute the value of all commodities, and as the equivalent for which they are commonly exchanged, is by far the most important of all the measures used in society, and should, consequently, be preserved as invariable as possible, there is none that has been so frequently altered. The necessities or extravagance of governments have forced them to borrow; and to relieve themselves of the incumbrances thus contracted, they have almost universally had recourse to the disgraceful expedient of degrading the coin: that is, of *cheating* those who lent them money, to the extent of the degradation, and of enabling every other debtor in their dominions to do the same.

The ignorance of the public in remote ages facilitated this species of fraud. Had the names of the coins been changed when the quantity of metal contained in them was diminished, there would have been no room for misapprehension. But, although the weight of the coins was undergoing perpetual, and their purity occasional, reductions, their ancient denominations were almost uniformly preserved; and the people who saw the same names still remaining after the substance was diminished—who saw coins of a certain weight and fineness circulate under the names of florins, livres, dollars, and pounds—and who saw them continue to circulate as such after both their weight and the degree of their fineness had been lessened, began to think that they derived their value more from the *stamp* affixed to them by authority of Government than from the quantity of the precious metals they contained. This was long a very prevalent opinion. But the rise of prices which invariably followed every reduction of the standard, and the derangement that was thereby occasioned in every pecuniary transaction, undeceived the public, and taught them and their rulers the expediency of preserving the standard of money inviolate.

The standard may be reduced by simply raising the denomination of the coin; by ordering, for example, that a half-sovereign should pass for a sovereign, and the latter for a double sovereign &c. If injustice be resolved upon, this is the least mischievous way in which it can be perpetrated, inasmuch as it saves all the trouble and expense of a recoinage. But as it renders the fraud obvious and glaring, it has rarely been resorted to; and most reductions have been effected either by diminishing the weight of the coins, or by increasing the proportion of alloy in the metal of which they are made, or both.

Originally the coins of all countries seem to have had the same denomination as the weights commonly used in them, and contained the exact quantity of the precious metals indicated by their name. Thus, the *talent* was a weight used in the earliest period by the Greeks, the *as* or *pondo* by the Romans, the *livre* by the French, and the *pound* by the English and Scotch; and the coins originally in use in Greece, Italy, France, and England bore the same names, and weighed precisely a talent, a pondo, a livre, and a pound. The standard has not, however, been preserved inviolate, either in modern or ancient times. It has been less degraded in England than any where else; but even here the quantity of silver in a pound sterling is less than the *third* part of a pound weight—the quantity it contained in 1300. In France, the livre current in 1789 contained less than *one sixty-sixth* part of the silver implied in its name, and which it had actually contained previously to 1103. In Spain, and some other countries, the degradation has been carried still further. (For an account of the degradation of the coins of the ancient and modern Continental nations, see the article 'Money,' in the Supplement to the old, or in the new edition of the *Encyclopædia Britannica*.)

From 1296 to 1355 the coins of England and Scotland were of the same weight and purity; but at the last-mentioned epoch the standard of Scotch money was, for the first time, sunk below that of England; and by successive degradations the value of Scotch money, at the union of the crowns in 1600, was only a *twelfth* part of the value of the English money of the same denomination. It remained at this point till the union of the kingdoms cancelled the separate coinage of Scotland.

The gold and silver coins of Ireland have been for a considerable period the same as those of Great Britain; but, until 1825, they were nominally rated 8⅓ per cent. higher. This difference of valuation, which was attended with considerable inconveniences, was put an end to by the Act 6 Geo. IV. c. 79, which assimilated the currency throughout the empire.

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The tables annexed to this article contain all the information that can be desired by mercantile men with respect to the weight, fineness &c. of English and Scotch gold and silver coins from the earliest periods to the present moment.

5. *Mint, or Government Valuation of Gold and Silver Coins.*—If both gold and silver coins be made legal tenders, it is obviously indispensable that their value with respect to each other should be fixed by authority, or that it should be declared that individuals shall be entitled to discharge the claims upon them by payments, either of gold or silver coins, according to some regulated proportion. The practice of making both metals legal tenders was long adopted in England. From 1257 till 1664 the value of gold coins was regulated by proclamation; or, which is the same thing, it was ordered that the gold coins then current should be taken as equivalent to certain specified sums of silver. (Liverpool *On Coins*, p. 128.) From 1664 down to 1717 the relation of gold to silver was not fixed by authority; and silver being then the only legal tender, the value of gold coins fluctuated, according to the fluctuations in the relative worth of the metals in the market. In 1717 the ancient practice was again reverted to; and it was fixed that the guinea should be taken as the equivalent of 21 shillings, and conversely.

But the value of each of the precious metals is liable to perpetual changes; and hence, how accurately soever their proportional value, as fixed by the mint regulations, may correspond with the proportion which they actually bear to each other in the market when the regulation is made, the chances are 10 to 1 that it will speedily cease to express their relation to each other. The moment that such a change takes place, it becomes the obvious interest of everyone who has a payment to make, to make it in the *overvalued* metal, which, consequently, becomes the sole, or nearly the sole, currency of the country. Hence the reason why the coins of some countries are almost wholly of silver, and others almost wholly of gold. It is estimated, for example, that when it was fixed, in 1717, that the guinea should exchange for 21 shillings, gold was overvalued as compared with silver to the extent of $1\frac{19}{31}$ per cent. (Liverpool *On Coins*, p. 85); and as the real value of silver with respect to gold continued to increase during the greater part of last century, the advantage of paying in gold in preference to silver became more decided, and ultimately led to the universal use of gold in all large payments, and to the fusion or exportation of all silver coins of full weight. (Liverpool, *loco cit.*)

In France, a different valuation of the metals has had a different effect. Previously to the recoinage in 1785, the *Louis d'or* was rated in the mint proportion at only 24 livres, when it was really worth 25 livres 10 sols. Those, therefore, who should have discharged the obligations they had contracted by payments of gold coin instead of silver would plainly have lost 1 livre 10 sols on every sum of 24 livres. In consequence, very few such payments were made; gold was almost entirely banished from circulation, and silver became almost the only species of metallic money used in France. (Say, *Traité d'Economie Politique*, tom. i. p. 393.)

In 1816, however, a new system was adopted in this country; it being then enacted (56 Geo. III. c. 68) *that gold coins only should be legal tender in all payments of more than* 40 *shillings.* The pound of silver bullion, that had previously been coined into 62 shillings, was then also coined into 66 shillings, the additional *four* shillings being retained by Government as a *seignorage* or duty (amounting to $6\frac{14}{31}$ per cent.) upon the coinage. To prevent the silver coins from becoming redundant, Government has retained the power to issue them in its own hands. Under these regulations silver has ceased to be a standard of value, and forms merely a subordinate or subsidiary species of currency, or change, occupying the same place in relation to gold that copper occupies in relation to itself. This system has been found to answer exceedingly well.

A good deal of difference of opinion has existed as to whether gold or silver coins are best fitted for being made legal tender. It does not seem that the one possesses any very striking advantage over the other; none, certainly, that would justify a change, after a selection has been made, and acted upon for any considerable period.

Down to 1626 a seignorage or duty upon the coinage was usually charged upon the gold and silver coins issued by the mint; and it may be easily shown that the imposition of such a duty, when it is not carried to an undue height, is advantageous. A coin is more useful than a piece of uncoined bullion of the same weight and purity; the coinage fitting it for being used as money, while it does not unfit it for being used for any other purpose. When, therefore, a duty or seignorage is laid upon coin equal to the expense of coinage, it circulates at its real value; but when this charge is defrayed by the public, it circulates at *less than* its real value, and is consequently either melted down or exported whenever there is any demand for bullion in the arts, or any fall in the exchange. It is, indeed, true, that were a seignorage to be laid on gold coins, it would be necessary, to prevent an enhancement of the value of the currency, that their weight should be proportionally reduced; and it is on this account better, perhaps, to let them remain on the present footing. But when a seignorage was laid on the silver coins in 1816, it was not necessary to take the circumstance now alluded to into consideration; for as they were made subordinate to gold, and were intended to serve as change merely, its imposition had no tendency to raise the value of the currency, at the same time that it was calculated effectually to prevent the fusion of the coins, and to yield a small revenue to Government.

6. *Coinage since* 1790. *Amount of Coin in Circulation.*—No. V. of the subjoined Tables shows the amount of the gold and silver coinage at the British mint, each year, from 1790 downwards.

It will be seen from this account that gold coin to the amount of 60,126,047*l.* has been coined at the mint between 1817 and 1841, both inclusive. It is not, however, possible to form any very precise estimate of the portion of this immense sum now in circulation. In consequence of the exemption of gold coin from any seignorage, large quantities of the coins carried abroad during an unfavourable exchange find their way to the foreign mints, where they are melted and recoined. Large quantities are also conveyed away by emigrants, of which no account is or can be taken; and it is neither possible to estimate the sums in the coffers of the different banks nor of individuals. On the whole, however, we shall not perhaps be far wrong if we estimate the stock of coin at present (1868) in possession of the public and of the different private and joint-stock banks (ex. Bank of England) at 30,000,000*l.*

7. *The Exportation and Importation of Gold and Silver Coins* was formerly prohibited; but in 1819 it was enacted (59 Geo. III. c. 49) that they might

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be freely exported and imported without being liable to any charge or duty whatever; and they may be imported without being either reported or entered at the Custom-house. This regulation has rendered it next to impossible to ascertain the value of the bullion imported.

8. *Forgery of Coin. Issue of forged or spurious Coins.*—The forgery of coin is an offence that is practised more or less at all periods. The most effectual means of preventing it is to improve the fabric of the genuine coins, to cut the dies with great delicacy, and occasionally to vary the form of the coins. During the lengthened period from 1770 down to 1816 the genuine silver coins in circulation were so much worn and defaced that it was very difficult to distinguish between them and counterfeits, which, in despite of the severest penalties, were thrown into circulation in immense quantities. But since the issue of the new coins, in 1816, forgery has been comparatively rare. Sufficient time has not yet been afforded for determining the influence of the law exempting the offence of counterfeiting from the punishment of death.

9. *Law as to the counterfeiting &c. of Coin.*—The Acts as to this were consolidated and amended by the 2 & 3 Wm. IV. c. 34, of which the following is a brief abstract:—

Counterfeiting the gold or silver coin of the realm, transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years; and every such offence shall be deemed to be complete although the counterfeiting be not finished. (Sec. 3.)

Colouring counterfeit coin, or any pieces of metal, with intent to make them pass for gold or silver coin, colouring or altering genuine coin with intent to make it pass for higher coin; transportation for life, or for any term not less than 7 years, or imprisonment for any term not exceeding 4 years. (Sec. 4.)

Impairing the gold or silver coin with intent to make the coin so impaired pass for gold or silver coin of full weight, transportation for not exceeding 14 nor less than 7 years, or imprisonment for not exceeding 3 years. (Sec. 5.)

Buying or selling &c. counterfeit gold or silver coin for lower value than its denomination. importing counterfeit coin from beyond seas, transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years. (Sec. 6.)

Uttering counterfeit gold or silver coin, imprisonment for not exceeding 1 year; and uttering, accompanied by possession of other counterfeit coin, or followed by a second uttering within 10 days, imprisonment for not exceeding 2 years: every second offence of uttering after a previous conviction shall be felony: transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years. (Sec. 7.)

Having 3 or more pieces of counterfeit gold or silver coin in possession, with intent to utter the same, imprisonment for not exceeding 3 years: second offence, transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years. (Sec. 8.)

Making, mending, having possession of, or selling any mould &c., or coining tools, or any press or engine, conveying tools or moneys out of the mint without authority, felony; transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years. (Secs. 10, 11.)

Counterfeiting any current copper coin, or making, mending, or possessing any coining tool, or buying, selling &c. any counterfeit copper coin for lower value than its denomination, transportation for not exceeding 7 years, or imprisonment for not exceeding 2 years; and uttering any counterfeit copper coin, or having in possession 3 or more pieces of counterfeit copper coin, imprisonment for not exceeding 1 year. (Sec. 12.)

Gold or silver coin tendered to any person suspecting any piece to be counterfeit, may be broken by such person; and if it shall appear to be counterfeit, the person tendering shall bear the loss; but if it shall be of due weight, and appear to be of lawful coin, the person breaking it is to receive it at the rate it was coined for, and any dispute shall be finally determined by any justice; and the tellers of the Exchequer and the receivers-general of the revenue are to break or deface every piece of counterfeit coin tendered for payment. (Sec. 13.)

Any person discovering any counterfeit coin, gold, silver, or copper, or any coining tool, is to carry the same forthwith before some justice, and on reasonable cause to suspect any person of counterfeiting, or having such coin, or any tool &c., such justice may cause any place under the control of such suspected person to be searched, either in the day or night, and if any such coin or tool shall be found, to cause the same to be seized forthwith, and carried before a justice, who is to secure the same for the purpose of being produced in evidence, and afterwards of being delivered up to the mint. (Sec. 14.)

The necessity of the evidence of any officer of the mint to prove counterfeit coin dispensed with. (Sec. 17.)

The court may order hard labour or solitary confinement. (Sec. 19.)

The words 'king's coin' include all coin lawfully current in the United Kingdom; and wilfully having, in any dwelling-house or other building, lodging, apartment, field or other place, open or enclosed, whether belonging to or occupied by the accused or not, and whether for his own use or benefit, or for that of another, shall be deemed having in his possession within this Act. (Sec. 21.)

Persons acting in the execution of this Act protected in the usual manner, by requiring notice of action &c. and allowing tender of amends &c. (Sec. 22.)

10. *Convictions for Coining and Uttering.*—In the 7 years ending with 1818, 63 persons were convicted in England and Wales of the offence of counterfeiting the coin of the realm, of whom 1 was executed. In the next 7 years the convictions for coining were reduced to 14, but of these 5 were executed. In the last septennial period, ending with 1832, the convictions were 34, and the executions 7. The convictions for issuing forged coins in the first of the above periods were 21, in the second 9, and in the third 32.

Tables relative to the Coins of Great Britain and other Countries.

No. I. *English Coins.*—The following table gives an account of the quantity of *fine* silver coined into 20*s.* or the pound sterling; the quantity of *standard* silver, of 11 oz. 2 dwts. fine and 11 dwts. alloy, contained in 20*s.* or the pound sterling in the different reigns from the time of Edward I. to the reign of William IV. A similar account with respect to gold. And an account of the proportional value of fine gold to fine silver, according to the number of grains contained in the coins. Calculated in grains and 1000th parts troy weight.

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A.D.	Anno Regni	Silver 1 Number of Grains of Fine Silver in 20 Shillings, or the Pound Sterling, as coined by the Mint Indentures	Silver 2 Number of Grains of Standard Silver, 11 oz. 2 dwts. Fine in 20 Shillings, or the Pound Sterling, as coined by the Mint Indentures	Gold 3 Number of Grains of Fine Gold in 20 Shillings, or the Pound Sterling, as coined by the Mint Indentures	Gold 4 Number of Grains of Standard Gold 22 Carats Fine, in 20 Shillings, or the Pound Sterling, as coined by the Mint Indentures	5 Proportional Value of Fine Gold to Fine Silver, according to the Quantity of each Metal contained in the Coins
		grs.	grs.	grs.	grs.	gold to silver
1066	Conquest	4,995·000	5,400·000	—	—	—
1280	8 Edward I.	4,995·000	5,400·000	—	—	—
1344	18 Edward III.	4,933·333	5,333·333	407·990	415·080	1 to 12·091
1349	23 Edward III.	4,440·000	4,800·000	383·705	418·588	1 — 11·571
1356	30 Edward III.	3,996·000	4,320·000	358·125	390·682	1 — 11·158
1401	3 Henry IV.	3,996·000	4,320·000	358·125	390·682	1 — 11·158
1421	9 Henry V.	3,330·000	3,600·000	322·312	351·613	1 — 10·331
1464	4 *Edward IV.*	2,664·000	2,880·000	257·850	281·291	1 — 10·331
1465	5 Edward IV.	2,664·000	2,880·000	238·750	260·454	1 — 11·158
1470	49 Henry VI.	2,664·000	2,880·000	238·750	260·454	1 — 11·158
1482	22 Edward IV.	2,664·000	2,880·000	238·750	260·454	1 — 11·158
1509	1 Henry VIII.	2,664·000	2,880·000	238·750	260·454	1 — 11·158
1527	18 Henry VIII.	2,568·000	2,880·000	238·750	260·454	1 — 11·158
1543	34 Henry VIII.	2,592·000	2,160·000	210·149	229·253	1 — 11·268
1545	36 Henry VIII.	2,592·000	2,162·162	191·666	209·090	1 — 10·434
1546	37 *Henry VIII.*	1,200·000	1,297·297	176·000	192·000	1 — 6·818
1547	1 Edward VI.	800·000	864·864	160·000	174·545	1 — 5·000
1549	3 Edward VI	800·000	864·864	160·000	174·545	1 — 5·000
*1551	5 Edward VI.	800·000	864·864	155·294	169·412	1 — 5·151
1551	5 Edward VI.	400·000	—	—	—	—
1552	6 Edward VI.	1,540·000	1,902·702	160·000	174·545	1 — 11·000
1553	1 Mary	1,768·000	1,911·351	160·000	174·545	1 — 11·950
1560	2 Elizabeth	1,760·000	1,902·702	159·166	173·636	1 — 11·057
1600	43 Elizabeth	1,776·000	1,920·000	160·000	174·545	1 — 11·100
1601	2 James I.	1,718·709	1,858·064	157·612	171·940	1 — 10·901
1626	2 Charles I.	1,718·709	1,858·064	141·935	154·838	1 — 12·109
1666	18 Charles II.	1,718·709	1,858·064	128·780	140·487	1 — 13·346
1717	3 George I.	1,718·709	1,858·064	118·651	129·435	1 — 14·485
†1816	56 George III.	1,614·545	1,745·454	113·001	123·274	1 — 15·289
				113·001	123·274	1 — 14·287

* 1551—5 Edward VI.] The coinage of debased silver money in the 5th year of Edward VI. of 3 oz. fine ought more properly to be considered as tokens. The sum of 120,000*l.* only was so coined. (*James's Essays*, ch. iv.)

† 1816—56 George III.] The Government having taken the coinage of silver into its own hands, there is at present no fixed price paid to the public by the Mint for standard silver; and supposing the Government to continue the present Mint regulations, and to keep gold at 77*s.* 10½*d.* per oz., as the price of silver varies, the relative value of gold to silver will vary in like proportion.

No. II. *English Coins.*—Subjoined is an account of the English silver and gold coins; showing their value, the seignorage or profit upon the coinage, and the price of the pound troy of standard gold and silver, from the Conquest to the present time.

A.D.	Anno Regni	Silver 1 Fineness of the Silver in the Coins	Silver 2 Pound Weight of such Silver coined into	Silver 3 Profit or Seignorage on the Coinage	Silver 4 Equal to the Mint Price for Standard Silver of 11 oz. 2 dwts. fine Troy weight	Gold 5 Fineness of the Gold in the Coins	Gold 6 Pound Weight of such Gold coined into	Gold 7 Profit or Seignorage on the Coinage	Gold 8 Equal to the Mint Price for Standard Gold of 22 Carats fine Troy weight
		oz. dts.	£ s. d.	£ s. d.	£ s. d.	crts. grs.	£ s. d.	£ s. d.	£ s. d.
1066	Conquest	11 2	1 0 0	—	—	—	—	—	—
1280	8 Edward I.	11 2	1 0 0	0 1 0	1 0 3½	—	—	—	—
1300	28 Edward I.	11 2	1 0 3	0 1 2½	—	—	—	—	—
1344	18 Edward III.	11 2	1 0 3	0 1 3	1 0 3½	23 3½	13 3 4	0 8 4	12 10 8
1349	23 Edward III.	11 2	1 2 6	0 1 3	1 2 8	23 3½	14 0 0	0 11 8	13 3 9
1356	30 Edward III.	11 2	1 5 0	0 0 10	1 5 9½	23 3½	15 0 0	0 6 8	14 8 4
1394	18 Richard II.	11 2	1 5 0	0 0 10	1 5 9½	23 3½	15 0 0	0 5 0	14 9 11
1401	3 Henry IV.	11 2	1 5 0	0 0 10	1 5 9½	23 3½	15 0 0	0 5 0	14 9 11
1421	9 Henry V.	11 2	1 10 0	0 1 0	1 10 11½	23 3½	16 13 4	0 5 0	16 2 9
1425	4 *Henry VI.*	11 2	1 10 0	0 1 0	1 10 11½	23 3½	16 13 4	0 5 10	16 1 11
1464	4 Edward IV.	11 2	1 17 6	0 4 6	1 15 2½	23 3½	20 16 8	2 10 0	18 0 5
1465	5 Edward IV.	11 2	1 17 6	0 4 6	1 15 2½	23 3½	22 10 0	1 0 10	21 1 10
1470	49 Henry VI.	11 2	1 17 6	0 2 0	1 17 10	23 3½	22 10 0	0 13 0	21 9 7
1482	22 Edward IV.	11 2	1 17 6	0 1 6	1 18 4	23 3½	22 10 0	0 7 6	21 15 0
1483	1 Richard III.	11 2	1 17 6	0 1 6	1 18 4	23 3½	22 10 0	0 7 6	21 15 0
1485	1 *Henry VII.*	11 2	1 17 6	0 1 6	1 18 4	23 3½	22 10 0	0 7 6	21 15 0
1509	1 Henry VIII.	11 2	1 17 6	0 1 0	1 18 11½	23 3½	22 10 0	0 2 6	22 0 0
1527	18 Henry VIII.	11 2	2 0 0	0 1 0½	1 18 11½	23 3½	24 0 0	0 2 8	22 0 0
1527	*18 Henry VIII.*	11 2	2 5 0	0 1 0	2 4 0	23 3½	27 0 0	0 2 9	—
1543	31 Henry VIII.	10 0	2 8 0	0 1 8	2 4 4½	22 0	25 2 6	0 3 0	24 19 6
1545	36 *Henry VIII.*	6 0	2 8 0	0 0 0	2 11 9½	23 0	28 16 0	1 4 0	26 8 0
1546	37 Henry VIII.	4 0	2 8 0	4 4 0	2 15 6	22 0	30 0 0	2 10 0	27 10 0
1547	1 Edward VI.	4 0	2 8 0	4 4 0	2 15 6	20 0	30 0 0	5 0 0	27 10 0
1549	3 Edward VI.	6 0	3 12 0	4 0 0	2 19 2½	20 0	30 0 0	1 10 0	31 7 0
1551	5 Edward VI.	3 0	3 12 0	—	—	22 0	34 0 0	1 0 0	33 0 0
1551	5 Edward VI.	11 0	3 0 0	—	—	—	—	—	—
1551	5 Edward VI.	—	—	—	—	23 3½	36 0 0	—	—
1552	6 Edward VI.	11 1	3 0 0	0 1 0	2 19 3½	22 0	33 0 0	—	—
1552	6 *Edward VI.*	—	—	—	—	23 3½	36 0 0	0 2 9	—
1553	1 Mary	11 0	3 0 0	0 1 0	2 19 6½	22 0	33 0 0	0 3 0	32 17 8
1560	2 Elizabeth	11 2	3 0 0	0 1 6	2 18 6	23 3½	36 0 0	0 3 0	33 0 8
1560	2 Elizabeth	—	—	—	—	23 3½	36 0 0	0 5 0	—
1600	43 Elizabeth	11 2	3 2 0	0 2 0	3 0 0	22 0	33 0 0	0 4 0	32 16 0
1600	43 Elizabeth	—	—	—	—	23 3½	36 10 0	0 10 0	—
1604	2 James I.	11 2	3 2 0	0 2 6	2 19 6	22 0	33 0 0	0 10 0	33 0 0
1626	2 Charles I.	11 2	3 2 0	0 2 0	3 0 0	22 0	37 4 0	0 10 0	35 14 0
†1666	18 Charles II.	11 2	3 2 0	0 0 0	3 2 0	22 0	41 0 0	1 1 5	39 18 7
1717	3 George I.	11 2	3 2 0	0 0 0	3 2 0	22 0	44 10 0	—	41 10 0
1816	56 George III.	11 2	3 6 0	0 4 0	—	22 0	46 14 6	—	46 14 6

* 1527—18 Henry VIII.] The Saxon or Tower pound was used at the Mint up to *this time*, when the pound Troy was substituted in its stead. The Tower pound was but 11 oz. 5 dwts. Troy; so that, from the Conquest to the 28th of Edward I., 20 shillings in tale were exactly a pound in weight.

† 1666—18 Charles II.] The seignorage on the coinage was at this time given up, and the gold bullion brought to the Mint has ever since been coined free of expense. A seignorage of 6 14-31 per cent. was imposed on the coinage of silver by 56 Geo. III.

No. III. *Scotch Coins.*—The annexed table gives the number of pounds, shillings, and pennies Scotch which have been coined out of one pound weight of silver at different times; with the degree of purity of such silver, or its fineness, from the year 1107 to the year 1601. (From Cardonnel's *Numismata Scotiæ*, page 24.)

A.D.	Anno Regni	Purity	Alloy	Value of the Money coined out of a Lb. Weight of Silver	A.D.	Anno Regni	Purity	Alloy	Value of the Money coined out of a Lb. Weight of Silver
		oz. pw.	oz. pw.	£ s. d.			oz. pw.	oz. pw.	£ s. d.
From 1107 to 1296	Alexander I. David I. William Alexander II. Alexander III. John Baliol	11 2	0 18	1 0 0	1451	15 James II.	11 2	0 18	3 4 0
					1456	20 James II.	11 2	0 18	4 16 0
					1475	16 James III.	11 2	0 18	7 4 0
					1484	24 James III.	11 2	0 18	7 0 0
From 1306 to 1329	Robert I.	11 2	0 18	1 1 0	1489	(1) (2) James IV.	11 2	0 18	7 0 0
					1529	16 James V.	11 0	1 0	9 12 0
1366	38 David II.	11 2	0 18	1 5 0	1544	5 Mary	11 0	1 0	9 12 0
1367	39 David II.	11 2	0 18	1 9 4	1556	14 Mary	11 0	1 0	13 0 0
From 1371 to 1390	Robert II.	11 2	0 18	1 9 4	1565	25 Mary	11 0	1 0	18 0 0
					1567	1 James VI.	11 0	1 0	18 0 0
					1571	5 James VI.	9 0	3 0	16 14 0
					1576	10 James VI.	8 0	4 0	16 14 0
					1579	13 James VI.	11 0	1 0	22 0 0
					1581	15 James VI.	11 0	1 0	24 0 0
1393	4 Robert III.	11 2	0 18	1 12 0	1597	31 James VI.	11 2	1 0	30 0 0
1424	19 James I.	11 2	0 18	1 17 6	1601	35 James VI.	11 0	1 0	36 0 0

No. IV. *Scotch Coins.*—The following is an account of the number of pounds, shillings, and pennies Scotch which have been coined out of one pound weight of gold; with the degree of their purity, and the proportion that the gold bore to the silver. (Cardonnel, p. 25.)

A.D.	Anno Regni	Fineness	Alloy	Value of the Coin coined out of One Pound of Gold	Pound of Pure Gold weighed of Pure Silver
		oz. dw. gr.	oz. dw. gr.	£ s. d.	lbs. oz. dw. gr.
1371, &c.	Robert II.	11 18 18	0 1 6	17 12 0	11 1 17 22
1390, &c.	Robert II.	11 18 18	0 1 6	19 4 0	11 1 17 22
1424	19 James I.	11 18 18	0 1 6	22 10 0	11 1 17 22
1451	15 James II.	11 18 18	0 1 6	33 6 0	9 8 4 14
1456	20 James II.	11 18 18	0 1 6	50 0 0	9 8 4 14
1475	16 James III.	11 18 18	0 1 6	78 15 0	10 2 0 20
1484	24 James III.	11 18 18	0 1 6	78 15 0	10 5 7 9
1488	1 James IV.	11 18 18	0 1 6	78 15 0	10 5 7 9
1529	16 James V.	11 18 18	0 1 6	108 0 0	10 5 7 9
1556	14 Mary	11 0 0	1 0 0	144 0 0	10 5 8 6
1567	10 James VI.	11 0 0	1 0 0	240 0 0	10 5 8 6
1579	13 James VI.	10 10 0	1 10 0	240 0 0	11 5 2 20
1587	31 James VI.	11 0 0	1 0 0	360 0 0	12 0 0 0
1601	35 James VI.	11 0 0	1 0 0	432 0 0	12 0 0 0
1633	9 Charles I.	11 0 0	1 0 0	492 0 0	13 2 7 11

No. V.—The following is an account of the value of the gold and silver coins, specifying each, coined at the Mint, each year since 1790:—

Year	Gold coined	Silver coined	Year	Gold coined	Silver coined
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
1790	2,660,521 10 0	..	1829	2,446,754 12 6	108,259 16 0
1791	2,056,568 17 6	..	1830	2,387,881 2 6	151 16 0
1792	1,171,865 0 0	251 17 6	1831	587,949 14 5	33,696 3 8
1793	2,747,450 0 0	..	1832	3,730,737 12 6	145 4 0
1794	2,558,894 12 6	..	1833	1,225,269 13 6	145 4 0
1795	493,416 0 0	593 11 11	1834	68,949 12 5	432,775 4 0
1796	461,680 2 6	..	1835	1,109,719 8 10	146,665 4 0
1797	2,000,297 5 0	..	1836	1,787,782 5 5	497,719 4 0
1798	2,967,501 13 0	..	1837	1,255,088 8 2	75,585 4 0
1799	449,961 15 0	..	1838	2,855,564 15 0	174,042 0 0
1800	189,857 2 6	..	1839	601,510 14 3	390,651 0 0
1801	450,242 2 0	53 7 1	1840	..	207,900 0 0
1802	637,018 18 6	62 0 0	1841	378,472 10 0	89,611 4 0
1803	596,444 12 6	72 6 8	1842	5,977,051 18 2	192,852 0 0
1804	718,396 17 6	77 10 0	1843	6,207,849 10 0	239,580 0 0
1805	54,648 5 0	182 18 0	1844	3,563,942 7 6	610,632 0 0
1806	405,105 15 0	..	1845	4,244,608 10 6	647,658 0 0
1807	..	104 10 0	1846	4,334,911 17 6	559,548 0 0
1808	271,741 2 0	..	1847	5,158,440 0 0	125,750 0 0
1809	298,916 11 0	114 14 0	1848	2,451,999 10 1	35,442 0 0
1810	316,935 15 6	120 18 0	1849	2,177,955 1 1	119,592 0 0
1811	312,263 3 6	..	1850	1,491,436 17 9	129,096 0 0
1812	..	52 14 0	1851	4,400,411 4 9	87,868 6 0
1813	519,722 5 6	89 18 0	1852	8,742,870 12 11	189,596 12 7
1814	..	161 4 0	1853	11,958,591 5 11	701,544 14 3
1815	..	..	1854	4,152,183 6 4	140,480 8 1
1816	..	1,805,251 16 0	1855	9,008,663 9 4	125,510 19 6
1817	4,275,537 10 0	2,456,297 12 0	1856	6,072,114 19 6	462,528 0 0
1818	2,562,573 10 0	576,279 0 0	1857	4,959,860 2 2	373,230 0 0
1819	3,574 10 8	1,267,272 12 0	1858	1,231,013 9 10	445,896 0 0
1820	919,516 0 10	847,717 4 0	1859	2,849,509 15 6	647,064 0 0
1821	9,520,758 15 10	433,686 0 0	1860	5,181,708 10 0	218,403 7 0
1822	5,356,787 12 6	31,130 7 1	1861	8,190,170 2 0	209,434 0 0
1823	799,748 10 0	285,271 16 0	1862	7,836,413 15 6	148,518 11 10
1824	4,065,075 0 0	292,070 16 0	1863	6,607,456 5 4	161,172 0 0
1825	4,580,919 0 0	417,535 16 0	1864	9,555,697 17 6	535,194 0 0
1826	5,896,161 7 6	608,606 16 0	1865	2,367,814 4 1	801,792 0 0
1827	2,512,636 17 6	33,019 16 0	1866	5,076,876 14 6	493,416 0 0
1828	1,008,559 2 6	16,198 5 0			

Nos. VI. and VII. *Gold and Silver Coins of different Countries.*—The following tables contain the assays, weights, and values of the principal gold and silver coins of all countries, computed according to the mint price of gold in England, and from assays made both at London and Paris, which have been found to verify each other.

VI. *Table showing the Legal Weight, Fineness, and Value of the Principal Gold Coins of all Countries, computed at the English Mint Price of 3l. 17s. 10½d. per Ounce of Standard Gold.*

Coins	Legal Weight	Legal Fineness	Value in Sterling
	dwts. grs.	crts. grs.	£ s. d.
AUSTRIA — 4 ducaton piece (1857)	8 23½	B. 1 2½	1 17 7½
1 ducat (1848)	3 23½	B. 1 2½	0 9 4½
1 Kremnitzer ducat (1857)	3 23½	B. 1 3	0 9 5½
1 Souverain d'or, Lombardo-Venetian Kingdom (1847)	7 6½	W. 0 1½	1 7 10½
1 krone	7 3½	W. 0 1½	1 7 3½
BELGIUM — See FRANCE, and Monetary Convention concluded between SWITZERLAND, FRANCE, BELGIUM, and ITALY on December 1865.			
BRAZIL — 20 milreis piece (1853) (1/12 proportion	11 10½	standard	2 4 10½
DENMARK — Frederik d'or (1853)	4 6½	W. 0 2	0 16 7
FRANCE — 100 francs piece (1858)	29 12½	W. 0 1½	5 19 3½
50 " "	14 18½	W. 0 1½	2 19 7½
40 " (1859)	11 22½	W. 0 1½	2 5 11½
20 " (1853)	5 21½	W. 0 1½	0 15 10½
10 " (1860)	2 21½	W. 0 1½	0 7 11½
5 " (1854)	1 10½	W. 0 1½	0 3 11½
See Monetary Convention concluded in December 1865 between FRANCE, BELGIUM, SWITZERLAND, and ITALY. [TREATIES, COMMERCIAL.]			
GERMANY — Baden, ducat (1841)	3 8½	B. 0 2	0 9 4½
Bavaria, ducat (1857)	3 7½	B. 1 2½	0 9 4½
Brunswick, 2 Wilhelm d'or piece (1856)	8 15½	W. 0 2	1 14 6½
Hamburg, ducat (1860)	3 6½	B. 1 2	0 9 4
Hanover, George d'or piece (1855)	4 6½	W. 0 2	0 16 5½
Ditto (1859)	7 3½	W. 0 1½	1 7 3½
Hesse Cassel, Wilhelm d'or piece (1840)	4 6½	W. 0 1½	0 16 4½
Mecklenburg Schwerin, Paul's d'or piece (1840)	4 6½	W. 0 2	0 16 5½
Prussia, Friedrich d'or (1844)	4 7½	W. 0 1½	0 16 5½
Ditto (1857)	7 3½	W. 0 1½	1 7 3½
Saxony, August d'or piece (1842)	4 7½	W. 0 1½	0 16 5½
Wirtemberg, ducat (1841)	3 5½	B. 1 2½	0 9 4½
GREAT BRITAIN — 5 sovereign piece	25 16	standard	£ s. d.
2 "	10 1	"	2 0 0
1 "	5 0½	"	1 0 0
½ "	2 15½	"	0 10 0
India gold mohur, Company's (1841)	7 19½	"	1 9 2
" native	7 22	B. 1 2½	1 13 0
" pagoda	2 4½	W. 1 3½	0 7 10½
GREECE — 20 drachma piece (1833)	3 17	W. 0 1½	0 14 7½
HOLLAND — ½ golden ducat (1849)	2 3½	W. 0 1½	0 8 3½
Ducat (1849)	3 5½	B. 1 2½	0 9 4½
ITALY — Sardinia, 100 lire piece (1853)	20 17½	W. 0 1½	3 19 3½
80 " 4 doppie (1829)	16 14½	W. 0 1½	3 3 3½
20 " doppia (1829)	4 3½	W. 0 1½	0 15 10½
20 " Regno d'Italia (1861)	4 3½	W. 0 1½	0 15 10½
Naples, 6 ducati piece, 2 cosette (1856)	4 20½	B. 1 3½	1 0 7½
Parma, 40 lire piece (1815)	4 3½	W. 0 1½	0 15 10½
Tuscany, zecchino (1833)	3 5½	B. 2 0	0 9 6½
ruspone, 3 zecchini (1856)	6 17½	B. 2 0	1 8 7½
Venice, Republic before 1797	2 5½	B. 1 3½	0 9 5½
The coinage of the Kingdom of ITALY since 1865. See Monetary Convention concluded in December 1865 between ITALY, FRANCE, BELGIUM, and SWITZERLAND. [TREATIES, COMMERCIAL.]			
JAPAN — Koban	8 6	W. 6 1½	1 5 1
MEXICO — Onza de oro, doubloon (1850), 1-2, 1-4, 1-8, 1-16 in proportion	17 9½	W. 1 0	3 4 8½
By Mexican decree of November 24, 1867, certain changes are introduced into the standard of money then in use in the Republic based on the exclusive adoption of the decimal system of coinage. The dollar is retained as the unit of currency, and the gold Coinage is to consist of pieces of the value of 20 dollars, 10 dollars, 5 dollars, 2½ dollars, and 1 dollar respectively.			
PERSIA — Toman	2 5	B. 1 0½	0 9 0½
PORTUGAL — Dobrão of 24,000 reis (1725)	34 11	standard	6 14 7
4 dobra, or João (1822)	9 5½	"	1 15 10½
4 dobrão, or Lisbonine, or Moidia d'ouro (1816)	6 2	"	1 6 11
4 corôa of 5,000 reis (1860)	5 6½	"	1 2 2
4 corôa d'ouro of 2,500 reis (1851)	3 1½	"	0 11 11
10 vendi piece (1850), 5, 2½, 1, in proportion	11 3½	W. 0 1½	2 2 7
ROME — 4 imperial of 5 rubles (1860)	4 5	standard	0 16 4
RUSSIA — Ducat	2 5½	B. 1 2½	0 9 4½
SOUTH AMERICAN REPUBLICS — Bolivia, see MEXICO.			
Chili, condor of 10 pesos (1859), 1-2, 1-5, 1-10, in proportion, see MEXICO	9 19½	W. 0 1½	1 17 6
Ecuador, see MEXICO.			
La Plata, see MEXICO.			
New Granada, see MEXICO.			
Condor of 10 pesos (1859), ½, ⅕, in proportion	10 8½	W. 0 1½	1 19 7½
Peru, see MEXICO.			
Vary much in weight and fineness.			
SPAIN — Onza de oro, doubloon (1794), ½, ⅕, ¼, in proportion	17 9½	W. 1 0	3 4 8½
Centen of 100 reales (1850)	5 9½	W. 0 1½	1 0 7½
4 pesetas piece, issued for the Philippine Islands (1861)	4 7½	W. 0 1½	0 16 6
2 pesetas piece, in proportion.			
40 reales piece (1861), 20 in proportion	2 3½	W. 0 1½	0 8 3
SWEDEN — Ducat (1859)	2 5½	B. 1 1½	0 9 3½
SWITZERLAND — See Monetary Convention concluded in December 1865 between SWITZERLAND, FRANCE, ITALY, and BELGIUM. [TREATIES, COMMERCIAL.]			
TURKEY — 100 piasters piece or Turkish lira (1859)	4 15½	W. 0 0 1-16	0 18 1
50 " (1807)	1 17½	W. 0 0 1-16	0 9 0½
20 " (1859)	0 23½	W. 0 0 1-16	0 3 8
10 " (1859)	0 11½	W. 0 0 1-16	0 1 8
UNITED STATES (America) — 20 dollars piece, California (1853)	34 5½	W. 0 3½	10 5 6
20 " (1861), 10, 5, 3, 2½, 1, in proportion	21 12	W. 0 1½	4 7 2
5 dollars piece (1861)	5 15	standard	1 1 10½
" 2½ (1798)	2 19½	"	0 10 11½

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VII. *Table showing the Legal Weight, Fineness, and Value of the Principal Silver Coins of all Countries computed at the Rate of 5s. 2d. per Ounce of Standard Silver.*

Coins	Legal Weight dts. grs.	Legal Fineness ozs. dwts.	Value in Sterling s. d.
Austria			
Maria Theresia thaler (1780), Levant thaler	18 14	W. 1 2	4 2
Kronenthaler (1797)	18 22½	W. 0 13½	4 2½
Conventionsthaler (1815)	18 19	W. 1 2	4 2
½ gulden piece (1859)	13 21	W. 0 6	3 11½
Vereinsthaler of 1½ gulden (1858)	11 21½	W. 0 6	2 11½
1 gulden (1858)	7 24½	W. 0 6	2 0
Zwanziger, 20 kreuzers (1848)	4 7½	W. 4 2	0 8½
6 kreuzer piece (1848)	1 5½	W. 5 17	0 1½
Belgium			
See France and the Monetary Convention concluded between Belgium, France, Switzerland, and Italy on Dec. 1865.			
Brazil			
2 milreis piece of 2,000 reis (1858), ½ and ¼ in proportion	16 9½	W. 0 2	4 2½
China			
Tael	25 15	B. 0 15½	6 6
Denmark			
Speciedaler (1846)	18 24	W. 0 12	4 6
2 rigsdaler piece (1855), 1, 1-2, 1-8, 1-16, 1-32 in proportion	18 23½	W. 0 12	4 6
France			
5 francs piece (1856)	16 1	W. 0 6	4 0
2 ,, (1851)	6 10½	W. 0 6	1 7
1 ,, (1854)	3 5½	W. 0 6	0 3½
50 centimes piece (1858)	1 11½	W. 0 6	0 0½
25 ,, (1847)	0 19½	W. 0 6	0 0½
20 ,, (1860)	0 15½	W. 0 6	0 0
According to the Monetary Convention concluded between France, Belgium, Switzerland, and Italy, the 2 francs, 1 franc, 50 centimes, 25 and 20 centime pieces are to be issued only, 835 fine (W. 4 14) fine, and the intrinsic value of these coins will therefore be proportionately reduced.			
Germany			
Baden, 3½ gulden or 2 thaler piece (1852)	25 20½	W. 0 6	6 7
2 gulden piece (1851)	15 13½	W. 0 6	3 5½
1 ,, (1851)	6 14½	W. 0 6	1 8½
½ ,, (1860)	3 7½	W. 0 6	0 10½
¼ ,, (1860)	1 13½	W. 0 6	0 5½
1 vereinsthaler 1½ gulden (1861)	11 21½	W. 0 6	2 11½
Bavaria, kronenthaler (1815)	18 23½	W. 0 12½	4 7½
3½ gulden piece, see Baden.			
2 ,, ,,			
1 ,, ,,			
½ ,, ,,			
vereinsthaler piece, see Prussia.			
Brunswick, 2 thaler piece, see Prussia.			
1 ,, before 1857, see Prussia.			
vereinsthaler, after ,, ,,			
Hamburg, 1 mare (1855), ½, ¼, ⅛ in proportion	5 21½	W. 2 2	1 2½
schilling (1857)	0 16½	W. 6 12	0 4½
Hanover, 2 thaler piece (1855), see Baden.			
1 ,, (1848), see Prussia			
vereinsthaler (1859) ,, 1-6, 1-12 in proportion.			
groschen, see Prussia.			
Mecklenburg Schwerin, thaler (1848)	14 7½	W. 2 9	3 0
gulden, or the so-called 'Neue ½ Stück' (1859)	8 11½	W. 0 14½	2 4
Prussia, 2 thaler piece (1841)	23 20½	W. 0 6	6 0
2 vereinsthaler piece (1861)	23 15½	W. 0 6	6 0
thaler (1831)	14 7½	W. 2 2	3 5 0
vereinsthaler (1859)	11 21½	W. 0 6	2 11½
⅓ thaler (1802)	5 8½	W. 5 2	1 0
1 6 ,, (1849 and 1861)	3 10½	W. 4 17	0 6
2½ silbergroschen (1862 and 1861)	2 2½	W. 6 12	0 2½
silbergroschen (1849 and 1861)	1 25½	W. 8 9	0 1
½ ,, (1856 and 1862)	0 17	W. 8 9	0 0½
Saxony, 2 thaler piece (1841 and 1861), see Prussia.			
thaler, vereinsthaler, see Prussia.			
species thaler (1828)	18 1	W. 1 2	4 2½
¼ thaler (1862)	5 8½	W. 3 2	1 0
1 6 ,, see Prussia.			
2 neugroschen piece (1862)	2 0½	W. 7 7	0 2
1 ,, ,,	1 8½	W. 8 7	0 1
Würtemberg, 3½ gulden piece or 2 thalers (1859) see Baden.			
2 ,, ,, (1851) ,,			
vereinsthaler (1861) see Baden.			
gulden (1857 and 1860) ,,			
½ gulden (1860) see Baden.			
Great Britain			
Crown	18 4½	Standard	5 0
½ crown	9 2½	,,	2 6
Shilling	3 15½	,,	1 0
Sixpence	1 19½	,,	0 6
Fourpence	1 5½	,,	0 4
Threepence	0 21½	,,	0 3
Florin	7 6½	,,	2 0
India: ½ rupee piece	15 10½	W. 0 2	3 11½
Rupee (East India Company's)	7 12½	Standard	1 11½
Greece			
5 drachmas piece (1853), 1, ½, ⅕ in proportion	14 9½	W. 0 6	3 7½
Holland			
2½ gulden piece (1848)	16 1½	R. 0 4½	4 2½
gulden (1848), ½ in proportion	6 10½	R. 0 4½	1 8½
25 cents (1849)	2 7½	W. 3 8½	0 4½
10 ,,	0 21½	W. 3 8½	0 0½
5 ,,	0 10½	W. 3 8½	0 0½
Italy			
Sardinia, 5 lire piece (1817 and 1852), 2, 1, ½, ¼ in proportion	16 1½	W. 0 6	4 0½
Naples, scudo of 120 grana (1818), ½ in proportion	17 16½	W. 1 2	4 1½
carlino of 10 grana (1857)	1 11½	W. 1 2	0 4
Tuscany, 10 lire piece (1807)	25 8½	B. 0 8	6 5½
francescone of 10 paoli (1858)	17 16½	W. 0 2	4 6½
francescbino of 5 paoli in proportion.			
fiorino of 2½ paoli, ½, ¼ in proportion.			
See France and the Monetary Convention concluded in Dec. 1865 between Italy, Switzerland, France, and Belgium.			
Japan			
Tehebu	5 14½	W. 0 2½	1 5½
Mexico			
Dollar, ½, ¼, ⅛ in proportion	17 9½	W. 0 8½	4 4½
A Mexican decree of November 28, 1867, directs the silver coinage of the Republic to consist of the dollar as the unit, and pieces of 25 centavos, 10 centavos, and 5 centavos respectively.			
Portugal			
3 patacas piece or double crusado (1319)	17 8	W. 0 6	4 4½
Crusado	9 0½	W. 0 2	2 4½
5 tostões, piece of 500 reis (1858)	8 0½	W. 0 2	2 0½
2 ,, 200 ,, (1855)	3 5½	W. 0 2	0 10½
Tostão of 100 reis (1861), ½ in proportion	1 14½	W. 0 2	0 5½
Rome			
Scudo (1846), 1, 1-2, 1-10, 1-20 in proportion	17 7	W. 0 6	4 4½
Russia			
Rubie (1849), 50, 25, 20, 15, 10, 5 copecks in proportion	18 2½	W. 0 13½	5 2½
South American Republics The dollar and its subdivisions vary much in weight and fineness; professedly they are mostly issued according to the Spanish monetary laws, but few of them possess their nominal value.			
Spain			
Piaster or peso (1793)	17 9½	W. 0 5½	4 4½
,, (1850)	16 21½	W. 0 6	4 3½
,, (1859), ½ in proportion	16 16½	W. 0 6	4 3½
Peseta of 4 reales (1859)	3 8½	W. 0 6	0 10½

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VII. *Table showing the Legal Weight &c. of Silver Coins*—continued.

Coins	Legal Weight	Legal Fineness	Value in Sterling
	dts. grs.	ozs. dwts.	s. d.
Spain (*continued*) - - Media peseta of 2 reales (1860)	1 16	W. 0 6	0 5
Real (1858)	0 20	W. 0 6	0 2½
Sweden - - Riksdaler species (1842)	22 6	W. 2 2	4 8
riksmynt of 100 öre (1860), 1-2, 1-4, 1-10 in proportion	5 11½	W. 2 2	1 1½
Switzerland - - See France and Monetary Convention concluded in December 1865 between Switzerland, Italy, France, and Belgium.			
Turkey - - 20 piasters piece (1845), 10, 5, 2, 1 in proportion	15 11½	W. 1 2½	3 7½
United States - Dollar (1857)	17 4½	W. 0 6	4 3½
½ dollar, 50 cents (1858)	8 0	W. 0 6	2 0
¼ dollar, 25 cents (1861)	4 0	W. 0 6	1 0
1-10 dollar, dime (1860)	1 14½	W. 0 6	0 4½
1-20 dollar, ½ dime (1860)	0 19½	W. 0 6	0 2½

Monetary Convention.—The following is a translation of the Monetary Convention recently concluded between France, Belgium, Italy, and Switzerland :—

Preamble.—His Majesty the King of the Belgians, his Majesty the Emperor of the French, his Majesty the King of Italy, and the Swiss Confederation, being equally desirous of establishing a more complete harmony between their monetary legislation, to remedy the inconveniences which press upon the communications and transactions between the inhabitants of their respective states in consequence of the diverse values of their coined moneys, and to contribute by the formation of a Monetary Union to the progress of uniformity in weights, measures, and currency, have resolved to conclude a convention to that effect, and have agreed upon the following articles :—

Art. 1. Belgium, France, Italy, and Switzerland are constituted a Union as respects the weights, values, form, and currency of their respective coinages in gold and silver. No change is made at present in the legislation relating to the copper money of each of the states.

Art. 2. The high contracting parties engage not to coin, nor allow to be coined, bearing their impressions and designs, any gold moneys in any other forms than those of gold pieces of 100 francs, 50 frs., 20 frs., 10 frs., and 5 frs., fixed as to weight, value, allowance for loss and diameter as follows :—

Nature of pieces	Full weight	Allowance in weight at home and abroad	Standard	Allowance from Standard	Diameter
		1000th parts	1000th parts	1000th parts	millimètres
francs	grammes				
100	32,258·06	1	900	2	35
50	16,129·03				28
20	6,451·61	2			21
10	3,225·80				19
5	1,612·90	3			17

They shall receive without distinction into their public treasuries gold pieces coined according to the foregoing conditions in one or other of the four states, with the reservation, nevertheless, of excluding all coins whose weight shall have been reduced by wear to the extent of ½ per cent. below the allowances mentioned above, or where the stamped impressions shall have become effaced.

Art. 3. The contracting Governments bind themselves not to make, nor allow to be made, silver pieces of 5 francs except according to the conditions of weight, standard, allowance, and diameter fixed as follows :—

Full weight	Allowance	Full Standard	Allowance	Diameter
25 grammes	$\frac{5}{1000}$	$\frac{900}{1000}$	$\frac{2}{1000}$	37 millimètres

They shall mutually receive the said coined pieces into their public treasuries, with the right of excluding those which shall have lost weight by wear to a greater extent than 1 per cent. below the allowance above mentioned, or where the stamped impression shall have become effaced.

Art. 4. The high contracting parties henceforth shall not manufacture silver pieces of 2 frs., 1 fr., 50 centimes, and 20 centimes, except according to the conditions of weight, standard, allowance, and diameter as follows :—

Description	Full weight	Allowance in weight	Full standard	Allowance	Diameter
		1000th parts	1000th parts	1000th parts	millimètres
francs	grammes				
2	10	5	835	3	27
1	5				23
0·50	2·50	7			18
0·20	1	10			16

These pieces shall be recast by the Governments that issued them when they shall have become reduced by wear to the extent of 5 per cent. below the above-mentioned allowance, or when their stamped impressions shall have become effaced.

Art. 5. The silver pieces of 2 frs., of 1 fr., of 50 centimes, and of 20 centimes manufactured otherwise than according to the various conditions specified in the foregoing article shall be withdrawn from circulation before January 1, 1869. This period is extended until January 1, 1878, in respect of pieces of 2 frs. and 1 fr. issued in Switzerland by virtue of the law of January 31, 1860.

Art. 6. Silver pieces manufactured according to the conditions of Art. 4 shall have legal currency among private individuals in the state which has manufactured them to the extent of 50 frs. in a single payment. The state which has issued them shall receive them from its own countrymen without any limit of quantity.

Art. 7. The public treasuries of each of the four countries shall accept silver moneys coined by one or several of the other contracting states in conformity with Art. 4 to the extent of 100 frs. in each single payment to such mentioned treasuries.

The Governments of Belgium, France, and Italy shall receive upon the same terms until January 1, 1878, the Swiss pieces of 2 frs. and 1 fr. issued by virtue of the law of January 31, 1860, and which are assimilated in all respects during the same period to pieces manufactured in accordance with the conditions of Art. 4. The reservation in respect of wear mentioned in Art. 4 applies in all cases.

Art. 8. Each of the contracting Governments undertakes to receive back from individuals or from the public treasuries of the other states the old coinage which it has issued, and to exchange it for an equal value in current coin (gold pieces or 5 fr. pieces in silver) upon condition that the sum presented for exchange shall not be less than 100 frs. This obligation shall be prolonged for a period of 2 years from the date of the expiration of the present treaty.

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Art. 9. Has reference to the number of coins to be issued by each state according to the respective populations.

Art. 10. The date of coinage shall hereafter be stamped upon pieces of gold and silver struck in any of the four states.

Art. 11. Has reference to mutual communications between the states as to their issue of coins &c.

Art. 12. The right of acceding to this convention is reserved to any other state which shall accept its obligations, and which shall adopt the monetary system of the Union in whatever relates to gold and silver specie.

Art. 13. Has reference to the application of the constitutional laws in the four states with respect to the execution of this treaty.

Art. 14. The present convention shall remain in force until January 1, 1880. If one year prior to that date notice to determine it shall not have been given, it shall remain obligatory in full force for a further period of 15 years, and in like manner for further periods of 15 years in the absence of notice.

Art. 15. Relates to the ratification of this convention made in four parts at Paris December 23, 1865.

Notes to the Tables of Foreign Coins.—The intrinsic value of many coins enumerated in the above tables may not be stated with perfect accuracy, as in some countries the legal mint standards are not strictly adhered to; but those to whom a knowledge of the exact value of gold and silver coins is more particularly essential are not likely to be misled by it.

The statements (reports) of the purity of gold and silver coins by English assayers are made in comparison with the fixed English standards, and the comparative difference is called their *betterness* or *worseness*, as the case may be.

Betterness means better than standard, and is expressed by the letter B; *worseness* means worse than standard, and is expressed by the letter W. Thus for a gold coin, B 1. 2 means 1 carat and 2 carat grains better than standard gold, and consequently contains 23 carats and 2 carat grains of pure gold and 2 carat grains of alloy.

For a silver coin, W 2. 2 means that it is 2 oz. 2 dwts. worse than standard silver, and consequently contains only 9 oz. of pure silver and 3 oz. of alloy.

The fineness of gold and silver coin in France is expressed in *millièmes* or thousandth parts: thus a gold or silver coin of $\frac{950}{1000}$ fine means that it contains 950 parts of pure gold or silver and 50 parts of alloy.

Nos. VIII. and IX.—As they contain much curious and useful information, we reprint the tables of the gold and silver coins of different countries from Dr. Kelly's *Cambist*, that appeared in previous editions of the *Commercial Dictionary*.

VIII. *Gold Coins of different Countries.—Table containing the Assays, Weights, and Values of the Principal Gold Coins of all Countries, computed according to the Mint Price of Gold in England, and from Assays made both at London and Paris, which have been found to verify each other.**

*** The publishers of this work purchased the right to publish this Table from Dr. Kelly, in the second edition of whose *Cambist* it originally appeared.

Coins		Assay	Weight	Standard Weight	Contents in Pure Gold	Value in Sterling
		car. gr.	dwt. gr.	dwt. gr. m.	gr.	*s.* *d.*
Austrian Dominions	Sovereign	W. 0 0½	5 14	3 13 15	78·6	13 10·92
	Double ducat	B. 1 1½	4 19	4 20 5	106·4	18 9·97
	Ducat Kremnitz, or Hungarian	B. 1 3	2 5½	2 10 3	53·3	9 5·91
Bavaria	Carolin	W. 3 2	6 5½	5 5 10	115·	20 4·23
	Max d'Or, or Maximilian	W. 3 2½	4 4	3 14 0	77·	13 7·44
	Ducat	B. 1 2½	2 5½	2 19 11	52·8	9 4·12
Bern	Ducat (double &c. in proportion)	B. 1 1½	1 23	2 2 1	45·9	8 1·48
	Pistole	W. 0 1	4 21	4 19 0	105·5	18 7·86
Brunswick	Pistole (double in proportion)	W. 0 1½	4 21½	4 19 5	105·7	18 8·48
	Ducat	B. 1 0½	2 5½	2 8 9	51·8	9 2·
Cologne	Ducat	B. 1 2	2 5½	2 5 3	52·6	9 3·70
Denmark	Ducat current	W. 0 3½	2 0	1 21 19	43·2	7 5·62
	Ducat specie	B. 1 2	2 5½	2 9 8	53·6	9 3·70
	Christian d'Or	W. 0 1	4 7	4 5 16	93·3	16 6·14
England	Guinea	Standard	5 9½	5 9 10	118·7	21 0·
	½ guinea	Standard	2 16½	2 16 15	59·3	10 6·
	⅓ piece	Standard	1 19	1 19 0	39·6	7 0·
	Sovereign	Standard	5 3	5 3 5	113·1	20 0·
France	Double Louis (coined before 1786)	W. 0 2	10 11	10 5 6	214·9	39 5·44
	Louis	W. 0 2	5 5½	5 2 19	112·4	19 10·71
	Double Louis (coined since 1786)	W. 0 1½	9 20	9 15 19	212·6	37 7·53
	Louis	W. 0 1½	4 22	4 19 19	106·3	18 9·73
	Double Napoleon, or piece of 40 francs	W. 0 1½	8 7	8 3 0	179·	31 8·36
	Napoleon, or piece of 20 francs	W. 0 1½	4 3½	4 1 10	89·7	15 10·5
	New Louis (double &c.) the same as the Napoleon.					
Frankfort on the Maine	Ducat	B. 1 2½	2 5½	2 9 14	52·9	9 4·34
Geneva	Pistole, old	W. 0 2	4 7	4 4 18	92·5	16 4·45
	Pistole, new	W. 0 0½	3 15½	3 15 4	80·	14 1·9
Genoa	Sequin	B. 1 3½	2 5½	2 10 6	53·4	9 5·41
Hamburg	Ducat (double in proportion)	B. 1 2½	2 5½	2 9 14	52·9	9 4·35
Hanover	George d'or	W. 0 1½	4 6½	4 5 3	92·6	16 4·66
	Ducat	B. 1 3½	2 5½	2 10 3	53·3	9 5·19
	Gold florin (double in proportion)	W. 3 0½	2 2	1 18 6	39·	6 10·83
Holland	Double ryder	Standard	12 21	12 21 0	283·2	50 1·46
	Ryder	Standard	6 9	6 9 0	140·2	24 9·75
	Ducat	B. 1 3½	2 5½	2 9 12	52·8	9 4·13
Malta	Double Louis	W. 1 3½	10 16	9 18 18	215·3	38 1·25
	Louis	W. 1 3½	5 8	4 21 16	108·	19 1·37
	Demi Louis	W. 1 3½	2 16	2 11 5	54·5	9 7·75
Milan	Sequin	B. 1 3½	2 5½	2 10 0	53·2	9 4·98
	Doppia or pistole	W. 0 1	4 14	4 0 8	88·4	15 7·74
	40 lire piece of 1808	W. 0 1½	8 8	8 4 0	179·7	31 9·64
Naples	6 ducat piece of 1783	W. 0 2½	5 16	5 12 18	121·9	21 6·59
	2 ducat piece, or sequin, of 1762	W. 1 2½	1 20½	1 16 6	37·4	6 7·42
	3 ducat piece, or oncetta, of 1818	B. 1 3½	2 10½	2 15 1	58·1	10 3·40

* The London Assays in this Table were made by Robert Bingley, Esq. F.R.S., the King's Assay Master of the Mint, and those at Paris by Pierre Frédéric Honneville, Essayer du Commerce, as published in his elaborate work on the Coins of all Nations.

Specimens of all the foreign coins brought to London for commercial purposes have been supplied for this Table from the Bullion Office, Bank of England, by order of the Bank Directors, and have been selected by John Humble, Esq., the chief clerk of that office, who also examined the Tables in their progress. It may likewise be added, that the Mint Reports of these commercial coins are chiefly from average assays; and that all the computations have been carefully verified by different calculators.—(Note by Dr. Kelly to second edition of the *Cambist*, published in 1821.)

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VIII. *Gold Coins of different Countries*—continued.

Coins	Assay	Weight	Standard Weight	Contents in Pure Gold	Value in Sterling
	car. gr.	dwt. gr.	dwt. gr. m.	grains	£. d.
NETHERLANDS - Gold lion, or 14 florin piece	Standard	5 7½	5 7 16	117·1	20 8·69
10 florin piece (1820)	W. 0 1½	4 5½	4 5 25	93·2	16 5·93
PARMA - Quadruple pistole (double in proportion)	W. 1 0	18 9	17 12 18	386·	68 3·78
Pistole or doppia of 1787	W. 0 3	4 14	4 10 4	97·1	17 2·83
Ditto of 1796	W. 1 0½	4 14	4 8 14	95·9	16 11·67
Maria Theresa (1818)	W. 0 1½	4 5½	4 1 10	89·7	15 10·5
PIEDMONT - Pistole coined since 1785 (½ &c. in proportion)	W. 0 1½	5 20	5 17 0	125·6	22 2·75
Sequin (¼ in proportion)	B. 1 2½	2 5½	2 9 12	52·9	9 4·34
Carlino, coined since 1785 (½ &c. in proportion)	W. 0 1½	29 6	28 20 0	634·4	112 3·33
Piece of 20 francs, called *Marengo*	W. 2 0	4 5½	3 18 4	82·7	14 7·63
POLAND - Ducat	B. 1 2½	2 5½	2 9 12	52·9	9 4·34
PORTUGAL - Dobrâon of 21,000 rees	Standard	34 12	34 12 0	759·	134 3·96
Dobra of 12,800 rees	Standard	18 6	18 6 0	401·5	71 0·70
Moidore or Lisbonnine (½ &c. in proportion)	Standard	6 22	6 22 0	152·2	26 11·21
Piece of 16 testoons, or 1,600 rees	W. 0 0½	2 6	2 5 14	49·5	8 8·70
Old crusado of 400 rees	W. 0 0½	0 15	0 14 18	13·6	2 4·88
New crusado of 480 rees	W. 0 0½	0 16½	0 16 2	14·8	2 7·43
Milree (coined for the *African* colonies, 1755)	Standard	0 19	0 19 15	18·1	3 3·44
PRUSSIA - Ducat of 1748	B. 1 2½	2 5½	2 9 14	52·9	9 4·04
Ducat of 1787	B. 1 2	2 5½	2 9 6	52·6	9 3·71
Frederick (double) of 1769	W. 0 1½	8 14	8 9 18	185·	32 8·90
Frederick (single) of 1778	W. 0 1½	4 7	4 5 4	92·8	16 5·08
Frederick (double) of 1800	W. 0 2	8 14	8 9 6	184·5	32 7·84
Frederick (single) of 1800	W. 0 2	4 7	4 4 13	92·2	16 3·42
ROME - Sequin (coined since 1760)	B. 1 3½	2 4½	2 9 0	52·2	9 2·86
Scudo of the Republic	W. 0 1½	17 0½	16 16 6	367	64 11·43
RUSSIA - Ducat of 1796	B. 1 2½	2 6	2 10 0	53·2	9 4·98
Ducat of 1765	B. 1 2	2 5½	2 9 8	52·6	9 3·71
Gold ruble of 1756	Standard	1 0	1 0 10	22·5	3 11·78
Ditto of 1799	W. 0 0½	0 18½	0 18 14	17·1	3 0·31
Gold poltin of 1777	Standard	0 9	0 9 0	8·2	1 5·41
Imperial of 1801	B. 1 2½	7 17½	8 6 8	181·9	32 9·31
½ imperial of 1801	B. 1 2½	3 20	4 3 4	90·9	16 1·05
Ditto of 1818	B. 0 0½	4 3½	4 3 12	91·3	16 1·98
SARDINIA - Carlino (½ in proportion)	W. 0 2½	10 7½	9 23 16	219·8	39 8·10
SAXONY - Ducat of 1784	B. 1 2	2 5½	2 9 8	52·6	9 3·71
Ducat of 1797	B. 1 2½	2 5½	2 9 14	52·9	9 4·34
Augustus of 1754	W. 0 2½	4 6½	4 3 8	91·2	16 1·69
Augustus of 1784	W. 0 1½	4 6½	4 4 12	92·2	16 3·81
SICILY* - Ounce of 1734	W. 1 2½	2 20½	2 15 8	68·2	12 3·60
Double ounce of 1758	W. 1 2	5 17	5 7 14	117·	20 8·48
SPAIN - Doubloon of 1772 (double and single in proportion)	W. 0 2½	17 4½	61 21 16	372·	65 10·05
Quadruple pistole of 1801	W. 1 1	17 9	16 9 6	360·5	63 9·62
Pistole of 1801	W. 1 1	4 2½	4 2 6	90·1	15 11·35
Coronilla, gold dollar, or vintem of 1801	W. 1 2½	1 3	1 0 18	22·8	4 0·42
SWEDEN - Ducat	B. 1 2	2 5	2 8 12	51·9	9 2·21
SWITZERLAND - Pistole of the Helvetic Republic of 1800	W. 0 1½	4 21½	4 19 9	105·9	18 8·91
TREVES - Ducat	B. 1 2	2 5	2 9 8	52·6	9 3·71
TURKEY - Sequin fonduell of Constantinople of 1773	W. 2 2½	2 5½	1 23 8	43·3	7 7·94
Sequin fonduell of 1789	W. 2 3½	2 5½	1 22 16	42·9	7 7·11
½ ditto (1818)	W. 3 3½	0 18½	0 13 5	12·16	2 1·82
Sequin fonduell	W. 2 3	2 5	1 22 7	42·5	7 6·26
Yermeerbeshlek	B. 0 3½	2 1½	3 4 13	70·3	12 5·30
TUSCANY - Zecchino or sequin	B. 1 3½	3 5½	2 10 14	53·6	9 5·83
Ruspone of the kingdom of Etruria	B. 1 3½	6 17½	7 7 13	161·	28 5·93
UNITED STATES† Eagle (½ and ¼ in proportion)	W. 0 0½	11 6	11 4 8	246·1	43 6·66
VENICE - Zecchino or sequin (½ and ¼ in proportion)	B. 1 3½	2 6	2 10 10	53·6	9 5·83
WIRTEMBERG - Carolin	W. 3 2	6 3½	5 4 0	113·7	20 1·47
Ducat	B. 1 2	2 5	2 8 12	51·9	9 2·21
Ducat (double and ½ ducat in proportion)	B. 1 2	2 5½	2 9 8	52·6	9 3·71
EAST INDIES - *Mohur of 1720*	B. 1 2½	7 22½	8 11 15	186·8	33 0·79
Mohur, ½ (1787), (½ in proportion)	B. 1 2½	3 23½	4 16 10	91·	16 7·64
Mohur Sicca of Bengal	B. 1 3½	7 23	8 15 0	189·8	30 1·01
Mohur of the Dutch East India Company (1783)	W. 3 3½	10 2	8 8 0	183·4	32 6·50
Mohur, ½ ditto (1801)	W. 3 1½	5 3½	4 18 18	98·2	17 0·50
Rupee, Bombay (1818)	B. 0 0½	7 11	7 11 15	164·7	29 1·78
Rupee of Madras (1818)	Standard	7 12	7 12 0	165·	29 2·42
Pagoda, star	W. 3 0	2 4½	1 21 11	41·8	7 4·77

* Much variation is found in the fineness of the Sicilian gold coins.

† This statement refers to the American eagle coined previously to 1834. *Its weight* was then reduced from 246 gr. pure gold to 232 do.; and hence, as the eagle is the equivalent of 10 dollars, the sovereign, which was previously worth 4 dols. 57 cents, has since been worth 4 dols. 87 cents. The reader will find in the art. NEW YORK in this work, full details in regard to the coins of the United States, with the values of other coins rated in them.

IX. *Silver Coins of different Countries.—Table containing the Assays, Weights, and Values of the Principal Silver Coins of all Countries, computed at the Rate of 5s. 2d. per Ounce Standard, from Assays made both at the London and Paris Mints.*

Coins	Assay	Weight	Standard Weight	Contents in Pure Silver	Value in Sterling
	oz. dwt.	dwt. gr.	dwt. gr. m.	grains	s. d.
AUSTRIA - Rixdollar of Francis II. (1800)	W. 1 5	18 1	16 0 4	355·5	4 1·61
Rixdollar of the kingdom of Hungary	W. 1 2	18 1	16 6 1	360·9	4 2·39
½ rixdollar, or florin, *Convention*	W. 1 5	9 0½	8 2 1	179·6	2 1·07
Copfstuck, or 20 kreutzer piece	W. 4 5	4 6½	2 16 5	59·4	0 8·29
17 kreutzer piece	W. 4 8	4 0	2 9 18	53·5	0 7·47
Halbe copf, or 10 kreutzer piece	W. 5 5	2 11	1 7 1	28·8	0 4·01
BADEN - Rixdollar	W. 1 4	18 2	16 3 1	358·1	4 2·
BAVARIA - Rixdollar of 1800 (½ in proportion)	W. 1 4½	17 12	15 13 13	345·6	4 0·25
Copfstuck	W. 4 5	4 6½	2 16 5	59·4	0 8·29
BELGIUM - Since 1832 the money of Belgium has been identical with that of France.					
BERN - Patagon or crown (½ in proportion)	W. 0 7	18 22	18 7 14	406·7	4 8·79
Piece of 10 batzen	W. 1 2	5 5	4 14 17	102·5	1 2·31
BREMEN - Piece of 48 groten	W. 2 2	11 0	8 22 1	194·	2 3·61
BRUNSWICK - Rixdollar, *Convention*	W. 1 5	18 1	16 4 4	359·2	4 2·15
½ rixdollar	W. 1 5	9 0½	8 2 2	179·6	2 1·07
Gulden, or piece of ½, fine, of 1764	B. 0 16	8 10½	9 1 1	200·8	2 4·03
Gulden, common, of 1764	W. 1 2	9 0	8 2 10	180·	2 1·43
Gulden, ditto, of 1795	W. 2 2	11 3½	8 23 7	199·1	2 3·80
½ gulden, or piece of ½, of 1764	W. 1 2	4 12	4 1 5	90·	1 0·56
DENMARK - Rykdaler, specie, of 1788	W. 0 13	18 14	17 11 17	388·4	4 6·23
New piece of 4 marks	W. 0 12	12 9	11 16 14	259·8	3 0·77
½ rykdaler	W. 0 13	9 7	8 17 8	194·2	2 3·11
Mark, specie, or 1.6 rykdaler	W. 3 1	4 0	2 21 12	64·4	0 7·59
Rixdollar, specie, of Sleswig and Holstein (pieces of ½ and ¼ in prop.)	W. 0 12	18 13½	17 12 6	389·4	4 6·37
Piece of 24 skillings	W. 3 7	5 22	5 2 10	68·9	0 9·82

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IX. *Silver Coins of different Countries*—continued.

Coins	Assay	Weight	Standard Weight	Contents in Pure Silver	Value in Sterling
	oz. dwt.	dwt. gr.	dwt. gr. mi.	grains	s. d.
ENGLAND • Crown (old)	Standard	12 [illegible]	19 8 10	429·7	5 0
Half crown	Standard	9 10[illegible]	9 16 5	214·8	2 6
Shilling	Standard	5 [illegible]	3 [illegible] 0	85·9	1 0
Sixpence	Standard	1 [illegible]	1 [illegible] 10	42·9	0 6
Crown (new)	Standard	18 [illegible]	18 4 7	406·6	4 8·36
Half crown	Standard	9 [illegible]	9 [illegible] 4	203·3	2 4·18
Shilling	Standard	3 15[illegible]	3 15 6	81·7	0 11·27
Sixpence	Standard	1 19[illegible]	1 19 14	40·5	0 5·63
FRANCE • Piece of 5 francs	W. 0 7	16 1	15 12 4	344·9	4 0·16
Piece of 2 francs	W. 0 7	6 11	6 6 [illegible]	138·8	1 7·38
Franc	W. 0 7	3 [illegible]	[illegible] 1	69·4	0 [illegible]
Demi-franc	W. 0 [illegible]	1 15	1 13 6	34·7	0 4·84
FRANKFORT.*					
GENEVA • Patagon	W. 1 0	17 9	15 19 8	351·	4 1·05
Piece of 15 sous of 1794	W. 2 6	2 [illegible]	1 15 1	36·1	0 5·04
GENOA • See SARDINIA.					
HAMBURG • Riksdollar, specie	W. 0 10	18 18	17 21 12	397·5	4 7·49
Double mark, or 32 schilling piece (single in proportion)	W. 2 3	11 18	9 11 8	210·5	2 5·36
Piece of 8 schillings	W. 3 1 6	3 [illegible]	2 6 4	50·1	0 6·99
Piece of 4 schillings (See Art. HAMBURG.)	W. 4 6	2 2	1 6 12	28·3	0 3·95
HANOVER • Riksdollar, *Constitution*	W. 0 9	18 19	18 0 14	400·3	4 2·89
Florin, or piece of $\frac{1}{3}$, fine	H. 0 16	8 10	9 0 10	200·3	2 5·06
$\frac{1}{4}$ florin, or piece of $\frac{1}{6}$, ditto	H. 0 16	4 4	4 11 4	99·9	1 1·85
$\frac{1}{6}$, or piece of 6 gutel groschen, ditto	H. 0 16	2 1	2 4 10	49·6	0 6·78
Florin, or piece of $\frac{1}{3}$, base	W. 2 1	11 [illegible]	8 23 15	199·6	2 3·87
HESSE CASSEL • Riksdollar, *Convention*	W. 1 6	18 1	15 22 6	353·	4 1·39
Florin, or piece of $\frac{1}{24}$ ($\frac{1}{2}$ in proportion)	W. 1 6	9 0[illegible]	7 23 3	176·8	2 0·68
Thaler of 1789	W. 0 10[illegible]	18 [illegible]	11 17 5	259·7	3 0·26
Ecu, *Convention* (1815)	W. 1 8	17 [illegible]	15 21 2	349·3	4 0·27
New gros	W. 6 14	4	0 14 5	10·3	0 1·43
HOLLAND • Ducatoon	W. 0 7	20 7	20 2 12	446·4	5 2·33
Piece of 3 florins	W. 0 16	18 6	15 20 8	375·9	4 4·99
Riksdollar (the assay varies)	W. 0 16	9 0	8 8 8	185·4	2 1·88
$\frac{1}{4}$ riksdollar	W. 0 14	4 18	6 14 14	146·8	1 8·49
Florin or guilder ($\frac{1}{3}$ in proportion)	W. 0 10[illegible]	4 12	4 0 18	89·4	1 0·90
12 Stiver piece	W. 0 [illegible]	4 13	4 0 2	141·6	1 7·77
Florin of Batavia	W. 0 [illegible]	17 [illegible]	16 13 18	366·9	4 5·37
Riksdollar, or 50 stiver piece	W. 0 17	18 8	17 15 14	381·7	4 6·72
RUSSIA • Riksdollar, specie	W. 2 3	11 18	9 11 8	210·5	2 5·36
Double mark	W. 2 3	5 21	4 17 14	104·1	1 2·67
Mark	W. 0 3	17 0	16 18 10	378·3	4 5·98
SPAIN • Scudo	W. 0 3	1 20[illegible]	1 7 11	29·5	0 4·09
Barbone	W. 2 3	14 [illegible]	13 4 14	337·4	3 11·11
MALTA • Ounce of 30 tari of Emmanuel Pinto	W. 2 19	1 7	0 19 2	17·7	0 2·41
2 Tari piece	W. 0 7	11 [illegible]	10 9 10	239·6	3 8·62
MILAN • Scudo of 6 lire ($\frac{1}{4}$ in proportion)	W. 4 10	4 0	2 9 0	52·8	0 7·37
Lira, new	W. 0 3	3 10	2 0 4	44·9	0 7·58
Lira, old	W. 0 7	14 [illegible]	11 10 4	272·2	3 8·71
Scudo of the Cisalpine Republic	W. 2 18	4 17	3 11 8	77·2	0 10·78
Piece of 50 soldi of ditto	W. 0 11	18 [illegible]	17 8 9	383·2	4 5·78
MODENA • Scudo of 15 lire, 1739 (double &c. in proportion)	W. 0 3	5 19	5 17 2	126·8	1 5·70
Scudo of 5 lire, of 1784	W. 3 3	18 [illegible]	12 22 12	287·4	3 4·13
Scudo of 1796	W. 1 0	14 15	13 7 8	295·4	3 5·24
NAPLES • Ducat, new ($\frac{1}{3}$ in proportion)	W. 1 0	12 15	16 0 18	348·	4 1·71
Piece of 12 Carlini of 1791	W. 1 2	12 [illegible]	15 22 12	343·9	4 1·41
Ditto of 1796	W. 1 2	12 [illegible]	15 23 18	345·6	4 1·60
Ditto of 1804 ($\frac{1}{3}$ in proportion)	W. 1 2	12 [illegible]	13 7 0	295·1	3 5·20
Ditto of 10 Carlini (1818)	W. 0 11	10 0	17 19 4	395·2	4 7·18
NETHERLANDS • Crown ($\frac{1}{3}$ &c. in proportion)	W. 6 5	3 4	1 9 18	31·3	0 4·37
5 Stiver piece	W. 0 [illegible]	6 [illegible]	6 16 6	148·4	1 9·72
Florin of 1816	W. 4 [illegible]	5 11	5 0 2	75·	0 10·46
$\frac{1}{4}$ florin (with divisions in proportion)	W. 0 9	16 11	15 18 18	370·6	4 0·95
PARMA • Ducat of 1784	W. 1 [illegible]	16 [illegible]	16 2 18	357·9	4 1·97
Ditto of 1796 ($\frac{1}{3}$ in proportion)	W. 1 4	4 14	4 2 2	90·7	1 0·66
Piece of 5 lire	W. 1 2	18 1	16 6 0	360·8	4 2·38
POLAND • Riksdollar, old	W. 2 17	15 10[illegible]	11 11 6	264·5	3 11·51
Ditto, new (1794)	W. 4 2	6 0	4 [illegible]	84·	0 11·72
Florin, or gulden	W. 0 4	11 [illegible]	10 19 0	239·2	2 9·40
PORTUGAL • New crusado (1690)	W. 0 [illegible]	9 8	9 1 0	200·2	2 3·95
Ditto (1718)	W. 0 7	9 9	9 1 18	201·6	2 4·15
Ditto (1796)	W. 0 7	4 16	4 12 10	104·4	1 0·01
Doze vintems, or piece of 240 reis (1799)	W. 0 7	2 [illegible]	1 22 18	42·1	0 0·86
Testoon (1799)	W. 0 4	9 3	8 23 4	198·9	2 4·67
New crusado (1802)	W. 0 9	2 [illegible]	2 2 8	46·6	0 0·50
Sez vintems, or piece of 120 reis (1802)	W. 0 9	2 0	1 22 0	44·5	0 5·93
Testoon (1802)	W. 0 9	1 [illegible]	1 1 4	23·3	0 3·25
Trez vintems, or piece of 60 reis (1802)	W. 0 9	0 23	0 22 0	20·4	0 2·84
Half testoon (1802)					
PORTUGUESE COLONIES • Piece of 8 macutes, of Portuguese Africa	W. 0 9	7 12	7 4 14	159·9	1 10·31
Ditto of 6 ditto	W. 0 9	5 13	5 7 12	118·	0 4·47
Ditto of 4 ditto	W. 0 9	3 16	3 12 8	78·1	1 10·90

* By one of the articles of the Zollverein, or Customs-Union of Germany, it was stipulated that the settlements for the duties should be made either in Prussian dollars or in florins, at the rate of 7 florins for 4 Prussian dollars. There were, however, no florins in existence exactly of this value; but as the nearest approach to it was a valuation called the 24 guldenfuss, or florin-foot, these Zollverein florins were nominally reckoned to be in this rate, though the difference amounts to more than 2 per cent.

'The term 24 guldenfuss implies that the mark weight of fine silver is rated at 24 gulden or florins. It was formed by giving to the coins minted or valued in 20 guldenfuss an increased value of one-fifth, as rating the 20 kreutzer piece at 24 kreutzers. At 66*d.* per ounce standard, the value of this mark of fine silver is worth 10*s.* 7½*d.* sterling, from which the value of the different German monetary integers is readily obtained; as reckoning 27½ marks banco or 34 marks current of Hamburg, 14 dollars of Prussia, 24½ florins of South Germany, 20 florins of Austria, and also 60 lire Austriache of Lombardy, to be of this amount.

'In order, therefore, to prevent the loss or inconvenience which would attend their adhering to this mode of valuation, a money convention was entered into on August 25, 1837, among the States forming the Union, by which it was agreed upon that a new basis of valuation should be adopted for their coins, under the term of Süddeutscher Währung, or South German valuation, at the rate of 24½ gulden or florins from the mark's weight of fine silver.

'Bavaria, Wirtemberg, Baden, and Saxony have since issued their coins at this rate, and the other States of the Confederation are doing or preparing to do the same. Among them Frankfort, in 1840, began the mintage of coins of this value; and by a regulation of the chamber of commerce of this free city, all the rates of exchange, as well as the values of bullion and foreign coins, were ordered to be expressed in this Süddeutscher Währung from the beginning of the present year (1843). One of these new and very exactly-minted florins was assayed by Messrs. Johnson and Cook, of Hatton Garden, who reported it to be, full weight, 6 dwts. [illegible] grains, worse 6 dwts., gold under 2 grains; from which the value, at 66*d.* per ounce standard, is very exactly 10½*d.* sterling, making the [illegible] of exchange with London 120½ florins in S. D. W. for 10*l.* sterling.

'I have been thus particular in these explanations, partly because several persons imagine that the late alteration in the rate of exchange with Frankfort was made in compliance with the wishes, or to suit the convenience, of one or more of our leading houses in exchange negotiations, but more particularly because it is maintained by many that the valuation of this rate is not merely nominally, but really, in Y6 guldenfuss. This is a point of no small importance to the commercial world, for had it been so, the par of exchange with London would have been only 118 florins for 10*l.* sterling, and the difference between this and the present price of sight bills on Frankfort would have exceeded 2½ per cent.; a variation which every practical exchange-broker will know could not exist, except under very extraordinary circumstances, and with nearly corresponding differences in the other rates of exchange; neither of which causes is now in operation.'—*Letter of Wolfram Tate, Esq., Author of 'The Cambist,' to the Times.*)

IX. *Silver Coins of different Countries*—continued.

Coins	Assay	Weight	Standard Weight	Contents in Pure Silver	Value in Sterling
	oz. dwt.	dwt. gr.	dwt. gr. mi.	grains	s. d.
PRUSSIA - * Rixdollar, Prussian currency (½ in proportion)	W. 2 5	14 6½	11 9 0	252·6	2 11·27
Rixdollar, *Convention*	W. 1 3	18 1	16 4 2	359·	4 2·13
Florin, or piece of ⅓	W. 2 8	11 2	8 22 8	198·4	2 3·70
Florin of Silesia	W. 2 2	9 11	7 16 0	170·3	1 11·78
Drittel, or piece of 8 good groschen	W. 3 3	5 8½	3 20 4	85·3	0 11·91
Piece of 6 groschen	W. 2 8	3 14	2 19 6	62·3	0 8·69
ROME - Scudo, or crown (coined since 1755)	W. 0 4	17 1	16 17 13	371·5	4 5·87
Mezzo scudo, or half-crown	W. 0 4	8 12½	8 8 16	185 7	2 1·93
Testone (1785)	W. 0 5	5 2	4 23 4	110·3	1 5·40
Paolo (1785)	W. 0 4	1 17½	1 16 4	37·2	0 5·19
Grosso, or half paolo (1785)	W. 0 5	0 20½	0 20 0	16·5	0 2·58
Scudo of the Roman Republic (1799)	W. 0 6	17 1	16 13 13	368·1	4 5·40
RUSSIA - Rouble of Peter the Great	W. 2 7	18 1	14 1 8	312·1	3 7·58
Ditto of Catherine I. (1725)	W. 2 4½	17 11	13 23 0	309 9	3 7·27
Ditto of Peter II. (1727)	W. 2 12	18 5½	13 23 4	310·	3 7·23
Ditto of Anne (1734)	W. 1 11	16 14½	14 6 16	317·2	3 8·29
Ditto of Elizabeth (1730)	W. 1 7	16 12	14 11 16	321·8	3 8·93
Ditto of Peter III. (1762)	W. 2 2	15 10	12 12 0	277·5	3 2·75
Ditto of Catherine II. (1790)	W. 2 4	15 12	12 10 6	275·9	3 2·52
Ditto of Alexander	W. 0 16	13 12	12 12 12	278·1	3 2·83
N.B. It was ordered by a ukase, dated July 1, 1839, *that this coin should be the standard of value in Russia.* It is divided into 100 copecks; and the other silver coins are of the value of 75, 50, 25, and 10 copecks each. This same ukase enacts that 1 silver rouble shall henceforth be equal to 3½ old paper roubles.					
SARDINIA - Since 1816 the money of Sardinia has been identical with that of France. The scudo of Genoa=6 fr. 56 cents.					
SAXONY - Rixdollar, *Convention* (⅔ and ⅓ in proportion)	W. 1 3	13 0	16 3 4	358·2	4 2·01
Piece of 16 groschen of Leipsic	W. 2 2	9 9½	7 14 16	169·1	1 11·61
Rixdollar current of Saxe Gotha	W. 4 4½	18 1	11 4 2	248·1	2 10·64
1-6 thaler of 1804	W. 4 11	3 11	2 0 19	45 3	0 6·32
Ditto of 1808	W. 4 11½	3 5½	1 21 8	42·1	0 5·87
Ditto of Jerome Bonaparte of 1809	W. 5 4	3 17	1 23 6	43·7	0 6·10
SICILY - Scudo (⅔ in proportion)	W. 1 4	17 14	15 16 8	348·2	4 0·62
Piece of 40 grains	W. 1 2	5 21	5 7 2	117·5	1 4·40
SPAIN - † Dollar, of late coinage	W. 0 8	17 8	16 17 0	370·9	4 3·79
Half dollar, ditto	W. 0 8	8 16	8 8 10	185·4	2 1·68
Mexican peceta (1774)	W. 0 8	4 7½	4 3 16	92·3	1 0·86
Real of Mexican plate (1775)	W. 0 8	2 3½	2 1 20	46·1	0 6·43
Peceta provincial of 2 reals of new plate (1775)	W. 1 9½	5 18	3 6 0	72·2	0 10·08
Real of new plate (1795)	W. 1 9½	1 21	1 15 0	36·1	0 5·04
SWEDEN - Rixdollar (1762)	W. 0 12	18 20	17 19 10	395·5	4 7·22
Ditto of late coinage	W. 0 14½	18 17	17 12 0	388·5	4 6·98
SWITZERLAND - Ecu of 40 batzen of Lucerne (1796)	W. 0 5	19 0	18 13 14	412·3	4 9·57
Half ditto	W. 1 2	9 20	8 20 12	196·7	2 3·46
Florin, or piece of 40 schillings of Lucerne (1797)	W. 1 5	4 22	4 8 14	96·8	1 1·51
Ecu of 40 batzen of the Helvetic Republic, 1798 (⅔ in proportion)	W. 0 6	18 23	18 10 14	409·5	4 9·18
Ecu of 4 franken	W. 0 7	18 23	18 8 12	407·6	4 9·18
TURKEY - ½ Piastre of Selim of 1801	W. 5 6	8 6	4 7 8	95·7	1 1·36
Piastre of Crim Tartary (1778)	W. 6 13	10 5	4 2 4	90·9	1 0·69
Piastre of Tunis (1787)	W. 6 5½	10 0	4 8 6	96·5	1 1·47
Piastre (1818)	W. 5 14	6 6½	3 1 4	67·7	0 9·45
TUSCANY - Piece of 10 paoli of the kingdom of Etruria (1801)	W. 0 4	17 13½	17 5 18	382 9	4 5·16
Scudo Pisa *of ditto*	W. 0 2	17 19	17 8 4	385·0	4 5·76
Piece of 10 lire ditto	B. 0 7	25 6	26 1 12	578·7	6 8·80
Lira	B. 0 7	2 8	2 9 16	53·6	0 7·45
UNITED STATES - Since 1853 the weights and values of the American silver coins have been as follows, viz.:—					
Dollar of 10 dimes, weight 412½ gr. standard silver = 4*s.* 3·75*d.* sterling.					
Half ditto 5 „ 192 „ 2*s.* 1·87*d.* „					
Quarter ditto 2½ „ 96 „ 1*s.* 0·93*d.* „					
Dime 10 cents 38·40 „ 0*s.* 5·464*d.* „					
N.B. The half and quarter dollars not being of full weight, are merely a subsidiary currency, and are legal tender to the extent of only five dollars.					
VENICE - Piece of 2 lire, or 24 kreuzers (1800)	W. 8 4½	5 19½	1 12 2	33·1	0 4·65
Ditto, *monete provinciale*	W. 8 5	5 13½	1 11 8	32·8	0 4·58
Ditto of 2 lire, 1802 (½ and ⅓ in proportion)	W. 8 4	5 6½	1 8 19	30·5	0 4·25
WURTEMBERG - Rixdollar, specie	W. 1 3	18 1	16 14 2	359·1	4 2·14
Copfstuck	W. 4 2	4 16½	2 16 12	59·8	0 8·35
EAST INDIES - Rupee sicca, coined by the East India Company at Calcutta	B. 0 13	7 11½	7 22 0	175·8	2 0·54
Company's or *standard*	Standard	—	—	165·	1 11·11
Calcutta (1818)	Standard	8 0	8 0 0	175·9	2 0·56
Bombay, new, or Surat (1818)	W. 0 0½	7 11	7 10 4	164·7	1 11·01
Fanam, Cananore	W. 0 1½	1 12½	1 11 10	32·9	0 4·5
Bombay, old	B. 0 13	1 11½	1 13 16	35·	0 4·88
Pondicherry	B. 0 5½	1 0	1 1 2	22·8	0 3·18
Ditto, double	W. 0 3	1 13½	1 18 2	39·	0 5·44
Guilden of the Dutch East India Company (1820)	W. 0 7½	6 22	6 16 6	148·6	1 8·72

* The Prussian coins having been debased at different periods, vary in their reports.
† This is the coin which is universally circulated under the name of the Spanish dollar.
‡ For an account of the new Turkish coins, see CONSTANTINOPLE.

The sterling value of the foreign coins, in the foregoing tables, has been computed from the assays as follows:—Let it be required to assign the value, in sterling, of a French double Louis d'or coined since 1785, the assay master's report being as follows:—'Weight, 9 dwts. 20 grs.; assay, W. 1½ grs.,' that is, 0 car. 1½ grs. worse than the English standard. We proceed as under:—

From 22 car. 0 gr. the fineness of English standard gold } There remains 21 car. 2½ gr.
Take 0 car. 1½ gr.

Then, as 22 car. : 21 car. 2½ grs. : : 9 dwts. 20 grs. : 9 dwts. 16 grs., the standard gold contained in the Louis d'or; and hence, as 1 oz. : 3*l.* 17*s.* 10½*d.* : : 9 dwts. 16 grs. : 1*l.* 17*s.* 7½*d.*, the value of the Louis in sterling money, and so for any of the other coins.

Ancient Coins.—We subjoin, for the convenience of such of our readers as may at any time have occasion to consult works in which reference is made to ancient coins, the following tables of those that were principally current among the Jews, Greeks, and Romans. They are taken from the essay of the Rev. Robert Hussey, M.A., sometime Professor of Ecclesiastical History in the University of Oxford. This author is the latest and best authority on the subject:—

Hebrew Money.

					£	s.	d.	grs.
Gerah					0	0	1	2·27
5	Rela				0	0	7	3·36
10	2	Beca			0	1	3	2·72
50	4	2	Shekel		0	2	7	1·49
1,000	240	120	60	Mina	7	16	19	·8
60,000	12,000	6,000	3,000	50 Kitar, Talent	396	5	10	

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Greek Coins.

Attic Standard											£	s.	d.	grs.
Chalcus of copper											0	0	0	·8125
2	1	Obolus									0	0	0	1·625
4	2	1	Obolus								0	0	0	3·25
8	4	2	Obolus								0	0	1	0·5
16	8	4	2	Diobolus							0	0	3	1
24	12	6	3	1½	Triobolus						0	0	4	3·5
32	16	8	4	2	1½	Tetrobolus					0	0	6	2
48	24	12	6	3	2	1½	Drachma				0	0	9	3
			12	6	4	3	2	Didrachma			0	1	7	2
			24	12	8	6	4	2	Tetradrachma		0	3	3	
			600	300	200	150	100	50	25	Mina	4	1	3	
			36,000	18,000	12,000	9,000	6,000	3,000	1,500	60 Talent	243	15	0	

Money mentioned in the Gospels.

	grs.
Lepton or mite	=0·244
2 Lepta=1 quadrans or farthing	=0·488

Greek Coins.

Æginetan Standard						Weight in grains	£	s.	d.	Value grs.
½	Obolus					8	0	0	1	0·583
2	Obolus					16	0	0	2	1·166
4	2	Diobolus				32	0	0	4	2·33
6	3	1½	Triobolus			48	0	0	6	3·5
12	6	3	2	Drachma		96	0	1	1	3
24	12	6	4	2	Didrachma	192	0	2	3	2
1200	600	300	200	100	50	Mina 9600	5	10	5	

Talent=60 Minæ=331*l.* 15*s.*

Roman Money up to Augustus.

Copper.

								£	s.	d.	grs.
Sextula								0		0	·25116
1½	Quadrans							0		0	·55125
2	1½	Triens						0		0	·7083
3	2	1½	Semissis					0		1	0·0625
6	4	3	2	As				0		2	0·125
12	8	6	4	2	Dupondius			0		4	0·
24	16	12	8	4	2	Sestertius		0		8	0·
48	32	24	16	8	4	2	Quinarius	0		16	1·
96	64	48	32	16	8	4	2 Denarius	0		8	2·

Silver.

							d.	grs.
Terunc us							0	0·3125
2	Semibella						0	1·0625
4	2	Libella					0	2·125
16	8	4	Sestertius				2	5
32	16	8	4	Quinarius			4	1
64	32	16	8	4	2	Denarius	8	2

Gold.

	£	s.	d.
12½ Denarii=½ Aureus	0	8	10½
25 Denarii=Aureus	0	17	8½
Mille nummorum=Sestertium	8	17	1

The last was only a money of account.

Roman Money after Augustus.

									d.	grs.
Sextula									0	·3125
1½	Quadrans								0	·46875
2	1½	Triens							0	·625
3	2	1½	Semissis						0	·9375
6	4	3	2	As					0	1·875
12	8	6	4	2	Dupondius				0	3·75
24	16	12	8	4	2	Sestertius			1	3·5
48	32	24	16	8	4	2	Quinarius		3	3
96	64	48	32	16	8	4	2	Sestertius	7	2

	£	s.	d.	grs.
Aureus=25 Denarii=	0	15	7	2
Mille nummorum	=7	16	3	

COIR. A species of yarn manufactured out of the husk of cocoa nuts. The husks being steeped in water, the dry dusty substance mixed with the fibres is separated. These are afterwards spun into yarn, and manufactured into cordage that is deemed by some superior to that made of hemp. The goodness of coir depends on the fineness of the filaments, and on their being of a bright yellow colour.

The following are the exports of coir from British India, according to the *Report on Indian Products* in the official Catalogue of the Great Exhibition of 1862:—

Year	Quantity	Value
	tons	£
1850-1	5,005	71,044
1851-2	9,472	14,600
1852-3	2,907	17,300
1853-4	1,213	25,841
1854-5	3,668	27,478
1855-6	2,725	20,919
1856-7	3,503	23,808
1857-8	4,087	30,181
1858-9	4,575	36,155
1859-60	5,825	41,091
1860-1	5,852	57,284

Coir cables are much used in merchant vessels, the coir rope having been employed in India for ages. The rope is so light that it floats on the water; and according to Dr. Gilchrist a coir hawser ought to be kept in every vessel, since if a small boat is attached to it, and let down when a man falls overboard, it gives him greater facilities for saving life than any other means. Fresh water is said to rot coir, and the rope snaps easily in frosty weather. Coir ropes are therefore unsuitable for low latitudes. The rope, however, in sea water and high latitudes is actually strengthened and rendered more elastic by exposure. Nothing, we are informed, can equal the ease with which a ship rides at anchor whose cables are of coir.

Coir is used in England to a very large extent for matting and coarse brushes.

A cocoa nut sawn in two across the grain of the coir forms an excellent implement for polishing wood. (Ure's *Dictionary.*)

About 2,500,000 lbs. weight of coir are annually exported from Ceylon, principally to Calcutta and other ports in the East Indies. It is also prepared in the Maldive Islands, and many other places; and is very extensively used throughout the East. (Bertolacci's *Ceylon*; Bell's *Commerce of Bengal*, &c.)

In 1866 we imported, chiefly from India and Ceylon, 10,820 cwts. of coir (fibre), valued at 18,309*l.*, and 12,317 cwts. of cordage and cables of coir, valued at 20,607*l.*

COLLISION (Fr. abordage), in a general sense, is the act of any two or more bodies coming forcibly together; but in commercial navigation it means the shock of two ships coming into sudden and violent contact at sea, by which one or both may be more or less injured.

From the great increase of navigation, the risk of accidents by collision at sea has been proportionally augmented; and it is, therefore, of much importance, 1, to adopt such measures as may be most likely to prevent their occurrence; and 2, to determine by whom a loss, when it does occur, should be borne.

In regard to the first and most essential of these objects, it is effected in part, at least, by whatever contributes to the general improvement and security of navigation. At common law, every master of a ship is bound to keep a proper watch

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at sea, especially in channels much frequented by shipping, and to use every precaution to avoid coming into contact with other vessels. But this matter has been judged too important to be left wholly to depend on the good sense and care of individuals; and with a view to the securing of attention to the subject, and to the obviating of the confusion that would unavoidably arise were shipmasters left to follow their own ideas with respect to it, rules and regulations have been laid down in regard to the courses to be steered when ships are passing each other, the signals to be made during fogs, the number and description of the lights to be exhibited at night, and other particulars. In 1840 the Trinity House promulgated a rule of this sort; and though not in itself law, masters not complying with its instructions were held to be guilty of unseamanlike conduct, and the owners were made responsible for the consequences. Regulations similar to those contained in the Trinity rule have since been enacted by the Legislature. The existing statute law on the subject is embodied in the Merchant Shipping &c. Amendment Act of 1862, the 25 & 26 Vict. c. 63.

The following are the regulations for preventing collisions at sea, appended to the Order in Council dated January 9, 1863, which apply to all ships belonging to the following countries and places, whether within British jurisdiction or not:—Austria, Argentine Republic, Belgium, Brazil, Bremen, Chile, Denmark Proper, Republic of the Equator, France, Great Britain, Greece, Hamburg, Hanover, Hawaiian Islands, Hayti, Italy, Lubeck, Mecklenburg-Schwerin, Morocco, Netherlands, Norway, Oldenburg, Peru, Portugal, Prussia, Roman States, Russia, Schleswig, Spain, Sweden, Turkey, United States (sea-going ships and inland waters), Uruguay.

Preliminary.—Art. 1. In the following rules every steam ship which is under sail and not under steam is to be considered a sailing ship; and every steam ship which is under steam, whether under sail or not, is to be considered a ship under steam.

Rules concerning Lights.—Art. 2. The lights mentioned in the following articles, numbered 3, 4, 5, 6, 7, 8, and 9, and no others, shall be carried in all weathers, from sunset to sunrise.

Art. 3. Sea-going steam ships when under weigh shall carry—

a. At the foremast head, a bright white light, so fixed as to show an uniform and unbroken light over an arc of the horizon of 20 points of the compass; so fixed as to throw the light 10 points on each side of the ship, viz. from right ahead to 2 points abaft the beam on either side; and of such a character as to be visible on a dark night, with a clear atmosphere, at a distance of at least 5 miles:

b. On the starboard side, a green light so constructed as to show an uniform and unbroken light over an arc of the horizon of 10 points of the compass; so fixed as to throw the light from right ahead to 2 points abaft the beam on the starboard side; and of such a character as to be visible on a dark night, with a clear atmosphere, at a distance of at least 2 miles:

c. On the port side, a red light, so constructed as to show an uniform and unbroken light over an arc of the horizon of 10 points of the compass: so fixed as to throw the light from right ahead to 2 points abaft the beam on the port side; and of such a character as to be visible on a dark night, with a clear atmosphere, at a distance of at least 2 miles.

d. The said green and red side lights shall be fitted with inboard screens, projecting at least 3 feet forward from the light, so as to prevent these lights from being seen across the bow.

Art. 4. Steam ships, when towing other ships, shall carry 2 bright white mast-head lights vertically, in addition to their side lights, so as to distinguish them from other steam ships. Each of these mast-head lights shall be of the same construction and character as the mast-head lights which other steam ships are required to carry.

Art. 5. Sailing ships under weigh, or being towed, shall carry the same lights as steam ships under weigh, with the exception of the white mast-head lights, which they shall never carry.

Art. 6. Whenever, as in the case of small vessels during bad weather, the green and red lights cannot be fixed, these lights shall be kept on deck, on their respective sides of the vessel, ready for instant exhibition; and shall, on the approach of or to other vessels, be exhibited on their respective sides in sufficient time to prevent collision, in such manner as to make them most visible, and so that the green light shall not be seen on the port side, nor the red light on the starboard side.

To make the use of these portable lights more certain and easy, the lanterns containing them shall each be painted outside with the colour of the light they respectively contain, and shall be provided with suitable screens.

Art. 7. Ships, whether steam ships or sailing ships, when at anchor in roadsteads or fairways shall exhibit, where it can best be seen, but at a height not exceeding 20 feet above the hull, a white light, in a globular lantern of 8 inches in diameter, and so constructed as to show a clear uniform and unbroken light visible all round the horizon, and at a distance of at least 1 mile.

Art. 8. Sailing pilot vessels shall not carry the lights required for other sailing vessels, but shall carry a white light at the mast-head, visible all round the horizon, and shall also exhibit a flare-up light every 15 minutes.

Art. 9. Open fishing boats and other open boats shall not be required to carry the side lights required for other vessels; but shall, if they do not carry such lights, carry a lantern having a green slide on the one side and a red slide on the other side; and on the approach of or to other vessels, such lantern shall be exhibited in sufficient time to prevent collision, so that the green light shall not be seen on the port side, nor the red light on the starboard side.

Fishing vessels and open boats when at anchor, or attached to their nets and stationary, shall exhibit a bright white light.

Fishing vessels and open boats shall, however, not be prevented from using a flare-up in addition, if considered expedient.

Rules concerning Fog Signals.—Art. 10. Whenever there is fog, whether by day or night, the fog signals described below shall be carried and used, and shall be sounded at least every 5 minutes; viz.:—

a. Steam ships under weigh shall use a steam whistle placed before the funnel, not less than 8 feet from the deck:

b. Sailing ships under weigh shall use a fog horn:

c. Steam ships and sailing ships when not under weigh shall use a bell.

Steering and Sailing Rules.—Art. 11. If two sailing ships are meeting end on or nearly end on so as to involve risk of collision, the helms of both shall be put to port, so that each may pass on the port side of the other.

Art. 12. When two sailing ships are crossing so as to involve risk of collision, then, if they have the wind on different sides, the ship with the wind on

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the port side shall keep out of the way of the ship with the wind on the starboard side; except in the case in which the ship with the wind on the port side is close hauled and the other ship free, in which case the latter ship shall keep out of the way; but if they have the wind on the same side, or if one of them has the wind aft, the ship which is to windward shall keep out of the way of the ship which is to leeward.

Art. 13. If two ships under steam are meeting end on or nearly end on so as to involve risk of collision, the helms of both shall be put to port, so that each may pass on the port side of the other.

Art. 14. If two ships under steam are crossing so as to involve risk of collision, the ship which has the other on her own starboard side shall keep out of the way of the other.

Art. 15. If two ships, one of which is a sailing ship, and the other a steam ship, are proceeding in such directions as to involve risk of collision, the steam ship shall keep out of the way of the sailing ship.

Art. 16. Every steam ship, when approaching another ship so as to involve risk of collision, shall slacken her speed, or, if necessary, stop and reverse; and every steam ship shall, when in a fog, go at a moderate speed.

Art. 17. Every vessel overtaking any other vessel shall keep out of the way of the said last-mentioned vessel.

Art. 18. Where by the above rules one of two ships is to keep out of the way, the other shall keep her course, subject to the qualifications contained in the following article.

Art. 19. In obeying and construing these rules, due regard must be had to all dangers of navigation; and due regard must also be had to any special circumstances which may exist in any particular case rendering a departure from the above rules necessary in order to avoid immediate danger.

Art. 20. Nothing in these rules shall exonerate any ship, or the owner, or master, or crew thereof, from the consequences of any neglect to carry lights or signals, or of any neglect to keep a proper look-out, or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

It may, however, be proper to state that neither these nor any rules of the sort are to be regarded as inflexible, or to be followed at all hazards. The safety of the ship is the paramount consideration, and no master is justified in abiding by a rule when by doing so he plainly incurs danger. A. may be in his proper course, but if by pursuing it he will run a great risk of coming into collision with B., who is upon a wrong course, he is bound to alter his course so as to avoid a collision. The fact of one master being ignorant, careless, or in fault, is no reason why another should not use every means in his power to provide for the safety of his ship, and consequently of the lives and property entrusted to his care.

The conditions under which cases of collision take place differ extremely. Thus—1, it may be merely accidental, or be occasioned by circumstances beyond the power of control, as by the violence of the wind or waves dashing or impelling the ships together, without blame being imputable to either party; or 2, it may be owing to the culpable negligence or misconduct of one party; or 3, both parties may be to blame. In adjudicating upon losses growing out of collisions that have taken place under such different circumstances, the conclusions must also be very different.

With respect to the first class of cases there is little apparent difficulty: wherever a loss is occasioned by a storm, a fog, or other accidental circumstance, without any blame being ascribable to either party, it would appear to be equitable that it should be borne by the sufferer. And this principle having been embodied in the Roman law, was subsequently ingrafted into that of England. (Marshall *On Insurance*, ch. xii., s. 2.) But other authorities, to whom the greatest deference is due, contend that the loss arising from accidental collisions, however it may affect the parties, should be equally divided between them; and this, in fact, is the rule followed in most maritime states. (*Ordonnance* of 1681, lib. iii. tit. xii. art. 10, with the observations of Valin.) It also is the rule sanctioned by the law of England in cases where both parties are to blame, but where the blame cannot be discriminated. Those cases in which the blame is clearly ascribable to either party present no difficulty.

The leading doctrines of the law of England with regard to collisions have been clearly and succinctly stated by Lord Stowell. 'In the first place,' says his lordship, 'a collision may happen without blame being imputable to either party, as when the loss is occasioned by a storm or any other *vis major*. In that case the misfortune must be borne by the party on whom it happens to light; the other not being responsible to him in any degree. Secondly, a misfortune of this kind may arise where both parties are to blame, where there has been a want of due diligence or of skill on both sides; in such a case the rule of law is, that the loss must be apportioned between them, as having been occasioned by the fault of both of them. Thirdly, it may happen by the misconduct of the suffering party only; and then the rule is, that the sufferer must bear his own burden. Lastly, it may have been the fault of the ship which ran the other down, and in this case the innocent party would be entitled to an entire compensation from the other.' (2 Dodson's *Admiralty Reports*, 83.)

We may add that the rule of the equal division of the damage where both vessels are to blame has been, since Lord Stowell's time, fully recognised and finally established by a decision of the House of Lords on an appeal from Scotland.

Various authorities have spoken disparagingly of the rule now referred to, and have called it a *judicium rusticorum*. And it would, no doubt, be very desirable in cases of collision where both parties are to blame, that the neglect or culpability of each should be accurately determined, and the damages assessed accordingly. But from the obscurity in which such cases are almost always involved, and the conflicting testimony brought forward by the different parties, the difficulties in the way of this being done are usually quite insuperable; and it is better to adopt a rule which, though perhaps less equitable in principle, is fairer in its application than any other that could be adopted. Of its expediency there can, indeed, be no reasonable doubt. The observations of Valin are, in this respect, quite conclusive. 'C'étoit,' says he, 'le moyen le plus propre à rendre les capitaines ou maîtres des navires extrêmement attentifs à éviter tout abordage, surtout ceux des bâtimens foibles et plus susceptibles d'être incommodés par le moindre choc, en leur rendant toujours présent la crainte de supporter la moitié du dommage qu'ils en pourroient recevoir. Et si l'on dit qu'il auroit été plus simple et plus court de laisser pour le compte particulier d'un chacun le dommage qu'il auroit reçu, comme provenant d'un cas fortuit; la réponse est qu'alors les capitaines des gros navires n'auroient plus craint de heurter les bâtimens d'une beaucoup moindre force que le leurs: rien donc de plus juste que la contribution par moitié.'

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(*Commentaire sur l'Ordonnance de* 1681, ii. 179, ed. 1776.)

In apportioning the damage in cases where both parties have been in fault, the question occurs whether the damage done to the cargo shall be taken into account or left out in the estimate on which the apportionment is to be made. This knotty point has been differently decided in different countries. But the rule which limits the liability of owners to the value of the ship and freight applies to cases of damage by collision. [Owners.] For further observations on this curious and important subject, in addition to Valin and the other authorities already referred to, the reader may consult the chapter on Collision added by the late Mr. Justice Shee to his edition of Lord Tenterden's work *On the Law of Shipping*, and the chapter on the same subject in Maude and Pollock's *Treatise on the Law of Merchant Shipping*.

Number of Collisions at Sea.—A statement has been prepared by Mr. John A. Rucker, underwriter, giving a classification of the number of collisions at sea, reported in Lloyd's Lists during the five years from 1845 to 1849 inclusive. It thence appears that the annual numbers were 603, 564, 699, 633, and 565; so that there was a decrease in 1849, notwithstanding the increased traffic of that year. The total collisions of the five years amounted to 3,064. Of these, 279 were cases in which a vessel was sunk, run down, or abandoned; 189 were cases in which there was serious damage; 686 in which the damage, although less, was still considerable; and 1,910 in which it was only slight. The average of steamers in contact with steamers during each year is about 11; of steamers in contact with sailing vessels about 37; of sailing vessels in contact with steamers 36; and of sailing vessels in contact with sailing vessels 583. [Wreck.]

COLOCYNTHIS, COLOQUINTIDA, or BITTER CUCUMBER (Ger. koloquinten, coloquinten apfel; Dutch, bitter-appelen; Fr. coloquintes; Ital. coloquintida; Span. coloquintidas; Arab. and Pers. Hunzil). The produce of an annual plant (*Cucumis colocynthis*, Linn.; Nat. Order *Cucurbitaceæ*) growing in Turkey, Nubia, India, and other places, much resembling the cucumber in herbage. When ripe, the fruit is peeled and the pulp is dried in a stove, and in this state is brought to England. It is inodorous, light, spongy, white or yellowish-white, and intensely bitter in taste. It is an exceedingly powerful drastic cathartic. When it is larger than a St. Michael's orange, and has black acute pointed ends, it is not good. (*British Pharmacopœia*, 1867; Ainslie's *Materia Indica*.)

COLONIES—COLONY TRADE. *Colonies* are establishments founded on foreign countries by individuals who either voluntarily emigrate from, or are forcibly sent abroad by, their mother country. The *colony trade* is the trade carried on between colonies and their parent states.

I. Establishment of Colonies.
II. Influence of the Monopoly of the Colony Trade.
III. Magnitude, Population, Trade etc. of British Colonies.—Disposal of Land in the Colonies etc.
IV. Regulations under which the Colony Trade is conducted.
V. Foreign Colonies.

I. Establishment of Colonies.

1. *Greek Colonies.*—Various motives have, in different countries and ages, led to the formation of colonies. Seneca has given, in a few words, a very clear and accurate statement of the different motives that induced the ancients to found colonies: 'Nec omnibus eadem causa relinquendi quærendique patriam fuit. Alios excidia urbium suarum, hostilibus armis elapsos, in aliena, spoliatos suis, expulerunt: Alios domestica seditio submovit: Alios nimia superfluentis populi frequentia, ad exonerandas vires, emisit: Alios pestilentia, aut frequens terrarum hiatus, aut aliqua intoleranda infelicis soli ejecerunt: Quosdam fertilis ora, et in majus laudatæ, fama corrupit: Alios alia causa excivit domibus suis.' (*Consol. ad Helviam*, c. 6.) The Greek colonies of antiquity seem to have been chiefly founded by citizens whom the violence and fury of contending factions forced to leave their native land; but they were sometimes formed for the purpose of relieving the mother country of a redundant population, and sometimes also for the purpose of extending the sphere of commercial transactions, or of providing for their security. The relations between the mother country and the colony depended, in a great measure, on the motives which led to the establishment of the latter. When a colony was founded by fugitives forcibly expelled from their ancient homes; or when it was founded, as was frequently the case, by bodies of voluntary emigrants, who received no assistance from, and were in no respect controlled by, the parent state, it was from the first independent; and even in those rarer cases in which the emigration was conducted under the superintendence of the parent city, and when the colony was protected by her power and influence, the dependence was, mostly, far from being absolute and complete. The great bulk of the Greek colonies were really independent states; and though they commonly regarded the land of their forefathers with filial respect, though they yielded to its citizens the place of distinction at public games and religious solemnities, and were expected to assist them in time of war, they did so as allies only, on fair and equal terms, and never as subjects. Owing to the freedom of their institutions, and their superiority in the arts of civilised life to the native inhabitants of the countries among whom they were generally placed, these colonies rose, in a comparatively short period, to a high pitch of opulence and refinement; and many among them, as Miletus and Ephesus in Asia Minor, Syracuse and Agrigentum in Sicily, and Tarentum and Locri in Italy, not only equalled, but greatly surpassed, their mother cities in wealth and power.

2. *Roman Colonies.*—The Roman colonies were, for the most part, founded by and under the authority of government; being intended to serve both as outlets for poor and discontented citizens, and as military stations, or garrisons, to secure the subjection of the conquered provinces over which they were scattered. The most intimate political union was always maintained between them and the mother city. Their internal government was modelled on that of Rome; and, while their superior officers were mostly sent from the capital, they were made to contribute their full quota of troops and taxes, to assist in carrying on the contests in which the Republic was almost constantly engaged.

3. *Spanish Colonies.*—The early colonies of most modern nations were founded by private adventurers, influenced either by the hope of gain, or by a desire to escape from religious persecution, without any wish to relieve the mother country of a surplus population or to bridle subjugated provinces. On their first institution, therefore, the modern colonies approached, though with some essential variations, more nearly to the Grecian than the Roman model; but the period of their

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freedom was of very limited duration. They were very soon subjected to laws and regulations framed in the metropolis, and calculated, as was to be supposed, rather to promote its interests than those of the colony. At a somewhat later period the foundation of colonial establishments was eagerly patronised by most European governments, in the view of extending commerce, and of enriching the mother country by securing to her the exclusive possession of the market of distant countries; and where, from the thinness of the aboriginal population, or their inferiority in the arts of civilised life, the colonists were enabled to amass fortunes with comparative rapidity.

The Spaniards who first resorted to America after its discovery had no intention of settling in the country or of colonising it. The idea that gold and silver alone constituted wealth was then universally prevalent; and the bold and enterprising companions and followers of Columbus, instead of engaging in industrious undertakings, which they neither understood nor relished, sought only to enrich themselves by plundering the feeble and defenceless natives of the gold and silver in their possession, and of the abundance of which the most exaggerated accounts were immediately spread throughout Europe. When new adventurers arrived on an unknown coast, their single enquiry was, whether it abounded in gold. If it did, they remained, for some time at least, in the country; if not, they immediately set sail for some other quarter. *Auri rabida sitis a cultura Hispanos divertit* is the expressive statement of a contemporary writer (Petrus Martyrus, in the *Novus Orbis* of Grynæus, p. 511). The slow progress of the Spanish colonies, after their first discovery, must principally be ascribed to this cause. The gold and silver accumulated by the natives were very soon exhausted; and the skill and energy of the successive swarms of adventurers, who continued to pour into the country, were principally directed to the unproductive and generally ruinous trade of mining. The few large fortunes that were made in this way, like the large prizes in a lottery, inflamed the cupidity of the multitude, and gave an appearance of credibility to the fabulous accounts of the excessive productiveness of the mines. After the gambling spirit which had exclusively actuated the early adventurers had begun to subside, the colonists gradually betook themselves to agricultural and commercial pursuits; and the vast variety of valuable productions with which Mexico and the other Spanish colonies abound, the extreme richness of the soil, and their advantageous situation, would, had they been only tolerably well governed, have occasioned their rapid increase in wealth and civilisation. But a blind and intolerant despotism paralysed their energies, and fettered and retarded their progress. All the abuses and defects of the government of old Spain were transferred to, and multiplied in, the colonies. The whole property of those vast regions was considered as vested in the crown of Spain; and every law or regulation, whether of a local or general nature, affecting their government, emanated from the Council of the Indies, in which it was supposed the king was always present. We cannot stop to describe the sort of regulations to which the colonists were subjected with any degree of minuteness; but we may notice a few of them, to furnish the means of judging of their general spirit and probable effect. It was, for example, made a *capital* offence to carry on any intercourse with foreigners; and the inhabitants of the different colonies were even forbidden any intercourse with each other, unless under the strictest and most vexatious regulations. There were several articles, such as flax, hemp, and wine, which they were not permitted to cultivate; at the same time that the crown reserved to itself the monopoly of salt, tobacco, gunpowder, and some other less important articles. The alcavala, and other oppressive imposts, which had proved destructive of industry in old Spain, were rigorously levied as well on the exports as on the imports of the colonies. No situation of power or emolument could be filled except by a native of old Spain. The Catholic religion was established, to the exclusion of every other; and bishops, tithes, and the Inquisition followed in its train: while, in order still better to consolidate and strengthen the foundations of this monstrous despotism, the government endeavoured to make the colonists insensible of their degradation by proscribing every species of instruction, and watchfully opposing the introduction and progress of all useful knowledge!

Under such circumstances we cannot be surprised that the Continental colonists, among whom the monopoly system was maintained in its greatest purity, should have languished for above two centuries in a state of sluggish inactivity. Though surrounded by all the means of producing wealth, they were not generally wealthy. Oppression rendered them indolent, and went far to deprive them not only of the power, but also of the wish, to emerge from poverty. The progress of the colonists who occupied the West India islands was not quite so slow. It is certain, however, that down to the middle of last century Spain reaped no greater advantage from the possession of Cuba, Hispaniola, and Porto Rico than England or France from the smallest of its dependencies. In proof of this we may mention that the noble island of Cuba, which could without difficulty supply all Europe with sugar, did not in 1750 produce a sufficient quantity even for the consumption of old Spain. But the combined influence of an arbitrary and intolerant government and of a degrading superstition could not balance the means of improvement which the fertility of the soil, and the command thence arising over most of the necessaries and many of the conveniences of life, gave to the colonists. Owing also to the total incapacity of old Spain to furnish her Transatlantic provinces with a sufficient supply of the articles she had forced them to import from Europe, and the consequent extension of the contraband trade carried on with them by the other European nations, she had been compelled gradually to relax the severity of her commercial monopoly. A new impulse was thus given to the spirit of industry. The colonists began to be more sensible of the natural advantages of their situation, and less inclined to submit to the blind and bigoted policy of the Spanish court. In 1781 a rebellion broke out in Peru, in consequence of an attempt made by the Government to establish a new monopoly in that province, which threatened to end in the total dissolution of the connection between Spain and South America, and was not quelled without great difficulty and much bloodshed. But the spirit of liberty, when once excited, could not be suppressed. It continued to gain ground progressively, until the commencement of the late contest between France and Spain interrupted the communication with the mother country, and gave the colonists an opportunity of proclaiming that independence which, after a lengthened and bloody struggle, they happily succeeded in achieving.

4. *British Colonies.*—The English, who, like all the other nations of Europe, had been impressed with mingled feelings of admiration and envy by the extent and importance of the acquisitions

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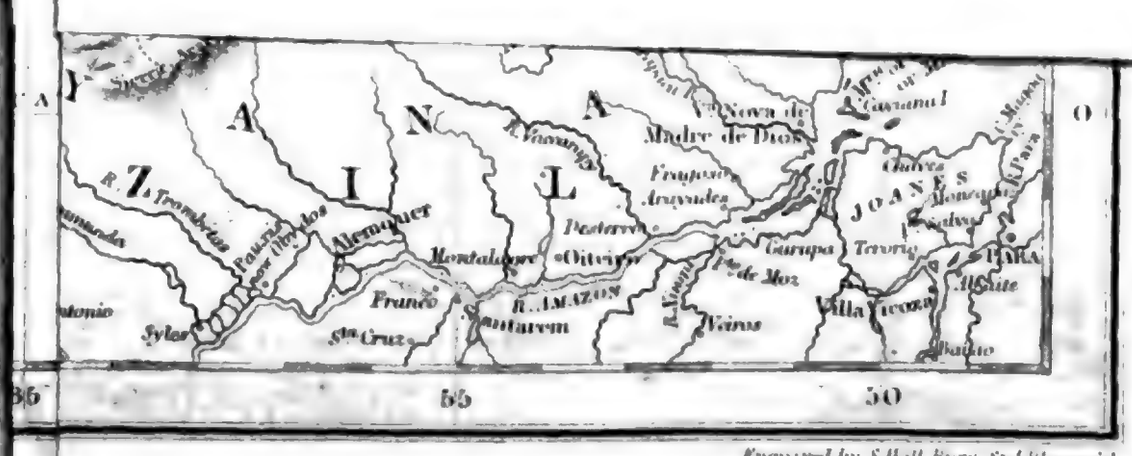
made by the Spaniards in the New World, speedily entered with enthusiasm and ardour into the career of discovery. Owing, however, to the bull which Ferdinand and Isabella had obtained from the Pope, conveying to them the ample donation of all the countries inhabited by infidels that the Spaniards had discovered, or might discover, the English, to avoid encroaching on the dominions of their rivals, directed their efforts farther to the north. Several attempts to found colonies on the coast of America were made in the reign of Elizabeth by Sir Humphrey Gilbert, Sir Richard Grenville, Sir Walter Raleigh, and others. But in consequence of their ignorance of the country, the deficiency of their supplies of provisions, the loss of time in fruitless searches after gold, and the various difficulties incident to the first settlement of a colony, none of these attempts proved successful; and it was not until 1607 that a small body of adventurers founded the first permanent establishment of the English in America, at James Town in Virginia. Letters patent were granted in 1609 by King James to the principal persons, resident in London, by whom the expense attending the formation of the colony was to be defrayed, incorporating them into a company, and establishing a council in England for the direction of their proceedings, the members of which were to be chosen by, and removable at the pleasure of, the majority of the partners of the company; permitting whatever was necessary for the support and sustenance of the colony for the first seven years to be exported free of duty; declaring that the colonists and their descendants were to be secured in all the rights and privileges of Englishmen, the same as if they had remained at home, or been born in England; and reserving only, as the stipulated price of these concessions, and in imitation of the policy of the Spaniards, *one fifth* part of the gold and silver ore to be found in the colonies, which was to be paid to his Majesty and his successors in all time to come. In virtue of these powers, the company issued in 1621 a charter or ordinance, which gave a legal and permanent form to the constitution of the colony. By this charter the supreme legislative authority was lodged, partly in the governor, who held the place of the sovereign, partly in a council of state named by the company, and partly in a general council or assembly composed of the representatives of the people, in which were vested powers and privileges similar to those of the House of Commons. It was not long, however, before the king and the company quarrelled. The latter were in consequence divested of all their rights, partly by open violence and partly under colour of law, without compensation, after having expended upwards of 150,000*l.* in founding the colony; and a governor and council of state appointed by the king succeeded to the powers of those appointed by the committee. (Robertson's *History of America*, book ix. passim; Jefferson's *Notes on Virginia*, p. 179.)

The founders of the colony in Virginia had been actuated solely by the hopes of gain; but the colonies that were soon after established in New England were chiefly planted by men who fled from religious and political persecution. The form of government in the New England colonies, though at first modified a good deal by the peculiar religious opinions entertained by the colonists, was in its leading principles essentially free. For a considerable period the colonists elected their own governors, coined money, and exercised most of the rights of sovereignty; while the English, wholly engrossed with the contest between freedom and prerogative at home, had no leisure to attend to their proceedings. Subsequently to the Restoration, however, the governments of most of the New England states were established nearly on the same footing as that of Virginia; which, indeed, became the favourite model, not only for the constitution of the colonies established on the Continent, with the exception of the proprietary governments of Pennsylvania and Maryland, but also for those that were established in the West India islands. But under every vicissitude of government and fortune the New England colonists were distinguished by the same ardent and enthusiastic love of liberty that had first induced them to quit their native land. Every thing relating to the internal regulation and administration of the different colonies was determined, in the colonial assemblies, by representatives freely chosen by the settlers. The personal liberty of the citizens was well secured and vigilantly protected. And, if we except the restraints on their commerce, the monopoly of which was jealously guarded by the mother country, the inhabitants of Virginia, Pennsylvania, and New England enjoyed nearly the same degree of freedom, when colonists of England, that they now enjoy as citizens of the powerful republic of North America. Their progress in wealth and population was in consequence quite unprecedented in the history of the world. The white population of the colonies had increased in 1776, at the commencement of the revolutionary war, to above 2,000,000, and the value of the exports from Great Britain to them amounted to about 1,300,000*l.* a-year!

It is not difficult to discover the causes of the unexampled prosperity and rapid growth of our North American colonies, and generally of all colonies placed under similar circumstances. The North American colonists carried with them a knowledge of the arts and sciences practised by a civilised and polished people. They had been trained from their infancy to habits of industry and subordination. They were practically acquainted with the best and wisest form of civil polity that had been established in Europe; and they were placed in a situation that enabled them, without difficulty, to remedy its defects, and to try every institution by the test of utility. But the thinness of the aboriginal population, and the consequent facility of obtaining inexhaustible supplies of fertile and unoccupied land, must certainly be placed at the head of all the causes which have promoted the rapid increase of wealth and population in the United States, and in all the other colonies both of North and South America. On the first foundation of a colony, and for long after, each colonist gets an ample supply of land of the *best quality*; and having no rent, and scarcely any taxes, to pay, his industry necessarily becomes exceedingly productive, and he has every means, and every motive, to amass capital. In consequence he is eager to collect labourers from all quarters, and is both willing and able to reward them with high wages. But these high wages afford the means of accumulation, and, joined to the plenty and cheapness of the land, speedily change the more industrious labourers into proprietors, and enable them, in their turn, to become the employers of fresh labourers; so that every class participates in the general improvement, and capital and population advance with a rapidity hardly conceivable in old settled and fully peopled countries.

It has been frequently said that the establishment of our American and West India colonies was a device of the supporters of the exclusive or mercantile system—that they founded them in the view of raising up a vast agricultural population,

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whose commerce should be confined entirely to an exchange of their raw products for our manufactured goods. There is, however, no truth in these assertions. On the contrary, the charters granted to the founders of the settlement in Virginia distinctly *empower the colonists to carry on a direct intercourse with foreign states.* Nor were they slow to avail themselves of this permission; for they had, so early as 1620, established tobacco warehouses in Middleburg and Flushing (Robertson's *America*, book ix. p. 104); and the subsequent proceedings of the British Government, depriving them of this freedom of commerce, were the chief cause of those disputes which broke out in 1676, in an open rebellion of ominous and threatening import. (Robertson's *America*, p. 147.) It was not until the colonists had surmounted the difficulties and hardships incident to their first establishment, and had begun to increase rapidly in wealth, that their commerce became an object of importance, and that regulations were framed in the view of restricting its freedom, and of rendering it peculiarly advantageous to the mother country. The Act of 1650, passed by the republican Parliament, laid the first foundations of the monopoly system, by confining the import and export trade of the colonies exclusively to British or colony built ships. But the famous Navigation Act of 1660 (12 Chas. II. c. 18) went much further. It enacted that certain specified articles, the produce of the colonies, and since well known in commerce by the name of *enumerated* articles, should not be exported directly from the colonies to any foreign country, but that they should first be sent to Britain, and there unladen (the words of the Act are, *laid upon the shore*), before they could be forwarded to their final destination. Sugar, molasses, ginger, fustic, tobacco, cotton, and indigo were originally enumerated; and the list was subsequently enlarged by the addition of coffee, hides and skins, iron, corn, lumber &c. In 1739 the monopoly system was so far relaxed that sugars were permitted to be carried directly from the British plantations to any port or place southward of Cape Finisterre; but the conditions under which this indulgence was granted continued so strict and numerous down to 1803, when they were a good deal simplified, as to render it in a great degree nugatory (Edwards's *West Indies*, vol. ii. p. 452, ed. 1819); and with this exception, the oppressive and vexatious restrictions on their direct exportation to foreign countries were maintained on most of the other *enumerated* commodities of any importance down to a late period.

But besides compelling the colonists to *sell* their produce exclusively in the English markets, it was next thought advisable to oblige them to *buy* such foreign articles as they might stand in need of entirely from the merchants and manufacturers of England. For this purpose it was enacted, in 1663, that 'no commodity of the growth, production, or manufacture of Europe shall be imported into the British plantations but such as are laden and put on board in England, Wales, or Berwick-upon-Tweed, and in English built shipping, whereof the master and three-fourths of the crew are English.' The preamble to this statute, which effectually excluded the colonists from every market for European produce except that of England, assigns the motive for this restriction to be 'the maintaining a greater correspondence and kindness between the subjects at home and those in the plantations; keeping the colonies in a firmer dependence on the mother country; making them yet more beneficial to it, in the further employment and increase of English shipping, and the vent of English manufactures and commodities; rendering the navigation to and from them more safe and cheap; and making this kingdom a staple, not only of the commodities of the plantations, but also of the commodities of other countries and places for their supply; it being the usage of other nations to keep their plantation trade exclusively to themselves.'

It was also a leading principle in the system of colonial policy, adopted as well by England as by the other European nations, to discourage all attempts to manufacture such articles in the colonies as could be provided for them by the mother country. The history of our colonial system is full of efforts of this sort; and so essential was this principle deemed to the idea of a colony, that Lord Chatham did not hesitate to declare, in his place in Parliament, that 'the British colonists of North America had *no* RIGHT *to manufacture even a nail for a horseshoe!*' (Edwards's *West Indies*, vol. ii. p. 566.) And when such were the enactments made by the Legislature, and such the avowed sentiments of a great parliamentary leader and a friend to the colonies, we need not be surprised at a declaration of the first Lord Sheffield, who did no more, indeed, than express the opinion of almost all the merchants and politicians of his time, when he affirmed that '*THE ONLY use of American colonies or West India islands is* THE MONOPOLY *of their consumption, and the carriage of their produce!*'

II. INFLUENCE OF THE MONOPOLY OF THE COLONY TRADE.

1. It is not necessary to enter into any lengthened disquisitions with respect to this part of our subject. The rules by which we are to form our judgment upon it are unfolded in the article COMMERCE. Here it is sufficient to observe, in the first place, that, though it could be shown that restrictions on the colony trade were really advantageous to the mother country, that is not enough to prove that they should be adopted. In dealing with a colony, we are not dealing with a foreign country, but with an integral part of our own empire. And hence, in order to show that restrictions on the colony trade are advantageous, it must not merely be shown that they are beneficial to the mother country, but it must further be shown that they are beneficial, or, at all events, not injurious, to the colony. The advantage of one part of the empire is not to be purchased by the depression of some other part. The duty of Government is to promote the prosperity and to maintain the equal rights and privileges of all; not to enrich one class or one province at the expense of others.

This principle is decisive of the whole question. Owing to the identity of language, manners, and religion, the merchants of the mother country must always have very great advantages in the colony markets; and if the commodities which they have to sell be about as suitable for them, and as low priced, as those of others, none else will be imported into them; but if they be not, it would plainly be to the injury of the colony to compel her to buy from the mother country what she might procure cheaper from others. It will immediately be seen that such forced sale could be of no real advantage to the mother country; but whether that were so or not, its mischievous influence upon the colony is manifest. Were Jamaica, for example, obliged to import any article from England which cost her 100,000*l.* a-year more than she could procure a similar article for elsewhere, she would manifestly lose this amount; and though it were true that every shilling of this sum found its way as *extra profit* into the pockets

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of the merchants or manufacturers of England, that would be no sufficient justification of the policy of such a system. The protection due by a government to its subjects does not depend on the varying degrees of latitude and longitude under which they happen to live. It would not be more glaringly unjust to lay peculiar burdens on the Lothians for the sake of Middlesex than it is to lay them on Jamaica for the sake of England.

In point of fact, however, the monopoly of the colony trade is of no real use, but the reverse, to the mother country. If, as has been already observed, she can supply her colonists with goods as cheaply as they can be supplied by others, she will have no competitors in their markets; and if she cannot do this, the monopoly is really hostile to her interests. Each country has some natural or acquired capabilities that enable her to carry on certain branches of industry more advantageously than any one else. But the fact of a country being liable to be undersold in the markets of her colonies shows conclusively that, instead of having any superiority, she labours under a disadvantage, as compared with others, in the production of the peculiar articles in demand in them. And hence, in providing a forced market in the colonies for articles that we should not otherwise be able to dispose of, we really engage a portion of the capital and labour of the country in a less advantageous channel than that into which it would naturally have flowed. We impress upon it an artificial direction, and withdraw it from those secure and really beneficial businesses in which it would have been employed, to engage it in businesses the existence of which depends only on the continuance of oppressive regulations, and in which we are surpassed by foreigners.

Even were it conceded that the possession of an outlet in the colonies for goods that could not otherwise be disposed of was an advantage, it is one that can exist in theory only. Practically it can never be realised. The interests of the colonists, and the dexterity and devices of the smuggler, are too much for Custom-house regulations. Cheap goods never fail of making their way through every obstacle. All the tyrannical laws and *guardacostas* of Old Spain did not hinder her colonies from being glutted with prohibited commodities; and we may be assured that the moment a competitor appears in the field capable of supplying the Canadians and people of Jamaica with cottons, woollens, hardware &c. cheaper than we can supply them, that moment will they cease to be our customers. All the revenue officers, and all the ships of England, supposing them to be employed for that purpose, would be unable to avert this result.

The consequences of the American war should have led to sounder opinions than those that are still current as to the value of the monopoly of the colony trade. Has the independence of the United States been in any respect injurious to us? So far from this, it is certain that it has redounded materially to our advantage. We have been relieved from the expense and trouble of governing extensive countries at a great distance from our shores, at the same time that we have continued to reap all the advantage that we previously reaped from our intercourse with them. It is visionary to imagine that we could have succeeded either in preventing them from establishing manufactories at home, or from importing products from abroad, had any one been able to undersell us. Our command of the American market depends, at this moment, on the very same principle —the comparative cheapness of our goods—on which it depended when we had a governor in every state. So long as we preserve this advantage, we preserve the only means by which the monopoly of any distant market can be maintained, and the only means by which such monopoly is rendered of the least advantage.

Being integral parts of the empire, the trade with the colonies should, as far as circumstances will permit, be conducted on the footing of a coasting trade. The state of the revenue requires that moderate duties should be laid on sugar, coffee, and rum, when imported into Great Britain or Ireland; but the duties on cotton, cocoa, and most other colonial products might be repealed without injury to the revenue, and with advantage to all parties. Unfortunately, however, the system we pursued down to a late period was in most respects the reverse of what it should have been. By excluding the colonists from the cheapest markets for their food and lumber, we artificially raised the cost of their produce; and then, to protect them from the consequences of such short-sighted policy, we gave them a monopoly of the British market! It is thus that one unjust and vicious regulation is sure to give birth to others, and that those who depart from sound principle have nothing left but to endeavour to bolster up one absurdity by another. It is time, surely, that an end were put to every vestige of so ruinous a system. It is as much for the interest as it is the *duty* of England to remove all restrictions from the colonists, not essential for the sake of revenue; for this is the only means by which she can provide for their real prosperity, by turning their industry into those departments for the prosecution of which they are naturally fitted, and rid herself of those monopolies that form the heaviest clog upon her industry.

We could not, however anxious, exclude manufactured articles, and such foreign goods as are valuable without being very bulky, from our West India islands, provided they were offered cheaper by others. But such is not the case with lumber, provisions &c. They are too bulky to be easily smuggled; and may be, and indeed were, very much raised in price by restrictions on their importation. For many years all direct intercourse between our West India colonies and the United States was interdicted; and, in consequence, the planters were compelled either to supply themselves with lumber, staves &c. by a distant voyage from Canada, or, which was by far the most common practice, from the United States, through the circuitous and expensive channel of St. Thomas and other neutral islands! In papers laid by the West India merchants and planters before the House of Commons (No. 120, Session 1831), they estimated the increased expense they thus incurred on lumber, staves, flour, shingles, fish &c. at 15 per cent. of the entire value of these articles, or at 187,576*l.* a-year. And it will be observed that no part of this sum went into the pockets of any British merchant—it went wholly to indemnify the Americans and others for being obliged to bring their products round about by St. Thomas instead of direct from the States.

This system grew out of the American war; but it is due to Mr. Pitt to state that it received no countenance from him. On the contrary, he introduced a bill, in 1785, for reviving the beneficial intercourse that existed, previously to the war, between the United States and the West India islands. But being opposed by a powerful party in Parliament, and by the ship-owners and Canada merchants, he was obliged reluctantly to withdraw the bill. The following remarks of Mr. Bryan Edwards on this subject, written in 1794, are too interesting to be omitted:—

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'This,' says he, 'is not a business of selfishness or faction; nor (like many of those questions which are daily moved in Parliament merely to agitate and perplex Government) can it be dismissed by a vote. It will come forward again and again, and haunt administration in a thousand hideous shapes, until a more liberal policy shall take place; for no folly can possibly exceed the notion that any measures pursued by Great Britain will prevent the American states from having, some time or other, a commercial intercourse with our West Indian territories on their own terms. With a chain of coast of 20° of latitude, possessing the finest harbours for the purpose in the world, all lying so near the sugar colonies and the track to Europe, with a country abounding in everything the islands have occasion for, and which they can obtain no where else—all these circumstances necessarily and naturally lead to a commercial intercourse between our islands and the United States. It is true we may ruin our sugar colonies, and ourselves also, in the attempt to prevent it; but it is an experiment which God and nature have marked out as impossible to succeed. The present restraining system is forbidding men to help each other; men who, by their necessities, their climate, and their productions, are standing in perpetual need of mutual assistance, and able to supply it.' (*Hist. West Indies*, Preface to 2nd ed.)

We also thought fit to interdict the West Indians from the refining, or, as it is technically termed, the *claying* of sugars. This is one of the few manufactures that might be advantageously set up in the islands. The process adds considerably to the value of sugar; and it might be carried on in the buildings, and by the hands, that are required to boil the cane or to prepare the raw or muscovado sugar. Instead, however, of being allowed to refine their sugars on the spot, and where it might be done for a third part of the expense that is required in England, the planters were prohibited from engaging in this branch of industry, and obliged to export all their sugars, either raw or crushed, to England. Nothing could exceed the oppressiveness of such a regulation; and what is most singular, it has not been enforced, like most regulations of the sort, in order to bolster up any of the leading interests of the country, but merely to give a factitious employment to a very small class—that of the sugar refiners, whose natural residence is in the West Indies. The planters and merchants estimated (in 1830) the loss caused by this preposterous regulation at 75,550*l.* a-year; but this prohibition has at length been withdrawn.

The distillation of spirits from sugar, that used to be only occasionally, is now always allowed. The duties having been adjusted so as to give no advantage to the planters over the growers of barley, or to the latter over the former, the distillers have been permitted to distil indiscriminately from sugar, molasses, or grain. It was the business of Government to take care that the duties should be so arranged as to give no unfair advantage to one party over another; but, having done this, it could, with propriety, do nothing more. To prohibit distillation from sugar, that a forced market may be opened for grain; or distillation from grain, that a forced market may be opened for sugar; are interferences with the freedom of industry, for which no good reason has been, nor, we believe, can be assigned.

2. *Relaxation of the Monopoly.*—But though something still remains to be done, it is not to be denied that great progress has been made towards the adoption of a sound system of colonial policy since 1822, when measures for the relaxation of the monopoly were introduced by Mr. Robinson (afterwards Lord Ripon). These measures were farther followed up by Mr. Huskisson in 1825, by the Act 6 Geo. IV. c. 114; and since his time by the 3 & 4 Wm. IV. c. 59, and more recently by the 5 & 6 Vict. c. 49, which came into operation in the West Indies on April 5, 1843. These Acts repealed several of the prohibitions that formerly existed against the importation of certain articles into the West Indian colonies and the Mauritius, and they also either repealed or very materially reduced the duties that were previously laid on others. For example, the barrel of American or other foreign flour, that down to 1843 paid a duty of 5*s.*, has since been imported on paying in some cases a much lower duty. Most other duties on articles of food have been reduced in the same proportion; and rice, wood, and lumber, articles of great importance in the colonies, which formerly paid high duties, may now be imported duty free. (See *post.*) We believe, indeed, that it would be sound policy to carry still farther this liberal system, by entirely repealing the duties on flour, salt, meat, and all other articles of provision. Jamaica and our other West Indian colonies may be viewed as immense sugar, rum, and coffee manufactories, which, though situated at a distance from England, belong to Englishmen, and are carried on by English capital. But to promote the prosperity of any manufacture without injury to others, there are no means at once so obvious and effectual as to give those engaged in it the means of carrying it on with the least outlay, and to keep the duties on its produce as low as possible. And, how much soever we may fail in the last of these necessary conditions, we have now but little to reproach ourselves with in regard to the former. It were better, perhaps, that the duties on necessaries imported into the colonies should be repealed; but if they are to be retained, those imposed by the late Act are as moderate as can well be desired.

Formerly, though American and other foreign flour could not be imported from a foreign country into the West India Islands without paying a duty of 5*s.* a barrel, it might be imported free of duty into Canada and our other possessions on the continent of N. America, and be thence exported in British ships to the islands free of duty. In consequence of this regulation a large proportion of the flour, lumber, and other articles required for the supply of the islands, instead of being shipped direct for them from New Orleans, Baltimore, and other American ports, was sent in the first instance to Canada, whence it was conveyed in British ships to its final destination. So that the influence of the duty was not so much to raise a revenue, or to open a market for the flour, provisions, and lumber of Canada, as to make the flour and other necessaries supplied to the colonists by the United States be carried, at a heavy expense, a roundabout voyage of some 2,000 miles and transhipped, that employment might be found for a few thousand tons of British and colonial shipping! But this preposterous system is happily at an end. American flour is now (1868) charged with a duty of 25 cents per 100 lbs. in Canada; and, independently of this, the duties on foreign articles directly imported into the colonies are too low to give any encouragement to their indirect conveyance.

It was, however, not a little singular, that while the Imperial Legislature had thus endeavoured, by repealing and lowering the duties on most articles of foreign produce, to provide for the future prosperity of the colonies, the Legislature of Jamaica should have passed an Act imposing heavy

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duties on the same articles. Luckily, this impolitic Act expired on December 31, 1843, and Government most properly directed the Governor to refuse his assent should it be attempted to renew it, or to propose any similar measure. (*Parl. Paper*, No. 292, Sess. 1843.)

For a lengthened period concession was entirely on the one side; and while we had all but emancipated the trade of the colonies, and allowed them to resort to all the markets of the world, we confined our demand for colonial produce exclusively to their markets. So long, indeed, as the colonists were compelled to take all that they wanted from us, it was but fair that we should be compelled to take the sugar and other articles with which they could supply us exclusively from them. But having liberated them from this obligation and permitted them to resort to whatever markets they thought most advantageous, there was neither justice nor policy in continuing to confine the people of the United Kingdom to their markets. This, of all possible cases, is that in which reciprocity would seem to be most desirable. If it be right, as no doubt it is, that the planters of Jamaica should, if they deem it most for their interest, be allowed to draw supplies of flour, provisions, and manufactured goods from New Orleans or Baltimore, on what pretence is the British manufacturer or merchant to be prevented from importing sugar from Rio, the Havannah, or Batavia?

Having done so much to abolish prohibitions on one side, we were bound to do as much for their abolition on the other. Having deprived the merchants and manufacturers of the United Kingdom of the monopoly of the colony market, we could not, without violating every principle of consistency and justice, refuse to deprive the colonists of the monopoly of the British markets. Indeed the ablest and most zealous defenders of the colony system have admitted that one part of it could not be supported independently of the rest, that it is of a piece, and must either stand or fall together. 'The British dominions,' says Lord Sheffield, '*are as much entitled to the markets of the British West Indies as the latter are entitled to those of the former; and whenever that monopoly is given up, it* WILL BE THE HIGHEST ABSURDITY NOT TO OPEN ALL THE BRITISH PORTS TO FOREIGN RAW SUGARS.' (*Observations on the Commerce of the American States*, p. 288.) Inasmuch, indeed, as the well-being and prosperity of the people of the United Kingdom is of incomparably more importance than that of the West Indian colonists, every argument that has been or that may be brought forward to show the impolicy of the restraints on the trade of the latter applies with tenfold force to those laid on the trade of the former.

Influence of the Monopoly on the Sugar, Timber &c. imported into the United Kingdom.—It appears from the official returns given in the Parl. Paper No. 226, Sess. 1843, that during the three years ending with 1842, 8,840,309⅓ cwts. sugar were annually retained for home consumption in the United Kingdom; and it farther appears, from the same return, that while the average price of British muscovado sugar during that period was 41*s.* 10½*d.* per cwt., the average price of Brazil sugar was only 20*s.* 2*d.* per cwt. Hence it follows that had the then prohibitory duty of 63*s.* per cwt. on foreign sugar been reduced to the same level (24*s.*) as that on British colonial sugar, we might have purchased the same supply of sugar for 20*s.* 2*d.* per cwt. that cost us 41*s.* 10½*d.*, which, on the average quantity consumed during the three years referred to, would have been a total saving in this single article of no less than 4,168,335*l.* a-year! But it may, perhaps, be said, that, had our ports been open to the free importation of Cuban and other foreign sugars, the price of the latter would have been raised; and so, probably, it would: though, considering the vast extent and productiveness of the field from which sugar may now be brought, we doubt whether this effect would have been very sensible. But supposing that the opening of our ports had raised the price of foreign sugar from 20*s.* 2*d.* to 25*s.* per cwt., still the saving would have amounted to 3,240,260*l.* 6*s.* a-year! [SUGAR.]

We are, however, glad to say that this preposterous system has been abandoned. Foreign sugar is now admitted, without regard to its origin, on payment of reasonable duties, which were reduced in 1854 to the same level with those on British colonial sugar. Probably, indeed, we have gone, in this case, from one extreme to another; for, considering the difficulties under which the British colonists are placed from the want of supplies of compulsory labour, it may be doubted whether they were not entitled to a reasonable discriminating duty in their favour.

The extraordinary preference shown to colonial sugar was, on the whole, probably less objectionable than that shown to colonial timber; the latter having been, for a lengthened period, admitted into our markets at a nominal duty of 1*s.* per load, while Baltic and other foreign timber was subjected to a duty of 25*s.* per load! In 1851, however, the duties on foreign timber were reduced to 7*s.* 6*d.* per load, and in 1866 all the timber duties were repealed, the colonies and foreign countries having been put on the same level in 1864.

The expense of the colonies is, also, a very heavy item in the national expenditure—*far more so* than is generally supposed. Not only have we been subjected to discriminating duties on foreign articles, that similar articles from the colonies might enjoy the monopoly of our markets, but we have to defray a very large sum on account of their military and naval expenditure. There are no means by which to estimate the precise amount of this expense; but it is, notwithstanding, abundantly certain that Canada and the islands in the West Indies cost us annually, in military and naval outlays, upwards of a *million and a half in time of peace*, exclusive of the revenue collected in them: and if to this heavy expense be added the vast additional sums their defence costs during war, the debtor side of a fairly drawn up colonial budget would attain to a very formidable magnitude, and one which we apprehend could not easily be balanced.

With the exception of the outlet which they afford to emigrants (which, however, is not so great as that afforded by the United States), it would be difficult to specify the peculiar advantages which we derive from our colonies in North America. They furnish but few, if any, articles which we might not import as cheaply, or cheaper, from elsewhere; and if we said that their occupation costs us directly and indirectly the sum of 2,000,000*l.* a-year, we are pretty confident we should be within rather than beyond the mark. Some, if not all, of our West India colonies are in the same, or nearly the same predicament. And on the whole, it would appear to be probable that we should gain, rather than lose, by providing, under judicious regulations, for the independence of our Transatlantic dominions.

In entertaining this opinion we are not singular. 'If,' said Lord Sheffield, 'we have not purchased our experience sufficiently dear, let us derive a lesson of wisdom from the misfortunes of other nations, who, like us, pursued the phantom of

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foreign conquest and distant colonisation, and who, in the end, found themselves less populous, opulent, and powerful. By the war of 1739, which may be truly called an American contest, we incurred a debt of upwards of 31,000,000*l.*; by the war of 1755 we incurred a further debt of 71,500,000*l.*; and by the war of the revolt we have added to both these debts nearly 100,000,000*l.* more! And thus we have expended a far larger sum in defending and retaining our colonies than the value of all the merchandise we have ever sent them. So egregious has our impolicy been in rearing colonists for the sake of their custom!' (*On the Commerce of the American States*, p. 240.)

We hope it will not be supposed, from anything now stated, that we consider the foundation of colonial establishments as, generally speaking, inexpedient. We entertain no such opinion. We do not object to the establishment of colonies, provided they be placed in advantageous situations; but we do object to the trammels that have been laid on their industry, the interference exercised by the mother countries in their domestic concerns, and the attempts to govern and coerce them after they have attained to maturity. Every individual should have full liberty to leave his native country; and occasions very frequently occur when Governments may advantageously interfere to settle emigrants in foreign countries, and when the soundest policy dictates the propriety of their supporting and protecting them until they are in a situation to support and protect themselves. There can be no question that Europe has been prodigiously benefited by the colonisation of America. The colonists carried the arts, the sciences, the language, and the religion of the most civilised communities of the Old World to regions of vast extent and great natural fertility, occupied only by a few miserable savages. The empire of civilisation has in consequence been immeasurably extended; and while the experience afforded by the rise and progress of communities placed under such novel circumstances has served to elucidate and establish many most important and fundamental principles in government and legislation, Europe has been enriched by the vast variety of new products America has afforded to stimulate the inventive powers of genius, and to reward the patient hand of industry.

But whatever may have been the advantages hitherto derived from the colonisation of America, they are trifling compared to what they would have been had the European powers left the colonists at liberty to avail themselves of all the advantages of their situation, and avoided encumbering themselves with the government of extensive territories 3,000 miles distant. Fortunately, however, a new æra has begun—*Novus sæclorum nascitur ordo!* The monopoly of the trade of America is destroyed, and her independence achieved. From Canada to Cape Horn, every port is ready to receive adventurers from Europe; and a boundless field has, in consequence, been opened for the reception of our surplus population, and for the advantageous employment of European arts, capital, and skill. The few remains of the old colonial system which still exist cannot be of long duration. Their mischievous operation is no longer doubtful, and they will disappear according as the knowledge of sound commercial principles is more generally diffused.

The colonisation of Australia will also contribute in no ordinary degree to extend the blessings of civilisation; and there can be no doubt that this newly discovered portion of the globe, the native inhabitants of which were still fewer in number and more barbarous than those of America, is destined, at no very remote period, to be the seat of flourishing communities: and while they preserve the language and literature, it is to be hoped that they may also pursue the mild, liberal, and tolerant policy, of the illustrious people from whom it should ever be their proudest boast to have descended.

3. *Slavery.*—Since the publication of the first edition of this work a vast change has been effected in the condition of society in our West India colonies and the Mauritius, by the abolition of slavery, under the provisions of the Act 3 & 4 Wm. IV. c. 73. [Slaves and Slave Trade.]

In the second edition of this work, published soon after the Act for the abolition of slavery had been passed, and before its provisions had been carried into effect, we ventured to speculate as follows on its probable results:—

'Nothing but vague conjectures can, of course, be indulged in as to the future working of this measure in the colonies. We believe, however, that those who have contended that it will not be productive of any falling off in the industry of the blacks will be found to have taken a very erroneous view of the matter. Field labour in the West Indies has hitherto been always associated with slavery and degradation, and been enforced by the lash. The fair inference, consequently, is, that when the fetters are struck off the slave, and he is left to follow his own inclinations, he will be desirous of escaping from what he cannot fail to consider an ignominious occupation. Necessity, no doubt, will prevent him from becoming altogether indolent; but the effect will in this, as in other instances, be proportioned to its cause: and necessity in the West Indies is very different from necessity in Europe. Most articles that are here deemed indispensable would there be positive incumbrances; and those essential to subsistence may be procured with less, certainly, than half the labour hitherto exacted from the slaves. At some future period, perhaps, when the recollection of their degradation has begun to fade, and a taste for conveniences and gratifications has been introduced amongst them, they may become more industrious; but this is a distant and a very uncertain prospect. We therefore look, at first, for a very considerable decline in the industry of the slaves, and a proportional falling off in the exports from the islands.'

It will be seen, from the returns given in a subsequent part of this article, that these anticipations have been more than realised, and that there has been a most extraordinary falling off in the imports from these colonies. We confess, also, that we are a good deal more sceptical than formerly in our anticipations of their future increase. Industry, when carried on by free labourers, is prosecuted only as a means by which they may acquire an adequate supply of necessaries and conveniences; and it is all but contradictory and absurd to suppose that a population with few wants, occupying a soil of great natural fertility, lying under a burning sun which unfits for exertion, should voluntarily engage in severe, and, to them, useless labour. We believe, indeed, that it will be found wholly impossible, except under peculiar circumstances, to carry on the culture of sugar on its present plan, in tropical countries, by the agency of *really* free labourers. Hayti, formerly the most important and productive of all the sugar colonies, does not now produce a single cwt. of sugar. Mexico is also fast relapsing into the most deplorable barbarism (*Geographical Dict.* art. 'Mexico'); and experience seems to show that some sort of modified slavery, or, which is the same thing, of

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compulsory labour, is indispensable to the successful prosecution of industry in tropical countries. It is to this that the extraordinary increase of produce in Java is to be ascribed; and, how much soever we may cry out against the slavery of the United States, there cannot, we apprehend, be a doubt that its existence, how objectionable soever in many respects, is necessary to the advantageous cultivation of the Southern States. It is the same in Cuba and Brazil. Were their slaves emancipated, may it not be fairly presumed that they would gradually, and not very slowly, sink into the state of Mexico and Hayti? and that instead of an extensive culture of sugar and other articles for foreign demand, the bulk of the population would be satisfied if they supplied themselves with those necessary for their subsistence? We need not, therefore, wonder that the projects for slave emancipation should have made but tardy progress among the Americans, Brazilians, and Cubans. Whether the West India colonies cease to produce sugar and cotton is a matter of excessively little importance to the people of Britain; but it is a matter of the very last importance to the white people of the Southern States of America, of Brazil, and of Cuba; and though the United States have abolished slavery, the two latter will be much to blame if they do not exercise extreme caution in legislating upon this most delicate matter. Perhaps the better policy will be for them gradually to relax the rigours of servitude, and to endeavour to improve the character and condition of the slaves, so as to fit them the better for emancipation, which may, probably, in the end be forced upon them; but they should carefully eschew all rash or precipitate measures.

III. Magnitude, Population, Trade etc. of the British Colonies.

Notwithstanding the loss of the United States, the colonies of Great Britain, exclusive of India, exceed in number, extent, and value those of every other country. Previously, indeed, to the breaking out of the late contests, the colonial dominions of Spain far exceeded in extent and importance those of any other power. But Cuba, Porto Rico, and the Philippine Islands are now all that remain to her. These, indeed, are very valuable possessions, though inferior to those of England.

1. *North American Colonies.*—In North America we possess the provinces of Ontario (formerly Upper or West Canada), Quebec (formerly Lower or East Canada), Nova Scotia, and New Brunswick—since the Act of 1867 'the Dominion of Canada;' Newfoundland with Prince Edward's Island, and their dependencies, all on the east side of the North American continent, and British Columbia, including Vancouver's Island, on the west. The situation and boundaries of these provinces will be more easily learned from the inspection of the accompanying map than they could be from any description. The shores of Nova Scotia and New Brunswick are washed by the Atlantic Ocean; and the noble river St. Lawrence, by its communication with the great American lakes, gives to Canada all the benefits of a most extensive inland navigation, and forms a natural outlet for her surplus produce as well as for the surplus produce of that part of the United States which is washed by the lakes. There is every variety in the soil and climate of these regions. In Lower Canada the winter is very severe; the surface of the country is covered with snow for nearly half the year. From the beginning of December to the middle of April the St. Lawrence is frozen over, and affords a smooth and convenient passage for the sledges by which it is then covered. But though severe, the climate is far from being unhealthy or disagreeable. The weather is generally clear and bracing; and the labour of artisans at their out-door employments is rarely suspended for many days in succession. On the breaking up of the ice in the latter end of April or the beginning of May the powers of vegetation almost immediately resume their activity, and bring on the fine season with a rapidity that is astonishing to a stranger. The highest temperature in Lower Canada varies from 96° to 102° of Fahrenheit; but the purity of the atmosphere abates the oppressive heat that is felt in most countries where the mercury ranges so high; and the weather is, on the whole, decidedly pleasant.

That part of the province of Ontario, or Upper or West Canada, which stretches from Lake Simcoe and the rivers Trent and Severn westward to Lake Huron and the St. Clair River, and southward to Lake Erie, and part of Lake Ontario, has a soil of extraordinary fertility, capable of producing luxuriant crops of wheat, and every sort of grain. 'The climate,' says Mr. Bouchette, late surveyor-general of Lower Canada, 'is so particularly salubrious, that epidemic diseases either among men or cattle are almost entirely unknown. Its influence on the fertility of the soil is more generally perceptible than it is in Lower Canada, and is supposed to be congenial to vegetation in a much superior degree. The winters are shorter, and not always marked with such rigour as in the latter. The duration of frost is always accompanied with a fine clear sky and a dry atmosphere. The spring opens, and the resumption of agricultural labours takes place, from six weeks to two months earlier than in the neighbourhood of Quebec. The summer heats rarely prevail to excess, and the autumns are usually very friendly to the harvests, and favourable for securing all the late crops.' (Bouchette's *Topographical Description of Canada*, p. 595.) The ground on the shores of Lake Ontario and Lake Erie, as far west as the junction of the Thames with the St. Clair Lake, is laid out in townships, and partly settled; but the population is still very thin. To the north of the river Thames, along the banks of the St. Clair, and the shores of Lake Huron, round to the river Severn, and thence to the river that joins Lake Nippissing and Lake Huron, is a boundless extent of country that is almost entirely unoccupied. The interior of this space has hitherto been very imperfectly explored; though the banks of the St. Clair and the shores of Lake Huron afford the finest situations for settlements. The soil is in many places of the greatest fertility, the river and lake teem with fish, and every variety of the best timber is found in the greatest profusion.

The winters in the provinces of Nova Scotia, Prince Edward's Island, and New Brunswick are more severe than in Upper Canada, and they are a good deal infested with fogs and mists; but their proximity to England, and their favourable situation for the fishing business, give them considerable advantages.

The province of British Columbia comprises the territory lying between the Rocky Mountains and the Pacific. The average breadth of the territory is 250 miles; its length of coast line is 450. It includes Vancouver's Island (since the Act of 1866) as well as Queen Charlotte's Island &c.

Until 1858 British Columbia formed part of the territory of the Hudson's Bay Company; the license possessed by this company giving the proprietors an exclusive right of trade in the region. But in this year a great discovery of gold was

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made here; and as a large immigration of gold-seekers took place, it became necessary, in order to protect life and property, to establish a Government. The trading license of the Hudson's Bay Company was revoked, and a colony established under 21 & 22 Vict. c. 99. Estimated population from 40,600 to 50,000, of whom all but 8,360 were natives.

Near British Columbia, and lying off its southern boundary, is Vancouver's Island. It has an extreme length of 275 miles, and a breadth varying from 40 to 50 miles. Its capital is Victoria, a free port. The area is estimated roughly at about 15,000 square miles. Vancouver's Island was erected into a British colony in 1859; and as coal is found here, it is probably destined to be of great significance as a trading station. Vancouver's Island is mountainous, the highest points reaching 16,000 feet. The soil is fertile, and the climate, though of the same character with that of southern England, nevertheless contrasts favourably with it. Estimated population in 1865 18,000, of which 10,000 were aboriginal Indians.

2. *North-west American Colonies.*—In addition to the above, we possess the Hudson's Bay Territory, a tract of vast extent, but situated in an inhospitable climate, and worth very little except as hunting grounds. We also possess the large islands of Newfoundland and Cape Breton, the latter being a dependency of Nova Scotia; but their soil is barren, and the climate severe and foggy; so that they are valuable principally as fishing stations.

The following table, taken from the *Colonisation Circular*, exhibits the estimated population of the different North American colonies in 1867:—

Colony	Population
Canada	3,090,936
New Brunswick	295,084
Prince Edward's Island	91,413
Newfoundland	130,000
Nova Scotia and Cape Breton	368,781
British Columbia and Vancouver's Island	61,360
Bermuda	11,451

Of the inhabitants of Lower Canada in 1844 no fewer than 518,565 were of French extraction, forming what is called the *Nation Canadienne*. In Upper Canada, on the other hand, the population is almost wholly of British origin.

Number of Emigrants.—There emigrated to the British Colonies in North America in

Year	Individuals	Year	Individuals	Year	Individuals
1823	8,741	1840	32,293	1855	17,966
1826	12,818	1841	38,164	1856	16,378
1827	12,648	1842	54,123	1857	21,001
1828	12,084	1843	23,518	1858	9,704
1829	13,307	1844	22,924	1859	6,689
1830	30,574	1845	31,803	1860	9,786
1831	58,067	1846	43,439	1861	12,707
1832	66,339	1847	109,680	1862	15,522
1833	28,808	1848	31,065	1863	18,083
1834	40,060	1849	41,367	1864	12,721
1835	15,573	1850	32,961	1865	17,211
1836	34,226	1851	42,605	1866	13,253
1837	29,884	1852	34,826	1867	15,303
1838	4,577	1853	34,523		
1839	12,658	1854	43,781		

Total emigration of the 43 years, 1,301,525.

Of these the great majority have been destined for Upper Canada. (For the total emigration from the United Kingdom, see PASSENGERS.)

Information for Emigrants.—In January 1840, a board of 'Colonial Land and Emigration Commissioners' was appointed. It consists of three commissioners, whose proceedings are guided by instructions from the Secretary of State for the Colonies, and their practical duties may be divided under three heads, viz. the sale of colonial lands; the superintendence and promotion of emigration; and the diffusion of information in respect of the colonies.

1. The functions of the commissioners under the first head do not extend to the North American colonies. The Crown having placed the revenue derived from the sale of their waste lands at the disposal of the local Legislatures, these lands are, of course, disposed of by the authorities on the spot.

2. The board endeavours, in as far as possible, to protect poor emigrants from imposition, and from the effects of improvident arrangements on their parts, and takes care that the provisions of the Passengers' Acts are duly carried out and enforced.

3. The board publishes from time to time such authentic information as they may receive on matters connected with the settlement of waste lands in the colonies, the prices of the principal articles of colonial produce, the wages of labour, and such other matters as may appear to be useful to persons who propose to settle in the colonies. They likewise answer all applications from individuals, and afford them, as far as may be in their power, such information as may be adapted to their particular cases. The office of the commissioners is at No. 8, Park Street, Westminster.—Assistant-Secretary, R. B. Cooper, Esq.

No pecuniary assistance is afforded by Government to parties desirous of proceeding to the North American colonies; and emigrants after their arrival no longer receive grants of land, that being now wholly disposed of in the way stated below.

But though Government makes no gifts at the public expense to emigrants to North America, it maintains agents at the principal colonial ports, whose business is to protect emigrants from imposition upon their first landing, to acquaint them with the demand for labour in different districts, to point out the most advantageous routes, and to furnish them with useful advice upon the objects which they have had in view in emigrating, without making any charge for the same. Persons newly arrived should not omit to consult these agents, and should avoid detention in the ports, where they are exposed to all kinds of imposition, and pretences for keeping them at taverns till any money they may possess has been expended.

We subjoin a Table, extracted from the *Colonisation Circular* of the Emigration Commissioners, issued in 1868, showing the cost of a passage to the different colonies. (See p. 356.)

The conveyance of emigrants or passengers to parts out of Europe is now (1868) regulated by the Passengers' Acts of 1855 and 1863, the 18 & 19 Vict. c. 119, and 26 & 27 Vict. c. 51, of which a full abstract is given under the art. PASSENGERS. The following Order in Council has been issued under the authority of the latter Act.

Abstract of Order in Council (Jan. 7, 1864) for promoting Order and Health &c. in Passenger Ships to any of her Majesty's Possessions abroad.

1. Every passenger to rise at 7 A.M., unless otherwise permitted by the surgeon; or, if no surgeon, by the master.

2. Breakfast from 8 to 9 A.M., dinner at 1 P.M., supper at 6 P.M.

3. The passengers to be in their beds at 10 P.M., except under permission of the surgeon, or if no surgeon, of the master.

4. Fires to be lighted by the passengers' cook at 7 A.M., and kept alight by him till 7 P.M.; then to be extinguished, unless otherwise directed by the master, or required for the use of the sick.

5. The master to determine the order in which

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Cost of Passages in Sailing Vessels from some of the Principal Ports of the United Kingdom to the British Colonies and the United States.

		Cabin				Intermediate				Steerage			
		Cost, including Provisions				Cost, with Provisions		Cost, without Provisions		Cost, with full Allowance of Provisions		Cost, without Provisions beyond the legal Allowance	
		From		To		From	To	From	To	From	To	From	To
		£	s.	£	s.	£ s.	£ s.	£	£	£ s.	£ s.	£	£
Quebec	London	15	0	20	0	8 0	12 0	..	..	7	8 0	..	..
	Liverpool	15	15	18	18	..	..	..	..	5 0	..	..	..
	Plymouth	10	0	..		..	..	..	..	4 0	..	..	..
	Ports in the Clyde	13	13*	..		7 7	..	..	..	5 5	..	..	..
	Londonderry	10	0	..		4 0	10 0	..	..	4 0	..	..	..
	Cork	13	13	..		..	..	..	..	5 0	7 0	..	..
New Brunswick	London	15	0	..		9 0	10 0	..	..	8 0	..	..	..
	Liverpool	10	0	..		..	..	..	..	6 0	..	..	..
	Ports in the Clyde	13	13*	..		..	..	..	..	6 6	..	..	..
	Londonderry	..		..		..	..	..	..	3 17	..	..	..
Newfoundland	Galway	20	0	..		..	..	..	..	6 6	..	..	..
Halifax	London	15	0	..		9 0	10 0	..	..	8 0	..	..	..
	Liverpool	10	0	..		..	..	..	..	5 0	..	..	..
	Ports in the Clyde	13	13*	..		..	..	..	..	6 6	..	..	..
British Columbia	Southampton (via Panama)	73	9	(about)		55 15	..	..	..	39 15	..	..	..
	Liverpool	70	0	..		40 0	..	..	..	23 0	..	..	..
Vancouver Island	London	52	10	..		36 15	..	..	..	26 5	..	..	..
New York	London	10	0	15	0	6 0	..	..	..	..	..	4	5
	Liverpool	15	15	22	1	..	..	..	..	4 4	..	..	..
	Southampton	20	0*	25	0	12 0	14 0	..	..	8 8	..	..	..
	Ports in the Clyde	13	0*	..		7 0	..	..	..	4 15	..	..	..
	Londonderry	10	0	..		4 0	10 0	..	..	4 0	..	..	..
	Cork	13	15*	22	0*	..	..	..	..	3 10	6 6	..	..
	Galway	20	0	22	0	18 0	..	..	..	6 6	..	..	..
New Orleans	Liverpool	..		..		..	..	..	..	5 5	..	..	..
	Cork	25	0	..		6 0	..	..	..	..	..	..	..
Philadelphia	Londonderry	10	0	..		4 10	..	..	..	4 0	..	..	..
West Indies	London	25	0	40	0	..	..	..	..	..	..	10	12
	Liverpool	25	0*	30	0*	..	..	..	..	..	..	..	..
	Southampton	33	0	44	0	25 0	..	..	..	..	..	..	..
	Ports in the Clyde	20	0	..		..	..	..	..	..	..	..	..
Cape of Good Hope & Natal	London	35	0	50	0	20 0	25 0	..	..	12 0	15 0	..	..
	Liverpool	..		..		..	..	..	..	..	..	..	..
	Plymouth	42	0*	..		30 0*	..	..	..	21 0	30 0	..	..
	Southampton	47	5*	57	15	31 10	38 10	..	..	23 0	28 0	..	..
	Ports in the Clyde	70	0	..		..	..	..	..	..	..	..	..
Mauritius	London	60	0	80	0	..	..	..	..	15 0	18 0	..	..
	Liverpool	63	0	..		..	..	..	..	..	..	..	..
	Southampton	85	0*	..		50 0	..	..	..	..	..	..	..
	Plymouth	63	0*	..		45 0*	..	..	..	31 10	45 0	..	..
Ceylon	London	75	0	100	0	..	..	..	..	18 0	20 0	..	..
	Liverpool	..		..		..	..	..	..	..	..	..	..
	Southampton	85	0*	..		50 0	..	..	..	..	..	..	..
Hong Kong	London	60	0	80	0	26 0	..	..	..	18 0	20 0	..	..
	Liverpool	90	0*	..		..	..	..	..	..	..	..	..
	Southampton	120	0*	..		65 0	..	..	..	..	..	..	..
Sydney	London	42	0	80	0	16 0	20 0	..	..	14 0	16 0	..	..
	Liverpool	50	0	..		21 0	..	..	..	18 0	..	..	..
	Plymouth	42	0	80	0	16 0	20 0	..	..	16 0	18 0	..	..
	Southampton	120	0*	..		75 0	..	..	..	..	..	..	..
Queensland	Ports in the Clyde	35	0	..		18 0	..	..	..	15 0	..	..	..
	Cork	45	0	..		..	..	..	..	15 0	17 0	..	..
Victoria, late Port Phillip	London	42	0	80	0*	16 0	25 0	..	..	14 0	18 0	..	..
	Liverpool	45	0	..		25 0	..	..	..	15 0	..	..	..
	Plymouth	..		..		..	..	..	..	17 0	..	15	..
	Southampton	120	0*	..		75 0	..	..	..	..	..	..	..
	Ports in the Clyde	30	0	..		..	..	..	..	14 0	..	..	..
Tasmania	London	42	0	80	0	16 0	..	..	..	14 0	18 0	..	..
Western Australia	London	42	0	80	0	20 0	25 0	..	..	18 0	20 0	..	..
South Australia	London	42	0	80	0	16 0	25 0	..	..	19 0	20 0	..	..
	Liverpool	50	0	..		21 0	..	..	..	18 0	..	..	..
	Plymouth	42	0	80	0	16 0	25 0	..	..	19 0	20 0	..	..
New Zealand	London	42	0	80	0	22 0	28 0	..	..	16 0	20 0	..	..
	Liverpool	..		..		..	..	..	..	..	..	..	..
	Plymouth	42	0	80	0	32 0	..	..	..	26 0	..	..	..
	Ports in the Clyde	35	0	..		..	..	..	..	14 0	..	..	..
	Cork	45	0	50	0	20 0	..	..	..	15 0	17 0	..	..
California	London	60	0	80	0	35 0	40 0	..	..	30 0	..	..	..
Falkland Islands	Southampton	90	0*	..		60 0	..	..	..	40 0	..	..	..
	London	40	0	60	0	20 0	25 0	..	..	15 0	18 0	..	..

Charges for Children.—The general practice in charging for children is, to compute them according to the Passengers' Act, viz., Children from 1 to 12 years of age, half the price of adults; under 1, no charge.

Caution.—Emigrants to New Brunswick, Prince Edward Island, or Nova Scotia, should not proceed thither by way of Quebec.

* By Steamer.

each passenger or family of passengers shall be entitled to the use of the fires. The cook to take care that this order is preserved.

6. On each passenger deck 3 safety lamps to be lit at dusk, and kept burning all night, and such further number as shall allow 1 to be placed at each of the hatchways used by the passengers.

7. No naked light between deck or in the hold to be allowed at any time or on any account.

8. The passengers, when dressed, to roll up their beds, to sweep the decks (including the space under the bottom of the berths), and to throw the dirt overboard.

9. Breakfast not to commence till this is done.

10. The sweepers for the day to be taken in rotation from the males above 14, in the proportion of 5 for every 100 passengers.

11. Duties of the sweepers to be to clean the ladders, hospitals, round houses, and water-closets, to pump water into the cisterns or tanks for the supply of the water-closets, to sweep the decks after every meal, and to dry, holystone, and scrape them after breakfast.

12. But the occupant of each berth to see that his own berth is well brushed out; and single women are to keep their own compartment clean in ships where a separate compartment is allotted to them.

13. The beds to be well shaken and aired on deck, and the bottom boards, if not fixtures, to be removed, and dry-scrubbed and taken on deck, at least twice a week.

14. Two days in the week to be appointed by the master as washing-days, but no clothes on any account to be washed or dried between decks.

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15. The coppers and cooking vessels to be cleaned every day, and the cisterns kept filled with water.

16. The scuttles and stern ports, if any, to be kept open (weather permitting) from 7 A.M. to 10 P.M., and the hatches at all hours.

17. On Sunday the passengers to be mustered at 10 A.M., when they will be expected to appear in clean and decent apparel. The day to be observed as religiously as circumstances will admit.

18. No spirits or gunpowder to be taken on board by any passenger. Any that may be discovered to be taken into the custody of the master till the expiration of the voyage.

19. No loose hay or straw to be allowed below.

20. No smoking to be allowed between decks.

21. All immoral or indecent acts or conduct, improper liberties or familiarities with the female passengers, blasphemous, obscene, or indecent language, or language tending to a breach of the peace, swearing, gambling, drunkenness, fighting, disorderly, riotous, quarrelsome, or insubordinate conduct, and also all deposits of filth or offensive acts of uncleanliness in the between decks, are strictly prohibited.

22. Fire-arms, swords, and other offensive weapons, as soon as the passengers embark, to be placed in the custody of the master.

23. No sailors to remain on the passenger deck among the passengers except on duty.

24. No passenger to go to the ship's cook-house without special permission from the master, nor to remain in the forecastle among the sailors on any account.

Besides the sea voyage from England, persons proceeding to Canada should be provided with the means of paying for the journey which they may have to make after their arrival at Quebec. The cost of their journey must, of course, depend upon the situation of the place where the individual may find employment, or where he may have previously formed a wish to settle. The Emigration Commissioners have (1868) published the following Hints to Emigrants to the North American Colonies:—

Hints to Emigrants to British North America.

Caution to keep Contract Tickets.—Emigrants to every British colony ought to keep their contract tickets, as otherwise, if the ship is prevented by any accident from reaching her destination, or if the passengers, for any other reason, are not landed at the place named in the tickets, they may have a difficulty in obtaining a return of their passage money, to which, in that case, they would by law be entitled.

Caution to provide means for subsistence and transport after arrival.—Many emigrants having latterly been found to rely on public funds for their assistance in the colonies, they are hereby warned that they have no claim of right on such funds, and that they should provide themselves with sufficient means of their own for their subsistence and conveyance into the interior from the port where they land.

In Canada a Colonial Law expressly prohibits relief from the Emigrant Tax Fund, excepting in cases of sickness on the part of destitute emigrants.

Tools.—It is not generally considered desirable that agricultural labourers should take out implements of husbandry, as these can be easily procured in the colonies; but artisans are recommended to take such tools as they may possess, if not very bulky.

Time to arrive in North America.—The best period is early in May, so as to be in time to take advantage of the spring and summer work, and to get settled before the winter sets in.

Average Length of Passage.

	days
To Quebec	36
Prince Edward Island (say)	36
Nova Scotia	34
New Brunswick	36
British Columbia, in a sailing ship round Cape Horn	150
viâ Panama	30

By the Passengers' Act, provisions and water are, however, required to be laid in for the first 4 colonies for 70 days, and in winter time for 80 days; and for British Columbia for 182 days.

The water of the river St. Lawrence is stated to have a strong tendency to produce bowel complaints in strangers. It should at first, therefore, be drunk as sparingly as possible. Emigrants should also avoid exposure to the great heat of the sun by day, and the dews and noxious vapours by night.

Maintenance on arrival &c.—Passengers are entitled by the Imperial Passengers' Act to be maintained on board in the same manner as during the passage for 48 hours after arrival, unless within that time the ship should quit the port in the prosecution of her voyage. As regards those bound to Quebec, the Canadian Passengers' Act, 15 & 16 Vict. c. 86 [1852], imposes a penalty on the master who compels passengers to leave before the expiration of 48 hours (except in cases where the vessel has a mail contract), and provides that they shall be landed free of expense, and between 6 in the morning and 4 in the afternoon.

Advice to Emigrants arriving in Canada.

All emigrants who wish to know the distance to any part of the province, the way to get there, what it costs, and the best places to find work, should ask the Government Emigration Officer (who will board the ship they arrive in), or else go to the Emigration Office, Old Custom House Buildings, Quebec. Those arriving by steamer will land at Point Levi, where there is also a Government Office. Emigrants should not listen to the opinions or advice of persons hanging about the places of landing, whose business it is to make profit out of them. Many young females and unprotected persons have been deceived and suffered from acting on such advice. For the better protection and convenience of emigrants desiring to wash their clothes and obtain information as to their future journey, temporary accommodation has been provided at the Government Emigration Wharf, Quebec, where they will be allowed to remain for a period not exceeding 48 hours. Emigrants who go out to join friends or relations already settled in the country should go at once to their destination. Farm labourers will get plenty of work in the farming districts. The chief agent will not assist any one who loses his time by staying in the city, unless detained by sickness or other good reason. Any offer of work had better be at once accepted, even if the wages are not as much as the emigrant thought they would be, because, until he gets into the ways of the country, he is not of much use to the farmer, and has a great deal to learn.

The same advice must be given to clerks, shopmen &c., who are very little wanted in Canada, and have but a poor chance of employment, and also to mechanics.

Any complaints of bad treatment on the passage out should be made, upon landing, to the Chief Emigration Agent, who will at once attend to them.

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Caution.—Newly arrived immigrants are frequently tempted by the promise of high wages held out by agents from the United States to leave Canada for the States. These promises should not be entertained without much caution and enquiry.

The Provincial Passenger Act, 25 Vict. c. 8, provides that no person without a license shall influence passengers in favour of any particular steam-boat, railroad, or tavern. Tavern-keepers are required to have posted in some conspicuous place a list of prices to be charged for board, lodging &c., and they are not allowed to have any lien upon the effects of a passenger for board and lodging beyond five dollars—about one pound sterling.

Emigrants arriving at Quebec, holding through tickets for their inland transport, and desiring to obtain information, may delay their journey for that purpose, as the railway or steamboat company to whom they are addressed will take charge of their luggage until they are ready to proceed.

Colonial Tax on Emigrants.

Canada.—By a Colonial Law of June 30, 1858, the capitation tax is 5*s.* currency, payable by the master, for every passenger over the age of 1 year; and no part of the tax is remitted on emigrants going on to the United States. If embarked, however, without the sanction of her Majesty's Government, ascertained by a certificate from an officer of customs at the port of embarkation, the tax is 7*s.* 6*d.* currency for every passenger.

Nova Scotia.—The Emigrant Tax Act of 1850 was repealed by an Act (No. 9) passed April 18, 1856. No tax is, therefore, now payable in respect of emigrants arriving in this colony.

New Brunswick.—The tax imposed on emigrants was for many years 5*s.* per head; it was then reduced to 2*s.* 6*d.*; and in 1861 it was entirely abolished by the Colonial Act, 24 Vict. c. 4.

Prince Edward Island.—The tax now levied under a Colonial Act, passed May 5, 1851, is 12*s.* currency (equal to about 10*s.* sterling) on each emigrant passenger arriving in the colony between the 1st of April and the 1st of October, but no payment is required for children under 18 months old. The tax is increased to 18*s.* currency if the emigrants arrive after the 1st of October. The master of the ship has to pay an additional tax if the vessel is put into quarantine.

In all of the colonies the tax is made payable by the master of the ship.

Newfoundland.—No emigrants' tax in this colony.

Personal Effects exempt from Duty.—By a Canadian Act (8 & 9 Vict. c. 31), 'wearing apparel in actual use, and other personal effects not merchandise, implements and tools of trade of handicraftsmen used in the occupation or employment of persons coming into the province for the purpose of actually settling therein,' are exempt from customs' duties. A similar provision is in force in New Brunswick.

Expense of erecting a log hut.—The cost of a log hut, such as settlers usually erect, may be stated at from 5*l.* to about 12*l.*; but when the chief part of the work is performed by the emigrant himself, the cost is much less. These huts, if properly constructed, are very warm and comfortable.

Vancouver Island.—The expense of erecting a suitable dwelling for an agricultural labourer may be estimated at from 25*l.* to 30*l.*

The rent of a town lodging for mechanics and labourers is about 14*s.* per week.

British Columbia.—The cost of such a building varies according to the rate of wages in the different parts of the colony; but a good hut can be built and fitted up by the immigrant at a cost of 10*l.* or 15*l.*

Value of the English Coins in Canada.

	Halifax Currency			Dollars	Cents
	£	s.	d.		
1 sovereign, sterling - -	1	4	4	4	85
1 crown - - -	0	6	1	1	20
½ crown - - -	0	3	0½	0	60
1 shilling - - -	0	1	3	0	24

In Upper Canada the English sixpence is generally called in retail dealings 'one York shilling' or a shilling; emigrants often believe one shilling sterling or currency is meant.

Emigrants should bring their money in gold, silver, or good Bills of Exchange. Bank notes are liable to heavy discounts.

Route for Emigrants to Canada.—Emigrants intending to settle in Canada will find it in all respects more advantageous to proceed by Quebec.

As there is often competition among the steamboat and railway companies at Quebec and the forwarding companies at Montreal, emigrants should exercise caution before agreeing for their passage, and should avoid those persons who crowd on board ships and steam boats, offering their service to get passages &c.

Emigrants for Upper Canada should not pause at Quebec or Montreal, but proceed at once on their journey. If, however, they require advice or direction, they should apply *only* to the Government Agents, who will furnish gratuitously all requisite information.

3. *West India Colonies.*—In the West Indies we possess Jamaica, Barbadoes, St. Lucia, Antigua, Grenada, Trinidad, and some other islands, exclusive of Demerara and Berbice in South America. Jamaica, by far the largest of our insular possessions, is about 120 miles in length, and 40 in mean breadth, containing about 2,800,000 acres, of which from 1,100,000 to 1,200,000 are supposed to be in cultivation. Being situate within the Tropic of Cancer, the heat in the West Indies is intense, but is moderated by the sea breeze which blows regularly during the greater part of the day. The rains make the only distinction of seasons. They sometimes fall with prodigious impetuosity, giving birth to innumerable torrents, and laying all the low country under water; the trees are green the whole year round: they have no snow, no frost, and but rarely some hail. The climate is very humid; iron rusts and corrodes in a very short time; and it is this, perhaps, that renders the West Indies so unfriendly to European constitutions, and produces those malignant fevers that are so very fatal. The vegetable productions are numerous and valuable; but the sugar cane and the coffee plant are incomparably more important than the others, and constitute the natural riches of the islands.

The West Indies are occasionally assailed by the most dreadful hurricanes, which destroy in a moment the hopes and labours of the planters, and devastate entire islands. Whole fields of sugar canes are sometimes torn up by the roots, houses are either thrown down or unroofed, and even the heavy copper boilers and stills in the works have, in numerous instances, been wrenched from the ground and battered to pieces. The rain pours down in torrents, sweeping before it every-

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thing that comes in its way. The destruction caused by such dreadful scourges seldom fails to produce a very great scarcity, and not unfrequently famine; and we are grieved to have to add, that the severity of the distress has on several occasions been materially aggravated by a refusal on the part of the authorities to allow importation direct from the United States. This was the case at Dominica as late as 1817. It is stated in a report by a committee of the Assembly of Jamaica, that 15,000 negroes perished between the latter end of 1780 and the beginning of 1787, through famine occasioned by hurricanes and the prohibition of importation from the United States. (Edwards's *West Indies*, vol. ii. p. 515.)

Jamaica was discovered by Columbus in 1494, and continued in possession of the Spaniards till 1655, when it was wrested from them by the English. Although it had thus been for more than a century and a half under the power of Spain, such was the deadening influence of her colonial system, that it did not, when we conquered it, contain 1,500 white inhabitants, and these were immersed in sloth and poverty. Of the many valuable articles which Jamaica soon after produced in such profusion, many were then altogether unknown; and of those that were known such a supply only was cultivated as was required for the consumption of the inhabitants. 'The Spanish settlers,' says Mr. Bryan Edwards, 'possessed none of the elegancies of life; nor were they acquainted even with many of those gratifications which, in civilised states, are considered necessary to its comfort and convenience. They were neither polished by social intercourse, nor improved by education; but passed their days in gloomy languor, enfeebled by sloth, and depressed by poverty. They had been for many years in a state of progressive degeneracy, and would probably in a short time have expiated the guilt of their ancestors by falling victims themselves to the vengeance of their slaves.' (*Hist. West Indies*, vol. i. p. 297, 8vo. ed.)

For a considerable number of years after we obtained possession of Jamaica, the chief exports were cocoa, hides, and indigo. Even so late as 1772 the exports of sugar amounted to only 11,000 hogsheads. In 1774 they had increased to 78,000 hogsheads of sugar, 26,000 puncheons of rum, and 6,547 bags of coffee. The American war was very injurious to the West India settlements; and they may, indeed, be said to be still suffering from its effects, as the independence of America led to the enactment of those restrictions on the importation of food, lumber &c. that were so very hurtful to the planters. In 1780 Jamaica was visited by a most destructive hurricane, the devastation occasioned by which produced a dreadful famine; and other hurricanes followed in the immediately succeeding years. But in 1787 a new æra of improvement began. The devastation of St. Domingo by the negro insurrection which broke out in 1792 first diminished, and in a few years almost entirely annihilated, the annual supply of 115,000 hogsheads of sugar which France and the Continent had previously been accustomed to receive from that island. This diminution of supply, by causing a greatly increased demand for, and a consequent rise in the price of, sugar raised in the other islands, occasioned an extraordinary extension of cultivation. So powerful in this respect was its influence, that Jamaica, which, at an average of the 6 years preceding 1799, had produced only 88,000 hogsheads, exported, in 1801 and 1802, upwards of 286,300 hogsheads, or 143,000 a-year!

The same rise of price which operated so powerfully in Jamaica, occasioned a similar though less rapid extension of cultivation in our other islands, and in Cuba, Porto Rico, and the foreign colonies generally. The vacuum caused by the cessation of the supplies from St. Domingo being thus more than filled up, a reaction commenced. The price of sugar rapidly declined; and, notwithstanding a forced market was for a while opened to it by substituting it for malt in the distillery, prices did not attain to their former elevation. On the opening of the Continental ports, in 1813 and 1814, they, indeed, rose, for a short time, to an extravagant height; but they very soon fell, involving in ruin many of the speculators upon an advance. Prices, however, continued at a pretty high level down to 1818; but they sustained a material fall in the course of the following year, and were comparatively low from that period down to 1835, when the extraordinary falling off in the supplies of sugar consequent on the measures connected with the emancipation of the slaves, again occasioned a considerable rise of price. But, as already seen, this high price was entirely factitious, being wholly caused by our excluding foreign sugar from our market. Now that the sugar of Brazil, Cuba, and Java is admitted on paying reasonable duties, prices are comparatively low. And from the extraordinary facility with which sugar may be raised in the countries referred to and elsewhere, we have no idea, provided they adopt no rash or ill-advised measure in relation to slaves, that its price in their markets would be likely to sustain any material or permanent increase, even though the demand for it were doubled or more. The imports of sugar from our West Indian colonies, which amounted to 4,103,800 cwts. in 1831, sunk, in 1841, to 2,151,217 cwts.! In 1866 they amounted to 3,177,047 do.

The devastation of St. Domingo gave the same powerful stimulus to the growth of coffee in the other West Indian colonies that it did to the growth of sugar; and owing to the extraordinary increase in the demand for coffee in this and other European countries, the supply went on increasing till it was checked by the influence of the measures relating to slavery. In 1752, for example, only 60,000 lbs. of coffee were exported from Jamaica; in 1775 the export amounted to 440,000 lbs.; in 1797 it had increased to 7,931,621 lbs.; and in 1832, when it had attained its maximum, the exports to England only amounted to 19,405,933 lbs. Such, however, and so rapid has been their subsequent decline, that in 1858 the exports to England from Jamaica amounted to only 2,091,607 lbs., and in 1866 to 4,432,222 lbs.

We have already seen that when Jamaica was taken from the Spaniards, it only contained 1,500 white inhabitants. In 1673 the population amounted to 7,768 whites and 9,504 slaves. It would have been well for the island had the races continued to preserve this relation to each other; but, unfortunately, the black population has increased more than 15 times as rapidly as the white; the latter having only increased from 7,768 to 13,816, while the former has increased from 9,504 to about 346,374, exclusive of persons of colour, numbering 81,704.

The real value of the exports to Jamaica amounted in 1866 to 721,471*l.*, being about ⅓ of the exports to the West Indian colonies. It was formerly much more; but then a large portion of the articles sent to Jamaica, and some of the other colonies, were only sent there as to an entrepôt; being subsequently exported to the Spanish main. During the ascendancy of the Spanish dominion in Mexico and South America, this trade, which was then contraband, was car-

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ried on to a great extent. It is now much fallen off, and is principally carried on from St. Thomas and Honduras.

Barbadoes was the earliest of our possessions in the West Indies. It is the most easterly of the Caribbee Islands; Bridge Town, the capital, being in long. 59° 41′ W. Barbadoes is by far the best cultivated of all the West Indian islands. It contains about 105,000 acres, having (in 1861) a population of about 16,000 whites, 15,000 people of colour, and 120,000 blacks. Of late years it has exported from 500,000 to 750,000 cwts. of sugar. Barbadoes had attained the acmé of its prosperity in the latter part of the seventeenth century, when the white population is said to have amounted to about 50,000, though this is probably an exaggeration. But it is only as compared with itself that it can be considered as having fallen off; for, compared with the other West Indian islands, its superiority is manifest. It raises nearly as much food as is adequate for its supply.

The islands next in importance are St. Vincent, Grenada, Trinidad, Antigua &c. It is unnecessary to enter into any special details with respect to them; their population and trade being exhibited in the annexed tables.

During the late war we took from the Dutch the settlements of Demerara, Berbice, and Essequibo, in Guiana, which were definitively ceded to us in 1814. The soil of these settlements is naturally very rich; and they have, in this respect, a decided advantage over most of the West Indian islands. For a time their prosperity seemed to be on the decline. The export of coffee became scanty; that of cotton fell to nothing. Other countries were more favourably situated both as regarded labour and natural capacity for these products. But to compensate these, the supply of sugar increased enormously, and the cultivation of the cane, aided by the importation of coolie labour, became very successful. During the year 1866 the value of the exports of British Guiana to the United Kingdom amounted to 1,689,814*l.*, of which sugar, in quantity 1,233,720 cwt., was worth 1,320,760*l.* and rum, 3,694,171 gallons, was worth 286,354*l.*

Exclusive of the above, we possess the settlement of Belize on the Bay of Honduras. This is of importance, as affording a means of obtaining abundant supplies of mahogany; but it is of more importance as an entrepôt for the supply of Guatemala and Central America with English manufactured goods.

The exports from this country to our West Indian colonies consist of coarse cottons, linens, checks, hats, and other articles of negro clothing; iron and steel, wrought and unwrought; leather, including saddlery and harness; glass; beer and ale; soap and candles; stationery; hardware and earthenware; staves, hoops, coal, lime, paint, lead; Irish provisions, herrings, and other salt fish; along with furniture, wine, beer, medicines, and, indeed, almost every article which a great manufacturing country can supply to one situated in a tropical climate, which has very few mechanics and hardly any manufactures. Since the opening of the ports on the Spanish main to ships from England, the exports to the West Indies have decreased both in quantity and value: this decrease being, however, more than balanced by the increased shipments to Mexico, Columbia &c. The value of our total exports to the British West Indies and Guiana amounted in 1865 to 3,006,584*l.*, and in 1866 to 2,963,670*l.*, while in 1867 the exports of British produce alone to the same colonies were valued at 2,336,900*l.*

Money.—What used to be called West India currency was an imaginary money, and had a different value in different colonies. The value it bore, as compared with sterling money, was supposed to represent the corresponding value of the coins in circulation in the different islands at the time the proportion was fixed: these coins being for the most part mutilated and otherwise worn and defaced, currency was in all cases less valuable than sterling. The following are the old values of 100*l.* sterling, and of a dollar, in the currencies of the different islands:—

	Sterl. Curr.	Do. Curr.
Jamaica - -	- 100*l.* = 140*l.*	1 = 6*s.* 8*d.*
Barbadoes - -	- 100*l.* = 135*l.*	1 = 6*s.* 3*d.*
Windward Islands (except Barbadoes) -	- 100*l.* = 175*l.*	1 = 8*s.* 3*d.*
Leeward Islands -	- 100*l.* = 200*l.*	1 = 9*s.* 0*d.*

But latterly these currencies have been in great measure superseded by the introduction of sterling money, current at the same rates as in England, and of the Spanish dollar.

By an order in council of March 23, 1825, British silver money was made legal tender throughout all British colonial possessions, at the same nominal value as in England; and bills for the same are given on the Treasury of London, of 100*l.* each bill for 103*l.* such silver money. By this order, also, the value of the Spanish dollar was fixed at 4*s.* 4*d.* British silver money throughout all the colonies where it is current; but this value was farther reduced on September 21, 1838, to 4*s.* 2*d.* The value of the doubloon was then, also, fixed at 64*s.*

4. *Australian Colonies.*—This group of colonies, though founded in a very distant part of the world, and at a comparatively recent epoch, will, probably, at no very distant period, surpass the others in magnitude and importance. The countries in which they are situated, including the great Australian continent, formerly called New Holland, with Van Diemen's Land or Tasmania, New Zealand &c., are of vast extent, and differ in many respects from each other. The results of recent explorations seem to show that this great division of the globe has no great rivers, or, at least, none that reach the sea. Indeed it seems, speaking generally, to be a law in this new world, that rivers are largest near their source; and that they gradually diminish as they proceed, and most commonly dwindle into insignificance, or lose themselves in marshes, before they reach the ocean.

In consequence, perhaps, of this singular constitution of its river system, it is found that in Australia the best land is not at the mouths, but towards the sources, of the rivers. There are, no doubt, exceptions to this rule; but it appears to hold in the greater number of instances. Generally, also, the extent of fine land appears to be comparatively limited; and in so far as the continental portion of the country has been explored, it appears to be much better adapted for pasturage than for tillage.

Gold Deposits.—But the land, the pasturage, the sheep, the copper and other ordinary minerals, which are found in abundance in various parts of Australia, have all been rendered, for the present at least, of no importance compared with the gold deposits with which the continent is so largely endowed. These, which were discovered so late as 1851, are of extraordinary richness. They equalled or exceeded in productiveness not only the gold fields of California, but every thing of which any idea could previously have been entertained. Australia, in consequence, became an object of earnest and universal attention. An almost unparalleled amount of emigration was directed to her

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Account of the Quantities and Computed Real Values of Sugar, Molasses, Rum, Coffee, and Cocoa Imported into the United Kingdom from the West Indies and British Guiana during each of the under-mentioned 5 Years, ending with 1866.

Colonies from which Imported	Quantities					Computed Real Values				
	1862	1863	1864	1865	1866	1862	1863	1864	1865	1866
Sugar.	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
Antigua	258,689	208,560	52,050	140,[illegible]	251,607	289,356	217,391	66,491	154,[illegible]	256,[illegible]
Barbadoes	701,255	649,[illegible]	530,[illegible]	664,[illegible]	780,[illegible]	781,[illegible]	685,721	746,[illegible]	736,[illegible]	796,[illegible]
Dominica	57,[illegible]	50,[illegible]	40,[illegible]	55,[illegible]	54,[illegible]	62,[illegible]	50,[illegible]	54,[illegible]	62,[illegible]	55,[illegible]
Grenada	58,[illegible]	90,181	85,[illegible]	74,[illegible]	84,[illegible]	67,[illegible]	93,[illegible]	113,[illegible]	81,[illegible]	82,[illegible]
Jamaica	553,013	514,[illegible]	471,[illegible]	424,[illegible]	570,[illegible]	619,[illegible]	540,[illegible]	649,166	469,[illegible]	580,[illegible]
Montserrat	5,117	6,[illegible]	7,[illegible]	8,[illegible]	19,[illegible]	5,[illegible]	6,[illegible]	9,[illegible]	8,[illegible]	18,[illegible]
Nevis	35,[illegible]	39,[illegible]	16,[illegible]	29,[illegible]	35,[illegible]	39,[illegible]	40,[illegible]	26,[illegible]	32,[illegible]	35,[illegible]
St. Christopher	186,[illegible]	200,[illegible]	96,[illegible]	203,[illegible]	222,[illegible]	207,[illegible]	215,[illegible]	131,[illegible]	247,[illegible]	220,[illegible]
St. Lucia	97,[illegible]	99,[illegible]	80,[illegible]	99,[illegible]	121,[illegible]	106,[illegible]	101,[illegible]	117,[illegible]	109,[illegible]	121,[illegible]
St. Vincent	145,[illegible]	156,[illegible]	123,[illegible]	124,[illegible]	170,[illegible]	159,[illegible]	145,[illegible]	170,[illegible]	138,[illegible]	170,[illegible]
Tobago	72,[illegible]	47,[illegible]	45,[illegible]	49,[illegible]	59,[illegible]	80,[illegible]	50,[illegible]	61,[illegible]	55,[illegible]	59,[illegible]
Tortola	1,[illegible]	...	...	...	...	2,[illegible]	...	...	...	...
Trinidad	687,[illegible]	601,[illegible]	674,[illegible]	558,[illegible]	814,[illegible]	738,[illegible]	608,[illegible]	929,[illegible]	666,[illegible]	770,[illegible]
Bahamas	670	1	1	478	...	735	1	1	...	1
Bermudas	...	761	5	1,[illegible]	1	...	422	4	1,159	1
Demerara	873,[illegible]	880,[illegible]	925,[illegible]	1,[illegible]	1,[illegible]	985,[illegible]	1,026,[illegible]	1,[illegible]	1,[illegible]	1,[illegible]
Berbice	130,[illegible]	97,[illegible]	99,[illegible]	97,[illegible]	129,[illegible]	146,[illegible]	114,[illegible]	143,[illegible]	108,[illegible]	138,[illegible]
Total	3,865,185	3,622,778	3,491,478	3,569,088	4,410,[illegible]	4,297,[illegible]	3,914,[illegible]	4,550,[illegible]	3,925,[illegible]	4,567,[illegible]
Molasses.	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
Antigua	64,[illegible]	54,[illegible]	16,[illegible]	43,[illegible]	57,[illegible]	31,[illegible]	28,[illegible]	10,[illegible]	26,[illegible]	31,[illegible]
Barbadoes	39,[illegible]	20,[illegible]	24,[illegible]	27,[illegible]	14,[illegible]	18,[illegible]	10,[illegible]	16,[illegible]	17,[illegible]	7,[illegible]
Dominica	3,[illegible]	3,[illegible]	4,[illegible]	8,[illegible]	5,[illegible]	1,[illegible]	1,[illegible]	3,[illegible]	4,[illegible]	2,[illegible]
Grenada	6[illegible]	1[illegible]	1,[illegible]	8[illegible]	5[illegible]	3[illegible]	[illegible]	1[illegible]	5[illegible]	3[illegible]
Jamaica	5[illegible]	6[illegible]	4[illegible]	1[illegible]	1,[illegible]	2[illegible]	2[illegible]	3[illegible]	1,[illegible]	[illegible]
Montserrat	6[illegible]	5[illegible]	1,[illegible]	6[illegible]	4[illegible]	2[illegible]	2[illegible]	[illegible]	[illegible]	2[illegible]
Nevis	6[illegible]	4,[illegible]	4,[illegible]	2,[illegible]	1,[illegible]	3[illegible]	2,[illegible]	2,[illegible]	1,[illegible]	[illegible]
St. Christopher	24,[illegible]	13,[illegible]	9,[illegible]	33,[illegible]	15,[illegible]	12,[illegible]	6,[illegible]	6,[illegible]	20,[illegible]	8,[illegible]
St. Lucia	3,[illegible]	5,[illegible]	5,[illegible]	4,[illegible]	1,[illegible]	1,[illegible]	2,[illegible]	2,[illegible]	2,[illegible]	[illegible]
St. Vincent	3,[illegible]	4,[illegible]	4,[illegible]	7,[illegible]	10,[illegible]	1,[illegible]	2,[illegible]	3,[illegible]	4,[illegible]	6,[illegible]
Tobago	1,[illegible]	9[illegible]	1,[illegible]	3,[illegible]	2,[illegible]	[illegible]	[illegible]	2,[illegible]	2,[illegible]	1,[illegible]
Tortola	...	...	...	...	...	...	...	...	...	...
Trinidad	77,[illegible]	88,[illegible]	92,[illegible]	74,[illegible]	50,[illegible]	38,[illegible]	43,[illegible]	61,[illegible]	44,[illegible]	21,[illegible]
Bahamas	1,[illegible]	1,[illegible]	..	6[illegible]	..	7[illegible]	5[illegible]	..	3[illegible]	..
Bermudas	..	..	..	..	..	..	..	..	..	..
Demerara	9,[illegible]	5,[illegible]	29,[illegible]	26,[illegible]	30,[illegible]	3,[illegible]	3,[illegible]	20,[illegible]	11,[illegible]	13,[illegible]
Berbice	3,[illegible]	7[illegible]	7[illegible]	1,[illegible]	8[illegible]	1,[illegible]	3[illegible]	[illegible]	[illegible]	[illegible]
Total	234,[illegible]	201,[illegible]	198,[illegible]	237,[illegible]	192,[illegible]	116,[illegible]	105,[illegible]	132,[illegible]	140,[illegible]	106,[illegible]
Rum.	Gallons (including overproof.)					£	£	£	£	£
Antigua	106,[illegible]	85,[illegible]	9,[illegible]	67,[illegible]	44,[illegible]	8,[illegible]	6,[illegible]	79[illegible]	5,[illegible]	3,[illegible]
Barbadoes	53,[illegible]	15,[illegible]	4,[illegible]	8,[illegible]	19,[illegible]	3,[illegible]	1,[illegible]	3[illegible]	7[illegible]	1,[illegible]
Dominica	52,[illegible]	43,[illegible]	25,[illegible]	49,[illegible]	45,[illegible]	3,[illegible]	3,[illegible]	2,[illegible]	4,[illegible]	3,[illegible]
Grenada	57,[illegible]	38,[illegible]	42,[illegible]	82,[illegible]	91,[illegible]	4,[illegible]	6,[illegible]	7,[illegible]	7,[illegible]	6,[illegible]
Jamaica	2,809,[illegible]	1,[illegible]	1,[illegible]	1,[illegible]	2,[illegible]	239,[illegible]	186,[illegible]	168,[illegible]	240,[illegible]	271,[illegible]
Montserrat	...	...	...	...	...	...	...	...	...	...
Nevis	5,[illegible]	...	...	5[illegible]	2,[illegible]	3[illegible]	...	1	4[illegible]	2[illegible]
St. Christopher	137,[illegible]	84,[illegible]	25,[illegible]	92,[illegible]	59,[illegible]	10,[illegible]	6,[illegible]	1,[illegible]	7,[illegible]	4,[illegible]
St. Lucia	7,[illegible]	1,[illegible]	[illegible]	11,[illegible]	4,[illegible]	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]
St. Vincent	227,[illegible]	175,[illegible]	120,[illegible]	186,[illegible]	196,[illegible]	17,[illegible]	13,[illegible]	9,[illegible]	15,[illegible]	14,[illegible]
Tobago	131,[illegible]	118,[illegible]	67,[illegible]	91,[illegible]	118,[illegible]	9,[illegible]	8,[illegible]	5,[illegible]	7,[illegible]	9,[illegible]
Tortola	...	...	...	...	...	...	...	...	...	...
Trinidad	282,[illegible]	265,[illegible]	62,[illegible]	95,[illegible]	96,[illegible]	20,[illegible]	19,[illegible]	4,[illegible]	8,[illegible]	7,[illegible]
Bahamas	11,[illegible]	3,[illegible]	..	46,[illegible]	6	8[illegible]	[illegible]	..	3,[illegible]	..
Bermudas	..	..	..	..	..	..	..	..	..	..
Demerara	3,214,[illegible]	3,178,[illegible]	2,816,[illegible]	3,[illegible]	3,397,[illegible]	280,[illegible]	238,[illegible]	227,[illegible]	283,[illegible]	263,[illegible]
Berbice	264,[illegible]	246,[illegible]	274,[illegible]	301,[illegible]	296,[illegible]	22,[illegible]	18,[illegible]	22,[illegible]	26,[illegible]	23,[illegible]
Total	6,818,[illegible]	6,[illegible]	4,[illegible]	5,[illegible]	5,[illegible]	397,[illegible]	309,[illegible]	447,[illegible]	614,[illegible]	[illegible]
Coffee.	lbs.	lbs.	lbs.	lbs.	lbs.	£	£	£	£	£
Antigua	..	..	..	..	..	..	..	..	..	..
Barbadoes	..	..	..	..	..	..	..	..	..	..
Dominica	..	..	..	..	..	..	..	..	..	..
Grenada	..	..	..	..	..	..	..	..	..	..
Jamaica	3,511,[illegible]	3,[illegible]	2,[illegible]	2,[illegible]	4,[illegible]	130,[illegible]	102,[illegible]	79,[illegible]	110,[illegible]	144,[illegible]
Montserrat	..	..	..	..	..	..	..	..	..	..
Nevis	..	..	..	..	..	..	..	..	..	..
St. Christopher	..	..	..	..	..	..	..	..	..	..
St. Lucia	..	..	3,[illegible]	..	..	..	..	11[illegible]	..	..
St. Vincent	..	..	..	..	..	..	..	..	..	..
Tobago	..	..	..	..	..	..	..	..	..	..
Tortola	..	..	..	..	..	..	..	..	..	..
Trinidad	..	..	..	..	..	..	..	..	..	..
Bahamas	32,[illegible]	72	..	5[illegible]	61,[illegible]	1,[illegible]	3	..	19,[illegible]	1,[illegible]
Bermudas	..	61	161	288,[illegible]	22[illegible]	..	2	5	9,[illegible]	7
Demerara	..	..	..	..	..	..	..	..	..	..
Berbice	..	..	..	..	..	..	..	..	..	..
Total	3,543,[illegible]	3,[illegible]	2,[illegible]	2,[illegible]	4,[illegible]	132,[illegible]	102,[illegible]	79,436	139,[illegible]	146,[illegible]
Cocoa.	lbs.	lbs.	lbs.	lbs.	lbs.	£	£	£	£	£
Antigua	..	..	..	..	..	..	..	..	..	..
Barbadoes	..	..	..	..	..	..	..	..	..	..
Dominica	90,089	55,[illegible]	99,[illegible]	69,902	40,187	2,161	1,[illegible]	2,[illegible]	1,[illegible]	1,[illegible]
Grenada	1,374,925	1,137,005	845,351	1,191,[illegible]	1,511,901	34,932	25,321	22,292	30,[illegible]	45,767
Jamaica	..	..	..	..	..	..	..	..	..	..
Montserrat	..	..	..	..	..	..	..	..	..	..
Nevis	..	..	..	..	..	..	..	..	..	..
St. Christopher	..	..	..	..	..	..	..	..	..	..
St. Lucia	151,706	183,177	154,936	166,969	140,462	5,782	4,100	3,[illegible]	3,[illegible]	3,[illegible]
St. Vincent	..	..	..	..	..	..	..	..	..	..
Tobago	..	..	..	..	..	..	..	..	..	..
Tortola	..	..	..	..	..	..	..	..	..	..
Trinidad	2,930,[illegible]	4,369,[illegible]	4,769,[illegible]	3,[illegible]	3,[illegible]	89,438	123,[illegible]	85,020	109,[illegible]	137,[illegible]
Bahamas	..	..	..	..	..	..	..	..	..	..
Bermudas	..	..	..	..	..	..	..	..	..	..
Demerara	..	..	..	..	..	..	..	..	..	..
Berbice	..	..	..	..	..	..	..	..	..	..
Total from the above colonies	4,551,[illegible]	5,745,[illegible]	5,907,[illegible]	4,[illegible]	5,[illegible]	150,[illegible]	158,[illegible]	115,153	144,[illegible]	188,[illegible]

shores. Her population and her trade increased with gigantic strides; and her gold influenced the wages, the prices, and the industry of every civilised people. [PRECIOUS METALS.]

A License Duty of 30*s.* a month, charged on all individuals who engaged in the search for gold, was much, and we think justly, objected to. We observed in a previous edition of this work, 'that

license duties are essentially unfair, except when they are proportioned to the extent of business carried on by those who pay them. But the business of the gold diggers is, to all intents and purposes, a lottery. So that while the tax presses with greatest severity on the great bulk of those at the "diggings," it is hardly felt by the few who carry off the great prizes. The better plan would be to make the license duty next to nominal, and to impose a moderate customs' duty on gold when exported. The tax would then cease to be felt as a burden by individuals, while it would yield quite as great a revenue to Government.' And we are glad to have to state that this course has been nearly adopted. A duty of 2*s.* 6*d.* per oz. laid on gold when exported was in 1867 reduced in Victoria to 6*d.* per oz., and the export became free in that colony on Jan. 1, 1868; and though the license duty has not been wholly repealed, it has been reduced to the moderate charge of from 5*s.* to 20*s.* a-year.

It were idle to indulge in speculations in regard to the period when the exhaustion of the Australian gold fields may be expected; there are no data on which to hazard even a conjecture on such a subject. But whether the supplies from them be destined to be of long or short duration, they have already been, and, no doubt, will continue to be, of great advantage. We do not mean by this to say, or insinuate, that the good resulting from the influx of gold from Australia and California has been unaccompanied by any drawbacks. The gambling and dissipation to which it has given rise are obvious. Yet these, though considerable, are but a trifling deduction from its many advantages; from the powerful stimulus it has given to industry and civilisation, from the new channels it has opened to commerce, and from its greatly ameliorating the condition of the labouring classes in this and most other countries.

The northern portion of Australia, including, perhaps, about a third part of the entire continent, lies between the tropics; the other portion of the continent, with the adjacent islands of Van Diemen's Land and New Zealand, being in the south temperate zone. The climate of the different parts of the continent must therefore, it is obvious, differ very widely. We, however, know but little of the climate of intertropical Australia, except that it is within the range of the Indian monsoon; that the temperature along the coast is rapidly raised by a wind from the south, which has been supposed to afford a strong presumption of the existence of sandy deserts in the interior; and that the air is so very moist that during the season of the dry monsoon iron articles are with the utmost difficulty preserved from rusting.

It is commonly said that the climate of extra-tropical Australia, and especially of New South Wales, assimilates closely to that of Southern Italy. But this statement must be taken with considerable limitation; for, 1st, the atmosphere is very decidedly denser; 2nd, the extremes of temperature are infinitely greater; 3rd, the average heat is rather less; and 4th, the temperature appears to decline more rapidly by increase of elevation. The grand defect in the climate of extra-tropical Australia appears to consist in the periodical recurrence of wet and dry seasons. Sometimes hardly a single drop of rain falls for an entire year or more; and though, happily, dews are in such seasons peculiarly abundant, they form no adequate substitute for rain. During long-continued droughts crops of all kinds are destroyed; and herbage, except in a few favoured spots, suffers severely.

Hence, as already stated, all the eastern parts of extra-tropical Australia, and perhaps also the southern, would seem to be much better fitted for pasturage than for husbandry. The droughts are exceedingly injurious to the latter, and they would necessarily involve any large population that depended principally on the indigenous products of the soil in extreme privations. Certainly no country seems to be better fitted for grazing, or rather for the growth of sheep and wool. A dry climate is especially suitable to the latter; and though the pastures be far from luxuriant, their boundless extent compensates for every other deficiency. Sheep are not native to the country, a small flock of 29 head having been introduced for the first time by the original English settlers in 1788. For a while, however, their value was not appreciated; but the importance of sheep farming and its suitableness to the country having been demonstrated by John M'Arthur, Esq. (to whom the colony is under the greatest obligations), it has since increased with unprecedented rapidity. In proof of this, it is only necessary to mention that while the import of wool from Australia amounted, in 1822, to only 152,880 lbs., it had increased in 1825 to 411,600 lbs., in 1830 to 899,750 lbs., and in 1866 to the enormous amount of 113,772,694 lbs.

Tasmania, or Van Diemen's Land, being less subject to droughts than New South Wales, husbandry is carried on in it to a greater extent, and with more advantage; but there also sheep-farming is the principal and, perhaps, the most advantageous employment. [VAN DIEMEN'S LAND.]

New Zealand, which has only been resorted to by regular colonists since 1840, is better fitted for agriculture than either Australia or Van Diemen's Land, and its climate is more like that of England. The ground in it is, however, rather difficult to clear; the natives are also much more formidable; and it is not so suitable for sheep-farming, though its rich mines have latterly made it very attractive. [AUCKLAND.]

The first of the Australian colonies, that in New South Wales, founded so late as 1788, and that in Van Diemen's Land, founded in 1808, were originally intended to serve as penal settlements; and great numbers of convicts have been carried to them. These colonies had also, notwithstanding their distance, become, even before the discovery of the gold fields, a favourite resort of free settlers, consisting partly of voluntary emigrants, and partly of emigrants carried out at the public expense; and since their discovery the emigration to Australia from this country, China, California &c., has been quite unprecedented. The facility with which supplies of compulsory labour were obtained tended at first to reconcile the free colonies to the abuses of the convict system, but they gradually became such as to occasion the greatest dissatisfaction in New South Wales; and since 1843 no fresh convicts have been sent to it. They still, however, continued to be sent to Van Diemen's Land, but it also has ceased to be a receptacle for them. No convicts have ever been sent to the important and flourishing settlement of South Australia, founded in 1834 [ADELAIDE], nor to New Zealand. The settlements in the latter have recently made a rapid progress, and it promises, at no very remote period, to be a peculiarly thriving colony.

Passage.—The cost of a passage to the Australian colonies, including provisions, is for the

Cabin, from 45*l.* to 80*l.*
Intermediate, from 16*l.* to 28*l.*
Steerage, from 14*l.* to 20*l.*

The average length of the voyage is about four months; and at whatever season of the year it

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may be made, the passengers have to pass through both very hot and very cold weather, and should, therefore, be prepared accordingly with suitable clothing.

The prices of cabin and intermediate passages to New Zealand are about the same as to the Australian colonies; but a steerage passage is rather higher.

Account of the Declared or Real Value of the Exports of British Produce and Manufactures from the United Kingdom to each British Colony and Possession during each of the 6 Years ending with 1867, and the Imports from each Colony during the same time.

Colonies		1862	1863	1864	1865	1866	1867
		£	£	£	£	£	£
BRITISH POSSESSIONS:							
Channel Islands	Imports	615,801	618,508	836,455	414,391	430,700	404,083
	Exports	996,869	1,012,872	1,208,466	892,036	658,229	471,284
Gibraltar	Imports	97,559	69,150	117,959	149,729	102,017	67,720
	Exports	1,114,698	1,471,451	1,333,028	1,210,672	1,219,742	729,231
Malta	Imports	110,819	158,963	128,013	83,993	115,638	84,171
	Exports	517,901	726,179	870,809	726,017	747,842	498,909
Ionian Isles, ceded to Greece June 1, 1864.	Imports	339,234	192,879	18,870	6,350,178	6,867,563	6,807,284
	Exports	337,139	458,051	128,235	5,720,198	7,702,131	5,851,523
North American Colonies	Imports	8,499,593	8,165,613	6,850,730	7,129,594	6,325,794	5,877,424
	Exports	4,781,353	5,526,932	6,269,646	3,006,584	2,963,670	2,536,900
Belize	Imports	299,746	297,873	372,223	244,556	239,795	180,610
	Exports	118,504	175,451	210,164	172,240	155,630	148,076
West India Islands and Guiana	Imports	6,285,927	8,603,238	11,073,148	10,273,115	11,423,268	12,890,260
	Exports	3,335,629	4,215,563	4,611,849	14,169,425	14,620,779	9,637,157
Australia	Imports	7,109,809	7,169,666	10,039,532	37,395,452	36,901,997	25,469,316
	Exports	12,847,525	13,644,204	12,926,228	18,833,191	20,671,519	21,844,619
British India	Imports	34,133,951	48,131,740	52,295,599	2,155,931	1,609,863	1,435,459
	Exports	15,346,126	20,817,109	20,753,864	1,810,392	2,042,531	2,369,610
Singapore	Imports	2,375,813	1,830,522	2,069,838	3,707,717	3,256,250	3,224,512
	Exports	1,093,164	1,516,426	1,230,960	714,373	1,126,704	774,754
Ceylon	Imports	2,488,262	3,699,125	3,173,820	773,066	292,273	183,173
	Exports	607,215	1,140,185	885,016	1,587,647	2,460,159	2,486,017
Mauritius	Imports	967,714	1,986,270	1,589,769	1,216,299	1,330,218	889,812
	Exports	542,120	549,329	671,901	617,012	583,103	376,871
Cape of Good Hope and Natal	Imports	1,517,851	1,919,843	1,974,873	2,445,185	2,719,523	2,741,285
	Exports	2,034,568	1,626,345	2,382,161	1,758,120	1,460,013	1,892,592
Possessions on the Gold Coast	Imports	91,856	89,258	196,806	225,619	388,500	290,935
	Exports	140,149	101,203	134,142	198,152	301,486	329,072
Possessions on the River Gambia	Imports	45,246	37,252	41,720	30,552	42,645	36,055
	Exports	90,730	101,870	45,196	61,012	75,947	75,807
Sierra Leone	Imports	97,692	64,666	54,860	76,221	82,647	72,065
	Exports	190,682	221,904	180,013	221,810	250,287	226,309
Other Possessions	Imports	25,157	36,564	26,150	68,599	37,291	108,066
	Exports	134,864	107,506	99,571	120,275	149,681	129,140
Total of British Possessions	Imports	65,128,530	83,594,840	90,862,965	72,810,797	72,205,722	66,783,174
	Exports	44,258,736	53,111,758	53,942,551	51,516,754	57,167,566	49,880,201

Population.—The population of the Australian colonies is as follows:—

Colonies	Year	Males	Females	Total
New South Wales	1865	227,196	184,192	411,388
Queensland	1865	55,297	34,478	87,775
Victoria	1867	369,103	284,641	653,744
South Australia	1866	88,272	80,881	169,153
Western Australia	1867	13,934	7,779	21,713
Tasmania	1867	—	—	99,454
New Zealand	1865	148,215	91,659	239,874
Total				1,682,101

Emigration.—We subjoin a return of the number of individuals that have emigrated from the United Kingdom to the Australian colonies from 1825 down to 1867, both inclusive:—

Year	Emigrants	Year	Emigrants
1825	485	1846	23,904
1826	903	1849	32,191
1827	715	1850	16,037
1828	1,056	1851	21,532
1829	2,016	1852	87,424
1830	1,242	1853	61,401
1831	1,561	1854	83,237
1832	3,733	1855	52,709
1833	4,093	1856	44,584
1834	2,800	1857	61,234
1835	1,860	1858	59,295
1836	3,124	1859	31,013
1837	5,054	1860	24,302
1838	14,021	1861	23,758
1839	15,746	1862	41,843
1840	15,850	1863	50,054
1841	32,626	1864	40,942
1842	8,534	1865	57,283
1843	3,478	1866	24,497
1844	2,229	1867	14,166
1845	850		
1846	2,547	Total	816,049
1847	4,919		

4. *Disposal of Land in the Colonies.*—The question as to the best method of disposing of the unoccupied lands in colonies planted in unsettled countries is one of considerable nicety and difficulty. Land in old settled and fully occupied countries being, for the most part, very valuable, and its possession bringing along with it great consideration and influence, and frequently also great wealth, colonists are very apt, wherever they have the opportunity, to appropriate a much larger extent of land than they have the means of cultivating, or of turning to any useful account. Not only, however, are settlers disposed to act in this way, but speculators, who have no thought of emigrating, and persons having influence with Government, endeavour to obtain large tracts of land, in the view of holding them till, in consequence of the increase of population in the vicinity, they acquire a considerable value. It has been usual also to reserve large tracts for ecclesiastical and other public purposes. And these extensive tracts of unoccupied and reserved lands being interposed between the settled parts of a colony, render it in all cases more difficult, and sometimes all but impossible, to form roads and other means of communication; so that the settlers are, thus frequently cut off from a market for their produce, and are less able to combine for municipal or such like purposes, and for the establishment of schools and churches, and the undertaking of such public works as require co-operation.

The improvident manner in which large tracts of land have been granted in Canada, and the great extent of the clergy and other reserves in that colony, have materially retarded its prosperity; and the same circumstances have had a similar operation in our other North American possessions, in Western Australia, and elsewhere. But there are various ways in which an abuse of this sort might be prevented. One of the most obvious of these is to impose such a moderate price on the land as might, without crippling the means of the settlers, hinder them from seeking unduly to extend their possessions; and making all the land held by individuals, whether occupied or not, contribute according to its extent to the construction of roads and other public works. Perhaps, however, the better plan would be to apportion the land according to the available capital of the settlers, it being stipulated that no individual should obtain above

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a certain number of acres; and that it should revert back to the public unless certain improvements were effected upon it within a specified time after the grant was made.

But, not satisfied with attempting to prevent abuses like those noticed above, we were lately told that all the difficulties incident to colonisation originated in the too great dispersion of the colonists, and that to obviate them, and to insure to all new colonies the acmé of prosperity, we had merely to compel the colonists to keep close together by exacting a high price for the surrounding waste or unoccupied land—in other words, by making the colony as like an old settled country as possible! And this precious nostrum was trumpeted forth as a great discovery. It is obvious, however, that if, on the one hand, the price set on waste land were inconsiderable, it would not (without a limitation of quantity) prevent the purchase of large tracts of land on speculation, and the entailing on the colony all the disadvantages that have resulted from the making of injudicious grants; and if, on the other hand, the price demanded for the land were high, it would go far to oppose an insuperable obstacle to the progress of the colony, at least if it were to be founded by voluntary emigrants. Rich men do not leave their native country to expose themselves to the inconveniences and hardships attending the establishment of new settlements in the wilderness. This, if it be done at all, must be done in time to come, as in time past, by individuals in straitened circumstances, and anxious to improve their fortunes. But to exact a high or considerable price for land from such persons would, by sweeping away the whole or a considerable portion of their capital, deprive them of the means of clearing and cultivating the land, and proportionally retard their progress and that of the colony. The plan of letting lands by fine is admitted by every one who knows anything of agriculture to be one of the worst that can be devised; and this colonisation project was bottomed on the same principle, and has been quite as pernicious.

It is said that, in consequence of the exacting of a price for the land, and the concentration of the colonists, their employments, being more combined and divided, will be prosecuted with a great deal more success than at present. All this, however, proceeds on the false and exploded assumption that the colonists are not, like other individuals, the best judges of what is for their own advantage. Adam Smith says truly, that it is the highest impertinence for kings and ministers to attempt to direct private people *how* they should employ their capitals. But it is, *if* possible, a still greater impertinence to attempt to direct them *where* they shall employ them. A regard to their own interest will draw people sufficiently together. And to enact regulations in the view of concentrating them still more, is in every respect as contradictory and absurd as it would be to set about increasing the public wealth by regulating the sort of employments to be carried on, and the countries with which, and the commodities in which, to deal.

Of late years the English Government has disposed of all ungranted colonial lands by sale; and though we incline to think, as already stated, that the preferable plan would be to distribute them according to the capital or means of the settlers, still if the price at which land is sold be reasonable, the quantity that may be held by individuals be limited, and the lots put up to sale be of sizes suited to the means of the various classes of purchasers, we do not know that the plan is open to any very good objection. But the price charged for land in most of our colonies, and especially in Australia, where the minimum (except in Western Australia, Tasmania, and New Zealand) is 20*s.* an acre, is much too high, and has led to the most mischievous results. At the same time we must bear in mind the distinction between *founding* a colony with a view principally to the interests of the colonists, and founding it not only with a view to their interests, but in an especial degree for the relief of the mother country. For it is not to be denied that the plan of exacting a pretty high (but not an oppressive) price for colonial lands, and applying that price to defray the cost of carrying out emigrants, may (how injurious soever to voluntary emigrants) be made to assist in relieving the mother country of those who might otherwise have had to be supported at the public expense. Inasmuch, too, as an extraordinary quantity of labour is thus supplied to the colony, the injury done to the capitalists by making land artificially dear is, in some degree at least, compensated by its making labour artificially cheap. The emigration to the Australian colonies in the 4 years ending with 1847 was mainly a consequence of the principle now stated, a very large proportion of the emigrants having been carried out at the public expense. But it is to be borne in mind, that when the revenue derived from the sale of land in the Australian colonies was at its maximum, its price was only 12*s.* an acre. After it had been raised to 20*s.*, the sales, down to the æra of the gold discoveries, were comparatively trifling.

It would obviously be the extreme of folly for an agriculturist intending to emigrate who has a little, but not a great deal of capital, to think of establishing himself in a colony where a high price is set upon land. At all events, he must not expect in such a colony to become a landowner, or to be independent, but must make up his mind to be a hired labourer; whereas, if he emigrate to a colony where land is sold at a low price, or given away on condition of certain improvements being effected upon it within a given time, he may at once acquire an estate, and exchange the condition of a hired servant for that of landowner.

Seeing that the Americans sell the best lands in the valley of the Mississippi at about a dollar an acre, it was not easy to discover the principle on which we proceeded for many years to exact 6*s.* 7*d.* an acre for the worst land in Upper Canada. If this regulation were meant to divert the current of voluntary emigration from Canada to the United States, nothing could be found to say against it; but otherwise it was alike contradictory and absurd. At present (1868) in Canada West the minimum price per acre is 2*s.* 1*d.*, and the maximum 4*s.* 2*d.* sterling, while in Canada East the prices range from 10*d.* to 2*s.* 6*d.* Notwithstanding the facilities of getting out to Quebec in timber ships, the direct emigration to the United States greatly exceeds that to British North America, the emigrants to the former being also of a superior description and having a greater command of capital. And there can be no doubt that the United States are in no inconsiderable degree indebted for this influx of comparatively valuable immigrants to the fact of the public lands having for many years been sold at a less price than ours. 'It is population alone which imparts value to land; and a more effectual method could not be devised for preventing an influx of inhabitants into Upper Canada, and drawing away many of those already settled, than Government adhering to the present prices of land.' (See Shirreff's valuable *Agricultural Tour through North*

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America, p. 365.) But since Canada has been in great measure self-governed, the price of land has been reduced, as already explained.

Regulations for the Sale and Management of the Public Lands, approved by his Excellency the Governor General in Council, and dated January 13, 1859.

1. That the lands in townships which have already been delineated, or shall hereafter be delineated on survey by the exterior lines only, may be offered for sale on block on the following terms, viz.:—

2. That the price shall be one half-dollar per acre, payable at the time of sale.

3. That the purchaser shall cause the lands to be surveyed at his own expense into lots comprising either 100 or 200 acres of land in each lot; and on the north shore of Lake Huron into quarter sections of 160 acres each, except in spots where the configuration of the township may render such exact quantities impracticable, and then as near to those allotments as possible.

4. That such survey shall be made by a duly licensed provincial land surveyor, approved of by the Commissioner of Crown Lands, and acting under his instructions, who shall make his return with field notes &c. in the usual method observed by surveyors, to be also approved of by the Department.

5. That one-third of the quantity of land in the township shall be settled upon within two years from the time of sale; one-third more settled upon within the following five years—that is, seven years from the time of sale; and the residue within the further period of three years—or ten years from the date of sale; the settlement required being that there shall be at least one bonâ fide settler in authorised occupation for every 200 acres of land; all land not so settled at the expiration of ten years from the time of sale to become forfeited and revert to the Crown absolutely, except such portions thereof as shall be found unfit for settlement, or such portions as are of a very inferior quality, and by reason thereof have remained unoccupied, in respect to which the Governor in Council may, upon application, dispense with the forfeiture, and cause the same to be conveyed to the original purchaser or his assignee.

6. A contract or sale to be made with the purchaser from the Crown subject to the foregoing and following conditions; but patents for the land to issue only to the occupants of the lots purchased deriving claim under the vendee of the Crown, or to the assignees claiming under such purchasers and occupants who shall have complied with the conditions of settlement hereinafter mentioned, upon a certificate or other evidence that they have paid such vendee or his assignee, or complied with the contract with him, for or in regard to such particular lot; and upon evidence that the party applying, or some one under whom he claims, has been a resident on the same lot for at least two years continuously, and that upon the same (not exceeding 200 acres) at least 10 acres for each 100 acres have been cleared and rendered fit for cultivation and crop, and have been actually under crop, and that a habitable house, in dimensions at least 16 by 20 feet, is erected thereon, and upon payment of the sum of 4 dols. as patent fees, to cover expenses &c. The nature and description of proof above referred to to be settled and prescribed by the Commissioner of Crown Lands.

7. All lands which shall under the foregoing conditions revert to the Crown shall be exposed to sale at public auction at such times and places, and on such upset price, as the Commissioner of Crown Lands shall fix.

8. That in townships which have been surveyed and laid out into lots, and where lands are now offered for sale at 4*s.* per acre, or where no lands have as yet been offered for sale, and in townships under survey or yet to be surveyed in lots, lands to be sold under the following regulations, to wit:—

9. That lands be sold for cash at 70*c.* per acre, and on time upon the following terms—viz. 1 dol. per acre; one-fifth to be paid at the time of the sale, and the remaining four-fifths in four equal annual instalments, with interest on the purchase-money unpaid.

10. That when the lands in a township have remained open for sale for one year after public notice thereof, the lands unsold at the expiration of that period shall, at a time to be fixed, and after reasonable notice given by the Commissioner of Crown Lands, be offered for sale by public auction at the upset price fixed for their sale as above, or at such other upset price as under special circumstances may be named by the Commissioner of Crown Lands; and that such public sales of all lands which shall remain unsold in the mean time shall take place semi-annually, at times to be named therefor by the Commissioner of Crown Lands, until the whole of the lands in the township shall have been disposed of; the lands remaining unsold after any such public sale to continue open for private sale at the said upset price until the period of one week next before the time at which the next public sale shall take place.

11. That all lots of land which shall have been offered as 'Free Grants,' and shall not have been located and occupied at the expiration of one year from the time the same shall have been so offered, shall no longer remain as 'Free Grants,' but shall be open for private sale, or shall be exposed to public sale by auction as part of the lands in the township in which the same are situate, and upon the same terms as other lands therein.

12. That all lands (except those now exempt) shall be subject to settlement duties, and no patent in any case (even though the land be paid for in full at the time of purchase) shall issue for any such land to any person who shall not by himself, or the person or persons under whom he claims, have taken possession of such land within six months from the time of sale, and shall from that time continuously have been a bonâ fide occupant of, and resident on the land for at least two years, and have cleared and rendered fit for cultivation and crop, and had under crop within four years at farthest from the time of sale of the land, a quantity thereof in the proportion of at least 10 acres to every 100 acres, and have erected thereon a house habitable, and of the dimensions at least of 16 by 20 feet.

13. That all other lands not embraced in the foregoing category be exposed to sale by public auction annually, or, in the discretion of the Commissioner of Crown Lands, half-yearly, for cash, at such times and places and at such upset prices as the Commissioner of Crown Lands shall fix.

14. That the lands known as 'Clergy Reserves' be sold on the same terms and in the same manner as other public lands in the townships in which they respectively lie.

15. That prompt payment in all cases be made of the essence of the contract, and any default to be on pain of forfeiture of all previous payments and of all right in the lands.

16. That in the cases of sales already made payment of arrears be required, and that public

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notice be given in the 'Official Gazette,' and through the usual channels, that unless such arrears be paid within 12 months from the 1st of January, 1859, the land in respect of which default shall continue will be resumed by the Crown and resold, and that in regard to all purchase moneys and interest hereafter to fall due, prompt payment will be exacted.

Squatters.

17. That the system of recognising unauthorised occupation of land, commonly known as 'squatting,' be discontinued, subject to the following provisions, viz.:—

That public and general notice be given by the Crown Lands Department, that no claim to pre-emption by reason of such occupation will be entertained after the 1st day of September next; and that no claim to such pre-emption not now in a state to be admitted can be made good by any act of the party hereafter; and that therefore his labour will be thrown away.

That the prices above fixed for lands shall apply to Upper Canada only.

The prices of lands in Lower Canada shall be regulated by Orders in Council from time to time.

Nova Scotia.—The public lands are here also sold at a fixed price, of 1*s.* 9*d.* sterling per acre, payable at once. The smallest regular farm lot contains 100 acres. Any less quantity of land may be had, but the cost would be the same as for 100 acres, viz. 8*l.* 15*s.*, the minimum sum for which a deed of grant is issued.

New Brunswick.—There are two modes of selling Crown lands in this province, and it is optional whether the intending settler shall pay for his land in money or in labour. It may be purchased at the auction sales in each county on the first Tuesday of every month, at the upset price of 3*s.* currency (2*s.* 6*d.* sterling) per acre, with an addition of 2½*d.* sterling for the survey of the same. If the money be paid down at these sales, there is a discount of 20 per cent. Thus those disposed to pay become the possessors of 100 acres of land for 12*l.* 10*s.* currency or 10*l.* 6*s.* sterling. Another mode is by paying one quarter down, and the remainder by three annual instalments.

In all cases, however, where British subjects of 18 years of age and upwards desire to become settlers, they are entitled to 100 acres of land wherever they may choose the same, for 3*s.* currency (2*s.* 6*d.* sterling) per acre, without competition at auction; and may either pay for it in money, to be expended on the road, or work out the worth of the money in labour, at an estimated rate, and under the direction of Commissioners appointed for the purpose, and will be allowed five years to complete the payment. The sons of emigrants, 18 years of age and upwards, can each secure a lot of 100 acres adjoining the lot held by the father; they are not required to reside on the lot, but will be required to pay the money value of the land in labour on the roads at the rate of 2*s.* 6*d.* sterling per acre, with a period of 5 years to complete the same.

In all cases of sales by auction or otherwise grants under the great seal of the province are issued, conveying the land to the purchaser and his heirs and assigns for ever, as soon as may be after payment; but in all cases where Crown lands are sold without competition, either for money or labour on the road, no grant will be issued until the party, in addition to payment, has resided one year on the land, and cleared and cultivated at least 5 acres.

If not less than six persons apply to any of the emigration officers in the United Kingdom, stating that they wish to obtain land in New Brunswick for actual settlement, and name an agent in the province to select it, such agent, on his name being reported by the emigration officer to the Colonial Government, will be authorised to select not exceeding 100 acres for each of the applicants, and the land will be reserved for them for one year.

Prince Edward Island.—With the exception of between 2,000 and 3,000 acres, the whole of the Crown lands in this colony were alienated in one day. But by Colonial Acts of 1853, 16 Vict. c. 18, and of 1857, 20 Vict. c. 20, the local Government is authorised to repurchase from proprietors their unsold lands and to resell them to the present tenants or otherwise. 80,000 acres were thus repurchased in 1854. These may now be obtained at the Land Office at from 4*s.* to 8*s.* sterling per acre, according to locality and quality. About 35,000 acres of these lands remained undisposed of in 1866, for which the late proprietors demanded from 10*s.* to 20*s.* sterling per acre.

Most of the Crown lands (i. e. those not repurchased under the Act of 1857) have been sold. There is, however, a small number of town lots for sale in Princetown. These lots are chiefly sought for at present as qualifications for electors of members to serve in the General Assembly; but may become valuable hereafter, being situated in front of one of the best harbours in this island, from which the fisheries might be prosecuted.

Newfoundland.—By a Colonial law Crown lands are to be sold by auction, at an upset price to be fixed by the Governor at not less than 2*s.* per acre. Land exposed to auction more than once may afterwards be sold, without further competition, at the last upset price.

British Columbia.—That part of British territory on the north-west coast of North America, previously known as New Caledonia, was, by an Act passed August 2, 1858 (21 & 22 Vict. c. 99), erected into a colony, under the name of 'British Columbia.' It is bounded on the south by the frontier of the United States (i. e. the 49th degree of north latitude), on the east by the main chain of the Rocky Mountains, on the north by Simpson's River and the Finlay branch of the Peace River, and on the west by the Pacific Ocean. It includes Queen Charlotte's Island and all other adjacent islands; and Vancouver Island, by the 29 & 30 Vict. c. 67, has been incorporated with British Columbia.

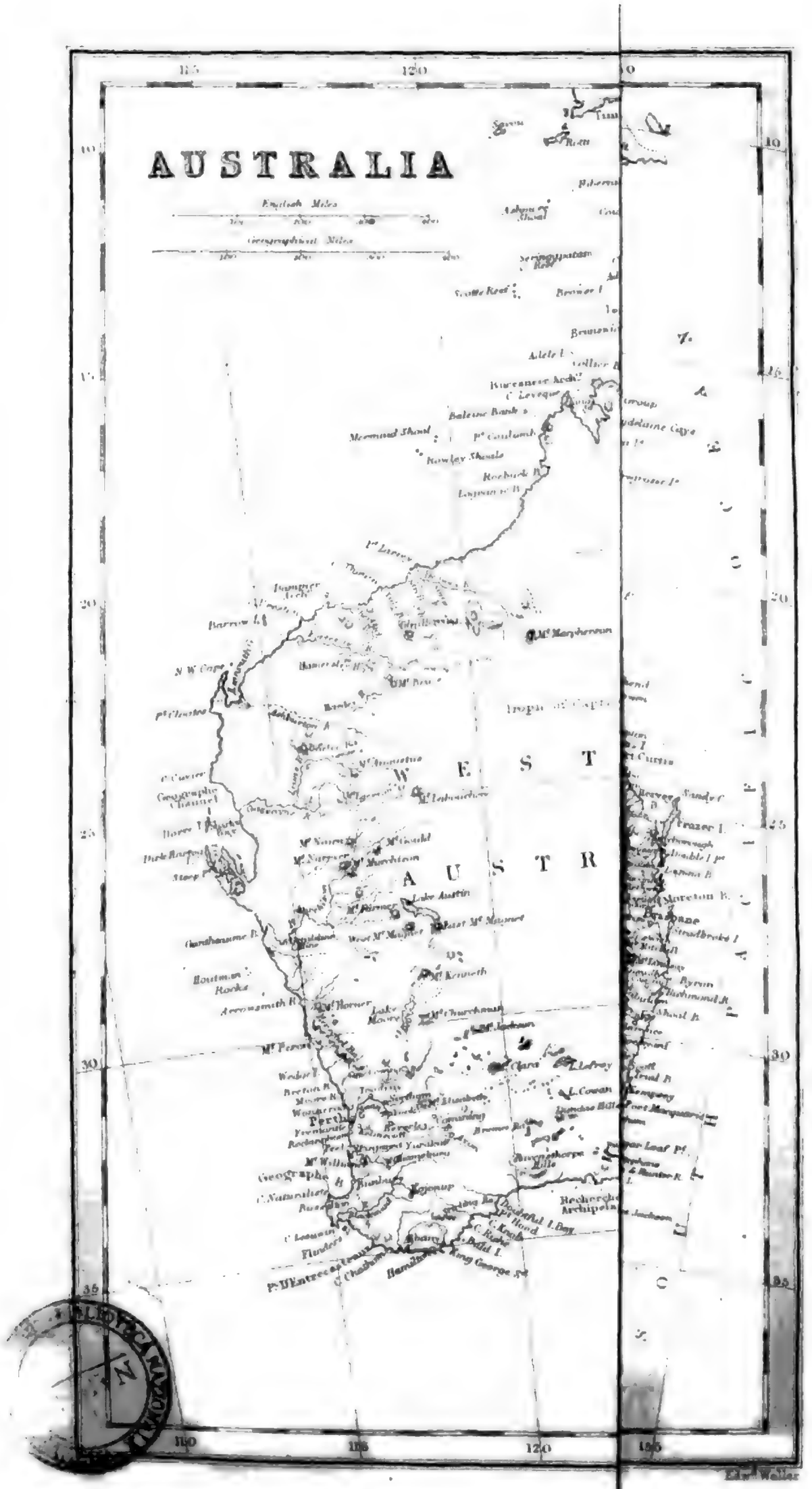
Extent of Colony.—British Columbia possesses, exclusive of Vancouver Island, an extent of about 500 miles of sea coast, stretching from the point where the 49th parallel of latitude first strikes the sea coast to the line of the Russian possessions in Portland Canal.

The area of the colony, including Queen Charlotte's Island, is computed by Mr. Arrowsmith to contain about 200,000 square miles.

The disposal of the public lands in this colony is now regulated by Ordinances No. 27 of 1865, and No. 13 of 1866.

Ordinance No. 27 of 1865 makes a difference in the mode of dealing with *surveyed* and *unsurveyed* country lands: the former can only be acquired by purchase at auction, or if not sold at auction, by private contract, at the upset price fixed in the Ordinance, viz. 4*s.* 2*d.* an acre. The latter may be acquired by what is termed 'pre-emption.' Under this system any person may take possession of any unsurveyed, unoccupied, and unreserved country land, not exceeding 160 acres, and not being the site or proposed site of a town, or auriferous or argentiferous lands, or an Indian reserve, provided he first obtains a license for the purpose from the magistrate of the district.

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Within seven days after, and on payment of a fee of 8*s.* 4*d.*, the magistrate records the claim, and grants a 'record certificate,' which is a bar to all previous claims to the same land. When the Government survey extends to the land thus 'pre-empted,' the claimant, his heirs or devisees, or (if he shall have obtained from the stipendiary magistrate of the district a certificate that he has made permanent improvements thereon to the value of 10*s.* an acre) his assigns, becomes entitled, if there has been a continuous occupation of the land, to purchase it at 4*s.* 2*d.* per acre. A pre-emptor may also pre-empt an additional tract not exceeding 480 acres of contiguous land, upon payment down of 2*s.* 1*d.* an acre, leaving the remaining 2*s.* 1*d.* to be paid when the land is surveyed. Provision is made for the case of disputed claims, and the right to pre-empt is confined to British subjects, and to those aliens who may have taken the oath of allegiance. Aliens who have not taken that oath can purchase, but cannot pre-empt lands.

New provisions are also introduced for regulating the mode in which the right to appropriate water for irrigation and other purposes is required, and for enabling the Governor, in his discretion, to grant pastoral leases to bonâ fide pre-emptors or purchasers; and to issue timber-cutting licenses. The Ordinance fixes no limit to the term of the pastoral leases that may be granted, but it makes them subject, without compensation, to the right of reserve, and of pre-emption and purchase by any person during the term, and to the condition of being properly stocked within six months, as the stipendiary magistrate may direct.

By the 55th section the Governor is empowered, on receiving and publishing the assent of her Majesty's Government thereto, to make free or partially free grants of land for the encouragement of immigration, subject to such provisions, restrictions, and privileges as he may think advisable.

The Governor, however, has been instructed not to grant pastoral leases for a longer term than seven years, and not to insert in them any right of renewal. Neither is he to make any free grants under the 55th section except under special circumstances, and with the previous approval of the Secretary of State, or in virtue of general regulations previously approved by the Secretary of State.

The Ordinance of 1865 was amended by Ordinance No. 13 of 1866, which provides that neither chartered nor incorporated companies nor aborigines shall be entitled to pre-empt land without the special written permission of the Governor; and that land pre-empted before the date of the Ordinance may be included when the General Survey comes up to it, although its boundaries may not have been laid out in strict accordance with the requirements of the Land Ordinance of 1865.

Vancouver Island.—Under the 29 & 30 Vict. c. 67 it now forms one colony with British Columbia. But the laws of each are to remain in force unless otherwise provided by lawful authority. It has an extreme length of 275 miles, and a breadth varying from 40 to 50 miles. The disposal of the public lands in this colony is now regulated by a proclamation dated September 6, 1862, directing all land for sale, whether town, suburban, or otherwise, to be put up to auction, at an upset price not to exceed, for country land, 4*s.* 2*d.* per acre. If not sold at auction, it may be afterwards purchased by private contract at the upset price, and country land forfeited for non-payment of instalments to be sold by auction at upset price of 4*s.* 2*d.*

Australian Colonies and Tasmania.

By the Imperial Acts 18 & 19 Vict. c. 56 (July 16, 1855), the Land Sales Acts, 5 & 6 Vict. c. 56, and 9 & 10 Vict. c. 104, are repealed, and the Crown in Western Australia and the local Legislatures in the other Australian colonies are left at liberty to alter the land regulations which existed at the time of the passing of the first-mentioned Act, 18 & 19 Vict. c. 56.

New South Wales, Victoria, Queensland, South Australia, Tasmania, and Western Australia have accordingly passed laws to regulate the disposal of their public lands.

New South Wales.

The disposal of the public lands in this colony is now regulated by two Acts, Nos. 1 & 2 of 25 Vict. 1861. The first enacts that all Crown lands shall be sold either by way of conditional sale without competition or by auction.

Classification of Lands.—Crown lands are divided into four classes, viz.:—'town lands,' being those in or set apart as a site for any city, town, or village; 'suburban lands' (declared in the 'Gazette' to be such); 'first-class settled districts,' and 'second-class settled districts.'

Auction.—Town lands and suburban lands without improvements are to be sold by public auction only, at upset prices of not less than 8*l.* per acre for the former and 2*l.* for the latter; the upset price of other Crown lands intended to be sold without conditions of residence and improvement is not to be less than 1*l.* per acre. If no sale is effected at the first auction the lands may again be put up to auction, and, with the exception of town and suburban lands, may in the interim be purchased at the upset price, if not previously withdrawn from sale by the Government. (Secs. 23, 24, 25.)

Mode of Payment.—One-fourth of the purchase money is to be paid at the time of sale, and the remainder within three months. (Sec. 26.)

Conditional Sale.—By the plan of 'conditional sale' any one may, on certain notified days, make to the land agent of the district a written application for the conditional purchase of not less than 40, nor more than 320 acres, accompanied by a deposit of one-fourth of the purchase money, at the rate of 1*l.* an acre. He will then be declared the conditional purchaser, unless there be more than one application for the same land or any part of it, in which case the successful candidate is to be determined by lot. The lands to be selected under this system must, however, not be town or suburban lands, nor within a proclaimed gold field, unless unoccupied for gold mining purposes, and must not be within certain distances of towns or villages, varying from 10 to 2 miles, according to the population of the place, nor reserved for town sites or other public purposes. (Secs. 13 and 14.)

At the expiration of three years and three months the purchaser has the option of paying the balance of the purchase money, and receiving a conveyance in fee, or of deferring the payment indefinitely by paying interest at the rate of 5 per cent. per annum on the amount, within three months after January 1 in each year. The purchaser, however, must in either case prove to the satisfaction of the Minister of Public Lands that he has made improvements to the extent and value required by the Act, that he has bonâ fide resided continuously either by himself or his alienees on the land, and that he has not alienated it until after at least one year's bonâ fide residence thereon.

There are some other minor provisions for

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effecting conditional purchase, under mining conditions (other than gold mining), when the price is to be 40*s.* an acre, and for determining values and matters in dispute by appraisement and arbitration.

Under the Land Acts of 1861 no privileges are now granted in the acquisition of land to naval and military settlers.

Queensland.

The land granting system of Queensland is now regulated by an Act passed by the Colonial Legislature in September 1860, 24 Vict. No. 15, entitled 'An Act to provide for the Alienation of Crown Lands;' and by the 'Agricultural Reserves Act, 1863,' 27 Vict. No. 23; and the 'Leasing Act of 1866,' passed Oct. 11, 1866, which repeals 29 Vict. No. 21, and provides that Crown lands situate beyond two miles of any town and remaining unsold after being offered at auction, are open to lease for eight years at not less than 2*s.* 6*d.* per acre rent. After eight payments the land is to be granted to the lessee in fee simple.

The main principle of the Act, 24 Vict. No. 15, is the same as that in the repealed Imperial Land Sales Act, viz.: that Crown lands are to be sold by auction at not less than 1*l.* an acre, but that lands once put up to auction and not sold may be sold by private contract, with prompt payment in both cases. The novelty in the Act is a provision for what are called Agricultural Reserves, in which the lands are not subject to auction, but may be bought or leased on special conditions.

(N.B. A new Land Act, 'The Crown Lands Alienation Act of 1868,' has been passed by the Colonial Legislature, but has not yet officially reached the home authorities. Under it from 40 to 640 acres of agricultural land can be bought at 15*s.* an acre, payable in ten annual instalments of 1*s.* 6*d.* per acre; but to entitle the purchaser to a deed of grant he must prove that he has resided not less than two years, and expended not less than 10*s.* an acre on the land.)

The following is an abstract of the Act 24 Vict. No. 15:—

Public Reserves.—The Governor, with the advice of the Executive Council, may proclaim lands as reserves for town or village sites, and may make grants for public purposes specified in the 'Unoccupied Crown Lands Occupation Act' of 1860, or sanctioned by the Legislature. (Secs. 3 and 4.)

Minimum Price.—No land is to be sold for less than 1*l.* an acre, nor until it has been surveyed and mapped. (Sec. 5.)

Auction.—All Crown lands must be offered for sale by public auction, duly notified in the Government Gazette, not less than one or more than three months before the auction. (Sec. 6.)

Classification of Lands.—The lands are to be divided into three classes—town, suburban, and country lots. Town lots are those within the actual boundaries of towns. Suburban lots are to comprise all lands (except such as the Government may think fit to exclude) within two miles from the nearest boundary of any town. Country lots are to comprise all other lands, and the Governor in Council may, from time to time, fix the upset price of any lot not lower than 1*l.* per acre. (Sec. 7.)

Sales by Private Contract.—Lands which have been offered for sale at auction, and not sold, may afterwards be sold by private contract at the upset price; but such lands may be withdrawn from private sale and again offered for sale by auction. (Sec. 8.)

Payment of Purchase Money.—In the case of sales by private contract the whole of the purchase money must be paid down at the time of purchase. In the case of auction, a deposit must be made of not less than one-tenth of the purchase money; the remainder must be paid within one month, or the deposit will be forfeited. (Sec. 9.)

Agricultural Reserves.—'The Selectors' Relief Act' (29 Vict. No. 21) enables the Governor in Council to remit forfeitures (if the condition of residence has been complied with) of land selected under the Agricultural Reserves Act of 1863. The Governor in Council is also empowered to proclaim and set apart from time to time what are called '*Agricultural Reserves*,' the lands in which are to be sold, not by auction, but at a fixed price of 20*s.* per acre. Such reserves are to contain available land, open to selection, at no time less than 50,000 acres, upon shores of the principal bays or navigable waters; and also 2,500 acres, to be available for selection within 7 miles of all towns containing inhabitants exceeding 500 in number. The Governor in Council may, however, by proclamation withdraw and deal with such lands as country lands.

Conditions of Purchase.—Any person wishing to occupy land within an '*agricultural reserve*' must pay in advance to the land agent for the district 20*s.* an acre for the lots he may wish to select; and twelve months thereafter, upon his making a declaration, and producing in support thereof satisfactory evidence that he has resided upon the land for a period of six months, and cultivated one-tenth thereof, he will become entitled to a deed of grant of the land.

Leases of Agricultural Reserves.—Owners of farms within '*agricultural reserves*' may obtain leases for five years of contiguous unoccupied land not exceeding three times the extent of the purchased land in the farm, nor in the whole 320 acres (including the farm), at a rent of 6*d.* per acre, payable annually in advance, with a right of pre-emption during the currency of the lease. Default of 30 days in payment of rent, or failure within 18 months to fence off the land, makes void the lease. No lease must be held by an agent, or pledged as security for money lent.

Size &c. of Farms.—Farms within agricultural reserves must be selected in one or in conterminous lots, and must not be less than 18 nor more than 320 acres in all in the same reserve.

Commonage.—All unenclosed lands in any such reserve are to be subject to the rights of commonage of land purchasers, and of the residents in any adjacent townships.

Sale of Improved Lands.—Land within the boundaries of any township or village on which improvements may have been made may be sold to the owners without competition, if application be made within twelve months of the passing of the Act as regards existing towns or villages, or within twelve months after the proclamation of any new town or village.

Closing of Roads.—Sections 16 and 17 provide for the closing and alienation of unnecessary roads, and the sale of the land without competition to the holders of the adjacent lands.

Military and Naval Settlers.—Privileges to Military and Naval Settlers abolished in Queensland by Colonial Act, 28 Vict., No. 17 (1864).

Bounty on Cotton.—To encourage the growth of cotton, the Governor in Council may issue land orders during the three years next after the passing of the Act to the extent of 10*l.*, and during the two following years to the extent of 5*l.* for every bale weighing 300 lbs. of good clean Sea-island cotton, not damaged or discoloured, grown in the colony, and exported to Great Britain.

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One half these premiums are to be given for the common descriptions of cotton. (Sec. 21.)

Mineral Lands.—The Governor in Council may sell not exceeding 640 acres to any one person or company, at 20*s.* an acre, lands for mining purposes other than for coal or gold. (Sec. 22.)

Governor to make Regulations.—The Governor in Council is authorised to make and alter, and publish in the Gazette all necessary regulations for carrying out the Act, which regulations are to be laid before the Colonial Parliament.

Victoria.

The disposal of Crown lands in Victoria is now regulated by two Acts: 25 Vict. No. 145, passed June 18, 1862; and an amending Act, 28 Vict., No. 237, passed March 23, 1865. The former Act consolidates and amends all previous laws relating to the sale and occupation of Crown lands. It combines nearly all the modes of dealing with public lands that have been tried in any colony, except free grants and grants on quit rents. In it will be found the principle of selection at a fixed price (but not before survey) over certain agricultural districts—of auction over other districts—of prompt payments, and payments by instalments—and of settlement duties. It contains provisions for commonage, for meeting the cases of all kinds of industries seeking development in the colony, and for checking monopoly, and the acquisition of land for the purposes of speculation, and promotes immigration by the fixed yearly appropriation of one-fourth of the land revenue.

The amending Act repeals so much of Subdivision 1 in Part II. of the first Act as is comprised in secs. 12 to 37, both inclusive, and in the 39th and 40th sections. It also repeals the 47th section in Part III., and the 68th section in Part IV. It substitutes other provisions for those repealed, and introduces other amendments in the law. Its duration is to be co-extensive with that of the principal Act.

The new feature in this law is that leases may now be obtained of land in small quantities for agricultural purposes, as well as in large quantities for pastoral purposes.

The principal Act of 1862 is divided into six parts; and omitting the repealed sections in Part II., which regulate the mode of alienating the lands in the agricultural areas (the amending Act making other provisions on that subject), the following is an abstract of its leading provisions:—

It repeals all former laws (six in number), except the Gold Fields Act, No. 32, and all Orders in Council and regulations affecting public lands, and is itself to expire on December 31, 1870 (secs. 1 and 135). It empowers the Governor in Council to reserve from sale, either temporarily or permanently, any Crown lands for any public purpose whatever (sec. 5), and enables him (sec. 10) to deal with escheated or forfeited lands in favour of persons having a moral though not a legal claim to them.

Part 3 relates to leases and licenses for other than agricultural or pastoral purposes. The Governor may grant mining leases, except for gold, for 30 years without restriction as to number, and with a right of pre-emption, after the first five years, at 1*l.* per acre (sec. 48). The conditions of mining leases are regulated by an Order in Council. The extent of area is not to exceed 640 acres, and the rent is to be 2*s.* an acre, and 2 per cent. on the value of the mineral or metal at the mouth of the mine.

Leases of three acres, for a term not exceeding seven years, may also be granted for various useful purposes—such as sites for inns, stores, bakeries, bathing houses, factories, quays, ship building &c. But these leases are voidable at any time if not used for the purposes for which they were granted. (Secs. 50 & 51.)

Annual licenses may also be granted for any of the purposes specified in sec. 58, subject to such fees and conditions as the Governor in Council may prescribe. (Sec. 54.)

Part 4 relates to commons, of which there are to be four classes; viz. municipal commons, gold field commons, town commons, and farmers' commons.

The commons may be proclaimed by the Governor in Council, in localities within five miles of any municipal district, or gold field, or town (not in a municipal district), or agricultural area, of which one-fourth has been selected. (Sec. 65.) The persons entitled to free commonage are householders, holders of 'miners' rights' or business licenses, resident selectors in agricultural areas, and land owners resident within five miles of a 'farmers' commons.' (Sec. 67.) The lands in these commons may however be sold, or selected, or leased, and the Governor in Council may at any time alter or abolish any common; and the right of depasturage (except in the case of farmers' commons) is restricted to four head of cattle for each commoner. (Sec. 77.)

Part 5 relates to pastoral licenses. It is with this branch of the subject that the great difficulty has hitherto been found in dealing with the land question.

The 80th section of the Act empowers the Governor to issue to the licensed occupiers of *existing* runs yearly licenses of their runs for the next eight years only, commencing from January 1, 1863; but it expressly provides that the license is not to prevent the run or any part of it from being sold, leased, proclaimed a common, or otherwise dealt with under the present or any future law.

Instead of an assignment as heretofore on the stock actually fed on the run, a rent is to be paid on the number of cattle (at the rate of 8*d.* for each sheep, or 2*s.* for each head of cattle) which the run may be capable of carrying, to be determined by the Board of Land and Works, or, in case their decision is disputed, by arbitration (sec. 83); but the rent may be increased within the first twelve months if the Board have reason to believe that it has been fixed too low, subject to an appeal on the part of the squatter. (Secs. 96 & 97.)

With regard to *new* runs, they are to be sold by auction, the rent being fixed by the Board of Land and Works, and the biddings being on the premiums. If there are no bidders at the auctions, the Board may reduce the rent and put up the run again, and so from time to time until it is sold by auction. The purchaser is to receive a license of occupation (which is to be deemed a transferable chattel interest, secs. 107-8) for 14 years, and the size of the run is limited to an extent sufficient in the estimation of the Board to carry all the year round 5,000 sheep, or 1,250 head of cattle (secs. 98, 99, 100, and 101). If the rent, which is payable half-yearly (sec. 113), is suffered to fall into arrear, 2*l.* a day are to be added to it by way of penalty; and if it continue in arrear more than two months, the run is liable to forfeiture. (Secs. 116-7.)

The Governor in Council may make reserves for sale to the extent of one-fourth of the run, but no sale of the reserves is to take place until after three months' notice given to the licensee, and the remainder of his run is made subject to being leased or occupied under a 'miners' right' or license for other than pastoral purposes (sec. 102). Runs taken up in 1860 and 1861 under the last Land

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Act, No. 117, may within 12 months be surrendered, and licenses in exchange obtained under the present Act. (Sec. 103.)

Licensees are prohibited from cultivating their runs for purposes of sale or barter; but they may make improvements on them, and dig for stone, and take timber for domestic uses: and if the run be not within an agricultural area, the licensee is entitled to compensation if that part of the run is taken from him on which he may have made a substantial fence or permanent reservoir of water, provided he had previously obtained permission to effect the improvement and had it duly registered. A deduction, however, is to be made of one-tenth of the value for each year he may have had the use of the improvement (sec. 110). Compensation (not exceeding 500*l.*) is also to be granted to the occupiers of *new* runs for the loss of buildings and yards, or they may be allowed instead to purchase, at 1*l.* per acre, 320 acres of the land on which the improvements stand (sec. 111).

Lastly, no occupier of land for pastoral purposes is to be entitled to any compensation by reason of the Act being repealed or altered (sec. 121).

The privilege of public officers and holders of 'miners' rights' prospecting for gold to depasture their cattle on Crown lands is preserved (secs. 78, 79).

Part 6 relates to trespasses and penalties.

Assisted Passages.—There remains one important provision which immediately affects the poorer classes of this country. By the 38th section one-fourth of the nett revenue received in each year after 1862 from the sale or leasing of land, or for licenses for the use thereof, is to be appropriated to the purposes of immigration under regulations to be made by the Governor in Council, and submitted to both houses of the Colonial Parliament. The immigrants, during the first nine months of each year, are to be selected from England, Scotland, Ireland, and Wales, in proportion to the population of those divisions respectively of the United Kingdom according to the last census.

Act of 1865.—The following extracts from a memorandum drawn up by Mr. J. M. Grant, the Minister of Crown Lands and Survey, dated Melbourne, October 23, 1865, will show such of the leading features of the amending Act of 1865 as are likely to interest intending emigrants from this country:—

'Under the amending Land Act of 1865 the occupation of land for agricultural purposes, except when obtained under certificate, is in the first instance acquired by lease, the fee simple being purchaseable under certain *conditions* at the rate of 1*l.* per acre; and until such purchase is effected, a rent of 2*s.* per acre per annum, equivalent to 10 per cent. on the upset price of the land, is exacted. This tenure under rent may be continued for seven years, but at the expiry of that period purchase is compulsory at the rate of 1*l.* per acre, should the tenant desire to secure his improvements, otherwise they become forfeited to the State.

'The conditions of lease are as follow:—

1. The lease cannot be assigned during a period of three years from the commencement of the term, nor at *any* time until certain improvements have been effected by the tenant.

2. Improvements to the value of 1*l.* per acre in the area leased must be effected by the lessee within two years from the commencement of the lease.

3. When the above improvements have been made, the lessee may, at the expiry of three years, require his leasehold to be exposed *to* auction with the value of his improvements added to the upset price of 1*l.* per acre; and the amount of such valuation will be paid by the purchaser to the lessee should the latter be outbid at the auction.

4. If, however, the lessee reside three years on the land leased, and effect the stipulated improvements, he will at the termination of that period be entitled to demand and obtain a grant of his leasehold in fee simple on payment of 1*l.* per acre.

As a peculiar feature of this Act, it is to be noted that the interest of the lessee cannot be taken under execution, nor does it pass to the official assignee of his estate, should he be so unfortunate as to become insolvent; in fact, the lessee cannot be disturbed in his occupation till the expiry of the three years allowed for the completion of his improvements.

The restrictions and limitations of the area of land that may be leased by any one individual under the amending Land Act remain as set forth in the Land Act of 1862, the extent being limited to 640 acres in any one year.

Although the ten million agricultural area of the Land Act 1862 included the lands intrinsically most valuable and suitable for agricultural settlement, which is vouched for by the fact that the pastoral occupation of that area yielded to the State 107,000*l.* per annum, while the twenty million of acres under pastoral occupation beyond the *limits* of the ten million agricultural area yielded only 119,000*l.*; the range of selection *now* in the power of intending agriculturists is limited only by the discretion of the Department of Lands and Survey in selecting the position of agricultural areas, which may be surveyed throughout the entire colony.

For bringing the amending Land Act of 1865 into operation, 29 land offices have been established throughout the colony; 188 agricultural areas have been proclaimed open for selection, embracing an aggregate area of 3,251,292 acres, of which 1,670,739 have been selected by 6,126 certificate-holders and lessees. 551,416 acres have been withdrawn from selection chiefly on the presumed auriferous character of the country; and 1,033,885 remained, Oct. 23, 1865, open for selection by the first applicant at the several land offices where these areas were proclaimed open for selection.

Lithographic plans of each area have been prepared on a scale of 1½ inch to one mile; showing the acreage, the numbering and boundary lines of the several allotments into which the area has been subdivided, the roads surveyed, and the natural features of the country.

The surveys of 450,000 acres are now in the office, the lithographic plans of which are being rapidly prepared, with a view to the proclamation of that extent of land in agricultural areas within a few weeks. By the 10th sect. of the Act not less than 4,000,000 acres are to be open for selection or purchase within 3 months after the passing of the Act, and at least 2,000,000 are to be constantly kept open in the proclaimed areas.

In order to provide additional facilities for the acquisition of land and for the settlement of the population, the Board of Land and Works is empowered to allow lessees to subdivide their allotments into two or more portions, and to grant separate leases for such purposes to persons named by the original applicant. Under this provision the attendance of one person at a land office suffices to secure land for himself and others whom he may wish to have as neighbours; and members of the same family are thus enabled to obtain farms adjoining each other.

In order to discourage the employment of agents, the Board of Land and Works is empowered to disallow applications for land at any time within thirty days from the date of their receipt.

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The provisions relating to commonage in the Land Act of 1862 remain unaltered in the amending Act, which, however, provides for the more effectual management of the commons and the expenditure of the surplus fees derivable therefrom in effecting local improvements.

The conditions of the pastoral occupation of the waste lands by the squatters remain unaltered up to December 31, 1870 (the period limited by the Land Act 1862). Under the provisions of that Act, the rental to be charged for the occupation of the Crown lands was assessed by the Board of Land and Works, and published in the Government Gazette of December 1862, the number of runs then in occupation being 1,122.

Auction.—By the 32nd section of the amending Act, all Crown lands in Victoria, wherever situated, except those in agricultural areas proclaimed open for selection (sec. 10), are to be sold, in fee simple, by auction, at an upset price of 1*l.* per acre, or such higher upset price, and subject to such conditions and reservations, as the Governor in Council may direct.

Quantity of Country Lands purchased in Victoria up to October 23, 1865.

	Acres
By Auction up to passing of Land Act, 1860	5,735,566
Auction and selection under Land Act, 1860	798,242
Selection under Land Act, 1862	1,423,235
Selection under amending Land Act of 1865 up to October 23, 1865	1,670,739
Total	7,625,782

Summary of Rates per Acre obtained for Country Lands in Victoria.

	£	s.	d.
By Auction up to passing of Land Act, 1860	1	9	0
Auction of special country lands under the Land Act, 1860	1	3	6
Selection and limited auction under the Land Act, 1860	1	0	11
Selection under the Land Act, 1862	0	16	4½
Selection under the amending Land Act, 1865	1	4	6½

South Australia.

The Waste Lands Act for this colony (21 Vict., No. 5, of 1857) was passed on the 19th November of that year. The following is an abstract of the Act:

Abstract of South Australia Waste Lands Act. Secs. 1 and 2.—Waste lands of the Crown not to be alienated except by sale as prescribed by Act.

Sec. 3. *Reserves.*—Governor in Council may, however, make reserves for purposes of public safety, convenience, health, or enjoyment (except for churches).

Sec. 4. *Surveys and Size of Lots.*—Except pastoral lands, all lands to be surveyed and mapped in lots not exceeding 640 acres before they are sold.

Sec. 5. *Deed of Grant.*—Governor, on behalf of the Crown, to convey lands sold under the public seal of the province.

Sec. 6. *Auction.*—Except pastoral, all lands to be sold by auction after public notice of not less than 1 nor more than 3 months.

Sec. 7. *Classification of Lands.*—Lands to be classified into town, suburban, and country.

Sec. 8. *Upset Price.*—Lowest upset price, 1*l.* per acre.

Sec. 9. Government may fix a higher upset price for town lots and for special country lots, i.e. country lots on which improvements may have been lawfully made.

Sec. 10. *Sale by Private Contract.*—Town lots to be sold only by auction, but country lots which have been exposed to sale at auction may (if not withdrawn for future sale by auction) be sold by private contract at the upset price, or if bid for at auction and not sold, then at the price last bid.

Sec. 11. *Payment of Purchase Money.*—In the case of private sales, the whole of the purchase money to be paid down. At auctions 20 per cent. down, and the remainder within 1 calendar month.

Sec. 12. *Pasture Leases.*—The Governor may, without auction, grant to the first discoverer or first occupier of waste lands, leases of 14 years for pastoral purposes; but no second lease is to be granted unless first put up to auction; the bidding to be on the rent. Annual leases of land within hundreds may be granted without being put up at auction. By an Act (22 Vict.) No. 20 of 1858, an annual assessment is imposed of 2*d.* a head for each sheep which the demised land is estimated to be capable of grazing.

Sec. 13. *Mineral Leases.*—The Governor may also grant leases of 14 years for mining purposes of lots not exceeding 80 acres, at a rent of 10*s.* an acre, with a right of renewal for 14 years more on paying a fine of not less than 1*l.* an acre, subject to future regulations.

Sec. 14. *Regulations.*—The Governor in Council may make regulations from time to time for pastoral leases, to be officially published.

Sec. 15. All regulations made by Governor under the Act are to be laid before the provincial Parliament within 14 days.

Sec. 16. *Mineral and Timber Licenses.*—The Governor in Council may grant licenses of 12 months' duration to search for gold and other metals, and to cut timber on the unsurveyed waste lands.

By an Act No. 18 of 1858 (22nd Victoria, passed December 24, 1858, to amend the above 'Waste Lands Act') the Governor is empowered, when any lease for pastoral purposes shall have been determined by reason of the land being included in any hundred, to grant annual leases, without auction, to the lessee or his assigns during the residue of his term.

The Governor is also empowered to make regulations affecting and defining the issue of depasturing, gold, timber, and mineral licenses; and to fix a higher upset price for suburban land than the lowest upset price fixed for waste lands.

'The Waste Lands Appropriation Act, 1862' (25 & 26 Vict. No. 17 of 1862) repeals sec. 19 of the Waste Lands Act of 1857, and appropriates two-thirds of the gross proceeds of the sale of waste lands to the payment of the principal and interest of the public debt, and to the making of roads, bridges, railways, and other public works, and the remaining third towards defraying the expenses of the passages of immigrants from the United Kingdom under the provisions of the Immigration Act No. 4 of 1857.

By an Act 25 & 26 Vict., No. 24 of 1862, sec. 13 of the 'Waste Lands Act' of 1857 is repealed, and other provisions made for granting mineral leases.

By an Act of 29 Vict., No. 8 of 1865-6, sec. 3 of No. 18 of 1858 is repealed, and penalties are imposed for the unauthorised occupation and use of Crown lands, or for unlawfully depasturing cattle thereon, or for making a false declaration of commonage; and by an Act, No. 10 of the same year, entitled 'The Mineral Leases Act, 1865-6,' the Governor may demise Crown lands for the purpose of mining coal in allotments not exceeding 20 acres, and for a period not exceeding 14 years, and subject to such rents and covenants as may be prescribed in regulations which the Governor and Executive Council are therein empowered to lay down.

By an Act, No. 16 of 1865-6, certain pastoral tenants, whose names are specified in three sche-

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dules, may surrender their lands and get fresh leases by giving notice to the Commissioner of Crown Lands and Immigration within six months of the date of the Act. The renewed lease in these cases will give an addition of 3, 6, or 10 years, according to the schedule in which the tenant is placed. Lessees under the renewed leases are not to be entitled to any further renewal, or to compensation for improvements save those of a permanent character; and waste lands, which have not hitherto been held under pastoral lease, may in future be leased for a term not exceeding 25 years; and on the expiration of the term, the lands and all the improvements thereon are to revert absolutely to the Crown.

By an Act, No. 20, passed on the same day (March 16, 1866), the Governor in Council may, within four months of the passing of the Act, remit a portion of the rent, or rent and assessment, due from the pastoral lessees who are named in the three schedules attached to the Act.

The following table shows the quantity of Crown lands sold and paid for within South Australia during each year from the first sales:—

Year	Acres	Purchase Money received in the Colony		
		£	s.	d.
1837	563½	13,366	4	0
1838	9,972½			
1839	122,505	122,505	0	0
1840	2,146	2,146	0	0
1841	2,351	2,351	2	0
1842	17,091½	17,091	10	0
1843	598	613	13	0
1844	3,498	5,566	13	0
1845	49,648	59,902	8	0
1846	37,682	76,874	8	0
1847	33,096	35,428	18	0
1848	28,914	31,476	13	0
1849	54,957	58,577	17	0
1850	62,237	66,557	15	0
1851	81,992	87,242	14	0
1852	85,567	97,059	8	0
1853	211,985	290,324	6	0
1854	212,846	376,724	8	0
1855	170,750	232,864	13	0
1856	157,251	235,260	5	0
1857	178,096½	215,500	18	0
1858	158,015	197,820	16	0
1859	188,065	211,574	11	0
1860	129,345	157,522	0	0
1861	147,661½	189,361	7	0
1862	129,910	148,695	8	3
1863	140,497	152,167	9	0
1864	224,193	265,492	5	0
1865	316,585	510,540	5	0
1866	211,429½	322,429	16	0
Total	3,416,419	4,427,529	8	3

Western Australia.

By the Government Land Regulations, dated Perth, August 20, 1864, and which are printed in extenso at page 264 of the Emigration Commissioners' Annual Report for 1865, the Crown lands are to be divided into four separate classes—town, suburban, country, and mineral. Country lands are to be sold at a fixed price of 10*s.* an acre, and in lots of not less than 40 acres. Smaller lots to be charged an additional price. Town and suburban lots are to be sold by auction. The size and upset price to be fixed by the Governor.

One-tenth of the purchase money has to be paid at the time of sale, and the rest within 1 calendar month. The lands are to be surveyed and mapped previous to the sale by auction, and all auctions are to be advertised within 3 calendar months of the intended sale.

Mineral Lands.

The regulations respecting mineral lands are contained in a proclamation of the Governor, dated January 17, 1865, of which the following are the leading features.

Mineral Lands are to be sold in lots of not less than 80 nor more than 160 acres each, at the fixed price of 3*l.* per acre, payable in 3 equal instalments; the first at the time of application, and 1 in each of the 2 following years.

The following Table shows the Sale of Crown Lands in Western Australia, from 1856 to 1867, inclusive:—

Date	Acres	Date	Acres
1856	2,456	1863	5,373
1857	2,713	1864	6,106
1858	3,368	1865	7,564
1859	2,232	1866	8,063
1860	18,195	1867	13,937
1861	13,154		
1862	11,951	Total	95,610

Tasmania.

The following is an abstract of the principal Act of 1863, and of the Amending Act of 1867:—

Sec. 2. *Reserves.*—The Governor in Council may make reserves for roads, military defence, or for any purpose of public safety, convenience, health, or enjoyment. The deed of conveyance must specify the purpose of reservation, and that the land shall be forfeited if appropriated to any other purpose. Sixty days' public notice must be given before any such reserves can be made.

Sec. 3. Reserves for roads or internal communications, if not used, to be revoked by Governor's proclamation.

Sec. 4. *Regulations.*—The Governor in Council may from time to time make land regulations not inconsistent with the provisions of the Act.

Secs. 5, 6, & 7. *Commissioner of Crown Lands.*—The Surveyor General to be the 'Commissioner of Crown Lands,' to act under the direction of the Governor in Council, who may also appoint a Deputy Commissioner of Crown Lands.

Secs. 8, 9, & 89. *Classification of Lands.*—Waste lands—i. e. any lands which are or may become vested in the Crown, and are not dedicated to some public use—to be divided into three classes:—

1. Town lands, i. e. those within the limits of any present or future town or village, or within five miles of the boundaries of Hobart Town or Launceston.
2. Agricultural Lands, i. e. those within limits proclaimed by the Governor in Council as 'Agricultural Districts,' or those which the Commissioner may notify for sale as Agricultural Lands.
3. Pastoral Lands, i. e. lands not comprised in the first class, and not being within agricultural districts, which the Commissioner deems unsuitable for cultivation.

Secs. 15 & 16. *Lowest Upset Price.*—The Commissioner from time to time, subject to Governor's approval, to fix upset price, which is not to be lower than that fixed by the Act, plus the cost of survey and the deed of grant. No land to be sold below the advertised upset price.

Secs. 1, 12, & 14. *Auction.*—Town lands in Hobart Town and Launceston, and other waste lands of the Crown, may be sold by auction after being surveyed and mapped, and notice of sale and particulars of lands published within three and not less than one month of sale.

Sec. 13. *Size of Lots.*—For agricultural lands the lot is not to exceed 320, and for pastoral lands 1,280 acres.

Secs. 17 & 18. *Sales by Private Contract.*—Town lands other than those in Hobart Town and

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Launceston, and agricultural and pastoral lands unsold at auction, to be advertised in Gazette and sold by private contract at the upset price to the first applicant within one year after auction, and before the lands are again put up to auction, unless there be simultaneous applications for the same lot, when it is to be again put up to auction.

Secs. 19, 20, 21, 22, 25, & 26. *Fixed Price.*—Any person may, on paying the expense of survey, select from unoccupied land not being town lands or lands reserved for sale, or under lease, and purchase by private contract at the fixed price of 1*l.* per acre, 320 acres in one or more adjoining lots of not less than 40 acres each. In the case of what are termed 'unsettled lands' the price is 10*s.* an acre, and the size of the lot not greater than 640 acres. (Sec. 70.) Any land obtained in contravention of this restriction is to be forfeited. The land thus selected to be subject to all rules to be prescribed as to form or figure of such lots, and must be surveyed before grant issued.

Secs. 27 to 34. *Payment of Purchase Money.*—Purchasers may elect at time of purchase to buy on credit, or for prompt payment (i. e. at auctions one-fifth down and the residue within one month; at private sale the whole down). Where *credit* is chosen, whether the purchase be at auction or by private contract, one-fifth of the price is to be added by way of premium, and one-fifth of the aggregate sum is to be paid down, and the residue by annual instalments of one-tenth. On failure in payment of any instalment within 60 days, the land is to be put up again to sale by auction; and if the overdue instalment is not paid 14 days previous to the day fixed for the sale, then the deposit and all previous instalments are to be forfeited, and the land is to revert to the Crown to be sold by auction for not less than the balance due. If sold for more than the balance due and deposit, the excess to be paid to the original purchaser. Instalments may be paid off at any time, and in that case the credit premium is to be proportionately reduced. No land is to be sold on credit where the price is less than 15*l.*

Secs. 36 & 37. *Transfer.*—No purchaser can transfer his land without the written consent of the Commissioner, until the whole purchase money is paid; but it will pass to his devisee, or in case of intestacy to his personal representative, i. e. executor or administrator.

Secs. 41 to 49. *Leases.*—The Commissioner must advertise, from time to time, lands for leases not exceeding 14 years, fixing the rent according to the best estimate he is able to form; provided that if the land has been previously let or occupied under a depasturing license within one year prior to such notice, the annual rent is not to be less than 1*l.* per 100 acres; but if the land has not been so occupied, then the annual rent is not to be less than 10*s.* per 100 acres.

Railways &c.—The Governor in Council may lease lands for railways or tramways at a peppercorn rent.

Pastoral Leases.—The Commissioner may, without advertisement, lease for any term not exceeding 10 years, and at an annual rent of not less than 1*l.* per 100 acres, pastoral lands not previously occupied within a year. The lots are to contain not less than 500 nor more than 2,500 acres. The rent of every lease is to be payable half yearly in advance, and the lease is to be determinable if the rent is not paid within a month, also upon a six months' notice given with the consent of the Governor in Council if the land is required for sale. In this latter case the lessee is to be entitled to compensation (to be fixed by valuation) for permanent improvements. If the land be not sold, the lessee is to have the option of continuing his lease.

The Amending Act, No. 4 (1867), provides (secs. 3 to 7) for the proclamation and leasing of agricultural areas, for securing their occupation by the lessee or some member of his family, and for raising money by debentures for the construction of roads and bridges within them. It makes provision (secs. 10 to 18) for the lease of lands for mining purposes. It extends (sec. 19) the provisions of the Act of 1863, which appropriates one-fourth of the nett receipts from the sale or lease of land to the construction of roads; (sec. 20) and of other public works also. It fixes (sec. 21) the lowest upset price of land at 20*s.* an acre, subject to a reduction with approval of the Governor in Council to not less than 10*s.* an acre if the land is not sold within three months of the auction. It also makes (sec. 20) provision for the leasing of Crown reserves, and (sec. 26) for the grant of land to municipalities for municipal purposes.

The Act No. 27 of 1867 was passed with reference to a contemplated immigration of Europeans from India, and authorises the Governor to reserve for three years an area not exceeding 50,000 acres at Castra in the county of Devon, and allows a remission of purchase-money to any persons who may arrive as expected. When 5,000 acres have been selected the Governor is to expend a sum not exceeding 10*s.* an acre, to be raised by debentures, in constructing roads and bridges in the tract so selected.

New Zealand.

This colony is divided into nine provinces, with a separate Government in each. There is also a General Government over the whole. In the five provinces of Nelson, Marlborough, Canterbury, Otago, and Southland (formerly part of Otago, but now created a new province), the Crown has extinguished by purchase the native title over all the lands. In the other four provinces, which are situated in the Northern Island, viz. Auckland, Wellington, Taranaki (formerly New Plymouth), and Hawke's Bay, this result has only been partially effected, and the native title still exists over large tracts.

An Act (26 Vict. No. 42) has been passed by the General Assembly, enabling natives to sell their lands to private individuals. Previously they were prohibited from alienating their lands, except to the Crown.

The management of the Crown lands throughout the colony has, by the Imperial Act 15 & 16 Vict. c. 72, granting the colony a Constitution, been vested in the General Assembly. The General Assembly, in its session of 1858, accordingly passed an Act, No. 75, to regulate the disposal and administration of the waste lands of the Crown in New Zealand. This Act (called 'The Waste Lands Act, 1858') gives validity to all regulations for the disposal of the waste lands of the Crown previously in force in the different provinces, except so far as they may be inconsistent with the Act.

The following are two of the principal provisions of this Act:—

Not more than 320 acres shall be put up to sale by auction in one lot, and the upset price shall in no case be less than 5*s.* an acre. After the 1st of August 1860, no land shall be sold upon credit except what may be lawfully set apart for special settlement by expected immigrants. Priority of choice for the same piece of land shall, in no case, be decided by lot, but by auction, at which only

the applicants for the lot shall be allowed to bid. This provision not to extend to applications heard before the Waste Lands Board at Canterbury. (Sec. 1.)

The Governor in Council may, upon the representation of the superintendent and council of any province, augment the price at which the Crown lands in that province shall be offered for sale. (Sec. 2.)

West Indies.

Crown lands and forests may under Act No. 14 of 1861 be sold by auction at an upset price of not less than 1*l.* per acre.

Antigua and Dominica.—The smallest lot sold is 40 acres, except in certain localities for villages.

British Guiana.—The disposal of Crown lands is now regulated by Act No. 14 of 1861, which saves the rights of the owners of plantations who, under the old regulations of their High Mightinesses the States of Holland, are entitled to second or other depths of 250 acres as soon as two-thirds of the first grant are in cultivation.

It is not the practice in British Guiana to open on survey any lands for settlement until after application has been made to the Government for some particular tract.

Trinidad.—The price of Crown land is 2*l.* per acre. All limitations as to the number of acres have fallen into desuetude. Lagoon or swampy land is sold at a lower rate, and building lots are higher, depending on competition.

Bahamas.—The mode of sale is by auction, but the Governor is from time to time to name the upset price, which is never to be less than 6*s.* per acre. Land once exposed to auction may, in the discretion of the Governor, be afterwards sold by private contract, at not less than the upset price of such land. The ordinary size of the lots in the Bahamas is to be 20 acres, but lots of 5 acres may, if thought expedient, be disposed of.

Jamaica.—There are no regulations in force in this island for the disposal of public lands, pasture licenses &c.

Cape of Good Hope.

The conditions and regulations relative to the disposal of Crown lands in this colony are contained in Acts No. 2 of 1860, No. 19 of 1864, and Nos. 4 and 12 of 1867; and in future all waste and unappropriated Crown lands will be sold subject to an annual quit rent on each lot, and at a reserved price sufficient to defray the costs of inspection, erection of beacons, survey, and title deed.

Natal.—1. The unappropriated Crown lands in this colony are sold in freehold, and by public auction only.

2. Unless it is otherwise notified, the upset price will be 4*s.* per acre, but the Governor for the time being will have the power to fix such higher upset price as the locality or other circumstances may render expedient, of which due notice will always be publicly given. Lands not sold at auction may at any time within three years afterwards be purchased by private contract at the upset price.

Mauritius.

The Crown lands, with the exception of portions reserved for special purposes, shall be sold in perpetuity or leased at the discretion of the Governor, but may not be alienated from the Crown by free grants.

Ceylon.

Crown lands are sold by auction at an upset price fixed by the Governor, at not less than 1*l.* per acre. They must be previously surveyed by the Government and duly advertised.

Hong Kong.

The Crown lands are disposed of only on leases by public auction for a premium or bonus at a fixed rental.

Labuan.

The method here is similar to that in Hong Kong.

Summary of Modes of Sale, and Prices, in the Principal Land-Selling Colonies.

Colony	Mode of Sale	Price per Acre
North American Colonies:—		
Canada (West)	Fixed price for a whole township, and for lots in townships, till public notice of auction; afterwards, and for all other lands, auction.	For a whole township 2*s.* 6*d.* currency, 2*s.* 1*d.* sterling. For lots in townships 3*s.* 6*d.* currency, 2*s.* 11*d.* sterling. For all other lands upset price 5*s.* currency, 4*s.* 2*d.* sterling.
Canada (East)	Ditto	1*s.* to 3*s.* ditto, according to situation, 10*d.* to 2*s.* 6*d.* sterling.
Nova Scotia	Fixed price	1*s.* 9*d.* sterling.
New Brunswick	Auction and fixed price for actual settlement.	2*s.* 6*d.* sterling upset price, with 20 per cent. discount for ready money.
Prince Edward Island.	Auction	5*s.* to 20*s.*, according to situation.
Newfoundland	Auction. Lands not sold after second auction may be bought at the upset price.	Upset price, 2*s.* currency, 1*s.* 8*d.* sterling.
British Columbia	Auction. Afterwards upset price to be fixed price.	Upset price for country lands, 4*s.* 2*d.* If town lots (66 by 132 feet) upset price 20*l.*
Vancouver Island	Ditto	Upset price 4*s.* 2*d.*
Australian Colonies:—		
New South Wales	Auction. Country lands not sold at auction may afterwards be bought at the upset price.	Upset price 1*l.* sterling.
Queensland	Ditto	Ditto, in 'Agricultural Reserves' selected without competition.
South Australia	Ditto	Ditto.
Victoria	1. By selection at fixed price. 2. By auction	1*l.* Lots leased for 7 years at 2*s.* an acre. Upset price not less than 1*l.* an acre. Prompt payment.
Western Australia	Fixed price for agricultural lands. Auction for town, suburban, and mineral.	10*s.* Upset price for town and suburban, to be fixed by Governor, for mineral lands, 20*s.*
Tasmania	Auction and private sales at 1*l.* per acre.	Upset price to be fixed by Government, but not lower than 10*s.* an acre.
New Zealand (Crown lands).	Auction, for town and suburban lands. Fixed price generally for country lands.	Fixed price in 4 provinces 10*s.* In the remaining 5 from 5*s.* to 40*s.*
Falklands	Auction. Country lands not sold at auction may afterwards be bought at the upset price.	Upset price, 8*s.* sterling.
Sierra Leone	Ditto	Ditto, 4*s.* 2*d.*
Bahamas	Ditto	Ditto, 10*s.*
Turk's Island and Caicos.	Ditto	Ditto, 4*s.*
British Guiana	Fixed price	10 dollars.
Trinidad	Auction	Upset price, 2*l.*
Other West India Colonies.	Ditto	Upset price, 1*l.*
Honduras	Ditto	Minimum upset price, 20*s.*
Cape of Good Hope	Auction, subject to a quit-rent.	No fixed upset price.
Natal	Auction	Upset price, 4*s.* sterling.
Mauritius	Ditto	No fixed upset price.
Ceylon	Ditto	Upset price, to be fixed by Governor, but not to be less than 5*s.* sterling.
Hong Kong	Auction. Only leases granted.	The lowest fixed rental for *building*, not *farm*, lots is 2*l.* per acre. Highest ditto, hitherto, 160*l.*
Labuan	Auction. Leases for 999 years. Fixed rent and biddings on the premium for the lease.	Upset annual rental of *Marine* lots, generally 160 dols. per acre. Land unsold at auction *not* purchasable at upset price.

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Table of Colonial Public Lands Alienated and Remaining for Alienation at the Date of the Last Returns.

Colony	Amount Alienated	Estimated Amount remaining for Alienation	Estimated Amount available for Settlement	Surveyed and open for Settlement	Date of Return
North American Colonies.	acres	acres	acres	acres	
Canada, Upper -	21,488,342	56,118,108	..*	10,000,000	December 31, 1865
Lower -	19,089,357	115,513,143	..		
British Columbia -	These particulars cannot be given with any accuracy				
New Brunswick -	7,000,000	9,000,000	8,000,000	250,000	1866
Nova Scotia -	5,405,602	5,641,041	500,000	85,000	1866
Cape Breton -	815,513	1,207,478	358,676	777,438	1860
Prince Edward Island -	2,432	2,000	2,000	1,955	1864
Newfoundland -	May 45,000	Say 2,701,000	Not known	—	1866
Bermudas -	All	None	None	None	1844
Australian Colonies.					
New South Wales -	9,112,068†	189,514,172	189,514,172	See remarks‡	December 31, 1866
Queensland -	580,051	Above 384,000,000	No accurate return		1865
Victoria (late Port Phillip)	9,361,596§	46,282,543	32,565,586	5,800,000	June 30, 1867
Tasmania -	3,738,996	13,000,004	Not known	302,194	1867
Western Australia -	1,423,416	624,449,280‖	,,	None	December 31, 1867
South Australia (exclusive of Northern territory) -	3,211,170	241,929,858	,,	343,960	December 31, 1866
New Zealand - -	2,709,975	Varies as the Government make from time to time large purchases from the natives	18,000,000 in Middle Island, and 6,000,000 in Northern Island	..	1860
West Indies.					
Jamaica - -	Not stated	Not known	Not known	Not known	1859
Bahamas - -	,,	1,853,522	Not stated	Not stated	1849
Leeward Islands:					
Antigua - -	..	Not known	Not known	No survey	1852
Dominica - -	Unknown, but the quantity is large	..	..	..	1852
St. Christopher's -	..	..	..	..	..
Montserrat - -	All	None	None	None	..
Nevis - -	..	..	..	..	..
Tortola - -	All (13,200)	None	None	None	1852
Anguilla - -	No return	No return	..	..	..
Windward Islands:					
Barbadoes - -	All	None	None	None	1852
Grenada - -	74,558	2,000	None	..	1852
St. Vincent - -	..	..	..	..	..
Tobago - -	Say 37,000	Say 2,500	None	..	1852
St. Lucia - -	Not known	Not known	Not known	None	1852
Trinidad - -	237,000	886,000	..	..	1858
British Guiana ¶ -	Say 2,000,000	Say 45,000,000	Say 45,000,000	None	1858
Honduras - -	No return	No return	No return	..	..
Turk's Island and Caicos	,,	,,	,,	..	..
Other Colonies.					
Cape of Good Hope -	36,265,878	61,037,122**	..**	..**	1865
Natal - - -	1,050,891	1,469,109	3,219,500	..††	1862
Gambia - - -	Not stated	Not stated	Uncertain	Not stated	1841
Sierra Leone - -	No return	No return	No return	..	..
Gold Coast - -	None	Uncertain	Uncertain	None	1852
St. Helena - -	No return	No return	No return	..	..
Ceylon - - -	381,087	Not known	Not known	Not known	1860
Mauritius - -	No return	No return	No return‡‡	..	..
Hong Kong - -	780	..	..	..	1867
Labuan - - -	772	20,228	21,000	..	1852
Auckland Islands -	No return	No return	No return	..	..
Falkland Islands -	900,000§§	5,000,000§§	..	..	1852
Heligoland - -	None	None	None	None	1852
Gibraltar - -	,,	,,	,,	,,	1852
Malta - - -	No return	No return	No return	..	..

* The total area of Upper Canada, within the watershed of the St. Lawrence and the Lakes, is 77,606,450 acres, and of Lower Canada 134,402,800; total area of Canada, 212,009,250.

† Includes 1,292,368 acres, sold conditionally. The colony of Queensland having been separated from New South Wales in the year 1859, the area so taken has been deducted in compiling this statement.

‡ The grazing leases extend over 2-3ds of the colony. It is only partially surveyed. Numerous portions of surveyed land are available for immediate purchase.

§ The estimated area of Victoria is about 55,600,000 acres, or 86,875 square miles.

‖ Within the limits of Western Australia, open to selection.

¶ Boundaries of British Guiana still undefined.

** The second column includes 'loan places,' missionary institutions, commonages, land long since surveyed, the Kat River Settlement, mountain ranges, *karroo* (desert) lands &c.; and is given only approximately from the estimated area of the colony, 117,503,000 acres. The 3rd and 4th columns cannot, therefore, be filled in till after a general survey.

†† About 70 lots in different parts of the colony, varying from 15,000 to 2,000 acres.

‡‡ No limit can be placed on the amount of land that can be made available for sale in Kowloon, or in Victoria, by reclamation from the sea.

§§ Granted or leased.

‖‖ Much of the land is mountainous.

Rights of Commonage and Leases of Pasture Lands in Australia.

New South Wales.—The following is the substance of the principal provisions of the Crown Lands Occupation Act, No. 2 of 25 Vict., 1861. For the purposes of the Act the Crown Lands are divided into three classes; viz. 'First-class Settled Districts,' 'Second-class Settled Districts,' and 'Unsettled Districts.' It repeals the Acts of Council, 11 Vict. No. 61 and 16 Vict. No. 29, and the Orders in Council and Regulations issued under the Imperial Act, 9 and 10 Vict. c. 104, saving all rights already acquired under them. It empowers the Governor, with the advice of the Executive Council, to proclaim any part of the unsettled districts to be within the Second-class Settled Districts,' but so as not to affect existing leases. (Sec. 3.)

It prohibits the renewal of existing leases, except under the provisions of the Act, and enables the Government to withdraw from any runs lands required for town or village sites, for internal communications, or for any public purpose whatever. (Secs. 4 & 5.)

It then provides that Crown lands not comprised within 'old runs' (that is, runs under leases or licenses granted or contracted to be granted before February 22, 1858, in the second-class settled or unsettled districts) or not comprised within certain distances of towns or villages, and not being public reserves, may be leased, subject to the provi-

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sions of the Gold Fields Act (20 Vict., No. 29) and without competition, for pastoral purposes, for 1 year if in the first-class settled districts—and for 5 years if within the second-class settled districts or the unsettled districts—or if required for ferries, bridges, wharves, machinery for saw-mills &c.—and for 14 years if for mineral purposes other than gold mining. (Sec. 10.)

Leases of runs in the first-class settled districts are to contain not less than 1 square mile, and are all to expire on December 31, with the right, however, of renewal annually, by payment of a rent for the ensuing year, at the rate of 2*l.* per square mile, or such higher rate as the lessees may be paying, subject nevertheless to the right of the Government to withdraw the lands for sale or for any public purpose. The holders of land in fee simple may also acquire, without competition, at the rent of 2*l.* per square mile, leases of adjoining land to the extent of three times their purchased land. Competitors for the same tract of land are to have it divided between them by arbitration. Crown lands not previously under lease, or subject to a pre-emptive right of lease, are to be sold by auction after 1 month's notice of sale in the 'Gazette,' at an upset price of 1*l.* per square mile, or of 10*s.* if half the current year should have expired, and the whole of the purchase money is to be paid at the time of sale. If not sold at auction, the land may be afterwards purchased by private contract at the upset price; but the sale by the Government of any portion of the land under lease is to cancel so much of the lease as relates to the land sold and to 3 times the adjoining area. (Secs. 2 & 12.)

With regard to lands in the 'Second-class Settled Districts' or in the Unsettled Districts,' the Governor, with the advice of the Executive Council, may grant leases, subject to the following conditions:—1. Existing leases of runs may be converted into leases for 5 years under the Act, by payment, within 2 months of the 'Gazette' notice, of a rent to be determined by appraisement of the fair annual value (exclusive of improvements) of the lands for pastoral purposes; and on such conversion the runs cease to be liable to assessment under the Act 22 Vict. No. 17. 2. Leases of 'old runs' may, on their expiration, be in like manner converted into leases for 5 years. 3. After the first year the rent is to be payable on December 31, with a fine of 8 per cent. if in arrear not more than 3 months, and of 10 per cent. if more than 3 months; and if in arrear 6 months the lease to be forfeited. 4. These leases are not to confer any right to purchase pre-emption. 5. The Crown may resume without compensation (except a return of a proportionate part of the rent) any of the lands under lease required for town or village sites, or for any public purpose whatever; but the lessee has then the option of surrendering the lease if he thinks fit, and obtaining a re-fund of the full balance of the rent. (Sec. 13.)

The additional regulations, dated April 28, 1865, provide more effectually for the appraisement of the fair annual value of runs prior to their conversion into leases for 5 years under the Act, more particularly as to the mode of making the appraisements, which are required to be determined in open Court at a place proclaimed for the purpose, upon due enquiry and consideration of any evidence submitted to the appraisers, and taking into account every natural advantage or element of value possessed by a run (exclusive of improvements), whether made available by the lessee or not.

Forfeited leases are disposed of by auction. (Sec. 17.)

Each run is put up at a minimum upset rental, and the lease sold to the person who may offer the highest premium for the purchase thereof. The purchaser is required to pay down at the time of sale a deposit equivalent to 25 per cent. of the premium, if any offered, for the lease, together with the upset rent for the year, and the balance of the purchase money must be paid into the Treasury within three months of the day of sale, or in default the sale becomes void, and the amounts paid by way of deposit are forfeited. Runs of which the leases may remain unsold after having been twice offered for sale at auction may be obtained on application at the rent at which they were last offered.

The Governor, with the advice of the Executive Council, may proclaim pastoral districts in the 'second-class settled' or in the 'unsettled districts,' to be open for the formation of runs. The area of these runs not, in ordinary cases, to exceed 25 square miles, unless that extent be insufficient in average seasons to depasture 4,000 sheep or 800 cattle. In such case the area may be enlarged to not exceeding 100 square miles. The runs are to be tendered for in a form prescribed for the purpose, and, in case of competition, leased to the highest tenderer. If the run be not stocked with not less than 200 head of cattle or 1,000 sheep within 6 months, or where water is to be provided by artificial means within 18 months, the run is to be forfeited, and may then be leased by auction. A receipt from the Colonial Treasurer, showing the deposit of 25 per cent. of the rent offered, must accompany each tender; and the money is to be retained or returned according as the tender is accepted or rejected. Pending appraisement of the fair annual value of land for pastoral purposes, runs may be held from year to year subject to a rent of 10*l.* per annum, and to assessment under the Act 27 Vict. No. 17. (Sec. 14.)

If a lessee by artificial means increases to a certain extent the permanent depasturing capacity of the land, he will be entitled to an extension of his lease to 10 years. (Sec. 15.)

The owners in fee simple of lands within the unsettled and second-class settled districts have the same right of pre-emptive leases of adjoining Crown lands as are granted to fee simple proprietors of lands in the first-class settled districts; and, as in the case of lands in those districts, a sale cancels a lease as regards the land sold and three times the adjoining area. (Secs. 16 & 18.)

A limited right of depasturing stock, travelling over leased lands, and also the right to duly authorised persons to cut timber or to search for minerals, are reserved. (Secs. 19 & 21.)

Mining Leases.—The Government may grant mining leases (except for gold), not exceeding 320 acres for coal, nor exceeding 80 acres for other minerals, for a period not exceeding 14 years, with the right of renewal for another 14 years, subject to a rent of 5*s.* per acre, payable annually in advance; and to the condition of expending at the rate of 5*l.* per acre on the land within the first 3 years. The lessee may determine the lease on giving 3 months' notice, but is not entitled to any refund of the rent. To renew the lease, the lessee must give notice in writing to the Government during the 13th year; and the fine to be paid on renewal is to be determined by appraisement, but is in no case to be less than 2*l.* 10*s.* per acre. (Sec. 22.)

There are certain other minor and formal provisions in the Act, including those for regulating

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the appointment and duties of appraisers and arbitrators; but the foregoing abstract embraces the leading features of the measure.

Timber Licenses are granted annually, terminating on December 31, on payment of a fee, for cutting any kind of timber or bark 6*l.*, for cutting hard wood or bark only 2*l.*, and for quarrying stone &c. 4*l.*

South Australia.

Depasturing Regulations.—The holder of any *purchased* land within any hundred not being within the limits of a District Council is entitled, under the proclamation of April 2, 1862, should there be sufficient commonage available, to a depasturing license over the unappropriated waste lands of the Crown within such hundred, for two head of great cattle or twelve head of small cattle, for every five acres of purchased land.

The license must be applied for to the Commissioners of Crown Lands, not later than 1st June in each year, and has a currency of 12 months from 1st July in each year. The fee payable is 4*s.* for every head of great cattle, or six head of small cattle.

Regulations of District Councils are subordinate to these regulations.

Pastoral leases are also granted, for 14 years, of lands out of hundreds.

By an Act, No. 20, of 22 Vict. (1858), Crown lands for pasturage are to be divided into two classes, the lowest of which is to be assessed at 100 sheep per square mile, and the highest at 250 sheep. But by an Act, No. 20, of 24 & 25 Vict. (1861), this division of land into classes and the fixed standard of grazing capability are done away with, and all land leased for pasture is in future to be assessed according to its grazing capabilities and situation. By a later Act, No. 22, of 1862, the waste lands are divided, for purposes of assessment, into three classes, with certain boundaries: 1st class paying assessment according to valuation under former Act; 2nd class paying one-half such assessment, and exempted from it for 7 instead of 4 years; 3rd class exempted altogether until Parliament shall otherwise direct.

By an Act, No. 13, of 1863, the assessment on pastoral lands may be reduced by the Governor with the consent of the Executive Council on the report of the valuator of runs, if application for the purpose be made within 12 calendar months of the publication of the assessment.

Under Act 20 of 1858 leases are renewable, on expiry of first term of 14 years, for a further period of five years at a valuation; and Act No. 8 of 1864 provides that the value of useful and substantial improvements effected by lessees shall be allowed to them by a reduction in the amount of rent payable under such valuation.

Timber Licenses are granted annually, terminable on 31st December, on payment of a fee of 5*l.* Half-yearly licenses are issued on payment of a fee of 3*l.*; quarterly licenses to *remove* timber 2*l.*

Pasture licenses are also granted in Western Australia, Queensland, and New Zealand.

Considering that it may, speaking generally, be laid down that in New South Wales from 3 to 4 acres are required to depasture a single sheep, it is obvious that the plan of selling such land at a *minimum* price of 12*s.* or 20*s.* an acre would effectually prevent its being bought for pastoral purposes; and, in point of fact, incomparably the greater number of the sheep belonging to the colony are depastured on what has been called the *squatting system*. A capitalist intending to become a wool grower formerly took out an annual license, for which he paid 10*l.*, authorising him to depasture a *run*, or tract of land, of no definite magnitude, but usually varying in size from 3,000 or 4,000 to perhaps 25,000 or 30,000 acres, under the important proviso (which, however, has not been enforced) that he should pay in addition an annual rent of 1*d.* for every head of sheep and of 3*d.* for every head of cattle depastured on the run. This system having been acted upon for a lengthened period, the runs began to be regarded as a sort of *quasi* property: and those in preferable situations were disposed of by one holder to another for considerable sums. In the end, however, Government was forced to interfere with this system; and the Act 9 & 10 Vict. c. 104 empowered the authorities to eject persons unlawfully occupying waste lands, provided they had not held them without interruption for 21 years previously to the passing of the Act. If they had done this, their title was secured. From the passing of this Act, a new and complicated system has been adopted for the disposal of waste lands. Under its operation vast tracts have been let, of what were at the time *unsettled* districts, for 14 years with a right of pre-emption, without competition, at 1*l.* per acre. But, in the mean time, portions of the land so disposed of, being found to contain deposits of gold, have suddenly become of the greatest value; while other and far more extensive portions in the vicinity of the 'diggings' are urgently required for agricultural purposes. Under such circumstances we need not be surprised that the question in regard to the lands held, or alleged to be held, under 14 years' leases with a right of pre-emption should have become of equal importance and difficulty. Owing to the want of surveys and defined boundaries, few of the occupiers of waste lands have obtained leases; and while, on the one hand, they insist on the fulfilment of their contracts, they are opposed, on the other, by the great bulk of the population, who justly object to the waste of the public property, and to the all but irreparable injury that would be done to the colony by handing over to a few individuals a vast extent of what is now become very valuable land. The idea that the leases, if granted, would be effectual, is, in the present state of the colony, quite preposterous. It is, in truth, all but contradictory to suppose that in a country like Australia, with a population increasing in numbers and wealth with unparalleled rapidity, millions of acres of the best situated lands should be engrossed, at a mere nominal rent, by a handful of individuals. If a system of this sort be not put an end to by the interference of Government, it will, no doubt, be forcibly suppressed by the colonists themselves. It is too flagrant an absurdity to be tolerated, and the better way would be to come, while it is yet time, to some sort of compromise; that is, to give some compensation to the lessees for claims which were conceded to them in ignorance, and which they cannot, in the existing state of things, maintain or make good.

Gold Fields and Miners' Rights.—Besides their great pastoral and agricultural capabilities, the Australian colonies possess vast mineral resources. South Australia has already become noted for her copper mines, and New South Wales and Victoria (late Port Phillip) and New Zealand for their gold fields.

By law all mines of gold and all gold in its natural place of deposit, whether on the lands of the Crown or of private individuals, belong by prerogative to the Crown; and whoever takes away gold metal or ore containing gold, or digs for or disturbs the soil on the waste lands of the Crown in search of gold metal or ore, without having been first duly authorised so to do, is liable to be pro-

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secuted both criminally and civilly, and the gold may be seized by the Crown.

In South Australia, however, the Crown has given up its right to minerals.

In Tasmania no gold regulations have been issued, as no profitable gold fields have yet been discovered.

In New South Wales, Victoria, and New Zealand Acts have been passed by the local Legislatures regulating the right to dig for gold, and imposing a duty on its export.

The following statement, laid on the council table at Sydney May 22, 1849, shows the enormous extent to which the squatting system (of which the leasing system is an off-shoot) had been carried :—

	Number of Persons holding Licenses	Number of Licenses	Money paid for Licenses	Land held, in Acres
			£	
When less than 25,000 acres are held by each person - -	339	347	3,470	4,599,304
Not above 50,000 - - - - -	155	180	1,800	5,304,014
100,000 - - - - -	103	162	1,620	7,141,107
150,000 - - - - -	33	52	520	3,996,109
200,000 - - - - -	16	31	310	2,660,960
250,000 - - - - -	5	16	160	1,094,638
300,000 - - - - -	4	11	110	1,061,805
400,000 - - - - -	3	10	100	1,079,120
450,000 - - - - -	* 1	5	50	408,583
650,000 - - - - -	2	5	50	1,272,000
850,000 - - - - -	1	1	10	845,600
	660	820	8,200	29,464,240

* Eleven persons holding 4,570,108 acres in a colony under an infallible specific for preventing the accumulation of land in the hands of a few individuals !

New South Wales.

A Colonial Act, 30 Vict. No. 8, 'The Gold Fields Act of 1866,' empowers the Governor to proclaim Crown lands to be gold fields, and to grant 'miners' rights' at a fee of 10*s.* between January 1 and June 30, and 5*s.* after that date, subject to certain regulations to be prescribed by the Governor in Council. All miners' rights are to terminate on December 31 in each year. (Secs. 3, 4, & 5.)

The Governor in Council may also grant 'Business Licenses,' which must terminate on December 31 in each year, the fee for which is 1*l.* if granted between January 1 and June 30, and 10*s.* if granted after June 30. (Sec. 6.)

Leases of auriferous lands may be obtained in accordance with the laws in force for the time being. The rent is to be fixed by the Governor in Council. (Sec. 7.)

The escort of gold from the principal gold fields is undertaken by Government, at a charge of 8*d.* per ounce.

The duty on gold exported from New South Wales, whether by sea or land, is now fixed at 2*s.* 6*d.* the troy oz., but the customs duty is not to be leviable on gold which has paid duty at the Mint.

Queensland.

Four gold fields have been already discovered and proclaimed in this colony, viz. at Clermont (on the Peak Downs), at Talgai (on the Darling Downs), near the town of Gladstone (Port Curtis), and near the town of Rochampton.

Victoria.

Under the 'Mining Statute, 1865,' 29 Vict. No. 291 (passed November 28, 1865), 'Miners' Rights' are issued for any number of years not exceeding 15, at the rate of 5*s.* for every year. Consolidated 'Miners' Rights' are issued for the like period on the application of the manager, or any trustee or trustees of any company of persons who shall have agreed to work in partnership any claims registered under the Act, on payment of a sum at the prescribed rate, multiplied by the number of 'miners' rights' which the same is to represent.

The 'miners' rights' entitle the holders to take possession for gold mining purposes, and for residence, of so much of the Crown lands as may be prescribed by the bye-laws of the Local Mining Board of the district within which the land is situated.

From June 1, 1855, to December 31, 1865, the number of miners' rights issued was 454,908.

Business Licenses are issued at the following rates, entitling the holders to occupy and carry on business on the gold fields on such portions of the Crown lands, not exceeding one quarter of an acre, as may be prescribed by the Local Mining Board :—

	£	*s.*	*d.*
For six months - - - -	2	10	0
For twelve months - - -	5	0	0

Leases of auriferous lands are granted under the provisions of the 'Mining Statute, 1865,' for any term not exceeding 15 years.

Rent.—The rent fixed is at 1*l.* per acre per annum.

The total number of auriferous leases granted down to December 31, 1866, was 3,098 for 50,018 acres.

The Export Duty on Gold during 1867 was 6*d.* per ounce troy, and on January 1, 1868, the export of gold became duty free.

The Gold Fields of Victoria are divided into six principal districts. These are again divided into mining divisions or sub-districts, as occasion may require, and are each placed under the supervision of a warden. There is also a mining surveyor and registrar for each division or subdivision. The districts now embrace the total area of the colony save a small portion in the immediate vicinity of the city of Melbourne.

This Table is taken as regards New South Wales from the annual *Statistical Register* of the colony, and as regards Victoria from official Colonial reports :—

Year	New South Wales		Victoria	
	Quantity exported	Value	Quantity exported	Value
	oz.	£	oz.	£
1851	144,120	468,336	145,137	458,777
1852	962,873	3,600,175	1,988,526	6,135,798
1853	548,052	1,781,171	2,497,723	8,644,529
1854	237,910	775,209	2,144,699	8,955,550
1855	64,584	209,250	2,751,535	10,904,150
1856	42,463	138,007	2,985,991	11,943,458
1857	253,564	983,850	2,782,460	10,987,391
1858	254,907	991,960	2,528,478	10,107,836
1859	433,995	1,698,078	2,280,950	9,122,037
1860	485,012	1,876,049	2,178,466	8,513,864
1861	448,295	1,690,908	1,978,861	7,915,532
1862	649,568	2,713,037	1,662,448	6,649,694
1863	605,772	2,361,940	1,527,066	6,108,237
1864	721,297	2,951,671	1,545,449	6,236,938
1865	687,581	2,647,698	1,398,737	5,928,948
1866	742,230	2,994,891	1,480,597	5,738,993
1867	461,778	2,170,165	1,433,687	5,733,993
Total	7,926,701	30,185,374	33,696,713	130,928,066


BRITISH
COLUMBIA
English Miles
0 20 40 60 80 100 200
130
120
110
Edw.d Weller

In each of the six mining districts there is a legislative body termed a Mining Board. These boards are empowered to make bye-laws applicable to the district generally, with respect to mining affairs and occupation under business licenses. Each of these boards consists of ten members, four of whom retire from each board annually by rotation.

Each district has its separate Court of Mines. One of the judges of the Supreme Court is appointed to act as chief judge of the Court.

The quantity of gold *produced* at the mines in New South Wales cannot be accurately ascertained; but the preceding table shows the quantity and estimated value of gold *exported* from New South Wales and Victoria since the commencement of discoveries in May and October, 1851.

The establishment of a Mint at Sydney will account for the small amount of gold exported in 1855 and 1856.

The following table shows the quantity of gold *obtained* in Victoria from the first discovery of the gold fields in 1851 to 1866:—

Year	Per Escort	Exported	Value at 80s. per oz.	Average yearly earnings per man per annum
	oz.	oz.	£	£ s. d.
1851*	104,154	145,146	580,584	30 1 7·60
1852	2,277,025	2,218,782	8,875,128	262 11 6·06
1853	2,065,903	2,676,345	10,705,380	202 15 0·81
1854	1,482,697	2,150,750	8,602,920	130 16 4·08
1855	2,132,397	2,751,535	11,006,140	100 7 2·75
1856	2,625,068	2,985,991	11,943,964	103 11 0
1857	2,481,020	2,762,460	11,049,840	83 7 9·59
1858	2,371,268	2,528,478	10,113,912	68 12 8·39
1859	2,202,012	2,280,950	9,123,800	72 10 11·27
1860	2,008,813	2,156,660	8,626,640	79 0 3
1861	1,832,887	1,967,420	7,869,680	76 15 11
1862	1,520,518	1,658,207	6,632,828	67 14 5·11
1863	1,400,302	1,626,872	6,507,488	70 9 0·42
1864	—	1,544,694	6,178,776	74 1 9·29
1865	—	1,543,801	6,175,204	74 4 2·09
1866	—	1,479,194	5,916,776	80 8 3
Total	—	32,477,265	129,909,060	—

* 3 months in 1851.

The escorts from Castlemaine, Sandhurst, and Ballarat were discontinued on March 31, 1864, and since that date the only escorts arriving in Melbourne are those from the Beechworth and Woods' Points Districts: therefore the returns being incomplete are omitted.

List of the Principal Gold Mining Districts in Victoria, Sept. 30, 1867.

Ballarat District	Castlemaine Dist.	Maryborough Dist.	Ararat District.	Sandhurst District.	Beechworth Dist.	Gippe Land Dist.
Ballarat.	Castlemaine.	Maryborough.	Ararat.	Sandhurst.	Beechworth.	Omeo.
Buninyong.	Fryer's Creek.	Avoca.	Pleasant Creek.	Heathcote and	Yackandandah.	Mitchell River.
Steiglitz.	Hepburn.	Amherst.	Barkly.	Waranga South.	Buckland.	Crooked River.
Smythe's Dale.	Maldon.	Dunolly.	Raglan.	Waranga North.	Indigo.	Jericho.
Creswick.	Taradale.	St. Arnaud N.		Kilmore.	Jamieson.	Donnelly's Creek.
Blackwood.	Saint Andrews.	St. Arnaud S.		Raywood.	Stanley.	Stringer's Creek.
Gordon.	Kyneton.	Redbank.			Sandy Creek.	Russell's Creek.
Blue Mt. South.	Blue Mt. North.	Korong.			Gaffney's Creek.	
					Wood's Point.	
					Big River.	
					Mitta Mitta.	

New Zealand.

Gold fields exist, and are worked, in the provinces of Auckland, Nelson, and Otago. The law regulating gold fields and gold mining in this colony is contained in 'The Gold Fields Act, 1866' (30 Vict. No. 32), and the two amending Acts (Nos. 68 & 69 of 31 Vict.) of 1867. In their leading features they follow the legislation of Victoria.

The quantity and value of gold exported from New Zealand from April 1, 1857, to September 30, 1867, were as follows:—

Produce of Gold Fields in the Province of	Total exported to September 30, 1867	
	Quantity	Value
	oz.	£
Auckland - - -	22,978	67,527
Nelson - - -	457,792	1,787,598
Marlborough - -	33,717	129,790
Canterbury - -	864,933	3,366,032
Otago - - -	2,171,596	8,119,054
Southland - - -	13,143	11,272
Total - -	3,564,189	13,816,253

Otago.—The area of the proclaimed gold fields has been calculated at 2½ millions of acres, distributed as follows:—

	acres
Tuapeka gold field - - -	328,960
Mount Benger ,, - - -	18,816
Dunstan ,, - - -	199,680
Wakatipu ,, - - -	1,351,680
Nokomai ,, - - -	281,600
Mount Ida ,, - - -	330,000

Canada.

Precious Metals.—Mining for the precious metals is regulated by the 'Gold Mines Act,' 27 & 28 Vict. c. 9, passed June 30, 1864; amended by 29 Vict. c. 9 (1865). Under these laws, two gold mining divisions have been established; one called 'Chaudière,' the other 'St. Francis,' in Canada East; but these have not been very productive. The governor may appoint officers; and two inspectors have been appointed, one for each division.

No person to mine without a license. There are two kinds of licenses—one 'Crown lands gold license,' 2 dols. per month, for unsold Crown land, and the other 'private lands gold license,' 1 dol. per month, for private lands, the miner first obtaining the consent of the proprietor.

British Columbia.

Gold was known to exist in Queen Charlotte's Island in 1850, but it was not until April 1856 that Governor Douglas reported to the Secretary of State that considerable quantities of gold had been found in the Upper Columbia River. It was subsequently discovered in its natural state of deposit in the districts of Fraser River and of Thompson's River, commonly known as the Quaatlan, Couteau, and Shuswap countries. Rich and extensive gold fields were in the summer of 1865 discovered in that portion of the Columbia River known as the 'Big Bend,' lying between 51° and 52° North latitude.

The gold mining regulations are contained in an Ordinance, No. 14, March 28, 1865—'an Ordinance to amend and consolidate the Gold Mining Laws.'

Mining leases may be granted by the Gold Commissioner for mining purposes only, on payment of a deposit of 25*l.*; but the lease cannot be assigned or sub-let, and is not, in general, to be for a longer term than 10 years, or for a larger area than:—

In dry diggings, 10 acres.
In bar diggings unworked, ½ mile in length along the high-water mark.
Do. worked and abandoned, 1½ mile.
In quartz reefs unworked, ½ mile in length.
Do. worked and abandoned 1½ mile.

An assay office has been established at New Westminster. A duty on gold was imposed in 1865, amounting to 2*s.* per oz. But gold which is assayed at the Government office is charged only 1*s.* 6*d.* per oz.

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Return enumerating the various Colonies of any Importance belonging to the United Kingdom, the Dates of their Acquisition, their Government, Population, Trade, and Navigation.

Colonies	Date of Capture, Cession, or Settlement	Whether having Legislative Assemblies, or governed by Orders in Council	Population, 1861, or at last Census	Imports from U. Kingdom, 1866	Exports to U. Kingdom, 1866	Tonnage of Vessels, 1865	
						Entered	Cleared
				£	£	tons	tons
North America.							
Canada, East (Quebec)	Capitulation, September 18, 1759	Governor, Council, and Assembly	1,111,566	4,446,332	4,408,922	938,946	1,113,386
Canada, West (Ontario)	Ditto, Sept. 8, 1760, and cession by treaty, 1763		1,396,091				
New Brunswick	Fisheries and Settlements, established soon after their discovery in 1479	Ditto ditto	252,047	843,931	1,494,145	754,876	807,161
Nova Scotia and Cape Breton			330,857	1,448,313	144,880	929,929	946,332
Prince Edward's Island			80,857	203,550	151,057	162,802	181,096
Newfoundland			122,638	543,538	441,898	141,262	129,144
British Columbia	Settlement, 1858	Governor and Council	11,816	169,571	289,795	55,365	54,301
		Total	3,305,872	7,618,235	6,874,677	2,983,380	3,232,020
West Indies.							
Antigua	Settlement, 1632	Governor and Council	37,125	95,655	330,342	22,692	23,351
Barbadoes	Ditto, 1605	Governor, Council, and Assembly	152,727	495,023	816,788	159,372	151,410
Dominica	Ceded by France, 1763	Ditto ditto	27,000	93,317	62,234	7,965	8,211
Grenada	Ditto, 1763	Ditto ditto	36,955	56,216	149,985	16,931	16,251
Jamaica	Capitulation, 1655	Governor and Council	441,264	721,471	1,329,110	147,458	135,907
Montserrat	Settlement, 1632	Governor, Council, and Assembly	7,645	972	21,996	5,272	4,520
Nevis	Ditto, 1628	Ditto ditto	9,822	—	59,982	7,257	7,202
St. Christopher	*Ditto*, 1623	Ditto ditto	26,591	95,691	269,854	29,696	29,368
Anguilla	Ditto, 1666						
St. Lucia	Capitulation, 1803	Governor and Council, and Orders of the Queen in Council	29,519	34,443	133,252	9,361	8,843
St. Vincent	Ceded by France, 1763	Governor, Council, and Assembly	31,755	58,990	231,262	16,032	15,321
Tobago	Ditto, 1763	Ditto ditto	15,410	23,437	93,927	5,999	5,046
Tortola	Settlement, 1666	Governor and Council	6,051	—	20,211	3,303	3,813
Trinidad	Capitulation, 1797	Governor and Council, and Orders of the Queen in Council	84,158	462,490	1,134,048	156,749	127,447
Bahamas	Settlement, 1629	Governor, Council, and Assembly	35,487	60,247	109,229	124,669	142,468
Bermudas	Ditto, 1609	Ditto ditto	11,461	46,260	43,480	69,105	73,982
British Guiana	Capitulation, 1803	Governor, Court of Policy, and Orders of the Queen in Council	148,026	749,860	1,689,814	171,065	158,066
Honduras	Treaty, 1670	Governor, Council, and Assembly	25,635	155,630	239,795	36,502	34,928
		Total	1,126,911	3,119,300	6,615,589	969,928	926,120
Australia.							
New South Wales	Settlement, 1787	Governor, Council, and Assembly	378,934	3,164,937	2,783,291	635,848	690,294
Victoria	Ditto, 1851	Ditto ditto	628,627	6,997,744	4,983,541	580,973	599,351
Tasmania	Ditto, 1803	Ditto ditto	91,519	261,810	400,980	100,276	104,218
Western Australia	Ditto, 1829	Governor and Council	20,260	125,659	75,439	51,741	52,411
South Australia	Ditto, 1834	Governor, Council, and Assembly	169,153	1,542,452	1,274,407	187,638	178,808
Queensland	Separated from New South Wales, 1859	Ditto ditto	100,000	561,693	341,368	173,227	167,153
New Zealand	Settlement, 1839	Ditto ditto	171,931	2,367,454	1,564,648	295,625	283,020
		Total	1,560,424	14,020,779	11,423,268	2,025,368	2,075,255
Ascension	Settlement, 1815	Governor	500	10,478	3	—	—
St. Helena	Ceded by Holland, 1673	Governor and Council	6,860	51,750	13,247	115,110	25,872
Hong Kong	Treaty, 1842	Ditto	115,098	2,469,159	282,273	1,063,259	1,070,905
Gibraltar	Capitulation, 1704	Governor; but the Laws of England prevail	22,150	1,219,742	102,017	1,114,805	1,113,086
Malta and Gozo	Ditto, 1800	Governor and Council	146,930	747,844	115,538	308,708	310,907
Cape of Good Hope and Natal	Ditto, 1806	Governor, Council, and Assembly	629,595	2,460,013	2,719,323	321,855	326,872
Sierra Leone	Settlement, 1787	Governor and Council	41,497	239,282	82,617	49,590	48,326
Gambia	Ditto, 1618	Ditto	6,939	75,947	42,615	34,186	34,655
Gold Coast	African Forts, 1618	Ditto	350,000	301,486	388,500	—	—
Ceylon	Capitulation, 1795	Ditto	2,049,728	1,176,704	3,256,250	677,022	673,818
Mauritius	Ditto, 1810	Ditto	310,050	583,403	1,330,218	301,556	301,583
Heligoland	Ditto, 1807	Ditto	2,030	93	—	—	—
Labuan	Cession, 1846	Ditto	2,785	* —	—	11,993	11,622
Straits Settlements	Transferred from Government of India, 1867	Ditto	286,486	2,042,531	1,609,863	988,269	909,010
		Total	3,970,648	10,328,435	9,942,564	4,886,353	4,726,656
		Totals: North American	3,305,872	7,618,235	6,874,677	2,983,380	3,232,020
		Totals: West Indian	1,126,911	3,119,300	6,615,589	969,928	926,120
		Totals: Australian	1,560,424	14,020,779	11,423,268	2,025,368	2,075,255
		Totals: Other Colonies	3,970,648	10,328,435	9,942,564	4,886,353	4,726,656
		General Totals	9,963,855	35,716,749	34,856,098	10,865,029	10,960,051

* No return since 1861.

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The table on the preceding page embodies within a brief space a good deal of important information respecting our colonies in all parts of the world.

Vancouver Island.

The discovery in 1864 of a gold field in the district of Sooke, within 18 miles of Victoria, will prove an additional inducement to immigration, more especially when it is known that the cost of living at the mines scarcely exceeds that in Victoria.

IV. Regulations under which Colony Trade is conducted.

These are embodied in the Customs Consolidation Acts, the 16 & 17 Vict. c. 107, 18 & 19 Vict. c. 96, 20 & 21 Vict. c. 62, and 25 & 26 Vict. c. 63, and are as follows; though some, such as those referring to sugar, are virtually superseded by subsequent colonial tariffs [Tariffs], viz.—

Absolute Prohibitions, Restrictions &c.—Gunpowder, ammunition, arms, or utensils of war, except from the United Kingdom or any British possession, and base or counterfeit coin, are hereby absolutely prohibited to be imported or brought, either by sea or inland carriage or navigation, into the British possessions in America and the Mauritius.

Sugar (not being refined in bond in the United Kingdom) and molasses until July 5, 1854, and rum, such sugar, molasses, and rum being the produce or manufacture of any British possession within the limits of the East India Company's charter (except as hereinafter provided), or being of foreign produce or manufacture, are hereby prohibited to be imported or brought into any of the British possessions in the continent of South America or in the West Indies (the Bahama or Bermuda islands not included), or into the Mauritius except to be warehoused for exportation only, and may also by her Majesty's order in council be prohibited to be imported into the Bahama and Bermuda islands; and if any goods shall be imported or brought into any of the British possessions in America or the Mauritius contrary hereto, the same shall be forfeited: provided always, that it shall be lawful to import into any British possessions in the West Indies and South America, and into the Mauritius, any sugar or rum the produce of any British possession within the limits of the East India Company's charter into which the importation of sugar or rum the produce of any foreign country, or of any British possession into which foreign sugar or rum may be legally imported, has been prohibited; provided that no such sugar or rum shall be so entered unless the master of the importing ship shall deliver to the proper officer of customs a *certificate of origin* under the hand of the proper officer at the place where the same shall have been taken on board, stating the name of the district in which such sugar or rum was produced, the quantity and quality or strength thereof, as the case may be, the number and denomination of the packages containing the same, and the name of the ship in which they were laden, and of the master thereof, and of the officer giving the same; the shipper of such sugar or rum shall likewise certify that there had been produced a certificate under the hand and seal of the collector or assistant collector of the land or customs revenue of the district within which such sugar and rum were produced, that such sugar or rum was the produce of such district, and that the importation into such district of foreign sugar and rum, or sugar and rum the growth of any British possession into which any foreign sugar or rum can be legally imported, is prohibited, and the master shall subscribe a declaration that such certificate was received by him at the place where the goods were taken on board, and that they are the goods therein mentioned.—16 & 17 Vict. c. 107. (Sec. 159.)

The Islands in the *Bay of Honduras* called the *Bay Islands* shall be deemed and taken to be excepted or excluded from the operation of Section 159 of the 'Customs Consolidation Act, 1853,' to the same extent as the *Bahamas* or *Bermuda* Islands are thereby excepted or excluded.—18 & 19 Vict. c. 96 s. 17.

Foreign Reprints of Books under Copyright prohibited.—Any books wherein the copyright shall be subsisting, first composed or written or printed in the United Kingdom, and printed or reprinted in any other country, shall be and are hereby absolutely prohibited to be imported into the British possessions abroad: provided always, that no such books shall be prohibited to be imported as aforesaid unless the proprietor of such copyright, or his agent, shall have given notice in writing to the Commissioners of Customs that such copyright subsists, and in such notice shall have stated when the copyright will expire; and the said commissioners shall cause to be made, and to be publicly exposed at the several ports in the British possessions abroad, from time to time, printed lists of books respecting which such notice shall have been duly given, and all books imported contrary thereto shall be forfeited; but nothing herein contained shall be taken to prevent her Majesty from exercising the powers vested in her by the 10 & 11 Vict. c. 95, to suspend in certain cases such prohibition.—16 & 17 Vict. c. 107. (Sec. 160.)

Foreign Manufactures with British Marks.—If any articles of foreign manufacture, and any packages of such articles, bearing any names, brands, or marks being or purporting to be the names, brands, or marks of manufacturers resident in the United Kingdom, be imported into any of the British possessions abroad, the same shall be forfeited. (Sec. 161.) [Copyright.]

Sugar &c., though British, deemed Foreign in certain Cases.—All sugar and molasses, until July 5, 1854, and rum (although the same may be of British plantations), exported from any of the British possessions in America into which the like goods of foreign production can be legally imported, shall, upon subsequent importation from thence into any of the British possessions in America or the Mauritius into which such goods being of foreign production cannot be legally imported, or into the United Kingdom, be deemed to be of foreign production, and shall be liable on such importation respectively to the same duties or the same forfeitures as articles of the like description being of foreign production would be liable to, unless the same shall have been duly warehoused, and exported from the warehouse direct to such other British possession, or to the United Kingdom as the case may be. (Sec. 162.)

Coasting Trade of the British Possessions.—No goods or passengers shall be carried from one part of any British possession in Asia, Africa, or America to another part of the same possession, except in British ships. (Sec. 163.)

Ship and Cargo to be reported on Arrival.—The master of every ship arriving in any of the British possessions in America or the Channel Islands, whether laden or in ballast, shall come directly, and before bulk be broken, to the custom-house for the port or district where he arrives, and there make a report in writing to the proper officer of customs, in the same form and manner as hereinbefore provided on the arrival of any ship in the United Kingdom [Importation & Exportation] so far as the same may be applicable; and

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if any goods be unladen from any ship before such report be made, or if the master fail to make such report, or make an untrue report, or do not truly answer the questions demanded of him, he shall forfeit the sum of 50*l.*; and if any goods be not reported, such goods shall be forfeited. (Sec. 164.)

Entry outwards of Ship or Cargo.—The master of every ship bound from any British possessions abroad, except the territories subject to the Government of the presidencies of Bengal, Madras, and Bombay, shall deliver to the proper officer of customs an entry outwards under his hand of such ship, and also subscribe and deliver to such officer a content of the cargo of such ship, if any, or state that she is in ballast, as the case may be, and answer such questions concerning the ship, cargo, if any, and voyage, as shall be demanded of him, in the same manner, as nearly as may be, as is prescribed to be observed on the entry and departure of any ship from the United Kingdom, and thereupon the proper officer shall give to the master a certificate of the clearance of such ship for her intended voyage; and if the ship shall depart without such clearance, or if the master shall deliver a false content, or shall not truly answer the questions demanded of him, he shall forfeit the sum of 50*l.* (Sec. 165.)

Entry of Goods Inwards and Outwards.—Any person entering goods shall deliver to the proper officer a bill of entry thereof, containing the name of the ship and of the master, and of the place to or from which bound, and the particulars of the quality and quantity of the goods, and the packages containing the same, stating whether such goods be the produce of the British possessions in America or not, and the proper officer shall thereupon grant his warrant for the lading or unlading of such goods. (Sec. 166.)

Entry of Goods to be laden or unladen &c.—No goods shall be laden or water-borne to be laden on board any ship, or unladen from any ship, in any of the British possessions in America or in the Channel Islands, until due entry be made of such goods, and warrant granted for the lading or unlading of the same; and no goods shall be so laden or water-borne or so unladen in the said Channel Islands, except at some place at which an officer of the customs is appointed to attend the lading and unlading of goods, or at some place for which a sufferance shall be granted by the proper officer of customs for the lading and unlading of such goods, and in the presence or with the permission of such officer; but the Commissioners of Customs may make such regulations for the carrying coastwise of any goods, or for the removing of any goods for shipment in the said islands, as to them shall appear expedient; and all goods laden, water-borne, or unladen contrary hereto, or to any regulations to be so made, shall be forfeited. (Sec. 167.)

Goods not stated to be Produce of British Possession to be deemed of Foreign Production.—No goods shall be stated in such certificate of clearance of any ship from any British possessions to be the produce of such possession, unless such goods shall have been so expressed in the entry outwards of the same; and all goods not expressly stated in such certificate of clearance to be the produce of such possession shall, at the place of importation in any other such possession, or in the United Kingdom, be deemed to be of foreign production. (Sec. 168.)

If no Officer of Customs resident at the Port of Shipment &c.—Where there is no officer of customs, the principal officer in the civil service of her Majesty, or his representative, shall be deemed to be the proper officer for the performance of all such duties with respect to such goods as are hereby required to be performed by the collector or other officer of customs. (Sec. 169.)

Dues in Canada on American Boats.—The same tonnage duties shall be paid upon all ships or boats of the United States of America importing any goods into either of the provinces of Upper or Lower Canada as are or may be for the time being payable in the United States of America on British vessels or boats entering the harbours of the State from whence such goods shall have been imported. (Sec. 173.)

Certain Produce of the State of Maine to be treated as Produce of New Brunswick. — The treaty concluded between her Majesty and the United States of America, August 9, 1842, stipulates that all the produce of the forest in logs, lumber, timber, timber boards, staves, or shingles, or of agriculture, not being manufactured, grown on any of those parts of the State of Maine watered by the river St. John or by its tributaries, of which fact reasonable evidence shall, if required, be produced, shall have free access into and through the said river and its said tributaries, having their source within the State of Maine, to and from the seaport at the mouth of the river St. John, and to and round the falls of the said river, either by boats, rafts, or other conveyance, and that within the province of New Brunswick the said produce shall be dealt with as if it were the produce of the said province; and it being the intention of the high contracting parties to the said treaty that the aforesaid produce should be dealt with as if it were the produce of the province of New Brunswick, the produce in the said recited treaty and hereinbefore described shall, so far as regards all laws relating to duties, navigation, and customs in force in the United Kingdom or in any of her Majesty's dominions, be deemed and taken to be and be dealt with as the produce of the province of New Brunswick; provided, that in all cases in which declarations and certificates of production or origin and certificates of clearance would be required in respect of such produce if it were the produce of New Brunswick, similar declarations and certificates shall be required in respect of such produce, and shall state the same to be the produce of those parts of the State of Maine which are watered by the river St. John or by its tributaries. (Sec. 174.)

Newfoundland Fishing Certificates in lieu of Clearance during Fishing Season.—Whenever a ship shall be cleared out from any port in Newfoundland or in any other part of her Majesty's dominions for the fisheries on the banks or coasts of Newfoundland or Labrador or the dependencies thereof, without having on board an article of traffic (except only such provisions, nets, tackle, and other things as are usually employed in and about the said fishery, and for the conduct and carrying on of the same), the master of any such ship shall be entitled to demand from the principal officer of customs at such port a certificate under his hand that such ship hath been specially cleared out for the Newfoundland fishery, and such certificate shall be in force for the fishing season for the year in which the same may be granted, and no longer; and upon the first arrival in any port in the said colony of Newfoundland or its dependencies of any ship having on board any such certificate as aforesaid, a report thereof shall be made by the master of such ship to the principal officer of customs at such port; and every ship having such certificate which has been so reported, and being actually engaged in the said fishery, or in carrying coastwise, to be landed or put on board any ship engaged in the said fishery, any fish, oil, salt, provisions, or other necessaries for the use and purposes thereof, shall be exempt from all obligation to make an

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entry at or obtain any clearance from any custom house at Newfoundland, upon arrival or departure from any of the ports or harbours of the said colony or its dependencies, during the continuance of the fishing season for which such certificate may have been granted; and previously to obtaining a clearance at the end of such season for any voyage at any of such ports, the master of such ship shall deliver up the beforementioned certificate to the principal officer of the customs of such port: provided always, that in case any such ship shall have on board during the time the same may be engaged in the said fishery any goods or merchandise whatsoever other than fish, seals, oil made of fish or seals, salt, provisions, and other things, being the produce of or usually employed in the said fishery, such ship shall forfeit the said fishing certificate, and shall thenceforth become and be subject and liable to all such and the same rules, restrictions, and regulations as ships in general are subject or liable to. (Sec. 175.)

Certificate of Production for Sugar or Spirits.—Before any spirits or sugar, so long as any benefit attach to the distinction, shall be shipped for exportation in any British possession in America, or in the island of Mauritius, as being the produce of such possession or of the said island, the proprietor of the estate on which such goods were produced, or his known agent, shall make and sign a declaration in writing before the proper officer of customs at the port of exportation, or before one of her Majesty's justices of the peace residing in or near the place where such estate is situated, declaring that such goods are the produce of such estate, and such declaration shall set forth the name of the estate, and the description and quantity of the goods, and the packages containing the same, with the marks and numbers thereon, and the name of the person to whose charge at the place of shipment they are to be sent; and if any justice of the peace or other officer aforesaid shall subscribe his name to any writing purporting to be such a declaration, unless the person purporting to make the same shall actually appear before him, and shall declare to the truth of the same, such justice of the peace or officer aforesaid shall forfeit and pay for any such offence the sum of 50*l.*; and the person entering and shipping such goods shall deliver such declaration to the proper officer of customs, and shall make and subscribe a declaration before him that the goods which are to be shipped by virtue of such entry are the same as are mentioned in such first-mentioned declaration; and the master of the ship in which such goods shall be laden shall, before clearance, make and subscribe a declaration before the proper officer of customs, that the goods shipped by virtue of such entry are the same as are mentioned and intended in such first-mentioned declaration, to the best of his knowledge and belief; and thereupon the proper officer of customs shall sign and give to the master a certificate of production, stating that proof has been made in manner required by law that such goods (describing the same) are the produce of such British possession or of the said island, and setting forth in such certificate the name of the exporter and of the exporting ship, and of the master thereof, and the destination of the goods; and if any spirits or sugar be imported into any British possession in America as being the produce of some other such possession or of the said island, without such certificate of production, the same shall be forfeited. (Sec. 176.)

Certificate of Production on re-exportation from another Colony.—Before any sugar or spirits, so long as any benefit attach to the distinction, shall be shipped for exportation in any British possession in America as being the produce of some other such possession, the person exporting the same shall in the entry outwards state the place of production, and refer to the entry inwards and landing of such goods, and shall make and subscribe a declaration before the proper officer of customs to the identity of the same; and thereupon, if such goods shall have been duly imported with a certificate of production within 12 months prior to the shipping for exportation, the proper officer of customs shall sign and give to the master a certificate of production founded upon and referring to the certificate of production under which such goods had been so imported, and containing the like particulars, together with the date of such importation. (Sec. 177.)

Certificate of Production of East India Sugar.—The shipper of any sugar the produce of some British possession within the limits of the East India Company's charter, about to be exported from any place in such possession, may go before the chief officer of customs at such place, or, if there be no such officer, before the principal officer of such place, or the judge or commercial resident of the district, and make and sign a declaration before him that such sugar was really and bonâ fide the produce of such British possession, to the best of his knowledge and belief; and such officer, judge, or resident is hereby required to grant a certificate thereof, stating therein the name of the ship in which the sugar is to be exported, and the destination of the same. (Sec. 178.)

Certificate of Production of Wine.—The shipper of any wine, the produce of any British possession abroad, which is to be exported from thence, may go before the chief officer of customs, and make and sign a declaration before him that such wine was really and bonâ fide the produce of such British possessions; and such officer is hereby required to grant a certificate thereof, stating therein the name of the ship in which the wine is to be exported, and the destination of the same. (Sec. 179.)

Certificate of Production of Goods in Guernsey &c.—Any person who is about to export from the Channel Islands to the United Kingdom or to any of the British possessions in America or the Mauritius any goods of the growth or produce of any of those islands, or any goods manufactured from materials which were the growth or produce thereof, of the United Kingdom, or of materials duty free in the United Kingdom, or whereupon the duty has been there paid, and not drawn back, may go before any magistrate of such islands, and make and sign before him a declaration that such goods, describing the same, are of such growth or produce, or of such manufacture, and such magistrate shall administer and sign such declaration; and thereupon the governor, lieutenant-governor, or commander-in-chief of the island from which the goods are to be exported shall, upon the delivery to him of such declaration, grant a certificate under his hand of the proof contained in such declaration, stating the ship in which, and the port to which, the goods are to be exported; and such certificate shall be the proper document to be produced at such port in proof that the goods mentioned therein are of the growth, produce, or manufacture of such island respectively. (Sec. 180.)

Officers may board Ships.—The officer of customs may go on board any ship in any port in any British possession in America, and rummage and search such ship for prohibited goods, and if there be any goods on board prohibited to be imported into such possession they shall be forfeited. (Sec. 181.)

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Seized goods, if unclaimed for a Month, to be condemned, and dealt with accordingly.—All vessels, boats, goods, and other things which shall have been or shall hereafter be seized as forfeited in or near any of the British possessions abroad, under this or any Act relating to the customs, shall be deemed and taken to be condemned, and may be dealt with in the manner directed by law in respect to vessels, boats, goods, and other things seized and condemned for breach of any such Act, unless the person from whom such vessels, boats, goods, and other things shall have been seized, or the owner of them, or some person authorised by him, shall, within one month from the day of seizing the same, give notice in writing to the person or persons seizing the same, or to the chief officer of customs at the nearest port, that he claims the vessel, boat, goods, or other things, or intends to claim them. (Sec. 182.)

Penalties and Forfeitures, how to be recovered in British Possessions abroad.—Whenever any penalty or forfeiture shall have been incurred in any of the British possessions abroad, under this or any other Act relating to the customs, such penalty or forfeiture shall and may be sued for, prosecuted, recovered, and disposed of in the Court of Record or of Vice-Admiralty having jurisdiction in any British possession where the same may have been incurred or forfeited; but in case there shall be no such court at such British possession, such penalty or forfeiture shall and may be sued for, prosecuted, recovered, and disposed of in the Court of Record or of Vice-Admiralty having jurisdiction in some British possession near to that where such penalty or forfeiture may have been incurred; and all such penalties and forfeitures shall be deemed to be sterling money of Great Britain, and paid accordingly. (Sec. 183.)

Application of Penalties.— All penalties and forfeitures recovered in the Channel Islands or in any of the British possessions abroad under this or any Act relating to the customs shall be paid into the hands of the collector, comptroller, or other proper officer of the port or place where the same shall have been recovered, and shall be divided, paid, and applied as follows; (that is to say,) after deducting the charges of prosecution from the produce thereof, ⅓ of the nett produce shall be paid to or for the use of her Majesty, ⅓ to the governor or commander-in-chief of the colony or plantation, and the other ⅓ to the seizor, informer, and prosecutor; excepting such penalties and forfeitures as are from seizures made at sea by the commanders or officers of her Majesty's ships of war duly authorised to make seizures, one moiety of which, first deducting the charges of prosecution from the gross produce, shall be paid as aforesaid to and for the use of her Majesty, and the other moiety to the seizor, informer, and prosecutor, subject nevertheless to such distribution of the produce of the seizures so made at sea, as well with regard to the moiety hereinbefore granted to her Majesty as with regard to the other moiety given to the seizor, informer, or prosecutor, as her Majesty shall think fit to direct by order in council or by proclamation. (Sec. 184.)

Bail may be given for Seizures.—If any goods or any ship or vessel shall be seized as forfeited under this or any Act relating to the customs, and detained in any of the British possessions in America, the judge or judges of any court having jurisdiction to try and determine such seizures may, with the consent of the chief officer of customs, order the delivery thereof, on security by bond, with two sufficient sureties, to be first approved by such officer, to answer double the value of the same in case of condemnation; and such bond shall be taken to the use of her Majesty in the name of the officer of customs in whose custody the goods or the ship or vessel may be lodged, and such bond shall be delivered and kept in the custody of the officer; and in case the goods or the ship or vessel shall be condemned, the value thereof shall be paid into the hands of such collector or officer, who shall thereupon cancel such bond. (Sec. 185.)

Suits to be commenced in Name of Officers.—No suit shall be commenced for the recovery of any penalty or forfeiture in the Channel Islands, or in any of the British possessions abroad, under this or any Act relating to the customs, except in the name of such officer of the customs or navy, or other person employed as hereinbefore mentioned, or of her Majesty's advocate or attorney-general for the place where such suit shall be commenced; and if a question shall arise whether any person is an officer of the customs or navy, or such other person as aforesaid, vivâ voce evidence may be given of such fact, and shall be deemed legal and sufficient evidence. (Sec. 186.)

Limitation of Appeals.—No appeal shall be prosecuted from any decree or sentence of any of her Majesty's courts in America touching any penalty or forfeiture imposed by this or any Act relating to the customs, unless the inhibition shall be applied for and decreed within 12 months from the time when such decree or sentence was pronounced. (Sec. 187.)

Security to abide an Appeal from Vice-Admiralty.—If any proceedings shall have been or shall hereafter be instituted in any court of Vice-Admiralty or any other competent court in any of her Majesty's possessions abroad against any ship, vessel, boat, goods, or effects for the recovery of any penalty or forfeiture under this or any Act relating to the customs, the execution of any sentence or decree restoring such ship, vessel, boat, goods, or effects to the claimant thereof, which shall be pronounced by the said Vice-Admiralty Court in which such proceedings shall have been had, shall not be suspended by reason of any appeal which shall be prayed and allowed from such sentence; provided that the party or parties appellate shall give sufficient security, to be approved of by the court, to render and deliver the ship, vessel, boat, goods, or effects concerning which such sentence or decree shall be pronounced, or the full value thereof, to be ascertained either by agreement between the parties, or, in case the said parties cannot agree, then by appraisement under the authority of the said court, to the appellant or appellants, in case the sentence or decree so appealed from shall be reversed, and such ship, vessel, boat, goods, or effects be ultimately condemned. (Sec. 188.)

Persons authorised to seize under 5 Geo. IV. c. 113 to have Benefit of this Act.—All persons authorised to make seizures under the Act 5 Geo. IV. c. 113 shall, in making and prosecuting any such seizures, have the benefit of all the provisions granted to persons authorised to make seizures under this Act; and all penalties and forfeitures created by the said Act, whether pecuniary or specific, shall (except in cases specially provided for by the said Act) go and belong to such persons as are thereby authorised to make seizures, in such shares, and shall and may be sued for and prosecuted, tried, recovered, distributed, and applied, in such and the like manner, and by the same ways and means, and subject to the same rules and directions, as any penalties and forfeitures incurred in Great Britain and in the British possessions in America respectively now go and belong to, and may be sued, prosecuted, tried, recovered,

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and distributed respectively in Great Britain or in the said possessions, under and by virtue of this Act. (Sec. 189.)

Colonial Laws repugnant to Acts of Parliament void.—All laws, byelaws, usages, or customs at this time or which hereafter shall be in practice, or endeavoured or pretended to be in force or practice, in any of the British possessions in America, which are in anywise repugnant to this Act, or to any Act relating to the customs or to trade and navigation, so far as the same shall relate to the said possessions, are and shall be null and void to all intents and purposes whatsoever. (Sec. 190.)

Trade with the Channel Islands.—No goods or passengers shall be brought, imported, or carried into the United Kingdom from the Channel Islands, nor shall any passengers or goods be exported or carried from the United Kingdom to the said islands, nor shall any goods or passengers be carried from any one of the said islands to any other of them, nor from one part of any of the said islands to another part of the same, except in British ships; and if any goods or passengers be brought, imported, exported, or carried coastwise contrary hereto, all such goods shall be forfeited, and the master of the ship in which the same are so brought, imported, exported, or carried shall forfeit the sum of 100*l.* (Sec. 191.)

No tobacco, cigars, or snuff shall be imported into the Channel Islands, nor be carried from any one of the said islands to another of them, or from one part of any of the said islands to another part of the same, unless in ships of not less burden than fifty tons, except from the United Kingdom in ships of not less than forty tons burden regularly trading from thence to those islands, nor unless in packages each containing not less than eighty pounds nett weight of such tobacco, cigars, or snuff, nor unless the provisions in and under which the like sort of goods may be legally imported into the United Kingdom are complied with; and all tobacco, cigars, or snuff imported into the said island or carried, shipped, or removed contrary hereto, or which shall be found or discovered to have been on board any ship or boat within one league of the coasts thereof, shall be forfeited, together with the ship or boat.—18 & 19 Vict. c. 96 s. 18.

Spirits from and to the Channel Islands in Ships of 50 Tons and Casks of 20 Gallons.—No spirits (except rum of the British Plantations) shall be imported into or exported from the Channel Islands or any of them, or be removed from any one to any other of the said islands, or be carried coastwise from any one part to any other part of any one of the said islands, or shall be shipped in order to be so removed or carried in any ship other than of the burden of fifty tons or upwards, or in any cask or other vessel capable of containing liquids not being of the size or content of twenty gallons at the least; and all spirits imported, exported, removed, carried, shipped, or water-borne to be so shipped, removed, or carried, contrary hereto, shall be forfeited, together with the ship, and any boat importing, exporting, removing, or carrying the same: provided always, that nothing herein contained shall extend to any spirits imported in any such ship in glass bottles as part of the cargo, nor to any spirits being really intended for the consumption of the seamen and passengers of such ship during their voyage, and not being more in quantity than is necessary for that purpose, nor to any warehoused goods exported from the United Kingdom in ships of not less than forty tons burden, being regular traders to those islands, nor to any boat of less burden than ten tons for having on board at any one time any foreign spirits of the quantity of ten gallons or under, such boat having a license from the proper officer of customs at either of the islands of Guernsey or Jersey for the purpose of being employed in carrying commodities for the supply of the island of Sark, which license such officer is hereby required to grant without fee or reward; but if any such boat shall have on board at any one time any greater quantity of spirits than ten gallons, unless in casks or packages of the size and content of twenty gallons at the least, such spirits and boat shall be forfeited.—20 & 21 Vict. c. 92 s. 19, modified by 23 & 24 Vict. c. 129 s. 3.

When any of the terms mentioned in sec. 357 of 'The Customs Consolidation Act, 1853,' are used in this or any other Act relating to the customs, the terms so used shall have the same interpretation and meaning as are given to them in the said section; and the term '*British*-built ships' shall be deemed to mean and include any ship built in her Majesty's dominions.—20 & 21 Vict. c. 92 s. 20.

Whereas doubts have arisen whether the several sections of 'The Customs Consolidation Act, 1853,' other than those containing particular provisions relating thereto, as also 'The Supplemental Customs Consolidation Act, 1855,' are applicable to the *British* possessions abroad: be it enacted, that the said recited Acts and the several clauses therein and in this Act contained shall and the same are hereby declared to extend to and be of full force and effect in the several *British* possessions abroad, except where otherwise expressly provided for by the said Acts, or limited by express reference to the United Kingdom or the Channel Islands, and except also as to any such possession as shall by local Act or ordinance have provided, or may hereafter, with the sanction and approbation of her Majesty and her successors, make entire provision for the management and regulation of the Customs trade and navigation of any such possession, or make in like manner express provisions in lieu or variation of any of the clauses of the said Act for the purposes of such possession.—20 & 21 Vict. c. 62 s. 15.

Malta deemed to be in Europe.—The island of Malta and its dependencies shall be deemed to be in Europe. (Sec. 194.)

Connection of the Planter and Home Merchant. Mode of transacting Business in England.—The mode of transacting West India business is as follows: A sugar planter forms a connection with a mercantile house in London, Bristol, Liverpool, or Glasgow; stipulates for an advance of money on their part; grants them a mortgage on his estate; and binds himself to send them annually his crop, allowing them the full rate of mercantile commissions. These commissions are 2½ per cent. on the amount of sugar sold, and of plantation stores sent out; along with ½ per cent. on all insurances effected. During the war, when prices were high, the amount of these commissions was large: but, like other high charges, the result has, in nine cases out of ten, been to the injury of those who received them; they led the merchants to undertake too much, and to make too large advances to the planters, for the sake of obtaining their business. At that time it was usual to allow a permanent loan at the rate of 3,000*l.* for the assured consignment of 100 hogsheads of sugar; but that ratio was very often exceeded by the planter, the 3,000*l.* becoming 4,000*l.*, 5,000*l.*, 6,000*l.*, and, in very many cases, still more, in consequence of unforeseen wants and too sanguine calculations on his part.

Persons resident in the West Indies are almost

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always bare of capital, and for obvious reasons. A climate of such extreme heat, and a state of society possessing so few attractions to persons of education, offer no inducement to men of substance in Europe to go thither. Those who do go must trust to their personal exertion and the support of others; and when, after a continued residence in the West Indies, they have made some progress in acquiring a competency, and have become accustomed to the climate, they hardly ever consider themselves as settled there for life; their wish and hope is, to carry their acquisitions so far as to be enabled to pass the remainder of their days comfortably at home. The readiest means, in the view of the planter, for accomplishing this, used to be the extension of his undertakings; which he could do only by borrowing money. Hence a continual demand on his mercantile correspondents at home for fresh advances; the consuming effect of heavy commissions, and of the interest on borrowed money, being overlooked in his ardent speculations. But when prices fell, as they have done of late years, to a comparatively low level, the planters found themselves embarrassed with debts contracted under a different state of things, which in but few instances they could expect to discharge: hence their ruin, and hence also the ruin of many of the merchants and mortgagees connected with the planters.

For a number of years the West India trade has been extremely depressed; and it is, perhaps, impossible to point out any means of effectual relief. The planters need not build expectations on such doubtful, or rather improbable, events as the stoppage of distillation from malt, or an insurrection or emancipation of the negroes in rival countries, such as Cuba or Brazil. Of a bounty on exportation it is idle to speak; so that their only rational ground of hope seems to be in the introduction of improved processes, and a reduction in the cost of producing sugar and other staples.

The sale of West India articles takes place through the medium of produce brokers, who in London reside chiefly in Mincing Lane and Tower Street. Samples of sugar and rum are on show in their respective sale rooms during four days of the week, viz. Tuesday, Wednesday, Thursday, and Friday, from 11 to 1 o'clock; during which time the sugar refiners, wholesale grocers, and other dealers in produce, call in, observe the state of the market, and buy what they require. The term of credit is short; only 1 month for coffee and rum, and 2 months for sugar. Coffee is generally sold by public auction, sugar and rum by private contract. The brokers' commission is usually ½ per cent. on the amount; but in the case of coffee, as they guarantee the buyers, their charge amounts to 1 per cent. The brokers have no correspondence or connection with the planters; they are employed by the merchants; and their sales, though for large amounts, being very simple, a brokerage house of consequence generally does the business of a number of merchants. Neither merchant nor broker see, or are in the least under the necessity of seeing, the bulky packages containing the different articles of produce of which they effect the sales: all is done by sample; the packages remaining in the bonded warehouse from the time of landing till they are sold; after which they pass to the premises of the refiner, wholesale grocer, or whoever may be the purchaser.

The allowances made to the buyer in respect of weight consist, first of the tare, which is the exact weight of the cask; and, in the second place, of a fixed allowance of 5 lbs. per cask in the case of coffee, called trett, and of 2 lbs. per cask on sugar, under the name of draft. (See *Account Sales* of both, art. Bookkeeping.)

The shipping stores from England to the plantations is also a very simple transaction. West India merchants in London, Liverpool, or Bristol receive from the planters, in the autumn of each year, a list of the articles required for the respective estates: these lists they divide, arrange, and distribute among different wholesale dealers in the course of September and October, with instructions to get them ready to ship in a few weeks. November and December are the chief months for the despatch of outward-bound West Indiamen, as the plantation stores ought, properly, to arrive about the end of December, or in the course of January. That is a season of activity, and generally of health, in the West Indies; the comparatively cool months of November and December having cleared the air, and the produce of the fields having become ripe and ready to carry. Crop time lasts from January to the end of July, after which the heavy rains put a stop to field work in the islands. Demerara, being so near the Line, experiences less difference in the seasons, and it is customary there to continue making sugar all the year round.

The arrivals of West Indiamen in England with homeward cargoes begin in April and continue till October; after which, with the exception of occasional vessels from Demerara and Berbice, they cease till the succeeding April. This corresponds with the time of carrying and loading the crops; for it would be quite unadvisable, on the score of health as well as of the interruptions to work from the heavy rains, to attempt loading vessels in the sugar islands during the autumnal months.

The unloading of West Indiamen in London usually takes place at the West India Docks; and did so uniformly from the autumn of 1802, when the docks were first opened, till August 1823, when the dock monopoly expired. Cargoes are discharged very speedily, the time seldom exceeding 3 days. The dock dues have been materially reduced of late years; and the whole exhibits a striking example of the advantage attendant on transacting a mass of business on one spot—an advantage which can be enjoyed only in great sea-ports, such as London, Liverpool, or Amsterdam. [Docks.]

The rates of freight during the war were, on sugar from 7*s.* to 8*s.* per cwt., and on coffee from 10*s.* to 11*s.*; whereas they now amount, the former from 1*s.* 6*d.* to 2*s.* 6*d.* and the latter from 3*s.* to 3*s.* 6*d.*; the shipowners, from the improvements that have been effected, being better paid now than formerly.

Selection of Sites for Colonial Establishments.—Nothing can be more unwise than the plan, if so we may call it, hitherto followed in the selection of places at which to found colonies. The captain of a ship, without any knowledge whatever of the nature of soils or the capacities of a country in an agricultural point of view, falls in after a long cruise with a river or bay, abounding with fish and fresh water, and surrounded with land that *looks* fertile and is covered with herbage. He forthwith reports all these circumstances, duly embellished, to the Admiralty, strongly recommending the situation as an admirable one at which to found a colony; and, in nine cases out of ten, *this* is all the information that is required in taking a step of such infinite importance! No wonder, therefore, that many fine schemes of colonisation should have ended only in loss and disappointment, and that situations which the colonists were taught to look upon as a species of paradise have proved to be anything but what they

were represented. Botany Bay, though described by Captain Cook as one of the finest places in the world, had to be abandoned by the colonists that were sent out to it; as the country round it, instead of being favourable for cultivation, is a mere sandy swamp. Is it possible to suppose that any attempt would have been made to establish a colony in so pestilential a climate as that of Sierra Leone if the proper enquiries had been previously made? The colony on Swan River may be adduced as another instance of misplaced or premature confidence in the reports of those who were really without the means of forming a correct estimate of the various circumstances necessary to be attended to in forming a colony.

We therefore hope that an end may be put to this system—a system which is in no common degree injurious to the public interests, and is highly criminal towards those who embark as colonists. The founding of a colony should be looked upon in its true point of view—as a great national enterprise. It is not an adventure to be entrusted to presumptuous ignorance, but should be maturely weighed, and every circumstance connected with it carefully investigated. Above all, the situation in which it is proposed to found the colony should be minutely surveyed; and its climate, soil, and capacities of production deliberately enquired into by competent persons employed for the purpose. Were this done, Government and the public would have the best attainable grounds upon which to proceed; and neither party would have much reason to fear those disappointments which have hitherto so often followed the exaggerated representations of those to whom the important and difficult task of selecting situations for colonies has been delegated. [ADELAIDE; CAPE TOWN; COLUMBO; HONG KONG; MELBOURNE; PORT LOUIS; QUEBEC; TARIFFS, COLONIAL; &c.]

V. FOREIGN COLONIES.

1. *Spanish Colonies.*—Spain, whose colonial possessions, previous to 1810, extended from the frontiers of the United States to the Straits of Magellan, is not, at present, possessed of a foot of ground in the whole American continent. Still, however, her colonial possessions are of great value and importance. In the West Indies, she is mistress of Cuba and Porto Rico; the former by far the largest and finest of the West Indian Islands, and the latter also a very valuable possession. In the East, Spain is mistress of the Philippine Islands, which, were they in the hands of an enterprising people, would speedily become of very great commercial importance. [HAVANNAH; MANILLA; PORTO RICO.]

2. *Dutch Colonies.*—Java is the principal Dutch colonial possession, and it is one of which it is not easy to exaggerate the value and importance. [BATAVIA.] In the East the Dutch also possess the Moluccas, Bencoolen on the coast of Sumatra, Macassar, and the eastern coast of Celebes, Banda &c. They have several forts on the Gold Coast in Africa; in the West Indies they possess the islands of Curaçao and St. Eustatius, Saba, and part of St. Martin; and on the continent of South America they are masters of Dutch Surinam. Curaçao and St. Eustatius are naturally barren, but they have been both highly improved. From its being very conveniently situated for maintaining a contraband traffic with the Caracas and other districts in South America, Curaçao was formerly a place of great trade, particularly during war: but since the independence of South America, it has ceased in great measure to be an entrepôt; the goods destined for the continent being now, for the most part, forwarded direct to the places of their destination.

That district of Surinam ceded to the British in 1814, comprising the settlements of Demerara, Berbice, and Essequibo, formed the most valuable portion of Surinam, or Dutch Guiana. The district which still belongs to the Dutch lies to the south of Berbice. It contains about 38,000 square miles, and a population of about 53,000. The value of the exports of sugar from this colony in 1861 was estimated at 2,654,480 florins, and in 1862 at 2,752,683 florins.

3. *French Colonies.*—Previously to the negro insurrection that broke out in 1792, St. Domingo was by far the most valuable colony in the West Indies. But this disastrous event, having first devastated the island, terminated in the establishment of the independent black republic of Hayti. [PORT AU PRINCE.] Having also sold Louisiana to the Americans, and ceded the Mauritius to the English, without making any new acquisition, the colonial dominions of France (for Algeria cannot be reckoned amongst them) are, at this moment, of very limited extent. The most important are Martinique and Guadaloupe in the West Indies, the former with (in 1863) a population of 135,353, and the latter of 138,380. The exports of these islands were in 1863 as follows:—

Articles		Martinique	Guadaloupe	Réunion
Sugar	kilos.	30,115,090	34,588,641	41,687,357
Molasses	litres	5,981,345	1,814,720	4,928,386
Rum	,,	3,887,925	2,767,080	3,819,401
Coffee	kilos.	208,847	1,227,177	265,072
Cotton	,,	4,967	43,336	1,120
Cocoa	,,	177,846	101,587	2,500
Tobacco	,,	1,200	5,745	419,900
Vanilla	,,	—	373	17,663

The emancipation of the slaves was injurious to these islands; but the deficiency of labour thence arising has been, in part at least, supplied by immigrants. The other French colonies consist of the small islands of Marie-Galante and Desceada, in the West Indies; Cayenne, in South America; Senegal and Goree, in Africa; the Isle de Réunion (Isle de Bourbon), in the Eastern Ocean, the exports of which are given in the table above; St. Marie, in Madagascar; and Pondicherry and Chandernagore, with a very small surrounding territory, in the East Indies.

Of these the Isle de Réunion is the most important, and the exports from it have latterly increased very rapidly. At an average of 1849 and 1850, for example, she only sent to France 18,681,530 kilogrammes a-year of sugar, whereas, in 1863, she sent thither no fewer than 69,141,663 kilogrammes. This extraordinary increase has been wholly owing to the importation of labourers from India, Africa, and Madagascar, and to the extensive employment of guano as manure.

4. *Danish Colonies.*—In the West Indies, these consist of the islands of St. Croix, St. Thomas, and St. John, having together, in 1860, a population of 38,130. St. Croix contains about 100 square miles, and is fertile and well cultivated. The principal productions were at one time sugar, rum, and coffee. The exports formerly amounted to about 25,000,000 lbs. a-year, but the cultivation of sugar has been abandoned in consequence of the emancipation of the slaves in 1847. St. Thomas, which has about 15,500 inhabitants, has long been, and though latterly much fallen off, still continues to be, one of the principal emporiums in the West Indies. It owes this distinction partly to its convenient situation as a packet station, partly to its spacious and safe harbour at St. Thomas, on the south side of the island, and partly and principally to the moderation of the import duties, which vary

from 1 to 1¼ per cent. St. Thomas has, in consequence, become as it were a depôt for the supply of the neighbouring islands; goods being sent to it to be warehoused till opportunity offers for conveying them to their final destination. In the *Consular Report* for 1866 it is stated that this branch of trade is likely now to decline gradually, as merchants &c. in the neighbouring islands are making direct importations from the United Kingdom. The great articles of importation are manufactured goods, principally from England, but partly also from other countries of Europe, with provisions, lumber &c. from the United States.

The value of our exports to the 3 islands now referred to, $\frac{9}{10}$ being for St. Thomas, amounted in 1866 to 765,524*l.*, of which cottons made 364,317*l.*, linens 136,982*l.*, coal &c. 54,931*l.*, and iron 40,650*l.* The Danes have, however (1868), sold these islands to the United States.

In India the Danes formerly possessed Tranquebar, near Madras; and Serampore, near Calcutta; but these they sold, in 1845, to the East India Company.

5. *Swedish Colonies.*—The Swedes possess one colony—the small island of St. Bartholomew, in the West Indies. It is only about 25 square miles in extent, but is very fertile. It has no springs, nor fresh water of any sort, except such as is supplied by the rain. Population between 8,000 and 9,000.

COLUMBA or CALUMBA ROOT (Dutch, Columbo wortel; Fr. racine de Colombo; Ger. Colombo-wurzel; Ital. radice di Colombo; Port. raiz di Columba; Span. raiz di Columba; Mosamb. kalumb). The root of the plant of that name: the *Cocculus palmatus* of Decandolle; Nat. Order, *Menispermaceæ*. It is not cultivated, but grows wild in the forests between Ibo and the Zambesi, and being dug up by the natives, is exported by the Portuguese. It is brought to us dry, in transverse sections from ⅛ to ½ in. thick, from 1 to 2½ in. diameter. Bark wrinkled and thick, of a brownish colour without, and a brightish yellow within; pith spongy, yellowish, and slightly striped; when fresh, its smell is rather aromatic; it is disagreeably bitter, and slightly pungent to the taste, somewhat resembling mustard that has been too long kept. Choose the largest pieces, fresh, of a good colour, as free from worms as possible, rejecting that which is small and broken. It is used in the materia medica, and is a valuable tonic. Freight 16 cwt. to a ton. A decoction when cold is blackened by the solution of iodine. (*Pharmacopœia of the Medical Council*, ed. 1867.)

COLUMBO or COLOMBO. The modern capital of Ceylon, on the S.W. coast of the island; lat. 6° 56′ 6″ N., long. 79° 49′ 48″ E. It is defended by a very strong fort nearly surrounded by the sea, in which is a lighthouse 97 feet high. Population of the town and fort, in 1865, perhaps 60,000. The houses, generally only 1 storey high, are of stone, clay, and lime; and the town has more of a European appearance than any other in India. The inhabitants are principally Cingalese. The temperature is remarkable for its equality; and though very humid, the climate may, on the whole, be esteemed salubrious and temperate. There is no harbour at Columbo for large vessels, but only an open roadstead. A projecting rock, on which 2 batteries are erected, affords shelter to a small semicircular bay on the north side of the fort, having a wooden quay to facilitate the loading and unloading of boats. The depth of water is not sufficient to allow sloops or large dhonies to come alongside the quay; those exceeding 100 tons burden lying at about a cable's length from it. A bar of sand, on some parts of which the water is not more than 7 feet deep, extends from the projecting rock across this bay. The channel where it may be crossed by the larger class of ships is liable to shift; and it is only in the fine weather of the safe season that they venture within the bar. The outer road affords secure anchorage for half the year, from the beginning of October to the end of March, during the prevalence of the N.E. monsoon, when the wind blows off the land: during the other, or S.W. monsoon, when the wind blows from the sea on shore, the road is very far from safe; and the ships that frequent it are sometimes obliged to slip their cables and stand out to sea. (Milburn's *Orient. Comm.*; Hamilton's *Gazetteer*; &c.)

As respects its harbour, Columbo is, therefore, very inferior to Trincomalee, the harbour of which is accessible at all times, and one of the best in India, and it is also inferior to the harbour of Point de Galle. The country in the vicinity of Columbo has, no doubt, an extensive internal navigation; but as the cinnamon plantations near the town have lost much of their former importance, and as the central provinces adapted to the growth of coffee, now the great staple of the island, may be as easily reached from the other harbours as from Columbo, the decline of the commercial preponderance of the latter is far from unlikely.

Moneys.—The rix dollar = 1*s.* 6*d.* has become obsolete, and the currency now consists of silver rupees = 2*s.*, in which, or in dollars = 4*s.* 2*d.*, accounts are kept.

The Bank of Ceylon, noticed in the last edition of this work, is extinct. There are, however, in Columbo, a branch of the Oriental Bank Corporation, head-office London; and a branch of the Mercantile Bank of India, London, and China, head-office Bombay.

Weights, Measures &c.—The weights are divided into ounces, pounds &c., and are the same as in Great Britain. The candy or bahar = 500 lbs. avoirdupois, or 461 lbs. Dutch troy weight. The principal dry measures are *seers* or *parrahs*. The former is a perfect cylinder, of the depth and diameter under-mentioned:—

	depth	diameter
Seer - - -	4·35 inches	4·35 inches

The parrah is a perfect cube, its external dimensions being every way 11·57 inches.

The liquid measure consists of gallons, and their multiple and sub-multiples. 150 gallons = 1 leaguer or legger.

The bale of cinnamon consists of 92½ lbs. very nearly.

Native Dry Measures.

4	cut chundoos	= 1 seer
4 4-5	seers	= 1 coornie
2 1-2	coornies	= 1 marcal
2	marcals	= 1 parrah
8	parrahs	= 1 amunam
9 3-8	amunams	= 1 last

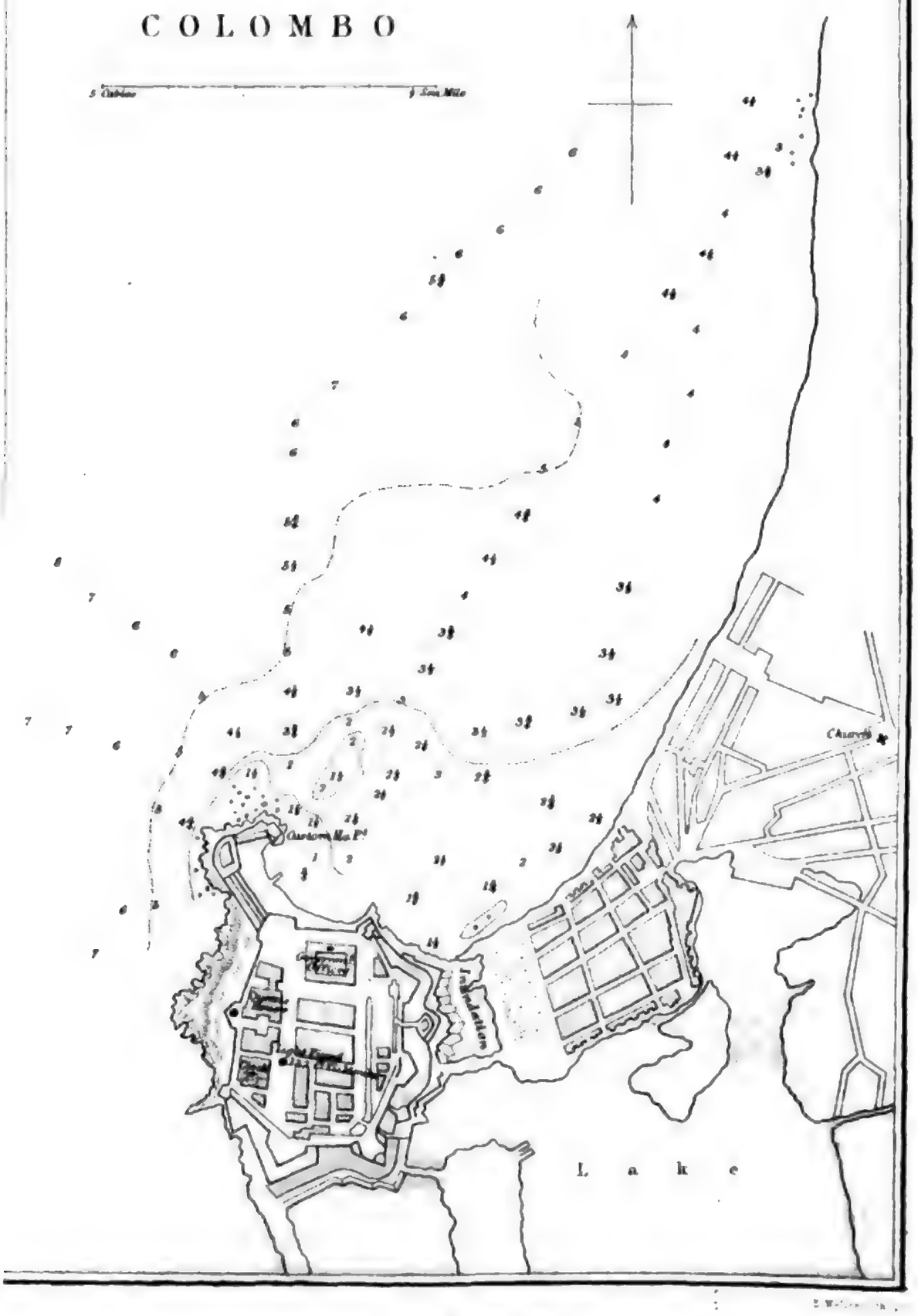
The English bushel is equal to 34 seers or 1 parrah and 10 seers.

Ceylon Native Land Measure.—8 lahas = 1 coornie, 10 coornies = 1 peyla, 4 peylas = 1 amunam.

Among the natives the value of land is fixed by the quantity of seed required to sow it, computed as the amunam and its sub-divisions: thus an amunam of fertile soil will measure, in regard to produce, sometimes twice as much as the same number of square feet of inferior soil.

The great articles of export from Ceylon are coffee, cocoa-nut oil, areca nuts, cinnamon, plumbago, coir, arrack, tobacco, pearls, chanks &c. The island is peculiarly suitable for the culture of coffee, the growth of which has rapidly increased since the reduction, in 1835, of the duty on coffee from Ceylon to the same level as that on coffee from the West Indies, the imports into the United

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London Longmans & Co

Kingdom from Ceylon in the former year having been only 1,870,143 lbs., whereas in 1866 they amounted to 81,428,370 lbs., valued at 2,702,852*l.*, of which 21,537,082 lbs. were entered for home consumption, and the supply appears to be susceptible of an indefinite increase. The exports of cocoa-nut oil, coir, and arrack might also be greatly increased; and it will be seen in the article CINNAMON how the growth of that important staple was restricted by the duty laid on its exportation. The total value of our imports from Ceylon in 1867 was 3,224,512*l.*

Sailing Directions and Remarks on the Port of Columbo, by James Donnan, Esq., Master Attendant.

The coast of Ceylon about Columbo is low, and not visible from seaward more than 10 miles. About 1 mile to the northward of the fort, near Mutwal, there are some lofty fir trees, which are generally seen when approaching from seaward before the lighthouse or flagstaff. They afford a good landmark for Columbo, as when viewed from seaward they appear considerably elevated above the surrounding cocoa-nut trees, and seem as one tope rather thinly planted. No other part of the coast either north or south of Columbo affords a similar mark to this.

There are some isolated hills at a distance in the country, and the high mountain having on it a sharp cone called Adam's Peak bears from Columbo E. ½ S. distant 46 miles. It rises 7,420 feet above the level of the sea, and in clear weather has been seen at a distance of 30 leagues. In the N.E. monsoon it is generally seen in the morning, and sometimes throughout the day, but is rarely seen in the S.W. monsoon through the humid atmosphere which prevails in that season.

A bright fixed light is exhibited every night from the clock tower, a square grey looking building that is situated in the centre of the fort, in latitude 6° 56′ 13″ N. and longitude 79° 56′ 13″ E. The light is elevated 133 feet above the level of the sea, and may be seen in clear weather from a ship's poop 18 to 20 miles.

The only danger in approaching the roadstead from the southward is the Drunken Sailor, a ledge of rocks with only 6 feet water over the shallowed part which bears from the light tower S. 70° W. and is distant off shore 800 yards, or say ½ mile. This danger is clearly defined during the S.W. monsoon by a constant break of the sea, but during the N.E. monsoon with smooth water there is no break; it is then prudent not to come under 9 fathoms water when in the vicinity of these rocks, as there are 8 fathoms close outside of them; but a more prudent course would be not to approach the shore within 1½ mile until the light tower is brought to bear to the eastward of E. by N., then to stand in for the shipping, as no advantage can be gained by steering close to these rocks at any time. The approach from the westward is quite clear, and also from the northward with the exception of a ledge of rocks that stretches along shore to the northward from Mutwal; but this ledge is only about ¼ mile off shore, and so much out of the usual track of shipping that it is scarce worthy of note as a danger.

Vessels bound to Columbo during the S.W. monsoon from south of the Equator should not cross into the eastward of 78°, as between 3° north and the coast of Ceylon a strong current sets to the eastward, and the wind frequently hangs from west until the Gulf of Manaar is entered, thus making it difficult to fetch the port if not well to windward. The coast for 30 miles south of Columbo may be approached with safety to a distance of 2 miles.

The roadstead of Columbo, although exposed to the S.W. monsoon, is a safe one for vessels well found in ground tackle; vessels generally ride out the monsoon at single anchor with a long scope of chain. A gale of wind may occur about the changes of the monsoon in the months of May, June, and November, and even as late as December; though a gale of wind in the latter month is very rare, and several years sometimes pass away without any beyond a stiff monsoon breeze.

These gales are seldom violent, and it is only during them that casualties occur to the shipping. Only 5 vessels have been wrecked within the last 32 years.

Communication between the shore and shipping is seldom interrupted, although there are occasional spills of squally weather and high sea during the S.W. monsoon, which make the passage over the bar difficult and dangerous, especially for small boats.

A vessel may anchor anywhere in the outer roads with the flagstaff bearing from S. 5° E. to S. 55° E. in from 6½ to 9½ fathoms water, and distant off the north bastion of the fort from ½ to 1 mile. The best anchorage is with the flagstaff bearing about S. 30° E. in 8 fathoms water. Vessels arriving during the S.W. monsoon, or about the changes of the monsoon, should not anchor nearer the north bastion of the fort than ½ mile, or bring the rocky point at Mutwal (which is about 1½ mile to the northward of the fort) to bear to the northward of N.E. ½ E.; and they are recommended to ride with not less than 80 fathoms cable to the hawse, and to have all the shackles looked to and the small pins well secured before coming to an anchor. The constant pitching motion which vessels are subjected to causes the cables at some distance from the hawse to beat and chafe on the ground, and the shackle pins frequently work out, if not well secured. The small pins should be of iron with large heads, and the other ends well clinched over a ring: if not clinched, they invariably loosen, and work out.

The inner road or harbour is mostly occupied by the native coasting vessels: it is considerably sheltered from the S.W. monsoon by the north bastion of the fort and bar, and affords good and safe anchorage for vessels drawing not over 11 feet. The bar is a shifting sand-bank extending from the north bastion in a line with Mutwal Point for about 1½ cable length, on which there is from 7 to 12 feet water beyond it, and inside of it there is 3½ fathoms. Strangers should not enter the inner roads without a pilot. As the sea sometimes breaks on the bar during the S.W. monsoon, and several lives have been lost by boats being swamped, strangers should not use their own boats in landing, but employ one of the outrigger canoes, which are always available, until they become acquainted with the passage over it.

The ballast ground during the S.W. monsoon is in 15 fathoms water with the flag staff bearing about E., and during the N.E. monsoon in the same depth of water with the flag staff about E.S.E., where vessels may discharge their ballast overboard.

The current of Columbo, and in the Gulf of Manaar, is subject to considerable variation, particularly about the changes of the monsoon, when it is the strongest; but generally speaking it sets with the monsoon, and is never so strong as to inconvenience shipping making the roads. The greatest difference between high and low water recorded at Columbo is not more than 2 feet 10 inches. In the S.W. monsoon, when the mean level of the ocean is the lowest, the difference between high and low water is from 5 to 15 inches.

On those days when the difference between high and low water is not more than 6 inches, the rise and fall has been observed to take place 4 times within 24 hours.

Customs Duties 1868.

Import Duties.

		Duty £	s.	d.
Arms and ammunition:				
guns and rifles	each	0	5	0
pistols	per pair	0	5	0
gunpowder	per lb.	0	0	4
shot	per cwt.	0	1	6
Bacon, butter, cheese, and hams	,,	0	6	0
Beef and pork	,,	0	2	6
Beer, ale, and porter, and all other malt liquors in wood	per gallon	0	0	3
ditto ditto in bottles	,,	0	0	4
Fish dried or salted, and fins and skins, the produce of creatures living in the sea	per cwt.	0	1	0
Flour (wheat)	,,	0	2	0
Hops	,,	0	6	0
Jaggery or palm sugar, not equal in quality to brown or muscovado sugar	,,	0	1	0
Malt	per bushel	0	0	4
Metals:				
brass sheets	per cwt.	0	6	0
copper sheathing and nails	,,	0	6	0
iron—bar	per ton	0	7	0
corrugated	,,	0	14	0
galvanised	,,	1	10	0
hoop	,,	0	10	0
pig	,,	0	5	0
rod	,,	0	8	0
sheet	,,	0	10	0
lead, sheet	,,	1	0	0
spelter and zinc	,,	0	18	0
steel	,,	0	18	0
Opium	per lb.	0	1	0
Paddy	per bushel	0	0	3
Pitch, rosin, or tar	per barrel	0	1	0
Rice, wheat, gram, pease, beans, and other grain (except paddy)	per bushel	0	0	7
Salt	per cwt.	0	4	3
Saltpetre	,,	0	1	0
Spirits and cordials	per gallon	0	5	0
Sugar refined and candy	per cwt.	0	5	0
unrefined	,,	0	2	6
Tea	per lb.	0	0	6
Tobacco:				
manufactured	per cwt.	1	0	0
unmanufactured	,,	0	10	0
cigars and snuff	per lb.	0	0	8
Wine in wood	per gallon	0	1	6
in bottles	,,	0	2	6
Goods, wares, and merchandise, not otherwise charged with duty or prohibited, and not comprised in the table of exemptions hereinafter set forth, for every 100*l.* of the value thereof in this market		5	0	0

Table of Exemptions.

Books and maps printed; bullion, coin, pearls, and precious stones; coal, coke, and patent fuel; cocoanut oil; coffee; coir yarn, rope, twine, and strands; copperah; cotton wool; cowries and other shells; fruit, not in any way preserved; ground nuts, gingely seed, and linseed; horses, mules, asses, and all other live stock; ice; machinery; all descriptions of marine, locomotive, stationary, and portable steam engines, their boilers and gear, whole or in parts; machinery adapted to windmills; every description of machinery for lifting, forcing, and conducting water for the manufacture of sugar; hydraulic and screw presses; cranes, crab winches, and screw jacks; pulpers, peelers, and winnowing machines, whole or in parts; tile, brick, and pipe making machines; printing and lithographic presses; every description of fibre, cotton, carding, weaving, and spinning machines; Nasmyth's hammers; lathes; punching, drilling, shearing, planing, sawing, and screw-making machines; manures; paper; pepper, black; regimental clothing, necessaries, and accoutrements, imported for the use of Her Majesty's land and sea forces; seeds intended for agricultural and horticultural purposes, including plants; specimens illustrative of natural history; tanks (iron); whale oil — free

Export Duties.—Duties of customs payable on goods, wares, and merchandise, being the growth, produce, or manufacture of the island of Ceylon, exported to parts beyond seas.

Articles.

		Rate of duty £	s.	d.
Areca nuts	per cwt.	0	0	4
Cinnamon	the bale of 100 lbs. nett	0	2	0
Coffee	per cwt.	0	1	0
Coir yarn, fibre, rope, and junk	,,	0	0	3
Copperah, or cocoanut kernels	,,	0	0	3
Oil, cocoanut	,,	0	0	7½
Sugar	,,	0	0	6
Tobacco, unmanufactured	,,	0	0	4
All other goods, wares, and merchandise, not otherwise charged with duty nor comprised in the table of exemptions, for every 100*l.* of the value thereof in this market		2	10	0

Exemptions.

Books and maps printed; bullion, pearls, precious stones (unset); horses, mules, asses, and all other live stock; shells, cowries, chanks; seeds and plants; specimens illustrative of natural history — free

Port Dues.—The tonnage or burden of every British ship to be the tonnage set forth in the certificate of registry of such ship; the tonnage of all other ships to be calculated in the same manner as that of British vessels.

Pilotage Rates.—The pilotage rates charged on all square-rigged vessels at the ports of Galle, Columbo, and Trincomalee were, according to the *Ceylon Blue Book* of 1865, as follow:—

Columbo, 16*s.*

Trincomalee.

	Back Bay £	s.	d.	Inner Harbour £	s.	d.
Vessels of 600 tons and upwards	2	0	0	4	0	0
400 ,, under 600	1	10	0	3	0	0
200 ,, ,, 400	1	1	0	2	2	0
100 ,, ,, 200	0	10	6	1	1	0
,, 100	0	6	0	0	15	0

Galle.

	£	s.	d.
Vessels of 600 tons and upwards	3	0	0
400 ,, under 600	2	5	0
200 ,, ,, 400	1	10.	6
100 ,, ,, 200	1	2	0
,, 100	0	15	0

Port Dues.

		£	s.	d.
Entry inwards, with cargo	per ton	0	0	2
in ballast		free		
Clearance outwards, with cargo	per ton	0	0	2
in ballast	free			
And in no case to exceed, either at the time of entry inwards or clearance outwards		5	0	0

Composition for Port Dues.

		£	s.	d.
Vessels conveying goods between one port and another within the island are allowed to compound for port dues for 12 months	per ton	0	1	0

Account of the Quantities of Coffee, Cinnamon, and Cocoanut Oil, the Produce of the Island, exported from Ceylon during the following Years.

Years	Coffee	Cinnamon	Cocoanut Oil
(January 5)	cwt.	lbs.	gals.
1840	41,863	596,599½	357,543
1841	68,206	389,373½	475,742
1842	80,584	317,919½	341,966
1843	119,805	121,145½	475,987
1844	94,847	662,704½	726,206
1845	133,957	1,057,841	443,301
1846	178,603	408,211	282,186
1847	173,892	401,656	123,981
1848	293,221	447,569½	197,851
1849	280,010	491,687½	311,586 and 8 casks
1850	373,593	733,781½	573,279
1851	278,473	614,857	407,960
1852	349,957	508,491	443,699
1853	372,379	427,666½	749,028 and 4 casks
1854	378,971	956,280	1,035,974
1855	407,021	784,284½	1,059,272
(31 Dec.)			
1855	506,540	730,600	908,749
1856	440,819	877,547	1,046,326
			cwt.
1857	601,635	887,959	142,025
1858	544,635	750,744	66,001
1859	989,998	879,561	98,006
1860	632,449	675,155	120,598
1861	650,317	845,218	83,006
1862	605,709	875,675	115,084
1863	828,585	734,038	152,076
1864	671,863	776,675	190,761
			gals.
1865	927,440	850,973	1,176,784
1866	897,624	890,484	1,042,853

General Rates of Agency, Commission, and Godown Rent agreed upon by the Chamber of Commerce of Ceylon, on April 29, May 15, and June 12, 1839; and revised August 5, 1848.

	Per cent.
1. On all sales and shipments	5
With the following exceptions:	
On returns made with the proceeds of goods, on which commission has been previously charged	2½
On treasure, bullion, and bank shares	1
On all property withdrawn, shipped, or delivered to order	2½
2. On guaranteeing sales, bills, bonds, contracts, or other engagements	2½
3. On ships' disbursements	5
4. On advertising for freight and passengers, on the amount of freight or passage money, whether the same pass through the agent's hands or not	5
5. On effecting insurance or writing orders, for insurance	0½
6. On settling losses, partial and general, and returns of premium	5

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	Per cent.
7. On procuring money on respondentia	2½
8. On attending the delivery of contract goods, or receiving and delivering private commissions of wines, cattle, and merchandise	2½
9. On the total sum of the debit or credit side of an account at the option of the agent, excepting items on which a commission of 5 per cent. is chargeable	1
10. On effecting remittances, or on purchasing, selling, or negotiating bills of exchange	1
11. On collecting freight inward or outward	5
12. On letters of credit granted	2½
13. On the management of estates, as executors, administrators, or attorneys	5
14. On debts, when a process at law or arbitration is necessary	2½
And if recovered by such means	5
15. On all debts collected or secured	5
16. On executing transfer of immovable property	1
17. On landing, clearing, and delivering specie from steamers or other vessels, when above 1,000*l.*	0½
If under 1,000*l.*	0¼
18. On sales or purchases of ships, houses, or lands	2½

Rate of Godown Rent per Month.

		s.	d.
Coffee, rice, sugar, and saltpetre	per bag	0	3
Cinnamon	per bale	1	0
Piece goods	per bale or case	1	0
Cotton screwed	per bale	0	6
raw	„	1	0
Coir rope or junk	per cwt.	0	1
Wine, spirits, beer, oil &c.	per leaguer or pipe	2	0
Wine	in 6 doz. chests	0	6
Rough goods, such as earthenware in crates per 50 cubic feet		2	0

All other articles in proportion to the above.

Account of the Quantities and Values of the Principal Articles produced in and exported from Ceylon during 1865.

Articles		Quantities	Value
			£
Areca nuts	cwt.	62,616	46,962
Cinnamon	lbs.	850,973	42,549
Cocoanuts	no.	1,890,311	5,136
Coffee, plantation	cwt.	695,934	1,879,012
native	„	233,268	468,044
Coir rope	„	10,394	12,994
yarn	„	66,909	24,860
Copperah	„	11,999	7,199
Cotton, manufactured	pckgs.	63	137,088
	pieces	151,009	
twist	pckgs.	1,086	62,667
wool	cwt.	1,108	5,127
Cowries, shells, and chanks	—	—	8,380
Gunnies	pckgs.	6,596	6,839
Elephants	no.	271	7,266
Oil, citronella	oz.	856,992	9,853
Cocoanuts	cwt.	94,563	120,678
Plumbago	cwt.	40,144	15,121
Rice	bushels	153,000	29,900
Spirits—arrack	gallons	204,982	17,363
Stones, precious, and pearls	pckgs.	23	3,606
Timber	—	—	31,421
Tobacco, unmanufac.	cwt.	24,644	24,688
Specie	pckgs.	601	496,022
Total			3,565,157

Warehouse Rates for all Goods bonded in any Queen's Warehouse.

	Per week d.
For every butt, pipe, or puncheon	3
Half pipe or hogshead	2
Barrel or quarter cask	1
Cask or keg of smaller size	0½
Six dozen case of wine, spirits, or other liqueurs	2
Three dozen „ „ „ „	1
One dozen „ „ „ „	0½
Crate, cask, or case of hardware, earthenware, or ironmongery	3
Bale of Indian cloth	3
Half bale	1½
Bale, case, or box measuring 60 cubic feet or upwards	4
40 „ and under 60	3
20 „ „ 40	2
10 „ „ 20	1
Other small boxes or packages	0½
Bag of rice, sugar, or coffee	1
Ton of heavy goods, metals, timber &c.	6

Other goods not enumerated, of the like weight or bulk, to be charged in proportion to these rates.

Double these rates will be charged on all goods landed under the provisions of the 21st clause of the Ordinance No. 18 of 1852, which may not be entered or removed within 7 days. Goods left on the quay, half of the above rates.

Goods may be lodged in the Queen's warehouse for a period of 7 days free of charge, when, if not entered and removed for consumption, or bonded, they will be liable to the rates above mentioned.

Warehouse Stowage.—By the Customs' Act, No. 7, 1861, it is enacted that all goods placed in the customs warehouses by any person shall be stowed in such parts or divisions of the warehouse, and in such manner, as the Collector of Customs shall direct; and if the stowage be broken, the goods shall be repiled by the person breaking such stowage.

Goods Landed and Warehoused at the Rates fixed by the Chamber of Commerce.

		s.	d.
Butts and pipes of wine or beer	each	1	0
Bales, hogsheads, and cases above the size of 3 doz. wine	„	0	9
Half bales, barrels, and cases above 1 doz. and not more than 3 doz.	„	0	6
Kegs, 1 doz. cases or packages of like size or less	„	0	3
Packages of 1 ton and not exceeding 1½ ton by weight or measurement	„	3	0
Packages under 1 ton by weight or measurement	„	0	9
Metals, per ton	„	3	0
Hogshead staves in packs, per 100 bundles	„	18	0
Puncheon „ „ „	„	22	6
Rice or sugar, per 100 bags or robbans	„	15	0
Wheat, per 100 bags	„	18	0

Machinery by special agreement.
Double the above rates when the packages imported are less than 6 in number.
Specie will be landed by agreement with the manager.
Special agreements can be made with the manager for loading of coal, grain, and timber cargoes.

Shipping and Landing Charges of the Cargo Boat and Wharf Improvement Company.

	s.	d.
120 bags of coffee of 1¼ cwt. (and in proportion for larger)	12	6
18 casks of coffee of 6 cwt. each	12	6
60 bales of cinnamon of 100 lbs. each	12	6
30 hogsheads of oil	12	6
40 pipes of oil	12	6
120 boxes of plumbago	12	6

Rope yarn, horns &c. in proportion.
Ballast, 12*s.* 6*d.* per load of about 7 tons.

An Account of the Values of the Principal Articles Imported into Ceylon in the Years 1863–5.

Principal Articles	Value		
	1863	1864	1865
	£	£	£
Coals and coke	127,729	145,400	126,560
Cotton manufactures	790,408	997,271	843,044
twist	80,993	93,851	29,334
wool	85,470	25,538	4,731
Cutlery and hardware	66,547	70,604	24,367
Curry stuffs	59,618	38,798	47,489
Fish, salted and dried	60,905	75,248	66,971
Grain: paddy	119,742	102,054	102,511
rice	1,324,746	1,183,019	1,455,424
gram	34,291	35,454	36,746
Haberdashery and millinery	66,263	53,505	36,530
Live stock: neat cattle	46,683	23,509	21,785
Poonac	79,714	64,802	74,566
Specie and bullion	1,842,974	1,771,053	1,723,667
Total	5,455,807	5,526,964	5,022,179

Trade and Navigation of Columbo for the Year 1866.

	Vessels	Tons
Entered	3,240	583,303
Cleared	3,301	599,022

	Imports	Exports
Total value (including specie)	£1,961,061	£3,586,453
Specie imported	£1,443,477	
exported	516,206	

The following tables, Nos. I., II., and III., show the progress of Ceylon in population, agriculture, revenue, trade, and shipping from 1855 downwards:—

I. *Population, Estimated Number of Acres under Cultivation, Revenue, and Expenditure of Ceylon from* 1855–1866.

Year	Population of Ceylon	Estimated number of Acres under cultivation	Revenue	Expenditure
			£	£
1855	1,625,960	766,717	476,273	405,610
1856	1,697,356	771,170	504,174	457,157
1857	1,727,964	736,026	578,028	555,804
1858	1,759,528	736,026	654,961	594,333
1859	1,791,272	815,640	747,037	698,398
1860	1,876,467	927,581	767,100	705,440
1861	1,919,487	810,153	751,997	635,250
1862	2,079,891	1,367,974	739,135	626,654
1863	2,342,098	1,575,337	932,790	738,194
1864	2,031,109	1,580,078	867,728	843,292
1865	2,049,728	1,651,963	978,492	838,193
1866	2,088,027	1,597,008	962,873	917,869

Scale of Freight.—The ton is reckoned as follows: Arrack as per agreement, 210 or 250 gallons; cin-

namon, 800 lbs.; cocoa-nut oil, 17 cwt.; coffee in bags, 18 cwt.; ditto in casks, 16 cwt.; coir and cardamoms, 12 cwt.; cotton, 50 cubic feet; ebony and sapan wood, 20 cwt.; horns and pepper, 16 cwt.; measurement goods, 50 cubic feet; plumbago, 20 cwt.

II. *Total Tonnage of Shipping which entered into and cleared from the Ports of Ceylon in the following Years.*

Year	From and to United Kingdom	From and to other Countries	Total	British belonging to		Foreign
				United Kingdom	The Colonies	
	tons	tons	tons	tons	tons	tons
1855	66,192	568,290	634,482	261,590	331,450	41,442
1856	61,988	619,083	681,071	270,560	364,857	45,654
1857	107,738	772,825	876,563	424,183	385,671	66,709
1858	119,669	796,480	916,149	468,495	369,129	78,525
1859	76,783	704,809	781,592	373,937	335,561	71,871
1860	101,021	689,228	790,249	372,941	356,083	61,224
1861	73,866	763,355	837,221	364,640	394,425	78,156
1862	92,911	796,081	888,992	462,295	361,566	65,131
1863	125,672	942,642	1,068,314	517,158	403,039	148,117
1864	109,859	960,556	1,070,395	513,153	427,926	129,316
1865	124,812	1,027,998	1,152,810	605,575	419,041	126,224
1866	115,456	1,066,869	1,182,325	578,576	451,352	149,397

III. *Imports and Exports from Ceylon in the Years* 1855–66.

Year	Imports			Exports		
	From the United Kingdom	From other Countries	Total	To the United Kingdom	To other Countries	Total
	£	£	£	£	£	£
1855	418,495	1,959,696	2,388,191	1,015,074	959,703	1,974,777
1856	537,934	2,176,631	2,714,565	872,179	791,433	1,663,612
1857	631,368	2,475,296	3,106,664	1,348,614	1,239,846	2,588,460
1858	868,094	2,576,795	3,444,889	1,129,555	1,199,238	2,328,791
1859	938,491	2,535,996	3,474,487	1,434,820	1,089,932	2,524,752
1860	1,043,052	2,508,187	3,551,239	1,638,994	911,592	2,550,586
1861	801,491	2,862,259	3,663,750	1,724,710	981,467	2,706,270
1862	836,319	3,406,820	4,243,139	1,703,574	790,546	2,494,190
1863	1,011,995	4,421,811	5,433,806	2,407,578	1,179,656	3,587,234
1864	1,651,587	3,873,377	5,526,964	2,015,326	1,096,942	3,112,268
1865	904,255	4,117,924	5,022,179	2,420,056	1,145,101	3,565,157
1866	1,590,686	3,370,374	4,961,060	2,385,126	1,201,326	3,586,452

Extent, Population, Revenue &c. of Ceylon.—The area of Ceylon and its dependent islets is estimated at 24,700 square miles. Its population, according to a census taken in 1866, amounted to 2,088,027, of whom about 17,545 were whites. The population has increased very largely since the last census.

The revenue of 1866 was about 962,873*l.* That of 1865 was 978,492*l.* (*Blue Book* for 1867.)

Public Debt.—The public debt of the colony in 1865 amounted to 450,000*l.* raised on debentures bearing 6 per cent. Of this, the sum of 100,000*l.*, which is payable on November 15, 1868, is the balance raised for the purpose of paying the debt due by the Ceylon Government to the railway company, and the sum of 350,000*l.* is a part of 1,000,000*l.* proposed to be raised on debentures under ordinances of 1862 and 1864. 46 miles of the Ceylon Railway were open for general traffic on Nov. 1, 1866, and on Aug. 1, 1867, it was opened for passengers to Kandy. The Electric Telegraph established in the island is worked profitably.

COMMANDITE (Partnerships en). [Companies.]

COMMERCE (from *commutatio mercium*). As its name imports, commerce is simply the exchange of commodities for commodities.

I. Origin of Commerce. — Mercantile Classes.
II. Home Trade.
III. Foreign Trade.
IV. Restrictions on Commerce.

I. Origin of Commerce.—Mercantile Classes.

(1.) The *Origin of Commerce* is coeval with the first dawn of civilisation. The moment that individuals ceased to supply themselves directly with the various articles and accommodations they made use of, that moment must a commercial intercourse have begun to grow up amongst them. For it is only by exchanging that portion of the produce raised by ourselves that exceeds our own consumption, for portions of the surplus produce raised by others, that the division of employments can be introduced, or that different individuals can apply themselves in preference to different pursuits.

Not only, however, does commerce enable the inhabitants of the same village or parish to combine their separate efforts to accomplish some common object, but it also enables those of different provinces and kingdoms to apply themselves in an especial manner to those callings for the successful prosecution of which the district or country which they occupy gives them some peculiar advantage. This *territorial division of labour* has contributed more, perhaps, than anything else to increase the wealth and accelerate the civilisation of mankind. Were it not for this, we should be destitute of a vast number of the necessaries, comforts, and enjoyments which we now possess; while the price of the few that would remain would, in most instances, be very greatly increased. But whatever advantages may be derived—and it is hardly possible to exaggerate either their magnitude or importance—from availing ourselves of the peculiar capacities of production enjoyed by others, are wholly to be ascribed to commerce as their real source and origin.

We do not mean to say anything in this article with respect to the practical details connected with the different departments of commerce. These will be found under the various titles to which they refer. Our object, at present, is merely to show the nature and influence of commerce in general, and the restrictions that have sometimes been imposed upon it. We shall begin by endeavouring, first of all, to give some account of the nature of the services performed by the individuals by whom commercial undertakings are usually carried on. In the second place, we shall consider the influence of the *home* trade, or of the intercourse subsisting amongst individuals of the same country. In the third place, we shall consider the

influence of *foreign* trade, or of that intercourse which subsists amongst individuals belonging to different countries. After these topics have been discussed, we shall offer a few remarks on what has been termed the restrictive system, or on the principles involved in the regulations enacted at different times in this and other countries for the government and direction of commerce.

(2.) *Mercantile Classes.*—While the exchange of different products is carried on by the producers themselves, they must unavoidably lose a great deal of time, and experience many inconveniences. Were there no merchants, a farmer wishing to sell his crop would be obliged, in the first place, to seek for customers, and to dispose of his corn as nearly as possible in such quantities as might suit the demands of the various individuals inclined to buy it; and after getting its price, he would next be obliged to send to 10 or 20 different and, perhaps, remote places, for the commodities he wanted to get in its stead. So that, besides being exposed to a world of trouble and inconvenience, his attention would be continually diverted from the labours of his farm. Under such a state of things, the work of production, in every different employment, would be meeting with perpetual interruptions, and many branches of industry that are successfully carried on in a commercial country would not be undertaken.

The establishment of a distinct mercantile class effectually obviates these inconveniences. When a set of dealers erect warehouses and shops for the purchase and sale of all descriptions of commodities, every producer, relieved from the necessity of seeking customers, and knowing beforehand where he may at all times be supplied with such products as he requires, devotes his whole time and energies to his proper business. The intervention of merchants gives a continuous and uninterrupted motion to the plough and the loom. Were the class of traders annihilated, all the springs of industry would be paralysed. The numberless difficulties that would then occur in effecting exchanges would lead each particular family to endeavour to produce all the articles they had occasion for: society would thus be thrown back into primæval barbarism and ignorance; the divisions of labour would be relinquished; and the desire to rise in the world and improve our condition would decline, according as it became more difficult to gratify. What sort of agricultural management could be expected from farmers who had to manufacture their own wool, and make their own shoes? And what sort of manufacturers would those be who were every now and then obliged to leave the shuttle for the plough, or the needle for the anvil? A society without that distinction of employments and professions resulting from the division of labour, that is, *without commerce*, would be totally destitute of arts or sciences of any sort. It is by the assistance each individual renders to and receives from his neighbours, by every one applying himself in preference to some peculiar task, and combining, though probably without intending it, his efforts with those of others, that civilised man becomes equal to the most gigantic efforts, and appears endowed with almost omnipotent power.

The mercantile class has generally been divided into two subordinate classes—the wholesale dealers and the retail dealers. The former purchase the various products of art and industry in the places where they are produced, or are least valuable, and carry them to those where they are more valuable, or where they are more in demand; and the latter, having purchased the commodities of the wholesale dealers, or the producers, collect them in shops, and sell them in such quantities and at such times as may best suit the public demand. These classes of dealers are alike useful; and the separation that has been effected between their employments is one of the most advantageous divisions of labour. The operations of the wholesale merchant are analogous to those of the miner. Neither the one nor the other makes any change on the bodies which he carries from place to place. All the difference between them consists in this—that the miner carries them from below ground to the surface of the earth, while the merchant carries them from one point to another on its surface. Hence it follows that the value given to commodities by the operations of the wholesale merchant may frequently exceed that given to them by the producers. The labour or expense required to dig a quantity of coal from the mine does not exceed what is required for its conveyance from Newcastle to London; and it is a far more difficult and costly affair to fetch a piece of timber from Canada to England than to cut down the tree. In this respect there is no difference between commerce and agriculture and manufactures. The latter give utility to matter by bestowing on it such a shape as may best fit it for ministering to our wants and comforts; and the former gives additional utility to the products of the agriculturist and manufacturer by bringing them from where they are of comparatively little use, or are in excess, to where they are of comparatively great use, or are deficient.

If the wholesale merchant were himself to retail the goods he has brought from different places, he would require a proportional increase of capital; and it would be impossible for him to give that exclusive attention to any department of his business which is indispensable to its being carried on in the best manner. It is for the interest of each dealer, as of each workman, to confine himself to some one business. By this means each trade is better understood, better cultivated, and carried on in the cheapest possible manner. But whether carried on by a separate class of individuals or not, it is obvious that the retailing of commodities is indispensable. It is not enough that a cargo of tea should be imported from China, or a cargo of sugar from Jamaica. Most individuals have some demand for these articles; but there is not, perhaps, a single private person, even in London, requiring so large a supply for his own consumption. It is clear, therefore, that they must be *retailed*; that is, they must be sold in such quantities and at such times as may be most suitable for all classes of consumers. And since it is admitted, on all hands, that this necessary business will be best conducted by a class of traders distinct from the wholesale dealers, it is impossible to doubt that their employment is equally conducive as that of the others to the public interest, or that it tends equally to augment national wealth and comfort.

II. Home Trade.

The observations already made serve to show the influence of the home trade in allowing individuals to confine their attention to some one employment, and to prosecute it without interruption. But it is not in this respect only that the establishment of the home trade is advantageous. It is so in a still greater degree by its allowing the inhabitants of the different districts of the empire to turn their labour into those channels in which it will be most productive. The different soils, different minerals, and different climates of different districts fit them for being appropriated, in preference, to certain

species of industry. A district like Lancashire, where coal is abundant, which has an easy access to the ocean, and a considerable command of internal navigation, is the natural seat of manufactures. Wheat and other species of grain are the natural products of rich arable soils; and cattle, after being reared in mountainous districts, are most advantageously fattened in meadows and low grounds. Hence it follows that the inhabitants of different districts, by confining themselves to those branches of industry for the successful prosecution of which they have some peculiar capability, and exchanging their surplus produce for that of others, will obtain an incomparably larger supply of all sorts of useful and desirable products than they could do were they to apply themselves indiscriminately to every different business. The territorial division of labour is, if possible, even more advantageous than its division among individuals. A person may be what is commonly called *Jack of all trades*; and though it is next to certain that he will not be well acquainted with any one of them, he may nevertheless make some sort of rude efforts in them all. But it is not possible to apply the same soils or the same minerals to every different purpose. Hence it is that the inhabitants of the richest and most extensive country, provided it were divided into small districts without any intercourse with each other or with foreigners, could not, how well soever labour might be divided among themselves, be otherwise than poor and miserable. Some of them might have a superabundance of corn, at the same time that they were wholly destitute of wine, coal, and iron; while others might have the largest supplies of the latter articles, with but very little grain. But in commercial countries no such anomalies can exist. Opulence and comfort are there universally diffused. The labours of the mercantile classes enable the inhabitants of each district to apply themselves principally to those employments that are naturally best suited to them. This superadding of the division of labour among different provinces to its division among different individuals renders the productive powers of industry immeasurably greater; and augments the mass of necessaries, conveniences, and enjoyments in a degree that could not previously have been conceived possible, and which cannot be exceeded except by the introduction of foreign commerce.

'With the benefit of commerce,' says an eloquent and philosophical writer, 'or a ready exchange of commodities, every individual is enabled to avail himself, to the utmost, of the peculiar advantage of his place; to work on the peculiar materials with which nature has furnished him; to humour his genius or disposition, and betake himself to the task in which he is peculiarly qualified to succeed. The inhabitant of the mountain may betake himself to the culture of his woods and the manufacture of his timber; the owner of pasture lands may betake himself to the care of his herds; the owner of the clay-pit to the manufacture of his pottery; and the husbandman to the culture of his fields, or the rearing of his cattle. And any one commodity, however it may form but a small part in the accommodations of human life, may, under the facility of commerce, find a market in which it may be exchanged for what will procure any other part or the whole; so that the owner of the clay-pit, or the industrious potter, without producing any one article immediately fit to supply his own necessities, may obtain possession of all that he wants. And commerce, in which it appears that commodities are merely exchanged and nothing produced, is nevertheless in its effects very productive, because it ministers a facility and an encouragement to every artist in multiplying the productions of his own art; thus adding greatly to the mass of wealth in the world in being the occasiont hat much is produced.' (Ferguson's *Principles of Moral Science*, vol. ii. p. 424.)

The roads and canals that intersect a country, and open an easy communication between its remotest extremities, render the greatest service to internal commerce, and also to agriculture and manufactures. A diminution of the expense of carriage has, in fact, the same effect as a diminution of the direct cost of production. If the coals brought into a city sell at 20*s.* a ton, of which the carriage amounts to a half, or 10*s.*, it is plain that in the event of an improved communication, such as a more level or direct road, a railway, or a canal, being opened for the conveyance of the coals, and that they can, by its means, be imported for half the previous expense, their price will immediately fall to 15*s.* a ton; just as it would have done had the expense of extracting them from the mine been reduced a half.

Everyone acquainted with the merest elements of political science is aware that employments are more and more subdivided, that more powerful machinery is introduced, and the productive powers of labour increased, according as larger masses of the population congregate together. In a great town like London, Glasgow, or Manchester, the same number of hands will perform much more work than in a small village, where each individual has to perform several operations, and where the scale of employment is not sufficiently large to admit of the introduction of extensive and complicated machinery. But the great towns with which England is studded could not exist without our improved means of communication. These, however, enable their inhabitants to supply themselves with the bulky products of the soil and of the mines almost as cheaply as if they lived in country villages; securing to them all the advantages of concentration, with but few of its inconveniences. Roads and canals are thus productive of a double benefit; for while, by affording comparatively cheap raw materials to the manufacturers, they give them the means of perfecting the divisions of labour, and of supplying proportionally cheap manufactured goods; the latter are conveyed by their means, and at an extremely small expense, to the remotest parts of the country. The direct advantages which they confer on agriculture are not less important. Without them it would not be possible to carry to a distance sufficient supplies of lime, marl, shells, and other bulky and heavy articles necessary to give luxuriance to the crops of rich soils, and to render those that are poor productive. Good roads and canals, therefore, by furnishing the agriculturists with cheap and abundant supplies of manure, reduce, at one and the same time, the *cost of producing* the necessaries of life, and the cost of bringing them to market.

In other respects, the advantages resulting from improved communications are probably even more striking. They give the same common interest to every different part of the most widely extended empire; and put down, or rather prevent, any attempt at monopoly on the part of the dealers of particular districts, by bringing them into competition with those of all the others. Nothing in a state enjoying great facilities of communication is separate and unconnected. All is mutual, reciprocal, and dependent. Every man naturally gets into the precise situation that he is best fitted to fill; and each, co-operating with every one else, contributes to the utmost of his power to

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extend the limits of production and civilisation. [Roads.]

Such being the nature and vast extent of the advantages derived from the home trade, it is obviously the duty of the Legislature to give it every proper encouragement and protection. It will be found, however, on a little consideration, that this duty is rather negative than positive; that it consists less in the framing of regulations than in the removal of obstacles. The error of governments in matters of trade has not been that they have done too little, but that they have attempted too much. It will be afterwards shown that the encouragement which has been afforded to the producers of certain species of articles in preference to others has uniformly been productive of disadvantage. In the mean time it is sufficient to observe that the encouragement which a prudent and enlightened government bestows on industry will equally extend to all its branches; and will be especially directed to the removal of every thing that may in any respect fetter the freedom of commerce, and the power of individuals to engage in different employments. All regulations, whatever be their object, that operate either to prevent the circulation of commodities from one part of the empire to another, or the free circulation of labour, necessarily tend to check the division of employments and the spirit of competition and emulation, and must, in consequence, lessen the amount of produce. The same principle that prompts to open roads, to construct bridges and canals, should lead every people to erase from the statute book every regulation which either prevents or fetters the operations of the merchant, and the free disposal of capital and labour. Whether the freedom of internal commerce and industry be interrupted by impassable mountains and swamps, or by oppressive tolls or restrictive regulations, the effect is equally pernicious.

The common law and the ancient statute law of England are decidedly hostile to monopolies, or to the granting of powers to any particular class of individuals to furnish the market with commodities. Lord Coke distinctly states 'that all monopolies concerning trade and traffic are against the liberty and freedom granted by the Great Charter, and divers other Acts of Parliament which are good commentaries upon that charter.' (2 *Inst.* 63.) And he affirms, in another place, that 'Commercium jure gentium commune esse debet, et non in monopolium et privatum paululorum questum convertendum. Iniquum est aliis permittere, aliis inhibere mercaturam.'

But, notwithstanding this concurrence of the common and statute law of the country in favour of the freedom of industry, the notion that the Crown was by its prerogative entitled to dispense with any law to the contrary, and to establish monopolies, became fashionable among the court lawyers, and was acted upon to a very great extent during the arbitrary reigns of the princes of the house of Tudor. Few things, indeed, occasioned so much dissatisfaction in the reign of Elizabeth as the multiplication of monopolies; and notwithstanding the opposition made by the Crown, and the Court party in Parliament, the grievance became at length so intolerable as to give rise to the famous statute of 1624 (21 Jas. I. c. 3), by which all monopolies, grants, letters patent, and licenses, for the sole buying, selling, and making of goods and manufactures, not given by an act of the Legislature, are declared to be '*altogether contrary to the laws of this realm, void, and of none effect.*' This statute has been productive of the greatest advantage; and has, perhaps, contributed more than any other to the development of industry, and the accumulation of wealth. With the exception of the monopoly of printing Bibles, and the restraints imposed by the charters of bodies legally incorporated, the freedom of internal industry has ever since been vigilantly protected; full scope has been given to the principle of competition; the whole kingdom has been subjected to the same equal law; no obstacles have been thrown in the way of the freest transfer of commodities from one country or place to another; the home trade has been perfectly unfettered; and though the public have not been supplied with commodities at so low a price as they might have obtained them for, had there been no restrictions on foreign commerce, they have obtained them at the lowest price that would suffice to pay the *home producers* the cost of producing and bringing them to market. It is to this freedom that the comparatively flourishing state of industry in Great Britain is mainly to be ascribed.

III. Foreign Trade.

What the home trade is to the different provinces of the same country, foreign trade is to all the countries of the world. Particular countries produce only particular commodities, and, were it not for foreign commerce, would be entirely destitute of all but such as are indigenous to their own soil. It is difficult for those who have not reflected on the subject to imagine what a vast deduction would be made, not only from the comforts, but even from the necessaries, of every commercial people, were its intercourse with strangers put an end to. It is not, perhaps, too much to say that in Great Britain we owe to our intercourse with others a full half or more of all that we enjoy. We are not only indebted to it for the cotton and silk manufactures, and for supplies of wine, tea, coffee, sugar, the precious metals &c., but we are also indebted to it for most of the fruits and vegetables that we now cultivate. At the same time, too, that foreign commerce supplies us with an immense variety of most important articles, of which we must otherwise have been wholly ignorant, it enables us to employ our industry in the mode in which it is sure to be most productive, and reduces the price of almost every article. We do not misemploy our labour in raising sugar from the beet-root, in cultivating tobacco, or in forcing vines; but we employ ourselves in those departments of manufacturing industry in which our command of coal, of capital, and of improved machinery gives us an advantage; and obtain the articles produced more cheaply by foreigners, in exchange for the surplus produce of those branches in which we have a superiority over them. A commercial nation like England avails herself of all the peculiar facilities of production given by Providence to different countries. To produce claret here is perhaps impossible; and at all events it could not be accomplished unless at more than 100 times the expense required for its production in France. We do not, however, deny ourselves the gratification derivable from its use; and to obtain it, we have only to send to France, or to some country to which France is indebted, some articles in the production of which we have an advantage, and we get claret in exchange at the price which it takes to raise it under the most favourable circumstances. One country has peculiar capacities for raising corn, but is at the same time destitute of wine, silk, and tea; another, again, has peculiar facilities for raising the latter, but is destitute of the former; and it is impossible to point out a single country which is abundantly supplied with any considerable variety of commo-

dities of domestic growth. '*Non omnis fert omnia tellus.*' Providence, by giving to each particular nation something which the others want, has evidently intended that they should be mutually dependent upon one another. And it is not difficult to see that, cæteris paribus, those must be the richest and most abundantly supplied with every sort of useful and desirable accommodation who cultivate the arts of peace with the greatest success, and deal with all the world on fair and liberal principles.

'The commerce of one country with another is, in fact,' to use the words of an able and profound writer, 'merely an extension of that division of labour by which so many benefits are conferred upon the human race. As the same country is rendered the richer by the trade of one province with another; as its labour becomes thus infinitely more divided and more productive than it could otherwise have been; and as the mutual supply to each other of all the accommodations which one province has, and another wants, multiplies the accommodations of the whole, and the country becomes thus in a wonderful degree more opulent and happy; the same beautiful train of consequences is observable in the world at large—that great empire of which the different kingdoms and tribes of men may be regarded as the provinces. In this magnificent empire, too, one province is favourable to the production of one species of accommodation, and another province to another; by their mutual intercourse they are enabled to sort and distribute their labour as most peculiarly suits the genius of each particular spot. The labour of the human race thus becomes much more productive, and every species of accommodation is afforded in much greater abundance. The same number of labourers, whose efforts might have been expended in producing a very insignificant quantity of home-made luxuries, may thus, in Great Britain, produce a quantity of articles for exportation, accommodated to the wants of other places, and peculiarly suited to the genius of Britain to furnish, which will purchase for her an accumulation of the luxuries of every quarter of the globe. There is not a greater proportion of her population employed in administering to her luxuries in consequence of her commerce; there is probably a good deal less; but their labour is infinitely more productive: the portion of commodities which the people of Great Britain acquire by means of the same labour is vastly greater.' (Mill's *Commerce Defended*, p. 38.)

What has been already stated is sufficient to expose the utter fallacy of the opinion that has sometimes been maintained, that whatever one nation may gain by her foreign commerce must be lost by some one else. It is singular, indeed, how such a notion should ever have originated. Commerce *is not directly productive*, nor is the good derived from it to be estimated by its immediate effects. What commercial nations give is uniformly the fair equivalent of what they get. In their dealings they do not prey upon each other, but are benefited alike. The advantage of commerce consists in its enabling labour to be divided, and giving each people the power of supplying themselves with the various articles for which they have a demand, at the lowest price required for their production in those countries and places where they are raised with the greatest facility. We import wine from Portugal, and cotton from America, sending in exchange cloth and other species of manufactured goods. By this means we obtain two very important articles, which it would be all but impossible to produce at home, and which we could not, certainly, produce except at an infinitely greater cost. But our gain is no loss to the foreigners. They derive precisely the same sort of advantage from the transaction that we do. We have very superior facilities for manufacturing, and they get from us cloth, hardware, and other important articles, at the price at which they can be produced in this country, and consequently for far less than their direct production would have cost them. The benefits resulting from an intercourse of this sort are plainly mutual and reciprocal. Commerce gives no advantage to any one people over any other people; but it increases the wealth and enjoyments of *all* in a degree that could not previously have been conceived possible.

But the influence of foreign commerce in multiplying and cheapening conveniences and enjoyments, vast as it most certainly is, is perhaps inferior to its indirect influence—that is, to its influence on industry, by adding immeasurably to the mass of desirable articles, by inspiring new tastes, and stimulating enterprise and invention by bringing each people into competition with foreigners, and making them acquainted with their arts and institutions

The apathy and languor that exist in a rude state of society have been universally remarked. But these uniformly give place to activity and enterprise, according as man is rendered familiar with new objects, and is inspired with a desire to obtain them. An individual might, with comparatively little exertion, furnish himself with an abundant supply of the commodities essential to his subsistence; and if he had no desire to obtain others, or if that desire, however strong, could not be gratified, it would be folly to suppose that he should be laborious, inventive, or enterprising. But, when once excited, the wants and desires of man become altogether illimitable; and to excite them, no more is necessary than to bring new products and new modes of enjoyment within his reach. Now, the sure way to do this is to give every facility to the most extensive intercourse with foreigners. The markets of a commercial nation being filled with the various commodities of every country and every climate, the motives and gratifications which stimulate and reward the efforts of the industrious are proportionally augmented. The husbandman and manufacturer exert themselves to increase their supplies of raw and manufactured produce, that they may exchange the surplus for the products imported from abroad; and the merchant, finding a ready demand for such products, is prompted to import a greater variety, to find out cheaper markets, and thus constantly to afford new incentives to the vanity and ambition, and consequently to the enterprise and industry, of his customers. The whole powers of the mind and the body are thus called into action; and the passion for foreign commodities—a passion which has sometimes been ignorantly censured—becomes one of the most efficient causes of wealth and civilisation.

Not only, however, does foreign commerce excite industry, distribute the gifts of nature, and enable them to be turned to the best account, but it also distributes the gifts of science and of art, and gives to each particular country the means of profiting by the inventions and discoveries of others as much as by those of her own citizens. The ingenious machine invented by Mr. Whitney, of the United States, for separating cotton wool from the pod, by reducing the cost of the raw material of one of our principal manufactures, has been quite as advantageous to us as to his own countrymen; and the discoveries and inventions of Watt, Arkwright, and Wedgwood, by reducing the cost of the articles we send abroad, have been

as advantageous to our foreign customers as to ourselves. Commerce has caused the blessings of civilisation to be universally diffused, and the treasures of knowledge and science to be conveyed to the remotest corners. Its humanising influence is, in this respect, most important; while, by making each country depend for the means of supplying a considerable portion of its wants on the assistance of others, it has done more than any thing else to remove a host of the most baleful prejudices, and to make mankind regard each other as friends and brothers, and not as enemies. The dread, once so prevalent, of the progress of other nations in wealth and civilisation is now universally admitted to be as absurd as it is illiberal. While every people ought always to be prepared to resist and avenge any attack upon their independence or their honour, it is not to be doubted that their real prosperity will be best secured by their endeavouring to live at peace. 'A commercial war, whether crowned with victory or branded with defeat, can never prevent another nation from becoming more industrious than you are; and if they are more industrious they will sell cheaper; and consequently your customers will forsake your shop and go to theirs. This will happen though you covered the ocean with fleets, and the land with armies. The soldier may lay waste; the privateer, whether successful or unsuccessful, will make poor; but it is the eternal law of Providence that "*the hand of the diligent can alone make rich.*"' (Tucker's *Four Tracts*, p. 41, 3rd ed.)

Mr. Hume has beautifully illustrated the powerful and salutary influence of that spirit of industry and enterprise resulting from the eager prosecution of commerce and the arts. 'Men,' says he, 'are then kept in perpetual occupation, and enjoy, as their reward, the occupation itself, as well as those pleasures which are the fruits of their labour. The mind acquires new vigour; enlarges its powers and faculties; and, by an assiduity in honest industry, both satisfies its natural appetites, and prevents the growth of unnatural ones, which commonly spring up when nourished with ease and idleness. Banish those arts from society, you deprive men both of action and of pleasure; and, leaving nothing but indolence in their place, you even destroy the relish of indolence, which never is agreeable but when it succeeds to labour, and recruits the spirits, exhausted by too much application and fatigue.

'Another advantage of industry and of refinements in the mechanical arts is, that they commonly produce some refinements in the liberal; nor can the one be carried to perfection without being accompanied in some degree with the other. The same age which produces great philosophers and politicians, renowned generals and poets, usually abounds with skilful weavers and ship-carpenters. We cannot reasonably expect that a piece of woollen cloth will be wrought to perfection in a nation which is ignorant of astronomy, or where ethics are neglected. The spirit of the age affects all the arts; and the minds of men, being once roused from their lethargy, and put into a fermentation, turn themselves on all sides, and carry improvements into every art and science. Profound ignorance is totally banished; and men enjoy the privilege of rational creatures, to think as well as to act, to cultivate the pleasures of the mind as well as those of the body.

'The more these refined arts advance, the more sociable do men become; nor is it possible that, when enriched with science, and possessed of a fund of conversation, they should be contented to remain in solitude, or live with their fellow-citizens in that distant manner which is peculiar to ignorant and barbarous nations. They flock into cities; love to receive and communicate knowledge; to show their wit or their breeding; their taste in conversation or living, in clothes or furniture. Curiosity allures the wise, vanity the foolish, and pleasure both. Particular clubs and societies are every where formed; both sexes meet in an easy and sociable manner; and the tempers of men, as well as their behaviour, refine apace. So that beside the improvements they receive from knowledge and the liberal arts, it is impossible but they must feel an increase of humanity from the very habit of conversing together, and contributing to each other's pleasure and entertainment. Thus *industry*, *knowledge*, and *humanity* are linked together by an indissoluble chain; and are found, from experience as well as reason, to be peculiar to the more polished, and what are commonly denominated the more luxurious ages.' (*Essay of Refinement in the Arts.*)

Most commercial treatises, and most books on political economy, contain lengthened statements as to the comparative advantages derived from the home and foreign trade. But these statements are almost always bottomed on the most erroneous principles. The quantity and value of the commodities which the inhabitants of an extensive country exchange with each other, is far greater than the quantity and value of those they exchange with foreigners; but this is not, as is commonly supposed, enough to show that the home trade is proportionally more advantageous. Commerce, it must be borne in mind, is not a direct but an indirect source of wealth. The mere exchange of commodities adds nothing to the riches of society. The influence of commerce on wealth consists in its allowing employments to be separated and prosecuted without interruption. It gives the means of pushing the divisions of labour to the furthest extent, and supplies mankind with an infinitely greater quantity of necessaries and accommodations of all sorts than could have been produced, had individuals and nations been forced to depend upon their own comparatively feeble efforts for the supply of their wants. And hence, in estimating the comparative advantageousness of the home and foreign trades, the real questions to be decided are, which of them contributes most to the division of labour? and which of them gives the greatest stimulus to invention and industry? These questions do not, perhaps, admit of any very satisfactory answer. The truth is, that both home trade and foreign trade are most prolific sources of wealth. Without the former, no division of labour could be established, and man would for ever remain in a barbarous state. Hence, perhaps, we may say that it is the most indispensable; but the length to which it could carry any particular country in the career of civilisation would be limited indeed. Had Great Britain been cut off from all intercourse with strangers, there is no reason for thinking that we should have been at this day advanced beyond the point to which our ancestors had attained during the Heptarchy! It is to the products and the arts derived from others, and to the emulation inspired by their competition and example, that we are mainly indebted for the extraordinary progress we have already made, as well as for that we are yet destined to make.

Adam Smith, though he has satisfactorily demonstrated the impolicy of all restrictions on the freedom of commerce, has, notwithstanding, endeavoured to show that it is more for the public advantage that capital should be employed in the home trade than in foreign trade, on the ground

that the capitals employed in the former are more frequently returned, and that they set a greater quantity of labour in motion than those employed in the latter. But we have elsewhere endeavoured to show that the rate of profit which different businesses yield is the only test of their respective advantageousness. (*Principles of Political Economy*, 3rd ed. pp. 165–181.) Now, it is quite evident that capital will not be employed in foreign trade unless it yield as much profit as could be made by employing it at home. No merchant sends a ship to China, if it be in his power to realise a larger profit by sending her to Dublin or Newcastle; nor would any one build a ship unless he expected that the capital so laid out would be as productive as if it were employed in agriculture or manufactures. The more or less rapid return of capital is a matter of very little importance. If the average rate of profit be 10 per cent., an individual who turns over his capital 10 times a-year will make *one* per cent. of profit each time; whereas if he turns it only once a-year, he will get the whole 10 per cent. at once. Competition reduces the rate of nett profit to about the same level in all businesses; and we may be quite certain that those who employ themselves in the departments in which capital is most rapidly returned do not, at an average, gain more than those who employ themselves in the departments in which the returns are most distant. No one is a foreign merchant because he would rather deal with foreigners than with his own countrymen, but because he believes he will be able to employ his capital more advantageously in foreign trade than in any other business; and while he does this, he is following that employment which is most beneficial for the public as well as for himself.

IV. Restrictions on Commerce.

The statements already made, by explaining the nature and principles of commercial transactions, are sufficient to evince the inexpediency of subjecting them to any species of restraint. It is obvious, indeed, that restrictions are founded on false principles. When individuals are left to pursue their own interest in their own way, they naturally resort to those branches of industry which they reckon most advantageous for themselves; and as we have just seen, these are the very branches in which it is most for the public interest that they should be employed. Unless, therefore, it could be shown that a Government can judge better as to what sort of transactions are profitable or otherwise than private individuals, its regulations cannot be of the smallest use, and may be exceedingly injurious. But any such pretension on the part of Government would be universally scouted. It is undeniably certain that a regard to our own interest is, if not an unerring guide to direct us in such matters, at least incomparably better than any other. If the trade with a particular country or in a particular commodity be a losing one, or merely a less profitable one than others, it is quite as unnecessary to pass an Act to prevent it from being carried on, as it would be to interfere to prevent individuals from selling their labour or their commodities below the market price. It appears, therefore, that all regulations affecting the freedom of commerce, or of any branch of industry, are either useless or pernicious. They are useless, when they are intended to protect the interest of individuals by preventing them from engaging in disadvantageous businesses; and pernicious, when they prevent them from engaging in those that are advantageous. The self-interest of the parties concerned is the only safe principle to go by in such matters. When the acts of the Legislature are in unison with it, there is nothing to object to in them save only that they might as well not exist; but whenever they are inconsistent with it—that is, whenever they tend to divert capital and industry into channels into which individuals, if left to their own discretion, would not have carried them—they are decidedly injurious.

No one denies that it is possible to confer, by means of a restrictive regulation, an advantage on a greater or less number of individuals. This, however, is no proof that it is advantageous in a public point of view; and it is by its influence in this respect that we are to decide concerning it. If the exclusion of an article imported from abroad in order to encourage its manufacture at home, raise its price in the home market, that circumstance will, for a while at least, be advantageous to those engaged in its production. But is it not clear that all that is thus gained by them is *lost by those who purchase the article?* To suppose, indeed, that the exclusion of commodities that are comparatively cheap, to make room for those that are comparatively dear, can be a means of enriching a country, is equivalent to supposing that a people's wealth might be increased by destroying their most powerful machines, and throwing their best soils out of cultivation.

But it is contended, that though this might be the case in the instance of commodities produced at home, it is materially different when the commodity excluded came to us from abroad. It is said, that in this case the exclusion of foreign produce increases the demand for that produced at home, and consequently contributes to increase the demand for labour; so that the rise of price it occasions is, in this way, more than balanced by the other advantages which it brings along with it. But the fact is, that though the demand for one species of produce may be increased by a prohibition of importation, the demand for some other species is sure to be at the same time equally diminished. There is no jugglery in commerce. Whether it be carried on between individuals of the same country, or of different countries, it is in all cases bottomed on a fair principle of reciprocity. Those who will not buy need not expect to sell, and conversely. It is impossible to export without making a corresponding importation. We get nothing from the foreigner gratuitously; and hence, when we prevent the importation of produce from abroad, we prevent, by the very same act, the exportation of an equal amount of British produce. All that the exclusion of foreign commodities ever effects is the substitution of one sort of demand for another. It has been said that 'when we drink beer and porter we consume the produce of English industry, whereas when we drink port or claret we consume the produce of the industry of the Portuguese and French, to the obvious advantage of the latter, and the prejudice of our countrymen!' But, how paradoxical soever the assertion may at first sight appear, there is not at bottom any real distinction between the two cases. What is it that induces foreigners to supply us with port and claret? The answer is obvious:—We either send directly to Portugal and France an *equivalent in British produce*, or we send such equivalent, in the first place to South America for bullion and then send that bullion to the continent to pay for the wine. And hence it is as clear as the sun at noon-day, that the Englishman who drinks only French wine, who eats only bread made of Polish wheat, and who wears only Saxon cloth, gives, by occasioning the exportation of a

corresponding amount of British cotton, hardware, leather, or other produce, the same encouragement to the industry of his countrymen that he would give were he to consume nothing not immediately produced at home. A quantity of port wine and a quantity of Birmingham goods are respectively of the same value; so that whether we directly consume the hardware, or, having exchanged it for the wine, consume the latter, must plainly, in so far as the employment of British labour is concerned, be altogether indifferent.

It is absolutely nugatory, therefore, to attempt to encourage industry at home by restraining importation from abroad. We might as well try to promote it by interdicting the exchange of shoes for hats. We only resort to foreign markets, that we may supply ourselves with articles that cannot be produced at home, or that require more labour to produce them here than is required to produce the equivalent exported to pay for them. It is, if any thing can be, an obvious contradiction and absurdity to attempt to promote wealth or industry by prohibiting an intercourse of this sort. Such prohibition, even when least injurious, is sure to force capital and labour into less productive channels, and cannot fail to diminish the foreign demand for one species of produce quite as much as it extends the home demand for another.

It is but seldom, however, that a restriction on importation from abroad does no more than substitute one sort of employment for another. Its usual effect is both to alter the distribution of capital and to increase the price of commodities. A country rarely imports any commodity from abroad that may be as cheaply produced at home. In the vast majority of instances, the articles bought of the foreigner could not be directly produced at home without a much greater outlay of capital. Suppose that we import 1,000,000*l.* worth of any commodity, that its importation is prohibited, and that the same quantity of produce cannot be raised in this country for less than 1,200,000*l.* or 1,500,000*l.*: in a case of this sort—and this is actually the case in 99 out of every 100 instances in which prohibitions are enacted—the prohibition has the same effect on the consumers of the commodity as if, supposing it not to have existed, they had been burdened with a peculiar tax of 200,000*l.* or 500,000*l.* a-year. But, had such been the case, what the consumers lost would have gone into the coffers of the treasury, and would have afforded the means of repealing an equal amount of other taxes; whereas, under the prohibitory system, the high price, being occasioned by an increased difficulty of production, is of no advantage to any one. So that, instead of gaining any thing by such a measure, the public incurs a dead loss of 200,000*l.* or 500,000*l.* a-year.

We have said that a prohibition of importation may be productive of immediate advantage to the home producers of the prohibited article. It is essential, however, to remark that this advantage cannot continue for any considerable time, and that it *must* be followed by a period of distress. Were the importation of foreign silks put an end to, that circumstance, by narrowing the supply of silk goods, and raising their prices, would, no doubt, be, in the first instance, advantageous to the manufacturers, by elevating their profits above the common level. But the consequence would be, that those already engaged in the trade would immediately set about extending their concerns; at the same time that not a few of those engaged in other employments would enter a business which presented such a favourable prospect: nor would this transference of capital to the silk manufacture be stopped till such an increased supply of silks had been brought to market as to occasion a glut. This reasoning is not founded upon hypothesis, but upon the widest experience. When a business is carried on under the protection of a restriction on importation, it is limited by the extent of the home market, and is incapable of further extension. It is, in consequence, particularly subject to that fluctuation which is the bane of industry. If, owing to a change of fashion, or any other cause, the demand be increased, then, as no supplies can be brought from abroad, prices suddenly rise, and the manufacture is rapidly extended, until a reaction takes place, and prices sink below their usual level; and if the demand decline, then, as there is no outlet abroad for the superfluous goods, their price is ruinously depressed, and the producers are involved in inextricable difficulties. The businesses deepest entrenched behind ramparts of prohibitions and restrictions, such as the silk trade previously to 1825, the West India trade, and agriculture since 1815, have undergone the most extraordinary vicissitudes, and have been at once more hazardous and less profitable than the businesses carried on under a system of fair and free competition.

A prohibition against buying in the cheapest markets is really, also, a prohibition against selling in the dearest markets. There is no test of high or low price except the quantity of other produce for which an article exchanges. Suppose that, by sending a certain quantity of cottons or hardware to Brazil, we might get in exchange 150 hhds. of sugar, and that the same quantity, if sent to Jamaica, would only fetch 100 hhds., is it not obvious that by preventing the importation of the former, we force our goods to be sold for *two-thirds* of the price they would otherwise have brought? To suppose that a system productive of such results can be a means of increasing wealth is to suppose what is evidently absurd. It is certainly true that a restrictive regulation, which has been long acted upon, and under which a large amount of capital is employed, should not be rashly or capriciously repealed. Every change in the public economy of a great nation ought to be gone about cautiously and gradually. Adequate time should be given to those who carry on businesses that have been protected, either to withdraw from them altogether, or to prepare to withstand the fair competition of foreigners. But this is *all* that such persons can justly claim. To persevere in an erroneous and oppressive system merely because its abandonment might be productive of inconvenience to individuals, would be a proceeding inconsistent with every object for which society is formed, and subversive of all improvement.

It may, perhaps, be supposed that in the event of commodities being imported from abroad, after the abolition of a protecting regulation, that were previously produced at home, the workmen and those engaged in their production would be thrown upon the parish. Such, however, is not the case. We may, by giving freedom to commerce, change the *species* of labour in demand, but it is not possible that we should thereby change its *quantity*. If, in consequence of the abolition of restrictions, our imports were increased 4,000,000*l.* or 5,000,000*l.*, our exports, it is certain, must be augmented to the same extent; so that whatever diminution of the demand for labour might be experienced in certain departments would be balanced by a corresponding increase in others.

The pressure of taxation has often been alleged as an excuse for restrictions on commerce; but it is not more valid than the rest. Taxation may

be heavy, and even oppressive; but so long as it is impartially and fairly assessed, it equally affects *all* branches of industry carried on at home, and consequently affords no ground whatever for the enactment of regulations intended to protect any particular business. And to propose to protect *all* branches of industry from foreign competition is, in effect, to propose to put a total stop to commerce; for if nothing is to be imported, nothing can be exported. The imposition of moderate duties on foreign commodities, for the sake of revenue, is quite another thing. Several of these commodities are among the very best subjects of taxation; and when the duties on them are confined within proper bounds—that is, when they are not so high as to exert any injurious influence over trade, or to occasion smuggling and fraud—they cannot fairly be objected to.

It is sometimes contended, by those who assert, on general grounds, that restrictions are inexpedient, that it would be unwise, on the part of any country, to abolish them until she had obtained a security that those imposed by her neighbours would also be abolished. But the reasons that have been alleged in favour of this statement are not entitled to the least weight. It is our business to buy in the cheapest and sell in the dearest markets, without being, in any degree, influenced by the conduct of others. If they consent to repeal the restrictions they have laid on commerce, so much the better. But whatever others may do, the line of policy *we* ought to follow is clear and well defined. To refuse, for example, to buy claret, brandy &c. from the French, because they lay restrictions on the importation of British hardware, cottons &c., is not to retaliate upon them, but upon ourselves. The fact that we *do* import French wine and brandy shows that we do export to France, or to some other country to which France is indebted, an equivalent, in some sort, of British produce. The fear of being glutted with foreign products, unless we secure beforehand a certain outlet for our own, is the most unfounded that can be imagined. The foreigner who will take nothing of ours, can send us nothing of his. Though our ports were open to the merchants of all the countries of the world, the exports of British produce must always be equal to the imports of foreign produce; and none but those who receive our commodities, either at first or second hand, could continue to send anything to us.

'Les étrangers ne peuvent demander ni désirer rien mieux que la liberté de vous acheter et de vous vendre chez vous et dans vos colonies. Il faut la leur accorder, non par foiblesse et par impuissance, mais parcequ'elle est juste en elle-même, et qu'elle vous est utile. Ils ont tort sans doute de la refuser chez eux; mais cette faute d'ignorance, dont, sans le savoir, ils sont punis les premiers, n'est pas une raison qui doive vous porter à vous nuire à vous-même en suivant cet exemple, et à vous exposer aux suites et aux dépenses d'une guerre pour avoir la vaine satisfaction d'user des représailles, dont l'effet ne peut manquer de retomber sur vous, et de rendre votre commerce plus désavantageux.' (Le Trosne, *De l'Ordre Social*, p. 416.)

There are some, however, who contend, that though restrictions on importation from abroad be unfavourable to opulence, and the advancement of individuals and nations in arts and civilisation, they may, notwithstanding, be vindicated on other grounds, as contributing essentially to independence and security. The short and decisive answer to this is to be found in the reciprocity of commerce. It does not enrich one individual or nation at the expense of others, but confers its favours equally on all. We are under no obligations to the Portuguese, the Russians, or any other people with whom we carry on trade. It is not *our* advantage, but *their own*, that they have in view in dealing with us. We give them the full value of all that we import; and they would suffer quite as much inconvenience as we should do were this intercourse put an end to. The independence at which those aspire who would promote it by laying restrictions on commerce is the independence of the solitary and unsocial savage; it is not an independence productive of strength, but of weakness. 'The most flourishing states, at the moment of their highest elevation, when they were closely connected with every part of the civilised world by the golden chains of successful commercial enterprise, were, according to this doctrine, in the most perfect state of absolute dependence. It was not till all these connections were dissolved, and they had sunk in the scale of nations, that their true independence commenced! Such statements carry with them their own refutation. There is a natural dependence of nations upon each other, as there is a natural dependence of individuals upon each other. Heaven has so ordered it. Some soils, some climates, some situations, are productive exclusively of some peculiar fruits, which cannot elsewhere be profitably produced. Let nations follow this as their guide. In a rich and rising community, the opulent capitalists may be as dependent upon the poor labourers as the poor labourers upon the opulent capitalists. So it is with nations. The mutual dependence of individuals upon each other knits and binds society together, and leads to the most rapid advancement in wealth, in intelligence, and in every kind of improvement. It is the same, but on a far larger scale, with the mutual dependence of nations. To this alone do we owe all the mighty efforts of commerce; and what lights, what generous feelings, and multiplied means of human happiness has it not every where spread!' (*North American Review*, No. 57.)

The principles of commercial freedom, and the injurious influence of restrictive regulations, were set in a very striking point of view by Adam Smith, in his great work; and they have been since repeatedly explained and elucidated. Perhaps, however, the true doctrines upon this subject have seldom been better stated than in the petition presented by the merchants of London to the House of Commons on May 8, 1820. This document afforded a convincing proof of the progress of liberal and enlarged views. It was subscribed by all the principal merchants of the metropolis, who expressed their conviction that the repeal of every *protective regulation* would be for the public advantage. Such an address, confirming, as it did, the conclusions of science, by the approval of the best informed and most extensive merchants of the world, had a powerful influence over the Legislature. It paved the way for the reforms introduced by Mr. Huskisson; and the advantages of which they were found to be productive helped to forward the still greater and more complete reforms carried through Parliament by Sir Robert Peel. These were so very extensive that they left but little for others to accomplish; and that little having been since effected, our commercial policy is of the most liberal description. The time anticipated by the poet has already come—

> When, free as sea or wind,
> Unbounded Thames shall flow for all mankind,
> Whole nations enter with each swelling tide,
> And seas but join the regions they divide.
>
> Pope's *Windsor Forest*, line 397.

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And while this change has been productive of vast advantage to this country, it has weakened the prejudices of others, and made them enter, to some extent at least, on the same enlightened course of policy.

The petition now referred to is too important to be omitted in a work of this sort. It was written by the late Thomas Tooke, Esq., author of the valuable work on Prices, and is as follows:—

'To the Honourable the Commons, &c. The Petition of the Merchants of the City of London,

'Sheweth,

'That foreign commerce is eminently conducive to the wealth and prosperity of a country, by enabling it to import the commodities for the production of which the soil, climate, capital, and industry of other countries are best calculated, and to export, in payment, those articles for which its own situation is better adapted.

'That freedom from restraint is calculated to give the utmost extension to foreign trade, and the best direction to the capital and industry of the country.

'That the maxim of buying in the cheapest market, and selling in the dearest, which regulates every merchant in his individual dealings, is strictly applicable as the best rule for the trade of the whole nation.

'That a policy founded on these principles would render the commerce of the world an interchange of mutual advantages, and diffuse an increase of wealth and enjoyments among the inhabitants of each state.

'That, unfortunately, a policy the very reverse of this has been and is more or less adopted and acted upon by the Government of this and every other country; each trying to exclude the productions of other countries, with the specious and well-meant design of encouraging its own productions; thus inflicting on the bulk of its subjects, who are consumers, the necessity of submitting to privations in the quantity or quality of commodities; and thus rendering what ought to be the source of mutual benefit and of harmony among states, a constantly recurring occasion of jealousy and hostility.

'That the prevailing prejudices in favour of the protective or restrictive system may be traced to the erroneous supposition that every importation of foreign commodities occasions a diminution or discouragement of our own productions to the same extent: whereas it may be clearly shown, that although the particular description of production which could not stand against unrestrained foreign competition would be discouraged, yet, as no importation could be continued for any length of time without a corresponding exportation, direct or indirect, there would be an encouragement, for the purpose of that exportation, of some other production to which our situation might be better suited; thus affording at least an equal, and probably a greater, and certainly a more beneficial, employment to our own capital and labour.

'That of the numerous protective and prohibitory duties of our commercial code, it may be proved that, while all operate as a very heavy tax on the community at large, very few are of any ultimate benefit to the classes in whose favour they were originally instituted, and none to the extent of the loss occasioned by them to other classes.

'That among the other evils of the restrictive or protective system, not the least is, that the artificial protection of one branch of industry or source of production against foreign competition is set up as a ground of claim by other branches for similar protection; so that if the reasoning upon which these restrictive or prohibitory regulations are founded were followed out consistently, it would not stop short of excluding us from all foreign commerce whatsoever. And the same train of argument, which, with corresponding prohibitions and protective duties, should exclude us from foreign trade, might be brought forward to justify the re-enactment of restrictions upon the interchange of productions (unconnected with public revenue) among the kingdoms composing the union, or among the counties of the same kingdom.

'That an investigation of the effects of the restrictive system at this time is peculiarly called for, as it may, in the opinion of your petitioners, lead to a strong presumption that the distress which now so generally prevails is considerably aggravated by that system, and that some relief may be obtained by the earliest practicable removal of such of the restraints as may be shown to be most injurious to the capital and industry of the community, and to be attended with no compensating benefit to the public revenue.

'That a declaration against the anti-commercial principles of our restrictive system is of the more importance at the present juncture, inasmuch as, in several instances of recent occurrence, the merchants and manufacturers of foreign countries have assailed their respective Governments with applications for further protective or prohibitory duties and regulations, urging the example and authority of this country, against which they are almost exclusively directed, as a sanction for the policy of such measures. And certainly, if the reasoning upon which our restrictions have been defended is worth any thing, it will apply in behalf of the regulations of foreign states against us. They insist upon our superiority in capital and machinery, as we do upon their comparative exemption from taxation, and with equal foundation.

'That nothing would tend more to counteract the commercial hostility of foreign states than the adoption of a more enlightened and more conciliatory policy on the part of this country.

'That although, as a matter of mere diplomacy, it may sometimes answer to hold the removal of particular prohibitions, or high duties, as depending upon corresponding concessions by other states in our favour, it does not follow that we should maintain our restrictions in cases where the desired concessions on their part cannot be obtained. Our restrictions would not be the less prejudicial to our own capital and industry because other Governments persisted in preserving impolitic regulations.

'That, upon the whole, the most liberal would prove to be the most politic course on such occasions.

'That independent of the direct benefit to be derived by this country on every occasion of such concession or relaxation, a great incidental object would be gained, by the recognition of a sound principle or standard, to which all subsequent arrangements might be referred; and by the salutary influence which a promulgation of such just views, by the Legislature and by the nation at large, could not fail to have on the policy of other states.

'That in thus declaring, as your petitioners do, their conviction of *the impolicy and injustice of the restrictive system*, and in desiring every practicable relaxation of it, they have in view only such parts of it as are not connected, or are only subordinately so, with the public revenue. As long as the necessity for the present amount of revenue subsists, your petitioners cannot expect so important a branch of it as the customs to be given up

nor to be materially diminished, unless some substitute less objectionable be suggested. But it is *against every restrictive regulation of trade not essential to the revenue, against all duties merely protective from foreign competition, and against the excess of such duties as are partly for the purpose of revenue and partly for that of protection*, that the prayer of the present petition is respectfully submitted to the wisdom of Parliament.

'May it therefore,' &c.

For an account of the doctrines with respect to the *balance of trade*, and the importation and exportation of the precious metals, see BALANCE OF TRADE, and EXCHANGE.

For an account of the articles imported into and exported from Great Britain, see IMPORTS AND EXPORTS.

COMPANIES. In Commerce or the Arts, a company is a number of persons associated for the purpose of carrying on some commercial or industrious undertaking. When there are only a few individuals associated, it is most commonly called a *copartnery*; the term company being usually applied to large associations, like the East India Company, the Bank of England, the Railway Companies &c., who conduct their operations by means of agents acting under the orders of a board of directors.

Companies have generally been divided into two great classes—exclusive or joint-stock companies, and open and regulated companies.

1. *Exclusive or Joint-Stock Companies.*—By an institution of this sort is meant a company having a certain amount of capital, divided into a greater or smaller number of transferable shares, managed for the common advantage of the shareholders by a body of directors chosen by and responsible to them. After the stock of a company of this sort has been subscribed, no one can enter it without previously purchasing one or more shares belonging to some of the existing members. The partners do nothing individually; all their resolutions are taken in common, and are carried into effect by the directors and those whom they employ.

According to the common law of England, all the partners in a joint-stock company are jointly and individually liable, to the whole extent of their fortunes, for the debts of the company. They may make arrangements amongst themselves, limiting their obligations with respect to each other; but unless established by an authority competent to set aside the general rule, they are all indefinitely responsible to the public. Parliament sometimes limits the responsibility of the shareholders in joint-stock companies established by statute, to the amount of the shares they respectively hold; and the 6 Geo. IV. c. 96 empowers the Crown to grant charters of incorporation by which the members of corporate bodies are made individually liable, to such extent, and subject to such regulations and restrictions, as may be deemed expedient. Hence charters are now frequently granted for the purpose merely of enabling companies to sue and be sued in courts of law, under the names of some of their office-bearers, without in any respect limiting the responsibility of the shareholders to the public. This limitation cannot be implied in a charter any more than in an Act of Parliament, and is held not to exist unless it be distinctly set forth.

'In a private copartnery, no partner, without the consent of the company, can transfer his share to another person, or introduce a new member into the company. Each member, however, may, upon proper warning, withdraw from the copartnery, and demand payment from them of his share of the common stock. In a joint-stock company, on the contrary, no member can demand payment of his share from the company; but each member may, without their consent, transfer his share to another person, and thereby introduce a new member. The value of a share in a joint-stock is always the price which it will bring in the market; and this may be either greater or less, in any proportion, than the sum which its owner stands credited for in the stock of the company.' (*Wealth of Nations*, p. 333.)

The law in regard to the formation and constitution of joint-stock companies was for many years principally determined by the 7 & 8 Vict. c. 110; the 7 & 8 Vict. c. 111 having been passed at the same time to facilitate their dissolution and winding up. These Acts and others were repealed by the 25 & 26 Vict. c. 89 (except sec. 47 of 7 and 8 Vict. c. 113, and part of sec. 12 of 20 & 21 Vict. c. 49), which is now (1868) the governing statute in regard to these companies. The powers given to different associations, though in some respects the same, differ widely in others, according to the special purposes for which they are organised. But it would be idle to attempt to specify in this place the peculiar rules and regulations affecting these institutions. Full information respecting most questions connected with the constitution and working of joint-stock companies may, however, be found in Thring's treatise on the law relating to these associations; and to it we beg to refer the reader.

2. *Utility of Joint-Stock Companies.*—Whenever the capital required to carry on any undertaking exceeds what may be furnished by an individual, it is indispensable, in order to the prosecution of the undertaking, that an association should be formed. In all those cases, too, in which the chances of success are doubtful, or where a lengthened period must necessarily elapse before an undertaking can be completed, an individual, though ready enough to contribute a small sum in connection with others, would, generally speaking, be very little inclined, even if he had the means, to encounter the whole responsibility of such enterprises. Hence the necessity and advantage of companies or associations. It is to them that we are indebted for those canals and railways by which every part of the country is intersected, for the formation of so many noble docks and warehouses, for the institution of our principal banks and insurance offices, and for many other establishments of great public utility carried on by the combined capital and energies of large bodies and individuals.

3. *Branches of Industry for the prosecution of which Joint-Stock Companies may be advantageously established.*—In order to ensure a rational prospect of success to a company, the undertaking should admit of being carried on according to a regular, systematic plan. The reason of this is sufficiently obvious. The business of a great association must be conducted by factors or agents; and unless it be of such a nature as to admit of their duties being clearly pointed out and defined, the association would cease to have any effectual control over them, and would be, in great measure, at their mercy. An individual who manages his own affairs reaps all the advantage derivable from superior skill, industry, and economy; but the agents, and even directors, of joint-stock companies, labour, in most cases, entirely or principally for the advantage of others; and cannot, therefore, however conscientious, have the same powerful motives to act with energy, prudence, and economy. 'Like,' says Adam Smith, 'the stewards of a rich man, they are apt to consider attention to small matters as not for their master's

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honour, and very easily give themselves a dispensation from having it. Negligence and profusion, therefore, must always prevail more or less in the management of the affairs of such a company.' It also not unfrequently happens that they suffer from the bad faith as well as the carelessness and extravagance of their servants; the latter having in many instances endeavoured to advance their own interests at the expense of their employers. Hence the different success of companies whose business may be conducted according to a nearly uniform system—such as dock, canal, railway, insurance, and banking companies—and those whose business does not admit of being reduced to any regular plan, and where much must always be left to the sagacity and enterprise of those employed. All purely commercial companies, trading upon a joint-stock, belong to the latter class. Not one of them has ever been able to withstand the competition of private adventurers; they cannot subject the agents they employ to buy and sell commodities in distant countries to any effectual responsibility; and from this circumstance, and the abuses that usually insinuate themselves into every department of their management, no such company has ever succeeded, unless when it has obtained some exclusive privilege, or been protected from competition.

And even with these advantages, such is the negligence, profusion, and peculation inseparable from the management of great commercial companies, that those that have had the monopoly of the most advantageous branches of commerce have rarely been able to keep out of debt. It will be shown in the article East India Company, that that association lost by its trade; and that, had it not been for the aid derived from the revenues of India, it would long since have ceased to exist. To buy in one market; to sell with profit in another; to watch over the perpetually occurring variations in the prices, and in the supply and demand of commodities; to suit with dexterity and judgment the quantity and quality of goods to the wants of each market; and to conduct each operation in the best and cheapest manner; requires a degree of unremitting vigilance and attention which it would be visionary to expect from the directors or servants of a great joint-stock association. Hence it has happened, over and over again, that branches of commerce which proved ruinous to companies have become exceedingly profitable when carried on by individuals.

'The spirit of monopolists,' to borrow the just and forcible language of Gibbon, 'is narrow, lazy, and oppressive. The work is more costly and less productive than that of independent artists; and the new improvements so eagerly grasped by the competition of freedom are admitted with slow and sullen reluctance in those proud corporations, above the fear of a rival, and below the confession of an error.' (*Memoirs of his own Life, Miscellaneous Works*, i. p. 49, ed. 1814.)

We stated in the first edition of this work that the circumstances now mentioned opposed all but insuperable obstacles to the success of the companies established in this country for the prosecution of mining in America. 'This business does not admit of being reduced to a regular routine system. Much must always depend on the skill and probity of the agents employed at the mines; and it must plainly be very difficult, if not quite impossible, for directors resident in London to exercise any effectual *surveillance* over the proceedings of those who are at so great a distance. Hence it is not at all likely that these establishments will ever be so productive to the undertakers as if they had been managed by the parties themselves.' And every one knows that the history of the undertakings has more than verified the truth of these statements.

The Abbé Morellet has given in a tract published in 1769 (*Examen de la Réponse de M. N.*, pp. 35–38) a list of 55 joint-stock companies, for the prosecution of various branches of foreign trade, established in different parts of Europe subsequently to 1600, every one of which had failed, though most of them had exclusive privileges. Most of those that have been established since the publication of Morellet's tract have had a similar fate.

But notwithstanding both principle and experience concur in showing how very ill fitted a large association is for the purpose of prosecuting commercial undertakings, there are cases in which they cannot be prosecuted except by associations of this sort, and when it may be expedient to grant them certain peculiar privileges. When, owing either to the disinclination or inability of Government to afford protection to those engaged in any particular department of trade, they are obliged to provide for their own defence and security, it is obviously necessary that they should have power to exclude such individuals as may refuse to submit to the measures, or to bear their due share of the expense, required for the common protection of all. The Russian Company, the East India Company, the Levant or Turkey Company, and most of the other great trading companies which have existed in this country, seem principally to have grown out of a real or supposed necessity of this sort. It was not believed that any safe or advantageous intercourse could be carried on with barbarous countries without the aid of ships of war, factories, interpreters &c.; and as Government was not always able or willing to afford this assistance, the traders were formed into companies or associations, and vested with such peculiar privileges as appeared to be necessary for enabling them to prosecute the trade without any extrinsic support. 'When,' says Smith, 'a company of merchants undertake, at their own risk and expense, to establish a new trade with some remote and barbarous nation, it may not be unreasonable to incorporate them into a joint-stock company, and to grant them, in case of success, a monopoly of the trade for a certain number of years. It is the easiest and most natural way in which the state can recompense them for hazarding a dangerous and expensive experiment, of which the public is afterwards to reap the benefit. A temporary monopoly of this kind may be vindicated upon the same principles upon which a like monopoly of a new machine is granted to its inventor, and that of a new book to its author. But upon the expiration of the term, the monopoly ought certainly to determine; the forts and garrisons, if it was found necessary to establish any, to be taken into the hands of Government, their value to be paid to the company, and the trade to be laid open to all the subjects of the state.' (*Wealth of Nations*, p. 339.)

It may be doubted, however, whether it be really necessary, even in such a case as that now mentioned, to establish *a joint-stock company* with peculiar privileges, and whether the same thing might not be more advantageously effected by the establishment of an open or regulated company.

4. *Open or Regulated Companies.*—The affairs of such companies or associations are managed by directors appointed by the members. They do not, however, possess a common or joint stock. Each individual pays a fine upon entering into the

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company, and most commonly an annual contribution: a duty applicable to the business of the company is also sometimes charged upon the goods imported and exported from and to the countries with which they trade. The sums so collected are applied by the directors to fit out ambassadors, consuls, and such public functionaries as may be required to facilitate commercial dealings, or to build factories, maintain cruisers &c. The members of such companies trade upon their own stock, and at their own risk. So that when the fine, or sum payable on admission into a regulated company, is moderate, it is impossible for its members to form any combination that would have the effect of raising their profits above the common level; and there is the same keen and close competition amongst them that there is amongst other classes of traders. A regulated company is, in fact, a device for making those engaged in a particular branch of trade bear the public or political expenses incident to it, at the same time that it leaves them to conduct their own business with their own capital, and in their own way.

Should, therefore, Government at any time refuse, or be unable to afford, that protection to those engaged in any branch of trade which is necessary to enable them to carry it on, their formation into a regulated company would seem to be the most judicious measure that could be adopted, inasmuch as it would obtain for them that protection which is indispensable without encroaching on the freedom of individual enterprise.

The African, the Levant, and some other branches of trade were for a long time conducted by open or regulated companies. These, however, have been abolished; the African Company by the Act 1 & 2 Geo. IV. c. 28; and the Levant Company by the Act 6 Geo. IV. c. 33. The Russia Company still exists. [Russia Company.]

5. *Constitution of Companies.*—When application is made to Parliament for an Act to incorporate a number of individuals into a joint-stock company for the prosecution of any useful undertaking, care should be taken not to concede to them any privileges that may be rendered injurious to the public. If a company be formed for the construction of a dock, a road, or a canal, it may be necessary, in order to stimulate individuals to engage in the undertaking, to give them some peculiar privileges for a certain number of years; but if other persons be permanently hindered from constructing new docks, or opening new lines of communication, a lasting injury may be done to the public. It may be highly expedient to incorporate a company for the purpose of bringing water into a city; but supposing there were no springs in the vicinity other than those to which this company has acquired a right, they might, unless restrained by the Act incorporating them, raise the price of water to an exorbitant height, and make large profits for themselves at the expense and to the injury of the public. In all cases of this sort, and in the case, indeed, of all joint-stock companies established for the formation of canals, railways &c., it would be sound policy not only to limit the rates charged for their services, or on account of the water, ships, goods &c. conveyed by their means, but also to limit the dividends, or to fix a maximum beyond which they should not be augmented; enacting, that if the rates charged by the company produce more than sufficient to pay the maximum rate of dividend, and to defray the wear and tear of the aqueduct, canal &c., they should be allowed to reduce them till they only yield this much; and, in the event of their declining to do so, that the whole surplus above paying the dividend shall be applied to purchase up the stock of the association, so that ultimately the charges on account of dividends may be entirely abolished. Had this principle been acted upon when canals first began to be formed in England, the carriage of goods conveyed by some of the most important lines of communication would now have cost almost nothing; and this desirable result might have been accomplished in the way now suggested, without, we believe, diminishing in any degree the number of those undertakings. Probably, however, the better way in such cases would be for the Legislature to reserve to itself, when it institutes such companies, power periodically to revise their rates of charge, or to purchase up the undertakings. There are few who, at the time they engage in such enterprises, suppose that they will yield more than 10 or 12 per cent.; and vast numbers will always be disposed to engage in them if there be any reasonable prospect of their yielding this much. Now when such is the case, is it not the duty of Government to provide, in the event of the undertaking becoming in an *unexpected* and *unusual degree profitable*, that the public should derive some advantage from it? This is not a case in which competition can reduce profits to the common level. The best, perhaps the only practicable, line for a canal or railway between any two places will be appropriated by those who are first in the field; who thus, in fact, obtain a natural monopoly of which they cannot be deprived: and hence the advantage of limiting the charges and dividends. Without discouraging enterprise, it affords a security that private individuals shall not reap an unusual and unlooked-for profit at the expense of the public.

In all those cases in which companies are formed for the prosecution of undertakings that may be carried on with equal advantage to the public by individuals; or where there are no very considerable difficulties to overcome, or risks to encounter; they ought to enjoy no privilege whatever, but should be regarded, in every point of view, as if they were mere individuals.

For accounts of the principal joint-stock and regulated companies established in this country, see Bank of England; Docks; East India Company; Insurance; Russia Company; &c.

6. *Companies with Limited Liability.* — These, which are denominated by the French partnerships *en commandite*, may be constituted in a great variety of ways. Thus, the liability may be limited to the amount of the sums which each partner has contributed to the capital of the partnership, or it may extend to some multiple of such sums. The liability of the manager (*Fr. gérant*) of the concern is usually unlimited; but this, of course, may or may not be the case.

It is said that the establishment of such companies would be productive of many advantages; that at present the principle of association is obstructed, and that many important undertakings are neglected from the extreme risk which attaches to joint-stock speculations; and that as the capital of a partnership with limited responsibility would be publicly declared, there would be less risk of bankruptcy and fraud in dealing with it than with partnerships as now constituted. We doubt, however, whether these and similar statements are entitled to much, or, indeed, to any weight. There are, as already seen (3rd head of this article), certain classes of undertakings which admit of being systematically carried on, such as the construction and management of docks, railways, gas and waterworks, banks and insurance offices on a large scale, and other concerns of the same kind, which may be and are advantageously carried on by companies with limited liability.

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And there can be no good objection, in the event of a company being organised for any such object, to give them a charter, if they require it, limiting the responsibility of the partners to the amount of their shares. But the question now before us does not concern this class of companies, but has relation to others of a totally different description, that is, to partnerships for carrying on some branch or department of manufacturing or agricultural industry, or of domestic or foreign trade. In these cases the cost of articles, the conditions under which they are supplied, the extent of the demand, and a thousand other circumstances, are perpetually changing, so that their production and sale cannot be conducted on a routine system, but require the most vigilant attention to vary and adopt measures suited to emergencies as they arise. Now the question is, will such partnerships be more prudently and skilfully managed by those whose *all* is responsible for their proceedings, or by those whose responsibility is limited to some part (perhaps a small one) of their fortune, and to whom, consequently, their success or failure is a matter of comparative indifference? Such a question evidently admits but of one answer, which is too obvious to require being stated. It is true, no doubt, that notwithstanding the heavy responsibility under which the partners in ordinary associations or partnerships now act, they too often display an inexcusable degree of foolhardiness. But if parties will do this when everything that they have is staked on the result, what would they not do if they could limit their liabilities and speculate, or it may be, gamble on a great scale without any fear of the result? It was all but certain, and our experience in 1866 has proved, that, under such circumstances, reckless speculation and bankruptcy would be increased in an extraordinary degree; and that the numbers and the intensity of those mercantile convulsions which are productive of so much misery would be very largely augmented.

But we have been assured that such would not be the case, inasmuch as the capital of all societies *en commandite* is publicly notified! But we take leave to say that such notification merely operates to deceive and mislead the public. Suppose a partnership begins business with a capital said to amount to 10,000*l.* or 100,000*l.*, what security have we that such capital has been bonâ fide paid in and will be really available? And supposing that we have such security, it can be applicable only to the outset of the enterprise. In a year or a couple of years the capital may be wholly dissipated. What is to hinder the partners, if they be so disposed, from conspiring to divide among themselves some 10 or 20 per cent. profit, when, perhaps, they have not made sixpence? And yet the association may, from the ignorance of the public with respect to its real situation, continue to enjoy the same degree of credit that it did at the beginning.

It is true, no doubt, that it is customary, where companies with limited liability are established, to prohibit the partners or *commanditaires* from taking any share in their management, which the law vests exclusively in the manager or *gérant*. But the policy of such prohibition, were it made effectual, is very questionable. This, however, is a question into which we need not enter; for everybody knows that the prohibition is good for nothing, unless it be to make that be done in a secret and underhand manner which would otherwise be done publicly and openly. And it can hardly do this without, in so far, corrupting the parties, and weakening their sense of honour and of moral rectitude.

Let it not be supposed that it is possible to obviate these abuses of partnerships *en commandite* by obliging them to publish an annual balance sheet. Such a return would be worse than useless. Even if a partnership intended to make an honest return, it would frequently make one that was false, from its inability to calculate the debts owing to it at their just value; and if it wished to dress up a return, to make a rickety or bankrupt concern appear to be flourishing and wealthy, it would have every means and facility for doing so. The fraud might or might not be eventually detected; but if it were, it would not be till it had served its purpose, and enabled a concern, destitute alike of character and stock, to enter into speculations that could hardly fail to ruin many unsuspecting parties.

A system of this sort enables a man to escape from that responsibility which naturally attaches to all his actions, and is the grand security for their being fair and honourable. It tempts him to engage in desperate adventures, of which, if successful, he reaps all the advantage, and of which, if unsuccessful, he eludes most part of the loss. It is not easy to see how such a system can be productive of any good result. Something, perhaps, might be found to say in its favour if individuals were with difficulty found to engage in partnerships accompanied with the usual risks. But there is no such difficulty. On the contrary, every outlet, whatever may be the hazard attending it, that opens any field for the employment of capital with the prospect of even a moderate return is immediately filled up. Why, then, should we offer such parties a bonus? Why relieve them of their natural responsibility to make them engage in pursuits into which they are ready and willing to engage without any extraordinary stimulus?

But it is said that it is unjust to interfere to hinder A, B, and C from engaging in a partnership with limited liability; that the terms on which the partnership is to be conducted being declared, everybody is put on his guard; and that there can be no more risk in dealing with it than with any other association. But in cases of this sort justice is identical with public or general utility, and not with any abstract or imagined right. Society is founded on the principle that every man and set of men shall be responsible, in the widest sense of the term, for his or their proceedings. And this principle should be enforced in all cases, unless when it can be clearly shown that the public interests would be promoted by its suspension. But we deny that this has been or can be shown by the advocates for the general introduction of partnerships *en commandite*; for we have seen, 1st, that in all ordinary cases such partnerships are wholly unnecessary; and, 2nd, that, when organised, they unavoidably occasion a vast increase of fraud and of reckless speculation. There was consequently no ground for their introduction; but, on the contrary, now that they have been introduced, there are sufficient grounds why they should be suppressed forthwith.

It is sometimes said that by making the manager or *gérant* act under an unlimited responsibility, we should secure the advantages of both systems, that is, of unlimited liability, and of the new system of limited liability introduced by the 19 & 20 Vict. c. 47 and subsequent Acts. But it is plain that it would do nothing of the sort. If the security of the public is to be augmented by making the manager indefinitely responsible, that security would, it is obvious, be still further augmented by extending the same indefinite responsibility to all the members of the association. Under the proposed plan the *gérant* may be a man of straw.

He may be, and the probability is that whenever it is thought desirable he will be, selected, not because he deserves the confidence of the public, but because he may be depended upon for carrying out the secret objects of the association or of its leaders. Do what you will, it is impossible to hinder him from combining with his partners to defraud the public. Provided they keep their own counsel, how is the fraud to be discovered? And supposing it to be ultimately discovered, what advantage will thence result to those who have in the mean time been swindled out of their property?

In dealing with firms or associations constituted on the principle of unlimited liability, people trust, or believe they may trust, to the reputation for skill and integrity, and to the presumed wealth, of one or more of the parties. Such parties have a character to lose; and as they at the same time act under the heaviest responsibility, the chances are ten to one that they will act discreetly, fairly, and honourably. But a partner in a society *en commandite* has no such guarantees for his conduct. Instead of being responsible, he is all but irresponsible. And it would be contradictory alike of principle and common sense to suppose that the one association should be as carefully and as honestly conducted as the other.

These reasonings might be indefinitely extended, but they have already encroached too much on our limits. And yet, though brief, we incline to think that they are enough to show, even if the ruinous experience of 1866 had not put it beyond all doubt, that the establishment of partnerships *en commandite* would be productive of very great disadvantages unaccompanied by a single countervailing advantage. (See further under PARTNERSHIPS WITH LIMITED LIABILITY.)

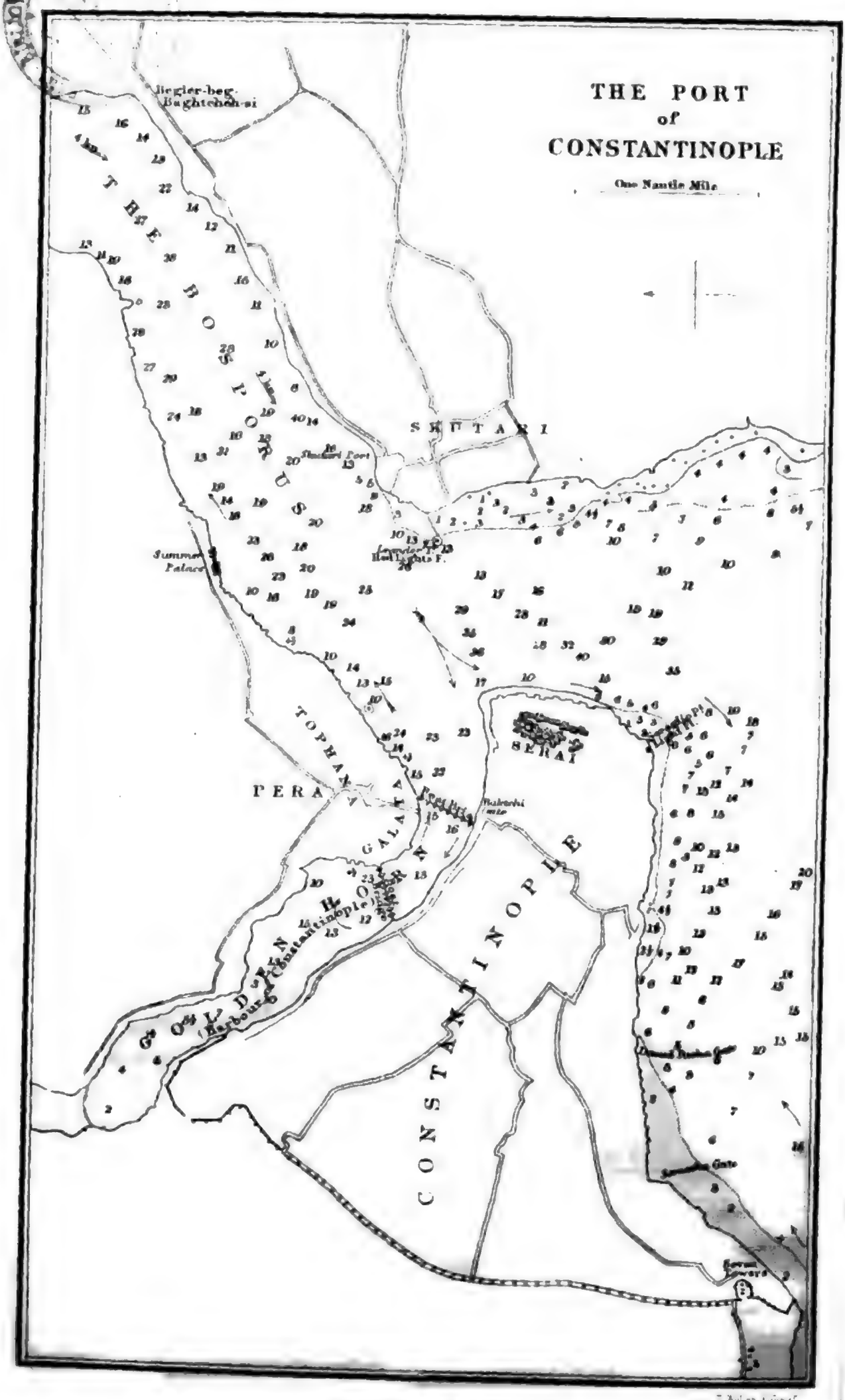
7. *Civic Companies, or Corporations.*—Exclusive of the companies previously mentioned, a number of ancient companies or corporations exist in this and most other European countries, the members of which enjoy certain political as well as commercial privileges. When the feudal system began to be subverted by the establishment of good order and regular government in the towns, the inhabitants were divided into certain trades or corporations, by which the magistrates and other functionaries were chosen. The members of these trades or corporations, partly to enhance the value of their privileges, and partly to provide a resource, in case of adversity, for themselves, acquired or usurped the power of enacting by-laws regulating the admission of new members, and at the same time set about providing a fund for the support of such as accident or misfortune might reduce to a state of indigence. Hence the origin of apprenticeships, the refusal to allow any one not a member of a corporation to carry on any business within the precincts of any town corporate, and the various regulations that had to be submitted to, and the fees that had to be paid, by the claimants for enrolment in corporations. For a lengthened period these privileges and regulations were very oppressive; but within the last century their influence has been progressively diminishing. In France, where the abuses inseparable from the system had attained to a very great height, it was entirely swept off by the Revolution: and though corporations still exist in this country, they have been stripped of several of their peculiar franchises; and should now, for the most part, be regarded more, perhaps, in the light of charitable than of political institutions. It would be well were they reduced entirely to the former character; and were the few political and commercial privileges which they still enjoy, communicated to the rest of the citizens. At their first institution, and for some time after, corporations, considered as political bodies, were probably useful; but such is no longer the case; and in so far as they now possess any special immunities, they tend to obstruct that free competition which is so advantageous.

The following extract from a *Report on the Commerce and Manufactures of the United States*, drawn up by Albert Gallatin, Esq., then secretary to the Treasury, and laid before Congress in 1816, sets the superior advantages resulting from the unrestricted freedom of industry in a very striking point of view. 'No cause,' says he, 'has, perhaps, more promoted in every respect the general improvement of the United States than the absence of those systems of internal restriction and monopoly which continue to disfigure the state of society in other countries. No laws exist here, directly or indirectly, confining men to a particular occupation or place, or excluding any citizen from any branch he may, at any time, think proper to pursue. Industry is, in every respect, free and unfettered; every species of trade, commerce, and profession, and manufacture, being equally open to all, *without requiring any regular apprenticeship, admission, or license.* Hence the improvement of America has not been confined to the improvement of her agriculture, and to the rapid formation and settlement of new states in the wilderness; but her citizens have extended their commerce to every part of the globe, and carry on with complete success even those branches for which a monopoly had heretofore been considered essentially necessary.'

There is in Rees's *Cyclopædia*, article 'Company,' a list of the different civic companies belonging to the city of London, in which the periods of their incorporation, and various other particulars with respect to several of them, are specified.

COMPASS (Ger. ein kompass; Dutch, zeekompass; Dan. söekompass; Fr. boussole, compas de mer; Ital. bussola; Span. aguja de marear; Port. compasso de marear; Russ. kompass korabelnüi) or MARINER'S COMPASS. An instrument composed of a needle and card, by which the ship's course is directed. The needle, with little variation, always points towards the north; and hence the mode of steering by the compass.

The common opinion is that the compass was invented by Flavio Gioia, a citizen of the once famous republic of Amalfi, very near the beginning of the fourteenth century. Dr. Robertson has adopted this opinion, and regrets that contemporary historians furnish no details as to the life of a man to whose genius society is so deeply indebted. (*History of America*, vol. i. p. 47, 8vo. ed.) But though Gioia may have made improvements on the compass, it has been shown that he has no claim to be considered as its discoverer. Passages have been produced from writers who flourished more than a century before Gioia, in which the polarity of the needle when touched by the magnet is distinctly pointed out. Not only, however, had this singular property been discovered, but also its application to the purposes of navigation, long previously to the fourteenth century. Old French writers have been quoted (Macpherson's *Annals of Commerce*, anno 1200; Rees's *Cyclopædia*) that seem fully to establish this fact. But whatever doubts may exist with respect to them cannot affect the passages which the learned Spanish antiquary, Don Antonio de Capmany (*Questiones Criticas*, p. 78—132), has


THE PORT
of
CONSTANTINOPLE
One Nautic Mile
Beglier-beg
Baghtcheh-si
THE BOSPORUS
SKUTARI
Summer Palace
TOPHANA
PERA
GALATA
SERAI
CONSTANTINOPLE
Gate

given from a work of the famous Raymond Lully (*De Contemplatione*) published in 1272. In one place Lully says, 'as the needle when touched by the magnet naturally turns to the north' (sicut acus per naturam vertitur ad septentrionem dum sit tacta a magnete). This is conclusive as to the author's acquaintance with the polarity of the needle; and the following passage from the same work—'as the nautical needle directs mariners in their navigation' (sicut acus nautica dirigit marinarios in sua navigatione, &c.) is no less conclusive as to its being used by sailors in regulating their course. There are no means of ascertaining the mode in which the needle Raymond Lully had in view was made use of. It has been sufficiently established (see the authorities already referred to, and Azuni, *Dissertation sur l'Origine de la Boussole*) that it was usual to float the needle, by means of a straw, on the surface of a basin of water; and Capmany contends that we are indebted to Gioia for the card and the method now followed of suspending the needle—improvements which have given to the compass all its convenience, and a very large portion of its utility. But this part of his *Dissertation*, though equally learned and ingenious, is by no means so satisfactory as the other. It is difficult to conceive how mariners at sea could have availed themselves of a floating needle; but, however this may be, it seems most probable that Gioia had considerably improved the construction of the compass; and that, the Amalfitans having been the first to introduce it to general use, he was, with excusable partiality, represented by them, and subsequently regarded by others, as its inventor.

The statements which have sometimes been put forward in regard to the antiquity of the Chinese compass have been treated with very little respect by some great authorities, and are much too questionable to warrant any stress being laid on them. (Capmany, p. 76 &c.) The learned Mr. Forster, who is any thing but inclined to underrate the obligations we are under to the Arabs, admits that they were ignorant of the compass. (*Mahometanism Unveiled*, &c. ii. 223.) The Chinese have never been in the habit of making distant voyages; but had the needle been used in their trading vessels, the Indians, with whom they came in contact, would no doubt have eagerly availed themselves of so valuable an invention; and they would, in all probability, have communicated it to the Arabs; but there is no evidence to show that the compass was used by the Indians previously to the voyage of De Gama. (Azuni, *De la Boussole*, pp. 118—122.) And there are no good grounds for thinking that the Arabs had any knowledge of the instrument, or that it was ever used by them, till after the period when they might have learned it from the Venetians, the Amalfitans, and other European traders. The notion that we are indebted to them for the compass appears, indeed, to have little to recommend it, except that it began to become known when the Saracens became powerful in the Mediterranean. Still this is too weak a ground on which to found a claim. And though it be impossible to speak with perfect confidence on such a subject, the fair conclusion seems to be that the compass is a European invention; that it was discovered in the 12th or 13th century, and brought into use in some of the countries bordering on the Mediterranean.

The reader will not consider these details out of place in a work on commerce, which the compass has done so much to extend. 'Its discovery,' to borrow the language of Mr. Macpherson, 'has given birth to a new æra in the history of commerce and navigation. The former it has extended to every shore of the globe, and increased and multiplied its operations and beneficial effects in a degree which was not conceivable by those who lived in the earlier ages. The latter it has rendered expeditious, and comparatively safe, by enabling the navigator to launch out upon the ocean free from the danger of rocks and shoals. By the use of this noble instrument the whole world has become one vast commercial commonwealth, the most distant inhabitants of the earth are brought together for their mutual advantage, ancient prejudices are obliterated, and mankind are civilised and enlightened.' (Vol. i. p. 366.)

COMPOSITION. In Commerce, commonly implies the dividend or sum paid by an insolvent debtor to his creditors, and accepted by them in payment for their debts. [BANKRUPTCY; INSOLVENCY AND BANKRUPTCY.]

CONEY WOOL (Ger. kaninchenwolle; Dutch, konynhair; Fr. poil de lapin; Ital. pelo di caniglio; Span. conejuna). The fur of rabbits. This article is extensively used in the hat manufacture; and besides the large supplies raised at home, a great deal is imported. The imports in 1866 amounted to 34,715 lbs., valued at 14,754*l*. These are exclusive of 841,934 coney skins, furs, and pelts imported in the same year.

CONFECTIONERY (Lat. bellaria; Fr. bonbons; Ital. confittura; Span. confitura; Germ. confect). Sweetmeats. In 1866 we imported 1,135,681 lbs. of foreign confectionery, valued at 42,588*l*., of which 231,019 lbs. were entered for home consumption, while we exported 1,850,992 lbs. of British and 956,109 lbs. of foreign confectionery; the whole being valued at 118,406*l*. Australia was our chief market. For an account of the confectionery of the ancients we refer the reader to Apicius; and as an authority on the sweetmeats of the old English we would cite Warner's *Antiquitates Culinariæ*.

CONSTANTINOPLE (Turk. STAMBOUL). A famous city of South-eastern Europe, formerly the metropolis of the Eastern, as it still is of the Turkish empire, on a triangular point of land, on the European side of the Sea of Marmara (Propontis), at the point where it unites with the Bosporus, or channel leading to the Black Sea, lat. 41° 0′ 12″ N., long. 28° 59′ 2″ E. Population variously estimated at from 650,000 to 1,075,000, but believed, by the best authorities, to be about 750,000. The situation of this renowned city is, in a commercial point of view, one of the finest imaginable. Standing on the narrow straits uniting the Mediterranean and Euxine Seas, she at once commands, and is the entrepôt for, the commerce between them. The harbour is most excellent. It consists of an extensive inlet, or arm of the sea, stretching along the north-east side of the city, which it divides from the suburbs of Galata and Pera. It has sufficient depth of water to float the largest ships, and can accommodate more than 1,000 sail. The strong current that sets through the Bosporus into the Sea of Marmara strikes against Seraglio Point (see plan); a part of the water, being in consequence forced into the harbour, runs along its south-western side in the direction marked by the arrows—(see plan), till, arriving at its extremity, it escapes by the opposite side. In the middle the water is still. On leaving the port, it is necessary to keep well over to the northern side; for otherwise the ship might be taken by the current, and driven on Seraglio Point. It may be worth while, however, to remark, that notwith-

standing this inconvenience, the current has been of signal service to the city by scouring the harbour, and carrying away the filth and ballast by which it must otherwise have been long since choked up. The distance across from Seraglio Point to the opposite suburb of Scutari, on the Asiatic coast, is rather more than an English mile. Within less than ¼ mile of the latter is a rocky islet, upon which is a tower and lighthouse, known by the name of the Tower of Leander. Foreigners reside in Galata, Pera, and the suburbs on the eastern side of the harbour; and it is there, consequently, that the principal trade of the place is carried on. The quays are good, and ships lie close alongside.

The Bosporus, or channel of Constantinople, runs in a N.E. by N. direction about 15 miles, varying in breadth from 1¼ to ½ mile. It is swept by a rapid current, which it requires a brisk gale to stem, and has throughout a great depth of water. The Hellespont, or strait of the Dardanelles, leading from the Archipelago to the Sea of Marmara, is about 13 leagues in length. Its direction is nearly N.E. Where narrowest, it is little more than a mile across. It also is swept by a strong current, and has deep water throughout.

The accompanying plan of part of Constantinople and its port is copied, without reduction, from the beautiful plan of the city and Bosporus, drawn and engraved by M. Merzoff Robert of Munich, and published by Mr. Wyld of this city.

Nothing can be more imposing than the appearance of the city when seen from the sea, but on landing the illusion vanishes. The streets are narrow, dark, ill-paved, and irregular. Owing to the want of any effective system of police, and of the most ordinary attention to cleanliness, they are extremely filthy; and are infested with herds of dogs and also with rats, which perform the function of scavengers. The houses are mostly built of wood, and fires are very frequent. Most of these happen designedly; the burning of a few hundred houses being deemed the readiest and most effectual means of making the Government aware of the public dissatisfaction, and of procuring a change of ministers, or a redress of grievances!

Money and Banks.—Owing to successive degradations, the value of the Turkish coin has been so much reduced that the piastre, once worth about 4*s.*, has fallen as low as ¾*d.* (See Mr. Secretary of Embassy Barron's *Report of* 1867 *on Turkish Finance.*) But the pernicious consequences of this continued tampering with the standard of value were at last discerned by the Turkish authorities, and an attempt has been made to arrest the evil. In this view the old coins were called in and replaced by new ones, issued in 1844, called *Medjidié*, from the late Sultan's name. The designations and values of these coins are given in the following table:—

New Money of Sultan Abdul Medjid.

Coins	Value in Piastres	Weight in Grammes	Purity	Value in Francs
Gold: The Jusdik, Sarra Jusdik (yellow piece) or piece of	100	7·216	·916	22·50
The Ellidik, or piece of	50	3·608	·916	11·25
Piece of 10 piastres	10	0·722	·916	2·25
Piece of 5 piastres	5	0·361	·916	1·12
Silver: The Medjidié, or piece of	20	24·055	·830	4·553
The Onlik, or piece of	10	12·055	·830	2·276
The Beshlik	5	6·013	·830	1·138
The Jeklik	2	2·405	·830	0·443
Copper: The Beeh paras	5 paras	5·362	—	0·027
The Bir para	1 para	1·071	—	0·005

Unluckily, however, the supply of new coins, amounting to only about 200,000,000 of piastres, was quite inadequate to fill the place of the old coins, and they either circulated at an agio in their favour, or were exported. To obviate the inconveniences of this state of things, *caimés*, or paper notes, were issued. And to maintain the latter in circulation, and the piastre at a stationary value (108 piastres to the 1*l.* sterling), the Bank of Constantinople was founded in 1848. But, having failed to accomplish the objects for which she was intended, and incurred a heavy loss, she was wound up in 1853, and the Ottoman Bank established in her stead. The functions of the latter are in part political, and in part commercial. She has a capital of 200,000,000 piastres, in shares of 2,000 each; and is bound to withdraw from circulation old coins of the value of 497,000,000, and to replace them by new coins; to receive such *caimés* as bear interest (132,000,000) at par; and to receive those which do not bear interest (45,000,000) at par, to the amount of ½ in the payments made to her. In return for these services she is chartered for 30 years, and is to receive an annual pension of 30,000,000, with a bonus of 30,000,000 at the expiration of the charter. In addition to the functions now specified she transacts all sorts of ordinary banking business. (See the excellent and instructive work of Ubicini, *Lettres sur la Turquie*, i. pp. 312—325, 2nd ed.)

It would be hazardous to speculate on the future of the Ottoman Bank. Much, of course, must depend on the regular payment of the pension of 30,000,000; and that, we should think, was not a little uncertain.

Besides the new moneys, the old coins of former sultans, and also foreign coins, continue in circulation. But all large payments are made by the *kitze*, or purse of gold, of 30,000 piastres, and the *kis*, or purse of silver, of 500 ditto. It may be worth while to mention that Ottoman coins are not marked with the effigy of the sovereign, but merely with his cypher, *toughra*.

Weights and Measures. — The commercial weights are—176 drams = 1 *rottolo*; 2·272 rottoli = 1 oke; 6 okes = 1 batman; 7½ batmans = 1 quintal or cantaro = 124·457 (124½ very nearly) lbs. avoirdupois = 56·437 kilogrammes = 116·527 lbs. of Hamburg. The quintal of cotton is 45 okes = 127·2 lbs. avoirdupois.

The pik, or pike, is of two sorts, the greater and the less. The greater, called *halebi* or *arschin*, used in the measurement of silks and woollens, is very near 28 inches (27·9). The lesser, called *endese*, used in the measuring of cottons, carpets, &c. = 27 inches. Hence 100 long piks = 77·498 English yards, and 100 short piks = 75·154 do. But in ordinary commercial affairs, the pik is estimated at ¾ of an English yard.

Corn is measured by the *kisloz* or *killow* = 0·941 of a Winchester bushel; 8½ kisloz = 1 quarter. The *fortin* = 4 kisloz.

Oil and other liquids are sold by the *alma* or *meter* = 1 gallon 8 pints English wine measure. The alma of oil should weigh 8 okes. (Nelkenbrecher and Dr. Kelly.)

The *Port Charges* on account of English vessels in the harbours of the Ottoman empire are fixed by treaty at 800 aspers, neither more nor less.

Trade &c.—Owing to the vicious institutions of the Turks, and the disorganised state of the empire, the trade of Constantinople is very far from being so extensive as might be supposed

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from its situation and population. The imports consist of corn, timber, tallow, and furs, principally from the Black Sea; and of cotton stuffs and yarn, iron, coal, tin, tin plates, woollens, silks, cutlery, watches and jewellery, paper, glass, furniture, indigo, cochineal &c. from England and other European countries. Corn and coffee are imported from Alexandria; but considerable quantities of Brazil and West India coffee are also imported, particularly in British and American bottoms. Sugar is partly imported from the East, but principally from the West Indies. The exports consist of silk from Brussa, which is much the most important article, carpets, hides, wool, Angola goats' hair, yellow berries, copper, boxwood, opium, galls, leeches, specie, and a few other articles. But the exports are always very much less than the imports; and ships carrying goods to Constantinople either return in ballast, or get return cargoes at the ports on the Black Sea, or at Smyrna, Salonica &c., on which places they frequently procure bills at Constantinople. By far the largest proportion of the trade of this city, and of the Levant generally, is in the hands of Greek merchants, who by their superior skill, industry, and knowledge of those with whom they have to deal, have completely distanced their English, French, and other European competitors (denominated Franks). The Armenians only have been able to withstand the competition of the Greeks. Bargains are negotiated by Jew brokers, some of whom are rich.

If we formed an estimate of the trade of Constantinople from the number of vessels by which its port is visited, it would appear to be much greater than it really is. This arises from the circumstance of almost all the vessels passing from the Mediterranean to the Black Sea, and from the latter to the former, calling here, where they sometimes discharge and take on board part of their cargoes. We subjoin

An Account of the Number and Tonnage of the Foreign Ships that entered at, and cleared out from, Constantinople, in 1864, specifying the Countries to which they belonged, and the Number and Tonnage of those belonging to each.

Flags	Entered		Cleared	
	Ships	Tons	Ships	Tons
British	1,607	571,511	1,591	564,419
Ionian	244	40,165	251	41,646
American	9	5,911	8	5,358
Austrian	1,501	472,949	1,997	471,882
Belgian	27	9,137	27	9,137
Danish	2	813	2	813
Dutch	44	7,731	43	7,241
French	557	212,675	552	210,655
Greek	4,628	755,848	4,580	750,443
Hanoverian	52	5,566	53	5,645
Hanseatic	7	1,514	6	1,554
Jerusalem	2	450	2	450
Italian	2,789	648,410	2,506	582,330
Mecklenburg	258	51,365	259	51,569
Norwegian	199	53,586	199	53,586
Swedish	5	854	5	854
Oldenburgh	28	1,882	24	1,882
Prussian	179	51,495	181	52,067
Russian	727	238,577	744	252,395
Portuguese	2	528	—	—
Turkish	12,804	638,502	11,312	572,709
Moldavian, Wallachian	160	13,280	159	13,152
Servian	4	484	5	821
Samian	244	14,878	257	16,043
Other countries	—	—	—	—
Total	25,069	3,784,422	25,870	3,644,641

Steam Navigation. — Constantinople is now visited by steamers from London, Liverpool, Marseilles, Trieste, Odessa, the Danube, Smyrna, and other places, and its commerce, as well as that of the empire, has in consequence been materially promoted. The steamers belonging to the *Lloyd Austriaco* at Trieste, and the Danube Steam Company, are said to reflect great credit on these associations.

Commercial Policy of the Turks.—It is singular that as respects commerce, the policy of the Turkish Government, whether originating in design or carelessness, is entitled to the highest praise. 'No restrictions,' says Mr. Thornton, 'are laid on commerce, except in the instance of a general prohibition of exporting the articles necessary for the support of human life to foreign countries, especially from the capital, where alone it is rigorously enforced; and this impolitic restraint will no doubt be removed when the Turkish Government shall become sensible that what is intended as the means of securing abundance is in fact the sole cause of that scarcity which is sometimes experienced. With this one exception, commerce is perfectly free and unfettered. Every article of foreign or domestic growth or manufacture is conveyed into every port, and over every province, without any interference on the part of the magistrates, after payment of the duties. On this subject I speak from actual experience, and may appeal to every foreign or native merchant in Turkey for its general truth.' (*Present State of Turkey*, vol. i. p. 82.)

The duties on importation are extremely moderate, being only 5 per cent., viz. 3 per cent. on goods when landed, and 2 per cent. on their being admitted to consumption. But the duties on exports of native produce amount to 12 per cent., whereof 9 per cent. is paid when the goods arrive at the port whence they are to be exported, and 3 per cent. on their being shipped. This 3 per cent. is not unfrequently represented as being the entire duty on exports. (Ubicini *sur la Turquie*, i. 281.) It is needless to dwell on the impolicy of a general export duty of this amount; and the better plan would be to raise the duty on imports to 10 or 12 per cent., and to reduce the duty on exports to the 3 per cent. paid on embarkation. But despite the 12 per cent. charged on exports, Turkey is entitled, in all that relates to trade, to read a lesson to most European powers, and this she did in a very able manner, in an official paper published in the *Moniteur Ottoman*, in September 1832. We extract a few paragraphs from this interesting document.

'Good sense, tolerance, and hospitality have long ago done for the Ottoman empire what the other states of Europe are endeavouring to effect by more or less happy political combinations. Since the throne of the sultans has been elevated at Constantinople, commercial prohibitions have been unknown; they opened all the ports of their empire to the commerce, to the manufactures, to the territorial produce of the Occident, or to say better of the whole world. Liberty of commerce has reigned here without limits, as large, as extended as it was possible to be.

'Here every object of exchange is admitted, and circulates without meeting any obstacle other than the payment of an infinitely small portion of the value to the Custom-house. The chimera of a balance of trade never entered into heads sensible enough not to dream of calculating whether there was most profit in buying or selling. Thus the markets of Turkey, supplied from all countries, refusing no objects which mercantile spirit puts into circulation, and imposing no charge on the vessels that transport them, are seldom or never the scenes of those disordered movements occasioned by the sudden deficiency of such or such merchandise, which, exorbitantly raising prices, are the scourges of the lower orders, by unset-

tling their habits, and by inflicting privations. From the system of restrictions and prohibitions arise those devouring tides and ebbs which sweep away in a day the labour of years, and convert commerce into a career of alarms and perpetual dangers. In Turkey, where this system does not exist, these disastrous effects are unknown.

'The extreme moderation of the duties is the complement of this régime of commercial liberty; and in no portion of the globe are the officers charged with the collection, of more confiding facility for the valuations, and of so decidedly conciliatory a spirit in every transaction regarding commerce.

'Away with the supposition that these facilities granted to strangers are concessions extorted from weakness! The dates of the contracts termed Capitulations, which establish the rights actually enjoyed by foreign merchants, recall periods at which the Mussulman power was altogether predominant in Europe. The first capitulation which France obtained was in 1535, from Soliman the Canonist (the Magnificent). The dispositions of these contracts have become antiquated, the fundamental principles remain. Thus, 300 years ago the sultans, by an act of munificence and of reason, anticipated the most ardent desires of civilised Europe, and proclaimed unlimited freedom of commerce.'

Did the policy of Turkey in other respects harmonise with this, she would be one of the most civilised and powerful of nations, instead of being one of the most abject and degraded. Unfortunately, however, this is very far from being the case. Tyranny and insecurity universally prevail. 'The cultivator of the soil,' says one of her eulogists, 'is ever a helpless prey to injustice and oppression. The Government agents have to suffer in their turn from the cruelty and rapacity of which they themselves have been guilty; and the manufacturer has to bear his full share of the common insecurity; he is fixed to the spot, and cannot escape the grasp of the local governor. The raw material monopolised by a bey or ayan may be forced upon him at a higher price than he could purchase it himself, and perhaps of inferior quality; fines may be imposed upon him, he may be taken for forced labour, or troops may be quartered on his workshop.' (Urquhart *On Turkey and its Resources*, page 139.)

Some vigorous efforts have been made of late years (especially since the accession of Sultan Abdul Aziz) by the Turkish Government to reform abuses, but with little or no practical effect. There is, in truth, neither public virtue nor principle in the country to second these efforts. Corruption of every kind is almost as prevalent as ever; and the Rayas continue to be exposed to every sort of oppression. Though railways have been projected, Constantinople is not yet (1868) connected by railway with the rest of Europe; and agriculture is everywhere in the most abject condition. Indeed, vast tracts of the most fertile (and of old the most flourishing) districts of Asia Minor are wholly waste and unoccupied; and the evil, instead of diminishing, is continually increasing. (For an account of Turkish agriculture, manufactures &c., see Ubicini, *Lettres sur la Turquie*, i. pp. 355–438. Though written with a strong bias in favour of the Turks, this is incomparably the best of the late works on Turkey.) The greater density of population in European Turkey, and whatever industry is found in it, are due to the energies of the Christian population. And when the latter have been emancipated from the slavery in which they have been long held, by the expulsion of their barbarian task-masters from Europe, the beautiful provinces in which the latter have been so long permitted to encamp will again become the favourite seats of industry and civilisation. But the degradation in which the native inhabitants are involved would have been still more complete but for the freedom of commerce they have always enjoyed. This has tended to keep alive the seeds of industry, and to countervail to some small extent the destructive influence of oppression and insecurity. Had their intercourse with foreigners been either prohibited or placed under oppressive restrictions, the barbarism of Turkey would have been completed, and it is difficult to suppose that there could have been anything like wealth or industry in the empire.

Trade of Turkey with England.—The trade between this country and Turkey is of considerable value and importance, though not so much so as is generally supposed. Many of the ships for the Danube, Odessa, Trebizond (cargoes in transit to Persia), and other ports on the Black Sea, clear out for Constantinople; so that the exports to Turkey appear to be a good deal larger than they are in reality. Cotton stuffs and twist are by far the largest articles of export; and next are woollens, iron and steel, coals, refined sugar, hardware and cutlery, machinery, earthenware &c. Most of the Turkish establishments for the manufacture of cottons, except those which use English yarn, have been given up. But the great consumption of Turkey consists of home-made fabrics, and hitherto these have not been much interfered with. The larger supplies of the stuffs we send out are what are called plain goods; and if our coarser fabrics should begin generally to supersede those made by the Turkish peasantry, it is not easy to say to what degree the demand for them might be extended.

Of the European states, Austria and Switzerland have been our most formidable rivals in the supply of Turkey with cottons. Their stuffs were, in several respects, well fitted for the Eastern markets; but owing to the difficulty they lay under of getting returns, and the continued and rapid reduction in the price of English cottons, we have gained a decided advantage over them, and are now nearly in the exclusive possession of the market. Cheapness is everywhere the grand desideratum. Though our muslins and chintzes be inferior in fineness to those of the East, and our red dye (a colour in great esteem in Turkey, Persia &c.) be inferior in brilliancy, these defects are more than balanced by the greater cheapness of our goods; and from Smyrna to Canton, from Madras to Samarcand, we are everywhere supplanting the native fabrics, and laying the foundations of a commerce that will be eminently beneficial to all parties.

Our commerce with Turkey has been considerably facilitated by the abolition of the duties on silks and oil, and the reduction of those on figs and currants. Nothing, however, would contribute so much to its extension as the establishment of order and tranquillity throughout the country. But this, we fear, is beyond the ability of the Ottoman Government. The abuses which have reduced the empire to its present state of degradation seem to be inherent in the structure of Turkish society, and to be in harmony with the habits and prejudices of the people. And if such be the case, that reform, which is so much to be wished for, must come from without, and not from within. We subjoin—

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An Account of the Quantities and Values of the principal Articles of British and Irish Produce and Manufacture exported from the United Kingdom to Turkey, ex Moldavia and Wallachia, in each of the 3 Years ending with 1866.

Principal and other Articles		Quantities			Declared Real Value		
		1864	1865	1866	1864	1865	1866
Apparel and haberdashery	value	—	—	—	£ 57,600	£ 60,435	£ 101,272
Coals, cinders, and culm	tons	148,814	144,772	178,251	72,960	73,391	95,014
Copper, wrought and unwrought	cwts.	38,745	34,669	10,365	150,980	75,966	50,873
Cotton yarn	lbs.	4,543,733	6,803,397	5,856,075	667,876	877,382	690,494
Cottons, entered by the yard	yards	118,197,100	135,458,464	161,681,118	3,000,900	3,319,747	3,885,412
at value	value	—	—	—	16,043	15,127	17,050
Earthenware and porcelain	,,	—	—	—	19,105	14,047	11,013
Glass manufactures	,,	—	—	—	19,845	10,247	14,582
Hardwares and cutlery, unenumerated	cwts.	13,116	8,947	8,000	59,870	39,340	34,502
Iron, wrought and unwrought	tons	12,925	13,806	14,110	119,269	130,192	124,702
Linens, entered by the yard	yards	1,877,054	2,348,705	1,645,953	64,736	80,861	66,413
at value	value	—	—	—	4,049	5,849	5,017
Machinery and millwork	,,	—	—	—	46,999	66,084	57,011
Spirits	gallons	280,507	20,268	1,740	29,968	2,500	200
Sugar, refined	cwts.	6,586	12,000	1,865	11,334	18,781	2,802
Tin, unwrought	,,	3,227	3,969	3,956	28,352	18,941	16,456
plates	value	—	—	—	22,649	11,963	14,473
Woollens, entered by the yard	yards	2,850,525	2,126,482	2,166,994	202,427	156,570	133,159
at value	value	—	—	—	9,436	8,210	10,220
All other articles	,,	—	—	—	193,149	209,704	129,748
Total	—	—	—	—	4,881,622	4,961,731	5,595,987

Account of the Quantities and Computed Values of the Principal Articles imported into the United Kingdom from Turkey, ex Moldavia and Wallachia, during each of the 5 Years ending with 1866.

Principal and other Articles		Quantities					Computed Real Value				
		1862	1863	1864	1865	1866	1862	1863	1864	1865	1866
Berries: yellow	cwts.	1,200	1,694	993	1,659	2,948	£ 2,993	£ 4,675	£ 3,404	£ 9,513	£ 16,080
Bones of animals and fish (except whalefins)	tons	1,340	1,748	2,306	2,145	1,036	8,900	9,662	12,719	12,470	5,199
Boxwood	,,	5,205	3,688	5,879	6,000	3,966	32,436	38,906	59,689	44,253	27,210
Corn: wheat	cwts.	1,142,405	277,212	333,535	386,142	387,252	561,852	124,362	141,426	165,866	199,104
barley	,,	926,532	1,081,164	941,590	2,022,658	1,108,595	323,200	346,056	304,314	534,729	389,439
maize or Indian corn	,,	1,606,950	1,270,389	3,690,585	3,157,197	4,767,164	539,079	1,569,244	1,148,136	987,539	1,300,132
other kinds of corn and grain	,,	(Not computed.)		46,245	84,703	73,772	1,046	8,359	15,929	25,467	27,193
Cotton, raw	,,	2,720	12,180	19,130	52,466	7,108	18,787	112,373	194,280	161,081	42,313
Fruit: nuts, small	bushels	3,936	19,091	6,655	12,235	19,520	2,271	8,471	3,860	6,740	10,033
raisins	cwts.	5,221	4,064	2,442	3	9,514	7,082	6,258	3,365	5	12,891
Galls	,,	505	366	104	1,076	1,838	2,439	1,804	795	8,593	12,516
Gum, tragacanth	,,	382	134	55	101	151	4,101	1,376	479	819	1,229
Madder root	,,	1,209	4,846	1,415	3,631	673	2,660	11,397	3,422	8,352	1,591
Oil, olive	tuns	490	132	278	—	125	27,455	7,260	15,154	—	6,531
Oil, or otto, of roses	lbs.	1,163	573	864	686	1,210	14,062	6,667	13,242	10,427	18,793
Opium	,,	26,506	34,277	13,785	59,150	20,006	22,743	31,468	11,228	42,644	16,611
Rags and other material for making paper	tons	13	632	428	166	527	142	11,006	6,591	2,469	7,688
Resin	cwts.	—	8,456	4,628	1,289	—	—	11,692	7,311	1,418	—
Scammony	lbs.	3,503	2,501	1,048	1,833	2,467	3,576	2,411	1,540	2,750	3,795
Seed: flax and linseed	qrs.	16	1,611	2,122	49	6,331	49	4,823	6,138	116	19,682
millet	cwts.	18,598	30,718	—	182,970	52,515	5,426	9,430	—	43,923	14,828
Silk, raw	lbs.	202,924	178,234	188,428	83,880	31,607	134,118	132,878	163,310	88,041	30,918
waste, knubs, or husks	cwts.	3,289	2,176	2,885	1,770	1,653	49,886	24,369	36,404	39,168	27,408
Skins, lamb, undressed	no.	198,901	219,644	152,250	84,634	97,718	11,287	12,134	7,615	4,242	4,846
sheep	,,	112,510	176,294	172,657	122,905	237,530	11,251	17,629	12,919	9,732	18,573
Tobacco, unmanufact.	lbs.	935,112	1,152,804	1,085,718	1,248,951	4,296,644	25,796	32,530	29,650	28,034	84,145
Valonia	tons	170	770	185	604	932	2,705	10,932	2,826	10,168	17,170
Wool or hair, goats'	lbs.	3,067,872	1,961,271	3,455,141	4,632,337	4,109,099	510,939	285,943	474,679	720,946	711,535
sheep and lambs'	,,	2,154,025	3,516,295	4,146,258	3,286,499	1,722,076	93,512	156,774	190,900	132,221	67,316
Woollen rags, torn up, to be used as wool	tons	104,608	154,784	1,260,224	448,896	606,141	1,741	2,865	27,631	9,072	8,948
All other articles	value	—	—	—	—	—	36,392	39,039	62,599	40,152	75,391
Total	—	—	—	—	—	—	2,160,882	2,842,758	2,961,279	3,149,000	3,379,184

We extract from the *Report* of Mr. Secretary of Embassy Barron, of February 11, 1867, the following statement of the Component Parts, the Capital, the Annual Charge &c. of the National Funded Debt of Turkey for the year 1867-68:—

Loan	Rate of Interest	Rate of Issue	Nominal Capital			Annual Charge		
			Inscribed	Redeemed	Unredeemed	Interest	Amortisation.	Total
	Per cent.		£	£	£	£	£	£
1854	6	80	3,000,000	394,400	2,604,600	153,056	56,950	210,004
1855	4	102½	5,000,000	394,900	4,606,100	180,204	68,400	248,604
1858	6	85 in '58 / 60 in '59	5,000,000	419,600	4,580,400	270,312	79,700	350,012
1860	6	62½	2,037,220	141,100	1,896,120	114,847	23,900	138,747
1862	6	68	8,000,000	612,900	7,387,100	434,280	205,700	639,980
One loan 1863	6	72	6,000,000	217,000	5,783,000	330,314	149,000	479,314
One loan 1864	6	68	2,000,000	86,500	1,913,500	111,210	50,500	161,710
1865	6	66	6,000,000	73,000	5,927,000	348,747	157,500	506,247
Dette Générale	5	50	36,363,630	—	34,545,450	1,727,270	343,454	2,070,724
Total	—	—	73,400,850	2,440,400	69,142,270	3,670,238	1,137,104	4,807,342

But Mr. Barron states significantly in page 459 that to give anything like a trustworthy balance sheet of the Ottoman Treasury is an impossibility.

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Regulations of the Port of Constantinople.—1. Such ships as arrive and anchor at an improper place, on being advised by their respective harbour-masters to heave anchor, or loosen their cables, and proceed to another anchorage, will be bound to weigh, and move in the space of 3 hours.

2, 3, 4. Such as remain after the expiration of the allotted time will have to pay 1 gold medjidiè for every day they remain, counting from the first.

5. The captains of such ships as require to throw a plank ladder on shore in order to discharge coals or anything else, or to receive a cargo from the shore, will bestow great care to see that such plank ladder is well fastened at both its ends, on board their ship as well as on shore.

6. Such captains as take their ships through the Bridge of Karakeny without procuring a Teskeré from the Liman Odassy will have to pay the penalty of 10 gold medjidiès.

7. As the authorities of the bridge will be present without fail whenever it opens for the purpose of admitting or letting out ships, such captains as do not exhibit to those authorities their Teskerés of admission or exit will have to pay the penalty of 1½ gold medjidiès.

8. All steam tugs or steamers carrying passengers either into the Golden Horn or in the Bosporus are forbidden to move from 1 hour after sunset up to ½ hour before sunrise.

9. Such as disregard this regulation will have to pay the penalty of 20 gold medjidiès; and moreover, should they, whilst thus disregarding this regulation, damage any other ship, or a lighter, or boat, or anything else, they will have to give compensation for that damage according to its evaluation. In any case instituted for the recovery of damages done whilst running after hours, no plea of manœuvre or rule will be admitted. The hour of the occurrence alone will be considered.

10. Ships bound for the Black Sea on coming to the Kavak of Anatoli will send their boat for the special purpose of exhibiting to the authorities their firman and lighthouse ticket. The ship will halt as long as is necessary; such captains as do not observe this rule will have to pay 3 gold medjidiès as fine. Likewise all ships going through the Dardanelles will have to show their lighthouse ticket in the same way that they show their other papers. Such as do not will have to pay the above fine.

11. Such ships as arrive laden with gunpowder exceeding 15 okes, after having anchored at the place pointed out by the harbour-masters, will have to report to the Custom-house the quantity of gunpowder on board, and they will have to hoist on their foremast a red signal in order that they may be known. They will fly this signal until the discharge of the gunpowder or their departure for some other place. Such as do not observe this rule will have to pay 10 piastres for every oke of gunpowder they have on board, and suffer confiscation of their gunpowder. This rule will be observed in all ports.

Quarantine.—Vessels arriving in Turkish ports from foreign ports are bound to produce a bill of health from the authorities of the last port of departure. No consular bills of health are recognised. Any irregularity connected with bills of health is visited with a fine amounting to 10*l.* 16*s.* on steamers, and 9*l.* on sailing vessels.

Vessels bound to Constantinople must take pratique either at Tchanak-Kalessi (town of the Dardanelles) or at Gallipoli, and again on their arrival at Constantinople or at Buyukdéré. Vessels proceeding from one Turkish port to another must be provided with a Turkish bill of health.

Vessels arriving from the Black Sea are bound to take pratique at Kavak or Buyukdéré under the same penalty as mentioned above.

The following is the quarantine tariff:—

1. *License Fees.*

Ships								piastres	vins
	1 kilo.	to	1,000	-	-	-	-	2	1
	1,001	,,	3,000	-	-	-	-	6	3
	3,001	,,	5,000	-	-	-	-	10	5
	5,001	,,	7,000	-	-	-	-	12	6
	7,001	,,	10,000	-	-	-	-	16	8
	10,001	,,	12,000	-	-	-	-	20	10
	above this amount			-	-	-	-	24	12

2. *Examination Fees.*

						piastres
1 kilo.	to	3,000	-	-	-	2
3,001	,,	8,000	-	-	-	5
8,001	,,	10,000	-	-	-	10
10,001	,,	and above	-	-	-	20

3. *Fees from Ships in Quarantine.*

1 kilo.	to	1,000	per day	-	-	-	8
1,001	,,	3,000	,,	-	-	-	10
3,001	,,	5,000	,,	-	-	-	15
5,001	,,	7,000	,,	-	-	-	20
7,001	,,	10,000	,,	-	-	-	25
10,001	,,	12,000	,,	-	-	-	30
	above		,,	-	-	-	35

4. *Fees from Travellers.*

Each garde de santé, besides his food, per day	-	10
Lodging for disinfectants ,,	-	40

5. *Disinfecting Goods.*

Bales from	1 oke	to	20, each	-	-	1
	41 ,,		80 ,,	-	-	2
	81 ,,		120 ,,	-	-	3
	121 and upwards		,,	-	-	4
Animals, large			,,	-	-	2
small			,,	-	-	20 paras
poultry			,,	-	-	1 para

All ships arriving at Constantinople are liable to the 2nd of these charges. Captains of vessels are liable to the charges. All ships except of war, whether Turkish or foreign, are liable to the condition of quarantine, and the fees payable.

Harbour and other Dues at Constantinople.

								pres.	p.
Anchorage dues	-	-	-	-	-	-	-	12	0
Health office fee	-	-	-	-	-	-	-	20	0
Firman fee { if bound to Black Sea	-	-	-	-	-	-	-	76	0
Mediterranean	-	-	-	-	-	-	-	77	0
Kavak fee if bound to Black Sea -	-	-	-	-	-	-	-	2	20
Turkish bill of health (if bound to a Turkish port):									
For sailing vessels	-	-	-	-	-	-	-	10	0
steamers -	-	-	-	-	-	-	-	20	0
Light dues for vessels arriving from the Mediterranean and discharging or receiving cargo at Constantinople, and vice versâ, per ton	-	-	-	-	-	-	-	1	0
Light dues for vessels bound from the Mediterranean to the Black Sea in ballast, and vice versâ, per ton	-	-	-	-	-	-	-	1	20
Light dues for vessels bound from Constantinople to the Black Sea, and vice versâ	-	-	-	-	-	-	-	0	30

The above light rates are applied to vessels under 800 tons burden; beyond that size ½ the above rates are charged.

These dues are levied both on entrance and clearance of a ship.

There are no pilotage regulations at Constantinople.

Exchange.—110 piastres = 1*l.*; 1 piastre = 2½*d.*

We are indebted for these particulars to private information, kindly afforded by Mr. Logie, her Majesty's Consul-General, Constantinople.

CONSUL. In Commerce, an officer appointed by competent authority to reside in foreign countries, in the view of facilitating and extending the commerce carried on between the subjects of the country which appoints him, and those of the country or place in which he is to reside.

Origin and Appointment of Consuls.—The office of consul appears to have originated in Italy, about the middle of the 12th century. Soon after this, the French and other Christian nations

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trading to the Levant began to stipulate for liberty to appoint consuls to reside in the ports frequented by their ships, that they might watch over the interests of their subjects, and judge and determine such differences with respect to commercial affairs as arose amongst them. The practice was gradually extended to other countries, and in the 16th century was generally established all over Europe. (Martens, *Précis du Droit des Gens*, sec. 147.)

British consuls were formerly appointed by the Crown, upon the recommendation of great trading companies, or of the merchants engaged in the trade with a particular country or place; but they are now directly appointed by Government, without requiring any such recommendation, though it, of course, is always attended to when made.

The right of sending consuls to reside in foreign countries depends either upon a tacit or express convention. Hence their powers differ very widely in different states. In some they exercise a very extensive jurisdiction over the subjects of the state which appoints them; but the extent of this jurisdiction is not discretionary, and must, in all cases, be regulated either by an express convention between the state appointing and the state receiving the consul, or by custom. Consuls established in England have no judicial power; and the British Government has rarely stipulated with other powers for much judicial authority for its consuls. Turkey, however, is an exception to this remark. English consuls enjoy in that country several peculiar privileges conferred by ancient treaties, and confirmed by that signed at the Dardanelles in 1809. It is there stipulated and agreed upon—

'That if there happen any suit, or other difference or dispute, among the English themselves, *the decision thereof shall be left to their own ambassador or consul*, according to their custom, without the judge or other governors, our slaves, intermeddling therein.

'That if an Englishman, or other subject of that nation, shall be involved in any lawsuit, or other affair connected with law (with a Turk), the judge shall not hear nor decide thereon until the ambassador, consul, or interpreter shall be present; and all suits exceeding the value of 4,000 aspers shall be heard at the Sublime Porte, and nowhere else.

'That the consuls appointed by the English ambassadors in our sacred dominions, for the protection of their merchants, shall never, under any pretence, be imprisoned, nor their houses sealed up, nor themselves sent away; but all suits or differences in which they may be involved shall be represented to our Sublime Porte, where their ambassador will answer for them.

'That in case any Englishman or other person subject to that nation, or navigating under its flag, should happen to die in our sacred dominions, our fiscal and other officers shall not, upon pretence of its not being known to whom the property belongs, interpose any opposition or violence, by taking or seizing the effects that may be found at his death, but they shall be delivered up to such Englishman, whoever he may be, to whom the deceased may have left them by his will; and should he have died intestate, then the property shall be delivered up to the English consul, or his representative who may be then present; and in case there be no consul or consular representative, they shall be registered by the judge, in order to his delivering up the whole thereof whenever any ship shall be sent by the ambassador to receive them.'

Conformably to these capitulations, and the by-laws of the Levant Company, Nos. 39, 40, and 41, the consuls were authorised to administer justice in all cases of contention amongst British subjects within the Turkish dominions; and they were further authorised to send to England, in safe custody, any British subject resident in Turkey who should decline their jurisdiction, or appeal from them to the courts of the Grand Signior or of any other potentate. And the Act 6 Geo. IV. c. 33 s. 4 (slightly modified by the 6 & 7 Vict. c. 94), for the abolition of the Levant Company, expressly provides for the continuance to the consuls appointed by his Majesty of the same rights and duties of jurisdiction over British subjects in Turkey that were enjoyed by the consuls appointed by the company.

At present, therefore, consuls in Turkey enjoy extensive judicial powers; but owing to the freedom of Turkish commerce, and the simplicity of the regulations under which it is carried on, their other functions, with the exception of furnishing statistical details, are not very onerous. Mr. Urquhart, whose opinion as to all that respects Turkey is deservedly of considerable weight, seems to think that the judicial powers enjoyed by the European consuls in that country have been productive of much mischief. Still, however, we doubt whether they could be entirely dispensed with in a country so peculiarly situated. But there can be no doubt that it is highly necessary that the greatest care should be taken in the selection of the individuals to whom such powers are intrusted.

Other States have occasionally given to consuls similar powers to those conceded to them in Turkey. Thus, in the treaty between Sweden and the United States of America, ratified July 24, 1818, it is stipulated that the consuls appointed by either Government to reside within the dominions of the other, or their substitutes, 'shall, as such, have the right of acting as judges or arbiters in all cases of differences which may arise between the captains and crews of the vessels of the nation whose affairs are intrusted to their care. The respective Governments shall have no right to interfere in these sorts of affairs, except in the case of the conduct of the crews disturbing public order and tranquillity in the country in which the vessel may happen to be, or in which the consul of the place may be obliged to call for the intervention and support of the executive power in order to cause his decision to be respected; it being, however, well understood that this sort of judgment or arbitration cannot deprive the contending parties of their rights of appealing on their return to the judicial authorities of their country.'

Duties of Consuls.—The duties of a consul, even in the confined sense in which they are commonly understood, are important and multifarious. It is his business to be always on the spot, to watch over the commercial interests of the subjects of the state whose servant he is; to be ready to assist them with advice on all doubtful occasions; to see that the conditions in commercial treaties are properly observed; that those he is appointed to protect are subjected to no unnecessary or unjustifiable demands in conducting their business; to represent their grievances to the authorities at the place where they reside, or to the ambassador of the sovereign appointing him at the court on which the consulship depends, or to the Government at home; in a word, to exert himself to render the condition of the subjects of the country employing him, within the limits of his consulship, as comfortable, and their transactions as advantageous and secure, as possible.

The following more detailed exposition of the *general* duties of a British consul is taken from Mr. Chitty's work *On Commercial Law*:—

'A British consul, in order to be properly qualified for his employment, should take care to make himself master of the language used by the court and the magistracy of the country where he resides, so as to converse with ease upon subjects relating to his duties. If the common people of the port use another, he must acquire that also, that he may be able to settle little differences without troubling the magistracy of the place for the interposition of their authority; such as accidents happening in the harbour by the ships of his nation running foul of and doing damage to each other.

'He is to make himself acquainted, if he be not already, with the law of nations and treaties, with the tariff or specification of duties on articles imported or exported, and with all the municipal ordinances and laws.

'It is also his duty to protect from insult or imposition British subjects of every description within his jurisdiction. If redress for injury suffered is not obtained, he is to carry his complaint by memorial to the British minister residing at the court on which the consulship depends. If there be none, he is to address himself directly to the court; and if, in an important case, his complaint be not answered, he is to transmit the memorial to his Majesty's secretary of state. (Beawes, Warden, &c.)

'When insult or outrage is offered by a British subject to a native of the place, and the magistrate thereof complains to the consul, he should summon and in case of disobedience may by armed force bring before him the offender, and order him to give immediate satisfaction; and if he refuse, he resigns him to the civil jurisdiction of the magistrate, or to the military law of the garrison; nevertheless *always acting as counsellor or advocate at his trial*, when there is question of life or property.

'But if a British subject be accused of an offence alleged to have been committed at sea, within the dominion or jurisdiction of his sovereign, it is then the duty of the consul to claim cognisance of the cause for his sovereign, and to require the release of the parties, if detained in prison by the magistracy of the place on any such accusation brought before them, and that all judicial proceedings against them do instantly cease; and he may demand the aid of the power of the country, civil and military, to enable him to secure and put the accused parties on board such British ship as he shall think fit, that they may be conveyed to Great Britain, to be tried by their proper judges. If, contrary to this requisition, the magistrates of the country persist in proceeding to try the offence, the consul should then draw up and transmit a memorial to the British minister at the court of that country; and if that court give an evasive answer, the consul should, if it be a sea offence, apply to the Board of Admiralty at London, stating the case; and upon their representation the secretary for the proper department will lay the matter before the king, who will cause the ambassador of the foreign state, resident in England, to write to his court abroad, desiring that orders may immediately be given by that Government that all judicial proceedings against the prisoner be stayed, and that he be released. (*Case of Horseman and his Crew*, Beawes, vol. ii. p. 422.)

'It is the duty also of a British consul to relieve all distressed British mariners, to allow them 6*d.* daily for their support, to send them home in the first British vessels that sail for England, and to keep a regular account of his disbursements, which he is to transmit yearly, or oftener if required, to the Navy Office, attested by two British merchants of the place: this is provided for by positive enactment. (1 Geo. II. s. 2, c. 14 s. 12.) He is also to give free passes to all poor British subjects wishing to return home, directed to the captains of the king's packet boats or ships of war, requiring them to take them on board. [SEAMEN.]

'The consul is not to permit a British merchant ship to leave the port where he resides without his passport, which he is not to grant until the master and crew thereof have satisfied all just demands upon them; and for this purpose he ought to see the governor's pass of a garrisoned town, or the burgomaster's; unless the merchant or factor to whom the ship was consigned will make himself responsible. (Beawes, *Lex Merc.* vol. ii. p. 423.)

'It is also his duty to claim and recover all wrecks, cables, and anchors, belonging to British ships, found at sea by fishermen or other persons, to pay the usual salvage, and to communicate a report thereof to the Navy Board.

'The consuls and vice-consuls of his Majesty are, by express enactment (46 Geo. III. c. 98 s. 9) empowered to administer oaths in all cases respecting quarantine, in like manner as if they were magistrates of the several towns or places where they respectively reside. It is also laid down that a consul is to attend, if requested, all arbitrations where property is concerned between masters of British ships and the freighters, being inhabitants of the place where he resides.' (Chitty *On Commercial Law*, vol. i. pp. 58–61, and the numerous authorities there quoted.)

Any individual, whether he be a subject of the state by which he is appointed or of another, may be selected to fill the office of consul, provided he be approved and admitted by the Government in whose territory he is to reside. In most instances, but not always, consuls are the subjects of the state appointing them.

Much, however, of the peculiar duties of a consul must always depend on the nature of the intercourse with the country to which he is sent, and of the instructions given him. British consuls are regularly supplied with copies of all Acts relating to trade and navigation, quarantine, slave trade suppression, emigration &c., and with the treaties between this and other countries, and must of course shape their conduct accordingly. They are strictly forbidden from corresponding with private parties on public matters. We subjoin an extract from the *General Instructions for British Consuls*:—

'He will bear in mind that it is his principal duty to protect and promote the lawful trade and trading interests of Great Britain by every fair and proper means, taking care to conform to the laws and regulations in question; and whilst he is supporting the lawful trade of Great Britain, he will take special notice of all prohibitions with respect to the export or import of specified articles, as well on the part of the state in which he resides as of the Government of Great Britain, so that he may caution all British subjects against carrying on an illicit commerce to the detriment of the revenue, and in violation of the laws and regulations, of either country; and he will not fail to give to this department immediate notice of any attempt to contravene those laws and regulations.

'The consul will give his best advice and assistance, when called upon, to his Majesty's trading subjects, quieting their differences, promoting peace, harmony, and good-will amongst them, and

conciliating as much as possible the subjects of the two countries upon all points of difference which may fall under his cognisance. In the event of any attempt being made to injure British subjects, either in their persons or property, he will uphold their rightful interests, and the privileges secured to them by treaty, by due representation in the proper official quarter. He will, at the same time, be careful to conduct himself with mildness and moderation in all his transactions with the public authorities, and he will not upon any account urge claims, on behalf of his Majesty's subjects, to which they are not justly and fairly entitled. If redress cannot be obtained from the local administration, or if the matter of complaint be not within their jurisdiction, the consul will apply to his Majesty's consul-general, or to his Majesty's minister, if there be no consul-general in the country wherein he resides, in order that he may make a representation to the higher authorities, or take such other steps in the case as he may think proper; and the consul will pay strict attention to the instructions which he may receive from the minister or consul-general.'

Emoluments of Consuls. Prohibition of Trading &c.—The emoluments of our consuls were, until these few years, principally derived from certain fees, depending on the tonnage, length of the voyages &c. of the British ships entering and clearing out of the limits of their consulships. But this mode of remunerating them was materially changed by the Act of 6 Geo. IV. c. 87. The fees payable under this Act (see *post*) are inconsiderable; but the deficiency has been, partly at least, compensated by salaries allowed by Government.

At present British consuls are in some instances permitted to carry on trade, while in others they are interdicted from having anything to do with it. The principle on which the distinction is made does not seem very obvious. But if this distinction must be kept up, the preferable plan would seem to be to interdict all consuls resident at the great ports, and those resident at other ports, principally in the character of political agents, from trading; and to permit it to others. The public duties of the former are either quite sufficient wholly to engross their attention, or they are of such a kind as would make it very inexpedient for those employed in them to be occupied in mercantile pursuits; in the case of the smaller class of ports, but little frequented by British ships, and where the consuls have no peculiar political functions to discharge, there is a less urgent necessity for prohibiting them from carrying on business on their own account. At the same time, however, we are clearly of opinion that it would in *all* cases be better not to allow consuls to engage, either directly or indirectly, in any sort of industrious undertaking. The main end and purpose of their institution is the facilitating of commerce with the nation in which they reside; and in furtherance of such object they ought on all occasions to communicate the fullest and earliest information in their power touching commercial matters, not only to the Government that appoints them, but to such of its subjects as may apply for their advice and assistance. But, however advantageous publicity may be to others, it may in various ways be extremely hostile to the interests of the consul considered in his capacity of a merchant; and when his own advantage and his public duty are set in opposition, it requires little sagacity to discover which will have the ascendancy. Hence the fair presumption is, that a trading consul will rather endeavour to profit by the peculiar information his situation may enable him to obtain than to communicate it to others. His interests as a merchant must frequently also, even when such is not really the case, appear to be in opposition to those of the parties for whose behoof he is said to be appointed; and under such circumstances his proceedings, however fair, will always be liable to the suspicion of partiality. It is material also to observe that mercantile consuls labour under peculiar disadvantages in the obtaining of information. If a consul, not engaged in business, make a proper application to a public functionary or merchant for information as to any subject with which they may be acquainted, he will, in most instances, learn all that they know; but it is obvious on general principles, and we have been assured of the fact by some of the most intelligent officers of the class, that if a trading consul make the same application, the chances are 10 to 1 he will either learn nothing, or nothing that is not false or misleading. The enquiries of the former excite no jealousy, those of the latter invariably do. The former is known to be actuated only by a feeling of liberal curiosity, or by a wish properly to discharge his public duties; but the latter, being engaged in business, gets credit only for selfish and interested motives, and is believed to be seeking the information merely that he may turn it to his own account. A mercantile consul is, therefore, uniformly the object of the suspicions of all parties, both of his countrymen and of the foreigners amongst whom he resides. Instead of being, as he ought to be, an independent public functionary, he necessarily gets entangled in the cabals and intrigues of those whose differences it is his province to conciliate. He is tempted also to engage in smuggling adventures, contrary to his duty, and highly injurious to the character of his nation. And though he should be proof against temptations of this sort, he is, like all other individuals, subject to misfortune and bankruptcy; and may, in this way, bring discredit and embarrassment on the Government that appoints him. These reasons seem to be far more than sufficient to vindicate the policy of interdicting consuls from trading. But were it otherwise, it is enough to decide the question to state, that if they be made properly to perform the functions of their office, it will occupy every moment of their time. To the argument in favour of the existing system derived from economical considerations we do not attach the smallest weight. To attempt to save a few thousand pounds by allowing an important class of public functionaries to engage in avocations inconsistent with their duty, and destructive of their utility, would be something the very reverse of economy.

Cost of the Establishment. Improvements made in it.—We had occasion, in the former edition of this work, to complain of the cost and inadequacy of our consular establishment. But its expense has since been very much, and, in some instances perhaps, too much, reduced; at the same time that measures have been taken for increasing the duties of the consuls by making them furnish details as to the trade, manufactures, duties, prices &c. of the districts in which their consulships are situated. Hitherto this important department of what ought to be the peculiar duty of a consul has been most strangely neglected; but if it be properly attended to, it will occupy a large portion of the consul's time, and will be a field for the display of superior talents. Some of the answers made by the consuls to the *Circular Queries* prepared for the former edition of this work were drawn up with great care and intelligence, and reflected much credit on their

authors. There were a good many certainly of a very inferior description; but this is not to be wondered at—it being hardly possible for those who have not given a good deal of their time to such subjects, to make a proper reply to queries relating to them. And if the system is to be perfected to the degree of which it is susceptible, the salaries allowed to the consuls ought to be such as to afford a sufficient remuneration for the services of gentlemen of character, familiar with the principles of public law, commerce, and statistics; and such only ought to be nominated to consular situations. We subjoin that part of the *General Instructions for the Consuls* that has reference to statistical enquiries:—

'The consul will forward to the Secretary of State, in duplicate, so soon as the information he can collect will enable him so to do, but at any rate within a period of 6 months from the date of his arrival at his residence, a general report on the trade of the place and district, specifying the commodities, as well of the export as import trade, and the countries which supply the latter, together with the increase or decline in late years, and the probable increase or decline to be expected, and the causes in both cases. He will state the general regulations with respect to trade at the place where he is resident, and their effects. He will give the average market prices within the year of the several articles of export and import; he will particularise what articles, if any, are absolutely prohibited to be imported into the country wherein he resides; what articles are prohibited to be imported from any other places than from the place of their growth or production; whether there be any privileges of importation, and what those privileges are, in favour of ships that are of the build of, or belonging to, the country wherein he resides; whether there be any difference in the duty on goods when imported into that country in a foreign ship, and if so, whether it be general, or applicable only to particular articles; what are the rates of duty payable on goods imported into the said country; whether there be any tonnage duty or other port dues, and what, payable on shipping entering at, or clearing from, the ports of that country; whether there be any (and, if so, what) ports in that country wherein goods may be warehoused on importation, and afterwards exported with or without payment of any duties, and under what regulations.'

He is also to transmit an annual statement of the trade with the principal ports of his consulship, and quarterly returns of the prices of corn &c. Mr. Macgregor's Tariffs have been mostly compiled from these returns.

The following are the provisions of the Act 6 Geo. IV. c. 87 (modified by 4 & 5 Wm. IV. c. 24) with respect to the salaries and charges of consuls:—

Salaries to Consuls.—'Whereas the provision which hath hitherto been made for the maintenance and support of the consuls general and consuls appointed by his Majesty to reside within the dominions of sovereigns and foreign States in amity with his Majesty is inadequate to the maintenance and support of such consuls general and consuls, and it is expedient to make further and due provisions for that purpose;' it is therefore enacted, that it shall be lawful for his Majesty, by any orders to be issued by the advice of his privy council, to grant to all or any of the consuls general or consuls appointed by his Majesty to reside within any of the dominions of any sovereign or foreign state or power in amity with his Majesty, such reasonable salaries as to his Majesty shall seem meet, and by such advice from time to time to alter, increase, or diminish any such salaries or salary as occasion may require. (6 Geo. IV. c. 87 s. 1.)

Terms on which Salaries shall be granted. Leave of Absence.—Such salaries shall be issued and paid to such consuls general and consuls without fee or deduction; provided that all such salaries be granted during his Majesty's pleasure, and not otherwise, and be held and enjoyed by such consuls general and consuls so long only as they shall be actually resident at the places at which they may be so appointed to reside, and discharging the duties of such their offices: provided nevertheless, that in case his Majesty shall, by any order to be for that purpose issued through one of his principal Secretaries of State, grant to any such consul general or consul leave of absence from the place to which he may be so appointed, such consul general or consul shall be entitled to receive the whole, or such part as to his Majesty shall seem meet, of the salary accruing during such period of absence. (Sec. 2.)

Salaries in lieu of Fees formerly paid. Consuls not to take other than the Fees hereinafter mentioned.—The salaries so to be granted shall be taken by the consuls general and consuls as a compensation for all salaries heretofore granted, and all fees of office and gratuities *heretofore* taken by them from the masters or commanders of British vessels, or from any other person, for any duties or services by such consuls general or consuls done or performed for any such persons; and no such consuls general or consuls shall from January 1, 1826, be entitled, on account of anything by them done in the execution of such their office, or for any service by them rendered to any masters or commanders of British vessels, or to any other person in the execution of such their office, to ask or take any fees, recompense, gratuity, compensation, or reward, or any sum of money, save as hereinafter is excepted. (Sec. 3.)

Certain Fees still allowed to be taken.—It shall be lawful for all consuls general and consuls appointed by his Majesty, and resident within the dominions of any sovereign, or any foreign state or power in amity with his Majesty, to accept the several fees particularly mentioned in the tables to this present Act annexed, marked with the letters A and B, for the several things and official acts and deeds particularly mentioned in the said schedules; and it shall be lawful for his Majesty, by any orders to be by him made by the advice of his privy council, from time to time as occasion may require, to diminish or wholly to abolish all or any of the fees aforesaid, and to establish and authorise the payment of any greater or smaller or new or additional fees for the several things mentioned in the said schedules, or for any other thing to be by any such consul general or consul done in the execution of such his office. (Sec. 4.)

Penalty on Consuls demanding more Fees than specified in the Schedule.—In case any consul general or consul appointed by his Majesty as aforesaid shall, by himself or deputy, or by any person authorised thereto in his behalf, ask or accept, for anything by him done in the execution of such his office, or for any service or duty by him rendered or performed in such his office, for any person whomsoever, any other or greater fee or remuneration than is specified in the schedule, or than shall be sanctioned and specified in or by any such order in council, the person so offending shall forfeit and become liable to pay to his Majesty any sum of sterling British money, not exceeding the amount of the salary of such person for 1 year, nor less than the 12th part of such annual salary, at the discretion of the court in which such penalty

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may be recovered; and shall moreover upon a second conviction for any such offence forfeit such his office, and for ever after become incapable of serving his Majesty in the same or the like capacity. (Sec. 5.)

Table of Fees to be exhibited at Custom-houses.—A printed copy of the table of fees allowed by this Act, or which may be sanctioned or allowed by any order to be made in pursuance of this Act by his Majesty in council, shall be exhibited in a conspicuous manner, for the inspection of all persons, in the Custom-house in the port of London, and in all other Custom-houses in the several ports and harbours of the United Kingdom of Great Britain and Ireland; and printed copies thereof shall, by the collector or other chief officer of customs in all such ports and harbours, be delivered gratuitously, and without fee or reward, to every master of any vessel clearing out of any such port or harbour, and demanding a copy thereof. (Sec. 6.)

Table of Fees to be exhibited at Consuls' Offices.—A copy of the schedule or table of fees to this present Act annexed, or which may be established and authorised by any such order in council, shall be hung up and exhibited in a conspicuous place in the public offices of all consuls general or consuls appointed by his Majesty, in the foreign places to which they may be so appointed, for the inspection of all persons interested therein; and any consul general or consul omitting or neglecting to exhibit any such copy of the schedules in such his public office, or refusing to permit the same to be inspected by any person interested therein, shall for every such offence forfeit and pay a sum of British sterling money not exceeding one half the amount of the salary of such person for 1 year, nor less than the 12th part of such annual salary, at the discretion of the court in which such penalty may be recovered. (Sec. 7.)

Superannuation.—'And whereas it is expedient that his Majesty should be enabled to grant to the said consuls general and consuls, appointed as aforesaid, allowances in the nature of superannuation or reward for meritorious public services:' it is further enacted, that all the regulations contained in 50 Geo. III. c. 117, 3 Geo. IV. c. 113, 5 Geo. IV. c. 104, respecting superannuation allowances, are hereby extended to the said consuls general and consuls, so far as such regulations can be applied to the cases of such several persons respectively, as fully to all intents and purposes as if the same were repeated and enacted in this present Act. (Sec. 8.) This is modified by the Superannuation Act of 4 & 5 Wm. IV. c. 24.

Allowances during War.—If it shall at any time happen that by reason of any war which may hereafter arise between his Majesty and any sovereign, or foreign state or power, within the dominions of whom any such consul general or consul shall be appointed to reside, he shall be prevented from residing, and shall in fact cease to reside, at the place to which he may be so appointed, it shall be lawful for his Majesty, by any order to be issued by the advice of his privy council, to grant to any such consul general or consul, who may have served his Majesty in that capacity for any period not less than 3 years, nor more than 10 years next preceding the commencement of any such war, a special allowance not exceeding the proportion of their respective salaries to which such consuls general and consuls would be entitled under the provisions of the said Act of 3 Geo. IV., in case the period of their respective service had exceeded 10 years and had not exceeded 15 years: provided that in case any such consul general or consul shall have served in such his office for the space of 10 years and more, it shall be lawful for his Majesty, by any such order in council as aforesaid, to grant to him such a proportion of his salary, which by the said Act is authorised to be granted, as a superannuation allowance, according to the several periods of service exceeding 10 years, in the said Act. (6 Geo. IV. c. 87 s. 9.)

Tables of Fees allowed to be taken by Consuls General and Consuls, substituted by Orders in Council of May 1, 1855, and July 27, 1863, for those appended to the Act of 6 Geo. IV. c. 87.

Part I.

Fees to be taken in respect of matters in which the Consul's interposition is required by Law.

	£	s.	d.
For every declaration made before the consul in Forms B, C, F, G, H, and I. in the Schedule to the Merchant Shipping Act 1854, with a view to the registry, transfers, and transmission of ships, interests in ships, or mortgages on ships	0	5	0
For endorsing a memorandum of change of master upon the certificate of registry	0	2	0
For granting a provisional certificate of registry (this fee to be exclusive of fees on declarations)	0	10	0
For recording a mortgage of a ship or shares in a ship made under a certificate of mortgage	0	10	0
For recording the transfer of a mortgage of a ship or shares in a ship made under a certificate of mortgage	0	7	0
For recording the discharge of a mortgage of a ship or shares in a ship made under a certificate of mortgage	0	7	6
For every sale of a ship or shares in a ship made before the consul under a certificate of sale	0	10	0
For inspection of the register book of transactions in ships	0	1	0
For every seaman engaged before the consul	0	2	0
For every alteration in agreements with seamen made before the consul	0	2	0
For every seaman discharged or left behind with the consul's sanction	0	2	0
For every desertion certified by the consul	0	2	0
For attending a seaman's will	0	2	0
For examination of provisions or water, to be paid by the party who proves to be in default	0	10	0
For every salvage bond made in pursuance of 17 & 18 Vict. c. 104, sec. 188, to be paid by the master or owner of the property salved	2	0	0
On disbursements in respect of distressed seamen, a commission of	2½ per cent.		

Part II.

Fees to be taken in respect of matters in which the Consul's interposition is to be given only when required by the parties interested.

	£	s.	d.
For noting a protest with certified copy if required	0	5	0
For order of survey " "	0	5	0
For extending a protest or survey "	1	0	0
And if it exceeds 200 words, for every additional 100 words	0	2	6
For preparing and attesting bottomry or arbitration bond	1	0	0
For attesting bottomry or arbitration bond not prepared by consul	0	5	0
For attendance out of consular office at a shipwreck, or for the purpose of assisting a ship in distress, or of saving wrecked goods or property, over and above travelling expenses, per diem	1	1	0
For attending valuation of goods if under 200*l.* in value	0	10	6
For attending valuation of goods if 200*l.* and upwards in value, for every day's attendance during which the valuation continues	1	1	0
For attending sale of goods if the purchase money is under 200*l.*	1	1	0
For attending the sale of goods if the purchase money is 200*l.* or upwards, for every day during which the sale continues	2	2	0
Certificate of due landing of goods exported from the United Kingdom	0	9	0
Bill of health*	0	10	0
Visé of passport	0	2	0
Opening of will of a British subject not being a seaman	1	1	0
Management of property of a British subject not being a seaman dying intestate, a commission of	2½ per cent.		
Registration of documents or other matters	0	2	6
And if exceeding 100 words, for every additional 100 words	0	0	6
For every certified copy of a document not before mentioned	0	2	6
And if it exceeds 100 words, for every additional 100 words	0	0	6
For administering an oath or declaration, including attestation of signature if required	0	2	0
For attesting a signature	0	2	0
For annexing the seal of office and signature to any document not mentioned in or otherwise provided for by this table	0	5	0

Note 1.—No fee is to be taken for the custody of or endorsement on ships' articles and papers deposited with the consul in pursuance of the Merchant Shipping Act 1854, sec. 279.

Note 2.—Where any fee is fixed by the foregoing tables for any particular act or transaction, no additional fee is to be demanded for signature, attestation, or annexing seal of office.

Note 3.—The above fees, if not paid in English money, are to be calculated at the current rate of exchange.

* Abolished, so far as regards the Ottoman dominions, by Order in Council of July 27, 1863, and the following fees substituted in lieu thereof:—'In respect of every British ship on each occasion of her entering or clearing at any port in the Ottoman dominions, viz. on her entry inwards 5*s*., and on her clearance outwards (including a bill of health if required) 5*s*.'

For an account of the duties devolving on our Consuls under the Merchant Shipping Act, see *Instructions to Consuls* prepared by the Board of Trade and approved by the Secretary of State for Foreign Affairs, 1855, and *Supplementary Instructions*, 1868.

CONTRABAND. In Commerce, a commodity prohibited to be exported or imported, bought or sold.

CONTRABAND is also a term applied to designate that class of commodities which neutrals are not allowed to carry during war to a belligerent power. [NEUTRALITY.]

CONVOY. In Navigation, the term applied to designate a ship or ships of war, appointed by Government, or by the commander-in-chief on a particular station, to escort or protect the merchant ships proceeding to certain ports. Convoys are mostly appointed during war; but they are sometimes also appointed during peace, for the security of ships navigating seas infested with pirates.

Individuals have not always been left to themselves to judge as to the expediency of sailing with or without convoy. The Governments of most maritime states have thought proper, when they were engaged in hostilities, to oblige their subjects to place themselves under an escort of this sort, that the enemy might not be enriched by their capture. Acts to this effect were passed in this country during the American war and the late French war. The last of these Acts (43 Geo. III. c. 57) enacted that it should not be lawful for any ship belonging to any of his Majesty's subjects (except as therein provided) to depart from any port or place whatever unless under such convoy as should be appointed for that purpose. The master was required to use his utmost endeavours to continue with the convoy during the whole voyage, or such part thereof as it should be directed to accompany his ship; and not to separate therefrom without leave of the commander, under very heavy pecuniary penalties. And in case of any ship departing without convoy contrary to the Act, or wilfully separating therefrom, all insurances on the ship, cargo, or freight, belonging to the master, or to any other person directing or privy to such departure or separation, were rendered null and void. The customs officers were directed not to allow any ship that ought to sail with convoy to clear out from any place in the United Kingdom for foreign parts without requiring from the master bond with one surety, with condition that the ship should not depart without convoy, nor afterwards desert or wilfully separate from it. The regulations of this Act did not extend to ships not requiring to be registered, nor to those licensed to sail without convoy, nor to those engaged in the coasting trade, nor to those belonging to the East India Company &c.

It is very common, during periods of war, to make *sailing or departing with convoy* a condition in policies of insurance. This, like other warranties in a policy, must be *strictly* performed. And if a ship warranted to sail with convoy, sail without it, the policy becomes void, whether this be imputable to any negligence on the part of the insured, or the refusal of Government to appoint a convoy.

There are five things essential to sailing with convoy: viz. *first*, it must be with a regular convoy, under an officer appointed by Government; *secondly*, it must be from the place of rendezvous appointed by Government; *thirdly*, it must be a convoy for the voyage; *fourthly*, the master of the ship must have sailing instructions from the commanding officer of the convoy; and *fifthly*, the ship must depart and continue with the convoy till the end of the voyage unless separated by necessity.

With respect to the third of these conditions we may observe that a warranty to sail with convoy generally means a convoy *for the voyage*; and it is not necessary to add the words 'for the voyage' to make it so. Neither will the adding of these words in some instances make the omission of them, in any case, the ground of a different construction. A warranty to sail with convoy does not, however, uniformly mean a convoy that is to accompany the ship insured the entire way from the port of departure to her port of destination, but such convoy as Government may think fit to appoint as a sufficient protection for ships going the voyage insured, whether it be for the whole or only a part of the voyage.

Sailing instructions, referred to in the fourth condition, are written or printed directions delivered by the commanding officer of the convoy to the several masters of the ships under his care, that they may understand and answer signals, and know the place of rendezvous appointed for the fleet in case of dispersion by storm, or by an enemy &c. These sailing instructions are so very indispensable, that no vessel can have the full protection and benefit of convoy without them: hence, when, through the negligence of the master, they are not obtained, the ship is not said to have sailed with convoy; and a warranty in a policy of insurance to that effect is held not to be complied with. If, however, the master do all in his power to obtain sailing instructions, but is prevented from obtaining them by any insuperable obstacle, as the badness of the weather; or if they be refused by the commander of the convoy; the warranty in the policy is held to be complied with.

For further information as to convoy, see Abbott *On the Law of Shipping*, part iii. ch. iii.; Marshall *On Insurance*, book i. ch. ix. sec. 5; and the Act 43 Geo. III. c. 57 &c.

COPAIVA. [BALSAM.]

COPAL, improperly called Gum Copal. A valuable and singular kind of resin, that naturally exudes from different large trees, and is imported partly from America, and partly from the East Indies. The best copal is hard and brittle, in rounded lumps of a moderate size, easily reducible to a fine powder, of a light lemon yellow colour, beautifully transparent, but often, like amber, containing parts of insects and other small extraneous bodies in its substance. Its specific gravity varies from 1·045 to 1·139. It has neither the solubility in water common to gums, nor the solubility in alcohol common to resins, at least in any considerable degree. It may be dissolved by digestion in drying linseed oil, and other volatile menstrua. This solution forms a beautiful transparent varnish, which, when properly applied and slowly dried, is very hard and very durable. Copal varnish was first discovered in France, and was long known by the name of *vernis martin*. It is applied to snuff-boxes, tea-boards, and other utensils. It preserves and gives lustre to paintings; and contributes to restore the decayed colours of old pictures, by filling up cracks, and rendering the surface capable of reflecting light more uniformly. Copal is liable to be confounded with *gum animé*, when the latter is very clear and good. But it is of importance to distinguish between them, as the animé, though valuable as a varnish, is much less so than the finest copal; the varnish with the former being darker coloured, and not so hard. Besides the external appearance

of each, which is pretty distinct to a practised eye, the solubility in alcohol furnishes a useful test—the animé being readily soluble in this fluid, while the copal is hardly affected by it; copal is also brittle between the teeth, whereas animé softens in the mouth. (Rees's *Cyclopædia*; Ure's *Dictionary*; &c.)

Gum copal is dug from the earth on the coast of Africa, a few miles inland, opposite the island of Zanzibar; an inferior sort is also found on the island. The supply is supposed to be inexhaustible, and the production only limited by the indolence of the negroes, who will merely dig up enough to supply their daily wants. It is purchased from the diggers by the Indian Banians residing on the coast. Colonel Pelly in his *Report on Muscat* for 1860, published in 1863, states the export from Zanzibar to amount to 875,875 lbs., valued at 37,166*l*. It is usually sold by the *farazlah*, equal to about 35 lbs. avoirdupois. That dug during the dry season is inferior to that obtained in the wet.

In 1866 the imports of gum copal were 12,941 cwts., valued at 37,250*l*. The chief sources are the Philippine Islands, Sierra Leone, the Straits Settlements, and Portugal. The average price of copal from the Philippines is only 1*l*. 12*s*. 7*d*. per cwt.; that from other sources is about 8*l*. 10*s*. The best comes from Bombay, and is worth 5*l*. the cwt.

COPENHAGEN. The capital of Denmark, on the E. coast of the island of Zealand, in the channel of the Baltic called the Sound; lat. 55° 41′ 4″ N., long. 12° 35′ 46″ E. Population, according to census of 1860, 155,143; estimated in 1866 at 165,000. It is a well-built, handsome city. In going into Copenhagen, the course is between the buoy on the Stubben Bank to the left, and the buoy on the Middle-grounds, and those in advance of the three Crowns batteries on the right, W.S.W. by compass. From the three Crowns to the roads the course is S.S.W. The water in the channel is from 6 to 4 fathoms deep; but it is narrow, and the navigation rather difficult. There is no obligation to take a pilot on board; but if a vessel wish for one, she may heave to abreast of the battery, when he will come to her. Vessels not intending to come into harbour bring up in the roads, at from ¼ to ½ mile from shore, in about 4 fathoms, the town bearing S.S.W. In the harbour, within the boom, the water is from 17 to 18 feet deep. Vessels in harbour load and unload alongside the quay. The anchorage in the roads is good and safe.

Money.—Accounts are kept in rixdollars of 6 marcs, or 96 skillings; the rixdollar being formerly worth about 4*s*. 1*d*. sterling. But in 1813 a new monetary system was adopted, according to which the new or *Rigsbank* dollar is worth 2*s*. 3½*d*., being half the value of the old specie dollar, and ⅓ of the old current dollar. The money generally used in commercial transactions is bank money. The *par* of exchange, estimated by the Rigsbank dollar, would be 8 dollars 7·6 skillings per pound sterling.

Weights & Measures.—The commercial weights are, 16 pounds = 1 lispound; 20 lispounds = 1 shippound; 100 lbs. = 110¼ lbs. avoirdupois = 134 lbs. troy = 101 lbs. of Amsterdam = 103 of Hamburg.

The liquid measures are, 4 ankers = 1 ahm or ohm; 1½ ahm = 1 hogshead; 2 hogsheads = 1 pipe; 2 pipes = 1 quarter. The anker = 10 (very nearly) English wine gallons. A *fuder* of wine = 930 pots; and 100 pots = 25½ wine gallons.

The dry measures are, 4 viertels = 1 scheffel; 8 scheffels = 1 tönde or ton; 12 tons = 1 last = 47½ Winchester bushels. The last of oil, butter, herrings, and other oily substances should weigh 224 lbs. nett.

The measure of length is the Rhineland foot = 12½ inches very nearly. The Danish ell = 2 feet; 100 ells = 68⅝ English yards.

The following comparative table of Danish and English Weights and Measures is given in a *Report* of Jan. 25, 1868, by Mr. Strachey, our Chargé d'Affaires at Copenhagen:—

Danish.	*English.*
Pound	1·1023 lbs. avoirdupois.
Qvint (1-100 lb.)	0·0110 "
Ort (1-1000 lb.)	0·0011 "
Centner (100 lbs.)	110·2312 "
Tönde:—	
Of Corn	3·8270 bushels.
Beer	28·0189 gallons.
Butter	216·9179 lbs. avoirdupois.
Coal	4·6775 bushels.
Pot	0·2126 gallons.
Viertel	1·7011 "
Alen (ell)	0·6864 yard.
Fod (foot)	1·0297 feet.
Cubikfod	1·0918 cubic feet.
Commercelast	2 tons.
Rigsdaler = 6 marks = 96 skillings	2*s*. 3*d*.

A new law has just (1868) passed the Rigsdag enacting that in future the French 'gramme' system of weights shall be used by the Danish medical faculty and veterinary doctors in prescribing medicines, and likewise by apothecaries in retailing drugs for medical purposes.

Trade of Copenhagen.—This is not very considerable; nor is it rapidly increasing—a result mainly of the late war, and the consequent diminution of the territory and resources of Denmark. But it is to be hoped that the stationary state of her trade may not last long. The improvement of agriculture, occasioned in part by the formation of railways, but far more by the repeal of our corn laws and of the prohibition against importing live stock, by insuring to the Danes a convenient and advantageous market for all sorts of produce, has been and should continue to be nearly as advantageous to them as to ourselves. Timber, pitch, and tar are chiefly imported from Sweden and Norway; flax, hemp, masts, sail-cloth, and cordage from Russia; sugar chiefly from the West Indies and South America; coffee and tobacco from America; wines and brandy from France; coal, iron and machinery, cotton-twist, tea, hardware and earthenware, are the principal articles of direct importation from England. Of coal, we sent to Denmark (principally to Copenhagen), in 1866, 529,565 tons, and of iron about 20,000 ditto. Owing to the erroneous policy of the Danish Government, which has attempted, at a great public loss, to raise and bolster up manufactures, the direct imports of woollens and cottons are inconsiderable. These articles are not, however, prohibited. Down to 1841 they were admitted on condition of their being stamped and put up to auction by the custom-house, which, after retaining 30 per cent. of the gross produce of the sale, paid over the surplus to the importer. In the above year, the duty, in imitation of the German plan, was ordered to be assessed, partly according to the description of the goods and partly according to their weight; so that the existing duty varies on cotton goods, from 3*l*. 15*s*. to 22*l*. 10*s*. per 100 lbs. Danish (equal to 110 lbs. English); on finer woollens, from 3*l*. 15*s*. to 5*l*. 16*s*. 8*d*. per 100 lbs. Danish; and on white silks, 4*s*. 6*d*. per lb. But, though advantageous in some respects, this change was mischievous in others; for while it facilitated the collection of the duties, and reduced those on the finer descriptions, it added materially to those on the coarser and most essential fabrics. Hence we need not be surprised that there is an extensive illicit importation of these articles by the Elbe and Holstein frontier. The exports con-

sist principally of the produce of the soil, as corn, rape-seed, butter and cheese, beef and pork, horses and cattle, wool, hides and skins, bones, corn-brandy &c. At an average of the 3 years ending with 1866–7 the annual exports of corn (exclusive of meal and flour) from Denmark were — wheat, 410,517 barrels ($2\frac{1}{10}$ of which are equal to 1 imp. qr.); rye, 410,517 barrels; barley, 1,398,564 do.; and oats, 650,169 do. In 1866 we imported from Denmark 506,236 cwts. wheat, 37,192 do. wheat-flour, 1,446,376 do. barley, 396,888 do. oats, and 35,678 do. peas and beans. [CORN LAWS.]

Customs Tariff.—In 1838 new valuations were fixed, as well as more moderate and more uniform rates of entry. In 1844, 1847, 1851, and 1853, Tariff of 1838 was revised, and in 1863 a n Customs Law passed, which, completed by enactments of 1864 and 1865, is the exist legislation. The Tariff is still complicated, all export and transit dues have ceased, and m of the rates of entry are moderate. Since 1 with lower duties the Customs revenue has creased 170 per cent. Another step in adva has been made by the admission of foreign s to the coasting trade of Iceland &c.

In the official year 1866–7 the import dutie Denmark amounted to 5,446,000 rix dollars which Copenhagen contributed 3,530,000.

Account of the Quantities and Computed Values of the Principal Articles imported into the U Kingdom from Denmark in the 5 Years 1862–6.

Principal and other Articles		Quantities					Computed Real Values				
		1862	1863	1864	1865	1866	1862	1863	1864	1865	1
							£	£	£	£	
Animals: oxen and bulls	no.	364	3	9	6,722	7,091	6,545	47	167	125,286	1
cows and calves	,,	..	21	1	2,068	1,660	..	357	18	31,658	
sheep and lambs	,,	1	3	727	27,251	14,551	2	5	1,218	28,881	
swine and hogs	,,	..	..	..	2,095	361	..	..	..	5,667	
horses	,,	856	345	474	516	704	4,455	1,596	2,528	1,859	
Bacon	cwts.	275	3	1,023	27,765	32,511	727	9	2,964	91,555	1
Bones of animals and fish (except whalefins)	tons	1,190	1,114	2,018	2,231	2,986	7,884	8,937	11,263	12,410	
Butter	cwts.	30,284	41,336	62,329	65,555	67,305	156,319	210,054	351,852	367,410	3
Corn: wheat	,,	416,429	372,103	747,076	641,273	506,236	248,249	182,139	323,808	281,534	2
barley	,,	1,116,861	1,176,693	1,283,979	1,545,799	1,446,376	449,797	470,410	446,004	540,194	7
oats	,,	798,548	1,421,998	649,969	1,063,386	396,888	298,755	483,547	215,356	366,487	1
peas and beans	,,	15,587	33,147	57,065	32,538	35,678	6,264	12,178	22,372	13,026	
other kinds of corn and grain	,,	(Not Computed)		16,642	6,730	12,871	1,423	421	5,308	2,226	
wheat flour	,,	2,175	10,233	23,279	37,192	45,417	1,733	7,612	14,687	23,722	
Fish	,,	4,221	6,979	13,767	20,589	25,221	3,629	7,170	11,394	17,016	
Hams	,,	67	19	221	5,351	8,283	206	60	637	17,465	
Hides, not tanned	,,	1,289	4,586	14,508	24,725	23,554	2,938	9,359	31,911	43,725	
Oil: train or blubber	tuns	68	254	73	244	654	2,546	11,538	3,648	12,051	
spermaceti	,,	..	..	..	50	..	..	..	..	5,859	
Oil seed cake	tons	4,052	3,541	5,369	5,575	2,067	30,341	23,418	35,789	25,901	
Pork, salted	cwts.	1,076	2,927	9,545	18,769	30,770	2,346	7,000	22,019	50,140	
Seeds, rape	qrs.	9,428	13,103	1,738	4,322	1,269	30,743	41,602	5,159	15,115	
tares	,,	2,893	2,840	2,784	1,128	..	4,561	4,237	4,174	2,576	
Skins, seal	no.	1,493	15,776	1,210	12,096	13,475	281	2,762	198	1,816	
Tallow	cwts.	17,514	255	4,978	549	2,273	39,118	547	10,440	1,226	
Whalefins	,,	14	6	..	116	366	249	146	..	2,680	
Wool, sheep and lambs'	lbs.	1,633,174	1,744,733	2,229,504	2,341,550	2,261,320	80,747	89,394	119,748	129,720	
Woollen rags, torn up, to be used as wool	,,	1,308,528	1,317,904	1,444,128	1,170,512	1,865,920	25,142	24,183	31,531	23,910	
All other articles	value	..	..	..	..	..	26,091	29,224	52,519	48,155	
Total	,,	..	..	..	..	..	1,431,171	1,625,294	1,728,203	2,284,287	2.

Account of the Quantities and Declared Values of the Principal Articles of the Produce and facture of the United Kingdom exported to Denmark in the 3 Years 1864–6.

Principal and other Articles		Quantities			Declared Real Values		
		1864	1865	1866	1864	1865	1
					£	£	
Alkali, soda	cwts.	41,153	98,740	71,087	13,567	37,847	
Apparel and haberdashery	value	..	..	..	19,842	10,099	
Cement	cwts.	63,739	84,680	77,140	8,526	9,713	
Coals, cinders, and culm	tons	488,918	545,333	540,200	202,865	242,731	2
Copper, wrought and unwrought	cwts.	694	2,071	2,981	3,491	9,582	
Cotton yarn	lbs.	526,363	1,382,010	1,872,232	55,561	110,993	1
Cottons, entered by the yard	yards	3,475,308	4,282,624	5,233,632	93,576	103,610	1
at value	value	..	..	..	10,568	14,287	
Earthenware and porcelain	,,	..	..	..	9,647	18,404	
Fish, herrings	barls.	40,375	50,929	26,099	57,307	65,572	
Hardwares and cutlery, unenumerated	cwts.	4,769	4,617	3,200	21,191	22,186	
Iron, wrought and unwrought	tons	18,641	30,862	21,875	170,010	241,899	1
Jute manufactures	yards	601,129	451,925	513,063	12,158	9,379	
Lead and shot	tons	178	113	97	3,955	4,361	
White	cwts.	2,235	2,922	2,564	2,599	3,538	
Linen yarn	lbs.	654,862	665,304	477,645	44,178	40,270	
Linens, entered by the yard	yards	1,736,942	1,147,142	1,096,354	69,838	46,001	
at value	value	..	..	..	12,674	13,017	
Machinery: steam engines	,,	..	..	..	10,546	15,911	
all other sorts	,,	..	..	..	9,473	16,831	
Painters' colours (not otherwise described)	,,	..	..	..	2,247	2,863	
Salt	tons	11,649	9,750	13,933	6,150	5,021	
Tin plates	value	..	..	..	4,944	4,650	
Woollen and worsted yarn	lbs.	35,771	30,937	38,229	5,676	5,146	
Woollens, entered by the yard	yards	1,437,634	1,099,095	898,460	207,186	108,768	
at value	value	..	..	..	5,185	6,514	
All other articles	,,	..	..	..	89,138	95,259	
Total	,,	..	..	..	1,152,767	1. 64,432	1.

N.B.—The average annual value of the foreign and colonial produce exported from this country to Denmark in the 3 years en 1866 was 290,882*l.*

Commercial Marine.—The Danish merchant marine, in 1867, consisted of 3,736 ships, of a burden of 172,462 tons, of which 82 were steamers, with 8,842 tons, and 4,233 horse-power. above, 988 vessels of 49,640 tons, includi the steam fleet, belonged to Copenhagen

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Statement of the Shipping that cleared in and out of Copenhagen in the official Year 1866–7.

	Cleared in		Cleared out	
	Ships	Tons	Ships	Tons
Sailing ships - -	7,606	317,706	7,494	75,068
Steamers - -	2,774	106,614	3,276	85,492
Total - -	10,380	424,320	10,770	160,560

The above figures do not include the numerous steamers that only call for coaling or other purposes.

The number of British vessels that entered and left the port of Copenhagen during that year was 785 ships, of a total tonnage of 184,579 tons: thus Great Britain had the most important share of the foreign trade at this port.

The Danish Parliament has passed two important laws which came into operation in October 1867. One relates to the registration of vessels, and the qualifications which will enable them to sail under Danish colours, and the conditions under which they may maintain their nationality in foreign ports. The second, relating to the admeasurement of tonnage, is in effect the adoption of our Merchant Shipping Act, and so gives uniformity to the method of ship measurements, and consequent ease to the reckoning and payment of port charges &c. Thus, the tonnage is taken at the same weight and capacity as the English register ton, i. e. 100 English cubic feet = 91·59 Danish cubic feet = 1 register ton; the parts of the ship available for mercantile purposes being determined on exactly the same principles as those adopted in the measurement of British ships.

It is now (1868) proposed at once to exempt British vessels from re-measurement in Danish ports, in such wise that in future British certificates of registry (measure bills) will have the same validity as similar Danish documents; and dues will be paid in Danish ports according to the tonnage denoted therein. (Mr. Vice-Consul A. de C. Crowe's *Reports* for 1866 and 1867.)

Port Charges.—The charges on shipping at this port are as follows:—48 skillings (about 1*s.* 1½*d.*) per commercial last (5,200 lbs.) of goods actually discharged. In no case can dues be levied on more than the actual registered tonnage of the ship; and allowance is made for coals and provisions for ship's use, and deductions for engine-room, machinery &c.

40 skillings for harbour dues on each commercial last of goods discharged.

8 skillings per commercial last on goods loaded in harbour for export, but double that sum when the ship lies in the roads.

16 skillings per commercial last for bulwark or pier dues, on ships which only put in for coaling.

Pilotage is charged from the inner roads to the fairway as follows, according to the ship's draught:—

	Summer		Winter	
	Rigsdol.	skil.	Rigsdol.	skil.
8 to 10 feet - -	5	72	7	51
11 13 „ - -	7	10	9	35
14 15 „ - -	8	44	11	16
16 „ - -	9	78	12	93
17 18 „ - -	11	16	14	75
19 20 „ - -	12	50	16	56

Which includes all charges for landing pilot &c.

Lights &c.—For a long and most valuable list of new lights, marks, and buoys placed on the Danish coast and waters in 1867, see Mr. Vice-Consul Crowe's *Report* for that year.

Banks, Banking.—The National Bank of Denmark, established in 1818, has its head office in Copenhagen, with branches at Odensee and Flensburg. It issues notes of 100, 50, 20, and 5 rix-dollars, payable in specie on demand, and transacts all sorts of banking business. In 1856 a private joint-stock bank was established, with a capital of 2,000,000 rix dollars. It is to the credit of the Danish merchants that they passed through the crises of 1857 and 1866 with comparatively few failures of any importance.

Colonial Trade.—In the West Indies, the Danes possess still (August 1868) the islands of St. Croix, St. Thomas, and St. John, which, though small, are fertile and well cultivated. But a treaty for selling these islands to the United States of America has been concluded, and only now (see *Times*, July 23, 1868) waits for ratification at the next meeting of Congress.

St. Thomas has been selected as a mail packet station for the West India mails. It owes this distinction to its port, which is one of the best in the region, being landlocked, easy of egress and ingress, and at once central to the West Indies and near Europe. In the year 1866, 628 British vessels visited St. Thomas, the tonnage being 100,950. Besides these, ships of war and mail packets, the latter to the amount of 25,000 tons annually, visit this harbour. It has one drawback, that it is not very healthy.

The port charges at St. Thomas are as follows: Vessels in ballast 4 dols. 8 cents per 100 tons register. Those bringing and taking cargo pay 57 dols. 12 cents per 100 tons register. Those bringing only coals for the steam packet companies or merchants' account, and leaving in ballast, pay 32 dols. 64 cents per 100 tons register. Vessels with entire cargoes of coals for the Royal Mail Steam Packet Company are by Royal grant and charterparty free of port charges. No charges are levied on vessels arriving in distress. There is a fixed fee on all vessels in ballast or loaded, called the 'fort pass,' of 80 cents for schooners, 1 dol. 28 cents for brigs; 2 dols. 56 cents for barques or ships. The import duties are 1¼ per cent. on the invoice value of importation, coals being admitted duty free.

Lighters without men are from 3 to 5 dols., labour 1 dol. 25 cents per diem; water for shipping 1 to 2 cents per 9 gallons from water boats, free alongside of vessel. Stone ballast, 75 cents to 1 dol. per ton of 2,240 lbs. British weight, free alongside of vessel. Pilotage not compulsory, but vessels signalling for a pilot pay by draught of water, 10 dols. for 16 feet. In 1866 the cargoes from Great Britain to St. Thomas were worth 2,707,404 dols., besides coals to the value of 224,985 dols., equal to 600,000*l.* The consumption of coal is very considerable, having amounted in the year 1866 to 90,254 tons. A floating dock is in process of construction, and will be capable of taking up vessels of 3,000 tons burden. (Mr. Consul James's *Report*, 1867.)

Since 1833, when the restrictions on the colonial trade were abolished, St. Croix has sometimes sent considerable quantities of sugar to the United States; but latterly these have decreased, and the produce is now mostly brought to Denmark. The entire imports of sugar, the foreign as well as colonial, into Copenhagen amounted in 1866 to 32,343,400 lbs.—about 90 per cent. of the whole Danish imports. The imports of coffee into Copenhagen are considerable: in 1866 they amounted to 13,250,400 lbs. About three-fourths of the trade with the West Indies is engrossed by Copenhagen, and the rest by Flensburg. The settlements of Tranquebar and Serampore in the East Indies were sold, in 1845, to the East India Company.

The trade to India and China, formerly a monopoly in the hands of a joint-stock company, was opened to the public in 1840. Several vessels have since been fitted out for the trade; but it is doubtful, from the want of produce suitable for the Eastern markets, whether it can ever attain to any considerable importance.

Credit.—Goods imported into Copenhagen are commonly sold on credit; 3 months is the term generally allowed on most sorts of goods, and in a few instances 6 months. The discount for ready money is 4 per cent. Bankruptcy is of rare occurrence.

Commission on purchases is generally 2 per cent., and on sales 3 per cent., including 1 per cent. *del credere*.

Insurance.—Marine assurance is effected, on liberal terms, by a company established in 1746. A good many risks are, however, insured at Amsterdam and Hamburg.

Careening, Ship's Stores &c.—Copenhagen has good building-yards, and is in all respects an eligible place for the repair of small ships, and for supplying provisions.

Repairs.—The want of a dry dock suitable for repairing vessels of large tonnage has been much felt in Copenhagen, for hitherto this class of vessels has been forced to go over to Sweden or elsewhere to have their repairs effected, with loss to the port and great inconvenience to shipowners. It has now, however, been decided to give up the old Government Dock at Christianshaven; and it is proposed to spend 218,000 rix-dollars to turn it into a suitable slip for commercial vessels.

General Remarks.—As already stated, the Danish Government exerted itself for a lengthened period to bolster up a manufacturing interest by laying oppressive duties on most species of manufactured articles. Even under the most favourable circumstances, such conduct, though it may benefit a few individuals, is sure to be productive of great national loss. But in the case of Denmark, the circumstances were such as to render the restrictive system peculiarly injurious. All, or nearly all, the branches of industry carried *on in* the kingdom were subject to the government of guilds or corporations; no person could engage in any line of business until he was authorised by its peculiar guild; and as the sanction of this body was rarely obtained without a considerable sacrifice, the real effect of the system was to fetter competition and improvement, and to perpetuate monopoly and routine. Even the Danish writers acknowledge that such was the influence of the late regulations. 'Nos ouvriers,' say they, 'sont chers, travaillent lentement, et souvent mal et sans goût; leur éducation est négligée. On ne les forme point à penser, et l'apprenti suit machinalement ce qu'il voit faire au maître.' (Catteau, *Tableau des Etats Danois*, tome ii. p. 260.) Within the last few years this system has been quite changed. Industry has been emancipated from many troublesome regulations, and moderate duties have been substituted for prohibitions. Still, however favourably situated in other respects, it would be idle to expect that a country without waterfalls, and without coal, should be able to manufacture cottons, woollens &c. at so cheap a rate as they may be imported from others enjoying greater natural facilities for their production. The staple business of Denmark, her agricultural and rural economy, has been most materially improved of late years; and, as already seen, her exports of raw produce are now of great value and importance. (We are indebted for much of the valuable information in this article to the *Report* for 1868 of Mr. Strachey, our Chargé d'affaires, and those of Mr. Vice-Consul Crowe for 1867 and 1868.)

COPPER (Ger. kupfer; Dutch, koper; Dan. kobber; Swed. kopper: Fr. cuivre; Ital. rame; Span. cobre; Port. cobre; Russ. mjed, krasnoi mjed; Pol. miedz; Lat. cuprum; Arab. nehass; Sans. tamra). A well-known metal, so called from its having been first discovered, or at least wrought to any extent, in the island of Cyprus. It is of a fine red colour, and has a great deal of brilliancy. Its taste is styptic and nauseous; and the hands, when rubbed for some time on it, acquire a peculiar and disagreeable odour. It is harder than silver; its specific gravity varies according to its state, being, when quite pure, near 9·000. Its malleability is great; it may be hammered out into leaves so thin as to be blown about by the slightest breeze. Its ductility is also considerable. Its tenacity is so great, that a copper wire 0·078 of an inch in diameter is capable of supporting 302·26 lbs. avoirdupois without breaking. Its liability to oxidation from exposure to air or damp is its greatest defect. The rust with which it is then covered is known by the name of verdigris, and is one of the most active poisons. (Thomson's *Chemistry.*)

If we except gold and silver, copper seems to have been more early known than any other metal. In the first ages of the world, before the method of working iron was discovered, copper was the principal ingredient in all domestic utensils, and instruments of war. Even now it is applied to so many purposes as to rank next, in point of utility, to iron.

Alloys of Copper are numerous and of great value. Those of tin are of most importance. Tin added to copper makes it more fusible, less liable to rust, or to be corroded by the air, and other common substances harder, denser, and more sonorous. In these respects the alloy has a real advantage over unmixed copper: but this is in many cases more than counterbalanced by the great brittleness which even a moderate portion of tin imparts; and which is a singular circumstance, considering that both metals are separately very malleable.

Copper alloyed with from 1 to 5 per cent. of tin is rendered harder than before; its colour is yellow, with a cast of red, and its fracture granular: it has considerable malleability. This appears to have been the usual composition of many of the ancient edged tools and weapons, before the method of working iron was brought to perfection. The χαλκός of the Greeks, and perhaps the *as* of the Romans, was nothing else. Even their copper coins contain a mixture of tin. The ancients did not, in fact, possess (as has been often contended) any peculiar process for hardening copper, except by adding to it a small quantity of tin. An alloy in which the tin is from 0·1 to $\frac{1}{8}$ of the whole is hard, brittle, but still a little malleable, close grained, and yellowish white. When the tin is as much as $\frac{1}{8}$ of the mass, it is entirely brittle; and continues so in every higher proportion. The yellowness of the alloy is not entirely lost till the tin amounts to 0·3 of the whole.

Copper (or sometimes copper with a little zinc), alloyed with as much tin as will make from about 0·1 to $\frac{1}{8}$ of the whole, forms an alloy, which is principally employed for bells, brass cannon, bronze statues, and various other purposes. Hence it is called *bronze* or *bell metal*; and is excellently fitted for the uses to which it is applied, by its hardness, density, sonorousness, and fusibility. For cannon, a lower proportion of tin is commonly used. According to Dr. Watson, the metal employed at Woolwich consists of 100 parts of copper

and from 8 to 12 of tin; hence it retains some little malleability, and, therefore, is tougher than it would be with a larger portion of tin. This alloy being more sonorous than iron, brass guns give a louder report than iron guns. A common alloy for bell metal is 80 parts of copper and 20 of tin; some artists add to these ingredients zinc, antimony, and silver, in small proportions; all of which add to the sonorousness of the compound. [Bell Metal; Bronze.]

When, in an alloy of copper and tin, the latter metal amounts to about ⅓ of the mass, the result is a beautiful compound, very hard, of the colour of steel, and susceptible of a very fine polish. It is well adapted for the reflection of light for optical purposes, and is therefore called *speculum metal*. Besides the above ingredients, it usually contains a little arsenic, zinc, or silver. The application of an alloy similar to the above, to the construction of mirrors, is of great antiquity, being mentioned by Pliny, who says that formerly the best mirrors were reckoned those of Brundusium, of tin and copper mixed (*stanno et ære mistis*). (*Hist. Nat.* lib. xxxiii. s. 9.)

For the alloys of copper with zinc, see the articles Brass, Pinchbeck. See also Thomson's *Chemistry*; Rees's *Cyclopædia*; Dr. Watson's *Chemical Essays*, vol. iv.; &c.

British Copper Trade.—Great Britain has various copper mines, in Cornwall, Devonshire, Wales &c., but particularly in the first. Though known long before, the Cornish copper mines were not wrought with much spirit till last century. From 1726 to 1735 they produced at an average about 700 tons a-year of pure copper. During the ten years from 1766 to 1775 they produced at an average 2,650 tons. In 1798 the produce exceeded 5,000 tons; and in 1866 amounted to 6,551½ tons, worth 600,770*l*. In 1768 the famous mines in the Parys mountains, near Amlwch, in Anglesea, were discovered. The supplies of ore furnished by them were for a long time abundant beyond all precedent; but for many years past the productiveness of the mines has been declining, and they are now almost exhausted. In 1866 the mines of Anglesea, and other parts of Wales, did not furnish 650 tons of copper. Those of Devonshire yielded 2,248 tons; the quantity produced in the other parts of England being quite inconsiderable. The Irish mines produced in 1866 above 1,335 tons. Those of Scotland never were productive, and have been almost entirely abandoned. Owing to the want of coal in Cornwall, the ores are not smelted on the spot, but are all sent to Swansea; it being found cheaper to carry the ores to the coal than the contrary.

We subjoin an account, compiled by Mr. Robert Hunt of the Mining Record Office, on which every dependence may be placed, of the quantities and values of the copper ore and copper produced in the United Kingdom in 1866:—

	No. of Mines	Ore	Copper	Value of Ore	Value of Copper
		tons	tons	£	£
England and Wales	165	166,010	9,818	661,293	901,734
Ireland -	8	14,368	1,335	97,825	117,434
Total -	173	180,378	11,153	759,118	1,019,168

Production of Copper for 5 *Years ending* 1866.

Year	No. of Mines	Ore	Copper	Value of Ore	Value of Copper
		tons	tons	£	£
1862	228	224,171	14,843	1,316,775	1,493,941
1863	222	210,947	14,217	1,100,534	1,409,608
1864	201	214,604	13,502	1,155,471	1,350,699
1865	203	198,298	11,888	967,938	1,134,664
1866	173	180,378	11,153	759,118	1,019,168

Account of the Quantities and Values of the different Descriptions of Copper exported from the United Kingdom during each of the 3 *Years ending with* 1866.

	Quantities			Values		
	1864	1865	1866	1864	1865	1866
	cwt.	cwt.	cwt.	£	£	£
Ingots, cakes, and slabs - -	120,211	111,346	119,361	586,147	496,148	538,034
Wrought: sheets, nails, bars, rods -	404,444	300,327	244,779	2,110,376	1,480,430	1,174,732
Mixed or yellow metal - -	185,865	199,001	191,295	801,761	816,840	771,936
Other sorts - - - -	27,316	21,460	13,037	167,256	136,992	87,846

During 1865 the price of copper in the London market rose from 86*l*., at which it stood in September, to 116*l*., per ton, the value in November. In 1866 it fell from 106*l*., at which it stood on January 1, to 80*l*. on August 1. The chief exports in 1866 were, to British India 9,319 tons, France 4,739 tons, Egypt 2,276 tons, Holland 2,047 tons, Italy 2,423 tons, Hanse Towns 1,158 tons.

In consequence of the larger supplies of copper thus obtained, England, instead of being, as formerly, dependent on foreigners for the greater part of her supplies of this valuable metal, became, previously to 1793, one of the principal markets for the supply of others; and notwithstanding the vastly increased demand for copper during the war for the sheathing of ships and other purposes, the exports continued to increase and the imports to diminish: the greater productiveness of the Cornish mines has sufficed not only to balance the increased demand, but also to make up for the falling off in the supplies from Anglesea.

Foreign Copper.—Copper ores are abundant in Sweden, Russia, Japan, Australia, Chili, Cuba, Bolivia &c. Near Fahlun, in the province of Dalecarlia, in Sweden, is the celebrated copper mine of the same name, supposed to have been wrought nearly 1,000 years. For a long time it was extremely productive, yielding, towards the beginning of the seventeenth century, an annual produce of about 8,000,000 lbs. of pure metal; but it has since greatly declined; and it is most probable that at no distant period it will be wholly abandoned. (Thomson's *Travels in Sweden*, p. 221.) There are copper mines in other parts of Sweden; but the entire export of copper from that country did not in 1866 exceed 2,100 tons, of a quality inferior to that of England. The produce of the copper mines of Russia has been estimated at 290,000 poods, or 4,661 tons (Eng.) a-year. (Tegoborski, *Forces Productives de la Russie*, i. 300.) The copper mines of Japan are said to be among the richest in the world. The Dutch and Chinese export considerable quantities of their produce, which is spread all over the East, and is regularly quoted in the price currents of Canton, Calcutta, and Singapore. It is uniformly met with in the shape of bars or ingots; and when the copper of South America is worth in the Canton market from 15 to 16 dollars per picul, that of Japan is worth from 18 to 20 per ditto. Copper the produce of the Persian mines is imported into Bombay and Calcutta from Bushire and Bussorah.

But, in a commercial point of view, the copper

mines of Chili, Cuba, Spain, and Australia are, after those of England, by far the most important. The working of the mines of Cuba, which had been abandoned for a lengthened period, has been resumed successfully. Large quantities both of Chilian and Cuban ore are brought to Swansea to be smelted.

The imports of copper ore and *regulus*, in 1866, were principally derived as follows, viz.:—

Countries	Ore	Regulus
	tons	tons
Sweden	2,095	—
Norway	1,646	—
France	1,879	—
Portugal	1,621	—
Spain	1,635	—
Italy	4,199	—
Cuba	11,254	649
United States	8,670	—
Peru	3,016	1,149
Bolivia	7,507	1,994
Chili	24,793	30,829
South Africa	4,138	—
Australia	17,311	—
Other parts	4,888	966
Total	94,660	34,987

The price of ore rose from 5*l.* per ton to 17*l.* 15*s.* 7*d.*, that of regulus from 33*l.* 13*s.* 8*d.* to 35*l.* 7*s.* 8*d.*

There was a very extraordinary increase in the supplies of copper from Australia during the 4 or 5 years preceding the discovery of the gold fields. The produce of the Burra Burra mine, for example, which in 1846 was 6,359½ tons ore, had swelled in 1850 to 18,692 tons. But since then some of the mines have been abandoned, and the progress of the others checked, so that, as seen above, the again increasing imports from Australia amounted in 1866 to only 17,311 tons. Foreign copper imported into this country, and the copper obtained from the smelting of foreign ore, were, previously to 1842, wholly, or almost wholly, re-exported; the duty on the copper ore when it was taken or smelted for home use being so very heavy as to make it be altogether exported in an unwrought state. But in 1842 the duty on copper ores and unwrought copper was very materially reduced; and it was wholly repealed in 1858. Hence the great increase in the imports of ore for smelting, and the application of the copper thence derived indifferently to home use or exportation.

Copper is in extensive demand all over India, being largely used in the dockyards, in the manufacture of cooking utensils, in alloying spelter and tin &c. The funeral of every Hindoo brings an accession to the demand, according to his station; the relatives of the deceased giving a brass cup to every Brahmin present at the ceremony: so that 5, 10, 50, 100, 1,000, and sometimes more than 10 times this last number, are dispensed upon such occasions. (Bell's *Commerce of Bengal.*)

COPPERAHS. The kernels of the cocoa nut. [Cocoa Nuts.]

COPPERAS. A term employed by the older chemists, and popularly as synonymous with vitriol. There are three sorts of copperas: the *green*, or sulphate of iron; the *blue*, or sulphate of copper; and the *white*, or sulphate of zinc. Of these, the first is the most important.

Sulphate of iron is distinguished in common by a variety of names, as Martial vitriol, English vitriol &c. When pure, it possesses considerable transparency, and has a fine bright, though not very deep, grass-green colour, and a nauseous astringent taste, accompanied with a kind of sweetness. Its specific gravity is 1·834. It uniformly reddens the vegetable blues. This salt was well known to the ancients; and is mentioned by Pliny (*Hist. Nat.* lib. xxxiv. sec. 12) under the names of *misy*, *sory*, and *calchantum*. It is not made in the direct way, because it can be obtained at less charge from the decomposition of pyrites on a large scale in the neighbourhood of collieries. It exists in two states; one containing oxide of iron, with 0·22 of oxygen, which is of a pale green, not altered by gallic acid, and giving a white precipitate with prussiate of potass. The other, in which the iron is combined with 0·30 of oxygen, is red, not crystallisable, and gives a black precipitate with gallic acid, and a blue with prussiate of potass. In the common sulphate, these two are often mixed in various proportions.

Sulphate of iron is of great importance in the arts. It is a principal ingredient in dyeing; in the manufacture of ink, and of prussian blue: it is also used in tanning, painting, medicine &c. Sulphuric acid, or oil of vitriol, was always manufactured from sulphate of iron. Now only one kind is produced in this way, viz. the fuming acid, or acid of Nordhausen.

Sulphate of copper, or *blue* vitriol, commonly called Roman or Cyprian vitriol, is a crystalline salt of an elegant sapphire blue colour, hard, compact, and semitransparent; when perfectly crystallised, of a flattish, rhomboidal, decahedral figure; its taste is extremely nauseous, styptic, and acrid: its specific gravity is 2·1943. It is used for various purposes in the arts, and also in medicine.

Sulphate of zinc or *white* vitriol is found native in the mines of Goslar and other places. Sometimes it is met with in transparent pieces, but more commonly in white efflorescences. These are dissolved in water, and crystallised into large irregular masses, somewhat resembling fine sugar, having a sweetish, nauseous, styptic taste. Its specific gravity, when crystallised, is 1·912; when in the state in which it commonly occurs in commerce, it is 1·3275. Sulphate of zinc is prepared in the large way from some varieties of the native sulphuret. The ore is roasted, wetted with water, and exposed to the air. The sulphur attracts oxygen, and is converted into sulphuric acid; and the metal, being at the same time oxidised, combines with the acid. After some time the sulphate is extracted by solution in water; and the solution being evaporated to dryness, the mass is run into moulds. Thus, the white vitriol of the shops generally contains a small portion of iron, and often of copper and lead. (*British Pharmacopœia*, 1867; Lewis's *Materia Medica*; Ure's *Dictionary*; Rees's *Cyclopædia*; Thomson's *Chemistry*; &c.)

COPROLITES. Organic remains discovered in the upper green sand. They were first commented on by Professor Henslow and Dr. Buckland. They are of great value as manures, in consequence of the phosphates which they contain. The deposit is so considerable in some parts of Cambridgeshire, that a sum equal in value to the fee simple of the land has been paid for the privilege of digging them, the person renting the right stipulating to restore the surface.

Quantities and Values of Coprolites raised in the Years 1860, 1861.

		Tons	Value
Cambridge, Hertford, Suffolk	1860	30,000	£60,000
	1861	37,500	75,000

COPYRIGHT. *Copyright in Books.* [Books.]

Copyright in Dramas and Musical Compositions.—This form of copyright rests on 3 & 4 Wm. IV. c. 15, and 5 & 6 Vict. c. 45. The right may be assigned, but must be in writing. The assignment need not be attested, though formerly, it seems, two witnesses were necessary to the instrument.

Copyright in Engravings.—The earliest Act in favour of these works of art was that of 8 Geo. II. c. 13. The Act is called Hogarth's Act, for this artist obtained it for his own protection. The

protection of the Act was ruled not to extend to a person complaining of piracy of a drawing or design which he had merely procured to be made. It has also been ruled by Chief Justice Erle and Justice Keating that the object of this and similar Acts was not to protect the reputation of engravers, but to vest a commercial property in them.

The Act 8 Geo. II. was extended by 7 Geo. III. c. 38; by 17 Geo. III. c. 57; and 15 & 16 Vict. c. 12. An assignee may maintain an action for piracy. Photographic copies of an engraving are piracies, and indeed all mechanical and scientific processes for multiplying engravings. Authors, however, of paintings, drawings, and photographs had no copyright prior to July 29, 1862. Copyright in sculpture has its beginning in 38 Geo. III. c. 71, amended by 54 Geo. III. c. 56; the latest Act being that of 13 & 14 Vict. c. 104. Still, though these provisions have been made, there are no decisions on the subject.

Copyright in Designs.—The right in designs for *ornament* is maintained by 5 & 6 Vict. c. 100; 6 & 7 Vict. c. 65; 13 & 14 Vict. c. 104; 21 & 22 Vict. c. 70; 24 & 25 Vict. c. 73. Those for *utility* are protected by 6 & 7 Vict. c. 65; 13 & 14 Vict. c. 104; and 21 & 22 Vict. c. 70.

The law defines the duration of the right, when the material is metal, to five years, in other materials to three years, with some exceptions, in the case of which it lasts from two years to nine months.

The designs must be registered, and may be assigned by a particular form. The Act provides remedies for piracy by penalties varying from 30*l.* to 50*l.*, recoverable by action or summary proceedings, provided that the aggregate penalty does not exceed 100*l.*: an action for damages also lies, and an injunction in equity.

There is a registrar of *useful* designs, and directions for registration have been issued by the Board of Trade, who may, after laying the same before Parliament, make, alter, or revoke the rules and regulations with respect to the mode of registration and the particulars to be furnished by persons effecting registration. By 13 & 14 Vict. c. 104, designs may be *provisionally* registered, for a very trifling fee, which secures the copyright for a year from its registry.

Copyright in Trade-Marks.—The use of marks to denote the workmanship of certain manufacturers is very ancient, for the discoveries at Herculaneum have supplied examples of the practice in bakers' and other shops. In modern civilisation similar marks have been adopted, as for instance in textile fabrics—though the earliest extant are those of paper. Very soon after the invention of paper from the pulp of linen rags, watermarks were introduced into the fabric, such designs serving, no doubt, to denote the manufactory from which the paper was issued. Since this time the process has become general, and the trade-mark has become a recognised part of the system of trade, by which a guarantee is given to the purchaser, and a legitimate protection afforded to the manufacturer. Nor is the trade-mark system relative to the individual only, be he producer or consumer, but it affects the commerce of the country; for it has been often found that fraudulent imitations of goods in demand have not only seriously injured the honest dealer, but have on many occasions destroyed some branches of commerce altogether. Thus, for example, a fraudulent consignment of axes from Sheffield to the Western States of America, when the articles were found to be worthless, completely put a stop to such importations, and developed in place of them a local manufacture.

The mischievous effects of permitting an unchecked imitation of trade-marks were often commented on by chambers of commerce in manufacturing towns. At last the attention of the Legislature was effectually called to the practice, and during the session of 1861 two bills were introduced into the House of Commons—the Merchandise Marks Bill, by Mr. Milner Gibson (then President of the Board of Trade), and the Trades-Marks Bill, by Messrs. Roebuck and Hadfield. After these bills had both been referred to a select committee, the former, with certain modifications, was accepted. The Act contains 26 sections.

1. The definition and construction of words. The word person to include individuals, companies, and bodies corporate; mark, any name, signature, word, letter, device, emblem, figure, sign, seal, stamp, diagram, label, ticket, or other mark of any other description; and trade-mark to include any such symbol lawfully used to denote any chattel, or in Scotland any article of trade, manufacture, or merchandise; and the word misdemeanor to include crime and offence in Scotland.

The trade-mark must be lawfully used. It has been held that the use of the word 'patent' when the article is not patented takes the article out of the protection of the court.

2. Forging a trade-mark is a misdemeanor.

3. Applying a forged or counterfeit trade-mark a misdemeanor, or a genuine mark &c. to a counterfeited article.

4. Penalties after December 31, 1863, to be equal in value to the article sold, with a further fine of not more than 5*l.* or less than 10*s.*

5. Alterations and additions to trade-marks with intent to defraud treated as forging and counterfeiting.

6. Persons selling articles having false trade-marks are bound to give information as to the place at which they were procured. Penalty on refusal 5*l.*

7. False indication of *quantity* with intent to defraud. Same penalties as in Sec. 4. This section does not prevent a person being indicted also, if he has committed an offence punishable by law as it at present stands.

8. Same penalties on sellers of false quantities.

9. Provision that it shall not be construed as an offence under the Act if a person applies to any chattel a word generally used to indicate such chattel or article to be of some particular class or description of manufacture only (as for instance Brussels carpet, Mechlin lace &c.), where the goods have a name which, though not strictly accurate, is one of reputation.

10. The trade-mark and forged mark to be described in the indictment.

11. Conviction not to affect any right or civil remedy.

12. Attempt to defraud any particular person need not be alleged or proved in the indictment.

13. Persons aiding or abetting to be guilty.

14. Punishment of misdemeanors under the Act may be imprisonment with or without hard labour for not more than two years, or fine, or both, or imprisonment till the fine, if any, be paid or satisfied.

15. Process for recovering penalties.

16. Summary proceedings before justices under 11 & 12 Vict. c. 43.

17. In actions, penalties to be accounted for as other moneys payable to the Crown, and plaintiffs to recover full costs of suit.

18. Limitation of actions.

19. After Dec. 31, 1863, the vender of an article with a trade-mark to be deemed to contract that the mark is genuine.

20. After same date, the vender of a quantity to be deemed to contract that the description is true.

21. Court may destroy the article and award an injunction.

22. Persons aggrieved by forgeries may recover damages against guilty parties.

23. Defendant obtaining verdict to have full remedy for costs.

24. Plaintiff suing for penalty may be compelled to give security for costs.

25. Act not to affect the cutlers of Hallamshire.

26. Title. The Act applies to Great Britain and Ireland. It is to be observed that the Act does not give any remedy against fraudulent misrepresentations as to quality. This has been regretted by the judges. (Poland's *Merchandise Marks Act.*)

It will be plain that there is a radical difference between the piracy of a copyright and the forgery of a trade-mark. The existing law recognises the distinction, though it may be doubted whether the administration of the law is sufficiently comprehensive of all offences committed, or sufficiently severe on all frauds. Still, the particular Act under which trade-marks are protected is not so much to blame as the general leniency of the law in dealing with adulterations. The legislation, however, of 1862 is a step in the right direction, and has, we believe, already done service to commercial morality. It is upon the uniform good quality of manufactured commodities that any foreign trade depends for its continuance, and the obligation of the Legislature to secure the purchasing public from fraud, whether the purchaser be a home or foreign consumer, is more and more stringent when the goodness or badness of the object cannot be readily detected by ocular inspection. But it is in such cases that the use of trade-marks is most natural.

CORAL (Ger. korallen; Dutch, koraalen; Fr. corail; Ital. corale; Span. and Port. coral; Russ. korallü; Lat. corallium; Arab. besed; Pers. merjan; Hind. moonga). A marine production, of which there are several varieties. It was well known to the ancients, but it was reserved for the moderns to discover its real nature. It is, in fact, the nidus or nest of a certain species of vermes, which has the same relation to coral that a snail has to its shell. As an ornament, black coral is much esteemed; but the red and the pink are also very highly prized. Coral is found in very great abundance in the Red Sea, the Persian Gulf, in the Mediterranean, on the coast of Sumatra &c. It grows on rocks, and on any solid submarine body; and it is necessary to its production that it should remain fixed to its place.

Coral, Italian.—Coral is an important branch of industry and commerce in Italy. Genoa, Leghorn, and Naples have been from old times the three great entrepôts to which the raw material has been carried, and where skilful artificers have established themselves in order to work at its transformation. Coral is obtained in large quantities in the Mediterranean, and at considerable depths, of from 200 to 600 feet. Four varieties are distinguished: 1st, red, which is subdivided into deep crimson red, paler red, and vermilion, which is very rare; 2nd, black; 3rd, clear white; 4th, veiled white, which is the most common. The produce of the fishery varies from one year to another, and even in the richest spots the fishery should only be carried on at fixed intervals. The coasts where this precious zoophyte is found in the greatest abundance are those of Corsica, Sardinia, Provence, Africa, the vicinage of Trapani, and the Straits of Messina.

Mr. Secretary of Legation Herries in his *Report of* 1868 *on the Industrial Condition of Italy* states that 365 boats were employed in the coral fishery in 1864, of which 267 belonged to Naples, and the rest to Leghorn and places on the Genoese coast. The 365 boats employed 2,699 men and boys. The fishery is most active off the S.W. coast of Corsica, where the finest coral is found, though it is more abundant on the coast of Africa. The value of the produce is at the average rate of between 7,000 and 8,000 francs for each boat.

The raw coral is wrought chiefly in Genoa, Leghorn, and Naples. (*Reports of Secretaries of Legation*, No. 3 of 1868.)

The price of the raw coral varies according to the size of the pieces:—

			By kilo.					
			£	s.	d.	£	s.	d.
The smallest, called	Ferraglio de Sardaigne	-	0	0	9 to	0	0	10
	Barbarie	-	0	1	10	0	2	2
Medium size	Fanaghiatura	-	1	1	6	1	4	2
Large size	Fanagliatura, of Sardinia	-				4	4	0
	of Barbary	-				4	12	6

Besides several secondary establishments, there are in Leghorn four principal manufactories for working in coral. Each of these employs from 250 to 300 workmen, this branch of industry thus giving occupation to 1,000 women. The coral which is annually wrought into little globules, round, egg-shaped, smooth, or cut into facets &c. amounts to 25,000 kilos. The greater part is sent to the East Indies by way of Marseilles; a large portion is exported into Germany, especially for necklaces of an inferior quality, destined to serve as funeral ornaments. It is also sent into Russia, where this article is in great demand. The total value of these exports is not less than 20,000*l.* Naples and Sicily derive an annual profit of 88,000*l.*

The quantity of coral brought yearly to Genoa amounts to about 36,950 kilogrammes, worth 480,000*l.*

From 5,000 to 6,000 persons in the province of Genoa gain their living either by fishing, working, or selling coral, and this craft produces a revenue of 80,000*l.* Genoa exports its coral to Austria, Hungary, Poland, England, Madras, Aleppo, and Calcutta. (*Catalogue of Italian Products at Exhibition of* 1862.)

For an excellent account of the history and statistics of the Italian coral trade see *Annuario di Economia d'Italia*, Duprat, ed. by Gicca, Turin, 1863.

Coral, Algerian.—There is a large production of this article in Algeria, its artificial propagation being favoured by the French Government. Marshal Vaillant reported in 1853 to that Government that 156 boats were engaged in that year in exploring the coasts of Bonne and Calle, and that they obtained an average of 230 kilogrammes per boat, making a total of 84,880 kilogrammes. This, at 60 francs per kilogramme, would amount to 2,152,880 francs. Considerable banks have also been discovered on the coast of the province of Oran.

The number of boats engaged in the Algerian coral trade in 1845 was 166, the revenue to France 127,200 francs; in 1861, 238 boats, revenue 178,000 francs; amount of coral obtained in 1861, 7,827 kilogrammes, valued at 361,850 francs.

In China coral constitutes an important article of trade. Various sorts are imported from Manila, which obtains it from the Samar Islands and the Bisayas. It is also procured from the west coast of Sumatra, from Singapore and India. The precious red coral is termed *shán hú*, the white *shih hiwá*. A black variety is most prized, but the fine red is most commonly used. It is wrought into

official buttons and beads. The inferior kind is mostly manufactured into ear and finger rings. Its price varies from 20 dols. to 100 dols. per picul, according to quality. The finer sorts range from 1,500 dols. to 3,300 dols. per picul. Fine red Mediterranean coral also obtains a good market in China. The use of false coral beads in China is very considerable: they are made from resinous matters mixed with red colouring dyes surrounding a centre of tin foil and gum. The price is about 10 dols. per catty. (Dr. Williams's *Chinese Guide*, 6th ed.)

The manner of fishing coral is nearly the same every where. That which is most commonly practised in the Mediterranean is as follows:—7 or 8 men go in a boat, commanded by the proprietor; the caster throws his net, if we may so call the machine which he uses to tear up the coral from the bottom of the sea; and the rest work the boat, and help to draw in the net. This is composed of two beams of wood tied crosswise, with leads fixed to them to sink them: to these beams is fastened a quantity of hemp, twisted loosely round, and intermingled with some loose netting. In this condition the machine is let down into the sea; and when the coral is pretty strongly entwined in the hemp and nets, they draw it up with a rope, which they unwind according to the depth, and which it sometimes requires half a dozen boats to draw. If this rope happen to break, the fishermen run the hazard of being lost. Before the fishers go to sea, they agree for the price of the coral; and the produce of the fishery is divided, at the end of the season, into 13 parts; of which the proprietor has 4, the caster 2, and the other 6 men 1 each; the 13th belongs to the company for payment of boat-hire, &c. (Ainslie's *Materia Indica*; Rees's *Cyclopædia*; *Encyclopædia Metropolitana*; Bell's *Commerce of Bengal*; Prunaudaie, *Commerce de l'Algérie*.)

CORDAGE (Ger. tauwerk; Dutch, touwwerk; Fr. manœuvres, cordage; Ital. caolame; Span. jarcia, cordaje). A term used to denote all manner of cords or ropes, how much soever they may differ in size, but especially those used in the rigging of ships. The term *cord* is usually employed to distinguish cordage of small size, that is, of small circumference; *rope*, to distinguish the larger descriptions of cordage; and *cable*, to distinguish the largest of all, or the cordage used in the anchoring of ships.

Cordage may be made of an infinite variety of materials—of every thing, in fact, which is slender, flexible, and moderately tenacious, such as the fibres of various descriptions of vegetables; hair, wool, and silk; leathern thongs, wire &c. In Europe it has been mostly formed of the fibres of hemp and flax, particularly the former. But in some parts of the East, coir, or the fibres of the husk of the cocoa nut, is extensively used in the manufacture of the larger descriptions of cordage. [Coir &c.]

The best cordage is that, of course, which is made of the best material and in the most approved manner. It must neither be too much nor too little twisted. Ropes consist of more or fewer yarns according to their thickness. At an average the fibres of hemp used in making ropes lose about ⅓ of their length by twisting; but in the case of cables the loss is greater.

Ropes are sometimes made of iron wire; and when properly manufactured they have been found to answer much better than might have been anticipated. Chains are now also frequently substituted for various descriptions of ropes; and every body knows that hempen cables have been all but wholly superseded by iron chains. [Cables.]

The use of foreign cordage in English ships was formerly prohibited except under peculiar circumstances, but this prohibition has latterly been repealed; and our ship-owners and ship-builders may now use either native or foreign cordage, whichever they prefer. In 1866, 149,222 cwt. of cordage, valued at 412,729*l*., were exported from the United Kingdom, chiefly to Australia and British North America.

According to Professor Robinson, if you square the circumference of a rope in inches, ⅓ the product will be the number of tons weight which it will bear. Very little dependence can, however, be placed on a rule of this sort; for the strength of a rope will depend as much on the material of which it is made, and on its make, as on its circumference. (Rees's *Cyclopædia*; *Penny Cyclopædia*; &c.)

CORIANDER (Fr. coriandre; Ger. koriander; Ital. coriandro; Span. cilantro). The fruit of the *Coriandrum sativum*, Nat. Order *Apiaceæ*. It is an annual plant, a native of Italy; but is cultivated in Britain and many other countries. The seed when dried is nearly as large as white pepper, is yellowish-brown, and has an agreeable aromatic odour and flavour. Coriander seeds are used in medicine and confectionary. (*British Pharmacopœia*, 1867.)

CORK (Ger. kork; Dutch, kork, kurk, vlothout; Fr. liége; Ital. sughero, suvero; Span. corcho; Port. cortica (de Sovreiro); Russ. korkowoe derewo; Lat. suber). The thick and spongy bark of a species of oak (*Quercus Suber*, Linn.), abundant in dry mountainous districts in the south of France, and in Spain, Portugal, Italy, and Barbary. The tree grows to the height of 30 feet or more, has a striking resemblance to the *Quercus Ilex*, or evergreen oak, and attains to a great age. After arriving at a certain state of maturity, it periodically sheds its bark; but this valuable product is found to be of a much better quality when it is artificially removed from the tree, which may be effected without any injury to the latter. After a tree has attained to the age of from 26 to 30 years, it may be barked; and the operation may be subsequently repeated once every 8 or 10 years, the quality of the cork improving with the increasing age of the tree. The bark is taken off in July and August; and trees that are regularly stripped are said to live for 150 years or more. Beckmann (vol. ii. p. 115, Eng. ed.) says that 'when the tree is 15 years old it may be barked, and this can be done successively for 8 years.' This erroneous statement having been copied into the article 'Cork' in Rees's *Cyclopædia*, has thence been transplated to a multitude of other works. (Poiret, *Hist. Philosophique des Plantes*, tom. vii. 419.)

Cork is light, porous, readily compressible, and wonderfully elastic. It may be cut into any sort of figure, and, notwithstanding its porosity, is nearly impervious to any common liquor. These qualities make it superior to all other substances for stoppers for bottles, in the manufacture of which it is principally made use of. It is also employed as buoys to float nets, in the construction of life-boats, the making of water-proof shoes, and in various other ways. It was imported into England in order to be used as floats to nets, as early as the beginning of the fourteenth century. Before being manufactured into stoppers, the cork is charred on each side: this makes it contract, lessens its porosity, and consequently fits it the better for cutting off all communication between the external air and the liquid

in the bottle. Spanish black is made of calcined cork.

The Greeks and Romans were both well acquainted with cork. They seem also to have occasionally used it as stoppers for vessels (*Cadorum obturamentis*, Plin. *Hist. Nat.* xvi. 8); but it was not extensively employed for this purpose till the seventeenth century, when glass bottles, of which no mention is made before the fifteenth century, began to be generally introduced. (Beckmann's *Hist. Invent.* vol. ii. pp. 114—127, Eng. ed.)

Cork trees abound in various parts of Algeria, particularly in the province of Constantine and in Kabylia. In the latter the bark is used as a covering for houses. The Government of Algiers has made special concessions of land to encourage the cultivation of cork trees.

The manufacture of bottle corks is a considerable source of wealth in the province of Gironde, which produces annually about 125,000 quintals of cork. To supply the demand of the manufacture, which annually consumes 155,000 quintals, 30,000 quintals of rough cork are imported, principally from Andalusia, Estramadura, and the district of Arenys de Mar in the province of Barcelona. The annual production amounts to 1,283,000,000 bottle corks, valued at about 15,500,000 francs. The value of the raw material may be estimated at 3,000,000 francs. Corks are made chiefly in San Felice de Guixois, Palafurgell, Palajos, Darnius, and Junquera. In Catalonia the annual manufacture of bottle corks varies from 15,000 to 20,000 bales, of from 25,000 to 30,000 corks each.

The chief seats of the production of cork in Portugal are the provinces of Alemtejo and Algarve. The exportations are chiefly to Great Britain, Belgium, Holland &c.

The British import duty on unmanufactured cork was abolished in the year 1845, and in the year 1860 the duties on corks ready made and cork squared for rounding, which had been fixed in 1853 at 6*d.* per lb. and 8*s.* per cwt. respectively, were repealed. The policy of the abolition of these duties was questioned, as export duties were levied on cork in Spain and Portugal, the producing countries. The result, as was anticipated, has been that the trade in the manufactured article has very materially increased, whilst the imports of the raw material have remained comparatively stationary. We extract from the annual statement of Trade and Navigation the following figures of the imports of both kinds in 1859 and 1866:—

Year	Cork, Unmanufactured		Corks, ready made	
	Quantities	Values	Quantities	Values
	tons	£	lbs.	£
1859	5,747	185,413	537,682	33,603
1866	6,241	203,316	2,684,128	145,390

Quantities and Value of Rough Cork, and of Corks cut, exported from Spain in each Year from 1860 to 1863, distinguishing the Exportations to France and the United Kingdom.

Year	Cork, Rough			Corks, Cut		
	Total	France	United Kingdom	Total	France	United Kingdom
	Quantities					
	quintals	quintals	quintals	mille	mille	mille
1860	23,602	12,705	7,726	402,322	324,092	6,780
1861	35,047	16,536	9,763	595,400	531,833	5,013
1862	28,860	8,821	9,084	498,458	423,421	7,035
	kilog.	kilog.	kilog.			
1863	1,297,318	603,262	384,421	436,055	378,348	25,126
	Value					
	reales	reales	reales	reales	reales	reales
1860	4,284,360	2,335,500	1,390,680	22,530,032	18,149,152	379,680
1861	6,308,460	2,976,840	1,757,340	33,342,400	29,785,448	280,728
1862	5,039,928	1,587,780	1,480,248	28,110,816	24,134,997	400,995
1863	5,059,343	2,352,742	1,499,254	26,163,360	22,700,880	1,507,560

CORN (Ger. corn, getreide; Dutch, graanen, koren; Dan. korn; Swed. sad, spannal; Fr. bleds, grains; Ital. biade, grani; Span. granos; Russ. chljeb; Pol. zboze). The grain or seed of plants separated from the spica or ear, and used for making bread &c. Such are—BARLEY; MAIZE; OATS; PEAS; RYE; WHEAT; &c.

CORNELIAN. [CARNELIAN.]

CORN LAWS AND CORN TRADE. From the circumstance of corn forming, in this and most other countries, the principal part of the food of the people, the trade in it, and the laws by which the trade is regulated, are justly looked upon as of the highest importance. But this is not the only circumstance that renders it necessary to enter at some length into the discussion of this subject. Its difficulty is at least equal to its interest. The enactments made at different periods with respect to the corn trade, and the opinions advanced as to their policy, have been so very various and contradictory, that it is indispensable to submit them to some examination, and, if possible, to ascertain the *principles* which ought to pervade this department of commercial legislation.

I. HISTORICAL SKETCH OF THE CORN LAWS.
II. PRINCIPLES OF THE CORN LAWS.
III. BRITISH CORN TRADE.
IV. FOREIGN CORN TRADE.

I. HISTORICAL SKETCH OF THE CORN LAWS.

For a long time the regulations with respect to the corn trade were principally intended to promote abundance and low prices. But though the purpose was laudable, the means adopted for accomplishing it had, for the most part, a directly opposite effect. When a country exports corn, it seems, at first sight, as if nothing could do so much to increase her supplies as the prevention of exportation; and even in countries that do not export, its prohibition seems to be a prudent measure, and calculated to prevent the supply from being diminished, upon any emergency, below its natural level. These are the conclusions that immediately suggest themselves upon this subject; and it requires a pretty extensive experience, an attention to facts, and a habit of reasoning upon such topics, to perceive their fallacy. These, however, were altogether wanting

when the regulations affecting the corn trade began to be introduced into Great Britain and other countries. They were framed in accordance with what were supposed to be the dictates of common sense; and their object being to procure as large a supply of the prime necessary of life as possible, its exportation was either totally forbidden, or forbidden when the home price was above certain limits.

The principle of absolute prohibition seems to have been steadily acted upon, as far as the turbulence of the period would admit, from the Conquest to the year 1436, in the reign of Henry VI.; but at the last-mentioned period an Act was passed, authorising the exportation of wheat whenever the home price did not exceed 6*s.* 8*d.* (equal in amount of pure silver to 12*s.* 10½*d.* present money) per quarter, and barley when the home price did not exceed 3*s.* 4*d.* In 1463 an additional benefit was intended to be conferred on agriculture by prohibiting importation until the home price exceeded that at which exportation ceased. But the fluctuating policy of the times prevented these regulations from being carried into full effect, and, indeed, rendered them in a great measure inoperative.

In addition to the restraints laid on exportation, it has been common in most countries to attempt to increase the supply of corn, not only by admitting its unrestrained importation from abroad, but by holding out extraordinary encouragement to the importers. This policy has not, however, been much followed in England. During the 500 years immediately posterior to the Conquest, importation was substantially free; but it was seldom or never promoted by artificial means; and during the last century and a half it has, for the most part, been subjected to severe restrictions.

Besides attempting to lower prices by prohibiting exportation, our ancestors attempted to lower them by proscribing the trade carried on by corn dealers. This most useful class of persons were looked upon with suspicion by every one. The agriculturists concluded that they would be able to sell their produce at higher prices to the consumers, were the corn dealers out of the way: while the consumers concluded that the profits of the dealers were made at their expense; and ascribed the dearths that were then very prevalent entirely to the practices of the dealers, or to their buying up corn and withholding it from market. These notions, which have still a considerable degree of influence, led to various enactments, particularly in the reign of Edward VI., by which the freedom of the internal corn trade was entirely suppressed. The *engrossing* of corn, or the buying of it in one market with intent to sell it again in another, was made an offence punishable by imprisonment and the pillory; and no one was allowed to carry corn from one part to another without a license, the privilege of granting which was confided by a statute of Elizabeth to the quarter sessions. But as the principles of commerce came to be better understood, the impolicy of these restraints gradually grew more and more obvious. They were considerably modified in 1624; and in 1663 the engrossing of corn was declared to be legal so long as the price did not exceed 48*s.* per quarter (15 Ch. II. c. 7); an Act which, as Adam Smith has justly observed, has with all its imperfections done more to promote plenty than any other law in the statute book. In 1773 the last remnant of the *legislative* enactments restraining the freedom of the internal corn dealers was entirely repealed. But the engrossing of corn has, notwithstanding, been since held to be an offence at common law; and, so late as 1800, a corn dealer was convicted of this imaginary crime. He was not, however, brought up for judgment; and it is not very likely that any similar case will ever again occupy the attention of the courts.

The Acts of 1436 and 1463, regulating the prices when exportation was allowed and when importation was to cease, continued, nominally at least, in force till 1562, when the prices at which exportation might take place were extended to 10*s.* for wheat and 6*s.* 8*d.* for barley. But a new principle—that of imposing duties on exportation—was soon after introduced; and in 1571 it was enacted that wheat might be exported, paying a duty of 2*s.* per quarter, and barley and other grain a duty of 1*s.* 4*d.*, whenever the home price of wheat did not exceed 20*s.* per quarter, and barley and malt 12*s.* At the Restoration the limit at which exportation might take place was very much extended; but as the duty on exportation was, at the same time, so very high as to be almost prohibitory, the extension was of little or no service to the agriculturists. This view of the matter seems to have been speedily taken by the Legislature; for in 1663 the high duties on exportation were taken off, and an ad valorem duty imposed in their stead, at the same time that the limit of exportation was extended. In 1670 a still more decided step was taken in favour of agriculture; an Act being then passed which extended the exportation price to 53*s.* 4*d.* per quarter for wheat, and other grain in proportion, imposing at the same time prohibitory duties on the importation of wheat till the price rose to 53*s.* 4*d.*, and a duty of 8*s.* between that price and 80*s.* But the real effects of this Act were not so great as might have been anticipated. The extension of the limit of exportation was rendered comparatively nugatory in consequence of the continuance of the duties on exportation caused by the necessities of the Crown; while the want of any proper method for the determination of prices went far to nullify the prohibition of importation.

At the accession of William III. a new system was adopted. The interests of agriculture were then looked upon as of paramount importance; and to promote them, not only were the duties on exportation totally abolished, but it was encouraged by the grant of a *bounty* of 5*s.* on every quarter of wheat exported, while the price continued at or below 48*s.*; of 2*s.* 6*d.* on every quarter of barley or malt, while their respective prices did not exceed 24*s.*; and of 3*s.* 6*d.* on every quarter of rye, when its price did not exceed 32*s.* (1 Wm. & Mary c. 12.) A bounty of 2*s.* 6*d.* per quarter was subsequently given upon the exportation of oats and oatmeal, when the price of the former did not exceed 15*s.* per quarter. Importation continued to be regulated by the Act of 1670.

Much diversity of opinion has been entertained with respect to the policy of the bounty. That it was intended to raise the price of corn is clear, from the words of the statute, which states 'that the exportation of corn and grain into foreign parts, *when the price thereof is at a low rate in this kingdom*, hath been a great advantage not only to the owners of land, but to the trade of the kingdom in general; therefore,' &c. But admitting this to have been its object, it has been contended that the low prices which prevailed during the first half of last century show that its real effect was precisely the reverse; and that, by extending tillage, it contributed to reduce prices. It will be afterwards shown that this could not really be the case; and the fall of prices may be sufficiently

accounted for by the improved state of agriculture, the gradual consolidation of farms, the diminution of sheep husbandry &c., combined with the *slow* increase of the population. In point of fact, too, prices had begun to give way 30 years before the bounty was granted; and the fall was equally great in France, where, instead of exportation being encouraged by a bounty, it was almost entirely prohibited; and in most other continental states. (For proofs of what is now stated, see the article 'Corn Laws' in the new edition of the *Encyc. Brit.*)

The Tables annexed to this article show that, with some few exceptions, there was, during the first 66 years of last century, a large export of corn from England. In 1750 the wheat exported amounted to 947,000 quarters; and the total bounties paid during the 10 years from 1740 to 1751 reached the sum of 1,515,000*l.* But the rapid increase of population subsequently to 1760, and particularly after the Peace of Paris, in 1763, when the commerce and manufactures of the country were extended in an unprecedented degree, gradually reduced this excess of exportation, and occasionally, indeed, inclined the balance the other way. This led to several suspensions of the restrictions on importation; and at length, in 1773, a new Act was framed, by which foreign wheat was allowed to be imported on paying a nominal duty of 6*d.* whenever the home price was at or above 48*s.* per quarter, and the bounty and exportation were together to cease when the price was at or above 44*s.* The bounty amounted to 5*s.* on every quarter of wheat; 2*s.* 6*d.* on every quarter of barley; 3*s.* 6*d.* on every quarter of rye; and 2*s.* 6*d.* on every quarter of oats. This statute also permitted the importation of corn at any price, duty free, in order to be again exported, provided it were in the mean time lodged under the joint locks of the king and the importer.

The prices when exportation was to cease by this Act seem to have been fixed too low; and, as Adam Smith has observed, there appears a good deal of impropriety in prohibiting exportation altogether the moment it attained the limit when the bounty given to force it was withdrawn; yet, with all these defects, the Act of 1773 was a material improvement on the former system, and ought not to have been altered unless to give greater freedom to the trade.

The idea that this law must, when enacted, have been injurious to the agriculturists, seems altogether illusory; the permission to import foreign grain, when the home price rose to a moderate height, certainly prevented their realising exorbitant profits in dear years, at the expense of the other classes; and prevented an unnatural proportion of the capital of the country from being turned towards agriculture. But as the limit at which importation at a nominal duty was allowed was fixed a good deal above the average price of the reign of George II., it cannot be maintained that it had any tendency to reduce previous prices, which is the only thing that could have discouraged agriculture: and, in fact, no such reduction took place.

It is indeed true that but for this Act we should not have imported so much foreign grain in the interval between 1773 and 1791. This importation, however, was not a consequence of the decline of agriculture; for it is admitted that every branch of rural economy was more improved in that period than in the whole of the preceding century; but arose entirely from a still more rapid increase of the manufacturing population, and hence of the effective demand for corn.

By referring to the Tables annexed to this article, it will be seen that in 1772 the balance on the side of wheat imported amounted to 18,515 quarters; and in 1773, 1774, and 1775, all years of great prosperity, the balance was very much increased. But the loss of a great part of our colonial possessions, the stagnation of commerce, and difficulty of obtaining employment, occasioned by the American war, diminished the consumption; and this, combined with unusually productive harvests, rendered the balance high on the side of exportation in 1778, 1779, and 1780. In 1783 and 1784 the crops were unusually deficient, and considerable importations took place; but in 1785, 1786, and 1787 the exports again exceeded the imports; and it was not till 1788, when the country had fully recovered from the effects of the American war, and when manufacturing improvements were carried on with extraordinary spirit, that the imports permanently overbalanced the exports.

The growing wealth and commercial prosperity of the country had thus, by increasing the population and enabling individuals to consume additional quantities of food, caused the home supply of corn to fall somewhat short of the demand; but it must not therefore be concluded that agriculture had not at the same time been very greatly meliorated. 'The average annual produce of wheat,' says Mr. Comber, 'at the beginning of the reign of George III. (1760), was about 3,800,000 quarters, of which about 300,000 had been sent out of the kingdom, leaving about 3,500,000 for home consumption. In 1773 the produce of wheat was stated in the House of Commons to be 4,000,000 quarters, of which the whole, and above 100,000 imported, were consumed in the kingdom. In 1796 the consumption was stated by Lord Hawkesbury to be 500,000 quarters per month, or 6,000,000 quarters annually, of which about 180,000 were imported; showing an increased produce in about 20 years of 1,820,000 quarters. It is evident, therefore, not only that no defalcation of produce had taken place in consequence of the cessation of exportation, as has been too lightly assumed from the occasional necessity of importation, but that it had increased with the augmentation of our commerce and manufactures.' (Comber *On National Subsistence*, p. 180.)

These estimates are, no doubt, very loose and unsatisfactory; but the fact of a great increase of produce having taken place is unquestionable. In a report by a committee of the House of Commons on the state of the *waste lands*, drawn up in 1797, the number of Acts passed for enclosing, and the number of acres enclosed, in the following reigns, are thus stated:—

	No. of Acts	No. of Acres
In the reign of Queen Anne	2	1,439
George I.	16	17,960
George II.	226	318,778
George III. to 1797	1,532	2,801,197

It deserves particular notice, that from 1771 to 1791, both inclusive, the period during which the greater number of these improvements were effected, there was no rise of prices.

The landholders, however, could not but consider the liberty of importation granted by the Act of 1773 as injurious to their interests, inasmuch as it prevented prices from rising with the increased demand. A clamour, therefore, was raised against that law; and in addition to this interested feeling, a dread of becoming habitually dependent on foreign supplies operated on many, and produced a pretty general acquiescence in the Act of 1791. By this Act the price when importation could take place from abroad at the low duty of 6*d.* was raised to 54*s.*; under 54*s.* and above 50*s.* a middle duty of 2*s.* 6*d.*; and under

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50*s.* a prohibiting duty of 24*s.* 3*d.* was exigible. The bounty continued as before, and exportation without bounty was allowed to 46*s.* It was also enacted that foreign wheat might be imported, stored under the king's lock, and again exported free of duty; but if sold for home consumption, it became liable to a warehouse duty of 2*s.* 6*d.* in addition to the ordinary duties payable at the time of sale.

In 1797 the Bank of England obtained an exemption from paying in specie; and the consequent facility of obtaining discounts and getting a command of capital, which this measure occasioned, gave a fresh stimulus to agriculture, the efficacy of which was most powerfully assisted by the scarcity and high prices of 1800 and 1801. Inasmuch, however, as the prices of 1804 would not allow the cultivation of the poor soils, which had been broken up in the dear years, to be continued, a new corn law was loudly called for by the farmers, and passed in 1804. This law imposed a prohibitory duty of 24*s.* 3*d.* per quarter on all wheat imported when the home price was at or below 63*s.*; between 63*s.* and 66*s.* a middle duty of 2*s.* 6*d.* was paid, and above 66*s.* a nominal duty of 6*d.* The price at which the bounty was allowed on exportation was extended to 50*s.*, and exportation without bounty to 54*s.* By the Act of 1791 the maritime counties of England were divided into 12 districts, importation and exportation being regulated by the particular prices of each; but by the Act of 1804 they were regulated, in England, by the *aggregate average* of the maritime districts, and in Scotland by the aggregate average of the 4 maritime districts into which it was divided. The averages were taken 4 times a-year, so that the ports could not be open or shut for less than 3 months. This manner of ascertaining prices was, however, modified in the following session; it being then fixed that importation, both in England and Scotland, should be regulated by the average price of the 12 maritime districts of England.

In 1805 the crop was very considerably deficient, and the average price of that year was about 22*s.* per quarter above the price at which importation was allowed by the Act of 1804. As the depreciation of paper compared with bullion was at that time only *four* per cent., the high price of that year must have been principally owing to the new law preventing importation from abroad till the home price was high, and then fettering mercantile operations, and to the formidable obstacles which the war threw in the way of importation. In 1806, 1807, and 1808, the depreciation of paper was nearly 3 per cent.; and the price of wheat in those years being generally from 66*s.* to 76*s.*, the importations were but small. Several impolitic restraints had been for a long time imposed on the free importation and exportation of corn between Great Britain and Ireland, but they were wholly abolished in 1806; and the Act of that year (46 Geo. III. c. 97), establishing a free trade in corn between the two great divisions of the empire, was not only a wise and proper measure in itself, but has powerfully contributed to promote the general advantage. From autumn 1808, to spring 1814, the depreciation of the currency was unusually great; and several crops in that interval being likewise deficient, the price of corn, influenced by both causes, rose to a surprising height. At that time no vessel could be laden in any continental port for England without purchasing a license, and the freight and insurance were at least five times as high as during peace. But the destruction of Napoleon's anti-commercial system, in the autumn of 1813, having increased the facilities of importation, a large quantity of corn was poured into the kingdom; and in 1814 its *bullion* price fell below the price at which importation was allowed.

Before this fall of price, a committee of the House of Commons had been appointed to enquire into the state of the laws affecting the corn trade, and recommended in their Report (dated May 11, 1813) a very great increase of the prices at which exportation was allowable, and when importation free of duty might take place. This recommendation was not, however, adopted by the House; but the fact of its having been made when the home price was at least 112*s.* per quarter displayed a surprising solicitude to exclude foreigners from all competition with the home growers.

The wish to lessen the dependence of the country on foreign supplies formed the sole ostensible motive by which the committee of 1813 had been actuated in proposing an alteration in the Act of 1804. But after the fall of price in autumn 1813, and in the early part of 1814, it became obvious, on comparing our previous prices with those of the continent, that without an alteration of the law in question this dependence would be a good deal increased; that a considerable extent of such poor lands as had been brought into cultivation during the high prices would be again thrown into pasturage; and that rents would be lowered. These consequences alarmed the landlords and occupiers; and in the early part of the session of 1814 a series of resolutions were voted by the House of Commons, declaring that it was expedient to repeal the bounty, to permit the free exportation of corn whatever might be the home price, and to impose a graduated scale of duties on the importation of foreign corn. Thus, foreign wheat imported when the home price was at or under 64*s.* was to pay a duty of 24*s.*; when at or under 65*s.* a duty of 23*s.*; and so on till the home price should reach 86*s.*, when the duty was reduced to 1*s.*, at which sum it became stationary. Corn imported from Canada, or from the other British colonies in North America, was to pay ½ the duties on other corn. As soon as these resolutions had been agreed to, two bills founded on them—one for regulating the importation of foreign corn, and another for the repeal of the bounty, and for permitting unrestricted exportation—were introduced. Very little attention was paid to the last of these bills; but the one imposing fresh duties on importation encountered a very keen opposition. The manufacturers, and every class not directly supported by agriculture, stigmatised it as an unjustifiable attempt artificially to keep up the price of food, and to secure excessive rents and large profits to the landholders and farmers at the expense of the consumers. Meetings were very generally held, and resolutions entered into strongly expressive of this sentiment, and dwelling on the fatal consequences which, it was affirmed, a continuance of the high prices would have on manufactures and commerce. This determined opposition, coupled with the indecision of ministers, and perhaps, too, with an expectation on the part of some of the landholders that prices would rise without any legislative interference, caused the miscarriage of this bill. The other bill, repealing the bounty, and allowing an unlimited freedom of exportation, was passed into a law.

Committees had been appointed in 1814, by both Houses of Parliament, to examine evidence and report on the state of the corn trade; and, in consequence, a number of the most eminent agriculturists were examined. The witnesses were unanimous in this only: that the protecting prices in the Act of 1804 were insufficient to enable the farmers to make good the engagements into which

they had subsequently entered, and to continue the cultivation of the inferior lands lately brought under tillage. Some of them thought that 120*s.* should be fixed as the lowest limit at which the importation of wheat free of duty should be allowed; others varied from 90*s.* to 100*s.*, from 80*s.* to 90*s.*, and a few from 70*s.* to 80*s.* The general opinion, however, seemed to be that 80*s.* would suffice; and as prices continued to decline, a set of resolutions founded on this assumption were submitted to the House of Commons by Mr. Robinson, of the Board of Trade (afterwards Lord Ripon); and having been agreed to, a bill founded on them was, after a very violent opposition, carried in both Houses by immense majorities, and finally passed into a law (55 Geo. III. c. 26). According to this Act, all sorts of foreign corn, meal, or flour might be imported at all times free of duty into any port of the United Kingdom, in order to be warehoused; but foreign corn was not permitted to be imported for home consumption, except when the average prices of the several sorts of British corn were as follows; viz. wheat, 80*s.* per quarter; rye, peas, and beans, 53*s.*; barley, bear, or bigg, 40*s.*; and oats, 26*s.*: and all importation of corn from any of the British plantations in North America was forbidden except when the average home prices were at or under—wheat, 67*s.* per quarter; rye, peas, and beans, 44*s.*; barley, bear, or bigg, 33*s.*; and oats, 22*s.*

The agriculturists confidently expected that this Act would immediately raise prices, and render them steady at about 80*s.* But, for reasons which will be afterwards stated, these expectations were entirely disappointed; and a more ruinous fluctuation of prices took place during the period it was in existence than in any previous period of our recent history. In 1821, when prices had sunk very low, a committee of the House of Commons was appointed to enquire into the causes of the depressed state of agriculture, and to report their observations thereon. This committee, after examining a number of witnesses, drew up a report, which, though not free from error, is a valuable document. It contains a forcible exposition of the pernicious influence of the law of 1815, of which it suggested several important modifications. These, however, were not adopted; and as the low prices, and consequent distress of the agriculturists, continued, the subject was brought under the consideration of Parliament in the following year. After a good deal of discussion, a new Act was then passed (3 Geo. IV. c. 60), which enacted that after prices had risen to the limit of free importation fixed by the Act of 1815, that Act was to cease and the new statute to come into operation. This statute lowered the prices fixed by the Act of 1815, at which importation could take place for home consumption, to the following sums, viz.:—

	For Corn not of the British Possessions in North America	For Corn of the British Possessions in North America
	per quarter	per quarter
Wheat - -	70*s.*	67*s.*
Rye, peas, and beans -	46*s.*	39*s.*
Barley, bear, or bigg -	35*s.*	30*s.*
Oats - -	25*s.*	20*s.*

But, in order to prevent any violent oscillation of prices from a large supply of grain being suddenly thrown into the market, it was enacted that a duty of 17*s.* per quarter should be laid on all wheat imported from foreign countries, during the first 3 months after the opening of the ports, if the price was between 70*s.* and 80*s.* per quarter, and of 12*s.* afterwards; that if the price was between 80*s.* and 85*s.*, the duty should be 10*s.* for the first 3 months, and 5*s.* afterwards; and that if the price should exceed 85*s.*, the duty should be constant at 1*s.*; and proportionally for other sorts of grain.

This Act, by preventing importation until the home price rose to 70*s.*, and then loading the quantities imported between that limit and the limit of 85*s.* with heavy duties, was certainly more favourable to the views of the agriculturists than the Act of 1815. But, unluckily for them, the prices of no species of corn, except barley, were sufficiently high, while this Act existed, to bring it into operation.

In 1825 the first approach was made to a better system by permitting the importation of wheat from British North America, without reference to the price at home, on payment of a duty of 5*s.* per quarter. But this Act was passed with difficulty, and was limited to 1 year's duration.

Owing to the drought that prevailed during the summer of 1826, there was every prospect that there would be a great deficiency in the crops of that year; and, in order to prevent the disastrous consequences that might have taken place, had importation been prevented until the season was too far advanced for bringing supplies from the great corn markets in the north of Europe, his Majesty was authorised to admit 500,000 quarters of foreign wheat on payment of such duties as the order in council for its importation should declare. And when it was ascertained that the crops of oats, peas &c. were greatly below an average, ministers issued an order in council, on their own responsibility, on September 1, authorising the immediate importation of oats on payment of a duty of 2*s.* 2*d.* per boll; and of rye, peas, and beans on payment of a duty of 3*s.* 6*d.* per quarter. A considerable quantity of oats was imported under this order, the timely appearance of which had undoubtedly a very considerable effect in mitigating the pernicious consequences arising from the deficiency of that species of grain. Ministers obtained an indemnity for this order on the subsequent meeting of Parliament.

Nothing could more strikingly evince the impolicy of the Acts of 1815 and 1822 than the necessity, under which the Legislature and Government had been placed, of passing the temporary Acts and issuing the orders referred to. The more intelligent portion of the agriculturists began, at length, to perceive that the corn laws were not really calculated to produce the advantages that they had anticipated; and a conviction that increased facilities should be given to importation became general throughout the country. The same conviction made considerable progress in the House of Commons; so much so, that several members who supported the measures adopted in 1815 and 1822 expressed themselves satisfied that the principle of exclusion had been carried too far, and that a more liberal system should be adopted. Ministers having participated in these sentiments, Mr. Canning moved a series of resolutions, as the foundation of a new corn law, on March 1, 1827, to the effect that foreign corn might always be imported, free of duty, in order to be warehoused; and that it should always be admissible for home consumption upon payment of certain duties. Thus, in the instance of wheat, it was resolved that, when the home price was at or above 70*s.* per quarter, the duty should be a fixed one of 1*s.*; and that for every shilling that the price fell below 70*s.* a duty of 2*s.* should be imposed; so that when the price was at 69*s.* the duty on importation was to be 2*s.*, when at 68*s.* the duty was to be 4*s.*, and so on. The limit at which the constant duty of 1*s.* per quarter was to take place in the case of barley was originally fixed at 37*s.*; but it was subsequently raised to 40*s.*, the duty in-

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creasing by 1*s.* 6*d.* for every 1*s.* when the price fell below that limit. The limit at which the constant duty of 1*s.* per quarter was to take place in the case of oats was originally fixed at 28*s.*; but it was subsequently raised to 33*s.*, the duty increasing at the rate of 1*s.* per quarter for every shilling that the price fell below that limit. The duty on colonial wheat was fixed at 6*d.* per quarter when the home price was above 65*s.*; and when the price was under that sum the duty was constant at 5*s.*; the duties on other descriptions of colonial grain were similar. These resolutions were agreed to by a large majority; and a bill founded on them was subsequently carried through the House of Commons. Owing, however, to the change of ministers, which took place in the interim, several peers, originally favourable to the bill, and some, even, who assisted in its preparation, saw reason to become amongst its most violent opponents; and a clause moved by the Duke of Wellington, interdicting all importation of foreign corn until the home price exceeded 66*s.*, having been carried in the Lords, ministers gave up the bill, justly considering that such a clause was entirely subversive of its principle.

A new set of resolutions with respect to the corn trade were brought forward in 1828 by Mr. Charles Grant (afterwards Lord Glenelg). They were founded on the same principles as those which had been rejected during the previous session. But the duty was not made to vary equally, as in Mr. Canning's resolutions, with every equal variation of price; it being 23*s.* 8*d.* when the home price was 64*s.* the Imperial quarter, 16*s.* 8*d.* when it was 69*s.*, and 1*s.* only when it was at or above 73*s.* After a good deal of debate, Mr. Grant's resolutions were carried, and embodied in the Act 9 Geo. IV. c. 60.

The crops having been deficient in 1829 and 1830, there was a large importation of corn in these years, its average price being at the same time about 65*s.* per quarter. But the crops from 1831 to 1836 having been more than usually abundant, importation almost wholly ceased, and the price of wheat sunk in 1835 to 39*s.* 4*d.* per quarter, being less than it had been in any previous year since 1776. In consequence of this succession of good harvests and low prices, the corn laws ceased for a while to attract any considerable portion of the public attention, and an impression began to gain ground that the improvement of agriculture was so very rapid, that, despite the increase of population, and the existence of the corn laws, our prices would fall to about the level of those of the Continent. But the cycle of favourable seasons having terminated in 1837, the crops of that and the succeeding 5 years were considerably deficient: so much so that prices rose in 1839 to 70*s.* 8*d.* per quarter, the importations in that and the 3 following years being also very large. This increase in the price of corn, combined with the depressed state of the commerce of the country, originating in the pecuniary revulsion in the United States and other causes, again attracted a great deal of attention to the corn laws; and the oppressive magnitude and injurious operation of the duties were very strongly animadverted upon at public meetings in the manufacturing towns and elsewhere. An association, denominated the Anti-Corn Law League, originally founded in Lancashire, but which subsequently extended its ramifications to most parts of the country, was set on foot for the express purpose of keeping up an incessant agitation against the corn laws, which, in consequence of these concurring circumstances, were assailed with greater bitterness than ever. The importance of the subject at length forced it on the attention of Government, and in 1841 ministers, actuated partly by a sense of the mischievous influence of the sliding scale, and partly also by a wish to strengthen their declining popularity, brought forward a plan for remodelling the corn laws, by repealing the sliding scale and imposing in its stead a constant duty of 8*s.* per quarter on wheat, and in proportion on other grain. But, having no majority in Parliament, ministers were obliged to resort to a dissolution; and their proposal having, notwithstanding its moderation, excited the greatest apprehensions among the agriculturists, without being very warmly supported by the other classes, a new Parliament was returned, which gave a decided majority to the opposition. It was, nevertheless, felt on all hands to be necessary to make some considerable change in the existing law, and in 1842 a measure was introduced in that view by Sir Robert Peel, which was subsequently passed into a law, 5 Vict. 2nd sess. c. 14.

Unfortunately, however, this measure, like that by which it was preceded, was bottomed on the principle of making the duties vary with the variations in the price of corn; and though the duties were decidedly less oppressive than those imposed by the 9 Geo. IV. c. 60, still they were in no ordinary degree objectionable, as well from their too great magnitude as from their adding to the natural insecurity of the corn trade, and increasing the chances and severity of fluctuations. It is not, therefore, to be wondered at that the new measure gave but little satisfaction. Instead of being abated, the agitation and clamour against the corn laws continued progressively to gain strength; and the conviction began at the same time gradually to extend itself among many of those by whom these laws had hitherto been supported, that farther modifications would have to be made in them, and that they might be made without inflicting any very serious injury upon agriculture.

This conviction was greatly strengthened by the result of the important changes made by Sir Robert Peel in the tariff in 1842, and more especially by those which had reference to the importation of live cattle and fresh provisions. These had previously been prohibited; but the minister proposed that this prohibition should be repealed, and that their importation should be permitted under reasonable duties. This proposal, when first brought forward, excited the greatest apprehensions among the farmers and graziers, and was followed by an immediate fall in the price of cattle. Happily, however, the measure was carried, and it was speedily discovered that there was no such difference between the prices of cattle of the same quality here and in the adjacent parts of the continent as had been supposed; and that the fears entertained by the agriculturists of the approaching ruin of the businesses of breeding and grazing were altogether visionary and unfounded. The experience afforded by the reduction and subsequent abolition of the duty on wool was exactly similar. Instead of being injured, the interests of the British sheep farmers have been most materially promoted by these measures; the demand for home-grown wool having been rendered comparatively steady, and its price considerably increased by the powerful stimulus which the change in the duty on foreign wool gave to the woollen manufacture.

In the following year, that is, in 1843, a measure was adopted which made a wide breach in the corn laws. In 1842 the Legislature of Canada passed a law imposing a duty of 3*s.* per quarter on all wheat imported into the province, unless from

the United Kingdom, stating in the preamble to this Act that it was passed in the expectation and belief that a corresponding reduction would be made in the duties on wheat and wheat-flour imported into the United Kingdom from Canada. And conformably to this anticipation, the Act 6 & 7 Vict. c. 29, passed in the course of 1843, reduced the duty on wheat imported from Canada to 1*s.* per quarter, and proportionally on wheat-flour. This Act met with much opposition from a part of the agricultural interest in this country, who contended that it would lead to the introduction of unlimited supplies of corn from the United States at a duty of only 4*s.* per quarter, or, allowing for smuggling, at perhaps only ½ that amount. But experience showed that these anticipations were not likely to be realised; for, though the imports from Canada were materially increased, the obstacles in the way of the importation of corn from the United States into Canada, and the danger and expense of the voyage from Montreal or Quebec to England, must necessarily have prevented the importation through this channel from ever becoming of much importance. Still, however, the measure was in so far an abandonment of the corn laws; and if we were justified in admitting the produce of the United States to our markets in this indirect way, it was not easy to discover satisfactory grounds on which to exclude the produce of other states.

The success of the measures adopted in 1842 encouraged Sir Robert Peel to attempt still more considerable changes in 1845, when he totally abolished the customs duties on no fewer than 420 different articles, some of which were of very considerable importance. The measures then adopted were equivalent, in fact, to the virtual abandonment of the protective system; and under such circumstances it could not be expected that the corn laws, on which so serious an inroad had been made by the Canada Act, would be able to maintain their place on the statute book for any very lengthened period.

They might, however, have been continued for some time longer, had not the unsatisfactory corn harvest, and the failure of the potato crop of 1845, made it necessary to adopt measures for averting the anticipated deficiency in the supplies of food. Under the critical circumstances in which the population was then believed to be placed, the temporary suspension of the corn laws could hardly have been avoided; but if once suspended, their re-enactment would have been all but impossible, and it was better by at once providing for their repeal to make an end of the system, and of the dissatisfaction and agitation to which it had given birth, than to endeavour to continue it in any modified shape. Such was the view of the matter taken by Sir Robert Peel, and he fortunately succeeded, despite difficulties that none else could have overcome, in carrying the Act 9 & 10 Vict. c. 22, for the immediate modification of the corn laws, and for their total repeal at the end of 3 years, or on February 1, 1849. (See *post.*)

II. Principles of the Corn Laws.

1. *Internal Corn Trade.*—It is needless to take up the reader's time by endeavouring to prove by argument the advantage of allowing the free conveyance of corn from one province to another. Every one sees that this is indispensable, not only to the equal distribution of the supplies of food over the country, but to enable the inhabitants of those districts that are best fitted for the raising and fattening of cattle, sheep &c. to addict themselves to these or other necessary occupations not directly connected with the production of corn. We shall, therefore, confine the few remarks we have to make on this subject to the consideration of the influence of the speculations of the corn merchants in buying up corn in anticipation of an advance. Their proceedings in this respect, though of the greatest public utility, have been the principal causes of that odium to which they have been long exposed.

Were the harvests always equally productive, nothing would be gained by storing up supplies of corn; and all that would be necessary would be to distribute the crop equally throughout the country and throughout the year. But such is not the order of nature. The variations in the aggregate produce of a country in different seasons, though not perhaps so great as are commonly supposed, are still very considerable; and experience has shown that two or three unusually luxuriant harvests seldom take place in succession; or that when they do, they are invariably followed by those that are deficient. The speculators in corn anticipate this result. Whenever prices begin to give way in consequence of an unusually luxuriant harvest, speculation is at work. The more opulent farmers withhold either the whole or a part of their produce from market; and the more opulent dealers purchase largely of the corn brought to market and store it up in expectation of a future advance. And thus, without intending to promote any one's interest but their own, speculators in corn become the benefactors of the public. They provide a reserve stock against those years of scarcity which are sure at no distant period to recur; while, by withdrawing a portion of the redundant supply from immediate consumption, prices are prevented from falling so low as to be injurious to the farmers, or at least are maintained at a higher level than they would otherwise have reached; provident habits are maintained amongst the people; and that waste and extravagance are checked which always take place in plentiful years, but which would be carried to a much greater extent if the whole produce of an abundant crop were to be consumed within the season.

It is, however, in scarce years that the speculations of the corn merchants are principally advantageous. Even in the richest countries, a very large proportion of the individuals engaged in the business of agriculture are comparatively poor, and are totally without the means of withholding their produce from market in order to speculate upon any future advance. In consequence the markets are always most abundantly supplied with produce immediately after harvest; and in countries where the merchants engaged in the corn trade are not possessed of large capitals, or where their proceedings are fettered and restricted, there is then, almost invariably, a heavy fall of prices. But as the vast majority of the people buy their food in small quantities, or from day to day, as they want it, their consumption is necessarily extended or contracted according to its price at the time. Their views do not extend to the future; they have no means of judging whether the crop is or is not deficient. They live, as the phrase is, from hand to mouth, and are satisfied if, in the mean time, they obtain abundant supplies at a cheap rate. But it is obvious, that were there nothing to control or counteract this improvidence, the consequence would very often be fatal in the extreme. The crop of one harvest must support the population till the crop of the other harvest has been gathered in: and if that crop should be deficient—if, for instance, it should only be adequate to afford, at

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the usual rate of consumption, a supply of 9 or 10 months' provisions instead of 12—it is plain that, unless the price were so raised immediately after harvest as to enforce economy, and put, as it were, the whole nation on short allowance, the most dreadful famine would be experienced previously to the ensuing harvest. Those who examine the accounts of the prices of wheat and other grain in England, collected by Bishop Fleetwood and Sir F. M. Eden, will meet with abundant proofs of the accuracy of what has now been stated. In those remote periods when the farmers were generally without the means of withholding their crops from market, and when the trade of a corn dealer was proscribed, the utmost improvidence was exhibited in the consumption of grain. There were then, indeed, very few years in which a considerable scarcity was not experienced immediately before harvest, and many in which there was an absolute famine. The fluctuations of price exceeded every thing of which we can now form an idea; the price of wheat and other grain being 4 or 5 times as high in June and July as in September and October. Thanks, however, to the increase of capital in the hands of the large farmers and dealers, and to the freedom given to the operations of the corn merchants, we are no longer exposed to such ruinous vicissitudes. Whenever the dealers, who, in consequence of their superior means of information, are better acquainted with the real state of the crops than any other class of persons, find the harvest likely to be deficient, they raise the price of the corn they have warehoused, and bid against each other for the corn which the farmers are bringing to market. In consequence of this rise of prices, all ranks and orders, but especially the lower, who are the great consumers of corn, find it indispensable to use greater economy, and to check all improvident and wasteful consumption. Every class being thus immediately put upon short allowance, the pressure of the scarcity is distributed equally throughout the year; and instead of indulging, as was formerly the case, in the same scale of consumption as in seasons of plenty, until the supply became altogether deficient, and then being exposed without resource to the attacks of famine and pestilence, the speculations of the corn merchants warn us of our danger, and compel us to provide against it.

It is not easy to suppose that these proceedings of the corn merchants should ever be injurious to the public. It has been said that in scarce years they are not disposed to bring the corn they have purchased to market until it has attained an exorbitant price, and that the pressure of the scarcity is thus often very much aggravated; but there is no real ground for any such statement. The immense amount of capital required to store up any considerable quantity of corn, and the waste to which it is liable, render most holders disposed to sell as soon as they can realise a fair profit. In every extensive country in which the corn trade is free, there are infinitely too many persons engaged in it to enable any sort of combination or concert to be formed amongst them; and though it were formed, it could not be maintained for an instant. A large proportion of the farmers and other small holders of corn are always in straitened circumstances, more particularly if a scarce year has not occurred so soon as they expected; and they are consequently anxious to relieve themselves, as soon as prices rise, of a portion of the stock on their hands. Occasionally, indeed, individuals are found who retain their stocks for too long a period, or until a reaction takes place, and prices begin to decline. But instead of joining in the popular cry against such persons, every one who takes a dispassionate view of the matter will perceive that, inasmuch as their miscalculation must, under the circumstances supposed, be exceedingly injurious to themselves, we have the best security against its being carried to such an extent as to be productive of any material injury or even inconvenience to the public. It should also be borne in mind that it is rarely, if ever, possible to determine beforehand when a scarcity is to abate in consequence of new supplies being brought to market; and had it continued a little longer, there would have been no miscalculation on the part of the holders. At all events, it is plain that by declining to bring their corn to market, they preserved a resource on which, in the event of the harvest being longer delayed than usual, or of any unfavourable contingency taking place, the public could have fallen back; so that, instead of deserving abuse, these speculators are most justly entitled to every fair encouragement and protection. A country in which there is no considerable stock of grain in the barn-yards of the farmers, or in the warehouses of the merchants, is in the most perilous situation that can easily be imagined, and may be exposed to the severest privations, or even famine. But so long as the sagacity, the miscalculation, or the avarice of merchants and dealers retain a stock of grain in the warehouses, this last extremity cannot take place. By refusing to sell it till it has reached a very high price, they put an effectual stop to all sorts of waste, and husband for the public those supplies which they could not have so frugally husbanded for themselves.

We have already remarked that the last remnant of the shackles imposed by statute on the freedom of the internal corn dealer was abolished in 1773. It is true that engrossing, forestalling, and regrating [Engrossing &c.] are still held to be offences at common law; but there is very little probability of any one being in future made to answer for such ideal offences.

2. *Exportation to Foreign Countries.*—The fallacy of the notion so long entertained, that the prevention of exportation was the surest method of increasing plenty at home, is obvious to every one who has reflected upon such subjects. The markets of no country can ever be steadily and plentifully supplied with corn unless her merchants have power to export the surplus supplies with which they may be occasionally furnished. When a country without the means of exporting grows nearly her own average supplies of corn, an abundant crop, by causing a great overloading of the market and a heavy fall of price, is as injurious to the farmer as a scarcity. It may be thought, perhaps, that the greater quantity of produce in abundant seasons will compensate for its lower price; but this is not the case. It is uniformly found that variations in the quantity of corn exert a much greater influence over prices than equal variations in the quantity of almost any thing else offered for sale. Being the principal necessary of life, when the supply of corn happens to be less than ordinary the mass of the people make very great, though unavailing, exertions, by diminishing their consumption of other and less indispensable articles, to obtain their accustomed supplies of this prime necessary; so that its price rises much more than in proportion to the deficiency. On the other hand, when the supply is unusually large, the consumption is not proportionally extended. In ordinary years the bulk of the population is about adequately fed; and though the consumption of all classes be somewhat greater in unusually plentiful years, the extension is consi-

derable only among the lowest classes, and in the feeding of horses. Hence it is that the increased supply at market, in such years, goes principally to cause a glut, and consequently a ruinous decline of prices. These statements are corroborated by the widest experience. Whenever there is an inability to export, from whatever cause it may arise, an unusually luxuriant crop is uniformly accompanied by a very heavy fall of price, and severe agricultural distress; and when two or three such crops happen to follow in succession, the ruin of a large proportion of the farmers is completed.

If the mischiefs resulting from the want of power to export stopped here, they might, though very great, be borne; but they do not stop here. It is idle to suppose that a system ruinous to the producers can be otherwise to the consumers. A glut of the market, occasioned by luxuriant harvests and the want of power to export, cannot be of long continuance; for, while it continues, it can hardly fail, by distressing all classes of farmers and causing the ruin of many, to give a check to every species of agricultural improvement, and to lessen the extent of land in tillage. When, therefore, an unfavourable season recurs, the reaction is, for the most part, appalling. The supply, being lessened, not only by the badness of the season, but also by a diminution of the quantity of land in crop, falls very far below an average; and a severe scarcity, if not an absolute famine, is most commonly experienced. It is therefore clear, that if a country would render herself secure against famine and injurious fluctuations of price, she must give every possible facility to exportation in years of unusual plenty. If she act upon a different system—if her policy make exportation in such years impracticable or very difficult—she will infallibly render the bounty of Providence an injury to her agriculturists; and two or three abundant harvests in succession will be the forerunners of scarcity and famine.

3. *Bounty on the Exportation of Corn.*—In Great Britain, as already observed, we have not only been allowed to export for a long series of years, but from the Revolution down to 1815 a bounty was given on exportation whenever the home prices were depressed below certain limits. This policy, however, erred as much on the one hand as a restriction on exportation errs on the other. It causes, it is true, an extension of the demand for corn: but this greater demand is not caused by natural, but by artificial means; it is not a consequence of any really increased demand on the part of the foreigner, but of our furnishing the exporters of corn with a *bonus*, in order that they may sell it abroad below its natural price! To suppose that a proceeding of this sort can be a public advantage is equivalent to supposing that a shopkeeper may get rich by selling his goods below what they cost. [BOUNTY.]

4. *Importation from Foreign Countries.*—If a country were, like Poland or Russia, uniformly in the habit of exporting corn to other countries, a restriction on importation would be of no material consequence; because, though such restriction did not exist, no foreign corn would be imported unless its ports were so situated as to serve for an entrepôt. A restriction on importation is sensibly felt only when it is enforced in a country which, owing to the greater density of its population, the limited extent of its fertile land, or any other cause, would either occasionally or uniformly import. It is familiar to the observation of every one, that a total failure of the crops is a calamity that but rarely occurs in an extensive kingdom; that the weather which is unfavourable to one description of soil is generally favourable to some other description; and that, except in anomalous cases, the total produce is not very different. But what is thus generally true of single countries, is always true of the world at large. History furnishes no single instance of a universal scarcity; but it is uniformly found that when the crops in a particular country are unusually deficient, they are proportionally abundant in some other quarter. It is clear, however, that a prohibition of importation excludes the country which enacts it from profiting by this beneficent arrangement. She is thrown entirely on her own resources. Under the circumstances supposed, she has nothing to trust to for relief but the reserves in her warehouses; and should these be inadequate to meet the exigency of the crisis, there are apparently no means by which she can escape experiencing all the evils of scarcity, or, it may be, of famine. A country deprived of the power to import is unable to supply the deficiencies of her harvests by the surplus produce of other countries; so that her inhabitants may starve amidst surrounding plenty, and suffer the extreme of scarcity when, but for the restrictions on importation, they might enjoy the greatest abundance. If the prohibition be not absolute, but conditional—if, instead of absolutely excluding foreign corn from the home markets, it be merely loaded with a duty, the degree in which such duty will operate to increase the scarcity and dearth will depend on its magnitude. If the duty be constant and moderate, it may not have any very considerable effect in discouraging importation; but if it be fluctuating and heavy, it will, by falsifying the speculations of the merchants, and making a corresponding addition to the price of the corn imported, be proportionally injurious. In whatever degree foreign corn may be excluded in years of deficient crops, to the same extent must prices be artificially raised, and the pressure of the scarcity rendered so much the more severe.

Such would be the disastrous influence of a restriction on importation in a country which, were there no such obstruction in the way, would sometimes import and sometimes export. But its operation would be infinitely more injurious in a country which, under a free system, would uniformly import a portion of her supplies. The restriction in this case has a twofold operation. By preventing importation from abroad, and forcing the population to depend for subsistence on corn raised at home, it compels recourse to comparatively inferior soils; and thus, by increasing the cost of producing corn above its cost in other countries, adds proportionally to its average price. The causes of fluctuation are, in this way, increased in a geometrical proportion; for, while the prevention of importation exposes the population to the pressure of want whenever the harvest happens to be less productive than usual, it is sure, at the same time, by raising average prices, to hinder exportation in a year of unusual plenty, until the home prices fall ruinously low. It is obvious, therefore, that a restriction of this sort must be alternately destructive of the interests of the consumers and producers. It injures the former by making them pay, at an average, an artificially increased price for their food, and by exposing them to scarcity and famine whenever the home crop proves deficient; and it injures the latter by depriving them of the power to export in years of unusual plenty, and by overloading the market with produce which, under a free system, would have met with an advantageous sale abroad.

The principle thus briefly explained shows the impossibility of permanently keeping up the home prices by means of restrictions on importation, at the same time that it affords a clue by which we may trace the causes of most part of the agricultural distress experienced in this country since the peace. The real object of the corn law of 1815 was to keep up the price of corn at about 80*s.* per quarter; but to succeed in this, it was indispensable not only that foreign corn should be excluded when prices were under this limit, but that the markets should never be overloaded with corn produced at home: for it is clear, according to the principle already explained, that if the supply should in ordinary years be sufficient to feed the population, it must, in an unusually abundant year, be more than sufficient for that purpose; and when, in such a case, the surplus is thrown upon the market, it cannot fail, in the event of our average prices being considerably above the level of those of the surrounding countries, to cause a ruinous depression. Now, this was the precise situation of this country at the end of the war. Owing partly to the Act of 1804, but far more to the difficulties in the way of importation, and the depreciation of the currency, prices attained to an extraordinary elevation from 1809 to 1814, and gave such a stimulus to agriculture, that we grew, in 1812 and 1813, sufficient corn for our own supply. And, such being the case, it is clear, though our ports had been hermetically sealed against importation from abroad, that the first luxuriant crop must have occasioned a ruinous decline of prices. It is the exclusion, not the introduction, of foreign corn that has caused the occasional distress of the agriculturists since 1815; for it is this exclusion that has forced up the price of corn in this country, in scarce and average years, to an unnatural level, and that, consequently, renders exportation in favourable seasons impossible without such a fall of prices as is most disastrous to the farmer. It may be mentioned, in proof of what is now stated, that the average price of wheat in England and Wales in 1814 was 74*s.* 4*d.* per quarter, and in 1815 it had fallen to 65*s.* 7*d.* But as these prices would not indemnify the occupiers of the poorest lands brought under tillage during the previous high prices, they were gradually relinquishing their cultivation. A considerable portion of them had been converted into pasture; rents had been generally reduced, and wages had begun to decline; but the Legislature having laid additional restrictions on the importation of foreign corn, the operation of this natural principle of adjustment was unfortunately counteracted, and the price of 1816 rose to 78*s.* 6*d.* This rise was, however, insufficient to occasion any new improvement; and as foreign corn was now excluded, and large tracts of bad land had been thrown out of cultivation, the supply was so much diminished that, notwithstanding the increase in the value of money, prices rose in 1817, partly, no doubt, in consequence of the bad harvest of the previous year, to 96*s.* 11*d.*; and in 1818 to 86*s.* 3*d.* These high prices had their natural effect. They revived the drooping spirits of the farmers, who imagined that the Corn Law was, at length, beginning to produce the effects anticipated from it, and that the golden days of 1812, when wheat sold for 126*s.* 6*d.* per quarter, were about to return! But this prosperity carried in its bosom the seeds of future mischief. The increased prices necessarily occasioned a fresh extension of tillage; capital was again applied to the improvement of the soil; and this increase of tillage, conspiring with favourable seasons and the impossibility of exportation, sunk prices to such a degree, that they fell, in October, 1822, so low as 38*s.* 1*d.*, the average price of that year being only 44*s.* 7*d.*

It is thus demonstrably certain that the recurrence of periods of distress, similar to those which have been experienced by the agriculturists of this country since the peace, cannot be warded off by restricting or prohibiting importation. A free corn trade is the only system that can give them that security against fluctuations that is so indispensable. The increased importation that necessarily takes place, under a free system, as soon as any considerable deficiency in the crops is apprehended, prevents prices from rising to an oppressive height; while, on the other hand, when the crops are unusually luxuriant, a ready outlet is found for the surplus in foreign countries, without its occasioning any very heavy fall. To expect to combine steadiness of prices with restrictions on importation is to expect to reconcile what is contradictory and absurd. The higher the limit at which the importation of foreign corn into a country like England is fixed, the greater is the oscillation of prices. If we would secure for ourselves abundance, and avoid fluctuation, we must renounce all attempts at exclusion, and be ready to deal in corn, as we ought to be in every thing else, on fair and liberal principles.

That the restrictions imposed on the foreign corn trade down to 1846 should not have been productive of more disastrous consequences than those that have actually resulted from them, is partly and principally to be ascribed to the unparalleled improvement of tillage in Great Britain during that period, and partly also to the great increase that has taken place in the imports from Ireland. Previously to 1806, when a perfectly free corn trade between Great Britain and Ireland was for the first time established, the yearly imports did not amount to 400,000 quarters, whereas in 1866 they amounted to 1,523,460; and any one who has ever been in Ireland, or is aware of the wretched state of its agriculture, and of the fertility of the soil, must be satisfied that a slight improvement would occasion a great increase in the imports from that country; and it is not improbable that the check that has been given to the pernicious practice of splitting farms, to the potato culture, and consequently to the increase of a pauper population, may eventually lead to material improvements. Hence it is by no means improbable, seeing the fall that has already taken place, that the rapid spread of improvement at home, and the growing imports from Ireland, may, at no distant period, reduce our prices to the level of those of the Continent, and even render us an occasionally exporting country. These, however, are contingent and uncertain results; and supposing them to be ultimately realised, the corn laws, had they been maintained on their old footing, would, in the mean time, have been productive of great inconvenience, and would have materially aggravated the misery inseparable from bad harvests.

Nothing but the great importance of the subject could excuse us for dwelling so long on what is so very plain. To facilitate production, and to make commodities cheaper and more easily obtained, are the grand motives which stimulate the inventive powers, and which lead to the discovery and improvement of machines and processes for saving labour and diminishing cost; and it is plain that no system of commercial legislation deserves to be supported which does not conspire to promote the same objects; but a restriction on the importation of corn into a country like England, which has made a great comparative advance in population and manufacturing industry, is diametrically

opposed to these principles. The density of our population is such, that the exclusion of foreign corn has obliged us to resort to soils of less fertility than those that are under cultivation in the surrounding countries; and, in consequence, our average prices are comparatively high. The impolicy of this conduct is obvious. If we could, by laying out 1,000*l.* on the manufacture of cottons or hardware, produce a quantity of these articles that would exchange for 500 quarters of American or Polish wheat; and if the same sum, were it expended in cultivation in this country, would not produce more than 400 quarters; the prevention of importation occasions an obvious sacrifice of 100 out of every 500 quarters consumed in the Empire; or, which is the same thing, it occasions an artificial advance of 20 per cent. in the price of corn. We do not mean to say that this statement exactly represents the amount of injury that was inflicted by the late corn laws: but, at all events, it clearly illustrates the principles which they embodied. But though plainly injurious to the public, it may seem, at first sight, as if this system were advantageous to the landlords. The advantage is, however, merely apparent; at bottom there is no real difference between the interests of the landlords and those of the *rest* of the community. It would be ridiculous, indeed, to imagine for a moment that the landlords could be benefited by a system in which those fluctuations of prices, so subversive of all agricultural prosperity, were inherent; but though these could have been got rid of, the result would have been the same. The prosperity of agriculture must always depend upon, and be determined by, the prosperity of other branches of industry; and any system which, like the corn laws, is injurious to the *latter*, cannot but be injurious to the former. Instead of being publicly advantageous, high prices are in every case distinctly and completely the reverse. The smaller the sacrifice for which any commodity can be obtained, so much the better. When the labour required to produce, or the money required to purchase, a sufficient supply of corn is diminished, it is as clear as the sun at noon-day that more labour or money must remain to produce or purchase the other necessaries, conveniences, and amusements of human life, and that the sum of national wealth and comforts must be proportionally augmented. Those who suppose that a rise of prices can ever be a means of improving the condition of a country might, with equal reason, suppose that it would be improved by throwing its best soils out of cultivation, and destroying its most powerful machines. The opinions of such persons are not only opposed to the plainest and best established principles, but they are opposed to the obvious conclusions of common sense, and the universal experience of mankind.

It would, however, be unjust not to mention that there has always been a large and respectable party amongst the landlords, opposed to all restrictions on the trade in corn, and who have uniformly thought that their interests, being identified with those of the public, would be best promoted by the abolition of restrictions on importation. A protest expressive of this opinion, subscribed by 10 peers, was entered on the Journals of the House of Lords, against the corn law of 1815. It is said to have been written by the late Lord Grenville, distinguished as an enlightened advocate of sound commercial principles. Its reasoning is so clear and satisfactory, that we are sure we shall gratify our readers, as well as strengthen the statements previously made, by laying it before them.

'*Dissentient.*—I. Because we are adverse in principle to all new restraints on commerce. We think it certain that public prosperity is best promoted by leaving uncontrolled the free current of national industry: and we wish rather, by well-considered steps, to bring back our commercial legislation to the straight and simple line of wisdom than to increase the deviation by subjecting additional and extensive branches of the public interest to fresh systems of artificial and injurious restrictions.

'II. Because we think that the great practical rule, of leaving all commerce unfettered, applies *more peculiarly*, and on still stronger grounds of justice as well as policy, to the corn trade than to any other. Irresistible indeed must be that necessity which could, in our judgment, authorise the Legislature to tamper with the sustenance of the people, and to impede the free purchase of that article on which depends the existence of so large a portion of the community.

'III. Because we think that the expectations of ultimate benefit from this measure are founded on a delusive theory. We cannot persuade ourselves that this law will ever contribute to produce plenty, cheapness, or steadiness of price. So long as it operates at all, its effects must be the opposite of these. *Monopoly is the parent of scarcity, of dearness, and of uncertainty.* To cut off any of the sources of supply can only tend to lessen its abundance; to close against ourselves the cheapest market for any commodity must enhance the price at which we purchase it; and to confine the consumer of corn to the produce of his own country is to refuse to ourselves the benefit of that provision which Providence itself has made for equalising to man the variations of climate and of seasons.

'IV. But whatever may be the future consequences of this law at some distant and uncertain period, we see with pain that these hopes must be purchased at the expense of a great and present evil. To compel the consumer to purchase corn dearer at home than it might be imported from abroad is the immediate practical effect of this law. In this way alone can it operate. Its present protection, its promised extension of agriculture, must result (if at all) from the profits which it creates by keeping up the price of corn to an artificial level. These future benefits are the consequences expected, but, as we confidently believe, erroneously expected, from giving a bounty to the grower of corn by a tax levied on its consumer.

'V. Because we think the adoption of any permanent law for such a purpose required the fullest and most laborious investigation. Nor would it have been sufficient for our satisfaction, could we have been convinced of the general policy of a hazardous experiment. A still further enquiry would have been necessary to persuade us that the present moment is fit for its adoption. In such an enquiry we must have had the means of satisfying ourselves what its immediate operation will be, as connected with the various and pressing circumstances of public difficulty and distress with which the country is surrounded; with the state of our circulation and currency, of our agriculture and manufactures, of our internal and *external* commerce, and above all with the condition and reward of the industrious and labouring classes of our community.

'On all these particulars, as they respect this question, we think that Parliament is almost wholly uninformed; on all we see reason for the utmost anxiety and alarm from the operation of this law.

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'Lastly. Because, if we could approve of the principle and purpose of this law, we think that no sufficient foundation has been laid for its details. The evidence before us, unsatisfactory and imperfect as it is, seems to us rather to disprove than to support the propriety of the high price adopted as the standard of importation, and the fallacious mode by which that price is to be ascertained. And on all these grounds we are anxious to record our dissent from a measure so precipitate in its course, and, as we fear, so injurious in its consequences.'

Attempts have sometimes been made to estimate the pecuniary burden which the restrictions on importation entailed in ordinary years upon the country. This, undoubtedly, is a subject with respect to which it is not possible to obtain any accurate data. But supposing the total quantity of corn annually produced in Great Britain and Ireland to amount to 50,000,000 quarters, every shilling added to its price by the corn laws was equivalent to a tax on corn of 2,500,000*l.*; and estimating the average rise on all sorts of grain previously to 1846 at 3*s.* per quarter, the total rise would be 7,500,000*l.* So great a quantity of corn is, however, consumed by the agriculturists themselves, as food, in seed, the keep of horses &c., that not more than a half, perhaps, of the whole quantity produced is brought to market. If we are nearly right in this hypothesis, and in the previous estimates, it will follow that the restrictions cost the classes not engaged in agriculture no less than 3,750,000*l.* a year, exclusive of their other pernicious consequences. Of this sum a *fifth*, probably, or 750,000*l.*, went to the landlords as rent; and this is *all* that the agriculturists can be said to have gained by the system, for the additional price received by the farmer on that portion of the produce which is exclusive of rent was no more than the ordinary return for his capital and labour. His profits, indeed, like those of all other capitalists, instead of being increased by this system, were diminished by it; and though, nominally at least, it somewhat increased the rents of the landlords, it is, notwithstanding, abundantly certain that it was anything but advantageous to them. It would require a far larger sum to have balanced the injury which fluctuations of price occasioned to their tenants, and the damage done to their estates by overcropping when prices were high, than all they derived from the restrictions.

5. *Duties on Importation.*—A duty may be equitably imposed on imported corn, for two objects; that is, either for the sake of revenue, or to balance any excess of taxes laid on the agriculturists over those laid on the other classes. (*Treatise on Taxation* by the author of this work, 2nd ed. pp. 193-203.) With respect, however, to a duty imposed for the sake of revenue, it may be doubted whether corn be a proper subject for taxation. At all events, a duty for such an object should be exceedingly moderate. It would be most inexpedient to attempt to add largely to the revenue by laying heavy duties on the prime necessary of life.

If it be really true that agriculture is more heavily taxed than any other branch of industry, the agriculturists are entitled to demand that a duty be laid on foreign corn when imported corresponding to the *excess* of burdens affecting them. It has been doubted, however, whether they are in this predicament. But though the question be not quite free from difficulty, it would be easy to show, were this a proper place for such enquiries, that, owing to the various local and other direct and indirect burdens laid on the land, those occupying it are really subjected to heavier taxes than any other class. It is difficult, or rather, perhaps, impossible, to estimate with any degree of precision what the *excess* of taxes laid on the agriculturists beyond those laid on manufacturers and merchants may amount to; but we have elsewhere shown, that if we estimate it as making an addition of 5*s.* or 6*s.* to the quarter of wheat, we shall probably be beyond the mark. (*Treatise on Taxation*, ubi supra.)

When a duty is laid on the importation of foreign corn, for the equitable purpose of countervailing the peculiar duties laid on the corn raised at home, an *equivalent drawback* should be allowed on its exportation. 'In allowing this drawback, we are merely returning to the farmer a tax which he has already paid, and which he must have, to place him in a fair state of competition in the foreign market, not only with the foreign producer, but with his own countrymen who are producing other commodities. It is essentially different from a bounty on exportation, in the sense in which the word bounty is usually understood; for by a bounty is generally meant a tax levied on the people for the purpose of rendering corn unnaturally cheap to the foreign consumer; whereas what I propose is, to sell our corn at the price at which we can really afford to produce it, and not to add to its price a tax which shall induce the foreigner rather to purchase it from some other country, and deprive us of a trade which, under a system of free competition, we might have selected.' (Ricardo *On Protection to Agriculture*, p. 53.)

A duty accompanied with a drawback, as now stated, would not only, under the circumstances supposed, have been an equitable arrangement, but it would have been highly for the advantage of the farmers, without being injurious to any one else. The radical defect, as already shown, of the system followed from 1815 down to 1846, in so far, at least, as respected agriculture, was, that it forced up prices in years when the harvest was deficient, while it left the market to be glutted when it was abundant. But while a constant duty of 5*s.* would have secured to the home growers all the increase of price which the regard due to the interests of others should allow them to realise in a bad year, the drawback of 5*s.*, by enabling them to export in an unusually plentiful year, would have prevented the markets from being overloaded, and prices from falling to the ruinous extent that they have occasionally done. Such a plan would have rendered the businesses of the dealers in and growers of corn comparatively secure, and would, therefore, have provided for the continued prosperity of both. It is surprising the agriculturists did not take this view of the matter. If they were really entitled to a duty on foreign corn on account of their being more heavily taxed than the other classes of their fellow-citizens (and they had no title to it on any other ground), they were also entitled to a corresponding drawback. And it admits of demonstration, that *their* interests, as well as those of the community, would have been better promoted by such a duty and drawback than they ever could have been by any system of mere duties, how high soever they might be carried.

III. British Corn Trade.

1. *Quantity of Corn consumed in Great Britain.*—Attempts have sometimes been made to estimate the quantity of corn raised in a country from calculations founded on the number of acres in tillage, and on the average produce per acre; but

it is plain that no perfectly accurate account can ever be framed of the extent of land under cultivation. It is perpetually changing from year to year; and the amount of produce varies not only with the differences of seasons, but also with every improvement of agriculture. This method, therefore, is now rarely resorted to, and the growth of corn is generally estimated from the *consumption*. The conclusions deduced from this criterion must indeed be subject to error, as well from variations in the consumption occasioned by variations in the price of corn as from the varying extent to which other food is used. But supposing the prices of corn to be reduced to an average, if the consumption of a considerable number of persons, of all ranks and orders, and of all ages and sexes, were accurately determined, we should be able, supposing the census of the population to be nearly correct, to make a pretty close approximation to the total consumption of the country. Mr. Charles Smith, the well-informed and intelligent author of the Tracts on the Corn Trade, made many curious investigations with a view to discover the mean annual consumption of corn; and reducing it to *the standard of wheat*, he found it to be at the rate of about *a quarter for each individual*, young and old. This estimate has been confirmed by a variety of subsequent researches; and among others, by enquiries made during the scarcity of 1795 and 1796, by the magistrates of Suffolk, in 42 different parishes, in the view of ascertaining the average consumption of each family, which they found to correspond very closely with Mr. Smith's estimate. It is also worthy of remark, that M. Paucton, the intelligent author of the *Métrologie*, estimates the mean annual average consumption, in France, when reduced to the standard of wheat, *at about* 10 bushels for each individual; and as the French consume more bread and less animal food than the English, this estimate affords a strong proof of the correctness of that of Mr. Smith.

Having taken the population of England and Wales in 1765 at 6,000,000, Mr. Smith reckoned the consumers of each kind of grain, the quantity consumed by each individual, and hence the whole consumed by man, to be as follows:—

Estimated Population of England and Wales		Average Consumption of each Person		Consumed by Man
				qrs.
3,750,000 consumers of	wheat, at	1 quarter	each	3,750,000
732,000 ,,	barley, at	1⅜	,,	1,016,125
888,000 ,,	rye, at	1⅛	,,	999,000
621,000 ,,	oats, at	2¼	,,	1,791,225
Consumed by man				7,556,350
In addition to this, Mr. Smith estimated the wheat distilled, made into starch &c.				90,000
Barley used in malting &c.				5,417,000
Rye for hogs &c.				31,000
Oats for horses &c.				2,461,500
Total of home consumption				15,555,850
Add excess of exports over imports				398,624
				13,954,474
Add seed (one-tenth)				1,395,447
Total growth of all kinds of grain in England and Wales in 1765				15,349,921

This estimate, it will be observed, does not include either Scotland or Ireland; and later enquiries have rendered it probable that Mr. Smith underrated the population of England and Wales by nearly 1,000,000. The most eminent agriculturists seem also to be of opinion that the allowance for seed ought to be stated as high as a *sixth* or a *seventh*.

Mr. Chalmers, availing himself of the information respecting the numbers of the people furnished under the Population Act of 1800, estimated the total consumption of the different kinds of grain in Great Britain at that epoch at 27,185,300 qrs., whereof wheat constituted 7,676,100 qrs. The crops of 1800 and 1801 being unusually deficient, the importation in these years was proportionally great; but excluding these scarcities, the total average excess of all sorts of grain imported from Ireland and foreign countries into Great Britain over the exports had previously amounted to about 1,000,000 qrs., which, deducted from 27,185,300, leaves 26,185,300, to which if we add *one sixth* as seed, we shall have 30,549,516 qrs. as the average growth of Great Britain in 1800.

According to Dr. Colquhoun, the consumption of corn in Great Britain and Ireland in 1814

Species of Grain	Estimated Average of the Population of Great Britain and Ireland	Each Person averaged	Consumed by Man	Consumed by Animals	Used in Beer and Spirits	Used in various Manufactures	Total Quarters
		quarters	quarters	quarters	quarters	quarters	
Wheat	9,000,000	1	9,000,000	—	—	170,000	9,170,000
Barley	1,500,000	1¼	1,875,000	210,000	4,250,000	—	6,335,000
Oats	4,500,000	1½	6,750,000	10,200,000	—	—	16,950,000
Rye	500,000	1¼	625,000	59,000	—	1,000	685,000
Beans and peas	500,000	1	500,000	1,360,000	—	—	1,860,000
Total	16,000,000	—	18,750,000	11,829,000	4,250,000	171,000	35,000,000

amounted to about 35,000,000 quarters. We give his estimate.

But though this estimate be compiled with greater care and is entitled to more confidence than most of those put forth by its author, it is in some respects extremely inaccurate. There can, for example, be no manner of doubt that the consumption of oats is underrated by at least 2,250,000 quarters, or by ½ quarter in the quantity assigned to each of the 4,500,000 individuals Dr. Colquhoun supposed were fed on them. And besides underrating the consumption of oats, Dr. Colquhoun has made no allowance for seed, though it be unnecessary to say that the expenditure of corn as seed is as indispensable, and its consumption as effectual, as if it were employed in the feeding of men or of horses. Adding, therefore, to the 37,250,000 quarters which Colquhoun's estimate should have amounted to, ⅛ for seed, we have on his data 43,458,000 quarters for the total consumption of corn in the United Kingdom in 1814.

But instead of a population of 16,000,000, which is assumed as the basis of the above estimate, the United Kingdom had, in 1861, a population of above 29,000,000. If, therefore, the estimate of Dr. Colquhoun were accurate, and the consumption, as compared with the population, were about the same as in 1814, it should now amount to above 78,000,000 quarters. But during the last 30 years the proportion of wheat used as food has been materially increased; and at present the consumers of barley certainly amount to nothing like 1,500,000 individuals; probably to not more than 500,000. The consumption of oats has also increased very materially, partly and principally from the great increase in the number of horses and their better keep, and partly also from the increase of population in Ireland; but it is abundantly certain that the expenditure of corn on the lower animals, and in breweries, distilleries &c., does not now amount to anything like twice the quantity at which it was estimated by Colquhoun.

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Agricultural Statistics.—In a former edition the following opinion of these statistics was stated: 'Perhaps we may be excused for adding that the advantages to be derived from what are called "Agricultural Statistics" have been ridiculously exaggerated. The extent of land under different crops may be learned with tolerable precision; but it is the merest hallucination to imagine that the produce of any harvest can ever be known with anything approximating to accuracy till it be thrashed out. Supposing, however, that it were otherwise, and that it was officially announced in September that the wheat crop was (say) 2,000,000 quarters under an average: the first effect of this announcement would be to raise the price of wheat in every foreign port; and where is the gain to set off against this disadvantage? The return would give no additional security to the speculations of the importers; for, though A knows that 2,000,000 quarters are required to make up the stated deficiency, he cannot know how much has been or may be ordered by B, C, D, and his 10,000 other competitors here and abroad. The existing system is in all respects preferable. At present the great corn merchants are in the habit of sending intelligent agents through the country to examine into and report on the state of the crops. If they see reason to apprehend an unusual deficiency, their principals purchase accordingly. But they are not such simpletons as to communicate their peculiar information to the public. That might be a very generous, but it would at the same time be a very foolish proceeding. And yet this communication of information useful to the foreigner would be the first and principal result of such official statements as to the state of the crops as were of any authority.'

Since the above was written the Government has (1866) collected the facts, both as regards the amount of live stock and the cultivation of the soil. The value of the statistics, however, which have been supplied for corn and green crops must not be exaggerated or misunderstood. It is manifest that no certain inference can be obtained as to the quantity produced, however exact may be the reckoning of the acres under tillage; and in the absence of any materials for the former inference, the attempt to reduce the acreage to quantities of corn would be an arithmetical fallacy. But as successive annual accounts are given, there is an inference of some importance, in the comparison between the amount of corn sown and in the quantities imported for consumption, which will enable persons to arrive at an estimate of the average annual deficiency in the supply of home-grown corn. We do not think that agricultural statistics will enable farmers and corn dealers to determine future prices, but they will be of some aid to such a result, and will certainly supply the public with some information as to the measure of its dependence on the growth of foreign countries.

The largest imports of foreign corn and meal hitherto introduced into this country were those of 1862, when 70,987,228 cwts., equal to more than 27,000,000 quarters, were imported. Of this quantity a very small amount was re-exported. The wheat and flour alone amounted to more than 11,500,000 quarters. In the seven years 1859–1865 inclusive, the total entries of foreign wheat and flour amounted to 51,750,296 quarters, giving an average of 7,392,899 quarters as the amount of wheat and flour needed for the inhabitants of Great Britain and Ireland, as estimated for the seven years in question. During the seven years ending with the year 1858, the average annual consumption of foreign grain was 4,595,801 quarters. During the seven years ending with the year 1850, the average annual consumption was 3,073,053 quarters. These facts are of the highest significance, showing as they do the increasing dependence of this country on foreign supplies of wheat and flour, and indicating what on an average estimate is the general demand of this country on the breadstuffs of foreign regions—a demand which has more than doubled during the space of fourteen years only.

Returns as to the acreage under corn and other crops have been made from Ireland and Scotland for some years past, but no such return was obtainable from England and Wales till 1866. In this year, however, such an account was published by the Board of Trade. The most important facts of this return are printed below.

Total Number of Acres under Each Description of Corn Crop, 1866.

Divisions	Wheat	Barley or Bear	Oats	Rye	Beans	Peas	Total of Corn Crops
England	3,161,431	1,877,587	1,503,990	50,570	492,586	314,706	7,400,170
Wales	113,862	146,323	251,893	2,452	3,531	3,010	521,074
Scotland	110,101	213,619	1,004,040	7,035	28,537	3,188	1,366,540
Total for Great Britain	3,385,394	2,237,529	2,759,923	60,077	524,657	320,404	9,287,784
Ireland	300,474	158,777	1,697,648	7,753	14,175	2,606	2,173,433
Isle of Man	8,075	7,736	11,010	9	389	116	27,266
Channel Islands:							
Jersey	2,702	111	288	15	15	13	3,142
Guernsey &c.	990	532	424	27	43	21	2,041
Total for United Kingdom	3,697,635	2,394,183	4,469,293	67,879	537,230	323,160	11,493,866

Total Number of Acres under Each Description of Green Crop, 1866.

Divisions	Potatoes	Turnips and Swedes	Mangold	Carrots	Cabbage, Kohl Rabi, and Rape	Vetches, Lucerne, and any other Crop, except Clover or Grass	Total of Green Crops
England	311,151	1,600,706	254,081	15,598	159,539	408,935	2,750,008
Wales	41,266	68,442	3,864	295	1,320	27,069	139,265
Scotland	145,426	478,200	832	946	5,075	53,098	663,257
Total for Great Britain	498,843	2,147,138	258,797	16,839	165,943	470,000	3,552,530
Ireland	1,050,419	317,191	20,214	3,781	50,352	40,200	1,482,091
Isle of Man	4,302	7,716	55	226	69	310	12,208
Channel Islands:							
Jersey	1,768	1,812	201	1,013	171	158	5,253
Guernsey &c.	677	237	216	202	75	1,591	2,938
Total for United Kingdom	1,555,609	2,164,161	279,947	22,061	216,610	512,189	5,055,020

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Total Number of Acres under Hops, Bare Fallow, and Grass.

Divisions	Hops	Bare Fallow, or uncropped Arable Land	Clover and Artificial and other Grasses under rotation	Permanent Pasture, Meadow or Grass, not broken up in rotation (exclusive of Hill Pastures)	Total Number of Acres under all Kinds of Crops, Bare Fallow, and Grass
England	56,562	760,939	2,296,087	8,998,027	22,261,833
Wales	14	109,878	256,722	1,227,721	2,284,674
Scotland	2	94,080	1,111,415	893,066	4,158,360
Total for Great Britain	56,578	964,937	3,694,224	11,148,814	28,704,867
Ireland	—	28,060	1,600,493	10,002,058*	15,549,796*
Isle of Man	—	8,357	25,309	9,762	82,902
Channel Islands:					
Jersey	—	2,552	3,805	6,205	20,357
Guernsey &c.	—	372	886	5,762	11,999
Total for United Kingdom	56,578	1,004,278	5,324,119	—*	—*

* The returns of the acreage under 'Permanent Pasture' in Great Britain and in Ireland are not comparable, as *Hill Pastures are excluded* in Great Britain and *included* in Ireland. Totals omitted in places marked thus (*) cannot, therefore, be given.

Per-centage Proportions of each kind of Corn Crop to Total of Corn Crops.

Divisions	Wheat	Barley or Bear	Oats	Rye	Beans	Peas	Total of Corn Crops
England	42·7	25·4	20·3	·7	6·7	4·2	100
Wales	21·8	28·1	48·3	·5	·7	·6	100
Scotland	8·1	15·6	73·5	·5	2·1	·2	100
Total for Great Britain	36·4	24·1	29·7	·7	5·7	3·4	100
Ireland	13·8	7·0	78·1	·4	·6	·1	100
Isle of Man	29·6	25·4	40·4	—	1·2	·4	100
Channel Islands:							
Jersey	86·0	3·5	9·2	1·3	1·5	1·3	100
Guernsey &c.	48·5	26·1	21·0	4·4	4·4	4·4	100
Total for United Kingdom	32·2	20·9	38·8	·6	4·7	2·8	100

Per-centage Proportions of each kind of Green Crop to Total of Green Crops.

Divisions	Potatoes	Turnips and Swedes	Mangold	Carrots	Cabbage, Kohl Rabi, and Rape	Vetches, Lucerne, and any other Crops, except Clover or Grass	Total of Green Crops
England	11·3	58·2	2·2	·6	5·8	14·9	100
Wales	31·8	44·8	2·8	·2	1·0	19·4	100
Scotland	21·6	72·2	·1	·2	·8	5·1	100
Total for Great Britain	14·0	60·3	7·3	·5	4·7	13·2	100
Ireland	70·9	21·4	1·4	·2	3·4	2·7	100
Isle of Man	35·2	59·4	·5	1·8	·6	2·5	100
Channel Islands:							
Jersey	26·0	34·5	13·3	19·9	3·5	3·0	100
Guernsey &c.	23·0	8·4	7·3	6·9	2·6	51·8	100
Total for United Kingdom	30·8	48·8	5·6	·4	4·3	10·1	100

If we assume the acreage of each kind of grain to be an average of the amount annually under cultivation, and take 30 bushels an acre as the average produce of wheat, the amount of wheat produced annually in the United Kingdom will reach nearly 14,000,000 quarters. Taking again barley and oats at 40 bushels to the acre, the produce of these two kinds of grain will be about 34,000,000. Rye, beans, and peas, reckoned at 30 bushels, will produce about 3,480,000 quarters; and the total produce 51,480,000 quarters of different kinds of corn. It may be observed that the Author in previous calculations, based chiefly upon hypothetical premises, estimated the total annual average growth of the United Kingdom at about 50,000,000 quarters, an amount which pretty closely agrees with the estimate taken from the returns elaborated by the Board of Trade.

Regulations under which the Corn Trade of the United Kingdom was conducted previously to 1846.—These regulations were embodied in the Act 5 Vict. 2 sess. c. 14, some clauses of which still continue in force (see *post*). This Act imposed a scale of duties on wheat and other descriptions of corn when imported from a foreign country, which varied inversely according to their prices, being greatest when prices were lowest, and least when prices were highest. (See a Table of the duties in the former editions of this work.)

From the extreme difficulty of forming anything like correct conclusions in regard to the state of the crops at any given period in an extensive country, and still more of estimating the supply and probable price of corn at any future period, though but a little remote, the risk attending the corn trade is proverbially great. Under such circumstances, if Government interfere at all, it should certainly be to lessen such hazards; and, at all events, it should take especial care to do nothing to increase them. Hence, if a duty be imposed on importation, it should be constant, so that its influence may always be estimated beforehand; for if the amount of duty depend on accidental circumstances, or on any thing so fluctuating and incapable of previous estimation as the prices in the home market, it must necessarily, by increasing the hazard of all speculations in corn, tend to augment those inequalities in its supply and price that should, in as far as possible, be diminished. To show the direct influence of such duties, it may suffice to mention that if, under the above law, a merchant had commissioned a quantity of wheat when the home price was between 64*s.* and 65*s.* per quarter, he would, in the event of the price falling to 60*s.* before the importation took place, have lost 9*s* per quarter by the transaction, viz. 4*s.* per quarter by the fall of price, and 5*s.* per quarter by an increase of duty.

It may, perhaps, be said that if, on the one hand, the late scale of duties was injurious to the merchant when prices were falling, and when importation was consequently either unnecessary or of less advantage, it was, on the other hand, equally advantageous to him when prices were rising, and when the public interests required that

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importation should be encouraged: but the prices in the view of the merchant when he gives an order are always such as he supposes will yield a fair profit; and if they rise, this rise will, supposing the trade free or the duty constant, yield such an extra profit as will make him increase his imports to the utmost. If it were possible to devise a system that should diminish the losses incurred in unfavourable speculations by making a proportional deduction from the profits of such as were unusually successful, something, perhaps, might be found to say in its favour. But the system we acted upon of late years proceeded on quite opposite principles: its effect was not to diminish risks, but to increase them; it added to the loss resulting from an unsuccessful, and to the profit resulting from a successful speculation!

There are other considerations that serve to set the pernicious operation of a fluctuating duty in a still more striking point of view. Should a continuance of unfavourable weather occur before harvest, and a deficient crop be anticipated, prices rise, and the duty falls to next to nothing. But now suppose that the weather becomes fine, and that the anticipations of a short crop are dispelled, and observe what, under such circumstances, is the operation of the sliding-scale. In such a case prices immediately give way, and, to avoid the consequent increase of duty, every bushel of foreign corn warehoused in the country, and, indeed, in every contiguous foreign port, is forthwith entered for consumption, and thrown upon a falling market! With no duty, or with a fixed duty, merchants distribute the supply of corn according to the best estimate they can form of the real wants and necessities of the people. But the operation of a sliding-scale goes far to exclude such considerations. Besides doubling the hazards of the trade, it tempts merchants, when prices are rising, to hold back, in the expectation of being able to enter their corn at a reduced duty; and when, on the other hand, a fall of prices is anticipated, the market, as already seen, is overloaded, and prices ruinously depressed by the supplies forced upon it to escape the increase of duty! It is thus alternately injurious to the manufacturing and the agricultural classes; entailing the severest privations on the former, by making the importers withhold their corn from market till the price attains to a ruinously high level; and on the latter, by making the same parties throw it on a market which is already depressed. The extreme low prices of 1821 and 1822, and of 1833, 1834, and 1835, were, no doubt, in part occasioned by the excess of the foreign entries for consumption arising out of the circumstances now mentioned.

Now that our ports are constantly open, supplies, whether of native or of foreign growth, are only furnished when necessary, and are limited by the necessity; and when prices are low, or falling, a large proportion of the imports are warehoused in anticipation of a future rise. But formerly there was no room for consideration or combination: everything had to be done on the moment, and by fits and starts. We might not have brought a bushel of wheat from the Baltic for a year or two; but our prices having risen, and the duty having fallen still more rapidly, we had an instantaneous demand for all the corn that could be had! Not being expected, no provision could be made for meeting such sudden and capricious demands; and prices rose to such a degree as to make our presence in the foreign markets hateful to every one, except the few who might happen to have on hand stocks of corn. It is plain, too, that a commerce conducted in this way could not be carried on by an interchange of goods for corn, as it would have been had the ports been constantly open. We had a demand one year for perhaps ten times the quantity of Polish corn that we required another year; but the Poles could not reciprocate by taking off corresponding quantities of our cottons, woollens, and hardware. Under ordinary circumstances an increase of imports is always accompanied by a corresponding increase of exports; but, to bring this about, the increase must neither be sudden nor excessive; for, if so, the chances are ten to one that the foreign demand for our products will not increase to an equal extent. Corn is the principal means which the Poles and Russians have of paying for English goods; and, as we frequently shut it wholly out, their imports from England were unavoidably below even the average amount of their exports; so that when we have had an extraordinary demand for corn, the greater part of the excess had to be paid for in bullion; and, instead of being benefited by its occurrence, our commercial and manufacturing interests were deeply injured.

But it is unnecessary to dwell on what is so well known. Fortunately we did not require to import any foreign corn in 1835 and 1836; for no one, either in the Bank of England or out of it, acquainted with the circumstances, can doubt that, had it been then necessary to make the same payments for foreign corn we had to make in 1830 and 1831, and in 1838 and 1839, the Bank must have stopped payments; and a shock would have been given to the credit and financial interests of the country from which they would not easily have recovered. The severe pressure on the money market in 1839 mainly originated in the same circumstances; and that pressure was productive of far greater loss and inconvenience to the agriculturists than any advantage they gained by the rise of prices in that year.

It must not, however, be supposed, from anything now said, that we mean to state or insinuate that it is possible, by any contrivance, or by the utmost possible degree of freedom, to avert all fluctuations in the supply and price of corn. Any such idea would be alike chimerical and absurd. Variations of the harvests, in so rich and populous a country as Great Britain, must always, and under any circumstances, have a powerful influence over prices, not only here, but also in those foreign markets whence we are in the habit of drawing a portion of our supplies. But it admits of demonstration, that importation without any, or with constant duties, is the best means by which to mitigate the influence of variations of harvests, and to secure the greatest steadiness of price. Under the existing system, the merchants of this and other countries are able to form their plans without the fear of their being overturned by accidental or contingent circumstances; and the fact that we every now and then require a large supply of foreign corn makes capitalists, here and elsewhere, warehouse, in abundant years, large supplies, in anticipation of the demand when a deficiency occurs. The merchant has now to deal only with real wants and necessities; and these it is comparatively easy to provide against.

Besides its mischievous operation in other respects, the late corn law was highly inimical to the public interests from the convenient handle which it afforded for all sorts of agitation, misrepresentation, and abuse. Its deleterious influence was greatly exaggerated; and it seemed to be supposed that its repeal would be a sovereign panacea for all sorts of grievances. But though, for the reasons previously stated, the new system has given us greater steadiness of prices, and has, in

consequence, been of much public advantage, its influence in the reduction of prices has not been so great as has been expected, both by the agriculturists and by the other classes. The extraordinarily favourable seasons and productive harvests that prevailed, both in Europe and America, in 1848 and 1849, led to an unusually large importation, and consequently, also, to a considerable fall of prices. But this fall not having been by any means so great as might have been anticipated from the magnitude of the imports, shows that the greater portion, at least, of the latter had been required to meet the increased demand of the country. In 1852 the price of wheat amounted to 40*s.* 9*d.* per quarter; and we incline to think that this will prove to be about the lowest point in the descending scale, and that the probability is that prices will be considerably higher. There must, no doubt, be in all cases much uncertainty in prospective estimates of prices. We are still, however, disposed to abide by our former conclusion, that the probable future average price of wheat in this country, under the new system, may be estimated at about 48*s.* or 50*s.* per quarter; and if so, agriculture will not be affected by the change.

Should it turn out differently, and should there be at any time so very abundant a season in this country and in the north of Europe as to threaten such a fall of prices as might give a serious shock to the industry of the husbandman, the crisis may be averted or mitigated by some temporary expedient. But it is not very probable that it will be necessary to interpose in this way. Instead of being unfavourable to the agriculturists, they have already gained, and the chances are that they will continue to gain, by the new system; they have greater capital, skill, and industry than those of any other country; and being aware that they must now wholly rely on them to preserve their place in society, and not on Custom-house regulations and parliamentary majorities, the continued improvement of agriculture may be confidently expected: and, apart from this powerful stimulus, the existing system has the further advantage that it gives the agriculturists increased security, and identifies their interests in opinion, as well as in fact, with those of the public.

At the same time we are ready to admit that, had it been practicable, we should have preferred seeing this great question settled by the adoption of a measure for opening the ports, under a fixed duty of 5*s.* or 7*s.* per quarter on wheat, accompanied with a corresponding drawback. We make this statement on general grounds, and without any reference to the peculiar burdens that affect the agriculturists, though these should neither be forgotten nor overlooked. It would be easy to show that in scarce years a duty of this amount would fall wholly on the foreigner, without affecting prices or narrowing importation; while, in years of unusual plenty, the drawback would facilitate exportation, and would, consequently, tend to hinder prices from falling so low as to injure the farmer and obstruct improvement. And in a matter of such immense importance it is the part of a wise Government to be cautious how they take any step, of the consequences of which they are not fully assured, or which may expose any great interest to serious vicissitudes. But, even if our limits permitted, it would be to little purpose to insist on these or any similar considerations. The pertinacity with which the agriculturists opposed every approach to a more liberal system roused a spirit which would not be satisfied with anything short of a complete abandonment of restrictions. The time for compromise and arrangement being allowed to go by, Government had to deal with an unreasoning necessity: 'Cum ventre humano tibi negotium est, nec rationem patitur, nec æquitate mitigatur, nec ulla prece flectitur populus.' (Seneca, *de Brev. Vitæ*, c. 18.) What was practicable became of more consequence than what was either just or proper. And even had it been possible to effect an arrangement of the question in the way now stated, the pernicious trade of agitation would most likely have continued to flourish; the object and influence of the duty would have been misrepresented; and neither landlords nor farmers would have felt any confidence in the permanence of the new arrangements. Under these circumstances, their unconditional repeal was, if not really, at all events practically, the best, or rather the only safe course that could be adopted in dealing with the corn laws.

Duties payable down to Feb. 1, 1849, *under the Act* 9 & 10 *Vict.* c. 22.—On all corn, grain, meal, and flour imported into the United Kingdom or the Isle of Man from parts beyond the seas, and entered for home consumption, viz.—

If imported from any Foreign Country.

Wheat.

	per qr. s.	d.
Whenever the average price of wheat, made up and published in the manner required by law, shall be under 48*s.* the duty shall be	10	0
48*s.* and under 49*s.*	9	0
49*s.* „ 50*s.*	8	0
50*s.* „ 51*s.*	7	0
51*s.* „ 52*s.*	6	0
52*s.* „ 53*s.*	5	0
53*s.* and upwards	4	0

Barley, Bear, or Bigg.

Whenever the average price of barley, made up and published in the manner required by law, shall be under 26*s.* the duty shall be	5	0
26*s.* and under 27*s.*	4	6
27*s.* „ 28*s.*	4	0
28*s.* „ 29*s.*	3	6
29*s.* „ 30*s.*	3	0
30*s.* „ 31*s.*	2	6
31*s.* and upwards	2	0

Oats.

Whenever the average price of oats, made up and published in the manner required by law, shall be under 18*s.* the duty shall be	4	0
18*s.* and under 19*s.*	3	6
19*s.* „ 20*s.*	3	0
20*s.* „ 21*s.*	2	6
21*s.* „ 22*s.*	2	0
22*s.* and upwards	1	6

Rye, Pease, and Beans.

For every quarter a duty equal in amount to the duty payable on a quarter of barley.

Wheat Meal and Flour.

For every barrel being 196 lbs. a duty equal in amount to the duty payable on 38½ gallons of wheat.

Barley Meal.

For every quantity of 217½ lbs. a duty equal in amount to the duty payable on a quarter of barley.

Oatmeal and Groats.

For every quantity of 181¼ lbs. a duty equal in amount to the duty payable upon a quarter of oats.

Rye Meal and Flour.

For every barrel being 196 lbs. a duty equal in amount to the duty payable upon 40 gallons of rye.

Pea Meal and Bean Meal.

For every quantity of 272 lbs. a duty equal in amount to the duty payable on a quarter of pease and beans.

If the Produce of, and imported from, any British Possession out of Europe.

	s.	d.
Wheat, barley, bear or bigg, oats, rye, pease, and beans, the duty shall be, per qr.	1	0
Wheat meal, barley meal, oatmeal, rye meal, pea meal, and bean meal, the duty shall be, per cwt.	0	4½

But the above duties ceased on February 1, 1849; and on, from, and after the said February 1,

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1849, the following duties were (down to September 1, 1864) charged on corn entered for consumption, viz.—

	s.	d.
Upon all wheat, barley, bear or bigg, oats, rye, pease, and beans, per qr.	1	0
And so in proportion for a less quantity.		
Upon all wheat meal and flour, barley meal, oatmeal, rye meal and flour, pea meal, and bean meal, per cwt.	0	4½
And so in proportion for a less quantity.		

Regulations under which the Corn Trade of the United Kingdom is now conducted.—These are embodied in the Acts 9 & 10 Vict. c. 22, and 27 & 28 Vict. c. 18, of which we subjoin an abstract:—

Clause 4 of the 9 & 10 Vict. c. 22 enacts that average prices are to continue to be made up according to 5 & 6 Vict. 2 sess. c. 14 (*see below*), and the duties under this Act to be regulated thereby.

Clause 5 repeals that part of the 5 & 6 Vict. c. 14 which prohibits the importation into the United Kingdom for consumption there of any corn ground.

At present (1868), under 27 Vict. c. 18, a duty of 3*d.* per cwt. is imposed on corn in lieu of the old rate of 1*s.* per quarter. The former sum is taken to be equivalent to the latter.

We subjoin an abstract of those parts of the 5 & 6 Vict. 2 sess. c. 14 which are referred to in the 8 & 9 Vict. c. 94, and which are yet in force.

Regulations to be observed on shipping Corn from any British Possession out of Europe.—No corn, grain, meal, or flour shall be shipped from any British possession out of Europe as the produce of any such possession until the owner or proprietor or shipper thereof have made and subscribed, before the collector or other chief officer of customs at the port of shipment, a declaration in writing, specifying the quantity of each sort of such corn, grain, meal, or flour, and that the same was the produce of some British possession out of Europe to be named in such declaration, nor until such owner or proprietor or shipper shall have obtained from the collector or other chief officer of the customs of the said port a certificate, under his signature, of the quantity of corn, grain, meal, or flour so declared to be shipped; and before any corn, grain, meal, or flour shall be entered at any port or place in the United Kingdom as being the produce of any British possession out of Europe, the master of the ship importing the same shall produce and deliver to the collector or other chief officer of customs of the port or place of importation a copy of such declaration, certified to be a true and accurate copy thereof under the hand of the collector and other chief officer of customs at the port of shipment before whom the same was made, together with the certificate, signed by the said collector, or other chief officer of customs, of the quantity of corn so declared to be shipped; and such master shall also make and subscribe, before the collector or other chief officer of customs at the place of importation, a declaration in writing that the several quantities of corn, grain, meal, or flour on board such ship, and proposed to be entered under the authority of such declaration, are the same that are mentioned and referred to in the declaration and certificate produced by him, without any admixture or addition; and if any person shall in any such declaration wilfully and corruptly make any false statement respecting the place of which any such corn, grain, meal, or flour was the produce, or respecting the identity of any such corn, grain, meal, or flour, such person shall forfeit and become liable to pay to her Majesty the sum of 100*l.*, and the corn, grain, meal, or flour to such person belonging on board any such ship shall also be forfeited; and such forfeiture may be sued for, recovered, and applied in the same manner in all respects as any forfeiture incurred under and by virtue of the said Act 3 & 4 Wm. IV. c. 58. (Sec. 5.)

Accounts of Corn imported &c. to be published monthly.—The Commissioners of Customs shall once in each month publish in the London Gazette an account of the total quantity of each sort of corn, grain, meal, and flour respectively imported into the United Kingdom, and also an account of the total quantity of each sort of corn, grain, meal, and flour upon which duties of importation have been paid in the United Kingdom during the month next preceding, and of the several rates of duty which shall from time to time during such month have been payable upon each sort of corn, grain, meal, and flour respectively, with an account of the total quantity of each sort of corn, grain, meal, and flour remaining in warehouse at the end of such next preceding month. (Sec. 7.)

Section 8 enacts that if any foreign state subject British vessels, goods &c. to any higher duties or charges than are levied on the vessels of other countries &c., her Majesty may prohibit the importation of corn from such state.

Section 9 enacts that weekly returns of purchases and sales of corn shall be made in the places named in the schedule annexed to the Act.

Section 10 gives her Majesty power of appointing a comptroller of corn returns.

Section 11 enacts that the comptroller shall execute his office in person, but that a deputy may be appointed to act in certain cases.

Sections 12 and 13 authorise the Lord Mayor and aldermen to appoint an inspector of corn returns for the city of London, under the same conditions as the general comptroller.

Section 14 authorises the chancellors of the Universities of Oxford and Cambridge to appoint and remove inspectors of corn returns for the said city and town.

Section 15 enacts that no person dealing in corn, flour, or malt be appointed inspector or deputy-inspector of corn returns for the cities of London or Oxford, or town of Cambridge.

Section 16 enacts that the appointments of inspectors for London, Oxford, and Cambridge be enrolled.

Dealers in Corn in and near London to deliver in a Declaration to the Lord Mayor &c.—Every person carrying on trade or business in the city of London, or within 5 miles from the Royal Exchange in the said city, as a corn factor, or as an agent employed in the sale of British corn, and every person who shall sell any British corn within the Corn Exchange in Mark Lane in the said city, or within any other building or place which is or may hereafter be used within the city of London, or within 5 miles from the Royal Exchange in the said city, for such and the like purposes for which the said Corn Exchange in Mark Lane hath been and is used, shall, before he or they shall carry on such trade or business, or sell any corn in manner aforesaid, make and deliver to the Lord Mayor, or one of the aldermen of the city of London, a declaration in the following words; (that is to say,)

'I *A. B.* do declare that the returns to be by me made, conformably to an Act passed in the fifth year of the reign of her Majesty Queen Victoria, intituled [*here set forth the title of this Act*], of the quantities and prices of British corn which henceforth shall be by or for me sold or delivered, shall, to the best of my knowledge and belief, contain the whole quantity, and no more, of the corn bonâ fide sold and delivered by or for me within the periods to which such returns respectively shall

refer, with the prices of such corn, and the names of the buyers respectively, and of the persons for whom such corn shall have been sold by me respectively, and to the best of my judgment the said return shall in all respects be conformable to the provisions of the said Act.'

Which declaration shall be in writing, and shall be subscribed by the person so making the same: and the Lord Mayor or alderman aforesaid of the city of London for the time being shall, and is hereby required to deliver a certificate thereof, under his hand, to the inspector of corn returns for the city of London, to be by him registered in a book to be provided and kept for that purpose. (Sec. 17.)

Dealers in Corn to make Returns to Corn Inspector.—Every corn factor and other person as aforesaid who is hereinbefore required to make, and who shall have made, such declaration as aforesaid, shall, and he or she is hereby required to return or cause to be returned, on Wednesday in each and every week, to the inspector of corn returns for the city of London, an account in writing, signed with his or her own name, or the name of his or her agent duly authorised in that behalf, of the quantities of each sort of British corn by him or her sold during the week ending on and including the next preceding Tuesday, with the prices thereof, and the amount of every parcel, with the total quantity and value of each sort of corn, and by what measure or weight the same was sold, and the names of the buyers thereof, and of the persons for and on behalf of whom such corn was sold; and it shall be lawful for any such inspector of corn returns to deliver to any person making or tendering any such returns a notice in writing requiring him or her to declare and set forth therein where and by whom and in what manner any such British corn was delivered to the purchaser or purchasers thereof: and every person to whom any such notice shall be so delivered shall, and he or she is hereby required to comply therewith, and to declare and set forth in such his or her return, or in a separate statement in writing, the several particulars aforesaid. (Sec. 18.)

Sec. 19 enacts that the then comptroller, deputy-comptroller, and inspectors of corn returns for London, Oxford, and Cambridge continue in office, and that the appointments of the other inspectors of returns should cease on the 24th day of June next after the passing of this Act.

Sec. 20 enacts that in cities and towns, other than London, Oxford, and Cambridge, officers of excise are to act as corn inspectors, and attend at places appointed.

Sec. 21 enacts that the Commissioners of Excise shall make known the place to be appointed for delivering returns of corn purchased.

Sec. 22 authorises the Commissioners of Treasury to continue, if they think fit, the then inspectors of corn returns in their offices.

Dealers in Corn in Cities and Towns to make Declaration.—Every person who shall deal in British corn at or within any city or town named in the prefixed list of towns, excepting the city of London, or who shall at or within any such city or town engage in or carry on the trade or business of a corn factor, miller, maltster, brewer, or distiller, or who shall be the owner or proprietor, or part owner or proprietor, of any stage coaches, waggons, carts, or other carriages carrying goods or passengers for hire to and from any such city or town, and each and every person who, as a merchant, clerk, agent or otherwise, shall purchase at any such city or town any British corn for sale, or for the sale of meal, flour, malt, or bread made or to be made thereof, shall, before he or she shall so deal in British corn at any such city or town, or shall engage in or carry on any such trade or business as aforesaid, or shall purchase any British corn for any such purpose as aforesaid, at or within any such city or town, make and deliver a declaration in the following words; (that is to say,)

'I *A. B.* do declare that the returns to be by me made, conformably to the Act passed in the fifth year of the reign of her Majesty Queen Victoria, intituled [*here set forth the title of this Act*], of the quantities and prices of British corn which henceforward shall by or for me be bought, shall, to the best of my knowledge and belief, contain the whole quantity, and no more, of the British corn bonâ fide bought for or by me within the periods to which such returns respectively shall refer, with the prices of such corn and the names of the sellers respectively, and to the best of my judgment the said returns shall in all respects be conformable to the provisions of the said Act.'

Which declaration shall be in writing, and shall be subscribed with the hand of the person so making the same, and shall by him or her, or by his or her agent, be delivered to the mayor or chief magistrate, or to some justice of the peace for such city or town, or for the county, riding, or division in which the same is situate, who are hereby required to deliver a certificate thereof to the officer of excise acting as inspector of corn returns for such city or town as aforesaid, or to such continuing inspector of corn returns as aforesaid for such city or town (as the case may be), to be by such officer or inspector registered in a book to be provided and kept for that purpose. (Sec. 23.)

Sec. 24 authorises the inspectors of corn returns to require the above declaration from corn dealers.

Corn Dealers to make Returns in Writing to Inspectors of the Corn bought by them.—All persons who are hereinbefore required to make and who shall have made such declaration as aforesaid shall, and they are hereby required, on the first market day which shall be holden in each and every week within each and every city or town named in the said schedule hereunto annexed, except the city of London, at or within which they shall respectively deal in corn, or engage in or carry on any such trade or business as aforesaid, or purchase any corn for any such purpose as aforesaid, to return or cause to be returned to the officer of excise acting as inspector of corn returns for such city or town, at the place appointed for receiving such returns, or to the continuing inspector of corn returns for such city or town, or to the inspector of corn returns for the city of Oxford, or the town of Cambridge (as the case may be), an account in writing, signed with their names respectively, of the amount of each and every parcel of each respective sort of British corn so by them respectively bought during the week ending on and including the day next preceding such first market day as aforesaid, with the price thereof, and by what weight or measure the same was so bought by them, with the names of the sellers of each of the said parcels respectively, with the names of the person or persons, if any, other than the person making such return, for or on account of whom the same was so bought and sold; and it shall be lawful for any officer of excise acting as inspector of corn returns, or any continuing inspector of corn returns as aforesaid, to deliver to any person making or tendering any such return a notice in writing requiring him or her to declare and set forth where and by whom and in what manner any such British corn was delivered to him or her; and every person to whom any

such notice shall be so delivered shall, and he or she is hereby required to comply therewith, and to declare and set forth in such his or her return, or in a separate statement in writing, the several particulars aforesaid. (Sec. 25.)

Inspectors to enter Returns made to them in a Book &c.—The inspector of corn returns for the city of London, the city of Oxford, and the town of Cambridge, and every officer of excise acting as inspector of corn returns for the several other cities and towns aforesaid, and every continuing inspector of corn returns for any of such other cities or towns as aforesaid, shall duly and regularly enter in a book, to be by him provided and kept for that purpose, the several accounts of the quantities and prices of corn returned to him by such persons respectively as aforesaid; and every inspector of corn returns for any of the cities and towns enumerated in the said schedule shall in each and every week return to the comptroller of corn returns an account of the weekly quantities and prices of the several sorts of British corn sold in the city of London, or in the city or town for which he shall be or act as inspector, according to the returns so made to him as aforesaid, and in such form as shall be from time to time prescribed and directed by the said comptroller of corn returns; and the said returns shall be so made to the said comptroller by the inspector of corn returns for the city of London on Friday in each week, and by the respective inspectors of corn returns for the city of Oxford and the town of Cambridge, and by the respective officers of excise acting as inspectors of corn returns, and by the respective continuing inspectors of corn returns for the several other cities and towns aforesaid, within three days next after the first market day holden in each and every week in any such city or town. (Sec. 26.)

Sec. 27 enacts that inspectors shall not include returns until they have ascertained that the persons making them have taken the declaration required.

Average Prices to be made up and published every Week.—The average prices of all British corn, by which the rate and amount of the said duties shall be regulated, shall be made up and computed on Thursday in each week, in manner following; (that is to say,) the said comptroller of corn returns shall on such Thursday in each week, from such returns as shall be received by him during the week next preceding, ending on and including the Saturday in such preceding week, add together the total quantities of each sort of British corn respectively appearing by such returns to have been sold, and the total prices for which the same shall thereby appear to have been sold, and shall divide the amount of such total prices respectively by the amount of such total quantities of each sort of British corn respectively, and the sum produced thereby shall be added to the sums in like manner produced in the 5 weeks immediately preceding the same, and the amount of such sums so added shall be divided by 6, and the sum thereby given shall be deemed and taken to be the aggregate average price of each such sort of British corn respectively, for the purpose of regulating and ascertaining the rate and amount of the said duties; and the said comptroller of corn returns shall cause such aggregate weekly averages to be published in the next succeeding Gazette, and shall on Thursday in each week transmit a certificate of such aggregate average prices of each sort of British corn to the collector or other chief officer of the customs at each of the several ports of the United Kingdom, and to the said functionary at the port of Douglas in the Isle of Man; and the rate and amount of the duties to be paid under the provisions of this Act shall from time to time be regulated and governed at each of the ports of the United Kingdom by the aggregate average prices of British corn at the time of the entry for home consumption of any corn, grain, meal, or flour chargeable with any such duty, as such aggregate average prices shall appear and be stated in the last of such certificates received by the collector or other chief officer of customs at such port. (Sec. 28.)

How Quantities of Corn are to be computed.—In the returns to be made as aforesaid to the comptroller of corn returns, and in the publications to be made from time to time in the London Gazette, and in the certificate to be transmitted by the said comptroller of corn returns to collectors or other chief officers of customs, the quantities of each sort of British corn respectively shall be computed and set forth by, according, and with reference to the imperial standard gallon, as the same is declared and established by the Act 5 Geo. IV. c. 74, amended or altered by the Act 6 Geo. IV. c. 12, and by the Act 5 & 6 Wm. IV. c. 63. (Sec. 29.)

Until sufficient Number of Returns are made, Comptroller may use the present Averages.—Until a sufficient number of weekly returns have been received by the said comptroller of corn returns under this Act to afford such aggregate average prices of British corn as aforesaid, the weekly average prices of British corn published by him immediately before the passing of this Act shall be used and referred to in making such calculations as aforesaid, in such manner as if the same had been made up and taken under this Act. (Sec. 30.)

What shall be deemed British Corn.—All corn or grain the produce of the United Kingdom shall be deemed and taken to be British corn for the purposes of this Act. (Sec. 31.)

Any Corn Returns believed fraudulent may be omitted in the Computation.—If the said comptroller of corn returns shall at any time see cause to believe that any return made to any inspector of corn returns is fraudulent or untrue, the said comptroller is hereby required, with all convenient expedition, to lay before the Lords of the Committee of Privy Council (for Trade) a statement of the grounds of such his belief; and if upon consideration of any such statement the said Lords of said Committee shall direct the comptroller to omit any such return in the computation of such aggregate weekly average price, then and in that case, but not otherwise, the said comptroller of corn returns shall be authorised to omit such return in the computation of such aggregate weekly average price. (Sec. 32.)

Sec. 33 enacts that corn dealers having made the declaration previous to this Act shall transmit returns, and comply with the rules hereby required.

Comptroller to issue Directions respecting the Inspection of Books of Inspectors.—The comptroller of corn returns is hereby authorised from time to time, in pursuance of any instructions which he shall receive in that behalf from the Lords of the Committee of Privy Council (for Trade), to issue to the inspectors of corn returns for the city of London, the city of Oxford, and the town of Cambridge respectively, any general or special directions respecting the inspection by any person or persons of the books so directed as aforesaid to be kept by such inspector of corn returns; and no such inspectors for the city of London, the city of Oxford, or the town of Cambridge shall permit or suffer any person to inspect any such book, or to peruse or transcribe any entry therein, except in compliance with some such general or special di-

rections from the said comptroller of corn returns. (Sec. 34.)

Copy of last Return to be affixed on Market Place on each Market Day.—The inspector of corn returns for every city or town other than the city of London shall and is hereby required, on each and every market day, to put up or cause to be put up in the market place of the city or town for which he shall act as inspector, or if there shall be no market place, then in some other conspicuous place therein near to where the corn market is usually held, a copy of the last return made by him to the comptroller of corn returns, omitting the names of the parties who may have sold and bought the said corn; and every such officer or inspector shall also again put up such account on the market day immediately following that on which it shall first have been put up, in case the same shall from accident or any other cause have been removed, and shall take due care that the same shall remain up for public inspection until a new account for the ensuing week shall have been prepared and set up. (Sec. 35.)

Secs. 36, 37, 38 relate to the payment of comptrollers and inspectors.

Sec. 39 imposes a penalty on corn dealers who do not make declarations or returns.

Sec. 40 relates to the recovery and application of penalties.

Secs. 41, 42 relate to the penalties to be imposed on witnesses for non-attendance, and the punishment to be inflicted on those who make false returns.

Sec. 43 declares that the Act shall not affect the practice of measuring or privileges of the city of London.

Substitution of Wheat Flour or Biscuit for bonded Wheat.—Our readers are, no doubt, generally aware that of late years efforts were occasionally made in the House of Commons to get a law enacted authorising the delivery of bonded wheat from the warehouse, on the substitution in its stead of a proportional quantity of wheat flour or biscuit. But this proposal encountered the hostility of the more zealous partisans of the corn laws, principally on the alleged ground that it would open a door to fraud, and lead to the clandestine introduction of large quantities of foreign wheat. In the course, however, of 1842, the project was again introduced by Mr. Gladstone, and, having been supported by Government, was passed into a law, 5 & 6 Vict. c. 92. It enabled millers, bakers, and others in this country to take advantage of such openings in the home and foreign markets as may offer for the manufacture and sale of flour and biscuit, and to make such changes in the nature of their stocks as may be thought most advantageous. There do not seem to be any very good grounds for thinking that it afforded any considerable facilities for the commission of fraud by the introduction of wheat without a countervailing deposit of flour; but supposing it did, no one was injured by such introduction. We subjoin an abstract of the Act now referred to.

Warehoused Wheat to be delivered Duty free upon substituting an equivalent Quantity of Wheat Flour or Biscuit.—Whereas it will be of advantage to the trade and commerce of the country that wheat may be delivered duty-free from the warehouse or from the vessel, upon the deposit in the warehouse, or due exportation therefrom, of an equivalent quantity of wheat flour and biscuit: be it therefore enacted, that it shall be lawful for the principal officer of customs having charge of any warehouse in which wheat may be warehoused without payment of duty upon the first entry thereof, to deliver any quantity thereof duty-free upon there being deposited in warehouse in lieu thereof fine wheat flour or biscuit, as under:—

For every 96 lbs. of kiln-dried wheat, or for every 100 lbs. of wheat not being kiln-dried, not less than 78 lbs. of fine wheat flour, or 68 lbs. of captain's biscuit, or 80 lbs. of biscuit of the standard of the biscuit supplied to her Majesty's navy, or 118 lbs. of common ship's biscuit; and so in proportion for any less quantity than 96 lbs. of kiln-dried wheat, or 100 lbs. of wheat not kiln-dried; such flour or biscuit having been manufactured in the United Kingdom, or such flour having been duly imported and the duty thereon having been paid. (Sec. 1.)

Sec. 2 enacts that fine wheat flour and biscuit may be deposited in warehouse, and certificate of such deposit granted, to entitle the holder to an equivalent quantity of warehoused wheat duty-free any time within six weeks of the date thereof.

Sec. 3 enacts that persons making deposits of flour and biscuit be entitled to have equivalent quantities of wheat entered duty-free from the vessel.

Sec. 4 orders that three days' notice in writing be given to the collector of the quantity of wheat required to be delivered from the warehouse and of the day of delivery.

Sec. 5 orders that no wheat shall be delivered duty-free until the substituted article has been deposited and the certificate duly examined.

Sec. 6 enacts that substituted flour and biscuit shall be subject to the warehousing laws, but shall not be taken out for home consumption.

The relative values of wheat, barley, and oats are found to subsist with slight variations through a long period of years. Thus during the 13th and 14th centuries the prices of barley and oats, wheat being taken at 100, are represented by the numbers 73·14 and 42·05 respectively. In the ten years ending with 1864, the same number being taken for wheat, the relative quantities are 70 and 45·95.

In the following tables of the price of wheat &c., the first table gives the prices of wheat by the ancient Winchester bushel, as found in the work of Mr. Rogers *On Agriculture and Prices in England*, between 1259 and 1400.

I. *Prices of Wheat per Winchester Bushel.*

Year	Price	Year	Price	Year	Price	Year	Price
	s. d.		s. d.		s. d.		s. d.
1259	5 9½	1295	6 9	1331	7 11½	1366	6 8½
1260	4 9	1296	4 9½	1332	4 8½	1367	8 —
1261	4 3	1297	5 2½	1333	4 2½	1368	6 7½
1262	6 1	1298	5 2½	1334	4 0½	1369	11 10½
1263	3 11½	1299	6 0½	1335	5 5½	1370	9 4½
1264	4 4	1300	4 9	1336	4 11	1371	6 11½
1265	3 3	1301	5 0½	1337	3 7	1372	7 10½
1266	4 5½	1302	4 11½	1338	3 2½	1373	6 2½
1267	4 6½	1303	4 1½	1339	5 10½	1374	8 2½
1268	5 3½	1304	5 5½	1340	3 6½	1375	7 9½
1269	5 0	1305	4 10½	1341	3 9½	1376	4 9
1270	6 4½	1306	5 11½	1342	4 1½	1377	3 8½
1271	6 10½	1307	5 6½	1343	5 7½	1378	3 6½
1272	6 4½	1308	6 11½	1344	5 6½	1379	5 9½
1273	5 5½	1309	7 9½	1345	3 9½	1380	6 2½
1274	6 9½	1310	7 0½	1346	6 10½	1381	8 7½
1275	5 0½	1311	4 5½	1347	6 7½	1382	8 3½
1276	6 2½	1312	4 11½	1348	4 2½	1383	4 10½
1277	5 1½	1313	5 6½	1349	5 5½	1384	8 7½
1278	4 4½	1314	8 4½	1350	8 3½	1385	6 0½
1279	5 1½	1315	14 10½	1351	10 2½	1386	4 1½
1280	4 11½	1316	15 11½	1352	7 2½	1387	3 4½
1281	6 0½	1317	8 3½	1353	4 9½	1388	3 5½
1282	5 11½	1318	4 6½	1354	5 3½	1389	6 8½
1283	6 11½	1319	5 9½	1355	5 11½	1390	8 9½
1284	4 11½	1320	6 5½	1356	6 0½	1391	6 5½
1285	5 4½	1321	11 7½	1357	6 10½	1392	3 2½
1286	4 9½	1322	8 11½	1358	5 6½	1393	3 5½
1287	2 10½	1323	7 5½	1359	5 11½	1394	3 10½
1288	3 0½	1324	7 4½	1360	6 3½	1395	5 0½
1289	4 3½	1325	5 8½	1361	5 4½	1396	5 11½
1290	6 5½	1326	5 7½	1362	7 6½	1397	5 9½
1291	5 7½	1327	3 11½	1363	8 6½	1398	5 2½
1292	5 4½	1328	6 5½	1364	7 5½	1399	5 6½
1293	8 5½	1329	6 6½	1365	6 0½	1400	7 11½
1294	9 1½	1330	7 2½				

The second table contains the price of wheat by the Winchester bushel from 1582 to 1826. The first portion, from 1582 to 1645 inclusive, is taken from the Oxford Register of Corn Prices, the last portion from the audit books of Eton; the Windsor bushel of nine gallons in the original being reduced to that of Winchester, containing eight.

II. *Account of the Prices of Middling or Mealing Wheat per Quarter, at Windsor Market, as ascertained by the Audit-books of Eton College, reduced to Winchester Bushels of 8 Gallons.*

Year	Prices	Average of 10 years	Year	Prices	Average of 10 years	Year	Prices	Average of 10 years	Year	Prices	Average of 10 years
	£ s. d.	£ s. d.		£ s. d.	£ s. d.		£ s. d.	£ s. d.		£ s. d.	£ s. d.
1582	0 18 2		1644	1 13 2		1705	1 6 8	2 2 11	1766	2 3 1½	
1583	0 17 2		1645	1 18 2½		1706	1 3 1¼		1767	2 17 4	
1584	0 15 8½		1646	2 2 8		1707	1 5 4		1768	2 13 9½	
1585	1 1 10		1647	3 5 5½		1708	1 16 10½		1769	2 0 7	
1586	1 12 0		1648	3 15 6		1709	3 9 9½		1770	2 5 6½	
1587	1 7 10		1649	3 11 1		1710	3 9 4		1771	2 10 8	
1588	0 14 2½		1650	3 8 1½		1711	2 8 0		1772	2 18 8	
1589	0 19 6		1651	2 5 2½		1712	2 1 1¼		1773	2 19 1½	
1590	1 3 1		1652	2 4 0		1713	2 5 4		1774	2 15 1½	
1591	1 0 2		1653	1 11 6½		1714	2 4 9		1775	2 11 3½	2 11 3½
1592	0 16 7		1654	1 3 1½		1715	1 18 2½	2 1 7½	1776	2 2 8	
1593	0 18 4½		1655	1 9 7½	2 11 7½	1716	2 2 8		1777	2 8 10½	
1594	1 12 0		1656	1 18 2½		1717	2 0 7½		1778	2 4 0	
1595	1 18 6		1657	2 1 5½		1718	1 14 6½		1779	1 16 1½	
1596	2 6 3		1658	2 17 9½		1719	1 11 1½		1780	2 3 1½	
1597	2 16 10½		1659	2 18 8		1720	1 12 10½		1781	2 12 5½	
1598	1 17 11		1660	2 10 2½		1721	1 13 4		1782	2 13 9½	
1599	1 3 8½		1661	3 2 2½		1722	1 12 0		1783	2 14 2½	
1600	1 9 0½		1662	3 5 9½		1723	1 10 10½		1784	2 13 9½	
1601	1 6 8		1663	2 10 8		1724	1 12 10½		1785	2 8 0	2 7 8½
1602	1 6 8		1664	1 18 0		1725	2 3 1½	1 15 4½	1786	2 2 2½	
1603	1 6 8		1665	2 3 1½	2 10 5½	1726	2 0 10½		1787	2 3 9½	
1604	1 4 3½		1666	1 12 0		1727	1 17 4		1788	2 9 4	
1605	1 6 10½		1667	1 12 0		1728	2 8 5½		1789	2 16 1½	
1606	1 5 5½		1668	1 15 6½		1729	2 1 7½		1790	2 16 1½	
1607	1 9 6½		1669	1 19 5		1730	1 12 5½		1791	2 9 4	
1608	1 4 5½		1670	1 17 0½		1731	1 9 2½		1792 *	2 11 0	
1609	2 0 4		1671	1 17 4		1732	1 3 8½		1793	2 15 8	
1610	1 7 3		1672	1 16 5½		1733	1 5 2½		1794	2 14 0	
1611	1 10 3		1673	2 1 5½		1734	1 14 6½		1795	4 1 6	2 14 5½
1612	1 16 9		1674	3 1 0		1735	1 18 2½	1 15 2	1796	4 0 2	
1613	1 19 2½		1675	2 17 5½	2 0 11½	1736	1 15 10½		1797	3 2 0	
1614	1 19 1½		1676	1 13 9½		1737	1 13 9½		1798	3 14 0	
1615	1 14 1½		1677	1 17 4		1738	1 11 6½		1799	3 15 8	
1616	1 14 11½		1678	2 12 5½		1739	1 14 2½		1800	6 7 0	
1617	1 19 8½		1679	2 13 4		1740	2 5 1½		1801	6 8 6	
1618	1 17 5½		1680	2 0 0		1741	2 1 5½		1802	3 7 2	
1619	1 10 10½		1681	2 1 5½		1742	1 10 2½		1803	3 0 0	
1620	1 6 4½		1682	1 19 1½		1743	1 2 1		1804	3 9 6	
1621	1 5 9½		1683	2 15 9½		1744	1 4 5½		1805	4 8 0	4 1 2½
1622	2 7 1		1684	1 19 3½		1745	1 4 5½	1 12 1	1806	4 3 0	
1623	2 5 7½		1685	2 1 5½	2 1 4½	1746	1 14 8		1807	3 18 0	
1624	1 18 6½		1686	1 10 2½		1747	1 10 11½		1808	3 19 2	
1625	2 1 2		1687	1 2 4½		1748	1 12 10½		1809	5 6 0	
1626	1 19 5		1688	2 0 10½		1749	1 12 10½		1810	5 12 0	
1627	1 10 6		1689	1 6 8		1750	1 8 10½		1811	5 8 0	
1628	1 5 5½		1690	1 10 9½		1751	1 14 2½		1812	6 8 0	
1629	1 14 8		1691	1 10 2½		1752	1 17 2½		1813	6 0 0	
1630	2 6 2½		1692	2 1 5½		1753	1 19 8½		1814	4 5 0	
1631	2 12 2		1693	3 0 1½		1754	1 10 2½		1815	3 16 0	4 17 6
1632	2 2 4½		1694	2 16 10½		1755	1 10 1	1 1 1½	1816	4 2 0	
1633	2 3 10½		1695	2 7 1½	1 19 6½	1756	2 0 1½		1817	5 16 0	
1634	2 3 5		1696	3 3 1½		1757	2 15 4		1818	4 18 0	
1635	2 2 1		1697	2 13 4		1758	2 4 5½		1819	3 18 0	
1636	2 3 10		1698	3 0 9		1759	1 15 3		1820	3 16 0	
1637	2 3 3½		1699	2 16 10½		1760	1 12 5½		1821	3 11 0	
1638	2 7 1½		1700	1 15 6½		1761	1 6 9½		1822	2 13 0	
1639	1 15 7		1701	1 15 5½		1762	1 14 8		1823	2 17 0	
1640	1 16 2		1702	1 6 2½		1763	1 16 11		1824	3 12 0	
1641	2 0 3½		1703	1 12 0		1764	2 1 5½		1825	4 4 0	3 18 8½
1642	1 13 9½		1704	2 1 4		1765	2 8 0	1 19 3½	1826	3 13 0	
1643	2 0 3½										

* From this year inclusive the account at Eton College has been kept according to the bushel of 8 gallons, under the provisions of the Act 31 Geo. III. c. 30 s. 82.

The Eton account of prices commenced in 1595: the accuracy of the returns in the first years cannot, however, be so implicitly relied on as those quoted above. Bishop Fleetwood and Sir F. M. Eden have collected with great industry almost all the existing information respecting the state of prices in England during the last *six hundred* years.

III. *Quantities of Wheat and Wheat Meal and Flour Imported into the United Kingdom in the Seven Years ending with* 1865.

Countries	1859	1860	1861	1862	1863	1864	1865	Annual average Imports during 7 years
	cwts.*	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.
Russia, Northern Ports	885,569	987,801	704,444	674,441	675,312	1,217,454	814,155	852,739
Southern Ports	2,951,885	4,699,170	3,846,059	5,041,548	3,865,022	5,811,956	7,219,834	4,491,112
Denmark and the Duchies	1,531,893	1,182,280	1,014,126	646,592	992,904	1,048,767	959,490	968,890
Prussia	3,345,301	4,991,256	4,467,575	6,988,535	4,648,902	4,977,274	5,486,748	4,853,632
Hanse Towns	680,551	1,086,665	1,077,477	1,043,283	699,161	997,469	793,816	919,684
Germany (other parts)	555,689	816,897	578,611	414,457	397,553	881,886	677,082	584,893
France	8,124,976	4,585,112	1,540,892	1,961,875	1,857,403	2,854,491	6,058,902	3,828,691
Spain	10,452	548,424	1,297,257	316,892	11,365	1,980	137,855	331,465
Wallachia and Moldavia	151,317	429,068	391,491	474,576	159,996	127,908	188,043	295,475
Turkish dominions, not otherwise specified	191,291	288,506	411,977	1,284,590	999,508	355,066	386,142	588,568
Egypt	1,631,536	858,575	1,174,480	3,504,579	2,522,636	367,482	10,063	1,423,193
British North America	176,821	1,510,592	3,387,949	5,418,648	3,194,187	1,231,897	998,456	2,702,809
United States	430,508	9,515,125	15,610,477	21,760,087	11,869,179	10,077,431	1,498,579	10,080,911
Other countries	1,077,369	768,601	1,640,687	1,269,961	881,116	472,709	1,033,389	1,030,968
Total	21,497,754	31,941,906	37,646,705	50,044,594	31,687,892	28,837,903	25,813,552	29,571,088

* 1 cwt. of wheat flour=1½ cwt. of wheat in grain.

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IV. *Account of the Average Prices of British Wheat, Barley, and Oats, per Imperial Quarter, in England and Wales since 1775, as ascertained by the Receiver of Corn Returns.*

Years	Wheat	Barley	Oats	Years	Wheat	Barley	Oats
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.
1775	2 9 10	1 6 9	0 17 0	1822	2 4 7	1 1 10	0 18 1
1776	1 19 4	1 0 9	0 15 5	1823	2 15 4	1 11 6	1 2 11
1777	2 6 11	1 4 1	0 16 1	1824	3 3 11	1 16 4	1 4 10
1778	2 3 5	1 5 4	0 15 7	1825	3 18 6	2 0 5	1 5 8
1779	1 14 8	1 0 1	0 14 5	1826	2 18 8	1 13 4	1 6 8
1780	1 16 9	0 17 6	0 15 2	1827	2 18 6	1 17 7	1 8 2
1781	2 6 0	0 17 8	0 14 1	1828	3 0 5	1 12 10	1 2 6
1782	2 9 3	1 3 2	0 15 7	1829	3 6 3	1 12 6	1 2 9
1783	2 14 3	1 11 3	1 0 5	1830	3 4 3	1 12 7	1 4 5
1784	2 10 4	1 8 8	0 18 10	1831	3 6 4	1 18 0	1 5 4
1785	2 3 1	1 4 9	0 17 8	1832	2 18 8	1 13 1	1 0 8
1786	2 0 0	1 5 1	0 18 6	1833	2 12 11	1 7 6	0 18 5
1787	2 2 5	1 3 4	0 17 2	1834	2 6 2	1 9 0	1 0 11
1788	2 6 4	1 2 8	0 16 1	1835	2 19 4	1 9 11	1 2 0
1789	2 12 9	1 3 6	0 16 6	1836	2 8 6	1 13 10	1 3 1
1790	2 14 9	1 6 3	0 19 5	1837	2 15 10	1 10 4	1 3 1
1791	2 8 7	1 9 0	0 18 1	1838	3 4 7	1 11 5	1 3 5
1792	2 3 0	—	0 16 9	1839	3 10 8	1 19 6	1 5 11
1793	2 9 3	1 11 1	1 0 6	1840	3 6 4	1 16 5	1 5 8
1794	2 12 3	1 11 9	1 1 3	1841	3 4 4	1 12 10	1 2 5
1795	3 15 2	1 17 5	1 4 5	1842	2 17 3	1 7 6	0 19 3
1796	3 18 7	1 15 4	1 1 10	1843	2 10 1	1 9 6	0 18 4
1797	2 13 9	1 7 2	0 16 3	1844	2 11 5	1 13 8	1 0 7
1798	2 11 10	1 9 0	0 19 5	1845	2 10 10	1 11 8	1 1 6
1799	3 9 0	1 16 2	1 7 6	1846	2 18 8	1 12 8	1 3 8
1800	5 15 10	2 19 10	1 19 4	1847	3 9 9	2 4 2	1 8 8
1801	5 19 6	3 8 6	1 17 0	1848	2 10 6	1 11 6	1 0 6
1802	5 9 10	1 13 4	1 0 4	1849	2 4 3	1 7 9	0 17 6
1803	2 18 10	1 5 4	1 1 6	1850	2 0 3	1 3 5	0 16 5
1804	3 2 3	1 14 0	1 4 3	1851	1 18 6	1 4 9	0 19 7
1805	4 9 9	2 2 6	1 8 4	1852	2 1 0	1 4 6	0 19 1
1806	3 12 1	1 18 8	1 7 7	1853	2 13 3	1 13 2½	1 1 0
1807	3 15 4	1 19 4	1 8 4	1854	3 12 5	1 16 0	1 7 11
1808	4 1 4	—	1 13 4	1855	3 14 8½	1 14 9	1 7 5½
1809	4 17 4	2 7 0	1 11 5	1856	3 9 2½	2 1 1½	1 5 2½
1810	5 6 5	2 8 1	1 8 7	1857	2 16 4½	2 2 1½	1 5 0½
1811	4 15 3	2 7 3	1 7 7	1858	2 4 9½	1 13 7½	1 3 2½
1812	6 6 6	3 6 9	2 4 6	1859	2 3 9	1 13 6	1 3 2
1813	5 9 9	2 18 6	1 18 6	1860	2 13 5	1 16 7	1 4 5
1814	3 14 4	1 17 4	1 5 8	1861	2 17 4	1 16 1	1 3 9
1815	3 5 7	1 10 3	1 3 7	1862	2 15 5	1 15 1	1 2 7
1816	3 18 6	1 15 11	1 7 2	1863	2 4 9	1 13 11	1 1 2
1817	4 16 11	2 2 4	1 12 5	1864	2 0 2	1 9 11	1 0 4
1818	4 6 3	2 13 10	1 12 5	1865	2 1 10	1 9 9	1 1 10
1819	3 14 6	2 5 9	1 8 2	1866	2 0 11	1 17 5	1 4 7
1820	3 7 10	1 13 10	1 4 2	1867	3 4 5	2 0 0	1 6 0
1821	2 16 1	1 6 0	0 19 6				

N.B.—The Imperial bushel contains 2218·192 cubic inches; the Winchester bushel 2150·42 cubic inches, the former being about 1-32 part larger than the latter. [BUSHEL; WEIGHTS AND MEASURES.]

V. *Account of the Quantities of Grain, Flour, Meal, and Malt of Irish Growth, annually imported into Great Britain from Ireland, from* 1814 *to* 1866, *both inclusive.*

Year	Wheat and Wheat Flour	Barley, including Bear or Bigg	Oats and Oatmeal	Rye	Peas	Beans	Malt	Total
	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.
1814	223,478	18,779	564,010	4	460	5,731	—	812,462
1815	189,544	27,108	597,537	207	425	6,371	—	821,192
1816	121,231	62,234	683,714	43	239	5,984	—	873,065
1817	55,481	26,766	611,117	—	12	2,475	—	695,851
1818	105,179	25,387	1,069,345	4	10	4,768	—	1,204,733
1819	153,850	20,311	789,613	2	—	3,904	—	967,680
1820	403,407	87,095	916,251	134	439	8,396	—	1,415,722
1821	569,700	82,884	1,162,249	550	2,474	4,969	—	1,822,816
1822	463,104	22,552	569,257	353	728	7,255	—	1,063,089
1823	400,068	19,774	1,107,487	198	586	8,540	—	1,536,153
1824	556,384	44,699	1,226,085	112	756	5,791	1,173	1,834,900
1825	396,014	134,456	1,609,856	220	1,431	11,235	10,826	2,303,962
1826	314,851	64,845	1,305,734	77	1,452	7,190	1,203	1,695,392
1827	405,255	67,791	1,343,267	256	1,282	10,037	572	1,828,460
1828	652,564	84,208	2,274,651	1,484	4,826	7,068	853	3,026,590
1829	519,017	97,140	1,673,628	568	4,435	10,445	2,011	2,307,244
1830	529,717	189,745	1,471,852	414	2,520	19,055	2,990	2,231,293
1831	857,498	185,409	1,656,701	515	4,142	15,029	10,888	2,929,182
1832	760,293	193,699	2,041,867	224	1,915	14,330	8,229	2,960,267
1833	844,211	101,767	1,764,270	166	2,646	19,114	7,017	2,737,441
1834	779,505	217,855	1,769,503	983	2,176	18,771	5,865	2,792,658
1835	661,776	156,242	1,972,747	614	3,447	24,235	10,357	2,879,434
1836	608,757	184,156	2,138,138	483	2,930	17,604	22,214	2,954,282
1837	834,445	187,475	2,274,675	1,016	60	25, 30	4,174	3,302,980
1838	512,585	150,467	2,742,307	626	5,272	21,584	5,281	3,474,302
1839	379,531	61,676	1,904,935	2,551	1,484	11,535	2,861	2,363,151
1840	174,439	95,954	2,037,835	197	1,403	14,573	3,456	2,327,757
1841	218,708	75,568	2,539,380	172	855	15,907	4,935	2,855,525
1842	201,998	50,297	2,261,135	98	1,551	19,451	3,046	2,538,334
1843	413,466	110,119	2,648,402	371	1,192	24,329	8,643	3,206,524
1844	440,152	90,656	2,742,308	264	1,091	18,580	8,153	3,300,204
1845	779,115	93,095	2,353,995	165	1,844	12,745	11,144	3,251,901
1846	393,462	92,851	1,311,592	—	2,237	14,668	11,529	1,826,137
1847	186,024	47,597	793,165	1,498	4,659	22,561	5,456	969,690
1848	301,873	79,885	1,546,568	15	2,372	19,514	6,563	1,956,792
1849	234,690	46,600	1,123,469	414	5,569	24,150	5,181	1,439,903
1850	176,466	40,779	1,075,388	360	4,360	21,551	8,495	1,326,799
1851	95,116	44,179	1,111,976	—	3,781	25,002	6,451	1,285,737
1852	56, 66	107,155	1,540,315	—	5,318	27,681	8,741	1,749,440
1853	74,197	124,272	1,742,579	600	2,089	22,585	11,998	2,078,440
1854	138,150	8 ,238	1,8 ,169	360	1,247	23,157	9,042	2,022,163
1855	17,030	58,628	1,993,273	540	1,734	24,616	4,094	2,099,849
1856	196,763	74,220	1,900,295	709	1,307	23,586	5,221	2,201,167
1857	185,331	—	1,791,458	—	—	—	—	1,976,789
1858	163,783	—	1,540,794	—	—	—	—	1,704,417
1859	153,276	64,978	1,7 ,6656	180	1,618	26,904	4,980	1,,,,672
	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.
1860	574,486	220,564	4,67 ,893	1,989	934	54,493	13,101	5,643,960
1861	475,983	166,980	4,389,,06	1,491	1,491	108,980	19,467	5,,,,618
1862	549,143	240,339	3,830,,67	—	595	101,967	9,953	4,,,,,,6
1863	284,243	274,067	3,347,684	85	6,680	106,436	10,926	4,,,,,,6
1864	156,377	130,241	3,,,,,,80	—	3,477	147,776	14,571	6,,,,,,7
1865	180,065	291,160	4,,,,,,,5	296	1,496	101,691	11,716	5,,,,,,0
1866	169,374	190,946	4,,,,,,94	7,186	3,943	99,,,6	8,201	

VI. ***Account of the Quantities of Foreign and Colonial Wheat and Wheat Flour, Barley and Barley Meal, and Oats and Oatmeal Imported into the United Kingdom, Re-exported, and retained for Consumption in each Year from 1800, in Imperial Quarters, down to 1866.***

Year	Wheat &c.			Barley &c.			Oats &c.		
	Imports	Re-Exports	Retained or Entered for Home Consumption	Imports	Re-Exports	Retained for Home Consumption	Imports	Re-Exports	Retained for Home Consumption
	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.
1800	1,295,466	1,490	—	131,055	—	—	515,133	200	—
1801	1,427,160	7,955	—	114,012	4	—	585,279	500	—
1802	544,371	131,089	—	8,156	1,744	—	242,690	2,907	—
1803	314,305	54,405	—	1,163	355	—	264,944	1,749	—
1804	391,264	31,901	—	9,072	80	—	500,519	4,220	—
1805	837,545	56,569	—	27,614	2,088	—	274,156	—	—
1806	308,081	8,956	—	2,058	370	—	185,249	760	—
1807	365,329	5,383	—	2,968	3	—	425,309	—	—
1808	41,910	15,913	—	4,740	241	—	34,712	1,118	—
1809	396,541	2,757	—	13,166	1,061	—	296,555	443	—
1810	1,439,977	62,984	—	17,708	3,614	—	115,708	634	—
1811	188,766	71,315	—	40,121	25,491	—	11,696	2,886	—
1812	131,615	18,206	—	39,884	28,962	—	14,719	5,259	—
1813	340,181	—	—	19,709	—	—	60,410	—	—
1814	624,760	23,163	693,086	29,380	8,920	26,684	248,050	926	248,055
1815	191,632	56,361	116,582	2,074	1,133	2,148	120,475	119	117,433
1816	209,655	19,672	225,263	14,865	—	11,918	7,937	1,731	26,295
1817	1,064,031	44,000	1,053,942	133,561	5,902	133,567	483,866	560	479,402
1818	1,593,820	17,693	1,606,280	606,250	11	606,239	987,439	36	991,960
1819	472,203	22,543	723,858	373,797	3,201	365,063	585,672	2,141	583,554
1820	583,425	87,825	34,475	28,671	5,251	—	691,779	3,954	747,115
1821	129,612	193,210	9	13,346	8,917	—	101,517	15,627	48
1822	43,113	148,254	2	12,048	5,421	23	55,802	14,889	344
1823	15,746	119,735	12,188	11	5,855	9	27,651	13,134	165
1824	82,867	54,091	16,692	26,206	2,208	30,406	488,024	11,414	619,850
1825	384,603	33,094	527,007	425,884	4,117	421,881	206,181	12,806	1,737
1826	576,888	14,225	316,534	278,079	4,676	332,611	1,126,210	9,103	1,186,222
1827	304,805	48,986	576,702	207,366	18,814	230,077	1,741,206	1,229	1,892,595
1828	741,114	71,474	811,947	166,265	4,117	242,744	164,578	6,922	14,574
1829	1,667,341	78,377	1,561,740	277,109	10,303	266,714	540,083	58,964	493,666
1830	1,081,847	34,698	1,702,437	158,650	1,285	32,408	506,089	26,527	9[illegible]21
1831	2,360,975	63,073	1,195,256	376,513	942	527,704	627,761	5,623	3[illegible]50
1832	447,102	288,199	373,782	98,830	7,822	72,674	28,073	23,079	5,055
1833	297,565	93,767	85,714	8[illegible]21	3,210	1,725	25,389	19,544	986
1834	176,322	159,199	64,552	88,502	9,865	11,037	174,025	13,492	55,472
1835	66,905	132,225	27,587	67,796	44,365	136,600	113,187	30,915	172,234
1836	241,742	205,037	30,036	83,483	18,919	110,035	151,466	56,536	96,891
1837	599,912	309,192	244,086	87,193	10,607	47,185	418,884	49,126	332,367
1838	1,371,958	156,105	1,854,153	2,703	19,817	8,172	59,545	56,445	11,097
1839	2,875,437	58,890	2,681,590	579,496	621	589,085	670,513	40,405	855,814
1840	2,452,766	83,547	2,389,751	625,458	4,879	613,041	548,265	36,978	509,199
1841	2,770,647	27,552	2,619,702	264,655	2,115	260,245	136,258	24,391	27,815
1842	3,040,269	66,261	2,977,502	75,355	13,755	4,581	313,696	55,161	293,513
1843	1,064,942	69,560	987,287	179,880	4,445	223,209	87,877	42,107	44,140
1844	1,379,262	76,699	1,021,681	1,019,345	1,042	1,024,322	302,116	20,271	261,198
1845	1,141,957	67,202	313,745	368,344	23,320	207,653	599,109	29,251	584,318
1846	2,341,142	135,111	2,943,946	574,009	5,619	402,512	799,643	17,994	772,956
1847	4,464,257	185,272	4,641,111	776,172	15,342	782,686	1,742,512	9,387	1,784,121
1848	3,092,234	10,967	2,193,755	1,054,293	3	697,953	971,953	7,822	877,533
1849	4,835,980	—	5,539,594	1,381,075	—	1,541,884	1,992,707	—	1,575,583
1850	4,830,963	—	4,845,854	1,035,915	—	1,025,907	1,158,790	—	1,165,979
1851	5,330,412	—	5,225,677	879,574	—	876,390	1,200,136	—	1,193,566
1852	4,164,602	—	4,135,576	624,602	—	624,002	980,578	—	982,478
1853	6,035,860	125,856	6,111,997	870,053	30	874,033	1,028,933	16,773	1,012,160
1854	4,473,085	107,374	4,370,852	557,994	4,046	548,948	1,015,279	7,402	1,005,837
1855	5,381,786	77,143	5,406,977	314,305	—	350,070	1,034,092	—	1,044,475
1856	5,561,621	126,395	5,614,260	731,184	—	735,944	1,148,877	—	1,158,819
1857	4,254,702	97,945	4,304,782	1,701,474	—	1,720,536	1,710,342	—	1,732,047
1858	5,681,767	10,996	5,656,270	1,661,412	—	1,661,096	1,857,236	—	1,847,582
1859	5,249,043	15,905	5,234,321	1,727,939	—	1,676,580	1,657,643	—	1,651,950
1860	7,788,291	8,058	7,780,306	2,112,864	—	2,111,626	2,307,164	—	2,306,074
1861	9,220,167	326,954	8,875,407	1,400,091	—	1,400,551	1,891,843	—	1,891,665
1862	12,171,937	2,918	12,148,636	1,854,964	—	1,858,459	1,912,922	—	1,910,570
1863	7,579,617	35,506	7,530,920	2,067,596	—	2,064,801	2,362,593	—	2,353,690
	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.
1864	27,709,105	80,628	27,561,007	4,904,364	—	4,899,388	5,563,144	—	5,552,202
1865	24,867,434	48,196	24,819,238	7,818,598	—	7,818,911	7,715,533	—	7,717,151
1866	28,128,609	65,178	28,063,431	8,434,995	—	8,434,046	8,894,284	—	8,889,865

VII. ***An Account of the Quantities of Wheat and Wheat-flour, Barley, Oats, Beans, Peas, and Maize, specifying the Countries from which they were brought, the Quantities (in Cwts.) imported during 1865 from each Country, and the Average Price per Cwt. of each.***

Countries	Wheat	Average price	Wheat Meal	Average price	Barley	Average price	Oats	Average price	Peas	Average price	Beans	Average price	Maize	Average price
	cwt.	s. d.	cwt.	s. d.	cwt.	s. d.	cwt.	s. d.	cwt.	s. d.	cwt.	s. d.	cwt.	s. d.
Russia	8,160,241	8 8½	—	—	862,187	5 6	1,963,379	7 6½	54,062	8 3	—	—	1,193,977	6 1½
Sweden	—	—	—	—	374,744	7 4½	3,090,654	7 1	—	—	—	—	—	—
Denmark	647,057	8 9½	37,203	12 9	1,350,922	6 11½	1,071,538	6 10½	39,084	8 0½	—	—	—	—
Norway	—	—	—	—	—	—	121,838	7 1½	—	—	—	—	—	—
Schleswig Holstein	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lauenburg	108,761	8 6½	—	—	—	—	—	—	—	—	—	—	—	—
Prussia	5,426,509	10 3½	66,267	13 2	770,569	7 7	65,693	7 6½	341,891	8 2½	21,702	8 9	—	—
Hanover	—	—	—	—	—	—	323,603	7 0½	—	—	26,301	8 8½	—	—
Mecklenburg Schwerin	649,771	10 5	—	—	—	—	—	—	—	—	93,789	8 0½	—	—
Hamburg	476,859	9 1	217,206	12 10	399,840	7 6	50,708	7 0½	24,173	8 1	120,368	8 4½	—	—
Holland	—	—	—	—	50,959	7 10½	725,834	7 0½	—	—	86,691	8 1½	—	—
France	2,966,471	9 4½	7,058,287	13 7½	1,583,474	7 4½	71,190	7 1½	—	—	200,447	8 6½	71,993	6 2½
Spain	123,3[illegible]	9 10	—	—	—	—	—	—	—	—	—	—	—	—
Austrian Territories	483,074	8 11½	26,895	12 10½	—	—	—	—	—	—	—	—	55,117	5 11½
Turkey Proper	347,061	8 5½	—	—	3,067,405	5 3½	—	—	—	—	—	—	3,178,454	6 3½
Wallachia & Moldavia	158,063	7 6½	—	—	[illegible]	[illegible]	—	—	—	—	—	—	344,950	6 4½
Algeria	—	—	—	—	107,023	5 2½	—	—	—	—	—	—	—	—
United States	1,143,689	9 7½	262,874	12 3½	—	—	—	—	30,093	7 11½	49,090	8 2½	—	—
Morocco	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chili	144,561	9 4½	20,001	13 4½	—	—	—	—	—	—	149,178	8 4½	41,561	6 4½
British North America	107,316	9 0½	181,189	13 2½	—	—	—	—	—	—	—	—	1,761,523	6 3½
Other parts	290,597	9 2½	32,566	13 2½	40,136	6 3½	161,723	7 4½	239,023	8 0½	—	—	302,127	6 5½
Total	21,489,141	—	8,932,788	—	7,860,341	—	7,771,891	—	785,583	—	902,989	—	7,159,913	—
Re-exported and over-entered	145,307	—	49,349	—	42,397	—	60,866	—	3,296	—	—	—	52,680	—
Total	20,935,839	—	8,883,399	—	7,817,947	—	7,710,925	—	782,287	—	—	—	7,107,254	—

IV. Foreign Corn Trade.

Polish Corn Trade.—Dantzic has hitherto supplied us with large quantities of the finest wheat; and as it will most probably continue to be one of the principal sources of our imports in time to come, it is of importance to ascertain the cost of wheat in that emporium, and the expense of its importation into this country.

According to the data collected by Mr. Jacob in his *Report on the Agriculture and Corn Trade of the North of Europe*, the ordinary price of wheat at Dantzic free on board would amount to about 40*s.* per quarter, made up as follows:—

	Per quarter s.	d.
Cost of wheat at Warsaw	28	0
Conveyance to the boats, and charges for loading and stowing, and securing it with mats	0	6
Freight to Dantzic	5	0
Loss on the passage by pilfering, rain &c.	3	0
Expenses at Dantzic in turning, drying, screening, warehousing, and loss of measure	2	0
Profit or commission, as the case may be, to the merchant in Dantzic	1	6
Cost at Dantzic, exclusive of shipping charges, which amount to about 10*d.* per quarter	40	0

Now, if to this we add 7*s.* or 10*s.* per quarter for the expense of importing the wheat into England, including the profit of the importer, it is plain that it could not, supposing Mr. Jacob's estimate of the cost to be nearly accurate, be sold in London, free of duty, for less than 47*s.* or 50*s.* per quarter.

It has, no doubt, been alleged that the cost of wheat in Dantzic is overrated in the above estimate; and in seasons when there is little or no demand for corn from abroad, this allegation is certainly well founded. But this estimate is not meant to apply to such years, but to those when there is some considerable foreign demand; and whenever this is the case, it will be found, though some of the items which go to make up the cost may vary, that the result is nearly correct; and that there are really no good grounds for supposing that corn could, in the seasons in question, be shipped from Dantzic for less than about 40*s.* per quarter.

In further corroboration of this statement we may mention that owing to the deficient harvest of 1845, the average price of wheat in January 1846, in Warsaw, exceeded 40*s.* per quarter, and it is stated in a despatch from the consul in that city, that at an average of the 20 years ending with 1845 prices had been as follows, viz.: wheat from 26*s.* 6*d.* to 30*s.* per imp. quarter; barley 17*s.* 10*d.* to 20*s.* 6*d.* per do.; and oats 8*s.* 6*d.* to 10*s.* per do. It is plain, therefore, that Mr. Jacob's estimate of the cost of wheat at Warsaw is but little, if it be in any degree, overstated; and we are well assured that this also is the case with his estimate of the expense of conveying it down the Vistula to Dantzic.

Mr. Grade, of Dantzic, furnished the Agricultural Committee of 1831 with the following Table of the average prices of corn in that city, free on board, in decennial periods from 1770 to 1820.

Average Price from Ten to Ten Years of the different Species of Corn, free on board, per Quarter, in Sterling Money, at Dantzic.

	Wheat s.	d.	Rye s.	d.	Barley s.	d.	Oats s.	d.
From 1770 to 1779	33	9	21	8	16	1	11	1
1780 — 1789	33	10	22	1	17	11	12	4
1790 — 1799	43	8	26	3	19	5	12	6
1800 — 1809	60	0	34	10	23	1	15	1
1810 — 1819	55	4	31	1	26	0	20	4
Aggregate average price of 40 years	45	4	27	2	20	10	15	10

It appears from this table that at an average of the 20 years ending with 1819 the price of corn in Dantzic was no less than 57*s.* 8*d.* per quarter. But it is to be observed that these prices were powerfully influenced by the scarcity and high price in this country in 1800 and 1801, and by the obstructions which the war threw in the way of agriculture, and of the conveyance of corn to Dantzic. But the prices of wheat at this great emporium have not since 1819 been subject to any such disturbing influences. The countries whence Dantzic draws her supplies of corn have enjoyed an all but uninterrupted tranquillity during the last 40 or 50 years; and though during some of these years we have made large importations, we have not, in others, brought away a single bushel of corn; so that the average prices of the period of 11 years stated below may be taken as pretty correctly representing the prices of corn in Dantzic in seasons when the export is rather under a medium.

Account exhibiting the Lowest, the Highest, and the Average Prices of Wheat in Dantzic, in Sterling Money, per Imperial Quarter, in each of the Eleven Years from 1831 *to* 1841, *both inclusive, with the Averages for the whole Period.*

Year	Lowest prices per quarter s.	d.	Highest prices per quarter s.	d.	Average prices per quarter s.	d.
1831	41	1	51	6	46	3½
1832	32	6	43	7	38	0
1833	28	5	32	9	30	7
1834	25	1	29	11	27	6
1835	21	0½	26	3½	23	8
1836	22	3	35	7	28	11
1837	24	9	34	8½	29	8½
1838	26	6½	61	9	44	1½
1839	31	9	61	1	46	5
1840	39	0	62	9	50	10½
1841	45	9	57	0	51	4½
Average of 11 Years from 1831 to 1841	30	8½	45	2	37	11

It appears from this table that the average price of wheat in Dantzic during the 11 years ending with 1841 was 37*s.* 11*d.* per quarter; making, with the addition of 10*d.* per quarter for shipping charges, its average price, free on board, 38*s.* 9*d.* per quarter. Now if to this last sum we add 7*s.* or 10*s.* for the expense of its importation and delivery to the millers in London, it is plain, judging from the experience of these 11 years, that the average cost of Dantzic wheat in England, independent of duty, may be estimated, in round numbers, at from 45*s.* to 50*s.* per quarter.

It is material, however, to bear in mind that no very large quantity could be shipped at the above prices. They represent only average years; and whenever there is any unusual demand for corn, or when from 200,000 to 300,000 quarters are wanted for this country, the price immediately rises, as seen above, to from 45*s.* to 50*s.* per quarter and upwards. During the course of 1846 the average prices of the wheat shipped at Dantzic exceeded 48*s.* per quarter.

That the charges on importation into England, warehousing here, and then delivering to the millers, exclusive of duty and profit, would amount to about 10*s.* per quarter, appears from the following statements. The first was furnished by Messrs. Richard Birkett and Sons to the Lords' Committee of 1827 on the price of foreign corn; the other was obligingly furnished by Mr. Irvine, corn factor, in 1841.

According to the statement for 1868, the price at Dantzic being 50*s.*, the cost of importation would be 6*s.* 11*d.* per quarter; but to this has to be added an allowance for waste and for profit.

We are well convinced that it is not possible successfully to controvert these statements; and such being the case, we are entitled to say that

Account of the Ordinary Charges on 100 *Quarters of Wheat imported from Dantzic for Sale on Consignment in London, in May,* 1841.

	£	s.	d.	£	s.	d.
One hundred quarters fine high mixed wheat, weighing about 61 lbs. per bushel, would cost 40s. per quarter				200	0	0
Sound dues, 6d. per quarter	2	10	0			
Freight, at present, 3s. 3d., but, on an average, supposed 4s. 6d.	22	10	0			
Insurance 12s. 6d. per cent., but on an average 20s.	£2	5	0			
Policy, 2s. 6d.	0	7	6			
	2	12	6			
Metage and dues ex ship, 6s. 8d. per ten quarters	3	6	8			
Lighterage and landing, 9d.	3	15	0			
Granary rent and fire insurance for three weeks, at 5s. per one hundred quarters per week	0	15	0			
Turning and trimming, same period	0	4	6			
Seller's metage ex granary, 2s. per ten quarters	1	0	0			
Delivering from granary, 3d.	1	5	0			
Commission or factorage on sale, 1s. per quarter	5	0	0			
Del credere, 1 per cent. (on 55s.), 27½d.	2	15	0			
				45	17	8
				245	17	8

Account of the Ordinary Charges on 100 *Quarters of Wheat shipped from Dantzic on Consignment, landed in London Aug.* 1868.

	£	s.	d.	£	s.	d.
One hundred quarters, supposed cost at Dantzic, free on board, 50s.				250	0	0
Freight at 2s. 6d. per quarter, and 10 per cent.	12	10	0			
Metage ex ship &c., 5d. per last	2	10	0			
Lighterage and landing, 9d. per quarter	3	15	0			
Insurance on 300l., including imaginary profit, at 35s. per cent.; policy 3d. per cent.	5	5	9			
Granary rent and insurance for one week	0	5	0			
Turning and trimming, about	0	1	6			
Delivering from granary, 3d. per quarter	1	5	0			
Metage &c., ex granary, 2s. per last	1	0	0			
Commission on sale, 1s. per quarter	5	0	0			
Del credere, 1 per cent. on, suppose, 60s.	3	0	0			
				51	12	3
Total cost to importer if sold in bond				251	12	3
Imaginary profit				28	9	3
				313	1	6
Would produce, at 62s. 7d. per quarter				312	10	4

N.B.—Loss on remeasuring not considered.
Freight and insurance are taken in this statement at an average, being sometimes higher and sometimes lower.

nothing can be more perfectly unfounded than the notions so prevalent in this country as to the extreme cheapness of corn in Dantzic. The truth is, that no considerable quantity of corn can be derived from her without resorting to Gallicia and other provinces from 500 to 700 miles inland. The corn is thence conveyed to the city in boats suited to the navigation of the rivers: but, owing to the uncertain supply of water in the latter, the communication is sometimes entirely broken off, and it is always very tedious and expensive. In proof of this, we may mention that, in November 1838, when wheat sold in Dantzic for 41*s.* 6*d.* per quarter, it was selling in Lemberg, the principal corn market of Gallicia, for 15*s.*; the difference, amounting to 26*s.* 6*d.*, being the measure of the cost and risk of conveyance from Lemberg to Dantzic! It is, in fact, quite nugatory to suppose that any large supplies should be furnished by Dantzic, were the shipping price under 30*s.* or 40*s.* But, supposing that we could in ordinary years ship considerable supplies for 34*s.*, still it is pretty obvious it could not be sold in London, with a profit, for less than 45*s.* or 47*s.*, or perhaps 48*s.* per quarter.

It is difficult to draw any conclusions on which it would be safe to place much reliance as to the supplies of corn that may be obtained from Dantzic and Prussia generally, now that our ports are constantly open under a nominal duty. Mr. Jacob states that the lengthened period of 166 years ending with 1825 gives an 'annual export of wheat and rye of 279,794 quarters.' And this surplus may, he thinks, be 'fairly considered as the nearest approach that can be made, with existing materials, to what is the usual excess of the produce of bread corn above the consumption of the inhabitants, when no extraordinary circumstances occur to excite or check cultivation.' (*Report*, p. 49.)

But there can be no doubt that Mr. Jacob greatly underrated the capabilities of improvement of the countries traversed by the Vistula, the Bug &c. And while our ports are open with a duty of 1*s.*, we may, supposing our average prices not to fall below 45*s.* or 55*s.* per quarter, safely reckon upon getting from Dantzic an annual supply of from 250,000 to 350,000 quarters. It should, however, be observed that Mr. Meek, who visited the north of Europe in the latter part of 1841 and early in 1842, concurs with Mr. Jacob in thinking it improbable that any considerable increase of exportation would take place from Dantzic under any modification of our corn laws. (*Parl. Paper* No. 7, Sess. 1842, p. 31.) It was difficult to believe that such should be the case. Down to a comparatively late period, owing to the fluctuating and capricious nature of our demand, it proved of little advantage to the Polish cultivators; nor was much corn raised in the expectation of its finding its way to England. Now that our ports are always open, it is quite a different matter. The supply of our markets has become an object of importance to the Polish agriculturists, who are endeavouring to extend and improve their tillage, and the means of bringing corn to market. At the same time it is right to observe that the stimulus given to Polish agriculture, and to the tillage of foreign countries generally, by the change in our corn laws, must wholly depend on the extent of our demand; and if it should, in ordinary seasons, be more limited than is commonly supposed, it will have proportionally less influence. We subjoin an

Account exhibiting the Quantities of the different Varieties of Corn and the Quantities of Flour shipped from Dantzic during each of the 7 *Years ending with* 1840, *with the Prices of Wheat in Dantzic during the same Period.*

Years	Wheat	Rye	Barley	Oats	Flour	Average Price of Wheat		
	qrs.	qrs.	qrs.	qrs.	barrels	£	s.	d.
1834	71,043	21,811	328	1,522	33,863	1	7	6
1835	45,149	13,860	95	2,898	28,302	1	3	8
1836	129,055	70,512	7,517	7,224	68,891	1	8	11
1837	311,601	109,989	2,357	8,085	67,612	1	9	8½
1838	458,440	31,290	2,709	1,906	78,274	2	4	11
18 9	419,055	131,235	65,919	8,379	45,251	2	6	5
1840	496, 76	131,980	37,054	2,735	21,809	2	10	10½
Total	1,934,079	518,195	117,597	31,749	334,092	1	17	10½

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For an account of the shipments &c. of wheat from Dantzic in 1866, see DANTZIC.

Quality of Dantzic Wheat.—The price of wheat in Dantzic is usually about 7*s.* per quarter above its average price in Hamburg, and about 2*s.* above the average of Amsterdam. This difference is entirely owing to the superior quality of the Dantzic wheat. Though small grained, and not so heavy as several other sorts, it is remarkably thin-skinned, and yields the finest flour. Some of the best white, or, as it is technically termed, 'high mixed' Dantzic wheat, is superior to the very best English; but the quantity of this sort is scanty, and the average quality of all that is exported from Dantzic is believed to approach very nearly to the average quality of English wheat. Allowing for its superior quality, it will be found that wheat is, speaking generally, always cheaper in Dantzic than in any of the Continental ports nearer to London. The stock of wheat in Dantzic was only 4,500 Prussian lasts on January 1, 1867. There are very few seasons, indeed, in which Dantzic wheat is not largely imported into Amsterdam; and it frequently also finds its way into Hamburg. But it is quite impossible that such should be the case, unless, taking quality and other modifying circumstances into account, it were really cheaper than the native and other wheats met with in these markets. When there is any considerable importation into England, it is of every-day occurrence for merchants to order Dantzic wheat in preference to that of Holstein, or of the Lower Elbe, though the latter might frequently be put into warehouse here for 18*s.* per quarter less than the former! It is, therefore, quite indispensable, in attempting to draw any inferences in regard to the comparative prices of corn in different countries, to make the requisite allowances for differences of quality. Unless this be done, whatever conclusions may be come to can hardly fail of being false and misleading; and when they happen to be right, they can only be *so* through the merest accident.

Dantzic being by far the greatest port for the exportation of wheat in the north of Europe, its price in her market may be assumed as the general measure of the price in the other shipping ports. At all events, it is certain that when Dantzic is exporting, wheat cannot be shipped, taking quality into account, at a cheaper rate from any other place. The importer invariably resorts to what he believes to be, all things considered, the cheapest market; and it is a contradiction and an absurdity to suppose that he should burden himself with a comparatively high freight and other charges for wheat in Dantzic, provided he could buy an equally good article in so convenient a port as Hamburg at the same or a lower price. If, therefore, we are right in estimating the lowest price at which wheat may be profitably imported from Dantzic free of duty, in ordinary years, at about 45*s.* or 48*s.*, we may be assured that this is the lowest importation price. The greater cheapness of the imports from other places is apparent only, and is uniformly countervailed by a corresponding inferiority of quality. [DANTZIC; KÖNIGSBERG; &c.] We subjoin an

Account of the Quantities, in Cwts., of the different Varieties of Corn imported into the United Kingdom from Prussia in each of the 5 Years ending with 1866.

	1862	1863	1864	1865	1866
Wheat - - - - cwts.	6,285,431	4,410,197	4,933,328	5,405,914	4,401,409
Barley - - - - "	882,696	1,177,501	706,911	759,910	1,681,537
Oats - - - - "	163,141	511,027	131,779	61,601	496,134
Rye - - - - "	4,583	61,983	387,419	62,147	74,969
Peas and beans - - - "	429,364	894,451	651,442	366,947	493,288
Other kinds of corn and grain - "	(Not computed)		12,394	—	95
Wheat flour - - - "	2,483	10,724	33,557	66,267	65,675

Russian Corn Trade.—Russia exports large quantities of wheat, rye, oats, and meal. The wheat of the northern provinces is of various qualities; but the greater portion is small-grained, coarse, brown, and badly dressed. The hard, or Kubanka, is the best; it keeps well, and is in considerable demand for mixing with other wheats that are old or stale. Russian oats are thin; but being dried in the straw, they weigh better than could be expected from their appearance, and are reckoned wholesome food. Our imports from Russia in 1839 amounted to 371,693 quarters wheat, 316,823 do. oats, and 14,000 do. rye. But though this was far above the then average importation, it has since been greatly exceeded, principally in consequence of the extraordinary increase of the exports from the southern provinces. In 1866, for example, we imported 8,937,199 cwts. of wheat from Russia, exclusive of 195,387 cwts. of meal and flour. In 1865 we imported 7,249,834 cwts. from Russian ports on the Black Sea. During 1866 we received from all parts of the empire 3,169,540 cwts. of oats, and 910,154 cwts. of barley. (The reader will find notices of the North Russian corn trade under the articles ARCHANGEL, PETERSBURG, and RIGA. For an account of the corn trade of the Black Sea, see *post*, and the articles GALACZ, ODESSA, and TAGANROG.)

Danish Corn Trade.—The export of wheat from Denmark Proper, that is, from Jutland and the islands, especially the latter, has, within the last 15 or 20 years, been much increased, and the quality of the grain greatly improved. Considerable quantities of wheat, barley, and other grain, as well as of butter, cheese, beef &c., are exported from Schleswig and Holstein. But, as already stated, the wheat of the latter is inferior; for, though it looks plump, it is coarse and damp. Kiel was formerly the chief Danish port for shipping corn; but large quantities are now shipped from Holbeck and other ports in the islands. In 1866 we imported from Denmark 506,236 cwts. of wheat, 1,446,376 cwts. of barley, 396,888 cwts. of oats, with considerable quantities of peas and pea-meal, and beans and bean-meal. The quantities and values of the entire corn, flour, beans &c exported from Denmark and the Duchies, in 1865, were as follows:—

Articles	Quantity	Value
Wheat - - cwts.	895,432	£390,295
Barley - - "	1,548,494	541,895
Oats - - "	1,095,210	377,586
Peas and beans - "	55,169	15,003
Wheat flour - "	45,646	29,143
		1,351,173

Corn Trade of the Elbe &c.—After Dantzic, Hamburg is one of the greatest corn markets in the north of Europe, but is not, as formerly, a dépôt for large quantities of corn, as these are brought hither chiefly by the Elbe and the Berlin Railway for immediate shipment. The exports of wheat

from Hamburg amounted, at an average of the 11 years ending with 1841, to 210,871 quarters a-year. The price of wheat, as already stated, is frequently less in Hamburg than in Dantzic; but this lowness of price is altogether ascribable to the inferiority of the Holstein and Hanover wheats, which are generally met with in great abundance in Hamburg. Wheat from the Upper Elbe is of a better quality. Bohemian wheat is occasionally forwarded by the river to Hamburg; but the heavy charges attending its conveyance from Prague prevent its being sent down, except when the price is comparatively high. In 1849 the shipments of wheat from Hamburg amounted to 286,209 quarters, of which 226,864 were for England. The supply for export in 1866 was 30,025 lasts or 324,600 quarters, and in 1867 it was 43,819 lasts or 473,727 quarters; the price per last being, in 1866, 152 Hamburg dollars of 3 marks cur.; and in 1867, 212§ dols. We subjoin an

Account of the Quantities of Wheat and other Varieties of Corn and Wheat Flour imported from the Hanse Towns (principally from Hamburg) into the United Kingdom during each of the 5 Years ending with 1866.

Articles	1862	1863	1864	1865	1866
Wheat - - - - cwts.	679,038	316,390	494,407	486,069	876,912
Barley - - - - "	373,611	612,003	212,116	397,645	717,771
Oats - - - - "	152,985	61,075	30,791	78,285	185,795
Peas and beans - - - "	78,447	104,816	107,291	194,776	209,704
Other kinds of corn and grain - - "		(Not computed)		1,420	6,525
Wheatmeal and flour - - "	256,972	306,217	330,770	247,796	347,012

Dutch Corn Trade.—Amsterdam is an important dépôt for foreign corn, every variety of which may be found there. Only a small part of its consumption is supplied by corn of native growth; so that the prices in it are for the most part dependent on those at which corn may be brought from Dantzic, Kiel, Hamburg, and other shipping ports. The corn trade of Holland was formerly conducted under a low fixed duty. In 1835, however, a sliding scale of duties, varying inversely according to the fluctuations of the home prices, was adopted. This scale continued in force till 1845, when the potato rot, which made its appearance here as well as in Ireland, occasioned its repeal, and the imposition of fixed duties of 1*s.* 5*d.* per quarter on wheat, 1*s.* 1*d.* per quarter on rye, 10*d.* per quarter on barley, and 9*d.* per quarter on oats. It was provided, in 1847, that this scale should be revised in 1850–51. And its practical operation having been found to be highly satisfactory, Government introduced a bill by which it has been perpetuated. At an average of the 3 years ending with 1850 the prices in the Netherlands were, wheat 36*s.* 11*d.*, rye 23*s.* 10*d.*, barley 18*s.* 4*d.*, oats 12*s.* 10*d.*, and buck-wheat 23*s.* 9*d.* per imp quarter.

Rotterdam is a very advantageous port for warehousing foreign corn, being conveniently situated, and the warehouse-rent low, not exceeding 2*d.* or 2¼*d.* per quarter per month. We subjoin an

Account of the Quantities of Wheat and of the other Varieties of Corn imported from the Netherlands into the United Kingdom in each of the 5 Years ending with 1866.

Articles	1862	1863	1864	1865	1866
	cwts.	cwts.	cwts.	cwts.	cwts.
Wheat - -	8,493	11,002	14,341	49,240	82,302
Barley - -	46,189	83,636	13,176	30,719	125,212
Oats - -	490,119	355,668	298,442	721,071	369,708
Peas and beans -	30,437	30,322	54,479	92,760	38,258

French Corn Trade.—It appears, from the accounts given by Garnier in the last edition of his translation of the *Wealth of Nations*, that the price of the *hectolitre* of wheat in the market of Paris amounted, at an average of the 19 years ending with 1819, to 20 fr. 53 cents. And Chaptal, in his valuable work *Sur l'Industrie Française* (tom. i. p. 226) published in 1819, estimated the ordinary average price of wheat throughout France at 18 fr. the hectolitre. But it is seen from the subjoined table that the price of wheat in France, at an average of the half century ending with 1850, amounted to 20 fr. 20 cents. the hectolitre, equivalent to 45*s.* 7*d.* the imperial quarter. The hectolitre is equal to 2·7512 imperial bushels, and the quarter to 2·82 hectolitres.

Average Price per Hectolitre of Wheat in France in each Year from 1800 to 1850, both inclusive.

Year	Fr.	Ct.	Year	Fr.	Ct.
1800	21	50	1826	14	81
1801	24	39	1827	18	31
1802	24	16	1828	22	03
1803	18	81	1829	23	59
1804	20	18	1830	21	17
1805	20	19	1831	22	09
1806	20	18	1832	22	33
1807	18	60	1833	16	34
1808	16	67	1834	14	73
1809	15	18	1835	14	60
1810	19	61	1836	16	37
1811	26	15	1837	17	47
1812	34	34	1838	19	31
1813	22	58	1839	22	49
1814	17	50	1840	21	98
1815	19	53	1841	18	34
1816	28	31	1842	19	65
1817	36	16	1843	20	17
1818	24	65	1844	19	01
1819	18	42	1845	18	93
1820	19	13	1846	43	86
1821	17	80	1847	29	38
1822	15	89	1848	16	36
1823	17	52	1849	15	25
1824	16	52	1850	14	26
1825	15	71			

Average price of the entire period, 20 francs 20 cents. the hectolitre.

Owing to the deficient harvest of 1846, prices were occasionally higher in France than in England; and considerable quantities of wheat were taken out of bond in London and other British ports for shipment to France. The various expenses attending the importation of a quarter of French wheat into London and its delivery to the millers may be taken, at a medium, at about 7*s.* per quarter. France had formerly but little surplus produce to dispose of; so that it would have been impossible for us to import any considerable quantity of French corn without occasioning a great advance of price; but, as will be immediately seen, a decided change has taken place in this respect of late years, and, when the harvests are abundant, France has latterly sent us large supplies.

The mean of the different estimates framed by Vauban, Quesnay, Expilly, Lavoisier, and Arthur Young, gives 61,519,672 septiers, or 32,810,000 quarters, as the total average growth of the different kinds of grain in France. (Peuchet, *Statistique Elémentaire*, p. 290.) We, however, took occasion formerly to observe (*Supp. to Encyc. Brit.* art. 'Corn Laws') that there could not be a doubt that this estimate was a great deal too low; and the more careful investigations of late French statisticians fully confirm this

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remark. The annual produce of the harvest of France was estimated in 1843, from returns obtained under official authority, at 69,558,000 hectolitres of wheat, and 112,958,000 hectolitres of other sorts of grain; making in all 182,517,000 hectolitres, or 62,740,000 imperial quarters. Of this quantity it was supposed that about 16 per cent. was consumed as seed, 19 per cent. in the feeding of different species of animals, and 2 per cent. in distilleries and breweries.

The reader will not fail to observe that, according to this statement, the consumption of corn in France, which had in 1862 a population of about 37,382,225, is not more than equal to that of the United Kingdom, the population of which may be taken at 29,000,000. And we have no doubt that such is the fact; for, though the consumption of corn in France materially exceeds its proportional consumption in Ireland, it is far below the proportional consumption of Great Britain. The corn expended in this country in the keep of horses and in distilleries would, of itself, suffice to feed a third part of the people of France.

The foreign corn trade of France was formerly regulated by a law which forbade exportation, except when the home prices were below certain limits, and which restrained and absolutely forbade importation except when they were above certain other limits. The prices regulating importation and exportation differed in the different districts into which the kingdom was divided. Latterly, however, importation was at all times allowed under graduated duties, which, like those recently existing in this country, became prohibitory when the prices sank to a certain level. The frontier departments were divided into 4 separate districts, the prices in each district governing the duties on importation into it, so that it sometimes happened that corn warehoused in a particular port, where it was not admissible except under a high duty, was carried to another port in another district, and admitted at a low duty. An official announcement was usually issued on the last day of each month, of what the duties were to be in each district during the succeeding month. But the law was sometimes suspended for longer or shorter periods. At present (1868) the French import duty on wheat till December 31 next is 50 cents. per 100 kilogrammes; barley, oats, rye, buckwheat, and maize being free.

Account of the Quantities of Wheat and Wheat Flour respectively imported from France into the United Kingdom during each of the 36 Years ending with 1866.

Year	Wheat	Wheat Flour	Year	Wheat	Wheat Flour
	qrs.	cwt.		qrs.	cwt.
1831	101,976	9,186	1850	595,345	1,925,175
1832	476	—	1851	510,100	2,391,666
1833	692	—	1852	207,751	880,853
1834	—	—	1853	97,235	854,730
1835	—	32	1854	143,028	219,783
1836	—	14	1855	26,159	88,196
1837	746	843	1856	10,007	69,941
1838	55,191	26,740	1857	37,178	327,115
1839	278,182	115,502	1858	818,251	1,648,248
1840	48,350	1,070	1859	1,096,772	2,598,186
1841	147,966	161,071	1860	557,602	1,751,043
1842	469,707	161,690	1861	180,903	460,775
1843	3,118	48	1862	221,834	780,010
1844	44,471	13	1863	84,031	1,367,936
1845	32,133	12,866		cwt.	
1846	71,615	7,558	1864	587,105	1,813,854
1847	141,913	120,212	1865	2,254,873	5,044,823
1848	216,524	362,202	1866	3,473,130	3,640,380
1849	451,331	1,006,258			

The increase in the interval between 1848 and 1866 of the imports of wheat and flour, but more especially the latter, is quite unprecedented. It was occasioned, at first, in part at least, by the superior quality of French flour; for, how singular soever it may appear, the business of grinding corn was then better understood and in a more advanced state in France than in England. This may, perhaps, be accounted for by the mill-stones of La Brie, which are in common use in France, being better suited to their work than those commonly employed in England, and by the greater hardness of the French wheat, and the greater care taken in the sorting of the flour into various qualities. Latterly, however, very great improvements have been effected in the English mills.

But by far the greater part of the extraordinary increase in the imports of French wheat and flour in the period referred to is, no doubt, to be ascribed to the very low prices that then ruled in France. And the regular succession in that country for many years past of cycles of 5 or 6 years of scarcity and abundance is a very striking phenomenon. In proof of this, we beg to subjoin the following

*Account, compiled from Official Documents, of the Excess of the Imports over the Exports, and of the Exports over the Imports, of Wheat into and from France, and of its Price per Hectolitre, in Periods of Scarcity and Abundance, from 1816 to 1856 inclusive.**

	Excess of Imports over Exports	Excess of Exports over Imports	Average Price per Hectolitre
	hect.	hect.	fr. ct.
6 years of scarcity (1816-21)	6,248,000	—	26 22
6 „ abundance (1822-27)	—	1,230,000	15 65
5 „ scarcity (1828-32)	9,528,000	—	22 11
5 „ abundance (1833-37)	—	915,000	15 83
5 „ medium (1838-42)	1,126,000	—	20 88
5 „ scarcity (1843-47)	18,696,000	—	25 75
5 „ abundance (1848-52)	—	16,257,000	15 45
4 „ scarcity (1853-56)	20,207,000	—	27 80
41 years	55,805,000	18,432,000	—

* From the *Revue Commerciale* of Messrs. Conniact of Havre for 1858: a valuable and trustworthy publication.

Hence, in these 41 years, here have been imported 55,805,000 hectolitres, and exported 18,432,000; leaving an excess of imports of 37,373,000 hectolitres.

Inasmuch, however, as the imports are made when prices are high, and the exports when they are low, the excess of the value of the former over that of the latter is greater than in proportion to the difference of their quantities, and is estimated, for the above period, at 1,160,000,000 frs. And this deficit in the amount of the harvests will not certainly be filled up by clinging to the worst parts of the protective system, that is, by allowing importation, and preventing or fettering exportation, and such like expedients. But it will be speedily got rid of when a really free trade in corn is established, and the agriculturists permitted to buy their tools and implements wherever they find them cheapest and of the best quality. No doubt, also, a modification of the existing law of succession would be very desirable; for, in addition to the stimulus which it gives to subdivision, the obstructions which it throws in the way of the consolidation of properties and the increase of farms make it a formidable barrier to the progress of agriculture.

According to a law passed in November 1858, the bakers in all the principal towns of the empire are bound to keep on hand a stock of grain or flour equal to three months of their ordinary consumption. But it is not to be supposed that an Act of this sort should be really carried out: it will either fall into desuetude, or degenerate into a mere instrument of abuse.

Spanish Corn Trade.—The exportation of corn from Spain was formerly prohibited under the severest penalties. But in 1820 grain and flour were both allowed to be freely exported; and in 1823 this privilege was extended to all productions (*frutos*) the growth of the soil. There is now, in fact, no obstacle whatever, except the expense of carriage, to the conveyance of corn to the sea-ports, and thence to the foreigner. Owing, however, to the corn-growing provinces being principally situated in the interior, and to the extreme badness of the roads, which renders carriage to the coast both expensive and difficult, the exports are reduced within comparatively narrow limits: the same difficulty of carriage frequently gives rise to very great differences in the prices in markets, in all parts of the country, only a few leagues distant. Were the railway system widely extended, and other means of communication improved, and anything like security given to the husbandman, Spain would, in no long time, become one of the principal exporting countries of Europe. Old Castille, Leon, Estremadura, and that part of Andalusia to the south and east of Seville, are among the finest corn countries of Europe, and might be made to yield immense supplies. But owing to the disturbed state of the country, and the want of a market for their produce, they can hardly be said to be at all cultivated. And yet such is their natural fertility, that in good seasons the peasants only reap those fields nearest to the villages!

The imports of wheat and wheat-flour into this country from Spain in the 5 years ending with 1866 have been—

Articles	1862	1863	1864	1865	1866
	cwt.	cwt.	cwt.	cwt.	cwt.
Wheat	9	4	1,821	123,561	572,035
Wheatmeal and flour	253,498	9,111	125	8,595	735,195

Corn Trade of Odessa.—Odessa, on the Black Sea, is one of the principal corn shipping ports of Southern Europe. Inasmuch, however, as but little of the corn sent from Odessa is raised in the province of Kherson in her neighbourhood, the exports depend in great degree on the price; a comparatively high price being necessary to pay the cost of conveying corn from Podolia and Kief, whence only large supplies can be derived, to the port. The navigation of the Dnieper, which intersects these provinces, and would otherwise be a most important channel of communication, is unluckily interrupted in the lower part of its course by cataracts, so that a very large portion of the corn brought at present to Odessa is conveyed to it in carts drawn by oxen; and the supply depends almost as much on the number of cattle that may be employed for this purpose as on the productiveness of the harvests. A portion also, though but a small one, of the supplies for Odessa is brought by coasters from the Sea of Azof, and from some of the smaller ports on the Black Sea.

The following table shows the extraordinary increase that took place in 1834–49 in the supplies of corn brought to Odessa. The exports in 1847 amounted to 2,016,672 quarters, being, we believe, the largest quantity of wheat ever shipped in a single season from a single port.

It appears from an official statement published in Odessa, that the total quantity of wheat brought to the town in the undermentioned years was—

Year	Chets.*	Year	Chets.	Year	Chets.
1834	691,000	1840	680,000	1845	1,981,930
1835	378,700	1841	740,372	1846	2,121,385
1836	878,700	1842	865,672	1847	2,777,837
1837	950,498	1843	1,170,265	1848	2,0 9,97
1838	1,241,000	1844	1,313,300	1849	1,714,741
1839	1,150,000				

* A chetwert is about 5·8 bushels.

During the three years ending with 1840, the average price of the best Odessa wheat, which, however, is inferior to English, was 34*s.* 6*d.* on the spot; and the better samples only are fitted for distant voyages, and for our markets. The crops for 1865 were generally bad and poor. Owing to the length and tediousness of the voyage from Odessa, and the risk of the grain heating on the passage, the charges attending its importation, including insurance &c., amount to from 14*s.* to 15*s.* per quarter. It is plain therefore, that the Odessa wheat brought to England during the above three years must, speaking generally, have cost the importer about 50*s.* per quarter, exclusive of profit; and, supposing the price of the best wheat in Odessa to be reduced under a system of free intercourse to from 25*s.* to 30*s.* per quarter (its price in 1849), it could not be sold in London for less than from 40*s.* to 45*s.* per quarter. And though in 1853 the imports of wheat from Southern Russia amounted to 818,930 quarters, they are usually much less. In 1857 they were only 409,469 quarters. Constantinople, Genoa, Marseilles, and other Mediterranean ports are the great markets for the wheat of the Black Sea.

The shipments of grain, other than wheat, from Odessa, are generally inconsiderable. In 1847, 240,390 quarters of rye were exported. Indian corn is raised in Bessarabia, but not in quantities to admit of any great exportation.

From Taganrog also the shipments of grain are very considerable, as is apparent from the following extract from a table given in Mr. Consul Carruthers' *Report* for 1866, which shows the exports of the 5 years ending with 1866:—

	1862	1863	1864	1865	1866
	qrs.	qrs.	qrs.	qrs.	qrs.
Wheat	1,058,962	1,019,157	933,295	961,346	1,185,888
Rye	121,761	29,651	1,551	4,733	91,952
Barley	115,161	10,199	5,153	16,218	70,341
Oats	—	—	13,121	13,952	75,588

For farther details as to the corn trade of Southern Russia, and of the countries on the Lower Danube, see the articles GALACZ; ODESSA; TAGANROG.

Both soft and hard wheat are exported from Odessa; but the former, which is by far the most abundant, is only brought to England. Despite the preference given to English wheat in this country, in the Mediterranean Odessa wheat is more esteemed, and fetches a higher price.

The hard wheat brought from the Black Sea comes principally from Taganrog. It is a very fine species of grain, being full 10 per cent. heavier than British wheat, with not more than half the bran: latterly, however, 'ghirka' or soft wheat has been exported both to France and this country, the price per quarter, free on board, being from 33*s.* to 34*s.* 9*d.* The hard wheat is used in Italy for making maccaroni and vermicelli, and things of that sort; very little of it has found its way to England.

The voyage from Odessa to Britain is of uncertain duration, but generally very long. It is essential to the importation of the wheat in a

good condition that it should be made during the winter months. When the voyage is made in summer, unless the wheat be very superior, and be shipped in exceedingly good order, it is almost sure to heat; and has sometimes, indeed, been injured to such a degree as to require to be dug from the hold with pickaxes. Unless, therefore, means be devised for lessening the risk of damage during the voyage, there is little reason to think that Odessa wheat will ever be largely imported in ordinary seasons into Britain. (See the evidence of J. H. Lander, Esq., and J. Schneider, Esq. before the Lords' Committee of 1827, on the price of foreign corn.) We subjoin a

Statement of the Probable Cost of Importing 2,000 *Chetwerts or* 1,453 *Quarters of Wheat from Odessa to London.* (1868.)

Charges in London	£	s.	d.	£	s.	d.	£	s.	d.
Insurance	78	7	6						
Policy duty	0	8	0						
				78	15	6			
Commission do. ½ per cent.									
Freight on 1,453 quarters wheat at 7s. per quarter	508	11	0						
Primage, 10 per cent.									
Gratification	10	10	0						
				519	1	0			
Charterparty, *ll.*; custom-house entries, 10s.				1	10	0			
Meurage, bilage, and lastage, 1s. 7d. per last				11	10	0			
Lighterage of 1,453 quarters at 1d.				24	4	4			
Landing, wharfage, housing, and delivering, at 9d.				54	9	8			
Rent, insurance, and turning, 4 weeks, at 3s. 6d. per 100 quarters per week				14	17	10			
Meurage &c. ex granary at 2d. per qr.				12	2	2			
Duty about 1s. 1d. per qr.				78	14	1			
				£795	4	7			
				Or per quarter			0	10	11
And in addition to the above, the charge for probable damage on the voyage may be estimated at 1s. per quarter							0	1	0
And the factorage in London at 1s. per quarter							0	1	0
							0	12	11

American Corn Trade.—The prices of wheat at New York and Philadelphia may be taken, at an average, at *from* 35*s.* to 40*s.* per quarter; and as the cost of importing a quarter of wheat from the United States into England amounts to from 10*s.* to 12*s.*, it is seen that no considerable supply could be obtained from thence, were our prices under 45*s.* or 50*s.* It should also be remarked that prices in America are usually higher than in the Baltic; so that but little can be brought from the former except when the demand is sufficient previously to take off the cheaper wheats of the Northern ports.

Formerly the exports of wheat from the United States were comparatively trifling; it being in the shape of flour that most of their exports of that grain were made. From the annexed table it will be seen that in 1863 upwards of 36,000,000 bushels of wheat were exported from the United States, and upwards of 4,000,000 barrels of wheat flour. The shipments of this important article from Baltimore, Philadelphia, New York, New Orleans, and other ports, have occasionally been very large, though down to 1839 they had been for some years rather decreasing. In a few instances, indeed, considerable quantities of corn and flour have been *sent from* Europe to the United States. In 1837, for example, 3,921,259 bushels of foreign wheat were imported into the United States, of which 792,675 bushels were from England. This, however, was a rare occurrence; and in years when there is at once an extraordinarily abundant crop in the States and an unusually large demand, the exports are very large, especially if prices in Europe be high. We subjoin an

Account showing the Quantities of Wheat, Wheat-Flour, Indian Corn, and Indian Meal Exported from the United States during the Years 1863–4, *specifying the Countries to which they were sent, and the Quantities and Values of the Supplies sent to each.*

Principal Articles	Principal Countries	1863 Quantities	1863 Value	1864 Quantities	1864 Value
			dollars		dollars
Wheat	Total bushels	36,160,414	46,754,195	23,681,712	31,458,133
	To United Kingdom ,,	27,329,739	36,732,807	18,078,989	24,542,831
	Canada and British North America ,,	6,585,095	6,927,126	4,116,543	5,006,830
Wheat Flour	Total barrels	4,380,035	28,586,069	3,557,347	25,588,249
	To United Kingdom ,,	1,791,196	11,971,908	979,754	6,877,196
	Canada and British North America ,,	994,544	5,923,919	865,086	5,886,596
	British West Indies ,,	400,987	2,689,199	427,177	3,154,548
	Brazil ,,	408,820	3,295,673	407,974	3,432,293
Indian Corn	Total bushels	16,119,476	10,592,704	4,096,694	3,355,780
	To United Kingdom ,,	10,782,707	7,967,559	2,248,801	1,647,365
	Canada and British North America ,,	4,585,881	1,744,377	1,307,175	1,080,042
Indian Meal	Total barrels	257,948	1,013,272	262,357	1,349,765
	To British West Indies ,,	174,552	643,261	127,990	659,744
	Canada and British North America ,,	83,902	311,750	48,347	233,603
	Total value	—	1,833,757	—	927,746
Rye and other small grains	To Mexico ,,	—	350,619	—	99,021
	Canada and British North America ,,	—	965,150	—	508,450
	United Kingdom ,,	—	254,945	—	165,186
	British West Indies ,,	—	135,228	—	119,055
	Bremen, Hamburg, and Zollverein ,,	—	129,035	—	86,035

It has been doubted whether this exportation can be maintained. Speaking generally, agriculture is little known as a science in any part of America, and but imperfectly understood as an art; and it could not rationally be expected that it should be otherwise. In all those countries in which, as in the greater part of America, portions of fertile and unoccupied land may be obtained for

little more than a nominal price, the invariable practice is, after clearing and breaking up a piece of land, to subject it to a course of continuous cropping; and when it is exhausted, to resort to some other tract of new ground, leaving that which has been abandoned to recover itself by the aid of the *vis medicatrix naturæ*! But in those parts of the Eastern or Atlantic States that have been long settled, and are fully occupied, this scourging system can no longer be advantageously followed: and there, consequently, a better system of agriculture has been introduced; and a rotation of crops, and the manuring of land, are practised sometimes with more and sometimes with less success. Still, it is certain that even in the best farmed districts agriculture is in a backward state; and, except where the land is naturally of a very superior quality, the produce is scanty indeed, compared with what is obtained in this country. In illustration of what is now stated we beg to subjoin an

Account of the Average Produce per Acre of the Corn Crops in the State of New York, as published in a Report by the 'State Agricultural Society,' in Contrast with what is believed to be the Produce of similar Crops in this Country.

Produce	New York	England
Wheat – bushels per acre	14	30 or 32
Barley " "	16	32
Oats " "	26	40
Indian corn " "	25	—

It results from this statement that the returns per acre are about twice as great in this country as in New York, which has some of the best corn growing land in the Union. In Ohio, which is supposed to be the most productive of all the States, the results are similar, the produce of wheat and barley in it being respectively 15¼ and 24 bushels per acre. It is true, no doubt, that these returns may be increased; but this can only be done by the employment of greater capital and skill in the culture of the land. And in the mean time the New York farmers and those of the other Atlantic States have to withstand the competition of their neighbours in the newly-formed States on the Missi-sippi and Missouri, where the best land is subjected to the scourging treatment already referred to. But in these States, though the land be cheap, the produce per acre is, in most cases, very small. In Michigan, for example, it appears, from a return published by the State Legislature in 1849, that the average produce of wheat per acre did not exceed 10⅗ bushels, being less than 9 bushels per acre when seed is deducted! It would further appear from the best attainable information on the subject, that if we take the produce of the new States generally at 15 or 16 bushels per imperial acre, we shall not be within but beyond the mark. And though it be very difficult and, perhaps, impossible, to anticipate with any degree of confidence what may be the ultimate result of this infertility, or in what degree it may be defeated or modified by future discoveries and improvements, we are, in the mean time, disposed to concur with Mr. Johnston in thinking that the wheat-producing powers of the United States have been much exaggerated; but we doubt whether it be possible to exaggerate their capacities for producing Indian corn. (*Notes on North America, Agricultural, Economical, and Social*, i. 172, ii. 334 &c.; see also Mr. Russell's work on *North America, its Agriculture and Climate*, pp. 92, 123, 129, 153 &c. The latter is the most important and valuable work that has hitherto appeared on that continent. The statements it embodies with regard to slavery have shed a new and powerful light on all that relates to that momentous and difficult subject.)

In the course of 20 years from this date (1868) the population of the Union will most likely amount to or exceed 60,000,000; and what with this enormous increase in the demand for corn, and the unwise treatment to which the land is subjected, the fears so generally entertained in regard to the injury to be inflicted on the agriculture of Europe, and especially on that of England, by the importation of American corn, have, perhaps, no good foundation. The importations of maize or Indian corn from America have decidedly increased, that for 1866 nearly reaching 7,000,000 of cwts.; the only other important source of supply being European Turkey, which furnished over 4,500,000 cwts. in the same year. The presumption is that it will rarely be imported in large quantities for food except when the potato is deficient, or to supply those who have no means of obtaining the higher-priced varieties of corn. But a great demand has arisen for it to be used in distilleries, and there seems a probability of a growing increase in the use of Indian corn for that purpose. In no other country can Indian corn be produced at less cost or with greater certainty than in the United States, and there is a far greater probability of a rapid increase in the importations of that grain to this country than of any other kind of corn. Chicago on Lake Michigan, from its ready means of communicating with the Mississippi and St. Lawrence, has naturally become the great storehouse of the western or corn-producing States of the Union. It contains huge warehouses capable of holding millions of bushels of grain, and its extraordinary advance in population is worthy of remark. In 1840 it had but 4,853 inhabitants; in 1860, 109,260; and now (1868) their number may be estimated at from 140,000 to 150,000.

All sorts of flour, whether made of wheat, rye, Indian corn &c., exported from the United States, must previously be submitted to the inspection of officers appointed for that purpose. The law further directs that the barrels in which it is shipped shall be of certain dimensions, and that each barrel shall contain 196 lbs. of flour, and each half barrel 98 lbs. The inspector, having ascertained that the barrels correspond with the regulations as to size, weights &c., decides as to the quality of the flour, and brands it accordingly. Flour for home consumption is not subjected to inspection. The inspection must take place at the time and place of exportation, under a penalty of 5 dols. per barrel. Persons altering or counterfeiting marks or brands forfeit 100 dols.; and persons putting fresh flour into barrels already marked or branded, or offering adulterated wheaten flour for sale, forfeit in either case 5 dols. for each barrel. Every barrel of wheaten flour imported is deemed equivalent to 38½ gallons of wheat, and, under the old law, was charged with a corresponding duty.

The usual price of wheat in Canada, when there is a demand for the English market, is about 30*s.* per quarter; and adding to this 10*s.* per quarter for the expenses of carriage and warehousing, it will make its price in Liverpool, when delivered to the consumer, 40*s.*; and being spring wheat, it is not so valuable by 5*s.* per quarter as English wheat.

Mr. Reuss (p. 120) gives the following pro formâ account of the expense of importing a cargo of 5,000 bushels of wheat from New York, supposing it to cost 1 dol. 12 cents per bushel:—

	£ s. d.	£ s. d.	Dollars
5,000 bushels, at 1 dol. 12 cents per bushel -			5,600·00
Winnowing, measuring, and delivery on board - - - -		150·000	
Brokerage, ½ per cent. - - -		28·000	
Insurance, 6,000 dols. at 1½ per cent. -		90·000	
			268·00
			5,868·00
Commission, 5 per cent.			293·40
			6,161·40
Exchange, 110 per cent.			£1,260 1 8
Freight, 125 tons at 15s. per ton	93 15 0		
Primage, 5 per cent.	4 13 9		
		98 8 9	
Entry, officer's fees and city dues -		1 10 0	
Metage from the ship at 2s. 8d. per last of 10 qrs. - - - -		6 18 4	
		117 7 1	

	£ s. d.	£ s. d.
Brought forward -	117 7 1	1,260 1 8
Petty charges, at 1s. per last of 10 qrs. -	2 12 0	
Lighterage and porterage to granary, 9d. per quarter - - -	19 10 0	
Granary rent and fire insurance, say, 4 weeks at 2s. per 100 qrs. per week -	2 2 0	
Turning, at 2s. per 100 quarters -	0 10 6	
Metage and porterage to the granary, at 4s. per 100 quarters - - -	10 8 0	
Do. do. from do., at 5s. per quarter -	11 16 8	
Postage and stamps - - -	1 7 0	
Factorage, 1s. per quarter - -	26 0 0	
Commission, 2½ per cent. } Guarantee, 1 „ } 4½ per cent.	63 0 11	
Interest, 1 „ }		214 4 2
		1,504 5 10
In London 105·06 quarters, Winchester measure, equal to 104 quarters Imperial.		
5,000 bushels, Winchester measure, equal to 604 quarters Imperial measure, costing 49s. 9½d. per quarter in bond - - - -		1,503 14 2

Inferences from the above Review of Prices.—We may, we think, satisfactorily conclude, from this pretty lengthened review of the state of the foreign corn trade, that now that all restrictions on importation are abolished, the price of foreign wheat of about the same quality as average English wheat will, in ordinary years, be about 45*s.* or 47*s.* per quarter. But supposing it were to fall so low as 40*s.*, it is easy to see that even the latter is a price at which agricultural improvements may be successfully carried on. The price of wheat in England, at an average of the ten years ending with 1820, was no less than 87*s.* 6*d.* per quarter; while its average prices during the ten years, and the five years ending with 1845, were respectively 57*s.* 11*d.* and 54*s.* 9*d.* per quarter. And yet, notwithstanding this tremendous fall of 32*s.* 9*d.* per quarter, an extraordinary improvement has taken place in agriculture since 1820, as is evinced by the fact of rents having risen greatly in the interval, and by our now providing for a very large additional population. And such having been the case, despite a fall of 32*s.* 9*d.*, it was childish to suppose that a farther fall of 12*s.* or even of 15*s.* per quarter in the average price of corn should have any very disastrous influence over agriculture. And in truth and reality improvements of all sorts have been more vigorously prosecuted since the final repeal of the corn laws in 1849 than at any former period. And there is nothing in our present condition, or in that of the countries whence we derive a portion of our supplies, to warrant the expectation that it will be otherwise in time to come.

We feel pretty confident that these statements cannot be successfully controverted. A great deal of uncertainty must, no doubt, always attach to prospective estimates of prices; but in as far as a conclusion may be drawn beforehand on such a subject, the landlords and farmers may dismiss their fears and apprehensions, if they entertain any, of ruin from a free trade in corn. They have triumphantly weathered far greater difficulties than there is any probability of its entailing upon them. Their prosperity does not depend on restrictive regulations, but is the effect of the fertility of the soil which belongs to them, of the absence of all oppressive feudal privileges, and of the number and wealth of the consumers of their produce. (For farther and full details with respect to the progress of agriculture since the peace, the rise of rent, and the influence of the depreciation of the currency on prices, see *Descriptive and Statistical Account of the British Empire*, 3rd ed. vol. i. pp. 550–557, and pp. 582–584.)

COTTON (Ger. baumwolle; Dutch, katoen, boomwol; Dan. bomuld: Swed. bomull; Fr. coton; Ital. cotone, bambagia; Span. algodon; Port. algodao; Russ. chlobtschataja bumaja; Pol. bawelna; Lat. gossypium, bombax; Arab. kutun; Sansc. kapasa; Hin. ruhi; Malay, kapas). A species of vegetable fibre, enveloping the seeds of the *Gossypium herbaceum*, or cotton shrub, of which there are many varieties. It is found growing naturally in all the tropical regions of Asia, Africa, and America, whence it has been transplanted, and has become a most important object of cultivation in the southern parts of the United States, and to some extent also in Europe.

Cotton is distinguished in commerce by its colour, but more especially by the length, strength, and fineness of its fibre. White is usually considered as characteristic of secondary quality. Yellow, or a yellowish tinge, when not the effect of accidental wetting or inclement seasons, is considered as indicating greater fineness.

There are many varieties of raw cotton in the market, their names being principally derived from the places whence they are brought. They are usually classed under the denominations of *long and short stapled*. The best of the first is the *sea-island* cotton, or that brought from South Carolina, Florida, and Georgia; but its qualities differ so much that the price of the finest specimens is often three times as great as that of the inferior. The superior samples of Brazil cotton are reckoned among the long-stapled. The cottons of the United States, with the exception of sea-island, belong to the short-stapled variety, as do those of India.

The estimation in which the principal kinds of cotton wool are held may be learned from the following statement of their prices in Liverpool in different years. The inferiority of Surat cotton is sometimes ascribed to the defective mode in which it is prepared; but a great authority, Mr. Horace H. Wilson, doubts whether it can be grown in India of a better kind.

Statement of the Extreme Prices of Cotton Wool at Liverpool, per lb., in 1810, 1830, 1845, 1850, 1855, 1858, *and* 1867.

Cotton	1810	1830	1845	1850	1855	1858	1867
	d. d.	d. d.	d. d.	d. d. d. d.	d. d. d. d.	d. d. d. d.	d. d.
Upland - -	11½ to 22½	7 to 7½	5 to 5½	5⅝ to 7½ 6⅝ to 8⅝	5⅜ to 6⅝ 5½ to 7½	5½ to 6⅞ 5½ to 8¼	16 to 8
New Orleans -	16½ 23½	8 9	7 8	8¼ 9 6⅝ 10	5⅜ 8 5½ 8½	5 7⅞ 4⅜ 9	15½ 7½
Sea Island -	26 38	18 20	30 30	9 20 11½ 20	8 30 10 31	9½ 26 10 30	13½ 7½
Pernambuco -	23 29	8 9½	6½ 8	6½ 7½ 8½ 9½	5⅝ 7½ 6½ 8½	6½ 8 8 9¼	—
Maranham -	20 27	7 8½	5½ 6	5½ 6½ 7½ 9½	5 7 5½ 8	6½ 8 7½ 9½	—
Egyptian - -	19½ 19	8½ 10	8½ 10	6 9 7½ 11	5 10 6 11	6 11½ 7 12	—
Surat - -	21½ 28	5½ 6	4 4	3¼ 5½ 4½ 6½	2 4½ 3 6	3 6¼ 5½ 6¼	—
Demerara -	—	8 10	6 6½	5 7 7 9	4½ 7½ 5½ 8½	5 8 5½ 8	—

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The manufacture of cotton has been carried on in Hindostan from the remotest antiquity. Herodotus mentions (iii. 106) that in India there are wild trees that produce a sort of wool superior to that of sheep, and that the natives dress themselves in cloth made of it. Similar statements are made by Strabo (lib. xv. sec. 10), Arrian (*Indic.* c. xvi.), and Mela (lib. iii. c. vii.). But though certainly referring to cotton, it is evident that the authors of these statements had no very distinct ideas either in regard to the wool itself or its manufacture. The latter obtained no footing worth mentioning in Europe till last century. The plant was, it appears, introduced into southern Europe before the conclusion of the thirteenth century, and the wool was used in the first instance for the manufacture of paper. Its employment for textile fabrics is, as far as Europe is concerned, of not much more than a century's growth.

1. *Rise and Progress of the British Cotton Manufacture.*—The rapid growth and prodigious magnitude of the cotton manufacture of Great Britain are, beyond all question, the most extraordinary phenomena in the history of industry. Our command of the finest wool naturally attracted our attention to the woollen manufacture, and paved the way for that superiority in it which we long since attained; but when we undertook the cotton manufacture, we had comparatively few facilities for its prosecution, and had to struggle with the greatest difficulties. The raw material was produced at an immense distance from our shores; and in Hindostan and China the inhabitants had arrived at such perfection in the arts of spinning and weaving, that the lightness and delicacy of their finest cloths emulated the web of the gossamer, and seemed to set competition at defiance. Such, however, has been the influence of the stupendous discoveries and inventions of Hargreaves, Arkwright, Crompton, Cartwright, and others, that we have overcome all these difficulties—that neither the extreme cheapness of labour in Hindostan, nor the excellence to which the natives had attained, has enabled them to withstand the competition of those who buy their cotton, and who, after carrying it 5,000 miles to be manufactured, carry back the goods to them. This is the greatest triumph of mechanical genius; and what perhaps is most extraordinary, our superiority is not the late result of a long series of successive discoveries and inventions: on the contrary, it has been accomplished in a very few years. Little more than a century has elapsed since the British cotton manufacture was in its infancy; and it *now* forms the principal business carried on in the country, affording an advantageous field for the accumulation and employment of millions upon millions of capital, and of thousands upon thousands of workmen! The skill and genius by which these astonishing results have been achieved have been one of the main sources of our power: they have contributed in no common degree to raise the British nation to the high and conspicuous place she now occupies. Nor is it too much to say that the wealth and energy derived from the cotton manufacture powerfully assisted in carrying us triumphantly through the tremendous struggle with revolutionary France, at the same time that it materially contributes to that strength by which we are able, without difficulty, to sustain burdens that would have crushed our fathers, and could not be supported by any other people.

The precise period when the manufacture was introduced into England is not known; but it is most probable that it was some time in the early part of the 17th century. The first authentic mention of it is made by Lewis Roberts, in his *Treasure of Traffic*, published in 1641, where it is stated: 'The town of Manchester, in Lancashire, must be also herein remembered, and worthily for their encouragement commended, who buy the yarne of the Irish in great quantity, and weaving it, returne the same again into Ireland to sell. Neither doth their industry rest here; for they buy cotton wool in London that comes first from Cyprus and Smyrna, and at home worke the same, and perfect it into fustians, vermillions, dimities, and other such stuffes, and then return it to London, where the same is vented and sold, and not seldom sent into foreign parts, who have means, at far easier termes, to provide themselves of the said first materials.' (Orig. ed. p. 32.) It is true, indeed, that mention is frequently made by previous writers, and in Acts of the Legislature passed at a much earlier period, of 'Manchester cottons,' 'cotton velvets,' 'fustians' &c.; but it is certain that these articles were *wholly composed of wool*, and had most probably been denominated cottons from their having been prepared in imitation of some of the cotton fabrics imported from India and Italy. In an Act of 5 & 6 Edw. VI. (1552), entitled 'For the true making of WOOLLEN cloth,' it is ordered, '*That all cottons called Manchester, Lancashire, and Cheshire cottons*, full wrought for sale, shall be in length' &c. This proves incontestably that what were then called cottons were made wholly of wool.

From the first introduction of the cotton manufacture into Great Britain down to 1773, the weft or transverse threads of the web, only, were of cotton; the warp, or longitudinal threads, consisting wholly of linen yarn, principally imported from Germany and Ireland. In the first stage of the manufacture the weavers, dispersed in cottages throughout the country, furnished themselves as well as they could with the warp and weft for their webs, and carried them to market when they were finished; but about 1760 a new system was introduced. The Manchester merchants began about that time to send agents into the country, who employed weavers, whom they supplied with foreign or Irish linen yarn for warp, and with raw cotton, which being carded and spun, by means of a common spindle or distaff, in the weaver's own family, was then used for weft. A system of domestic manufacture was thus established; the junior branches of the family being employed in the carding and spinning of the cotton, while its head was employed in weaving the linen and cotton yarn into cloth. This system, by relieving the weaver from the necessity of providing himself with linen yarn for warp and raw cotton for weft, and of seeking customers for his cloth when finished, and enabling him to prosecute his employment with greater regularity, was an obvious improvement on the system that had been previously followed; but it is at the same time clear that the impossibility of making any considerable division among the different branches of a manufacture so conducted, or of prosecuting them on a large scale, added to the interruption given to the proper business of the weavers by the necessity of attending to the cultivation of the patches of ground which they generally occupied, opposed invincible obstacles to its progress, so long as it was conducted in this mode.

It appears from the Custom House returns that the total quantity of cotton wool annually imported into Great Britain at an average of the *five* years ending with 1705 amounted to only 1,170,881 lbs. The accounts of the imports of cotton from 1705 to 1770 have been imperfectly preserved;

but until the last half-dozen years of that period the manufacture increased very slowly, and was of very trifling amount. Dr. Percival, of Manchester, who had the best means of being accurately informed on the subject, states that the entire value of the cotton goods manufactured in Great Britain, at the accession of George III. in 1760, was estimated to amount to only 200,000*l.* a-year, and the number of persons employed was quite inconsiderable; but in 1767 James Hargreaves, a carpenter of Blackburn in Lancashire, invented the *spinning jenny*. At first this admirable machine enabled *sixteen* to *thirty* threads to be spun with the same facility as one; and it was subsequently brought to such perfection, that a little girl was able to work no fewer than from *eighty* to *one hundred and twenty* spindles.

The jenny was applicable only to the spinning of cotton for weft, being unable to give to the yarn that degree of firmness and hardness which is required for the longitudinal threads or warp; but this deficiency was soon after supplied by the introduction of the *spinning-frame*—that wonderful piece of machinery which spins a vast number of threads of any degree of fineness and hardness, leaving to man merely to feed the machine with cotton, and to join the threads when they happen to break. It is not difficult to understand the principle on which this machine is constructed, and the mode of its operation. It consists of two pairs of rollers, turned by means of machinery. The lower roller of each pair is furrowed or fluted longitudinally, and the upper one is covered with leather, to make them take a hold of the cotton. If there were only one pair of rollers, it is clear that a carding of cotton passed between them would be drawn forward by the revolution of the rollers, but it would merely undergo a certain degree of compression from their action. No sooner, however, has the carding, or *roving* as it is technically termed, begun to pass through the first pair of rollers, than it is received by the second pair, which are made to revolve with (as the case may be) 3, 4, or 5 times the velocity of the first pair. By this admirable contrivance the roving is drawn out into a thread of the desired degree of tenuity; a twist being given to it by the adaptation of the spindle and fly of the common flax-wheel to the machinery. Arkwright gave his machine the name of 'water-frame.'

Such is the principle on which Sir Richard Arkwright constructed his famous spinning-frame. It is obvious that it is radically and completely different from the previous methods of spinning, either by the common hand-wheel or distaff, or by the jenny, which is only a modification of the common wheel. Spinning by rollers was an entirely original idea; and it is difficult which to admire most—the profound and fortunate sagacity which led to so great a discovery, or the consummate skill and address by which it was so speedily perfected and reduced to practice.

The question as to the merit of Arkwright as an original discoverer is still undecided. Recently, however, it has been ascertained that a patent for spinning by rollers, revolving with different degrees of velocity, was taken out by Messrs. Wyatt and Paul, so early as 1738. (*History of the Cotton Manufacture*, by Edward Baines, Esq.) But it does not appear that the inventors had been able to give effect to their happy idea, and all traces of the invention seem to have been lost. The statements in the case printed by Sir Richard Arkwright and his partners in 1782 show that he was aware of the attempts made in the reign of George II. to spin by machinery; but there is no evidence to prove that he was acquainted with the principle on which these attempts had been made, or that he had seen the patent referred to. The probability seems to be that he had. But admitting this to be the case, it detracts very little from the substantial merits of Sir Richard Arkwright. If the idea of spinning by rollers did not spring up spontaneously in his mind, he was, at all events, the first who made it available in practice, and showed how it might be rendered a most prolific source of wealth.

Since the dissolution of Sir Richard Arkwright's patent, in 1785, the progress of discovery and improvement in every department of the manufacture has been most rapid. The *mule-jenny*—so called from its being a compound of the jenny and the spinning-frame — invented by Mr. Crompton, and the *power-loom*, invented by the Rev. Mr. Cartwright, are machines that have had the most powerful influence over the manufacture; and in consequence of their introduction, and of innumerable other inventions and improvements, the prices of cotton cloth and yarn have gone on progressively diminishing. But as the demand for cottons has been, owing to their extraordinary cheapness, extended in a still greater degree, the value of the goods produced, and the number of persons employed in the manufacture, are now decidedly greater than at any previous period.

2. *Imports of Cotton Wool. Countries whence it is imported. Prices, Duties &c.*—The following Tables have been partly taken from official documents, and partly from the accounts of merchants of great experience. We believe they may be relied on as approaching as near to accuracy as it is possible to attain to in such matters.

Cotton Wool Imported into, Exported from, and Entered for Consumption in the United Kingdom, from 1820 *to* 1841, *stated in lbs.*

Year	Quantity Imported	Quantity Exported	Quantity Entered for Consumption
	lbs.	lbs.	lbs.
1820	151,672,655	6,076,036	152,829,633
1821	132,536,620	14,589,497	137,401,569
1822	142,837,628	18,267,776	143,428,187
1823	191,402,503	9,308,402	186,311,070
1824	149,380,122	13,299,305	141,038,743
1825	228,005,791	18,001,953	207,546,859
1826	177,607,401	24,474,920	162,889,012
1827	272,448,909	18,134,170	249,301,796
1828	227,760,642	17,398,776	208,987,744
1829	222,767,411	30,889,115	204,097,057
1830	263,961,152	8,534,976	269,616,640
1831	288,674,853	22,308,555	275,249,653
1832	286,832,525	19,027,940	259,121,463
1833	303,650,857	17,363,582	293,682,976
1834	326,875,425	24,461,965	302,935,857
1835	365,702,963	32,779,734	326,107,892
1836	406,959,037	31,759,763	361,641,231
1837	407,286,783	39,722,031	366,415,035
1838	507,850,577	50,644,469	455,016,735
1839	399,596,559	38,734,282	332,940,977
1840	592,488,010	38,673,229	528,142,743
1841	447,992,353	—	437,093,631

Cotton Wool Imported into, and Exported from, the United Kingdom, from 1853-67, *stated in cwts.*

Year	Quantity Imported	Quantity Exported	Year	Quantity Imported	Quantity Exported
	cwts.	cwts.		cwts.	cwts.
1853	7,993,560	1,526,515	1861	11,223,078	2,663,285
1854	7,922,617	1,161,126	1862	4,678,333	1,917,094
1855	7,962,071	1,110,430	1863	5,975,422	2,184,935
1856	9,141,842	1,309,472	1864	7,975,935	2,181,842
1857	8,634,633	1,177,925	1865	8,751,949	2,701,944
1858	9,235,198	1,335,800	1866	12,993,803	3,672,789
1859	10,946,331	1,563,778	1867	11,272,651	3,150,993
1860	12,419,096	2,235,970			

Previously to 1790 North America did not supply us with a single pound weight of raw cotton. A little had, indeed, been raised in some of the Southern States, for domestic use, before the revolutionary war, but the quantity was quite inconsiderable. In 1791 it began, for the first time, to be exported; the trifling quantity of 189,316 lbs.

having been shipped in the course of that year, and 138,328 lbs. in 1792. Such was the late and feeble beginning of the American cotton trade. There is nothing in the history of industry to compare with its subsequent increase unless it be the growth of the manufacture in this country.

Account of the Imports and Exports of Cotton Wool into and from Great Britain, from 1697 *to* 1819.

Year	Imports	Exports	Year	Imports	Exports
	lbs.	lbs.		lbs.	lbs.
1697	1,976,339	—	1794	24,336,567	1,349,950
1701	1,985,868	—	1795	26,401,340	1,193,737
1700 to 1705			1796	32,126,357	694,962
(Average)	1,170,881	—	1797	25,334,371	609,058
1710	715,008	—	1798	31,890,641	601,139
1720	1,972,805	—	1799	43,379,278	844,671
1730	1,515,172	—	1800	56,010,732	4,416,610
1741	1,64 ,031	—	1801	56,004,305	1,460,872
1751	2,976,610	—	1802	60,345,6 0	3,730,180
1764	5,870,392	—	1803	53,812,283	1,561,053
1771 to 1775			1804	6 ,867,329	503,171
(Average)	4,764,389	—	1805	59,6 ,106	804,243
1776 to 1785			1806	58,176,283	651,867
(Average)	6,766,613	—	1807	74,925,5 6	2,176,283
1781	5,198,778	96,788	1808	6 ,603,942	1,641,867
1782	11,828,059	421,229	1809	92,812,282	4,351,105
1783	9,735,663	177,626	1810	132,488,935	8,787,109
1784	11,482,083	201,845	1811	91,576,535	1,266,867
1785	18,400,384	407,496	1812	6 ,0 5,936	1,440,912
1786	19,475,020	325,153	1813	50,966,0 0	—
1787	23,250,268	1,075,381	1814	60,060,280	6,282,457
1788	20,467,456	853,146	1815	99,306,343	6,780,392
1789	32,576,023	297,857	1816	93,9 0,0 5	7,105,054
1790	31,447,605	844,154	1817	124,912,868	8,155,442
1791	28,706,675	363,442	1818	177,282,158	15,159,453
1792	31,907,497	1,485,465	1819	149,739,820	16,622,969
1793	19,040,929	1,171,566			

American cotton, which is of two kinds, is generally known by the names of *sea-island* and *upland*. The first, which is the finest cotton imported into Great Britain, grows on the small sandy islands and along the low sandy shores of South Carolina, Georgia, and Florida. It is long in the staple, of an even, silky texture, and is easily separated from the seed. Unluckily, it can be raised only in certain situations; so that its quantity is limited, and has not, in fact, been increased since 1805. The upland, of which the supply may be considered as unlimited, though of varying qualities, is all short-stapled; and its separation from the seed is so very difficult, that if it be done by the hand, the cotton is hardly worth the labour. This, however, was the only way in which it could be made available for home use, or exportation, previously to 1793; and had anyone then ventured to predict that 10,000,000 lbs. of upland cotton would ever be exported, he would have been looked upon as a visionary dreamer. But the genius of Eli Whitney did for the planters of the Southern States what the genius of Arkwright and Watt did for the manufacturers of England. He invented a machine by which the wool of the upland cotton is separated from the seed with the greatest facility and expedition, and by so doing laid the foundation of a new and most important branch of industry, and doubled the wealth and means of employment of his countrymen! (Pitkin's *Statistics of the United States*, p. 109, ed. 1835.) Whitney's invention came into operation in 1793; and in 1794, 1,601,760 lbs. and in 1795, 5,276,300 lbs. of cotton were exported. And so astonishing has been its growth in the interval, that the exports of cotton from the United States in 1858 amounted to the prodigious aggregate of 1,118,624,012 lbs.! of which only 12,101,058 lbs. were Sea-Island. The value of this vast quantity is estimated in the official accounts at 131,386,661 dols.! being nearly half the entire exports (293,758,279 dols.) of the United States during the same year.

Account specifying the Quantities of Cotton Wool Imported from different Countries into the United Kingdom during the 24 *Years ending with* 1866, *and the Total Quantities Imported.*

Years	United States of America	Brazil	The Mediterranean, including Egypt	British Possessions in the East Indies	British West Indies and British Guiana	Other parts	All parts
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1843	574,738,520	18,675,193	9,671,076	65,709,729	1,260,414	3,135,224	633,193,116
1844	547,218,632	21,081,744	12,106,327	88,639,776	1,707,194	5,054,641	616,111,304
1845	626,650,612	20,157,853	14,6 4,699	58,43 ,426	1,394,447	785,336	721,979,953
1846	401,949,593	14,746,3 1	14,278,447	34,540,143	1,201,857	1,140,113	467,856,271
1847	364,599,291	19,960,922	4,8 4,268	83,934,614	793,933	598,587	474,707,615
1848	600,247,488	19,971,378	7,231,961	84,101,961	640,457	877,036	713,070,161
1849	631,504,050	30,738,133	12,369,813	70,838,515	944,307	1,074,164	755,469,012
1850	495,153,112	30,299,992	18,931,414	118,872,712	928,913	2,090,698	663,576,861
1851	596,678,964	19,339,104	16,960,525	122,626,976	416,529	1,357,553	757,379,749
1852	765,630,544	26,506,144	48,058,140	84,922,432	703,696	3,960,992	929,782,448
1853	656,451,796	24,190,628	28,353,575	181,848,160	350,428	2,084,162	893,278,719
1854	722,154,101	19,705,600	25,503,005	119,836,009	409,110	1,730,081	887,333,904
1855	681,629,424	24,577,952	30,004,153	145,179,216	468,452	6,992,783	891,751,52
1856	780,040,016	21,830,704	34,616,848	180,496,624	462,784	6,339,128	1,023,886,304
1857	651,758,048	29,910,832	24,882,144	250,338,144	1,443,568	7,946,160	969,318,896
1858	831,237,776	18,617,872	38,232,240	132,722,576	367,808	11,118,032	1,034,312,176
1859	961,707,264	22,178,960	38,109,296	192,330,880	892,256	10,767,120	1,225,980,976
1860	1,115,890,608	17,286,864	44,036,608	204,141,168	464,800	8,503,680	1,390,918,752
1861	849,500,528	17,290,336	41,479,200	369,010,448	485,520	9,022,944	1,256,984,736
1862	13,524,224	23,339,008	65,238,320	392,654,528	724,736	17,022,656	525,973,296
1863	6,391,080	22,603,168	107,556,944	434,420,784	2,556,848	13,009,376	669,483,864
1864	14,144,064	38,017,504	147,089,488	506,527,392	1,723,264	16,581,040	893,504,720
1865	135,837,180	55,403,152	201,019,984	445,947,600	2,050,198	26,757,696	977,978,208
1866	580,057,440	68,522,496	128,754,080	611,218,384	3,640,352	44,777,184	1,377,129,936

It was for many years the practice to levy a duty on cotton wool when imported. The policy of such a duty is, however, very questionable; and it is indispensable that, if imposed at all, it should be kept at a low rate. For a number of years previously to 1831 it amounted (on foreign cotton) to 6 per cent. ad valorem; but, in order to make up, in part at least, for the loss of revenue caused by the repeal of the duty on printed cottons [CALICO], it was raised in that year to 5*s.* 10*d.* per cwt. Such a duty would have materially affected the imports of the inferior species of cotton and the price of coarse goods; and being, in consequence, justly objected to, it was reduced in 1833 to 2*s.* 11*d.* per cwt. But the imposition of any duty on the raw material of so important a manufacture being deemed objectionable, it was finally abolished in 1845. It had previously produced between 600,000*l.* and 700,000*l.* a-year.

The subjoined table shows in a very striking manner the progress of the manufacture in this country, and the fall in the price of cotton wool. The manufacture declined in 1847, but that was wholly owing to the decrease in the supplies of raw cotton from the United States in 1846–47, and the consequent rise in its price. The decline during the Civil War was still more remarkable.

We are glad to find that under 31 & 32 Vict. c. 33 (1868) provision is made for the collection and periodical publication by the Board of

Statement of the Imports into, the Exports from, and of the Consumption, Prices &c. of Cotton Wool in, Great Britain, in different Years, from 1825 to 1866, both inclusive.

Average Weekly Consumption	1825	1830	1835	1840	1845	1850	1855	1858	1866
Upland - - -	3,713	5,452	5,896	5,316	7,245	4,450	7,809	6,415	17,912
Orleans and Alabama - -	2,442	4,756	7,823	13,851	17,169	15,788	21,919	24,402	
Sea Island - - -	360	460	354	392	292	529	550	635	
Total United States -	6,515	10,668	14,073	19,592	24,804	20,767	30,278	31,452	
Brazil - - -	2,502	3,602	2,339	1,444	2,192	5,310	2,198	2,192	5,581
Egypt - - -	891	508	416	441	1,062	1,542	2,359	1,729	3,625
East India - - -	1,096	910	1,069	2,227	1,884	5,585	5,583	6,240	17,738
Demerara, West India &c. -	547	291	421	260	231	141	185	204	1,997
Total - - -	11,551	16,002	18,318	24,963	30,277	29,125	40,405	41,817	46,833
Packages annually consumed -	599,600	832,100	954,100	1,231,300	1,574,400	1,514,500	2,101,000	2,174,500	3,409,780
Average weight of packages consumed, in lbs. - -	278	298	333	367	385	388	399	417	376
Weekly consumption in packages, average 417 lbs. - -	9,788	13,311	14,996	21,175	27,955	27,099	38,858	41,817	42,486
Average weight of packages imported, in lbs. - -	270	300	331	365	386	392	396	420	362
Packages exported - -	72,800	53,100	102,900	119,700	122,800	271,800	316,900	348,700	1,156,563
Lbs. weight annually imported in millions and tenths -	242·1	261·2	361·7	583·4	716·3	685·6	901·1	1,025·5	1,356·9
Lbs. weight consumed in millions and tenths - -	166·8	247·6	318·1	456·9	606·6	588·2	839·1	903·6	915·7
Lbs. weight in ports, Dec. 31, in millions and tenths -	107·0	91·4	73·3	162·9	400·8	194·1	177·4	158·1	209·8
Lbs. weight in Great Britain, in millions and tenths -	115·5	118·8	89·6	207·0	453·5	291·6	208·9	189·9	45·1
Average price per lb. of Uplands in Liverpool - -	11·6d.	6·9d.	10½d.	6d.	4·375d.	7½d.	5¼d.	6¼d.	16½d.
Average price per lb. of Pernams in Liverpool - -	15·1d.	8¼d.	11·1d.	9¼d.	6·375d.	7¾d.	7d.	8¾d.	17½d.
Average price per lb. of Surats in Liverpool - -	8·9d.	5d.	7¼d.	4·625d.	3d.	5½d.	5¾d.	4¼d.	19d.

N.B.—Messrs. Holt and Co. estimate the average weight of the packages imported in 1858 at 426 lbs. per bag Upland; 452 lbs. Orleans and Alabama; 330 lbs. Sea Island; 181 lbs. Brazil; 355 lbs. Egyptian; 387 lbs. East Indian; and 180 lbs. West Indian. In 1866, according to Messrs. Ellison and Haywood, the average weight of bales was as follows:—American, 411 lbs.; Brazil, 174 lbs.; Egypt, 490 lbs.; Turkey, 340 lbs.; West India, 180 lbs.; Surat, 383 lbs.; Madras, 300 lbs.; Bengal, 295 lbs.; China and Japan, 326 lbs.

Trade of statistics as to the quantity of cotton imported into the United Kingdom, and the quantity removed by sea or land from and to, and held in stock at the several ports.

An Account of the Quantity of Cotton Exported from the United States in each Year from 1821 to 1861 (both inclusive) and in 1866–7; showing its Average Price per lb., and its Gross Value.

Year	Exports	Average Price per lb.	Total Value
	lbs.	cents	dols.
1821	127,893,405	16·2	20,157,484
1822	144,674,095	16·6	24,035,058
1823	173,723,270	11·5	20,445,380
1824	142,369,463	15·4	21,947,401
1825	176,449,907	20·9	36,846,649
1826	204,535,415	12·2	25,025,214
1827	294,310,115	10	29,359,545
1828	210,590,463	10·7	22,487,229
1829	261,937,186	10	26,577,511
1830	298,459,102	9·9	29,674,883
1831	276,979,784	9·1	25,289,492
1832	322,215,122	9·8	31,721,682
1833	324,198,604	11·1	36,191,105
1834	384,717,907	12·8	49,448,402
1835	387,338,992	16·8	64,961,302
1836	423,631,307	16·8	71,284,925
1837	441,211,537	14·2	63,340,102
1838	595,052,867	10·3	61,556,811
1839	413, 24,212	14·8	61,938,982
1840	743,941,061	8·8	65,670,307
1841	530,204,100	10·2	54,330,541
1842	684,717,017	8·1	47,593,464
1843	792,297,106	6·2	49,119,808
1844	863,033,153	8·1	54,063,501
1845	872,005,996	5·92	51,739,643
1846	847,558,055	7·81	42,767,341
1847	877,219,956	10·34	55,415,848
1848	814,254,431	7·613	61,998,294
1849	1,026,602,069	16·4	66,396,967
1850	635,301,601	11·3	71,984,616
1851	927,257,089	12·11	112,313,527
1852	1,003,230,659	8·05	87,963,732
1853	1,111,570,370	9·86	109,446,404
1854	987,857,106	9·47	93,596,220
1855	1,401,421,601	8·74	84,145,844
1856	1,351,431,701	9·49	128,282,351
1857	1,048,282,473	12·55	131,575,859
1858	1,118,624,212	11·70	131,386,661
1859	1,386 468,536	12·72	161,434,923
1860	1,767,686,338	10·85	191,806,555
1861	307,516,098	11·07	34,051,685
1866-7	686,660,814	27	185,398,419

3. *Proportion of Coarse to Fine Goods.*—During the 20 years ending with 1846 the cotton manufacture underwent a singular change in respect of the average fineness of its products. As successive improvements were made in the construction and management of machinery, and in the experience and manual skill of the work-people, the proportion of fine to coarse yarns and fabrics might have been expected to make a corresponding increase, whereas it was, on the contrary, very greatly diminished. During the period referred to the consumption of cotton increased nearly *fourfold*; but the quantity of fine yarn produced (i.e. of yarn above sixty hanks to the pound), instead of keeping pace with the increased consumption of cotton, really underwent a positive and by no means inconsiderable reduction. For a number of years no new establishments for the production of fine yarns were formed: but in Manchester alone about 20 mills that had been employed chiefly or entirely in fine spinning were given up, or devoted to the production of coarse yarns. To some extent, no doubt, the diminution of produce arising from this cause was countervailed by an increase in the speed of the machinery at work; but after making all reasonable allowances on that score, there can be no doubt that the total produce of fine yarn was materially decreased. This conclusion is strengthened by the falling off which took place in the imports of Sea Island cotton, which is used almost exclusively in the production of very fine yarn.

Account of the Produce of the Cotton Crops of the United States in the undermentioned Years, from 1827–8, downwards.

Year	Total Crop	Year	Total Crop	Year	Total Crop
	bales		bales		bales
1827–28	719,000	1844–45	2,394,503	1856–57	2,939,519
1830–31	1,038,848	1845–46	2,100,537	1857–58	3,113,962
1834–35	1,254,328	1846–47	1,778,651	1859–60	4,669,770
1835–36	1,360,725	1847–48	2,347,634	1860–61	3,656,086
1836–37	1,422,930	1848–49	2,728,596	*1861–62	4,000,000
1837–38	1,801,497	1849–50	2,096,706	*1862–63	1,500,000
1838–39	1,360,532	1850–51	2,355,257	*1863–64	500,000
1839–40	2,177,835	1851–52	3,015,029	*1864–65	300,000
1840–41	1,634,945	1852–53	3,262,882	1865–66	2,154,476
1841–42	1,683,574	1853–54	2,930,097	1866–67	1,991,985
1842–43	2,378,875	1854–55	2,847,785		
1843–44	2,030,409	1855–56	3,527,845		

* Estimates.

This change in the average fineness of cotton fabrics could not be ascribed to foreign competition, for fine spinning is precisely that branch of the trade in which English cotton-spinners most

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excel their rivals abroad; and the tariffs of most foreign countries are framed in the view of excluding coarse rather than fine fabrics. It was sometimes attributed to one of those capricious changes of taste and fashion which frequently operate disadvantageously on particular manufacturing pursuits; but it was too long in operation, and proceeded too gradually and uniformly, to be so accounted for; and it is abundantly certain that powerful natural causes must have been in operation, otherwise so extensive an alteration could not have been brought about in the average fineness of the yarn produced. These causes are by no means obvious; but we incline to think that the reduction which has taken place in the price of silk, and still more the prodigious improvements which have been made in various descriptions of worsted fabrics, have had no inconsiderable influence in lessening the demand for fine cottons. The main cause, however, will, no doubt, be found in the great reduction which took place in the price of raw cotton during the 10 years ending with 1846, and the consequent greater cheapness of stout and serviceable fabrics. And this conclusion has been fully verified by the circumstances under which the trade has been placed since 1846. The supplies of cotton in 1847 and 1850 were at once deficient in quantity and high-priced. The cost of the heavier fabrics, which contain comparatively large quantities of cotton, consequently rose in a nearly corresponding proportion. The spinners endeavoured to obviate these effects, partly by ceasing to produce some of the coarsest fabrics, and partly by generally increasing the fineness of their yarn; and it is astonishing to what an extent they are thus able to countervail a rise of prices. It is found, in fact, that an advance of 1*d.* per pound in the price of the material speedily and invariably causes an increase of 2 or 3 hanks in the average produce and fineness of the yarn per pound.

4. *Value of the British Cotton Manufacture at different periods. Amount of Capital and Number of Persons employed in it.*—It would be very desirable to be able to form a tolerably accurate estimate of the present value of the cotton manufacture, and of the number of persons employed in its different departments; but the data on which such estimates are founded being necessarily very loose, it is impossible to arrive at anything like precision. Perhaps, however, the following calculations may not be very wide of the mark.

In 1817 Mr. Kennedy, a well-informed manufacturer, in a paper published in the *Manchester Transactions*, estimated the number of persons employed in the *spinning* of cotton in Great Britain at 110,763; the aid they derived from steam engines as equal to the power of 20,768 horses; and the number of spindles in motion at 6,645,833. Mr. Kennedy further estimated the number of hanks of yarn annually produced at 3,987,500,000, and the quantity of coal consumed in their production at 500,479 tons. We subjoin Mr. Kennedy's statement for the year 1817:—

	lbs.	lbs.
Raw cotton converted into yarn in the United Kingdom	110,000,000	
Loss in spinning estimated at 1½ oz. per lb.	10,312,500	
Quantity of yarn produced		99,678,500
Number of hanks, taking the average at 40 per lb.		3,987,500,000
Number of spindles employed, each spindle being supposed to produce 2 hanks per day, at 300 working days in the year		6,645,833
Number of persons employed in spinning, supposing each to produce 120 hanks per day		110,763
Horse power employed, equal in number to		20,768

4½ oz. of coal estimated to produce 1 hank of No. 40; and 130 lbs. of coal per day equal to 1 horse power.

But the cotton manufacture has increased immensely since 1817. Mr. Huskisson stated in his place in the House of Commons, in March 1824, that the total value of the cotton goods and yarn then annually manufactured in Great Britain amounted to 33,500,000*l.* sterling! But there can be no manner of doubt that this estimate was greatly overrated; and we do not think we should be warranted in estimating the whole annual value of the products in question in 1857 and 1858 at much more than 52,000,000*l.* sterling. If, indeed, we took the increase in the imports of the raw material as any test of the increase in the value of the manufacture, we should estimate it a great deal higher. But the improvements that have been made in the different processes, and the fall in the normal price of raw cotton—for the prices produced by the cotton famine must, while we are taking a general view, be held to be quite exceptional—have had so powerful an influence in reducing the price of the goods brought to market, that, notwithstanding the increase of their quantity, it is probable that their total value has increased but little for a considerable time past. It would appear from the annexed table (IV.) that the value of the total exports of cotton manufactures and yarn amounted in 1867 to 70,843,692*l.*

Value in 1858.—In the last edition we offered the following statement: The average annual quantity of cotton wool imported, after deducting the exports, may be taken at about 850,000,000 lbs. weight. It is supposed that of this quantity about 100,000,000 lbs. are used in a raw or half-manufactured state, leaving a balance of 750,000,000 lbs. for the purposes of manufacturing, the cost of which may be taken, at an average, at 6*d.* per lb. Deducting, therefore, from the total value of the manufactured goods, or 52,000,000*l.*, the value of the raw material, amounting to about 18,750,000*l.*, there remains 33,250,000*l.*; which, of course, forms the fund whence the wages of the persons employed in the various departments of the manufacture, the profits of the capitalists, the sums required to repair the wear and tear of buildings, machinery &c., the expense of coals, oil, flour for dressing &c. must all be derived. If, then, we had any means of ascertaining how this fund is distributed, we should be able, by taking the average of wages and profits, to form a pretty accurate estimate of the number of labourers and the quantity of capital employed. But here, unfortunately, we have only probabilities and analogies to guide us. It may, however, be confidently assumed, in the first place, that in consequence of the extensive employment of highly valuable machinery in all the departments of the cotton manufacture, the proportion which the profits of capital, and the sum to be set aside to replace its wear and tear, bear to the whole value of the manufacture, must be much larger than in almost any other department of industry. We have heard this proportion variously estimated, at from ½ to ¾ of the total value of the manufactured goods, exclusive of the raw material; and as the weight of authority seems to be pretty much divided on the subject, we shall take an intermediate proportion. Assuming, therefore, that the profits of the capital employed in the cotton manufacture, the wages of superintendence &c., the sum required to replace the wear and tear of machinery, buildings &c., and to furnish flour, coals &c., amount together to ½ the value of the manufactured goods, exclusive of the raw material, or to 16,625,000*l.*, a sum of 16,625,000*l.* will remain as the wages of the spinners, weavers, bleachers &c. engaged in the manufacture; and taking, inasmuch as a large proportion of women, and children under 18 years of age, are employed, the average rate of wages at only 32*l.* a-year, we

shall have (dividing 16,625,000 by 32) nearly 520,000 as the total number of persons directly employed in the different departments of the manufacture.

We should mistake, however, if we supposed that this number, great as it certainly is, comprised the whole number of persons to whom the cotton manufacture furnishes subsistence, exclusive of the capitalists. Of the sum of 16,625,000*l.* set apart as the profit of the capitalists, and the sum required to furnish coal, and to defray the wear and tear of machinery &c., a large proportion must annually be laid out in paying the wages of engineers, machine-makers, iron-founders, smiths, miners, masons, bricklayers &c. It is not easy to say what this proportion may amount to; but taking it at 3,000,000*l.*, and supposing the rate of wages of each individual to average 50*l.* a-year, the total number employed in the various capacities alluded to will be (3,000,000 divided by 50) 60,000; and a sum of 13,625,000*l.* will remain to cover the profits of the capital employed in the various branches of the manufacture, to repair the different parts of the machinery and buildings as they wear out, and to buy coal, flour, drugs &c. This is a *much more* important item than might be at first supposed. Flour is indispensable in the dressing of webs; and we are well assured that its consumption in this way is not less than 300,000 barrels a-year! The account will, therefore, stand as under:—

	£	£
Total value of every description of cotton goods annually manufactured in Great Britain		52,000,000
Raw material, 750,000,000 lbs. at 6*d.* per lb.	18,750,000	
Wages of 320,000 weavers, spinners, bleachers &c. at 52*l.* a-year each	16,625,000	
Wages of 60,000 engineers, machine makers, smiths, masons, joiners &c. at 50*l.* a-year each	3,000,000	
Profits of the manufacturers, wages of superintendence, sums to purchase the materials of machinery, coals &c.	13,625,000	
		52,000,000
The capital employed may be estimated as follows:—		
Capital employed in the purchase of the raw material		4,000,000
payment of wages		8,000,000
vested in spinning mills, power and hand-looms, workshops, warehouses, stocks on hand &c.		40,000,000
		£52,000,000

Now, this sum of 52,000,000*l.*, supposing the interest of capital, inclusive of the wages of superintendence &c., to amount to 10 per cent., will yield a sum of 5,200,000*l.*; which being deducted from the 13,625,000*l.* profits &c., leaves 8,425,000*l.* to defray the waste of capital, the flour required for dressing, the coals necessary in the employment of the steam engines, to effect insurances, to purchase printing, dyeing, and bleaching drugs, and to meet all other outgoings.

The aggregate amount of wages, according to the above estimate, is 19,625,000*l.*; but there are not many departments of the business in which wages have to be advanced more than 6 months before the article is sold. We therefore incline to think that 8,000,000*l.* is a sufficient (perhaps too great) allowance for the capital employed in the payment of wages.

It may be said by some that this estimate is under, and by others that it is overrated; but we believe it will be found to be nearly correct, though, if anything, it may, perhaps, be a little in excess. Misled by Mr. Huskisson's authority, we estimated, in a former edition of this work, the value of the cotton stuffs and yarn produced in the United Kingdom in 1834, at 34,000,000*l.*; but farther enquiry has convinced us that that estimate was beyond the mark; and it is to be borne in mind, that though the consumption of raw cotton has vastly increased since 1834, there has been in the interval a very considerable fall in its price, and in the prices of the manufactured articles. The declared value of the cotton goods and yarn exported in 1857 amounted to 39,073,420*l.*; and deducting this sum from the assumed value of the manufacture (52,000,000*l.*), we have 13,000,000*l.* for the value of the cottons consumed at home. And we are inclined to think that this is pretty near the mark. It has been said that the value of the home consumption does not amount to ¼ of the exports; and though, if we refer only to the weight of cotton exported and retained at home, this assertion may be nearly correct, it is to be borne in mind that the great bulk of the goods for home use are of a superior fabric, and more costly than those sent abroad. On the whole, therefore, we are disposed to believe that in estimating the present (1858) value of the products of the British cotton manufacture at 52,000,000*l.* a-year, which leaves 13,000,000*l.* for the value of those consumed at home, we shall not commit any very serious error; and moderate as this estimate may appear, as compared with others put forth on the same subject, it strikingly evinces the value and importance of the manufacture. Mr. Bazley, M.P., of Manchester, estimated (in a paper read before the British Association in 1858) the value of the cottons consumed at home at 24,000,000*l.*, making the entire value of the manufacture 63,000,000*l.* or 64,000,000*l.* But, despite the deference due to such an authority, we have no doubt that this in 1858 was a great exaggeration.

We borrow from a circular of Messrs. Dufay and Co., of Manchester, one of the most valuable published in the empire, the following statements in regard to the cotton trade of this and other countries.

I. *Estimate of the Quantities of Raw Cotton consumed in the chief Manufacturing Countries from 1850 to 1857 inclusive.*

Countries	1850	1852	1853	1854	1855	1856	1857
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Great Britain	584,000,000	745,000,000	734,000,000	780,000,000	835,000,000	920,000,000	786,000,000
Russia, Germany, Holland, and Belgium	133,000,000	172,000,000	185,000,000	190,000,000	144,000,000	256,000,000	209,000,000
France	142,000,000	199,000,000	191,000,000	201,000,000	191,000,000	211,000,000	179,000,000
Spain	29,000,000	44,000,000	42,000,000	43,000,000	45,000,000	48,000,000	36,000,000
Countries bordering on the Adriatic	45,000,000	35,000,000	45,000,000	45,000,000	34,000,000	39,000,000	30,000,000
United States of North America	185,000,000	237,000,000	265,000,000	243,000,000	236,000,000	265,000,000	281,000,000
Sundries, Mediterranean &c.	—	29,000,000	58,000,000	57,000,000	69,000,000	56,000,000	36,000,000
Total	1,132,000,000	1,481,000,000	1,503,000,000	1,539,000,000	1,553,000,000	1,795,000,000	1,557,000,000

It is seen from this table that Great Britain continued to maintain her customary ascendancy in this department with little variation from 1850 to 1857. In truth and reality, however, our progress was a good deal greater in that period than it appears to have been from the above statement, for the object of our manufacturers of late years has very generally been to produce better and more valuable goods, leaving to others to produce those of a coarser description, requiring a larger quantity of the raw material in proportion to their value.

Annexed is a table stating the average annual consumption of cotton in bales and lbs., and the quantities derived from each source of supply, during the four quinquennial periods from 1846 to 1865.

II. *Consumption of Cotton in Europe, and Sources whence the Supplies were derived.*

	1846-50	1851-55	1856-60	1861-65	1846-50	1851-55	1856-60	1861-65
Consumption.	bales	bales	bales	bales	lbs.	lbs.	lbs.	lbs.
Great Britain -	1,[illegible]000	1,895,000	2,285,000	1,669,000	569,[illegible]000	750,100,000	947,500,000	689,000,000
France -	55[illegible]000	442,000	527,000	460,000	142,[illegible]000	178,000,000	225,500,000	184,500,000
Rest of Europe -	421,000	698,000	963,000	736,000	156,000,000	273,300,000	401,900,000	276,100,000
Total -	2,231,000	3,035,000	3,756,000	2,865,000	870,200,000	1,201,500,000	1,574,700,000	1,075,000,000
Sources of Supply:								
America -	1,711,000	2,290,000	2,865,000	793,000	723,700,000	973,300,000	1,274,900,000	368,000,000
Brazil - -	131,000	149,000	153,000	201,000	23,800,000	27,100,000	27,700,000	34,800,000
West India &c. -	30,000	30,000	35,000	73,000	6,300,000	6,300,000	7,200,000	14,100,000
East India &c. -	233,000	356,000	540,000	1,390,000	86,700,000	134,800,000	207,900,000	491,800,000
Egypt &c. -	126,000	211,000	163,000	418,000	29,700,000	60,000,000	57,000,000	165,300,000
Total -	2,231,000	3,035,000	3,756,000	2,865,000	870,200,000	1,201,500,000	1,574,700,000	1,075,000,000

Value in 1866-7.—Messrs. Ellison and Haywood, the well-known cotton brokers of Liverpool, have made, for the years 1859–66, the following calculations as the value of the British cotton manufacture. These calculations are based upon tolerably certain elements. We know the cost of all the cotton imported. We know the value of all the yarn and piece goods exported. The proportion of waste to raw material is a matter of easy estimate with those who are familiar with the quality of different staples. Nor is it difficult to arrive at a very close estimate of the home consumption. The weight of exports is known, the loss in manufacture can be ascertained, and the remainder must, on an average of years, represent the home consumption.

III. *An Estimate of the Weight and Value of the Total Production of Cotton Manufactures in Great Britain, with the Cost of Production, and the Balance Remaining for Interest of Capital and Profits, for the Years* 1859–66.

	1859	1860	1861	1862	1863	1864	1865	1866
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Cotton consumed - -	977,635,000	1,079,321,000	1,005,177,000	449,821,000	476,445,000	561,196,000	718,651,000	890,721,000
Less waste in spinning -	102,651,000	113, 28,000	105,[illegible]000	76,469,000	71,466,000	78,567,000	100,611,000	115,793,000
Yarn produced - -	874,984,000	965,993,000	899,902,000	373,352,000	404,979,000	482,629,000	618,040,000	774,928,000
Exported in yarn - -	199,[illegible]06,000	197,143,000	177,[illegible]48,000	88,551,000	70,[illegible]76,000	71,951,000	98,563,000	134,589,000
Ditto, piece goods, apparel &c. -	500,866,000	542,770,000	496,284,000	324,128,000	321,561,000	332,018,000	377,357,000	490,713,000
Retained for home consumption and stock - - -	181,910,000	225,840,000	225,770,000	39,330,000	12,740,000	78,630,000	142,120,000	149,626,000
Total produced - -	874,984,000	965,993,000	899,902,000	3[illegible],330,000	404,979,000	482,629,000	618,040,000	774,928,000
	£	£	£	£	£	£	£	£
Declared value of yarn exported	9,[illegible]18,000	9,670,000	9,[illegible]97,000	7,523,000	8,679,000	9,167,000	10,351,000	13,598,000
Ditto, piece goods, apparel &c. exported - - -	43,059,000	46,218,000	41,514,000	38,616,000	49,016,000	53,100,000	51,005,000	66,145,000
Estimated value of home consumption &c. - -	19,706,000	24,170,000	23,525,000	3,413,000	2,070,000	13,710,000	21,910,000	23,020,000
Total value of goods produced	72,[illegible]25,000	80,[illegible]58,000	74,551,000	49,[illegible]26,000	59,795,000	76,307,000	83,266,000	102,763,000
Cost of cotton consumed -	27,577,000	28,910,000	32,205,000	26,734,000	40,689,000	5[illegible],462,000	47,257,000	51,958,000
Paid in wages and other expenses - - -	30,330,000	33,600,000	31,360,000	14,520,000	13,690,000	18,680,000	23,850,000	31,[illegible]80,000
Total expenditure - -	57,907,000	62,510,000	63,565,000	41,[illegible]54,000	54,379,000	71,142,000	71,107,000	83,216,000
Balance left for interest of capital and profits - - -	14,316,000	18,078,000	10,766,000	1,472,000	3,416,000	5,165,000	12,159,000	19,547,000

Allowance being made for old and infirm persons, children &c., dependent on those actually employed in the various departments of the cotton manufacture, and in the construction, repair &c. of machinery and buildings required to carry it on, it must furnish, on the above hypothesis, subsistence for from 1,000,000 to 1,200,000 persons! And for this new and most prolific source of wealth we are indebted partly and principally, as already shown, to the extraordinary genius and talent of a few individuals; but in a great degree, also, to that security of property and freedom of industry which give confidence and energy to all who embark in industrious undertakings, and to that universal diffusion of intelligence which enables those who carry on any work to press every power of nature into their service, and to avail themselves of productive capacities of which a less instructed people would be wholly ignorant.

The effect that the sudden opening of so vast and profitable a field for the employment of capital and labour has had on the population of the different towns of Lancashire and Lanarkshire, the districts where the cotton manufacture is principally carried on, has been most striking. In 1774, for example, the townships of Manchester and Salford were estimated to contain 27,246 inhabitants—a number which was swelled in 1831 to 182,812; the entire population of the *boroughs* of Manchester and Salford having amounted in that year to 227,808, and in 1861 to 460,428. The population of Preston, in 1780, is said not to have exceeded 6,000; whereas it amounted in 1861 to 82,985. In like manner the population of Blackburn increased from 11,980 in 1801, to 63,126 in 1861; that of Bolton increased in the same period from 17,416 to 70,395; that of Wigan from 10,989 to 37,658 &c. But the progress of Liverpool is most extraordinary, and can be matched only by the progress of one or two cities in the United States. Liverpool is not properly one of the seats of the cotton manufacture; but she is, notwithstanding, mainly indebted to it for the unparalleled rapidity of her growth. She is the grand emporium of the cotton district—the port where almost all the raw cotton, and the various foreign articles required for the employment and subsistence of the persons engaged in the manufacture, are imported, and whence the finished goods are exported to other countries. She has, therefore, become a place of vast trade, and is now, in that respect, superior even to London. In 1700, according to the best accounts that can be obtained, the population of Liverpool amounted to only 5,145; in 1750 it had increased

to 18,450; in 1770 it amounted to 34,050. The cotton manufacture now began rapidly to extend, and, in consequence, the population of Liverpool increased, in 1801, to 77,653; in 1811, to 118,972; in 1831, to 165,175; in 1851, to 375,955; and in 1861, to 443,938. The progress of population in Lanarkshire and Renfrewshire has been equally striking. In 1780 the city of Glasgow contained only 42,832 inhabitants; in 1801 that number had increased to 77,385; in 1841 to 274,533; in 1851 to 347,001; and in 1861 to 394,864.

Though command of power and readiness of access be powerful requisites to the success of most manufactures, the localities in which peculiar businesses are established would seem to depend as much on accident as on anything else. Why, for example, should Manchester be the great seat of the cotton, Birmingham of the hardware, Bradford of the worsted, and Leeds of the cloth trade? We apprehend that no better answer can be given to this question than that, from accidental or inappreciable circumstances, the businesses referred to happened to be early established in these towns, and that their situation having been found to be peculiarly well fitted for the improved processes of later times, they have preserved their early superiority. Had they been situated in districts without coal, or comparatively inaccessible, their early proficiency, though it might have enabled them to struggle for a while with the greater advantages enjoyed by their competitors in other districts, would not have been sufficient to secure their continued lead, or even existence. They must, like the iron works which were formerly carried on in Kent, have been in the end abanuoned. But having the good fortune to possess, in addition to early and peculiar skill in their respective trades, all the means and appliances required to secure their farther advancement, their progress has been continuous and extraordinary, and their supremacy is at present more undisputed than at any former period.

Of 2,046 cotton factories which existed in England and Wales in 1856, no fewer than 1,480 were situated in Lancashire; Manchester being the metropolis of the trade. The remaining factories were principally situated in the West Riding of Yorkshire, Cheshire, and Derbyshire.

The cotton trade of Scotland, which at the epoch referred to had 152 factories, is mostly restricted to the counties of Lanark and Renfrew, and that of Ireland (which is trifling) to Antrim. But while the business has of late years been very greatly extended in England, it has been nearly stationary in Scotland, and has fallen off in Ireland, in which, indeed, it never had any considerable footing.

IV. *Account of the Total Quantities and Declared Values of British Cotton Manufactured Goods, Twist, and Yarn exported from the United Kingdom in each Year from* 1820 *to* 1867, *both inclusive.*

Year	Cotton Manufactures			Cotton Twist and Yarn		Total Declared Value of Cotton Manufactures, Twist, and Yarn Exported
	Entered by the Yard		Hosiery, Lace, and Small Wares	Quantities	Declared Value	
	Quantities	Declared Value	Declared Value			
	yards	£	£	lbs.	£	£
1820	250,956,541	13,209,070	498,111	23,032,385	2,826,643	16,535,754
1821	266,493,901	13,192,901	623,803	21,396,340	2,301,830	16,172,537
1822	304,479,691	13,853,951	721,742	26,[illegible],164	2,807,590	17,383,283
1823	301,816,854	12,980,544	718,121	27,378,986	2,625,947	16,324,715
1824	344,651,133	14,448,255	866,886	33,[illegible],510	3,133,396	18,450,537
1825	336,476,698	11,375,010	920,260	34,441,693	3,206,729	18,309,999
1826	297,060,534	9,486,623	735,791	42,179,661	3,491,538	14,093,952
1827	365,498,844	12,948,535	1,146,988	44,878,[illegible]74	3,543,578	17,640,601
1828	363,328,431	12,483,249	1,165,765	50,305,251	3,593,426	17,444,417
1829	402,517,196	12,816,947	1,091,885	61,441,891	3,976,474	17,875,306
1830	441,578,498	14,419,770	1,175,153	64,645,542	4,135,741	19,729,664
1831	471,385,503	12,167,515	1,118,672	63,821,410	3,973,019	17,257,206
1832	461,045,303	11,580,670	1,173,903	75,967,150	4,732,759	17,508,332
1833	496,352,096	12,451,000	1,351,317	76,[illegible],161	4,704,024	18,486,101
1834	555,705,809	14,173,572	1,175,210	78,479,[illegible]19	5,211,015	20,513,366
1835	557,515,701	15,181,451	1,249,284	81,[illegible]14,198	5,708,589	22,139,504
1836	637,657,627	17,185,167	1,328,925	88,[illegible]97,046	6,120,366	24,632,458
1837	521,373,663	12,777,089	912,192	103,[illegible]46,138	6,935,942	20,626,123
1838	690,077,672	15,551,735	1,161,124	114,[illegible]66,602	7,431,869	24,147,726
1839	731,450,125	16,378,145	1,315,737	105,686,442	6,858,193	24,552,075
1840	790,631,397	16,359,220	1,267,990	118,470,223	7,101,[illegible]08	24,668,6[illegible]8
1841	731,179,624	14,982,870	1,246,200	125,[illegible]6,[illegible]19	7,[illegible]96,[illegible]63	23,499,[illegible]76
1842	734,098,809	12,887,220	1,020,664	137,[illegible]66,892	7,771,464	21,679,48
1843	918,640,205	15,168,164	1,085,536	140,321,176	7,191,971	23,447,971
1844	1,046,670,825	17,672,146	1,201,618	138,510,079	6,988,384	25,862,148
1845	1,091,686,069	18,029,808	1,126,288	135,144,865	6,963,235	26,119,331
1846	1,065,460,589	16,701,852	1,018,146	161,[illegible]82,750	7,[illegible]82,048	25,[illegible]99,876
1847	942,940,160	15,[illegible]98,105	1,169,111	120,[illegible]70,711	5,947,980	23,[illegible]15,921
1848	1,098,751,825	15,710,837	1,047,512	135,[illegible]51,462	5,927,831	22,[illegible]81,980
1849	1,337,586,116	18,794,964	1,271,082	146,[illegible]02,281	6,704,[illegible]9	26,[illegible]76,155
1850	1,558,182,941	20,550,635	1,345,262	131,[illegible]70,568	6,383,[illegible]04	28,[illegible]97,101
1851	1,543,161,789	22,049,[illegible]72	1,405,[illegible]08	131,587,577	6,654,026	30,[illegible]08,836
1852	1,594,856,914	21,618,458	1,571,974	129,[illegible]85,924	6,654,645	29,[illegible]78,087
1853	1,594,951,659	23,[illegible]9,[illegible]40	1,[illegible]98,[illegible]89	139,190,507	6,[illegible]05,635	3[illegible],[illegible]48,[illegible]92
1854	1,692,899,122	25,481,[illegible]96	1,[illegible]57,[illegible]72	147,[illegible]88,[illegible]98	6,691,[illegible]30	31,[illegible]15,[illegible]58
1855	1,977,751,075	26,[illegible]65,477	1,[illegible]35,[illegible]67	165,[illegible]93,[illegible]98	7,[illegible]98,[illegible]95	3[illegible],[illegible]79,141
1856	2,035,974,969	28,921,[illegible]59	1,[illegible]82,[illegible]07	181,[illegible]95,[illegible]05	8,[illegible]28,[illegible]75	38,[illegible]36,[illegible]41
1857	1,979,270,740	28,[illegible]86,646	1,[illegible]85,[illegible]85	176,[illegible]21,338	8,[illegible]00,[illegible]89	39,[illegible]3,[illegible]40
1858	2,324,159,085	32,[illegible]8,[illegible]14	1,[illegible]79,[illegible]29	200,[illegible]16,[illegible]02	9,[illegible]79,479	45,[illegible]01,[illegible]92
1859	2,502,945,476	37,[illegible]3,[illegible]38	1,[illegible]07,[illegible]75	19[illegible],[illegible]06,643	9,158,112	48,[illegible]92,[illegible]25
1860	2,776,[illegible]8,427	40,[illegible]16,[illegible]47	1,[illegible]79,[illegible]63	197,[illegible]43,[illegible]55	9,[illegible]76,[illegible]75	5[illegible],[illegible]72,[illegible]80
1861	2,[illegible]63,[illegible]59,[illegible]07	35,[illegible]91,[illegible]63	1,[illegible]45,[illegible]43	177,[illegible]48,[illegible]53	9,[illegible]99,[illegible]61	46,[illegible]17,[illegible]49
1862	1,[illegible]61,[illegible]91,[illegible]00	28,[illegible]64,[illegible]66	1,[illegible]00,[illegible]65	93,[illegible]28,[illegible]80	6,[illegible]92,[illegible]40	36,[illegible]90,[illegible]71
1863	1,710,[illegible]67,[illegible]72	37,[illegible]35,[illegible]35	1,[illegible]89,[illegible]25	74,[illegible]08,[illegible]64	8,[illegible]63,[illegible]28	47,[illegible]87,[illegible]88
1864	1,[illegible]51,[illegible]89,[illegible]80	43,[illegible]17,[illegible]71	1,[illegible]81,[illegible]19	76,[illegible]77,[illegible]21	9,[illegible]65,[illegible]59	54,[illegible]82,[illegible]79
1865	2,[illegible]15,[illegible]37,[illegible]31	44,[illegible]6[illegible],[illegible]59	2,[illegible]15,[illegible]57	101,[illegible]14,[illegible]55	10,[illegible]91,[illegible]49	57,[illegible]04,[illegible]45
1866	2,[illegible]75,[illegible]08,[illegible]38	37,[illegible]07,[illegible]00	3,[illegible]04,[illegible]19	138,[illegible]01,[illegible]59	13,[illegible]65,[illegible]27	54,[illegible]13,[illegible]48
1867	2,830,417,[illegible]75	43,[illegible]38,[illegible]31	2,[illegible]40,[illegible]99	169,[illegible]56,[illegible]98	14,[illegible]70,[illegible]58[illegible]	70,[illegible]45,[illegible]07[illegible]

The embroidery of muslins, a branch of the cotton trade which is highly deserving of attention, was commenced in Scotland about 1825, and is almost wholly carried on by Glasgow houses. It is now of much importance, its increase not having been surpassed by that of any other branch of industry, and equalled by very few. In all, about fifty houses are engaged in the trade; and the total sum paid as wages to females in the western parts of Scotland, and in Ireland, may amount to from 700,000*l.* to 750,000*l.* a-year. The embroidery is entirely executed by hand, the attempts to execute it by machinery having failed, or been found to be too expensive. The webs to be embroidered pass between engraved cylinders, driven by steam engines, which mark in faint

lines the embroidery to be executed, and they are then sent to agents, who distribute them among the peasantry, who are paid by the piece or job. It is not easy to exaggerate the advantages resulting to the female part of the population from this employment. After being embroidered, the webs are returned to Glasgow, where they are bleached and dressed, and sometimes made up into different articles. A large proportion of the goods are exported to the United States and Canada.

5. *Exports of Cotton Goods and Yarn. Fall of Prices &c.*—Down to 1750 the exportation of cotton goods, or rather of goods consisting partially of cotton, was so very inconsiderable that they hardly attracted the least attention from any of our commercial writers. But after the inventions of Arkwright began to come into general operation, the exports increased with unprecedented rapidity. At the commencement of the present century they were nearly as large as the exports of woollens, the produce of the old and staple manufacture of the country. But though the export of woollen goods has increased considerably since 1800, that of cotton goods and yarn has increased so much more that it was in 1866 about *three* times the amount of the other; and constitutes, indeed, above one-third part of the total exports of the United Kingdom.

Nothing can set in a clearer light than this table the astonishing fall that has taken place in the price of cotton goods since 1820. In that year our exports of wove cotton fabrics amounted to 250,000,000 yards, their declared value being 13,209,000*l.*; whereas in 1866 the exports of wove fabrics had increased to 2,575,698,138 yards, and their declared value to 57,903,200*l.*! It appears, therefore, that while the exports of wove cottons are more than 10 times as great—having increased 930 per cent.—their value has only increased in the ratio of about 13·2 to 57·9, that is, about 338 per cent. Hence, supposing 100 yards calico to have cost 13*s.* 2*d.* in 1820, 250 yards may now be had for little more than 13*s.* 6*d.*

This extraordinary reduction—which, however, was more striking before the cotton famine—has been brought about partly by the heavy fall that has taken place in the price of cotton wool (the period of the famine being abnormal and exceptional), partly by the public taste setting more in favour of coarser fabrics, and partly and principally by the wonderful improvements made in the manufacture. In consequence of these concurring circumstances, cotton goods are now so cheap, that there is hardly an individual so very poor as to be unable to supply himself or herself abundantly with them. This has improved the dress and added to the comfort of the great bulk of the female part of the population, not merely of this, but also of other countries, in a degree and to an extent not easily to be imagined: cotton goods are not only readily procurable by the people of this country, but are exported to countries where no European had till lately ever been seen. In the interior of Africa, lengths of common cotton cloth form, according to the accounts of Speke and Livingstone, a kind of currency, in which values are expressed, and payments made.

It should farther be borne in mind that it is to the fall in the price of its products that the unprecedented extension of the manufacture in this country is to be ascribed; and it is satisfactory to know that, notwithstanding the fall of prices, neither the wages nor profits of those engaged in the business have been diminished, while their numbers have been prodigiously augmented.

V. *Account of the Official Value of the Cotton Manufactures exported, in different Years, from Great Britain, from* 1697 *to* 1797.

Year	Official Value of Exports	Year	Official Value of Exports
	£		£
1697	5,915	1786	915,046
1701	23,253	1787	1,101,457
1710	5,698	1788	1,252,210
1720	16,200	1789	1,231,537
1730	13,521	1790	1,662,369
1741	20,709	1791	1,875,046
1751	45,986	1792	2,024,568
1764	200,534	1793	1,733,807
1765	248,548	1794	2,576,077
1766	250,759	1795	2,357,331
1780	355,060	1796	3,214,720
1785	864,710	1797	2,580,568

The following table (VI.), compiled from the returns of the Board of Trade, shows the distribution of British cotton manufactures over the world, the total quantity of such manufactures reckoned when possible by the yard, and the total value of all cotton goods, including twist and yarn. The quantity, though not materially different from that stated in the preceding edition of this work, is largely increased in value, owing to the for a time greatly enhanced price of the raw material. This is still more manifest in the case of cotton twist and yarn, the quantity of which was 138,804,538 lbs. in 1866, as compared with 181,565,805 lbs. in 1856, while the value of the first-named quantity is returned at 13,685,627*l.*, though the greater amount of 1856 is reckoned at 7,988,575*l.* only.

Such being the vast extent and importance of the cotton manufacture, the probability of our preserving our ascendency in it becomes a very interesting topic of enquiry. But it is obvious that a great deal of conjecture must always insinuate itself into our reasonings with respect to the future state of any branch of manufacturing industry. They are all liable to be affected by so many contingent and unforeseen circumstances, that it is impossible to predicate, with anything like certainty, what may be their condition a few years hence. It is not to be denied that a business which depends in so great a degree on foreign demand, and which may, consequently, be materially influenced, not only by foreign legislation and foreign discoveries and inventions, but also by the mutations of fashion at home and abroad, is in rather a perilous situation; and that those dependent on it must necessarily be exposed to the most trying vicissitudes. These, no doubt, are natural to all businesses of this description, and may not be of a kind to shake the stability of the manufacture, or to endanger our superiority in it, provided they do not disturb tranquillity at home. But when a vast number of persons depend on a manufacture, the privations to which many of them are not unfrequently exposed, and the efforts that are made to inflame their prejudices by representing their sufferings (which in nine out of ten instances spring from accidental or uncontrollable causes) as the result of vicious legislation, the tyranny or selfishness of their masters, and bad institutions, may easily lead them to commit outrages. And if that feeling of security which has led to the investment of such immense sums in mills and machinery should once be seriously impaired, the fall of the manufacture might be even more rapid than its rise. Anything that tends to keep alive and encourage disaffection and agitation is the bane of every country, but especially of one so deeply engaged in manufactures as this; and while, therefore, it is the bounden duty of Government to endeavour, by modifying or suppressing prohibitions, and

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VI. *An Account of the Quantities and Declared Value of British Cotton, Manufactured Goods, and Yarn, exported from the United Kingdom, distinguishing the Description of Goods and the various Countries whereto the same were exported, in the Year* 1865.

Countries to which Exported	Heavy Cottons, Plain	Value	Heavy Cottons, Printed	Value	Light Cottons, Plain	Value	Light Cottons, Printed	Value
	yards	£	yards	£	yards	£	yards	£
Russia	611,115	17,508	516,089	17,389	...	...	..	..
Sweden	...	...	...	...	1,294,732	28,175	..	..
Norway	1,565,500	37,719	1,518,589	36,781	...	...	..	..
Denmark	2,685,248	59,959	1,10,,801	29,588	..	..	..	..
Hamburg	16,666,507	53,977	55,874,142	732,598	..	..	1,926,583	29,929
Holland	10,567,776	284,141	12,51,,170	354,982	1,595,545	40,987	3,2 0,719	80,585
Belgium	2,67,,975	67,556	1,207,589	34,718	780,449	20,789	1,466,84	40,,12
France	2,9 6,788	74,0 8	14,455,721	370,194	1,487,897	38,199	749,6 9	20,309
Portugal, Azores, and Madeira	21,945,446	441,924	12,574,633	273,171	2,894,287	55,047	2,541,676	61,250
Spain and Canaries	2,61,,974	6 ,984	2,411,,2	..	..	..	..	..
Italy: Sardinian States	2,81 ,150	64,617	3,625,811	93,748	..	..	..	..
Tuscany	5,11 ,514	170,346	5,0 ,,672	12 ,342	1,649 198	35,569	..	..
Naples and Sicily	11,815,603	241,846	10,0 2 088	266,959	1,4 5,493	31,718	..	..
Adriatic Ports	2,0 8,5 5	46,266	2, 6,011	54,629	..	..	..	..
Austrian Territories	5,9 6,510	124,2 4	3,758,266	77,790	1,731,775	37,276	..	..
Greece	6,7 1,252	160,837	5,1 8,859	123,177	..	..	..	..
Ionian Islands	2,2 8,912	47,107	3,5 9,829	78,178	..	..	..	..
Turkey Proper	74,0 9,123	1,6 9,868	65,68 ,765	1,8 8,219	6,6 5,155	146,166	..	..
Syria and Palestine	2 ,0 9,193	6 0,861	12,185,189	293,989	2,417,7 4	53,488	1,6 0,812	41,148
Egypt	8 ,08 ,6 6	1,8 5,844	9,456,170	222,006	9,5 ,8 8	197,0 1	..	..
Tunis	1,2 6,2 0	26, 8	..	..	1,5 0,974	19,8 7	..	..
Morocco	8,2 6,1 6	2 1,0 1	..	..	..	..	..	..
Eastern Africa (native)	1,6 6,0 9	27,8 3	..	..	..	..	..	..
Western Africa (foreign)	..	..	8,7 5,9 5	185,6 8	..	..	9 5,1 9	18,3 8
Java	15,8 5,8 0	2 8,8 3	8,1 1,5 6	1 0,0 8	5,0 7,7 1	7 ,5 5	2,1 1,5 2	126,8 6
Philippine Islands	11, 1,7 1	2 1,6 6	9,0 3,1 3	212,8 9	2,2 5,9 5	51,8 1	5,2 3,5 1	1 8,9
China (except Hong Kong)	8 ,8 9 7 5	1,7 1 2 6	8,1 1 1 7	2 9,5 2	..	..	..	..
Japan	2 ,1 1,5 3	4 ,7 8	5,7 1,9 3	1 5,8 4	..	..	..	..
Cuba	5,9 3,2 5	1 5,8 8	2,9 1,,1	6 ,2 6	..	..	2,5 9,8 4	5 ,5 1
Porto Rico	1,6 3,,2	3 ,6 1	1,3 3,2 8	2 ,6 5	1,7 6,2 5	4 ,5	..	..
Curaçoa	..	..	1,2 1 ,9 1	2 ,6 6	..	..	..	..
St. Thomas	3,2 7,1 8	6 ,0 8	6,1 6,2 5	1 9,0 9	1,1 1,6 1	2 ,5 1	1,6 9,1 7	3 ,2 6
Hayti	1,8 7,6 1	4 ,7 4	3, 1,1 8	9 ,7 2	..	..	7 8,1 8	1 ,2 1
United States, North Atlantic Ports	45,1 0,1 2	9 9,7 5	3 ,6 ,9 3	9 1,6 6	8,0 1,9 9	2 8,3 6	12,9 8,1 5	3 1,2 9
South ditto	2 1,8 5	9,1 8	6 8,7 8	1 ,6 5	1 ,9 1	3,0 4	1 9,1 2	2,7 0
Pacific Ports	9 1,6 1	2 ,9 6	1,3 6,1 2	2 ,3 3	1,4 5,1 6	2 ,1 9	1,1 1,4 6	2 ,6 6
Mexico	1 ,1 8,9 2	3 8,2 2	1 ,9 3,5 6	4 4,0 0	3,9 8,8 7	8 ,5 8	5,9 8,1 1	1 8,9 6
Central America	1,6 4,1 2	3 ,0 9	1,1 8,2 0	2 ,9 2	..	..	..	..
New Granada	2 ,0 9,8 8	4 1,9 3	3 ,8 1,8 9	6 ,0 6	6,1 7,9 9	1 9,9 7	8,5 1,2 9	1 0,3 3
Venezuela	2 1 0,1 2	5 ,6 3	4,1 5,6 1	1 2,0 7	..	..	9 ,1 8	2,1 4
Peru	7,9 3,0 9	1 8,3 1	7,1 1,2 2	1 9,3 9	2,1 8,6 0	4 ,5 3	2,1 9,5 8	5 ,2 2
Chili	1 ,6 7,0 7	2 5,7 2	9,9 9 5 4	2 1,0 9	1 1,1 1	2 ,9 5	1,1 1,5 9	2 ,2 8
Brazil	3 ,9 6,8 3	1,1 8,1 1	5 ,9 1,2 9	1,2 4,1 9	3,8 3,7 3	9 ,0 3	5,0 4,9 2	1 6,9 4
Uruguay	3,1 0,0 1	1 9 8 1	4,1 6,0 5	1 6,1 9	..	..	6 1,9 7	1 ,0 1
Argentine Confederation	1 ,0 1,7 7	2 9,9 1	7,1 9,8 7	1 1,1 7	..	..	1,0 1,9 0	2 ,7 8
Gibraltar	9,7 9,9 1	2 5,9 1	3,1 1,7 1	8 ,3 1	3,2 0,7 2	7 ,3 2	1,1 1,9 6	3 ,6 1
Malta	9,6 1,1 1	1 7,6 0	2,1 6,3 1	5 ,1 9	..	..	..	..
Western Africa, British	1,8 7,6 8	4 1,1 1	7,8 ,9 7	1 7,1 7	1,2 6,0 6	3 ,9 5	..	..
South ditto	5,1 7,6 2	1 7,6 8	2,3 2,8 6	6 ,0 1	..	..	6 5,5 4	1 ,0 0
Mauritius	4,0 5,1 9	8 ,8 8	3,7 6,0 3	7 ,6 3	..	..	6 6,3 4	1 ,0 0
British India: Bombay and Sinde	9 ,2 5,3 8	1,8 2 8 7	12,9 6,1 7	2 8,2 4	3 ,0 1,9 8	6 ,5 6	1 ,1 6,8 8	4 1,3 1
Madras	9,9 1,0 6	2 5,6 4	8,1 1,2 9	1 9,9 1	..	..	..	..
Bengal and Pegu	2 8,3 7,6 9	4,0 8,8 0	2 ,9 1,8 3	5 6,0 2	5 ,6 7,8 2	9 ,1 2	2,8 1,7 8	5 7,6 1
Straits Settlements	3 ,7 2,0 2	6 6,7 5	5,1 9,7 1	1 2,6 9	3,5 0,0 6	8 ,8 1	2,0 9,0 9	6 7 8
Ceylon	1 ,1 3,0 1	2 6,8 9	3,7 0,7 8	1 9,1 5	..	..	..	..
Hong Kong	3 ,6 0,2 8	7 3,2 9	3,3 7,8 6	8 ,0 5	..	..	..	..
Australia	1 ,9 2 2 5	3 9,2 1	8,6 7,0 5	2 6 1 2 3	3,7 0,0 8	1 8,9 6	1,8 9,0 3	3 ,8 6
British North America	1 ,6 4,6 8	2 1,5 8	1 ,4 1,2 5	2 7,3 9	2,9 0,1 7	5 ,3 3	5,1 7,7 0	1 3,4 9
British W. Indies and British Guiana	8,8 6,1 6	1 9,1 0	1 ,7 7,9 7	2 5,7 9	1,1 8,5 5	2 ,7 8	2,7 0,1 5	5 ,4 7
Honduras	..	..	..	..	1,0 2,9 1	1 ,1 6	1,1 5,1 3	1 ,2 6
Other countries	3,7 8,1 7	8 1,8 6	2,6 1,,8 5	9 5,1 6	9,2 0,1 4	2 1,4 5	5,9 1,1 4	1 1,6 8
Total	1,1 7,9 1,3 2	2 5,5 0,8 8	5 2,4 9,1 3	1 7,3 1,8 1	1 1,2 7,3 9	2,7 7,1 6	1 8,5 8,3 6	3,0 8,0 0

Total yards, 1,950,381,091; add handkerchiefs &c. mixed goods and fustians, 45,921,725=	2,014,303,716	
Total value, £41,4 6,566. Value - - -	£41,419,397=	41,876,563
Add value of lace and net, hosiery, thread, tape, and small wares - -		2,0 7,021
Total of cotton manufactures -		46,923,384
Add cotton yarn, value - -		10,7 1,049
Gross total -		£57,6 4 433

repealing all unjust or partial laws, to give freedom to industry, and to take away all good cause for agitation, every individual interested in the public welfare should endeavour, by every means in his power, to discourage the efforts of those who, to advance their own unworthy ends, endeavour to keep alive a spirit of discontent among the labouring classes, that cannot fail, in the long run, to be subversive alike of good order, industry, and prosperity.

But, abstracting from the influence of such considerations, and of national struggles and commotions, which can neither be foreseen nor estimated, we do not think that there is anything in our state, or in that of the different commercial and manufacturing countries of the world, to justify the gloomy forebodings of those who contend that the cotton manufacture of England has reached its zenith, and that it must now begin to decline. The natural capabilities we possess for carrying on the business of manufacturing are, all things considered, decidedly superior to those of any other people. But the superiority to which we have already arrived is, perhaps, the greatest advantage in our favour. Our master manufacturers, engineers, and artisans are more intelligent, skilful, and enterprising than those of any other country; and the extraordinary inventions they have already made, and their familiarity with all the principles and details of the business, will not only enable them to perfect the processes already in use, but can hardly fail to lead to the discovery of others. Our establishments for spinning, weaving, printing, bleaching &c. are infinitely more complete and perfect than any that exist elsewhere; the division of labour in them is carried to an incomparably greater extent: the workmen are trained from infancy to industrious habits, and have attained that peculiar dexterity and sleight of hand in the performance of the separate tasks, that can only be acquired by long and unremitting application to the same employment. Why, then, having all these advantages on our side, should we not keep the start we have already gained? Every other people that attempt to set up manufactures must obviously labour under the greatest difficulties as compared with us. Their establishments cannot,

at first, be sufficiently large to enable the division of employments to be carried to any considerable extent, at the same time that expertness in manipulation, and in the details of the various processes, can only be attained by slow degrees. It appears, therefore, reasonable to conclude that such new beginners, having to withstand the competition of those who have already arrived at a very high degree of perfection in the art, must be immediately driven out of every market equally accessible to both parties; and that nothing but the aid derived from restrictive regulations and prohibitions will be effectual to prevent the total destruction of their establishments in the countries where they are set up.

The cotton manufacture of this country has lately passed, as our readers are well aware, through a period of great depression. It is probable, indeed, that at the outbreak of the civil war in the United States both spinners and weavers were over-stocked, and that had this event not occurred, there would have been some stagnation in the trade, due to over production, and that, therefore, the severity of the pressure was not felt so fully by the employers as it was by the labourers, on whom the calamity fell with crushing weight. It is sufficient to point to one of the preceding tables in which the deficiency of American cotton is to be recognised. The imports of the raw material, which had been nearly 12,500,000 cwts. in 1860, fell to little more than 4,500,000 cwts. in 1862, the period in which the cotton famine, as it was naturally and strikingly called, was inflicting its heaviest miseries on those who were engaged in the manufacture.

This is not the place in which to comment on the circumstances which attended this calamity. It is sufficient to observe that the patience of the operatives, and the courage with which they bore those sufferings, which were due to causes over which they had no control, were acknowledged by all. The manufacturers and landowners in the district acted with energy in the crisis. The nation came forward also to aid the suffering, and great sums were gathered throughout the kingdom. The people of the United States, too, and of our colonies, gave their contributions to lighten the Lancashire distress. The subscriptions amounted to nearly 1,500,000*l.*

The losses consequent on the cotton famine were thus estimated by Dr. Watts of Manchester, in his work on the *Facts of the Cotton Famine*:—

	£
Employers' losses, 3 years at 9,500,000*l.* - -	28,500,000
Workpeople's do. at 11,000,000*l.* - -	33,000,000
Shopkeepers' do. on wages at 10 per cent. - -	3,300,000
Do. on half employers' profits - - - -	1,125,000
Total loss on 3 years - - - -	£65,925,000

Messrs. Ellison and Haywood, in their *Cotton Circular* for January 1866, set down the money losses at from 65,000,000*l.* to 70,000,000*l.*

The scarcity may be estimated again by the rise in the price of the raw material. Egyptian cotton, valued at 3*l.* 15*s.* 6*d.* per cwt. in 1860, rose to 12*l.* 5*s.* 3*d.* in 1864; that of the United States from 3*l.* 0*s.* 4*d.* to 13*l.* 11*s.*; Brazilian from 3*l.* 12*s.* 10*d.* to 12*l.* 18*s.* 1*d.*; and that of British India from 1*l.* 17*s.* to 8*l.* 9*s.* As is always the case when a serious exaltation of prices ensues upon scarcity, the greatest rise is found in that which was cheapest before the dearth.

Wide-spread and alarming as the distress was which ensued on the cotton famine, the result was yet not entirely without its benefits. The manufacturers had been forced to depend on one region for the supply of the raw material. The article produced in this region was, with the exception of Sea Island, of no better quality than that procurable from Egypt and some other countries. It could not of course be expected that those who were purchasers of raw material should take into account the contingency which few observers failed to predict would at no remote period ensue —the occurrence, namely, of an attempted disruption between the Northern and Southern States of the American Union. But the manufacturers always looked anxiously at the course of American politics, and welcomed any promised supply of cotton from other countries. The urgent demand for the article did produce the effect of developing the exports of the fibre from new localities. Thus China, Japan, and Mexico appear among the countries which contributed to the supply after the dearth commenced. A great impetus was given to exports from Egypt, the Mediterranean, the British West and East Indies, though of course these enlarged imports from certain places were far from filling up the deficiency.

There is no plant perhaps which has a wider geographical range than cotton. It can be grown in the tropics as a perennial, and it can be cultivated as an annual over an area as far north as the basin of the Mediterranean. Practically the field for its produce is boundless. The cultivation of the plant, though requiring some care in its early growth, is by no means toilsome, the chief demand for labour arising when the crop has to be gathered, and the wool has to be cleansed from the seeds which it envelops. But notwithstanding the width of the area of production, competition against the American producer, in the period preceding the war, though it was anxiously desired was all but hopeless, and the deficiency could not be supplied to any satisfactory extent when the dearth in America first occurred.

The absence of any ready response to the urgent demand for cotton during this crisis was the effect of several causes. In the first place, the influential classes in this and some other European countries miscalculated the future of the civil war in America. It was predicted that the war would be speedily ended, and that the suspension of supply must be of very short duration; it being assumed erroneously that the Southern States possessed large stores of cotton, and that these would be poured into the market when their independence was established. There can be no doubt that this checked the disposition to engage in the cotton culture. Again, among the inhabitants of those countries in which cotton can be grown, the necessary capital for production on so large a scale is wanting. These countries are poor, or misgoverned, or barbarous—generally affected by all these untoward conditions. Cotton might be produced in almost unlimited quantities in Turkey and Asia Minor; but these regions are cursed by a Government which has made the fairest part of the earth sterile and unproductive. Still it will be seen that even under these adverse circumstances a great impulse was given to production in Egypt and India.

The Lancashire spinners for a long time had devoted their attention to the matter, and the Cotton Supply Association especially had done its best to further the ends of its establishment. It collected samples, employed agents, and welcomed intelligence of every kind, as far as lay in its power.

Prospects of the Cotton Manufacture.—The events of the five years previous to 1866 have been a serious trial of the powers possessed by this branch of British industry. Nothing could have tested its vigour, its elasticity, its continuance more effectually. It is not too much to say that it has passed through the trial with much less injury than could have been anticipated. The markets

of the world have responded, despite the enhanced price of the article, nobly to the supply, and the various exports in 1866 of cotton industry far exceeded in value, though not in quantity, those of any previous year. In fact the supply of cotton goods is a supply of a necessary of life in many if not all countries, and the deficiency of the raw material, which affected this market, affected in a larger degree the market of other countries.

The permanence of the cotton manufacture in this country is dependent on the circumstances already fully referred to.

At present the chief source of artificial power is steam, and the use of steam power depends on the supply of coal. It may be that hereafter some other force will be discovered, adapted, and improved, which will supersede or at least economise the use of mineral fuel. It may be that economics may be introduced in the use of coal which will greatly diminish its consumption. It may be that fuel will be supplied in so energetic a form as to reduce the cost of carriage on some hydrocarbons to such limits as will render their importation for steam purposes possible. Such an event at least has been anticipated in the case of some among the mineral oils which are now produced in such vast quantities in the New World.

The geographical position of this country, too, is important. Standing between the Old and New World, possessing numerous and commodious harbours, stored with the wealth of centuries, it is a central point for navigation. It is the chief entrepôt of raw material for all markets. Its rates of exchange and discount are watched by all traders—its commercial dicta are the guides of all transactions. Part of this mercantile eminence is due to the wisdom of its fiscal arrangements, part to the real liberty of its transactions, but not a little to the natural position which it occupies on the highway of commerce.

Effectiveness of British Labour.—On the presumption that the conditions adverted to remain permanently in the possession of this country, the continued prosperity of the cotton manufacture will be imperilled by nothing but diminished effectiveness on the part of those who invent mechanical economics, and who work the machinery when discovered or adapted. We do not think that either the inventive genius of this country is on the wane, or that the intelligence of manufacturers, artisans, and operatives is likely to suffer diminution.

Progress of the Manufacture in other Countries.—Notwithstanding what has now been stated, a notion seems to be spreading abroad that we shall have no little difficulty in maintaining our ground against the competition of the Americans, Swiss, Austrians, French &c.; and a good deal of evidence upon this subject was taken before the committee of the House of Commons appointed in 1833 to enquire into the state of manufactures, commerce, and shipping. Such apprehensions appear to us to be quite destitute of any real foundation. Provided we have no agitation, that public tranquillity and security in fact and opinion be maintained unimpaired, we need be under no sort of uneasiness as to any competition to which we may be exposed. Duties on imports have forced cotton, woollen, iron, and other manufactures into a premature existence in the United States; but excepting the coarser fabrics, and those in which the value of the raw material bears a large proportion to the value of the manufactured article, we have nothing to fear from the Americans. Neither has their progress in the manufacture of this description of goods been at all remarkable; for the official accounts published by order of Congress show that the value of all descriptions of cotton goods exported from the United States during the year ended June 30, 1858, amounted to only 5,651,504 dols., or about 1,250,000*l.*, of which the raw material most probably amounted to more than a half.

Among the singular statements that have been put forth as to the cotton manufactures of America, one is, that the wages of labour are lower there than here! To dwell on the absurdity of such a statement would be an insult to the reader. But though it were true that wages were as low in Massachusetts as in England, that would afford no real ground for anticipating any formidable competition from America in this department. The price of cottons depends more on the profits of stock than on the wages of labour; and, so far as we know, it has not yet been alleged that the former are lower in America than here. Suppose an English and an American manufacturer have each 100,000*l.* vested in cotton mills, and in the floating stock required to carry on the business; if profits in England be 1 per cent. less than in America, the English manufacturer can afford, cæteris paribus, to sell his goods for 1,000*l.* less than the American. We are very far from insinuating or believing that this lowness of profit is an advantage; but whatever may be its influence in other respects, so long as it continues it gives our manufacturers a decided superiority over those of every other country where profits are higher, in the manufacture and sale of all articles, such as cotton yarn and stuffs, principally produced by machinery. It is ludicrous, indeed, to suppose that a half-peopled country like America, possessed of boundless tracts of unoccupied land of the highest degree of fertility, should be able successfully to contend in manufacturing industry with an old settled, fully peopled, and very rich country like Great Britain. The Government which encourages such a misdirection of the public capital and industry, and those who suppose it can end in anything else than ruin to the parties, are ignorant of the merest elements of the science of wealth.

The following statement, though not official, is said to represent with considerable accuracy the consumption of cotton in the American manufactures in the following years ending with 1857:—

Year	Bales	Year	Bales
1850	595,869	1854	715,577
1851	464,108	1855	678,581
1852	678,029	1856	720,939
1853	761,009	1857	819,138

At one period or the other, at present apparently remote, it may be, probably must be, the case, that the great coal-field of Central North America, containing an area of 70,000 square miles, will be filled with a manufacturing population engaged in those various industries which now characterise the Northern districts of Great Britain But the region in question is far removed from the sea; and its products, important as they hereafter will be, must, before they reach the markets of the Western world, be burdened by a high cost of carriage.

American capital for many a year will probably be directed into the production of raw material; and a dense population must occupy the continent between the Lakes and the Gulf of Mexico—between the Atlantic and the Rocky Mountains—before natural and economical causes will allow the States to compete with the productive energies of the Old World and its accessible sea-board.

The annual *Report* (1867–68) of the New York

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Chamber of Commerce, embodies (pp. 22-3) a memorial to Congress protesting against the tax on cotton, which is calculated (Dec. 1867) to be 20 per cent. on its gross value. The abolition of the tax is called for on the grounds of its injustice, its oppressiveness, its discouragement of native and encouragement of foreign productions, and because it is a detriment to the shipping, commercial, and trading interests, and an obstruction to the cultivation of land and the employment of labour.

Little as we have to fear from American, we have still less to fear from Swiss or Saxon competition. America has some advantage over England in the greater cheapness of the raw material; but Switzerland and Saxony, situated almost in the centre of Europe, can only draw their supplies of raw cotton by a distant land carriage, by way of Hamburg, Marseilles, and Genoa; and we have the best authority for affirming that a bale of cotton may be conveyed at a less expense from Charleston to Manchester, than from Genoa, Amsterdam, or Hamburg to Switzerland or Saxony. Switzerland is altogether destitute of coal: all that she does is done by water-power, and that is said to be nearly exhausted. It is not, however, to be wondered at that the Swiss and Saxons should have succeeded in supplying their own markets, and some of those immediately contiguous, with certain species of yarn; or that they should export hosiery and such other articles as they can manufacture on a small scale, in their cottages; but it is idle to suppose that they should ever be able to do much more than this.

It was stated before a committee of the House of Commons in 1833 that the French cotton manufacture had increased, between 1812 and 1826, in the ratio of 310 per cent., while in England its increase was only 270 per cent. This statement was, we believe, accurate as far as it went; and yet it was eminently calculated, though, no doubt, without being so intended, to mislead. In 1812, and for some years previously, it was hardly possible to import cotton wool into France, and its price was quite excessive. When, therefore, the manufacturers got wool after the return of peace at an ordinary price, it was impossible, seeing that foreign cottons are excluded from France, but that the manufacture should increase with extraordinary rapidity, until the home demand was pretty well supplied. An advance of this sort is assuredly no proof of the capacity of any country to prosecute the manufacture with advantage, or to export cottons without the aid of a bounty. Had the manufacture gone on increasing in the above ratio down to the present time, the circumstance might have justly excited attention; but such has not been the case. No doubt it has made a considerable progress in the interval; but not so much as might have been expected, seeing the increase of wealth and population in France, and seeing also the peculiar facilities which the French enjoy for smuggling cotton stuffs and other prohibited products across the Pyrenees into Spain, where they are taken off in large quantities. The truth is, that until the French Government reduces or repeals the duties on foreign iron and other articles indispensable to the cheap construction of cotton factories, it were idle to suppose that the French should be formidable competitors in the production of cottons.

It is supposed by some that the competition we have to fear from the Continent does not consist so much in the spinning as in the weaving of cotton; and that the probability is that our exports of yarn will increase, and our exports of manufactured goods will diminish. We do not, however, imagine there is much in this. Our power-looms are superior to those of any other country, and there is not, in fact, with the exception of the dyes, a single particular connected with the cotton manufacture in which we have not a manifest superiority over the Swiss, Saxons, French, Prussians, and every continental nation. Certainly, however, we are inferior to some of them in the brilliancy and durability of their dyes; and this circumstance has occasioned a considerable demand for German and Swiss printed cottons in many parts of the East, where vivid colours are held in the highest estimation. But even there the greater cheapness of our goods is proving an overmatch for the greater brilliancy of those of our rivals.

Mr. Fane, Secretary of the British Embassy at Paris, in his *Report* No. 1 of 1867 gives the following table, showing the value of the exports of French cotton manufactures in the 6 years 1859-64:—

	Francs		Francs
1859 - -	67,200,000	1862 - -	63,500,000
1860 - -	69,600,000	1863 - -	88,200,000
1861 - -	56,400,000	1864 - -	93,700,000

Thus, the cotton exports of France during the year 1864 amounted to less than 4,000,000*l.* in value. Those of any other country were absolutely trivial. Many countries of course import cotton yarn which is used for home manufacture, and there is some Eastern trade possessed by Russia; but the total amount of foreign cotton stuffs competing with British produce is quite unimportant. Again, in sunnier climates, more brilliant colours can be imparted to cotton cloth; but the great element in production is cheapness in the fabric, and as yet the industry of this country, to judge from results, is practically without a rival.

On the whole, therefore, we see no reason to think that the British cotton manufacture has reached, much less passed, its zenith. But it can hardly be necessary to observe, considering the vast importance of the trade, that while, on the one hand, nothing should be left undone that may serve to strengthen its foundations and to promote its prosperity, on the other nothing should be attempted that may, by possibility, have an opposite effect. The subsistence of more than a million of people is not to be endangered on slight grounds. The abuses even of such a business must be cautiously dealt with, lest, in eradicating them, we shake or disorder the whole fabric. No doubt the state of children employed in the cotton factories called fairly for legislative interference; and we believe that the regulations that have been enacted, carried out, as they have been, under the superintendence of the inspectors, have been productive of much good.

7. Statutory Regulations in regard to the Employment of Children in Factories.

No statutory restrictions respecting the employment of children in the mills and factories of the United Kingdom existed until 1802, when the 42 Geo. III. was passed for the preservation of the health and morals of apprentices and others employed in cotton and other factories, and directing the local magistrates to report whether the factories were conducted according to law, and to adopt such sanitary regulations as they might think fit. This Act was followed, in 1816, by the Act generally called Sir Robert Peel's Act, imposing various regulations on the employment of children in cotton-mills.

Both of these Acts were repealed in 1831 by the 1 & 2 Wm. IV. c. 39, commonly called Sir

John Hobhouse's Act, which provided that in cotton factories, to which it alone related, no child could legally be employed till it had attained the age of 9 years; that no person under 18 years should be permitted to remain in the factories more than 12 hours in one day; and that on Saturdays they should only be employed in the factories for 9 hours.

Sir John Hobhouse's Act was repealed in 1833 by the 3 & 4 Wm. IV. c. 103; and this last-mentioned statute, with the 7 & 8 Vict. c. 15, the 10 & 11 Vict. c. 29 (commonly called the Ten Hours Act), 13 & 14 Vict. c. 54, 16 & 17 Vict. c. 104, 19 & 20 Vict. c. 83, enact the following provisions relative to persons employed in all processes incident to the manufacture of cotton, wool, hair, silk, flax, hemp, jute, or tow, separately or mixed together, or mixed with any other material, or any fabric made thereof, with the exception of factories used solely for the manufacture of lace, hats, or paper, or solely for bleaching, dyeing, printing, or calendering.

1. That no person under 18 years of age shall be allowed to work in the night, i.e. from ½ past 8 in the evening to ½ past 5 in the morning, nor on Saturday for any purpose after ½ past 4 in the afternoon, the hours to be regulated by a public clock, specified in a notice put up in each factory.

2. That no child under 8 years of age shall be employed, and that no child between 8 and 13 years old shall be employed more than 6 hours and 30 minutes in any one day, unless the dinner-time of the young persons from 13 to 18 years old in the factory shall begin at 1 o'clock; in which case the children beginning to work in the morning may work for 7 hours; but any child above 11 years of age employed solely in the winding and throwing of silk may work for 10 hours a day. And any occupier of a factory restricting the labour of young persons between 13 and 18 years old to 10 hours a day, may, on certain conditions, employ any child 10 hours on 3 alternate days of every week, provided that such child shall not be employed in any manner in the same or any other factory on 2 successive days.

3. That no child under 13 years of age shall work in the night for any purpose.

4. That every child under 13 years of age must have a surgical certificate of age, and must attend some school on 5 days of every week for certain specified periods, and obtain a weekly certificate of attendance from the schoolmaster, which may be annulled by the inspector on account of the unfitness of the schoolmaster.

5. That no young person of the age of 13, and under the age of 18, shall be allowed to work for more than 10 hours in any one day, nor more than 58 hours in any one week.

6. That every young person under 16 years of age must have a surgical certificate of age.

7. That no female above the age of 18 years shall be employed in any factory save for the same time and in the same manner as young persons in factories, i.e. for 10 hours in the day and 58 hours in the week, and under the above conditions as to night work, certificates of age not, however, being necessary for females above 18 years of age.

8. That in factories in which any part of the machinery is moved by water, and time lost by stoppages from want of water or too much water, children or young persons may, under certain conditions, be employed one hour additional, except on Saturday; and that when from the same causes any part of the manufacturing machinery driven by the water-wheel has been during any part of a day stopped, the young persons who would have been employed at such machinery may under certain conditions recover such lost time during the night following the said day, unless the said day be Saturday.

9. That the inspector of the district, one of the four inspectors appointed under the Acts, shall have power to appoint a sufficient number of certifying surgeons to examine the children and young persons, and to give certificates of age to children and young persons under 16 years of age according to certain forms and directions, but which certificate may be annulled by the inspectors or sub-inspectors appointed under the Acts, provided they believe the real age of the persons mentioned in the certificates to be less than that mentioned in them, or provided the certifying surgeon of the district deems such persons to be of deficient health or strength at the time when the certificates are annulled.

10. That not less than 1½ hour shall be allowed every day for meals to every young person, to be taken between ½ past 7 A.M. and ½ past 7 P.M., and 1 hour at least before 8 P.M.; and that no child or young person shall be employed more than 5 hours before 1 P.M. without an interval for meal-time of at least 30 minutes, and that all the young persons shall have the meal-times at the same period of the day.

11. That all children and young persons shall have not fewer than 8 half-holidays in the year, 4 of such half-holidays between March 15 and October 1, and that no child or young person shall be allowed to work in any factory on Christmas Day or Good Friday in England or Ireland, and in Scotland on any day the whole of which is set apart by the Church of Scotland for the observance of the sacramental fast in the parish in which the factory is situated.

By 24 & 25 Vict. lace manufactories were brought under the Factory Acts, but youths may be employed in lace factories between 4 A.M. and 10 P.M., provided the youth be not employed more than 9 hours a day.

By 27 & 28 Vict. the Factory Acts were extended to persons engaged in fustian cutting, manufacturing cartridges, and paper staining, also those engaged in the manufacture of earthenware (except bricks, and tiles not being ornamental tiles), lucifer matches, and percussion caps.

The Factories Act Extension Act of 1867, 30 & 31 Vict. c. 103, applies almost exclusively to those factories unconnected with the manufacture of cotton.

The Factory Acts embody other regulations respecting the appointment of inspectors to carry out these provisions &c.; but these, though of importance to the parties interested, by whom they must be carefully attended to, being of little public importance, need not be inserted in this place.

COTTON SEED OIL CAKE. Considerable quantities of oil cake from cotton seeds are annually imported into this country, the substance being used, like other kinds of oil cake, for feeding cattle. In the year 1866, 10,528 tons were imported, chiefly from Belgium, the average price being a little less than 5*l.* the ton. In the same year 93,957 tons of cotton seeds were imported, the value being about 7*l.* 13*s.* the ton.

COWHAGE or COWITCH (Hin. kiwach: Fr. pois à gratter; Ger. kuh krätze). The fruit or bean of a perennial climbing plant (*Dolichos pruriens*, Linn.). It is a native of India, as well as of several other Eastern countries, and of America. The pod is about 4 or 5 inches long, a little curved, and contains from 3 to 5 oval and flattish seeds; the outside is thickly covered with short, bristly, brown hairs, which, if incautiously touched, stick

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to the skin, and occasion intolerable itching. (Ainslie's *Materia Indica*.)

COWRIES (Ger. kauris; Dutch, kauris; Fr. coris, cauris, bouges; Ital. cori, porcellane; Span. bucios zimbos). The shell of the *Cypræa moneta*, a small univalve found abundantly on the shores of the Maldives, Borneo, and the various islets of the Eastern Archipelago, as also on the eastern coasts of Africa. For many ages this shell has been used as a currency in parts of Hindostan and Africa, and the cowry fishery was and perhaps still is the chief occupation of most of the natives who inhabit the islands where it is found.

The nominal exchange of the cowry in Bengal is at the rate of 640 to the anna, or 3,840 to the rupee. This rupee is worth 22·29*d*. sterling, and the single cowry is worth about 26-10,000ths of a farthing. In Siam they are still cheaper. But their value is far higher—at least ten times—in Africa. Of course these rates are variable, and the delay of the cowry ships used in India to raise the price greatly, so that occasion was taken to turn the cowry trade into a gambling transaction.

Since the abolition of the slave trade the supply of cowries has become a matter of comparatively small importance. In 1865, 7,789 cwts. were imported, valued at 14,691*l*.

CRANBERRIES or RED WHORTLEBERRIES. The fruit of a moss plant, the *Vaccinium oxycoccus* of Linnæus. The berries are globular, about the size of currants; are found in mossy bogs in different parts of Scotland, but not in great numbers: they were once common in Lincolnshire and the northern parts of Norfolk; but since the bogs have been drained and cultivated, they are rarely met with. Cranberries have a peculiar flavour, and a sharp, acid, agreeable taste; they are easily preserved, and are extensively used in making tarts. They are very abundant in North America and in the northern parts of Russia; the latter being of a superior quality. It is said that some very fine ones have recently been brought from New South Wales. In 1866, 33,433 gallons were imported, valued at 1,702*l*.

CRAPE (Fr. crêpe; Ger. flohr, krausflohr; Ital. espumilla, soplillo; Russ. flior; Span. crespon). A light transparent stuff, in manner of gauze, made of raw silk gummed and twisted on the mill and woven without crossing. It is principally used in mourning. Crape was originally manufactured in Bologna; but that made in this country is now deemed superior to any made in Italy. The manufacture is said to have been introduced into France, by one Jacques Dupuis, at or about the middle of the seventeenth century. French crapes are chiefly manufactured at Lyons, and are of two kinds, called, according to M. Bezon (*Dictionnaire des Tissus*), *crêpe* and *lisse*. China crape, as its name implies, was originally manufactured in China, and the process for a long time baffled all attempts at imitation. The secret was, however, at last discovered by M. Dugas. In 1864 France exported 8,816 kilogrammes of French manufactured crape. The British exports of crape seem to be unimportant.

CREAM OF TARTAR. [ARGAL.]

CREDIT. The term used to express the trust or confidence placed by one individual in another, when he assigns him money, or other property in loan, or without stipulating for its immediate payment. The party who lends is said to give credit, and the party who borrows to obtain credit.

Origin and Nature of Credit.—In the earlier stages of society, credit is in a great measure unknown. This arises partly from the circumstance of very little capital being then accumulated, and partly from Government not having the means, or not being sufficiently careful, to enforce that punctual attention to engagements so indispensable to the existence of confidence and credit. But as society advances, capital is gradually accumulated, and the observance of contracts is enforced by public authority. Credit then begins to grow up. On the one hand, those individuals who have more capital than they can conveniently employ, or who are desirous of withdrawing from business, are disposed to lend, or to transfer, a part or the whole of their capital to others, on condition of their obtaining a certain stipulated premium or interest for its use, and what they consider sufficient security for its repayment; and, on the other hand, there are always individuals to be met with, disposed to borrow, partly (and among merchants principally) in order to extend their business beyond the limits to which they can carry it by means of their own capital, or to purchase commodities on speculation, and partly to defray debts already contracted. These different classes of individuals mutually accommodate each other. Those desirous of being relieved from the fatigues of business find it very convenient to lend their capital to others, while such as are anxious to enlarge their businesses obtain the means of prosecuting them to a greater extent.

It is plain that to whatever extent the power of the borrower of a quantity of produce or a sum of money, to extend his business, may be increased, that of the lender must be equally diminished. The same portion of capital cannot be employed by two individuals at the same time. If A transfer his capital to B, he necessarily, by so doing, deprives himself of a power or capacity of production which B acquires. It is most probable, indeed, that this capital will be more productively employed in the hands of B than of A; for the fact of A having lent it shows that he either had no means of employing it advantageously, or was disinclined to take the trouble; while the fact of B having borrowed it shows that he conceives he can advantageously employ it, or that he can invest it so as to make it yield an interest to the lender, and a profit to himself. It is obvious, however, that except in so far as credit contributes, in the way now mentioned, to bring capital into the possession of those who, it may be fairly presumed, will employ it most beneficially, it conduces nothing to the increase of wealth.

The most common method of making a loan is by selling commodities on credit, or on condition that they shall be paid for at some future period. The price is increased proportionally to the length of credit given; and if any doubt be entertained with respect to the punctuality or solvency of the buyer, a further sum is added to the price, in order to cover the risk that the seller or lender runs of not receiving payment, or of not receiving it at the stipulated period. This is the usual method of transacting where capital is abundant, and confidence general; and there can be no manner of doubt that the amount of property lent in Great Britain, the Netherlands, and most other commercial countries, in this way, is infinitely greater than all that is lent in every other way.

When produce is sold in the way now described, it is usual for the buyers to give their bills to the sellers for the price, payable at the period when the credit is to expire; and it is in the effects consequent on the negotiation of such bills that much of that magical influence that has sometimes been ascribed to credit is believed to consist. Suppose, to illustrate this, that a paper-maker, A, sells to a printer, B, a quantity of paper, and that he gets his bill for the sum, payable at 12 months after date: B could not have entered into the transac-

tion had he been obliged to pay ready money; but A, notwithstanding he has occasion for the money, is enabled, by the facility of negotiating or discounting bills, to give the requisite credit without disabling himself from prosecuting his business. In a case like this, both parties are said to be supported by credit; and as cases of this sort are exceedingly common, it is contended that half the business of the country is carried on by its means. All, however, that such statements really amount to is, that a large proportion of those engaged in industrious undertakings do not employ their own capital, but that of others. In the case in question, the printer employs the capital of the paper maker, and the latter employs that of the banker or broker who discounted the bill. This person had most likely the amount in spare cash lying beside him, which he might not well know how to invest; but the individual into whose hands it has now come will immediately apply it to useful purposes, or to the purchase of the materials, or the payment of the wages of the workmen employed in his establishment. It is next to certain, therefore, that the transaction will have been advantageous. But still it is essential to bear in mind that it will have been so, not because credit is of itself a means of production, or because it can give birth to capital not already in existence; but because, through its agency, capital finds its way into those channels in which it has the best chance of being profitably employed.

The real advantage derived from the use of bills and bank notes as money consists, as has been already shown, in their substituting so cheap a medium of exchange as paper, in the place of one so expensive as gold, and in the facilities which they give to the transacting of commercial affairs. If a banker lend A a note for 100*l.* or 1,000*l.*, the latter will be able to obtain an equivalent portion of the land or produce of the country in exchange for it; but that land or produce was already in existence. The issue of the note did not give it birth It was previously in some one's possession; and it will depend wholly on the circumstance of A's employing it more or less advantageously than it was previously employed, whether the transaction will, in a public point of view, be profitable or not. On analysing any case of this kind, we shall invariably find that all that the highest degree of credit or confidence can do is merely to change the distribution of capital—to transfer it from one class to another. These transfers are occasionally, too, productive of injurious results, by bringing capital into the hands of spendthrifts: this, however, is not, except in the case of the credit given by shopkeepers, a very common effect; and there can be no doubt that the vast majority of regular loans are decidedly beneficial.

Abuses of the present Credit System in Great Britain. Means of obviating them.—The previous observations refer rather to the credit given to individuals engaged in business, who mean to employ the capital which they borrow in industrious undertakings, than to that which is given to individuals not so engaged, and who employ the advances made to them in supporting themselves and their families. In neither case is credit of advantage unless it be granted with due discrimination, and with reference to the character, condition, and prospects of those receiving it. In this country, however, these considerations have been in a great measure lost sight of, in the granting of credit by shopkeepers and tradesmen of all descriptions. Owing to the competition of such persons, their extreme eagerness to secure customers, and the general indolence of opulent persons, which disinclines them to satisfy every small debt when it is contracted, the system of selling upon credit has become almost universal. Few among us think of paying ready money for any thing; seven tenths of the community are in the constant practice of anticipating their incomes; and there is hardly one so bankrupt in character and fortune as to be unable to find grocers, bakers, butchers, tailors &c. ready to furnish him upon credit with supplies of the articles in which they respectively deal. We look upon this facility of obtaining accommodations as a very great evil. They are not, in one case out of five, of any real advantage to the parties receiving them, while they are productive of very pernicious results. The system tempts very many, and sometimes even the most considerate individuals, to indulge in expenses beyond their means; and thus becomes the most fruitful source of bankruptcy, insolvency, and bad faith. To guarantee themselves from the extraordinary risk to which such proceedings expose them, tradesmen are obliged to advance the price of their goods to a most exorbitant height; so that those who are able, and who really mean, to pay the debts they contract, are, in fact, obliged to pay those of the hosts of insolvents and swindlers maintained by the present system. Many tradesmen consider themselves as fortunate if they recover from two-thirds to three-fourths of the sums standing in their books, at the distance of several years.

The extraordinary extent to which the credit practice is carried may be learned from the enquiries of the Parliamentary Committee on Small Debts. It appears from them, that hatters, shoemakers &c. in the metropolis have often 4,000*l.* and upwards on their books in debts below 10*l.*, and that *five sixths of their book debts are below that sum!* A large proportion of these debts are irrecoverable; but owing to the artificial enhancement of prices, those that are good are sufficient to indemnify the traders for the loss of the bad.

It is not easy, we think, to imagine any system better fitted to generate improvidence and fraud. The vast majority of those who become insolvent, or are imprisoned for debt, consist of labourers, artisans, half-pay officers, clerks in public and other offices, annuitants &c.—persons whom no prudent shopkeeper would ever allow to get permanently into his debt. The following table exhibits some of the effects resulting from this system:—

Number of Persons committed for Debt to the several Prisons of the Metropolis in the Year 1842, *and the Sums for which they were committed.*

	For Sums above 100*l.*	For Sums between 50*l.* and 100*l.*	For Sums between 20*l.* and 50*l.*	For Sums under 20*l.*	Total	In Custody January 1, 1843
Queen's Bench Prison	132	72	96	160	460	283
Fleet Prison	59	23	26	12	120	
Marshalsea Prison	2	5	29	70	106	
Whitecross Street Prison	183	235	570	1,979	2,937	399
Horsemonger Lane Prison	28	55	127	146	356	74
Total	404	410	848	2,317	3,979	761

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In consequence of alterations in the law of imprisonment for debt, such as 22 & 23 Vict. c. 57, 24 & 25 Vict. c. 134 &c., the number of persons imprisoned has been greatly reduced. It was time, certainly, that something effectual was done to put an end to such flagrant abuses — to a system that sent 1,929 persons to a single prison for debts under 20*l.*! We do not mean to say or insinuate that credit may not frequently be given to the labouring classes with the best effects: but it is of its abuse that we complain — of its being indiscriminately granted to every one; to those whom it encourages to continue in a course of idleness and profligacy, as well as to those industrious and deserving persons to whom it may occasionally be of the greatest service. To secure the advantages of credit to the public, free from the enormous evils that result from its abuse, is an object of the highest importance; and few things, we believe, would do so much to secure it as the taking from creditors the power to arrest and imprison for debt. [BANKRUPTCY.]

It was stated in the House of Commons (February 19, 1827) that in the space of 2½ years 70,000 persons were arrested in and about London, at an expense to the parties, it may be estimated, of between 150,000*l.* and 200,000*l.*! In 1827, in the metropolis and two adjoining counties, 23,515 warrants to arrest were granted, and 11,317 bailable processes were executed. Hence it may be concluded that in this single year, within the above limits, no fewer than 12,000 persons were deprived of their liberty, on the mere allegation of others, without any *proof* that they owed them a farthing! Well might Lord Eldon say that '*the law of arrest is a permission to commit acts of greater oppression and inhumanity than are to be met with in slavery itself*, and that the redress of such a grievance would not be attended with any fatal consequences to the country.'

The following table, which shows that 1,078 persons were committed to Horsemonger Lane Prison, in 1842, for debts, amounting in all to only 2,321*l.* 16*s.* 9½*d.*, being at an average no more than 2*l.* 3*s.* 8¼*d.* each, proves that the discussions which had previously taken place with respect to the law of arrest and imprisonment had not, in any material degree, lessened its mischievous operation. Whatever else might be dear in England, the fact that thousands of people were annually imprisoned for such miserable trifles shows that personal liberty was at all events abundantly cheap.

The following is a return from Horsemonger Lane Gaol of the number of debtors committed to the said gaol, on process out of courts of request, during the year ending January 1, 1843; stating separately the aggregate amount of debts and costs; showing, in classes, the number confined from 1 to less than 10 days, for 10 days and less than 30, 50, 70, and 100 days; and stating also the amount paid out of the county or other rates for the maintenance and support of such prisoners, as accurately as possible.

		£	s.	d.
Number committed in the year		1,078		
Aggregate amount of debts		2,321	16	9½
costs		618	12	11
Number confined from 1 to less than 10 days		423		
for 10 and „ 30		402		
30 „ 50		160		
50 „ 70		44		
70 „ 100		15		
100 days and more		34		
Amount paid out of the county rate for the maintenance and support of such prisoners, viz.—				
For dietary		256	17	0
Proportionate share of expenses of the gaol for salaries of officers, bedding, fuel, water, rent &c.		506	3	1

We defy anyone to show that the law of arrest and imprisonment has a single good consequence to be placed as a set-off against the evils of which it is productive. Tradesmen depend, as is clearly evinced by the above statements, upon the despotical power which it puts in their hands, to get them out of scrapes; and believe that the fear of being subjected to arrest will stimulate even the most suspicious portion of their debtors to make payment of their accounts. The records of our prisons, and of our insolvent and other courts, show how miserably these expectations are disappointed. We believe, indeed, that we are warranted in affirming that the more respectable classes of shopkeepers and tradesmen are now generally satisfied that the system required some very material modifications. The law of arrest and imprisonment is, in fact, advantageous to none but knaves and swindlers, and the lowest class of attorneys, who frequently buy up small accounts and bills, that they may bring actions upon them, and enrich themselves at the expense of the poor, by the magnitude of their charges. Such oppressive proceedings are a disgrace to a civilised country. Were the law in question repealed, credit would be granted to those only who deserved it; for, generally speaking, tradesmen, supposing they had nothing to trust to but their own discretion, would not deal, except for ready money, with those of whose character and situation they were not perfectly informed; and the difficulty under which all idle and improvident persons would thus be placed of obtaining loans would do much to wean them from their vicious courses, and to render them industrious and honest. 'Those,' says Dr. Johnson, 'who have made the laws, have apparently considered that every deficiency of payment is the crime of the debtor. But the truth is, that the creditor always shares the act, and often more than shares the guilt, of improper trust. It seldom happens that any man imprisons another but for debts which he suffered to be contracted in hope of advantage to himself, and for bargains in which he proportioned his profit to his own opinion of the hazard; and there is no reason why one should punish another for a contract in which both concurred.'

The power of taking goods in execution for debts is also one that requires to be materially modified. It seems to us quite clear that some limits should be set to this power; and that such articles as are indispensable either to the subsistence or the business of any poor man ought to be exempted from execution, and, perhaps, distress. The present practice, by stripping its victims of the means of support and employment, drives them to despair, and is productive only of crimes and disorders.

A petition against imprisonment for small debts, subscribed by many of the most eminent merchants, manufacturers, bankers &c. of the city of Glasgow, was presented to the House of Commons in 1833. It contains so brief, and at the same time so forcible an exposition of the evils resulting from the system, that we shall take the liberty of laying it before our readers.

'Your petitioners have been long and seriously impressed with the belief that very great evils have arisen and do arise from the imprisonment of debtors in Scotland, especially for small sums.

'The petitioners will not here question the policy of the existing laws which authorise the imprisonment of debtors for considerable sums, nor do they intend to object to the creditor retaining the fullest power over the property and effects of his debtor; but they are humbly of opinion that, in so far as these laws give creditors

the power to imprison debtors for small sums, such as for 8*l.* and under, they are not only injurious to the public, and ruinous to the debtor, but even hurtful to the creditor himself.

'It would be a waste of time to dwell upon the hardship of subjecting debtors to imprisonment for small debts, contracted sometimes certainly under circumstances of real distress, but more frequently from the improper use of credit, with which they are too readily supplied. The creditor takes care that his profit shall be commensurate with his risk; and the debtor is induced to purchase freely, and at any price, that which he is not immediately called upon to pay: the creditor coolly and cruelly calculates upon the power which the law has granted him over the person of his debtor if he fail to discharge his debt to him, while the debtor forgets that, by the credit so imprudently afforded him, he is preparing the way for his own ruin, and that of all who have any dependence upon him.

'The total number of debtors imprisoned in the gaol of Glasgow alone, for debts of 8*l.* and under, was in the year 1830, 353; in 1831, 419; and in 1832, 437; while the whole number of incarcerations in that gaol for sums of every description were, in the year 1830, 557; in 1831, 630; and in 1832, 696; the proportion of sums of 8*l.* and under being nearly ⅔ of the whole on the average of these 3 years.

'To remedy these evils, your petitioners humbly submit that means should be adopted for the repeal of the laws at present in force, in so far as they sanction the recovery of small debts by imprisonment; reserving their effect in every other respect; the result of which would be, that credit for small sums would be greatly limited, if not entirely extinguished, and the poorer classes rendered more provident; and by purchasing with money at a cheaper rate what they now buy at an extravagant price, they would be enabled to procure for themselves additional comforts, from the more economical employment of their small incomes.

'May it therefore please your Honourable House to take this matter into your consideration, and to adopt such means as you in your wisdom shall see proper, to prevent the incarceration of debtors for sums under 8*l.*, and thereby remove or greatly mitigate the evils of improvidence on the part of the debtor, and of oppression on the part of the creditor, which necessarily arise under the present system.'

So reasonable a proposal, supported by such conclusive statements, could not fail to make a deep impression; and a bill was soon after introduced, and passed into a law (stat. 6 & 7 Wm. IV. c. 70), taking away the power of imprisonment in Scotland for debts under 8*l.* 6*s.* 8*d.* over and above interest and expenses, except in cases of fraud. This bill is admitted to have been eminently beneficial; and it is to be hoped that the advantages of which it has been productive may lead to the extension and general application of its principle.

Propriety of placing all small Debts beyond the Pale of the Law.—The taking away the power of arrest and imprisonment, except in the case of fraudulent bankruptcy, would certainly be a material improvement upon the existing system. But we are satisfied that it does not go far enough; and that by far the most desirable and beneficial reform that could be effected in this department would be *to take away all action for debts under a given sum, as 50l. or 100l.* The only exception to this rule should be in the case of *claims for wages*, or labour done under executory contracts. To prevent the measure from being defeated, no action should be granted on bills under 50*l.* or 100*l.*, except upon those drawn by or upon regular bankers. This would be a radical change certainly; but we are fully satisfied that it would be highly advantageous to every class of the community, and most of all to labourers, retail dealers, and small tradesmen. It would protect the former from oppression, at the same time that it would tend powerfully to render them more provident and considerate; it would teach the latter to exercise that discretion in the granting of credit which is indispensable; and it would be publicly beneficial, by strengthening the moral principle, and making the contraction of debts for small sums, without the means of paying them, at once difficult and disgraceful.

We agree entirely in opinion with those who think that it is to no purpose to attempt to remedy the defects now pointed out, by multiplying courts and other devices for facilitating the speedy recovery of small debts. This is beginning at the wrong end; or rather it is attempting to obviate the influence of one abuse by instituting another. No wise statesman will ever be easily persuaded to fill the country with petty local courts; for these, when not absolutely necessary, are the merest nuisances imaginable; and he would, at all events, exert himself, in the first instance, to do away, in so far as possible, with the circumstances that make individuals resort to them. But it is certain that $\frac{9}{10}$ of the cases in county courts originate in questions as to simple contract debts under 50*l.*; and were such debts placed, as they ought to be, beyond the pale of the law, the courts would be wholly unnecessary. Our object ought not to be to provide means for enforcing the payment of trifling debts, but *to prevent their contraction.* We believe, indeed, that, instead of lessening, the multiplication of district courts will materially aggravate, all the evils of the present credit system. The belief that they may readily enforce their claims by resorting to them will make shopkeepers and tradesmen still more disposed than at present to give credit, while the unprincipled, the inconsiderate, and the necessitous will eagerly grasp at this increased facility. What there is of caution amongst our retail dealers is in no inconsiderable degree owing to the want of those petty tribunals so many are anxious to have universally established. The more they are increased, the less will caution prevail. But instead of diminishing this virtue, for such it really is, it cannot be too much increased. Nothing will ever deter those who ought not to obtain credit from taking it while in their power; but those who give it may be made to exercise greater discretion; they may be made to know that it is a private transaction between themselves and those to whom they grant it; and that in the case of petty debts they have only their own sagacity to look to, such transactions not being cognisable by law. A measure of the sort here proposed would not, as some appear to imagine, annihilate credit. It would, no doubt, annihilate that spurious, undiscriminating species of credit that is as readily granted to the spendthrift and prodigal as to the frugal and industrious individual; but to the same extent that it deprived the former of the means of obtaining accommodation, it would extend those of the latter. Nothing short of this, nothing but the placing all small debts beyond the pale of the law, will ever fully impress tradesmen with a conviction of the vast advantages that would result to themselves from their withdrawing their confidence from courts and prisons, and preventing everyone from getting upon their books of whose situation and circumstances they are not fully

aware; nor will anything else be able completely to eradicate the flagrant abuses inherent in the present credit system, and which have gone far to render it a public nuisance.

One of the worst consequences of the present system is the sort of thraldom in which it keeps thousands of labourers and other individuals, whom the improper facilities for obtaining credit originally led into debt. Such persons dare not leave the shops to which they owe accounts; and they dare neither object to the quality of the goods offered to them, nor to the prices charged. Dr. Johnson has truly observed, that 'he that once owes more than he can pay, is often obliged to bribe his creditor to patience by increasing his debt. Worse and worse commodities at a higher and higher price are forced upon him; he is impoverished by compulsive traffic; and at last overwhelmed in the common receptacles of misery by debts which, without his own consent, were accumulated on his head.' By taking away all right of action upon small debts, this system of invisible but substantial coercion would be put an end to. The tradesman would take care who got, in the first instance, upon his books; and instead of forcing articles upon him, would cease to furnish him with any unless he found he was regular in making his payments; while the customer to whom credit was of importance would know that his only chance of obtaining it would depend upon his character and reputation for punctuality. The abuses of the sort now alluded to, that grow out of what has been denominated the truck system, justly occasioned its abolition; but these were trifling compared with those that originate in the bringing of petty debts within the pale of the law. (See a pamphlet, entitled *Credit Pernicious*, published in 1823; and *Treatise on the Police &c. of the Metropolis*, by the Author of the *Cabinet Lawyer*, pp. 114–134.)

CREW. The company of sailors belonging to any ship or vessel. Formerly no British ship could be navigated except by a crew ¾ of which were British subjects, besides the master; and every ship of 80 tons burden and upwards had to carry to sea a certain number of apprentices in proportion to her tonnage. But these regulations have been abandoned. [NAVIGATION LAWS.] The crews of British ships may now consist wholly of Englishmen, or wholly of foreigners, or they may be mixed together in any proportion; and it is no longer necessary to carry to sea a single apprentice. The duties and rights of seamen are explained under the articles SEAMEN and MERCANTILE MARINE ACT in this work. Ready obedience to the lawful orders of their superiors, ability to discharge their duties, and alacrity in their performance, at all times and under the most perilous circumstances, are the distinguishing characteristics of good seamen.

CROTON OIL. The expressed oil from the seeds of the *Croton tiglium*, a small tree growing in Hindostan, Ceylon, and the Moluccas, and belonging to the Natural Order *Euphorbiaceæ*. The whole plant contains an acrid, purgative principle. The seeds have been known in Europe from the beginning of the 17th century, under the name of *grana Molucca* and *grana tiglia*. Unlike most other fixed oils, croton oil is soluble in alcohol It is used in medicine. It is slightly viscid; colour brownish yellow, taste acrid, odour faintly nauseous. (*Pharmacopœia of the Medical Council.*)

CUBEBS (Ger. kubeben; Fr. cubèbes; Ital. cubebi; Span. cubebas; Russ. kubebü; Arab. kebâbeh; Javan. kumunkus; Hin. cubab-chinie). The produce of a plant, the *Piper cubeba* of Linnæus, and, under the Natural System, a species of *Piperaceæ*. It is cultivated in Java, and grows also in Penang and other parts of the East Indies. Specimens of cubebs from Ceylon were shown in the Exhibition of 1862. It is a small unripe fruit, dried like a pepper-corn, but somewhat longer. Cubebs have a hot, pungent, aromatic, slightly bitter taste, and a characteristic odour. They should be chosen large, fresh, sound, and the heaviest that can be procured. When cubebs have been kept long, especially in powder, they lose a portion of their volatile oil, on which, it appears, their medicinal properties depend. They are said to be adulterated with Guinea grains and pimento. A duty on their importation, after being reduced in 1842 from 6*d.* to 1*d.* per lb., was repealed in 1845. Of 222,931 lbs. of cubebs imported into the United Kingdom in 1866, 89,721 lbs. came from Holland, i.e. was the produce of the Dutch East India colonies: 128,394 lbs. from the Straits Settlements, and 4,816 lbs. from other localities. The price varied from 3*l.* 10*s.* 4*d.* to 4*l.* 1*s.* 10*d.* per cwt. (*Pharmacopœia of the Medical Council.*)

CUCUMBER. A tropical plant, of which there are many varieties, largely cultivated in hothouses in England.

CUDBEAR. A purple or violet coloured powder used in dyeing violet, purple, and crimson, prepared from a species of lichen (*Lecanora tartarea*), or crustaceous moss, growing commonly on limestone rocks in Sweden, Scotland, the north of England &c. About 130 tons of this lichen are annually exported from Sweden. It commonly sells in the port of London for about 20*l.* per ton; but to prepare it for use, it must be washed and dried; and by these operations the weight is commonly diminished a half, and the price, in effect, doubled. Though possessing great beauty and lustre at first, the colours obtained from cudbear are so fugitive that they ought never to be employed but in aid of some other more permanent dye, to which they may give body and vivacity. In this country it is chiefly used to give strength and brilliancy to the blues dyed with indigo, and to produce a saving in that article; it is also used as a *ground* for madder reds, which commonly incline too much to yellow, and are made *rosy* by this addition. The name cudbear was given to this powder by Dr. Cuthbert Gordon, who, having obtained a patent for the preparation, chose in this way to connect it with his own name. (Bancroft, *Philosophy of Permanent Colours*, vol. i. pp. 300–304.)

CUMMIN SEED (Ger. kumin; Fr. cumin; Ital. comino, cumino; Span. comino; Arab. kemun). The seeds of an annual plant (*Cuminium Cyminum*, Linn.), a native of Egypt, but extensively cultivated in Sicily and Malta. They have a strong, peculiar, heavy odour, and a warm, bitterish, disagreeable taste. This seed, which formed a favourite ingredient in the cookery of our forefathers, has been supplanted by more agreeable condiments. It was employed in medicine, is still used in farriery, and is reported to enter into the composition of artificial food for cattle.

CURRANTS (Fr. raisins de Corinthe; Ger. korinthen; Ital. uve passe di Corinto; Lat. passulæ Corinthiacæ; Russ. korinka, opock; Span. pasas de Corinto). A small species of grape, largely cultivated in Zante, Cephalonia, and Ithaca, of which islands they form the staple produce; and in the Morea, in the vicinity of Patras. The plant is delicate; and as 6 or 7 years must elapse, after a plantation has been formed, before it begins to produce, its cultivation requires a considerable outlay of capital. The crop is particularly liable to injury from rains in harvest, and is altogether

of a very precarious description. After being dried in the sun, the currants are exported packed in large butts. They are in extensive demand in this country; and, when mixed with flour and suet, make a dish peculiarly acceptable to the lower classes. But, as if it had been intended to put them beyond the reach of all except the richest individuals, they were burdened, down to 1834, with the exorbitant duty of 44*s.* 4*d.* per cwt. In that year, however, the duty was reduced a half, or to 22*s.* 2*d.* per cwt., and their importation was in consequence very materially increased. We observed in a former edition of this work that as the price of currants in bond varied from 20*s.* to 35*s.* per cwt., a duty of 22*s.* 2*d.* per cwt. was a great deal too high; and that it was, no doubt, owing to its amount that the consumption of currants was not materially greater. Sir Robert Peel took this view of the matter, and in 1844 reduced the duty to 15*s.* per cwt. The result was such as might have been anticipated. At an average of the 3 years ending with 1842, 183,836 cwts. currants were annually entered for consumption, producing an annual revenue of 212,894*l.* But at an average of the years 1849 and 1850 no fewer than 419,846 cwts. were entered for consumption, while the annual revenue was increased to 330,241*l.*! and notwithstanding the farther great reduction of the duty to 7*s.* in 1860, in 1866, 758,399 cwts. entered for consumption yielded a revenue of 265,448*l.* This, therefore, is one of the most memorable instances of the advantage of a judicious reduction of an excessive duty on an article in extensive demand. Besides increasing the comforts of the public and the amount of the revenue, it has given a considerable stimulus to the trade with Greece and the Ionian Islands, currants being the principal product which they have to export.

In 1867, 1,002,366 cwts. were imported, valued at 909,578*l.* The price of currants in 1866 varied from 17*s.* 6*d.* to 20*s.* 2*d.*, the best as well as the largest quantity having been exported from Greece.

Currants are subject to an ad valorem export duty, which varies according to the crop. The average is about 13 per cent. By far the largest part of the currants exported are consigned to this country for home consumption.

Currants, like other kinds of grape, suffered severely by the oidium.

Imports and Price of Currants for Twelve Years ending 1866.

Year	Cwt.	Per cwt. exclusive of duty	Year	Cwt.	Per cwt. exclusive of duty
		s. *d.*			*s.* *d.*
1855	163,729	61 3	1861	838,257	22 5
1856	351,725	55 4	1862	873,529	20 0
1857	398,819	37 6	1863	920,442	21 4
1858	585,380	26 8	1864	764,492	18 7
1859	557,861	30 9	1865	937,251	17 3
1860	755,412	22 6	1866	755,182	20 2

Account of the Shipment of Currants from the Morea during the Three Years 1864–66.

	1864	1865	1866
	Tons	Tons	Tons
To United Kingdom - -	31,515	38,789	30,588
America - -	721	1,170	2,707
the Continent - -	4,185	4,825	7,708
For Orders - -	1,006	811	—
Total - -	37,447	41,595	41,003

No abatement of duties is made on account of any damage received by currants.

A Treasury letter of March 30, 1816, directs the following tares to be allowed, with liberty to the merchant and officers to take the actual tare when either party is dissatisfied:—Currants in casks from Zante 13 per cent., Leghorn 10 per cent., Trieste 10 per cent.

CUSTOM HOUSE. The house or office where commodities are entered for importation or exportation; where the duties, bounties, or drawbacks payable or receivable upon such importation or exportation are paid or received; and where ships are cleared out &c.

For information as to the proceedings necessary at the Custom House on importing or exporting commodities, see the article IMPORTATION AND EXPORTATION.

The principal British Custom House is in London; but there are Custom Houses subordinate to the latter in all considerable sea-port and a few inland towns.

CUSTOMS. Duties charged upon commodities on their being imported into or exported from a country.

Customs duties seem to have existed in every commercial country. The Athenians laid a tax of ¼ on the corn and other merchandise imported from foreign countries, and also on several of the commodities exported from Attica. The *portoria*, or customs payable on the commodities imported into, and exported from, the different ports in the Roman empire, formed a very ancient and important part of the public revenue. The rates at which they were charged were fluctuating and various, and little is now known respecting them. Cicero informs us that the duties on corn exported from the ports of Sicily were, in his time, 5 per cent. Under the Imperial Government, the amount of the *portoria* depended as much on the caprice of the prince as on the real exigencies of the state. Though sometimes diminished, they were never entirely remitted, and were much more frequently increased. Under the Byzantine emperors they were as high as 12½ per cent.

Customs duties existed in England previously to the Conquest. They appear to have derived their name from having been immemorially or customarily charged on certain articles when conveyed across the principal ferries, bridges &c. within the kingdom, and on these and other articles of native and foreign produce when exported from or imported into the kingdom. In 1206 the entire customs revenue of England, including that derived from tolls and fairs, was only 4,958*l.* 7*s.* 3½*d.*! It is not, therefore, true, as has sometimes been stated, that the king's first claim to the customs was established in the reign of Edward I.; but that able and politic prince, by rendering the levy of the old duties more effectual, and procuring the sanction of Parliament to the imposition of new duties, was the first who made the customs revenue of any material importance. The duties were, at first, principally laid on wool, woolfels (sheep-skins), and leather when exported. There were also extraordinary duties paid by aliens, which were denominated *parva costuma*, to distinguish them from the former, or *magna costuma*. The duties of tonnage and poundage, of which mention is so frequently made in English history, were customs duties; the first being paid on wine by the tun, and the latter being an ad valorem duty of so much a pound on all other merchandise. When these duties were granted to the Crown, they were denominated *subsidies*; and as the duty of poundage had continued for a lengthened period at the rate of 1*s.* a pound, or 5 per cent., a subsidy came, in the language of the customs, to denote an ad valorem duty of 5 per cent. The *new subsidy* granted in the reign of William III. was an addition of 5 per cent. to the duties on most im-

ported commodities. (*Treatise on Taxation*, by the author of this work, 2nd ed. p. 234.)

The various customs duties were collected, for the first time, in a book of rates published in the reign of Charles II.; a new book of rates being again published in the reign of George I. But, exclusive of the duties entered in these two books, many more had been imposed at different times; so that the accumulation of the duties, and the complicated regulations to which they gave rise, were productive of the greatest embarrassment. The evil was increased by the careless manner in which new duties were added to the old; a percentage being sometimes added to the original tax; while at other times the commodity was estimated by a new standard of bulk, weight, number, or value, and charged with an additional impost, without any reference to the duties formerly imposed. The confusion arising from these sources was still further augmented by the special appropriation of each of the duties, and the consequent necessity of a separate calculation for each. The intricacy and confusion inseparable from such a state of things proved a serious injury to commerce, and led to many frauds and abuses.

The Customs Consolidation Act, introduced by Mr. Pitt in 1787, did much to remedy these inconveniences. The method adopted was, to abolish the existing duties on all articles, and to substitute in their stead one single duty on each article, equivalent to the aggregate of the various duties by which it had previously been loaded. A more simple and uniform system was, at the same time, introduced into the business of the Custom House. These alterations were productive of the best effects. But the many changes in the customs duties and regulations which took place during the lengthened struggle terminated in 1815 having again introduced a great deal of complexity into the business of the Custom House, a new consolidation was effected in 1825. The numerous statutes relating to the customs, amounting, including parts of statutes, to about 450, were repealed and compressed into some half dozen statutes of a reasonable bulk, and drawn up with a commendable degree of perspicuity.

The numerous reforms effected by Sir Robert Peel occasioned further changes; and these, and the various reforms effected by Mr. Gladstone, made it necessary again to consolidate the customs laws. This was accomplished by the Customs Consolidation Act of 1853, the 16 & 17 Vict. c. 107. This statute, which was drawn up under the direction of the late James Wilson, Esq., Secretary to the Treasury, is at once brief, comprehensive, and so clear as to be level to the comprehension of those least acquainted with such matters. This, though amended by various subsequent Acts and especially the Customs Consolidation Act of 23 & 24 Vict. c. 110, comprises the whole law respecting the importation, exportation, warehousing, smuggling &c. of goods, with the regulations to be observed in the coasting and colonial trades &c. This, however, is only a part of its merit; for, besides condensing and simplifying the various customs laws, it introduced some most important improvements. It, for instance, made an end, in so far at least as the customs is concerned, of the unjust regulation which, by exempting the Crown from the payment of costs, obliged a party in a suit with the commissioners, even when successful, to pay his own expenses. It also relieved all goods seized, on the allegation of their not having paid the proper duty, from seizure on the importer depositing the amount claimed by the customs till the point should be enquired into and properly decided, when, if the customs were found to have made an overcharge, a corresponding part of the sum deposited should be returned to the merchant, with interest at the rate of 5 per cent., and the expenses of suit. The Act further provided that an importer who considered himself aggrieved by a decision of the Board of Customs might, if he chose, have the case enquired into in open court before a commissioner, where he might meet the officer making the accusation face to face, and learn by examination and otherwise the nature of the evidence by which it was supported, and the real facts of the case. The commissioner who conducts an enquiry of this sort reports the evidence so taken to the Board, who may, thereupon, confirm or modify their decision; it being optional with the merchant either to abide by it or to carry the case before a competent tribunal. And in the event of the duty or penalty claimed being under 100*l.*, or of the case being of a simple kind, it may be tried before magistrates, county courts, and other inferior tribunals, so that the public will no longer be debarred from asserting their rights by the heavy expense attending trials in the Exchequer Court and at the assizes. The most important portions of this statute are given under the various heads to which it refers [Coasting Trade; Colonies and Colony Trade; Importation and Exportation; Smuggling; &c.]; but every merchant will do well to supply himself with the statute, and to make its provisions the subject of careful study.

Customs duties, like all duties on particular commodities, though advanced in the first instance by the merchant, are ultimately paid by those by whom they are consumed. When a Government lays a duty on the foreign commodities which enter its ports, the duty falls entirely on such of its own subjects as purchase these commodities; for the foreigners would cease supplying its markets with them if they did not get the full price of the commodities exclusive of the tax; and for the same reason, when a Government lays a duty on the commodities which its subjects are about to export, the duty does not fall on them, but on the foreigners by whom they are bought. If, therefore, it were possible for a country to raise a sufficient revenue by laying duties on exported commodities, such revenue would be wholly derived from others, and it would be totally relieved from the burden of taxation except in so far as duties might be imposed by foreigners on the goods it imports from them. Care, however, must be taken, in imposing duties on exportation, not to lay them on commodities that may be produced at the same, or nearly the same, cost by foreigners; for the effect of the duty would then be to make the market be supplied by others, and to put an entire stop to their exportation. But in the event of a country possessing any decided natural or acquired advantage in the production of any sort of commodities, a duty on their exportation would seem to be the most unexceptionable of all taxes. If the Chinese chose to act on this principle, and had the power, they might derive a considerable revenue from a duty on exported teas, which would fall entirely on the English and other foreigners who buy them. The coal and tin, and perhaps also some of the manufactured goods produced in this country, seem to be in this predicament.

The revenue derived from the customs duties in 1590, in the reign of Elizabeth, amounted to no more than 50,000*l.* In 1613 it had increased to 148,075*l.*; of which no less than 109,572*l.* were collected in London. In 1660, at the Restoration, the customs produced 421,582*l.*; and at the Re-

volution, in 1688, they produced 781,987*l.* During the reigns of William III. and Anne the customs revenue was considerably augmented, the nett payments into the exchequer in 1712 being 1,315,423*l.* During the war terminated by the Peace of Paris in 1763, the nett produce of the customs revenue of Great Britain amounted to nearly 2,000,000*l.*; in 1792 it amounted to 4,407,000*l.*; in 1815, at the close of the war, it amounted to 11,360,000*l.*; and in 1852 it amounted to 20,048,744*l.* 11*s.* 4*d.*, and, including Ireland, to 22,137,120*l.* 1*s.* 11*d.*

Within the years 1851–1865 customs duties reported to produce more than 14,000,000*l.* have been repealed, and others, reckoned at about 3,250,000*l.*, have been imposed. But the customs revenue has fairly kept pace with the reductions —the amount received within this period varying from 21,000,000*l.* to 24,000,000*l.* And though, when great reductions have been made, the revenue has doubtlessly lost on some particular article, it has gained on the general consumption of duty-paying articles.

Astonishing, however, as the increase of the customs revenue has certainly been, it is not quite so great as it appears. Formerly the duties on some considerable articles, such as sugar, brandy, wine &c. imported from abroad, were divided partly into customs duties charged on their importation, and partly into excise duties on their being taken into consumption. But these duties have since been wholly transferred to the customs; the facilities afforded by means of the warehousing system, for paying the duties in the way most convenient for the merchant, having obviated the necessity of dividing them into different portions.

It will be seen from various articles in this work [BRANDY; GENEVA; SMUGGLING; TEA; TOBACCO; &c.] that the exorbitant amount of the duties which have been laid on various articles imported from abroad leads to much smuggling and fraud; and requires, besides, an extraordinary expense in many departments of the customs service, which might be avoided were these duties reduced within more reasonable limits. This, however, is the business of Government, and not of those intrusted with the management of the customs; and it would be unjust to the latter not to mention that this department has been essentially improved, during the present century, in respect of economy, whatever may be thought of its efficiency. The following extracts from a letter to the Right Hon. H. Goulburn, ascribed to a former chairman of the Board of Customs (R. B. Dean, Esq.), give a brief but satisfactory view of the improvements that have been effected:—

'As regards the department of customs in 1792, the principal officers engaged in the receipt of the duties in the port of London were patent officers.

'The first Earl of Liverpool was collector inwards.

'The late Duke of Manchester, collector outwards.

'The Duke of Newcastle, and afterwards the Earl of Guilford, comptroller inwards and outwards.

'Lord Stowell, surveyor of subsidies and petty customs.

'These noblemen took no part in the official duties, but merely exercised the right of appointing deputies and clerks.

'Both principals and deputies were remunerated by fees. The patentees received the fees denominated patent, and the deputies retained the fees called the fees of usage for their own use. In addition to these fees, both deputies and clerks received fees for despatch.

'The same system prevailed throughout the whole department. The salaries of the officers were nominal; and the principal proportion of all official income was derived from fees. These fees were constantly varying both in rate and amount, and formed a continual source of dispute and complaint between the merchant and the officer.

'This system (after having been repeatedly objected to by various commissions of enquiry, and finally by the Committee of Finance in 1797) was put an end to in the year 1812 by the Act 51 Geo. III. c. 71, by which all patent offices and fees were abolished, and compensation allowances granted to the patent officers, and fixed salaries established.

'The additional salaries granted under this arrangement amounted to about 200,000*l.*, and the temporary compensation allowances to about 40,000*l.* per annum.

'The fees abolished, and from which the public were relieved, amounted to about 160,000*l.* per annum.

'In addition to the amount of fees from which the public were relieved, various allowances made by the Crown to officers for quarantine, coal poundage, poundage on seizures, and many other incidental allowances, which did not appear on the establishment, were also abolished, and the salaries of every officer placed at one view upon the establishment.

'The effect of these salutary measures has been to give a great apparent increase to officers' salaries since 1791: and, upon a mere comparison of the establishment of 1792 with 1830, without the above explanation, it would appear that the pay of the officers had been most materially augmented, whereas, in point of fact, the difference is in the mode of payment; and the incomes of the officers at the present period (as compared with 1792) are in general less; and, consequently, the public are less taxed for the performance of the same duty *now* than in 1792.

'In the year 1792 the warehousing system had not been established. Officers were admitted at all ages, and there was no system of classification or promotion. The officers at the out-ports and in London were generally appointed through local influence, and were too often persons who had failed in trade, or had been in menial service, and who regarded their situations rather as a comfortable provision for their families than as offices for which efficient services were required. The superintendence and powers of the Board were cramped and interfered with by circumstances and considerations which prevented the enforcement of wholesome regulation. The whole system was so imperfect, so far back only as 1818, that a special commission was appointed to enquire into the department; and, upon the recommendation of that commission, various regulations have been adopted.

'The age of admission has been limited; a system of classification and promotion of officers, and a graduated scale of salaries, established throughout the whole department; and by this means local interference in the promotion of officers has been abolished; the attendance of officers increased, regulated, and strictly enforced; holidays reduced from 46 in the year to 3, viz. Good Friday, the King's birthday, and Christmas-day; useless oaths, and bonds, and forms of documents of various kinds discontinued; increased facility and despatch afforded to the merchants'

busines; the accounts kept in the different offices, and returns of all kinds, revised, simplified, and reduced; and various minor regulations of detail established; the whole machinery of the department remodelled, and adapted to the trade and commerce of the country.

'In Ireland the number of officers employed at all the ports in the year ended Jan. 5, 1830, and the salaries and charges, did not much exceed the number and expense at the port of Dublin alone in 1818; and within the space of 11 years nearly two thirds of the officers employed at the ports in Ireland have been discontinued; the number having been, in 1818, 1,755; in 1829, 544; and an annual reduction in salaries and charges has been effected to the extent of 173,724*l.*; the amount having been, in 1818, 285,115*l.*; in 1829, 111,391*l.* (103,813*l.* of that amount having been reduced between the years 1823 and 1828), upon an expenditure of 285,115*l*; and the receipts were nearly equal, in 1827, to those of 1818 and 1823, notwithstanding the total repeal of the cross Channel duties, amounting to about 340,000*l.* per annum, subsequent to the latter period.

'Influence is no longer allowed to prevail; and in many cases which have recently occurred, and in which the patronage of Government might have been fairly exercised, it has been at once abandoned in order to give way to arrangements by which the services of some very intelligent and highly respectable officers, whose offices had been abolished, could be again rendered available with a material saving to the public.

'By an order from the Lords of the Treasury, of February 20, 1830, the salaries of the commissioners, and of other officers, have been prospectively reduced, and directions given to revise the whole establishment in the spirit of that order, with a view to every possible reduction.'

Defects and Improvement of the Customs Establishment.—The above are great improvements, and reflect credit alike on the Government and the Board of Customs. But the latter has, notwithstanding, been less efficient than might have been expected. Some years ago it was found that extensive frauds had been carried on in the port of London, for a lengthened period, in the entry of silks, gloves, and other highly taxed articles, through the connivance of the customs officers. The origin, no doubt, of these, as of most similar frauds, may be traced to the exorbitancy of the then existing duties, and to the consequent temptation which they held out to smuggling on the part of the importers and the corruption of the officers. But, admitting this, it is, at the same time, abundantly clear that had anything like an efficient supervision and check been exercised by the commissioners and their superior officers, these frauds could not have been carried on so long, or to such an extent. The commissioners could not but be aware that frauds of no common magnitude were taking place in the entry of goods in the Thames. Private parties had assured them that such was the case; and, independently of this, the fact must have been established to the conviction of every reasonable person by comparing the accounts given by the French custom-house of the exportation of silks, gloves &c. from France for England, with the entries of the same in our customs returns. And it was the duty of the commissioners, on seeing this extraordinary discrepancy, to have themselves immediately entered into a searching enquiry into its origin, and not to have devolved that duty on others, or waited till the frauds were discovered by the confessions of some of those engaged in carrying them on.

We hope it will not be supposed, from anything now stated, that we have any wish to extenuate the guilt of the officers who participate in the plunder of the revenue; but, how much and how deservedly soever we may blame them, we need not be surprised, considering their situation in life, the smallness of their salaries, and the carelessness of their superiors, that they should sometimes yield to the powerful temptations to which they are exposed.

In 1851 the Commissioners of Customs were so ill-advised as to institute numerous actions, some of them of a very paltry description, against two of the principal London Dock Companies. We mentioned in a former edition of this work that these actions, even if the Commissioners were successful, would most probably do little more than establish some irregularity or neglect of duty on the part of the Dock Companies, whose interests, in as far as the collection of the revenue is concerned, are, in effect, identical with those of the Government. The result has more than justified these anticipations. The proceedings against the Companies, which were of a most vexatious, costly, and oppressive character, terminated in their substantial acquittal. The irregularities (for they amounted to nothing more) of which they were convicted were venial in the extreme, and, in truth, quite unworthy of public notice.

This, however, is a case in which good was educed out of evil. The extraordinary proceedings now referred to, coupled with the delays and other annoyances experienced by merchants in transacting business with the Customs, rendered that department extremely unpopular. A very general demand was in consequence made for an effectual reform of the practices followed in the Custom House, and for a reconstruction of the Board. The subject was carefully investigated by a committee of the House of Commons; and the most important object, or the simplification of the business conducted by the Customs, and the placing it on a more equitable footing, was in great measure effected by the Consolidation Act to which we have already referred. The Board was not indeed amended; but there are fewer Commissioners now than formerly, so that the responsibility attaching to each is increased, though the general opinion seems to be that they are still too numerous. It is believed that in future, when new Commissioners are appointed, they will be selected, more frequently than hitherto, from among the officers of the establishment, and the mercantile body; and this, notwithstanding the contrary opinion of the Commissioners, would probably be an improvement.

It is possible that smuggling is still carried on to some extent, and if so, that the articles of tobacco and spirits are the chief objects of this illicit trade. But we are persuaded that the practice is declining, and that it is looked on as dishonest and disreputable by almost all classes of the community, not only to break the revenue laws, but to deal with those who do so. [SMUGGLING.]

For Tariff of the United Kingdom, see TARIFF.

The following table gives an account of the Customs duties received on various duty-paying articles in the year 1865. Since this time, however, the duties on pepper and timber have been repealed, and that on tea has been reduced. The duties also on wines in bottle have been equalised to those on wine in wood.

Customs Revenue, 1865.

Article		Amounts Imported	Duty received
			£
Almond paste	lbs.	373	2
Arrow root	cwt.	21,913	411
Beer, Mum	gallons	98	3
Spruce	,,	88,004	2,753
and Ale	,,	7,196	225
Biscuit and bread	cwt.	6,224	118
Cards, playing	doz. packs	2,631	494
Cassava powder	cwt.	504	10
Chicory, Raw	,,	96,522	127,892
Roasted	lbs.	2,139	41
Chloroform	,,	5	1
Cocoa, raw	,,	4,286,635	17,871
Paste or chocolate	,,	147,926	1,232
Husks and shells	cwt.	9,085	968
Coffee	lbs.	30,505,872	381,557
Collodion	gallons	20	21
Comfits, dry	lbs.	1,697	7
Confectionary	,,	233,795	974
Corn, Wheat	cwt.	20,935,839	569,198
Barley	,,	7,817,947	97,155
Oats	,,	7,710,828	96,256
Rye	,,	207,558	2,553
Peas	,,	782,202	9,749
Beans	,,	938,201	11,987
Maize	,,	7,097,254	88,684
Buckwheat, bear and bigg	,,	34,813	435
Meal, Wheat	,,	3,883,399	73,066
Barley	,,	91	2
Oats	,,	1,323	25
Rye	,,	262	5
Maize	,,	7,277	136
Buckwheat	,,	55	1
Unenumerated	,,	2,232	42
Potato flour	,,	64,262	1,190
Ether	gallons	72	59
Fruits, dried cherries	lbs.	1,723	7
Currants	cwt.	802,067	280,749
Figs, dried	,,	65,597	24,357
cake	,,	7	2
Plums, French	,,	6,305	2,208
dried	,,	893	313
in sugar	lbs.	305	1
Prunes	cwt.	13,906	4,868
Raisins	,,	295,409	103,401
Maccaroni and Vermicelli	,,	7,705	145
Plate, Silver	oz.	44,169	3,313
Gold	,,	14	12
Malt	qrs.	4	6
Manna croup	cwt.	98	2
Marmalade	lbs.	4,917	21
Pickles in vinegar	gallons	1,280	5
Rice meal	cwt.	2,765	52
Sago	,,	157,324	2,950
Semolina	,,	2,317	44
Ships on registration as British		—	7,109
Spices, ginger preserved	lbs.	228,916	951
Pepper*	,,	4,738,955	121,400
Spirits, Rum	gallons	3,699,585	1,879,998
Spirits, Brandy	gallons	2,666,561	1,588,733
Geneva	,,	117,165	61,178
Unenumerated	,,	221,749	118,499
sweetened, perfumed	,,	16,410	11,495
Unenumerated	,,	45,273	10,517
Sugar, refined	cwt.	728,473	467,409
Unrefined, white clayed	,,	93,076	54,295
Yellow muscovado and brown clayed	,,	3,929,100	2,062,688
Not equal to brown clayed	,,	4,254,523	1,935,815
Not equal to brown muscovado	,,	1,919,618	780,745
Sugar cane juice	,,	28,500	7,473
Syrup, or vegetable juice	,,	6,029	1,976
Molasses	,,	573,858	94,639
Sugar scrapings	,,	11,704	2,476
Starch	,,	20,020	578
Gum of	,,	47	1
Succades	lbs.	467,214	1,947
Tapioca	cwt.	19,891	313
Tea †	lbs.	97,921,670	3,189,269
Tobacco, unmanufactured	,,	38,076,812	5,994,632
Manufactured:			
Snuff	,,	334	[illegible]
Cigars	,,	787,399	196,814
Cavendish	,,	30,167	6,513
Other sorts	,,	10,258	2,034
Vinegar	gallons	58,665	735
Varnish, alcoholic	,,	409	245
Wine, red	,,	5,337,726	554,192
white	,,	6,723,537	820,667
Wood *: Hewn, Fir	loads	4,396,264	69,543
Oak	,,	109,705	5,342
Masts, spars, poles	,,	57,305	2,756
Unenumerated	,,	68,379	3,405
Sawn or split fir	,,	2,085,982	208,431
Oak	,,	6,450	589
Unenumerated	,,	44,061	4,407
Staves	,,	67,611	5,456
Firewood	,,	180,673	9,034
Hoops	,,	8,159	816
Lathwood	,,	104,992	5,251
Teak	,,	54,732	2,476
Greenheart do.	,,	12,599	630
Trenails	,,	890	45
Furniture woods:			
Box	tons	6,109	305
Cedar	,,	3,903	195
Ebony	,,	1,279	64
Mahogany	,,	51,376	2,543
Rose	,,	1,468	73
Walnut	,,	5,589	281
Lignum vitæ	,,	4,961	248
Maple	,,	304	15
Satin	,,	266	13
Unenumerated	,,	1,389	69

* Abolished. † Reduced.

N. B.—The Board of Customs have issued twelve annual Reports on the state of the Customs Department, which embody a great deal of useful information. The first Report, which gives an account of the history and progress of the department, is especially interesting.

The following clauses of the Customs Consolidation Act, the 16 & 17 Vict. c. 107, refer to the appointment of customs officers.

Appointment of Officers.—It shall be lawful for the Commissioners of the Treasury, or, under their authority, the Commissioners of Customs, to appoint proper persons for the management and collection of the customs, and the performance of all duties connected therewith, under the control and direction of the Commissioners of Customs, and to grant to such persons such salaries or allowances, or to permit them to receive such emoluments for executing the duties of their respective offices, as may be proper, and to require of such persons such securities for their good conduct as the said Commissioners of the Customs shall deem necessary; and such persons shall hold their offices during the pleasure of the Commissioners of the Treasury or of the Commissioners of Customs; and all salaries or allowances granted to any officer or other person in the service of the Customs shall be paid without any deduction on account of any duties imposed by any Act of Parliament, unless expressly charged thereon; and when any sum of money shall have been or shall be granted annually or otherwise to any person who has been or shall have been employed in the service of the Customs as a superannuation allowance upon the retirement of such person from such service, or as a compensation for past services, it shall not be lawful for the grantee of such allowance or compensation to assign or dispose of the same to any person or persons whomsoever, and any such assignment or disposition shall be void to all intents and purposes, and shall not be enforced in any court of law or equity. (Sec. 1.)

Persons employed on Service of the Customs shall be deemed Officers for such Service.—Every person employed on any duty or service relating to the customs, trade, or navigation, either in the United Kingdom, the Channel Islands, or any of her Majesty's possessions abroad, by the orders or with the concurrence of the Commissioners of Customs (whether previously or subsequently expressed), shall be deemed to be the officer for that duty or service; and every act required by law to be done by or with any particular officer nominated for such purpose, if done by or with any person appointed by the Commissioners of Customs to act for such particular officer, shall be deemed to be done by or with such particular officer; and every act required by law to be done at any particular place within any port, if done at any place within such port appointed by the Commissioners of Customs

for such purpose, shall be deemed to be done at the particular place so required by law; and all commissions, deputations, and appointments granted to any officers of the Customs in force at the commencement of this Act shall continue in force as if the same had been granted under the authority of this Act, and all bonds or other securities which shall have been given by or for any such officers and their respective sureties for good conduct or otherwise shall remain in full force. (Sec. 2.)

Clause 3rd enacts that any officer taking fee or reward not authorised by law shall be dismissed.

An Account, showing the Annual Gross Receipt and Nett Produce of the Customs Revenue of the United Kingdom from 1807 *to* 1867, *with the Charges of Collection thereon, and the Rate per Cent. of Collection on the Gross Receipt and Nett Produce respectively.*

Year	Gross Receipt	Nett Produce, after Deducting Drawbacks &c.	Charges of Collection	Rate per Cent. of Collection: On Gross Receipt	Rate per Cent. of Collection: On Nett Produce
	£	£	£	£ s. d.	£ s. d.
1807	16,091,731	12,750,353	1,[illegible]	6 [illegible]	[illegible]
1808	14,584,491	12,597,798	1,[illegible]	7 10 0	8 0 7
1809	16,941,989	14,[illegible]	1,[illegible]	7 5 3	8 7 2
1810	16,888,635	14,987,471	1,[illegible]	7 16 4	9 1 1
1811	15,110,158	13,153,674	1,[illegible]	8 5 9	10 15 8
1812	16,030,756	14,551,771	1,[illegible]	9 2 6	[illegible] 3 10
1813	16,926,891	14,477,089	1,[illegible]	9 12 1	[illegible] 4 7
1814	17,025,263	15,025,991	1,[illegible]	9 12 9	[illegible] 18 5
1815	16,623,971	14,550,990	1,[illegible]	10 3 2	11 15 9
1816	14,015,215	11,891,593	1,[illegible]	12 6 6	14 10 11
1817	15,866,673	13,746,087	1,[illegible]	10 1 2	11 12 3
1818	15,916,776	13,628,881	1,[illegible]	10 12 9	12 9 0
1819	14,734,502	12,790,273	1,[illegible]	10 19 6	13 5 8
1820	14,109,593	11,969,580	1,[illegible]	10 9 10	13 6 10
1821	14,789,205	12,[illegible]	1,[illegible]	10 0 1	12 12 1
1822	14,381,711	12,[illegible]	1,[illegible]	10 15 3	11 19 6
1823	15,[illegible]	13,[illegible]	1,[illegible]	10 2 3	11 4 6
1824	15,491,169	13,[illegible]	1,[illegible]	9 8 9	10 [illegible]
1825	20,367,655	18,945,[illegible]	1,[illegible]	7 7 9	7 18 10
1826	20,582,925	19,562,923	1,[illegible]	7 9 4	7 17 2
1827	21,099,053	19,[illegible]	1,[illegible]	7 1 10	7 9 6
1828	20,608,711	19,417,191	1,[illegible]	7 1 1	7 9 9
1829	20,571,852	19,[illegible]	1,[illegible]	6 15 9	7 [illegible]
1830	21,084,595	19,687,104	1,[illegible]	6 [illegible] 10	6 12 8
1831	19,615,940	18,267,074	1,[illegible]	6 14 7	7 4 3
1832	19,684,574	18,367,881	1,[illegible]	6 19 10	7 9 1
1833	18,577,185	17,809,353	1,[illegible]	7 9 3	7 15 8
1834	21,118,940	20,[illegible]	1,[illegible]	6 [illegible]	6 15 2
1835	23,148,890	22,146,038	1,[illegible]	5 17 [illegible]	6 2 6
1836	23,959,[illegible]	23,[illegible]	1,[illegible]	5 [illegible]	5 11 10
1837	22,907,616	22,063,119	1,[illegible]	5 15 0	5 17 4
1838	23,210,851	24,365,730	1,[illegible]	5 12 1	5 10 1
1839	23,568,651	23,154,092	1,[illegible]	5 [illegible]	5 11 4
1840	24,[illegible]	25,581,813	1,[illegible]	5 [illegible]	5 10 5
1841	23,821,186	23,515,575	1,[illegible]	5 6 4	5 7 9
1842	22,771,515	22,523,513	1,[illegible]	[illegible] 10 2	5 11 [illegible]
1843	22,8[illegible]	22,617,[illegible]	1,[illegible]	5 [illegible]	5 10 7
1844	24,277,177	24,007,348	1,[illegible]	5 [illegible] 2	5 4 11
1845	22,[illegible]	21,706,197	1,[illegible]	5 16 4	5 18 0
1846	22,[illegible]	22,[illegible]	1,[illegible]	5 11 10	5 13 6
1847	21,821,610	21,615,862	1,[illegible]	5 19 6	6 0 5
1848	22,786,942	22,593,977	1,[illegible]	5 15 3	5 16 2
1849	22,485,956	23,268,864	1,[illegible]	5 15 9	5 15 11
1850	22,104,142	22,010,[illegible]	1,[illegible]	5 16 8	5 16 7
1851	22,375,682	22,197,[illegible]	1,[illegible]	5 15 4	5 16 4
1852	22,312,514	22,137,[illegible]	1,[illegible]	5 15 8	5 16 7
1853	22,737,484	22,[illegible]	1,[illegible]	5 14 7	5 15 9
Years ending March 31					
1855	22,245,118	21,991,675	1,[illegible]	5 12 11	5 14 3
1856	23,481,818	23,215,[illegible]	1,[illegible]	5 12 0	5 13 3
1857	23,999,[illegible]	23,[illegible]	1,[illegible]	4 19 2	5 14 8
1858	23,003,770	23,276,743	815,[illegible]	3 11 6	3 12 6
1859	24,[illegible]	23,[illegible]	[illegible]	3 [illegible]	3 9 10
1860	24,[illegible]	24,[illegible]	[illegible]	3 6 5	3 7 6
1861	23,[illegible]	23,[illegible]	[illegible]	3 5 5	3 6 1
1862	23,937,772	23,[illegible]	[illegible]	3 1 3	3 1 11
1863	24,[illegible]	24,[illegible]	[illegible]	2 19 4	3 0 5
1864	23,569,101	23,[illegible]	741,791	3 2 11	3 3 10
1865	23,[illegible]	22,[illegible]	[illegible]	3 6 0	3 6 8
1866	22,294,980	22,076,457	772,888	3 9 4	3 10 0
1867	23,630,493	23,107,350	784,353	3 6 3	3 7 0

Summary Account, showing the Amount of Revenue Collected by the Customs in London, Liverpool, Bristol, and the Outports of England, Scotland, and Ireland respectively in the Years ended December 31, 1861–67.

Ports	1861	1862	1863	1864	1865	1866	1867
	£	£	£	£	£	£	£
London - -	11,905,555	12,156,115	11,974,397	11,491,412	10,942,913	10,550,063	10,819,711
Liverpool -	3,380,957	3,239,767	3,133,101	2,893,445	2,797,511	2,867,601	3,040,501
Bristol - -	1,336,253	1,317,177	1,150,399	1,105,001	1,106,211	1,174,181	1,110,387
Other Ports -	2,075,939	2,116,384	2,128,952	2,136,908	2,193,859	2,259,065	2,162,161
Scotch Ports -	2,677,158	2,905,819	3,017,974	2,826,827	2,709,475	3,054,817	3,429,964
Irish Ports -	2,281,671	2,298,304	2,151,599	2,047,325	2,011,603	2,086,594	2,121,559
Total -	23,657,513	23,993,546	23,588,932	22,498,211	21,799,972	21,996,351	22,644,283

Declaration on Admission to Office.—Every person who shall be appointed to any office or employment in the Customs, under the control and direction of the Commissioners of Customs, shall on his admission thereto make the following declaration:—

'I *A. B.* do declare that I will be true and faithful in the execution, to the best of my knowledge and power, of the trust committed to my charge and inspection in the service of her Majesty's Customs; and that I will not require, take, or receive any fee, perquisite, gratuity, or reward, whether pecuniary or of any sort or description whatever, either directly or indirectly, for any service, act, duty, matter, or thing done or performed or to be done or performed in the execution or discharge of any of the duties of my office or employment, on any account whatever, other than my salary and what is or shall be allowed me by law, or by any special order of the Com-

missioners of her Majesty's Treasury, or the Commissioners of her Majesty's Customs for the time being.' (Sec. 4.)

Hours of Attendance &c.—The Commissioners of the Treasury may by their warrant from time to time appoint the hours of attendance of the Commissioners and officers of Customs, and of other persons in the Customs service, at their proper offices and places of employment; and the Commissioners of Customs may appoint the times during such hours at which any particular parts of the duties of any such officers and other persons shall be performed. (Sec. 5.)

Holidays.—No day shall be kept as a public holiday by the Customs except Christmas Day and Good Friday, and such other days as may be appointed to be kept as such by proclamation; and so far as regards Scotland, such days as shall be appointed to be so kept by authority of the General Assembly, and also such days as shall have been or may be appointed for the celebration of the birthdays of her Majesty and her successors, and such days shall be kept as public holidays by the officers and servants of the dock companies in the United Kingdom. (Sec. 6.)

Officers of Customs not to serve in public Offices.—No commissioner, officer, clerk, or other person acting in the management or collection of the Customs shall be compelled to serve in the militia or on any jury or inquest, or to assume the office of a mayor or sheriff, or to act in any corporate, parochial, or other public office. (Sec. 7.)

Office of Inspector General of Imports and Exports.—The office of inspector general of imports and exports was established in 1696. The accounts of the trade and navigation of the country, annually laid before Parliament, are furnished by this office; and from the ability of the officers, and the improved manner in which these accounts are now made out, they have become of great public importance. Their accuracy must, of course, depend on the accuracy of the entries; but as respects articles on which the duties are reasonable or low, and in which, consequently, there is no great temptation to clandestine importation, they may be regarded as nearly accurate. It is now usual to give statements of the quantities of the principal articles exported and imported, as well as of their declared or real values; which is a great improvement.

CUTLERY. A term used to designate all manner of sharp and cutting instruments made of iron or steel, as knives, forks, scissors, razors, shears, scythes &c. Sheffield is the principal seat of the cutlery manufacture; but the small quantity of knives and other articles made in London are said to be of superior quality.

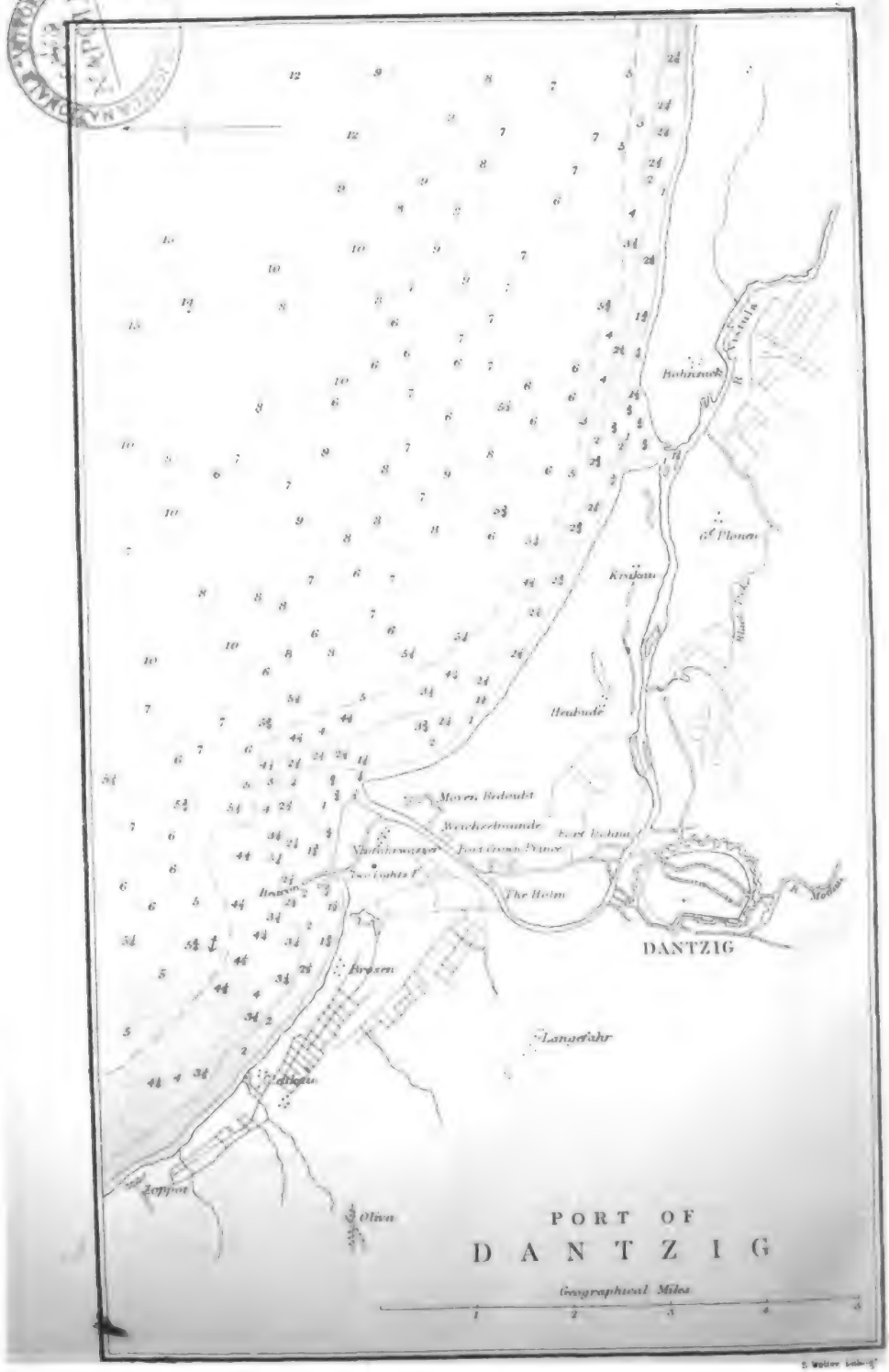
The Act 59 Geo. III. c. 7 gives the manufacturers of cutlery made of *wrought* steel the privilege of marking or stamping them with the figure of a hammer; and prohibits the manufacturers of any articles of cutlery, edge tools, or hardware, *cast or formed in a mould*, or manufactured otherwise than by means of a hammer, from marking or impressing upon them the figure of a hammer, or any symbol or device resembling it, on pain of forfeiting all such articles, and 5*l.* for every dozen. A penalty of 10*l.* per dozen, exclusive of forfeiture, is also imposed upon every person having articles of cutlery in his possession for the purpose of sale marked with the words *London* or *London made*, unless the article so marked have been really manufactured within the city of London or a distance of 20 miles from it.

Cutlery is included in the customs returns under the same head as hardware, which comprises stoves, fenders, fire-irons, with a long list of other articles. The declared value of the exports of both descriptions of articles amounted in 1866 to 4,366,300*l.*, and in 1867 to 3,933,734*l.*

CYPRESS. A forest tree of which there are many varieties, the species denominated the evergreen cypress (*Cupressus sempervirens*) and the white cedar (*Cupressus Thyoides*) being the most celebrated.

The cypress is indigenous to the southern parts of Europe, to several parts of Asia, and to America. It grows to a great size, and is a most valuable species of timber. It is never attacked by worms, and exceeds all other trees, even the cedar, in durability. Hence the Athenians, when desirous to preserve the remains of their heroes and other great men, had them enclosed in cypress coffins; and hence, also, the external covering of the Egyptian mummies is made of the same enduring material. The cypress is said to live to a great age; and this circumstance, combined with its thick dark green foliage, has made it be regarded as the emblem of death and the grave.

In his *Geography and History of the Western States of America*, Mr. Timothy Flint has given the following account of the cypress trees found in the southern parts of the valley of the Mississippi:—'These noble trees rear their straight columns from a large cone-shaped buttress, whose circumference at the ground is, perhaps, 3 times that of the regular shaft of the tree. This cone rises from 6 to 10 feet, with a regular and sharp taper, and from the apex of the cone towers the perpendicular column, with little taper after it has left the cone, from 60 to 80 feet clear shaft. Very near the top it begins to throw out multitudes of horizontal branches, which interlace with those of the adjoining trees, and when bare of leaves have an air of desolation and death, more easily felt than described. In the season of vegetation the leaves are short, fine, and of a verdure so deep as almost to seem brown, giving an indescribable air of funeral solemnity to this singular tree. A cypress forest, when viewed from the adjacent hills, with its numberless interlaced arms covered with this dark brown foliage, has the aspect of a scaffolding of verdure in the air. It grows, too, in deep and sickly swamps, the haunts of mosquitoes, moccassin snakes, alligators, and all loathsome and ferocious animals, that congregate far from the abodes of man, and seem to make common cause with nature against him. The cypress loves the deepest, most gloomy, inaccessible swamps; and south of 33° is generally found covered with sable festoons of long moss, hanging, like shrouds of mourning wreaths, almost to the ground. It seems to flourish best when water covers its roots for half the year. Unpromising as are the places and circumstances of its growth, no tree of the country where it is found is so extensively useful. It is free from knots, is easily wrought, and makes excellent planks, shingles, and timber of all sorts. It is very durable, and incomparably the most valuable tree in the southern country of this valley.' (Vol. i. p. 62.)



London Longmans & Co

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DAMAGED GOODS. In the language of the Customs, goods, subject to duties, that have received some injury either in the voyage home or in the bonded warehouses.

It is enacted by the 16 & 17 Vict. c. 107 that no claim for any abatement of duty in respect of any goods imported into the United Kingdom shall be allowed on account of damage unless such claim be made on the first examination thereof, and in such form and manner as the Commissioners of Customs shall direct, nor unless it be proved to the satisfaction of the Commissioners of Customs or their officers that such damage was sustained after such goods had been shipped in the importing ship, and before the landing thereof in the United Kingdom; and all goods derelict, jetsam, flotsam, and wreck brought or coming into the United Kingdom, and all droits of admiralty sold in the United Kingdom, shall at all times be subject to the same duties as goods of the like kind on importation into the same part of the United Kingdom are subject to, unless it shall be shown to the satisfaction of the Commissioners of Customs that such goods are the growth, produce, or manufacture of any country or place by virtue whereof the same may be entitled to be admitted at less than the foreign duty, or duty free, or that the same, if liable to duty, are entitled to an abatement in respect of such damage; and the damage sustained by such goods, whether so imported or derelict, jetsam, flotsam, or wreck as aforesaid, shall be assessed by the officers of the Customs, if competent thereto, but if not, or if the Commissioners of Customs, or the collector or comptroller of the port into which the same shall be imported or brought as aforesaid, shall entertain doubt as to the amount of such damage, they may call upon two indifferent merchants to examine the goods, and certify to what extent, in their judgment, the same are lessened in value by such damage, whereupon the officers of the customs may make an abatement not exceeding ¾ of the duty originally chargeable thereon; but no allowance shall be made for damage on cocculus indicus, nux vomica, rice, guinea grains, lemons, spirits, corn, grain, meal and flour, opium, sugar, cocoa, oranges, tea, coffee, pepper, tobacco, currants, raisins, wine, and figs. (Sec. 76.)

DAMAR. A kind of indurated pitch or turpentine exuding spontaneously from various trees indigenous to most of the Indian islands. Different trees produce different species of resin, which are designated according to their colour and consistence. 'One is called *Damar-batu* in Malay, or *Damar-selo* in Javanese, which means hard or stony resin; and another in common use, *Damar-Putch*, or white resin, which is softer. The trees which produce the damar yield it in amazing quantity, and generally without the necessity of making incisions. It exudes through the bark; and is either found adhering to the trunk or branches in large lumps, or in masses on the ground under the trees. As these often grow near the sea-side, or on the banks of rivers, the damar is frequently floated away, and collected in distant places as drift. It is exported in large quantities to Bengal and China, and is used for the purposes to which we apply pitch, but principally in paying the bottoms of ships. By a previous arrangement almost any quantity may be procured at Borneo, at the low rate of ½ dollar per picul.' (Crawfurd, *East. Archip.* vol. i. p. 455; vol. iii. p. 420.)

DAMASK (Ger. damasten tafelzeug; Dutch, damaskwerk; Fr. venise, damas; Ital. tela damaschina; Span. tela adamascada; Russ. Kamtschatnüi salfftki). A species of table linen. [LINEN.]

DANGEROUS GOODS. By sec. 329 Merchant Shipping Act, 17 & 18 Vict. c. 104, it is enacted that no person shall be entitled to carry in any ship, or to require the master or owner of any ship to carry therein, any aqua fortis, oil of vitriol, gunpowder, or any other goods which, in the judgment of the master or owner, shall be of a dangerous nature, and provides that notice shall be given of the character of such goods under a penalty not exceeding 100*l.* (Stevens *On Stowage*, 166 seq.)

DANTZIC. One of the principal emporiums of the north of Europe, in West Prussia, lat. 54° 20′ 48″ N., long. 18° 38′ E. Population, according to census of 1864, 90,334. [GERMANY.] It is situated on the left or western bank of the Vistula, about 4 miles from its embouchure. The harbour, Neufahrwasser, at the mouth of the river, is defended on each side by pretty strong forts. The town is traversed by the small river Motlau, which has been rendered navigable for vessels drawing 8 or 9 feet water.

Roads, Port &c.—The road or bay of Dantzic is covered on the west side by a long, narrow, low, sandy tongue of land, extending from Reserhoft Point (on which is a light-house), in lat. 54° 50½′, long. 8° 23′ 15″, upwards of 20 miles in an east by south direction, having the small town of Heela, or Heel, near its termination. A light-house, elevated 123 feet (Eng.) above the level of the sea, has been erected within about ½ mile of the extremity of this point. The flashes of the light, which is a revolving one, succeed each other every ½ minute. Dantzic lies about S. ½ W. from the Heel; its port being distant about 4 leagues. There is good anchorage in the roads for ships of any burden; but they are exposed, except immediately under the Heel, to the north and north-easterly winds. There are harbour lights at the entrance to the port. All ships entering the Vistula must heave to about a mile off the port, and take a pilot on board; and pilots must always be employed in moving ships in the harbour, or in going up and down the river. The usual depth of water at the mouth of the river is from 12 to 13 feet (Eng.); in the harbour, from 13 to 14 feet; at the confluence of the Motlau with the Vistula, from 9 to 9½ feet; and in town, from 8 to 9 feet. Moles have been erected on both sides of the entrance to the harbour: that on the eastern side, which is most exposed, is constructed of granite; the other is partly of stone and partly of timber.

Trade of Dantzic.—Next to Petersburg and Stettin, Dantzic is the most important commercial city in the north of Europe. The average annual value (1862–65) of its exports is 8,003,460*l.*, and of its imports 808,174*l.* It owes its distinction in this respect to its situation; the Vistula, with its important tributaries the Bug, Narew &c., giving it the command of a great internal navi-

gation, and rendering it the entrepôt where the surplus products of West Prussia, Poland as far as Hungary, and part of Lithuania, are exchanged for those imported from the foreigner. The exports of wheat from Dantzic are generally greater than from any other port, Odessa excepted. There are four sorts of wheat distinguished here; viz. *white, high-mixed, mixed,* and *red,* according as the white or red predominates. The quality of Dantzic wheat is for the most part excellent; for, though small in the seed, and not so heavy as many other sorts, it is remarkably thin skinned, and yields the finest flour. The white Polish wheat exported here is the best in the Baltic. Rye is also very superior, being both clean and heavy: the exports are considerable. The exports of barley and oats are comparatively inconsiderable, and the qualities but indifferent. Very fine white peas are exported. Next to grain, timber is the most important article of export from Dantzic, but latterly the supply has been diminishing, and the quality is said not to be so good as formerly. (Meek.) The principal supply of fir timber, masts &c. is brought by the river Narew, which, with its branches, rises in Old Prussia and Lithuania, and falls into the Bug near the confluence of the latter with the Vistula. Oak planks, staves &c. are brought down from the higher parts of the Vistula, and the tributary streams of Dunajetz, Wieprez &c. Salted pork, weed ashes, linseed and rapeseed, mats, bones, zinc, spruce beer, feathers &c. are also exported.

The following is an account of the shipments of grain from Dantzic in 1866:—

To	Wheat	Rye	Barley	Oats	Peas	Total
	lasts	lasts	lasts	lasts	lasts	lasts
The United Kingdom	47,255	836	6,751	677	4,524	60,043
Belgium	1,234	—	—	—	—	1,234
France	793	—	42	—	—	835
Holland	3,491	77	36	—	85	3,689
Denmark	2	922	113	—	99	1,136
Sweden and Norway	105	7,140	464	—	3000	8,009
German Ports	149	2,884	365	416	40	3,854
Total	55,019	11,859	7,751	1,093	5,018	78,800

Oil Seeds.—These are chiefly rape. Of these were exported to the United Kingdom in 1865, 427 lasts, to Belgium 500, to Denmark 33, to France 205, to Holland 122, to Prussian ports 381, to Sweden 90. Total 1,758 lasts, valued at 425,400 thalers. In 1864 the value was 1,332,400 thalers. Considerable quantities of oil are also exported.

Timber.—The following is the quantity of timber exported from Dantzic in 1865:—

	Quantity	Value	Stock
		Thalers	
Pieces of full-sized square fir	253,067	1,940,800	351,485
,, small-sized square fir			
Fir deck deals	539,513	565,800	—
Masts, spars, bowsprits	866	43,300	—
Lathwood fathoms	3,613	64,000	—
Oak planks	88,413	147,400	—
Pieces of oak crooks	52,003	390,000	72,403
Oak planks, 1st brack	7,636	72,600	14,998
,, 2nd brack	16,946	99,600	12,566
Sleepers and deeper logs	1,111,992	889,600	—
Schocks of oak staves	27,441	499,000	11,566
Other quantities	—	15,200	—
Total	—	4,658,000	—

Statement showing the Destination of Shipments of Timber from Dantzic in 1866.

	To Germany and North of Europe	To France, Holland, and Belgium	To the United Kingdom
Fir timber pieces	13,199	29,558	160,999
Small timber ,,	5,819	7,043	16,259
Masts and spars ,,	102	1,334	106
Deck-deals and deals ,,	91,144	118,523	71,966
Sleepers, oak and fir ,,	25,863	211,882	429,857
Lath-wood fathoms	8	9	2,009
Tressels schocks	227	295	4,510
Oak timber &c. pieces	7,175	16,288	24,514
Oak posts ,,	7,341	1,743	35,182
Staves schocks	8,786	5,115	17,671

The following is the value of the principal articles exported:—

	Average value of 3 years 1861–3	1864	1865
	Thalers	Thalers	Thalers
Wheat	13,794,538	8,332,400	11,517,600
Other Grain	5,669,378	2,837,370	3,344,160
Oilseeds	609,334	1,332,400	425,400
Timber (all kinds)	5,480,000	3,355,000	4,658,400
Oil (in casks)	98,360	192,160	48,120
Oilcake	23,197	39,993	9,668
Bones	21,333	20,000	21,668
Pickled Pork	95,000	125,000	56,000
Spruce Beer	55,810	65,500	150,000
All other articles	200,000	204,240	91,390
Total	25,345,000	16,694,065	20,357,400

The exports to the United Kingdom in 1865 were valued at:—

	£
Grain	1,650,000
Timber	400,000
Other articles	52,000
Total	2,102,000

The principal imports are coals from the North British ports, metals, fish (chiefly herrings) from Norway, drugs, dye stuffs, and hides. The total value is reckoned in 1866 at 6,026,324 thalers, which with the imports represents a trade of 3,693,948*l.*

The annual imports from the United Kingdom were, on an average of 1861–3, 410,000*l.*; in 1864, 367,000*l.*; in 1865, 591,000*l.*

The merchants of Dantzic are but little given to speculation; and the value of the imports into the city seldom exceeds half the value of the exports.

In addition to the Royal or Government Bank, mentioned in a subsequent part of this article, a private joint-stock bank was established in 1857.

Shipping.—The average number and tonnage of arrivals during the 7 years 1853–9 was 1,618, of 185,000 lasts burden; during the 5 years 1860-4, 2,728, of 281,229 lasts burden. In 1862 there were 3,200, of 327,184 lasts, which departed from the port. Some large and fine ships are built at Dantzic. Steamers from Hull and London arrive here almost every week, and steamers are now to be found in all the navigable parts of the Vistula.

The number and tonnage of the vessels that arrived at Dantzic in 1866, according to their nationality, were as *follows*:—

Under what Flag	Number of Vessels			Tonnage		
	With Cargoes	In Ballast	Total	Cargoes	In Ballast	Total
				lasts	lasts	lasts
British	253	115	348	31,676	25,878	57,554
German	555	500	1,055	70,811	56,981	127,792
Danish	52	232	284	1,965	14,732	16,697
Swedish and Norwegian	95	68	163	4,733	4,942	9,675
Dutch	109	89	198	9,083	5,873	14,956
French	3	8	11	227	908	1,135
Belgian	—	—	—	—	—	—
Russian	2	3	5	258	329	587
United States	—	1	1	—	940	940
Total	1,069	1,056	2,065	118,593	110,643	229,236

During the three years 1861–3 the British shipping had been 22·5 per cent., but during the Danish war it rose to 35 per cent. The value of the cargoes bound for ports of the United Kingdom was estimated at the sum of 2,050,000*l.*, the wheat alone being 1,500,000*l.*

Freights in 1865.—Coals: per keel from Newcastle to Dantzic, to be delivered in town, 6*l.* to 7*l.* 10*s.* Wheat, per quarter of 500 lbs. weight: to London, 2*s.* to 4*s.* 6*d.*; to Liverpool and Ireland, 3*s.* 3*d.* to 5*s.*; to the east coast of England and Scotland, 1*s.* 6*d.* to 4*s.* 6*d.*; to the coal ports, 1*s.* 6*d.* to 3*s.* 9*d.* Timber, per load of fir or oak of 50 cubic feet: to London, 16*s.* 6*d.* to 19*s.* 6*d.*; to

London and Ireland, 17*s.* to 22*s.*; east coast and Scotland, 13*s.* to 24*s.*; to the coal ports, 11*s.* to 13*s.* 6*d.*

The freights were from 30*s.* to 66*s.* in English money per last (1·9684 tons avoirdupois) from the Upper Vistula and its tributaries, and 21*s.* to 51*s.* from the Lower Vistula. The freight for goods sent up the river varied from 12*s.* to 18*s.* per Prussian centner to places situated on the Lower Vistula, and from 15*s.* to 30*s.* to Warsaw.

Duties on Pilotage and Police Passports at Dantzic.

Duties	Prussian and privileged Foreign Flags th. sil. pf.	Foreign Flags not privileged th. sil. pf.
Pilotage Duties.		
Vessel drawing 6 ft. water and under	1 15 0	2 0 0
7 „ „	2 15 0	3 0 0
8 „ „	3 0 0	3 15 0
9 „ „	3 15 0	4 0 0
10 „ „	4 0 0	5 0 0
Police Passport Taxes.		
Vessel of 25 lasts, 50 tons and under	1 10 0	1 25 0
50 „ 100 „ „	1 17 6	2 0 0
100 „ 200 „ „	1 25 0	2 5 0
200 „ 400 „ „	2 7 6	3 5 0
above 400 lasts	3 5 0	4 15 0

Money.—Accounts used formerly to be wholly kept in guldens, guilders, or florins of 30 groschen. The rixdollar = 3 florins = 90 groschen = 270 schillings = 1,620 pfennings. The florin or guilder = 9*d.* sterling, and the rixdollar = 2*s.* 3*d.*

A new system was, however, introduced into all parts of the Prussian dominions, conformably to the decrees of September 30, 1821, and of June 22, 1823.

The Cologne mark (containing 3,609 Eng. grains) is the weight at present used in the Prussian mint in weighing the precious metals. The fineness of the coins is not determined, as previously, by carats or loths, but the mark is divided for this purpose into 288 grains. Accounts are now kept in the public offices in thalers or dollars (R.), silver groschen, and pfennings; 1 dol. = 30 sil. gr. = 12 pf.

The only silver moneys now coined are dollars and ½ dollar pieces; but smaller coins are in circulation, of former coinages.

The Prussian silver coins have ¼ of alloy; and as the mark is coined into 14 dollars, each should contain 257·68 Eng. grains pure silver, and be worth about 2*s.* 11½*d.* sterling; but the assays do not always strictly coincide with the mint valuation.

The gold coins are Frederick d'ors, double, single, and half pieces. The mark of 288 grains, having 260 grains of fine gold, is coined into 35 Fred. d'ors. The Fred. d'or is worth from 5 dol. 18 sil. gr. to 5 dol. 22 sil. gr., according to the demand.

Weights and Measures. — The commercial weights are—

32 loths = 1 ounce.
16 ounces = 1 pound.
16½ pounds = 1 lispound.
80 pounds = 1 small stone.
33 pounds = 1 large stone.

110 lbs. = 1 centner; 3 centners = 1 shippound (330 lbs.); 100 lbs. of Dantzic = 103·3 lbs. avoirdupois = 16 85 kilog. = 94·7 lbs. of Amsterdam = 96·6 lbs. of Hamburg.

1 last of 40 centals	= 1·9684 ton.
1 measured or shipping last	= 1½ register ton.
1 Prussian cental	= 110 25117 lbs. avoirdupois.
1 Imperial quarter	= 5·29064 scheffels.
1 scheffel (Prussian)	= 1·512 bushel.
1 Prussian morgen	= 0·65 of an English acre.
1 last of grain	= 160 scheffels of imported grain. 156 „ of exported „

The liquid measures are, for beer—

5 quarts = 1 anker.
4 ankers = 1 ahm.
1½ ahm = 1 hhd.
2 hhds. = 1 both.
2 both = 1 fuder.
2 fuder = 1 last = 640·4 Eng. wine gallons.

In wine measure, which is less than beer measure, the ahm = 39¾ Eng. gallons. The pipe = 2 ahms.

The last of corn = 5¾ malters = 60 scheffels = 240 viertels = 960 metzen; and weighs 4,680 lbs. Dantzic weight in rye. The scheffel = ·547 of a hectolitre = 1·552 Winchester bushel. Hence the last of 60 scheffels = 11 quarters 3 bushels; the last of 56½ scheffels = 10 quarters 7 bushels.

The Dantzic foot = 11·3 Eng. inches, or 100 Dantzic feet = 94·16 Eng. feet. The ell is 2 feet Dantzic measure. The Rhineland or Prussian foot = ·3138 French metres, or 12·356 Eng. inches; hence 100 Prussian = 102·8 Eng. feet. The Prussian or Berlin ell has 25½ Prussian inches = 26·256 Eng. ditto. 100 Berlin ells = 72·93 Eng. yards; and 137·142 Berlin ells = 100 Eng. yards. 14¾ Prussian miles are equal to 15 geographical miles.

Oak planks, deals, and pipe staves are sold by the schock of 60 pieces; wheat, rye &c. are sold by the last of 56½ scheffels. (Kelly's *Cambist*; Nelkenbrecher, *Manuel Universel.*)

Corn Trade of Dantzic.—The reader will find under the head Corn Laws and Corn Trade a pretty full account of the Polish corn trade; but the importance of the subject will excuse our giving a few additional details. Grain is almost wholly brought to Dantzic by water, in flat-bottomed boats suited to the navigation of the Vistula, Bug &c. Mr. Consul Gibson estimated the expense of the conveyance of wheat and rye hither, including the duty at Thorn and the charges of turning on the river till put into the granary, as follows:—

	per Imp. qr. s. d.	s. d.
From the upper provinces on the Bug, a distance of from 700 to 500 miles	9	2 to 7 10
From the provinces of Cracow, Sandomir, and Lublin, 350 to 350 miles	6	6 5 4
From Warsaw and its neighbourhood, about 240 miles	4	9 3 11
From Wlaclaweck and its neighbourhood, about 140 miles	4	2 3 5
From Grandentz, a distance of about 70 miles, no duty at Thorn, and when not turned on the river	0	10 0 9

N. B.—These are the ordinary charges; but they are higher when there is any unusual demand for exportation.

The Bug has many windings, and its navigation, which is tedious and uncertain, can only be attempted in the spring, when the water is high. It is the same, though in a less degree, with some of the rivers that fall into the Vistula before it reaches Warsaw; and towards Cracow the Vistula itself is frequently unnavigable, especially in dry seasons, except in spring, and after the midsummer rains, when the snow melts on the Carpathian mountains. The navigation of the Polish rivers in some seasons is more than usually bad. The corn from the upper provinces does not reach Dantzic till from 2 to 4 months later than usual, and is burdened with a very heavy additional expense. In fact, the supplies of grain at Dantzic depend quite as much on the abundance of water in the rivers, or on their easy navigation in summer, as on the goodness of the harvests.

'There are,' says Mr. Jacob, 'two modes of conveying wheat to Dantzic by the Vistula. That which grows near the lower parts of the river, comprehending Polish Russia, and part of the province of Plock, and of Masovia, in the kingdom of Poland, which is generally of an inferior quality, is conveyed in covered boats, with shifting boards that protect the cargo from the rain, but not from pilfering. These vessels are long, draw about 15 inches water, and bring about 150 quarters of wheat. They are not, however, so well calculated for the upper parts of the river. From Cracow, where the Vistula first becomes navigable, to below the junction of the Bug with that stream, the wheat is mostly conveyed to Dantzic in open

flats. These are constructed on the banks, in seasons of leisure, on spots far from the ordinary reach of the water, but which, when the rains of autumn, or the melted snow of the Carpathian mountains in the spring, fill and overflow the river, are easily floated.

'Barges of this description are about 75 feet long, and 20 broad, with a depth of 2½ feet. They are made of fir, rudely put together, fastened with wooden treenails, the corners dovetailed and secured with slight iron clamps—the only iron employed in their construction.

'A large tree, the length of the vessel, runs along the bottom, to which the timbers are secured. This roughly cut keelson rises 9 or 10 inches from the floor, and hurdles are laid on it, which extend to the sides. They are covered with mats made of rye-straw, and serve the purpose of dunnage; leaving below a space in which the water that leaks through the sides and bottom is received. The bulk is kept from the sides and ends of the barge by a similar plan. The water which these ill-constructed and imperfectly caulked vessels receive is dipped out at the end and sides of the bulk of wheat.

'Vessels of this description draw from 10 to 12 inches water, and yet they frequently get aground in descending the river. The cargoes usually consist of from 180 to 200 quarters of wheat.

'The wheat is thrown on the mats, piled as high as the gunwale, and left uncovered, exposed to all the inclemencies of the weather, and to the pilfering of the crew. During the passage the barge is carried along by the force of the stream, oars being merely used at the head and stern to steer clear of the sand-banks, which are numerous and shifting, and to direct the vessel in passing under the several bridges. These vessels are conducted by 6 or 7 men. A small boat precedes, with a man in it, who is employed sounding, in order to avoid the shifting shoals. This mode of navigating is necessarily very slow; and during the progress of it, which lasts several weeks, and even months, the rain, if any fall, soon causes the wheat to grow, and the vessel assumes the appearance of a floating meadow. The shooting of the fibres soon forms a thick mat, and prevents the rain from penetrating more than an inch or two. The main bulk is protected by this kind of covering, and, when that is thrown aside, is found in tolerable condition.

'The vessels are broken up at Dantzic, and usually sell for about ⅓ of their original cost. The men who conduct them return on foot.

'When the cargo arrives at Dantzic or Elbing, all but the grown surface is thrown on the land, spread abroad, exposed to the sun, and frequently turned over, till any slight moisture it may have imbibed is dried. If a shower of rain falls, as well as during the night, the heaps of wheat on the shore are thrown together in the form of a steep roof of a house, that the rain may run off, and are covered with a linen cloth. It is thus frequently a long time after the wheat has reached Dantzic before it is fit to be placed in the warehouses.

'The warehouses (*speichers*) are very well adapted for storing corn. They consist generally of 7 storeys, 3 of which are in the roof. The floors are about 9 feet asunder. Each of them is divided by perpendicular partitions the whole length, about 4 feet high, by which different parcels are kept distinct from each other. Thus the floors have 2 divisions, each of them capable of storing from 150 to 200 quarters of wheat, and leaving sufficient space for turning and screening it. There are abundance of windows on each floor, which are always thrown open in dry weather to ventilate the corn. It is usually turned over 3 times a week. The men who perform the operation throw it with their shovels as high as they can, and thus the grains are separated from each other, and exposed to the drying influence of the air.

'The whole of the corn warehouses now left (for many were burnt during the siege of 1814) are capable of storing 500,000 quarters of wheat, supposing the quarters to be large enough to fill each of the two divisions of the floors with a separate heap; but as of late years it has come down from Poland in smaller parcels than formerly, and of more various qualities, which must of necessity be kept distinct, the present stock of about 280,000 quarters is found to occupy nearly the whole of those warehouses which are in repair, or are advantageously situated for loading the ships. Ships are loaded by gangs of porters with great despatch, who will complete a cargo of 500 quarters in about 3 or 4 hours.' (*First Report.*)

Mr. Meek gives, in his excellent *Report on the Prices of Corn and other Articles in the North of Europe*, the following details with respect to Dantzic:—

'Wheat of moderate quality in ordinary seasons cannot be brought from Poland and delivered at Dantzic at less than 35*s.* per quarter, and that only when no excitement exists in the foreign markets. Some time since a very large accumulation of grain had in the course of several years taken place in the granaries at Dantzic; but the great export which has occurred during the last 3 or 4 years has so reduced the magazines, that the stock at the close of the present season (1841) was not expected to exceed from 80,000 to 100,000 quarters. The demand has been so great during the last 2 or 3 years, that every effort has been made to collect in Poland all the supplies that were available, and to bring them to Dantzic for exportation. If the corn trade in England was so modified as to be constantly open at a moderate duty, it is not likely, under such circumstances, that shipments of wheat from Dantzic would materially exceed that of the last 2 or 3 years. Not more than 5,000 quarters are consumed annually in Dantzic by a population of 60,000 persons, the people generally preferring and living upon rye bread. Of the corn exported from Dantzic, one-third comes from that part of Poland which belongs to Prussia, and the remaining two-thirds from the Russian territory. Apprehensions were expressed here, as in other places, of the competition of Odessa and America in the event of any material reduction of the duty on corn in England. The party making the observation, who is a leading corn merchant in Dantzic, said he had at that moment a cargo of Odessa corn in London which stood him in 49*s.* per quarter, and that he could purchase there Odessa wheat of similar quality at 48*s.* per quarter. The same apprehensions were expressed by others as to Odessa, exports from which place having already been largely made to Italy and other parts of the Mediterranean; and recently, it was added, several cargoes had been shipped to England. On pressing one of the most intelligent merchants in Dantzic to state what price was paid to the landed proprietor or farmer in Poland for a quarter of wheat on the estate where it was grown, or at the nearest market to that estate, he replied that it was generally bought by the Jews upon the estates from the landowners or their agents, and afterwards sold by the former to the merchants at Dantzic, deliverable at Dantzic; that in some instances the princes and great landowners sent their own commissioners to Dantzic to effect sales to the merchants; that a Russian prince, who had 10,000 serfs, had acted upon the

principle very recently; that under such circumstances it would not be right to take less than 35*s.* per quarter as the price at which wheat, when there was a fair average crop, could be delivered at Dantzic, from which, deducting 12*s.* per quarter for the expense of bringing it from the place of growth to Dantzic, including waste, which is generally very considerable, cost of the boats, which are broken up and sold for a trifle compared with their original cost (amounting, perhaps, to 400 or 500 thalers, whereas they are only sold for about 40), the expense of the peasants and other persons navigating them for a voyage, sometimes of 3 or 4 months, and returning back to Poland on foot, there would be left 23*s.* per quarter as the price paid to the proprietor at the place of growth; out of which he had to bear the expense of cultivation, to pay the interest and redeem the capital of any mortgage which might exist, the residue being what would remain for rent and interest of capital embarked in the soil. He added that this was generally considered as an average estimate of the expenses; but that they would vary a little, dependent upon the distance, either greater or less, from which the corn was brought. A considerable quantity of bones are exported from Dantzic to Great Britain, many of which are collected and sent down from Cracow. Complaint was made to the Consul by the merchant chiefly employed in this trade, that a heavy transit duty of 2*s.* per cwt. had recently been levied for the nominal purpose of repaving the turnpike road, that it was a heavy tax in proportion to the value, and that a representation from England was alone necessary to obtain its repeal.'

'Of the timber and staves shipped at Dantzic, nearly the whole comes from Russian Poland. Prussian timber is becoming scarce; and even that from the Russian territory, that is of good quality, is much reduced, and has of late not been so good as formerly. This is owing, principally, to most of the good timber that could be conveniently got afloat having been felled. There is, it is said, but little of good quality now to be had without going much farther back from the shipping places, which the discouragement given by the present timber duties prevents. It will hence be obvious that whenever any alteration takes place either in the corn trade or timber duties, Russia will be much more benefited than Prussia, so far as relates to the export of corn and timber from Dantzic.'

Timber Trade, Brack.—Fir timber is usually brought down in its natural state, and is squared into logs, or sawn into planks, in winter, when the labourers cannot be otherwise employed. The staves shipped here are carefully assorted, and are reckoned superior to those of America.

The expenses of the water conveyance of squared timber, including duty at Thorn, are—

		Per piece.			
		s.	*d.*	*s.*	*d.*
From the Bug	from about	6	0 to 5		9
Wieprez (above Warsaw)	,,	4	6	4	4
Vistula (above ,,	,,	3	0	2	4

being higher when the demand is unusually great, or when hands are scarce.

At Dantzic, as well as at PETERSBURG, Riga, and several other Baltic ports, sworn inspectors (*brackers*) are appointed by authority to examine certain articles intended for exportation, and to classify them according to their qualities. Staves and timber of all sorts, with the exception of pine wood, are subjected to the brack. Prime quality is branded *Krohn* or *Crown*; second quality, *Brack*; and the third or lowest quality, *Bracks Brack*. All unmerchantable articles are rejected by the brackers, and are not allowed to be exported.

The gauge for crown pipe staves, which the bracker has always in his hand, is 4½ inches broad, 1¾ thick, and 64 inches in length, which they must be at least; but they are expected to be larger in every respect.

Pipe staves are from 64 to 68 inches long; 6, 5, and 4½ at least, broad; and from 1½ to 3 inches thick.

Brandy staves are at least 54 to 58 inches long, as thick and broad as pipe staves.

Hogshead staves are 42 to 45 inches long, as thick and broad as pipe staves, all English measure.

The quality is ascertained by marks, to distinguish each sort, as follows:—

Crown pipe staves, stamped at the end, K.
brack, in the middle, I.
bracks brack, II.
Hogshead crown, at the end, O K.
brack, in the middle, I.
bracks brack, II.
Brandy hogshead crown, at the end, B K.
brack, in the middle, ⋉.
bracks brack, ⋉⋉.

Oak planks are assorted in the same manner. Crown plank is marked in the middle, C. Brack, in the end and middle, B. Bracks brack, B B.

To distinguish 1½ from 2, and 2½ from 3 inches, the 1½ are marked with I, and 2½ ⋉.

At the end, in rough strokes, with coloured paint, brack is yellow I; bracks brack, white II; Crown, red III.

Ashes are subjected to the brack. The calcined are opened and the crust taken off; others are not examined unless there be any suspicion of their quality, or the staves of the hogshead be supposed to be too thick. Every cask of potashes is opened.

SHIPPING CHARGES AND DUTIES.

Charges upon the Shipment of 1,000 *Quarters of Corn at Dantzic in English Money.*

	£	*s.*	*d.*
Metage in granary	5	0	0
Delivery	1	4	6
Porterage down	9	0	0
Meters' fee	2	0	0
Town dues	3	15	0
Lighterage	10	0	0
Expenses to the roads	2	10	0
	£33	9	6

Exclusive of commission, 2 per cent.

The above are the charges if bought and shipped from the granary; but if bought and warehoused previously to shipping, the following additional charges are incurred:—

Metage from Craft.

Porterage up, meters' fees, and town dues are the same.

Additional.

Granary rent	3*d.*	per last of 10½ quarters per month.
Labourers	6	
Turning	7½	

Exclusive of insurance against fire.

Charges on the shipment of—

		R. s. gr.	
Pearlashes	about	0 10	per shippound of 330 lbs.
Wood ashes	,,	0 6	barrel do.
Fir timber	,,	0 10	load.
On Deck deals, Short deals, Deal ends	,,	0 23½	load.
Lathwood	,,	1 0	fathom.
Clapboards	,,	2 0	schock of 60 pieces.
Oak plank, Oak ends	,,	1 10	load.
Staves	,,	13 10	mille pipe.
Black or spruce beer	,,	0 7½	last of 11 kegs.
Feathers	,,	2 0	100 lbs.

N.B.—The Prussian pound is about 3½ per cent. heavier than the English pound. The expenses

of sending goods down are taken at about an average rate; but if the whole or the greater part of the cargo were loaded in the Fairwater or roads, the expenses would be somewhat more.

Port Charges.—The charges on a ship of 200 lasts, or about 300 tons burden, are—

	R. s. g. pf.
Harbour money	58 26 6
Ditto in gold (say in Fred. d'ors, reckoned at 5 r., in which this must be paid)	14 6 8
River money	0 0 0
Commercial contribution	3 10 0
Expedition expenses	13 10 0
Captain's allowances for expenses on shore	16 20 0
Tracking the ship into the harbour (Fairwater)	2 0 0
Ballast money &c.	10 24 0
Pilot to the ballast wharf	4 0 0
Ditto moving the ship in Fairwater	2 15 0
Police passport	3 5 0
Clearing the vessel in and out	16 20 0
Making 25*l.* 6*s.* 6*d.* sterling, at the exchange of 6 r. 28 s. gr.	175 17 4

The charges on the ships of all countries having reciprocity treaties with Prussia (which is generally the case) are the same, only Dantzic captains receive no allowance for shore expenses. River or stream money is only paid by vessels that bring goods to town, or load in the Motlau (above the blockhouse): if a ship remain in the Fairwater or Vistula, the river money is levied on the craft carrying the goods, and falls on the latter.

Mr. Consul White, in his *Report* for 1866, gives reason to hope that the Dantzic harbour dues will be forthwith reduced.

Dantzic is a favourable place for ships careening and repairing, and for obtaining supplies of all sorts of sea stores at a reasonable rate.

There belonged to the port, January 1, 1867, 13 steamers and 130 sailing vessels, measuring in all 38,357 Prussian lasts. Most of them are employed in foreign trade. The port has no fishery, and no coasting trade worth mentioning. The wages of Dantzic seamen vary from 30*s.* to 32*s.* per man per month.

Custom House Regulations.—The shipmaster must, within 24 hours after arrival in port, make a declaration of the cargo on board, and of the ship's provisions, and he incurs a severe penalty if the declaration do not prove correct. The ship's hatches (if goods are on board) are sealed on arrival, and an additional declaration is accepted before they are unsealed; but no *later* declaration supplementary or explanatory of the first, and no submitting the goods to investigation by the officers, is received or allowed. If the shipmaster be unable to make a complete declaration on arrival, a Custom House officer is put on board, who remains until the ship is unloaded, at an expense to her of about 2*s.* per day and night. The cargo can only be discharged in presence of a customs officer.

The shipmaster, and not the receiver of the goods, is made responsible if the *contents* of the packages do not correspond with his declaration; and he is only exonerated from this by solemnly averring, on making the declaration, that the contents are unknown to him. An evident mistake or oversight is treated as rigorously as an intentional fraud.

On commencing to *load*, the shipmaster receives a blank loading list, in which he must daily note the articles he takes on board, or he is liable to fine; but this regulation is not very rigidly enforced. On clearing out, this list is compared with the goods entered by the vessel, when the sea passport is given.

Ballast can be discharged only at stated places, on pain of the shipmaster being fined.

It is material, however, to observe that the whole Custom House business of the shipmaster is conducted by Custom House brokers, so that he is never at a loss, being informed by the one he selects what he has to do. Alterations are frequently made in the Custom House regulations.

The shipmaster receives, on arrival, from the pilot commodore, a copy of the harbour regulations, in his own language, with instructions how to act as to ballast.

Warehousing.—Such goods as pay a higher duty than ½ a dollar per centner (about 1*s.* 5½*d.* for about 113 lbs. English) may be placed in the king's stores (nowhere else), and remain there for 2 years without payment of duty. No allowance is made for waste or damage in these stores. Other goods, not capable of being changed, may be placed in private stores, under the king's lock; but not elsewhere, without permission. No rent is charged for goods in the king's stores during the first 3 months; afterwards about 1½*d.* monthly rent is charged for the first, and about 3*d.* monthly for the second year, per centner of about 113 lbs. English.

In private warehouses, the monthly rent for 10 quarters of wheat or other grain is from about 3½*d.* to 7*d.*, or more, according as warehouse room is abundant or otherwise. Other goods do not usually pay by the piece, but part of a store is hired for them, and the rent generally comes somewhat higher in proportion.

The cost of rent and turning grain is from 1*s.* 2*d.* to 1*s.* 6*d.* monthly, for 10 quarters, according to the season of the year and other circumstances; but more when granary room is scarce, and wages high.

Banking Establishments.—There is none such here, excepting a branch of the Royal or Government Bank of Berlin. This was founded partly in the view of receiving deposits of money under litigation in the courts of the province; moneys the property of minors and charitable institutions, the former until disposable or placed on good security; and moneys belonging to individuals not merchants, and at times also those of the latter. Interest is paid on such deposits as follows: viz.—

1 per cent. on sums belonging to minors.
2½ " " charitable institutions, churches, and sums deposited by the courts of justice, and 2 per cent. on all other deposits.

The principal is demandable at pleasure, unless otherwise stipulated. The bank makes advances on grain and some other kinds of goods at 5 per cent. interest; discounts bills with 3 signatures, not having more than 2 months to run, at 6 per cent., and sometimes, when money is plentiful, at a lower rate. It also makes advances at 4 per cent. on deposits of Frederick d'ors and certain foreign moneys; and it occasionally buys bills for account of, and sells bills on, the Berlin Bank. It does not issue notes. The amount of its capital is not fixed; but Government guarantees its transactions. It is relieved from the payment of postage on money, and it is not required to use the stamps fixed by law on bills for its deposit transactions, but only those of 10 s. gr. (about 11½*d.*); while individuals must use stamps for such bills of 5 s. gr. for every 400 r. of not longer date than 3 months, and for every 200 r. of longer date.

On negotiable bills, however, the bank must use the stamps fixed by law, say of 5 s. gr. (about 5½*d.*) for sums of 50 dols. to 400 dols., and at the same rate for every additional sum between 100 dols. and 400 dols.

Bills from and on foreign places, negotiated at Dantzic, are not subject to the stamp duty.

The affairs of the bank are not made public. Being a Government concern, there are no dividends. It is not supposed to be very profitable, although enjoying the advantages of exemption from postage of moneys, and paying less stamp

duty. It is true, however, that the direct advantage of the lower stamp duty is enjoyed by the borrower.

Credit, Brokerage &c.—Very few goods are consigned from abroad for sale, for such consignments rarely turn to good account. Imports are seldom sold for cash, but generally at 1, 2, and 3 months' credit, or longer. The discount allowed for cash payments, when sold on time, is usually 6 per cent., but it varies according as money is plentiful or otherwise.

Any person being a burgher of the town (which any one of good character may become) may transact business as a commission merchant or factor; but brokers must be chosen by the elders of the Corporation of Merchants, approved by the regency of the province, and sworn in by the magistracy of the town.

The usual rates of commission are—

3 per cent. on wood articles } exported.
2 ,, other goods }
2 ,, goods imported

with from 1 to 2 per cent. on do. for *del credere* or guarantee of debts.

The corn factor receives r. 1·7 (about 4*s.* 9*d.* sterling) per last (of 60 scheffels) of all grain from the buyer, and 1 per cent. from the seller.

The rates of brokerage are—

12½ s. gr. (nearly 1*s.* 2½*d.*) per 100*l.*
7½ ,, ,, 8·7½*d.*) 100*l.*
5½ ,, ,, 4·3*d.*) 100*r.*

1 per mille for bills on Berlin, Warsaw, and Paris.
¼ per cent. on moneys placed at interest, for a period not less than 6 months, from the borrower, and
1 per mille from the lender.
1 per mille usually for short discounts, from both parties.
1 per cent. on the actual or the computed amount of transactions in public funds, from both parties.
½ per cent. usually (sometimes more or less) for merchandise.

On grain for exportation, the brokerage is recently fixed at 1 per cent., to be paid by the seller, the buyer refunding to him 5 s. gr. per last of 56½ scheffels.

Burghers, being merchants, may act as brokers, without direct authority, in the purchase from, and sale of goods to, Poles, receiving 1 per cent. on goods bought, and 1 to 2 per cent. on goods sold, according to circumstances.

Bankruptcies are not of frequent occurrence here. Their most prevalent sources at present are speculations in grain. Bankrupts cannot obtain a discharge except by private composition, without which they always remain responsible to each individual creditor, who can attach them at any time, if he can show that they possess property, although their affairs have been settled by judicial authority. This, and the tediousness of settlements in court, make both debtor and creditor desirous of settling by composition; and hence few insolvents are made bankrupt by their affairs being brought into court. It is to be observed that creditors, having claims by bills in force, must by law be paid to the full, before those with only book claims receive anything; but to avoid the tardiness of the court, bill creditors here generally agree to let book creditors receive half as much in composition as they themselves get. It is, however, difficult to arrange a composition, as each creditor can make his own terms; and those who hold out generally get more, at least privately, than the ostensible rate of composition offered by the debtor.

If a private composition cannot be effected, and the insolvent is regularly made bankrupt by his affairs being put into court, the law prescribes that, if a small portion of the creditors will not accept the dividend with which the greater portion are satisfied, the latter can require the former to consent, or become responsible for the estate producing as much finally; but so many objections may be made, that this compulsive measure is very seldom resorted to. A private composition is, however, generally preferred by all parties, more particularly by the debtor, as being the only means by which he can become entirely free, and get a general discharge.

Honest bankrupts, whose affairs are brought into court, may be freed from personal arrest by faithfully delivering up all their property. Dishonest ones, upon conviction, are punished by being sent to the House of Correction; but they often escape punishment, from the too great laxity in enforcing the laws in criminal matters.

The creditors of a bankrupt estate brought into court rank under 8 different classes, each prior class enjoying a precedency of claim over those following, to the full amount. The 2 most considerable classes, in general, are the 6th and 7th, the former being that of the bill, the latter that of the book, creditors.

Tares &c.—The duties are in general payable on the gross weight; a fixed allowance being made, in many cases, according to the packages; in others there is no allowance. The tariff specifies the particular regulations on this point. The tare on goods in single sacks is 4 lbs. per centner (about 113 lbs. English), it being left to the option of the receiver to have the nett weight ascertained.

In trade there are fixed rates of tare only on the following goods; viz.—

Potashes, 6 per cent., when sold by a merchant.
Dyewood, ground, 8 to 11 per bale.

Currants	14	per cent.	-	-	in whole butts.
,,	16	,,	-	-	½ do.
,,	18	,,	-	-	¼ and ⅛ do.
Figs and raisins	10	,,	-	-	casks.
Olive oil	16	,,	-	-	whole and ½ butts.
,,	18 to 20	,,	-	-	¼ and ⅛
,,	16	,,	-	-	pipes.

Seed oil: latterly the tare is ascertained.
Pepper, English, in double bags, 7 lbs.
,, Danish, in bags and mats, 11 lbs.
Orange and lemon peel, 6 per cent., or tare ascertained.
Rice from England or Hamburg, the tare as on the casks, less 2 lbs. per cask on that from England, and in proportion to the weight on that from Hamburg. Danish should give 10 per cent. tare, but the buyers are in general not satisfied with this.
Tallow, 10 per cent., or nett tare.
Tea, Danish bohea, 78 lbs. if in linen and mats.
,, 24 lbs. in chests above 100 lbs.
,, 22 lbs. in chests of about 80 lbs.
Most frequently the tare is ascertained.
Vitriol, 10 per cent.
Raw sugar, 12 to 16 per cent. according to the size of the chests.
Candied sugar, tare by invoice, adding in that proportion for the difference in the weight, usually heavier.
Syrup, in whole casks, 10 per cent.
,, in ½ do. and barrels, 12 per cent.
On the sale of imports, 1 per cent. on the nett weight (called good weight) is allowed in favour of the buyer.

Insurance.—There are no insurance companies nor private insurers here; but there are agents of insurance companies in Hamburg for ships, and of those of London and other places for houses and lives.

Wages of common Labourers in Dantzic vary from 9*d.* to 11*d.* a day, and those of carpenters, masons &c. from 1*s.* 6*d.* to 2*s.* Wages in all the large Prussian towns are higher than in the small towns of the country, from the price of flour, bread, and butchers' meat being higher in them. This is occasioned partly by the latter being subject to *octrois* or excise duties on entering the great towns, from which the country districts and smaller towns are exempted. The king receives ⅔ of these duties, and the towns the other ⅓. This burden is a great obstacle to the free intercourse of the country.

(We have derived these details from different sources, but principally from *Consular Returns*, and information supplied by the Prussian Government.)

DATES (Ger. datteln; Fr. dattes; Ital. datteri; Span. datiles). The fruit of the palm tree (*Phœnix dactylifera*, Linn.). This tree is abundant in Egypt, Barbary, Arabia, Persia, and the adjacent countries, particularly on the confines of the desert, and wherever there is sufficient moisture. It is a tall, majestic tree; and repeated references are made to it in the sacred writings (Ecclus. xiv. 14), and

in the Koran. Mohammed, in one of his sayings, beautifully compares the upright and generous man to the palm tree: 'He stands erect before his Lord; in his every action he follows the impulse received from above, and his whole life is devoted to the welfare of his fellow-creatures.' But the veneration in which the palm tree is held in the East is to be ascribed more to its utility than to its beauty. Dates form the principal part of the subsistence of the inhabitants of many parts of Arabia and Barbary, and they are held in the highest estimation wherever they are met with. 'They are,' says Burckhardt, 'by far the most essential article of food for the lower classes of Medina; their harvest is expected with as much anxiety, and attended with as much general rejoicing, as the vintage in the south of Europe; and if the crop fails, which often happens, as those trees are seldom known to produce abundantly for 3 or 4 successive years, or is eaten up by the locusts, universal gloom overspreads the population, as if a famine were apprehended.' (*Travels in Arabia*, vol. ii. p. 214.)

There is an endless variety of dates. Generally, however, they may be described as being somewhat in the shape of an acorn, but usually larger, consisting of a thick, fleshy substance, including and freely separating from an oblong stone or kernel, having a furrow on the one side. Their taste is agreeably sweet, accompanied with a slight astringency. The new fruit is called by the Arabs *ruteb*. When the dates are allowed to remain on the tree till they are quite ripe, and have become soft and of a high red colour, they are formed into a hard solid paste or cake called *adjoue*. This is formed by pressing the ripe dates forcibly into large baskets, each containing about 2 cwt. 'In this state,' says Burckhardt, 'the Bedouins export the adjoue: in the market it is cut out of the basket, and sold by the pound. It forms part of the daily food of all classes of people; in travelling it is dissolved in water, and thus affords a sweet and refreshing drink. During the monsoon, the ships from the Persian Gulf bring adjoue from Bussorah to Djidda for sale in small baskets weighing about 10 lbs. each: this kind is preferred to every other. Ships bound from Arabia for India take with them a considerable quantity of adjoue, which is readily disposed of amongst the Mohammedans of Hindostan.' (*Travels in Arabia*, vol. i. p. 57.)

The Arabians and Egyptians use the leaves of the tree in the preparation of bags and baskets; the boughs, the outer and inner bark of the trunk, and the fleshy substance at the root of the leaves, where they spring from the trunk, have all their respective uses; and besides this, the kernels of the fruit, notwithstanding their hardness, are used as food for cattle; they are soaked for two days in water, when they become softened, and are given to camels, cows, and sheep, instead of barley: they are said to be much more nutritive than that grain. There are shops at Medina in which nothing else is sold but date kernels; and the beggars are continually employed in all the main streets in picking up those that are thrown away. (Burckhardt, vol. ii. p. 212.)

In 1866, 37,833 cwts. were imported, the largest portion coming from Turkey. But the quality of these was inferior, they being worth only 16*s.* 8*d.* per cwt., while those exported from Gibraltar and Malta were worth 2*l.* 8*s.* or more. In stowage, the Bengal, Madras, and Bombay ton is 20 cwt. wet, 16 cwt. dry.

All the refinements of Arabian cookery are exhausted in the preparation of dates; and the Arabs say that a good housewife will daily supply her lord for a month with a dish of dates differently dressed.

Palm trees are raised by shoots; and Dr. Shaw mentions that they arrive at their vigour in about 30 years, and continue so 70 years afterwards, bearing yearly 15 or 20 clusters of dates, each of them weighing 15 or 20 lbs.: after this period they begin to decline. (*Travels in the Levant*, p. 142, 4to. ed.)

The best dates imported into Great Britain are said to come from Tunis, but they are most commonly brought from Smyrna and Alexandria. They should be chosen large, softish, not much wrinkled, of a reddish yellow colour on the outside, with a whitish membrane betwixt the flesh and the stone. Those that are dry and hard are of little value.

DEAD FREIGHT. A technical term applied to certain kinds of heavy merchandise shipped as cargo. If more cargo might have been properly shipped on board a vessel than was actually put on board, the shipowner is entitled to a verdict for *dead freight*. (*Nichol* v. *Ellis*, July 2, 1851.)

DEALS or DEAL BOARDS (Ger. dielen; Dutch, deelen; Dan. dæler; Swed. tiljor; Fr. planches minces; Ital. tavole, piane; Russ. dorski; Pol. tarcice). A thin kind of fir planks, much used in carpentry; they are formed by sawing the trunk of a tree *into* longitudinal divisions, of greater or less thickness, according to the purposes they are intended to serve. They are imported from Dantzic, Petersburg, Narva, and many other ports in the Baltic, and from North America; but those from Christiania, the capital of Norway, are the best, and bring the highest price. They are distinguishable from those produced in the contiguous provinces of Norway: their superiority has been said to depend principally on their being *more perfectly* sawed; but it really depends on the greater care with which the sap-wood and other defective portions of the timber are cut away, and on the quality of the timber. [TIMBER.]

A Russian standard deal is 12 feet long, 11 inches wide, and 1½ inch thick; 400 feet of 1½ inch plank make a load.

A Christiania standard deal is 11 feet long, 9 inches wide, and 1¼ inch thick.

There is another standard of Norway deals at Dram, 10 feet long, 9 inches wide, and 1½ inch thick. [CHRISTIANIA.]

DEBENTURE. A term used at the Custom-house to signify the *certificate* subscribed by the customs officers, and given to the exporter of goods on which a drawback is allowed, bearing that the exporter has complied with the required regulations, and that he is entitled to such drawback.

It is enacted by the 16 & 17 Vict. c. 107 that the person entitled to any drawback on any goods duly exported, or his agent authorised by him for that purpose, shall make and subscribe a declaration upon the debenture that the goods mentioned therein have been actually exported, and have not been relanded, and are not intended to be relanded, in any part of the United Kingdom, and that such person at the time of entry and shipping was and continued to be entitled to the drawback thereon, and the name of such person shall be stated in the debenture, which shall then be delivered to such person or his agent, and the receipt of such person on the debenture, countersigned by the holder of such debenture, if the same shall have been transferred in the mean time, shall be the discharge for such drawback when paid. (Sec. 131.)

No debenture for any drawback allowed upon the exportation of any goods shall be paid after the expiration of 2 years from the date of the shipment of such goods. (Sec. 132.)

For these and the other clauses in the Act relating to debentures, see IMPORTATION AND EXPORTATION.

A stamp duty is laid on debentures of 1*s.* when the drawback to be received does not exceed 10*l.*; of 2*s.* 6*d.* when it exceeds 10*l.* and does not exceed 50*l.*; and of 5*s.* whenever it exceeds 50*l.*

For debenture in Railways, see RAILWAYS.

DECIMAL SYSTEM. [COINS; WEIGHTS AND MEASURES.]

DELFT or DELF (Ger. fayence, unachtes porzellan; Dutch, delfs porcelyn; Fr. faïence). A coarse species of porcelain originally manufactured at Delft, whence its name. It is now rarely used in this country.

DEMURRAGE. In Commercial Navigation, an allowance made to the master or owners of a ship by the freighter, for detaining her in port longer than the period agreed upon for her sailing. It is usually stipulated in charterparties and bills of lading that a certain number of days, called running or working days, shall be allowed for receiving or discharging the cargo, and that the freighter may detain the vessel for a further specified time, or as long as he pleases, on payment of so much *per diem* for such over-time. When the contract of affreightment expressly stipulates that so many days shall be allowed for discharging or receiving the cargo, and so many more for overtime, such limitation is interpreted as an express stipulation on the part of the freighter, that the vessel shall in no event be detained longer, and that if detained he will be liable for demurrage. This holds even in cases where the delay is not occasioned by any fault on the freighter's part, but is inevitable. If, for example, a ship be detained, owing to the crowded state of the port, for a longer time than is allowed by the contract, demurrage is due; and it is no defence to an action for demurrage, that it arose from port regulations, or even from the unlawful acts of the Custom-house officers. Demurrage is not, however, claimable for a delay occasioned by the hostile detention of the ship, or the hostile occupation of the intended port; nor is it claimable for any delay wilfully occasioned by the master, or owners, or crew of the vessel. The claim for demurrage ceases as soon as the ship is cleared out and ready for sailing, though she should be detained by adverse winds or tempestuous weather. (Chitty's *Commercial Law*, vol. iii. pp. 426–431.)

DENARIUS. A Roman coin, estimated by Dr. Arbuthnot to have been worth 7¾*d.*; but its value differed at various periods.

DENIER. A small French coin, of which there were 12 to a sol.

DIAMOND (Ger. Dutch, Dan. and Fr. diamant; Swed. demant, diamant; Ital. Span. and Port. diamante; Russ. almas; Pol. dyamant; Lat. adamas; Hind. hira). A precious stone which has been known from the remotest ages. It has been found in different parts of India, and in Borneo, Sumatra, Java, Australia, the Ural Mountains, occasionally in North America, but especially in Brazil. The Indian diamond, according to Mr. Emanuel, is generally found in octahedral, the Brazilian in dodecahedral crystals. The specific gravity of the diamond is about 3·5. The diamond owes its brilliancy to its capability of refracting light, its power being, in comparison with common glass, as 2·487 to 1·525. It was from this refractive power that Newton concluded that the diamond was combustible. Apart from its value for purposes of ornament, it has an important one in the art of glass cutting, for it is the only substance which will cut this material. But to effect this purpose, the stone must have an angle which is naturally acute. The glaziers' stones, as these are called, are worth, according to Mr. Emanuel, 10*l.* the carat.

The diamond mines of India have been nearly exhausted. Diamonds are found in small quantities in Sumbhulpore, where the trade of diamond washing is hereditary in certain families. But the lustre of the Indian diamond is higher than that of Brazil, and the old diamonds are more valuable than those of late discovery. Brazilian diamonds come from various localities in that country, and chiefly in alluvial soil, but sometimes in a conglomerate, found in the tops of the highest mountains in the diamond-producing district. The trade in the Brazilian diamonds dates from about the middle of the eighteenth century. The quantity produced is very large. Mr. Emanuel, though he states that the yield is decreasing, reckons the annual produce at 240,000 carats, and assigns it a value of 1,000,000*l.* sterling.

The labour of searching for diamonds is described with great liveliness by the gentleman whose work has been referred to. On an average of 10,000 stones, there will not be one of eighteen carats found. The largest diamond ever found in the Brazils is the Star of the South, which, when rough, weighed 254 carats.

Tests of Diamonds. Cutting, &c.—To ascertain whether any specimen is a true diamond or not, a fine file may be used: and if the surface of the stone be the least abraded or scratched by its action, it is not a diamond. The difference will also appear upon close examination without this instrument; the rays of light easily pass through other gems, but in the diamond they are refracted to the surface, which occasions its superior brilliancy.

On account of the extreme hardness of the diamond, the art of cutting and polishing it was for a long time unknown in Europe; but in 1456 a young man of the name of Louis Berghen, a native of Bruges, is said to have constructed a polishing wheel for the purpose, which was fed with diamond powder instead of *corundum*, which the Chinese and Hindoos had been long accustomed to employ. Berghen was led to this discovery by observing the action produced by rubbing two rough diamonds together.

Diamonds are cut into various shapes. Those enumerated by Mr. Emanuel are the double cut brilliant, the single cut brilliant, the table diamond, the rose, and the brilliolette or briolet.

Commercial Value of Diamonds.—'The value of a rough diamond is calculated at half its weight, as it is thought likely to lose half in cutting, and the cost of cutting is reckoned at 15*s.* the carat. The value depends on the colour, size, and form of the crystals, and, for stones under two carats in weight, ranges from 2*l.* 10*s.* to 5*l.* per carat. Great caution is necessary in purchasing rough diamonds.

'The valuation of polished diamonds is taken in the trade from the tables made by Jeffries in 1750, which are based on the assumption that a diamond increases in value in proportion to its weight, in the ratio of the square of its weight, i.e. supposing the value of a one-carat stone be 8*l.*, one of two carats will be worth $2 \times 2 \times 8 = 32$*l.*, this calculation being continued up to stones of 100 carats.' These tables, however, do not represent present values. The production of the gem has diminished, and the number of wearers has increased, so that the price during the last twenty years has risen enormously on all stones below five carats in weight. For obvious reasons, it is impossible to give any estimate of stones above five carats.

When diamonds are of any decided colour, as blue, red, green, they often fetch enormous prices. Such stones exist. Mr. Hope had one of 44½ carats, of a bright sapphire blue. In the Russian treasury there is a brilliant red diamond, weighing 10 carats. There is a green diamond at Dresden, which once belonged to Augustus the Strong, king of Poland, which weighs 48½ carats. A green diamond weighing five grains, which, if white, would have been worth no more than 28*l.*, has been sold for 320*l.* These coloured diamonds are called fancy stones. Mr. Emanuel has given three comparative tables of the price of diamonds, one of which is his own calculation of the value to be at present assigned to perfectly white and pure brilliants, and which ranges from stones weighing ½ a carat and worth 5*l.* 10*s.* to those of 5 carats, which he values at 320*l.*; another table is that of Jeffries, composed in 1750, where the range is from 3 grains worth 6*l.*, to 5 carats worth 200*l.*; while a third is that of a Venetian merchant, who reckoned their values in the year 1606. In this table a 3-grain brilliant is valued at 15*l.* 3*s.* 4*d.*, and one of 5 carats at 346*l.* 13*s.* 4*d.* It appears that the last-named table is a record of actual sales. (See for further particulars Emanuel's *Diamonds and Precious Stones.*)

Diamonds may be landed without report, entry, or warrant. (3 & 4 Wm. IV. *c.* 52 *s.* 2.)

The carat grain used in weighing diamonds is different from the troy grain, 5 diamond grains being only equal to 4 troy grains.

DIAPER (Ger. drell; Dutch, drel; Fr. linge ouvré; Ital. tela tessuta a opere; Span. manteles alemaniscas; Russ. salfetotschnoe). A sort of fine flowered linen, commonly used for table-cloths, napkins &c., originally manufactured at Ypres, whence its name; brought to the highest perfection in the manufactories in the north of Ireland, in Germany, and Scotland.

DICE (Ger. würfel; Dutch, taarlingen; Fr. dés (à jouer); Ital. dadi; Span. dados; Russ. kosti). Cubical pieces of bone or ivory, marked with dots on each of their sides from 1 to 6, according to the number of the face.

The regulations as to the manufacture and sale of dice are the same as those with respect to CARDS. Every pair of dice is to pay a duty of 21*s.* All pieces of ivory, bone, or other matter used in any game, having letters, figures, spots, or other marks denoting any chance, marked thereon, to be adjudged dice; and if more than 6 chances are signified on any one piece, then such piece to be charged with the full duty of a pair of dice. (9 Geo. IV. c. 18.)

In 1865 only 6 pair paid the duty.

DIMITY (Fr. basin; Ital. dobletto; Span. dimite). A species of cross-barred stuff entirely composed of cotton, similar in fabric to fustian. It was originally manufactured in Sicily, its name being of Greek origin.

DISCOUNT. An allowance paid on account of the immediate advance of a sum of money not due till some future period. It is usually said to be of two kinds—viz. discount of bills, and discount of goods; but they are essentially the same.

When a bill of exchange is presented at a banker's for discount, it is the practice to calculate the simple interest for the time the bill has to run, including the days of grace, which interest is called the *discount*; and this being deducted from the amount of the bill, the balance is paid over to the presenter of the bill. This is the method followed by the Bank of England, the London and provincial bankers, and by commercial men in general. But it is, notwithstanding, inaccurate. The true discount of any sum for any given time is such a sum as will in that time amount to the interest of the sum to be discounted. Thus, if interest be *five* per cent., the proper discount to be received for the immediate advance of 100*l.* due 12 months hence is not 5*l.*, but 4*l.* 15*s.* 2½*d.*; for this sum will, at the end of the year, amount to 5*l.*, which is what the 100*l.* would have produced. Those, therefore, who employ their money in discounting, make somewhat more than the ordinary rate of interest upon it; for a person discounting 100*l.* due at the end of a year, advances, supposing interest to be 5*l.* per cent., only 95*l*; so that, as this 95*l.* produces 100*l.* at the period in question, the interest received has really been 5*l.* 5*s.* 3*d.* per cent.

The rule for calculating discount on correct principles is as follows:—

As the amount of 100*l.* for the given rate and time
Is to the given sum or debt;
So is 100*l.* to the present worth, or
So is the interest of 100*l.* for the given time
To the discount of the given sum.

Mr. Smart has calculated, on this principle, a table of the discount of 1*l.* for any number of days, at 2, 2½, 3, 3½ &c. to 10 per cent., to 8 decimal places. But the simple interest of the sum being the only thing looked for in practice, such tables are hardly ever referred to.

Bills in the highest credit are discounted on the lowest terms; the discount increasing according to the suspicions entertained of the punctuality or solvency of the parties subscribing the bills. During the continental war, the rate of interest, or, which is the same thing, of discount, was comparatively high; for some time afterwards it was seldom above 4, and often as low as 3 and even 2½ per cent.

During the ten years 1856-1865 the average rate of discount was 4¾ per cent.

Discount on merchandise takes place when, after making a purchase of goods at a fixed term of credit, the buyer finds means to make his payment before the expiration of that term, receiving from the seller a discount or allowance, which is commonly a good deal above the current rate of interest. The discount on goods varies, of course, according to the interest of money. During the late war, the loans to Government were so large, and the facility of investing money was such, that the discount on goods was often as high as 5 per cent. for 6, and 10 per cent. for 12 months. Now, however, the discount on goods has fallen, with the fall in the rate of interest, to 7 or 7½ per cent. for 12 months; being about double the current interest arising from funded property, or the discount of good mercantile bills.

Long credits and discounts upon goods have, for a lengthened period, been usual in England. This arose from a variety of causes, but principally, perhaps, from the magnitude of our exports to the United States, Russia, and other countries where there is a great demand for capital; but in whatever causes it originated, it has latterly been carried to what seems to be an injurious extent. [CREDIT.] In France and Germany, the manufacturers, in general bare of capital, are obliged to stipulate with the merchants for short credits. In Holland, the *usage* of the exporting merchants has been to pay either in ready money, or at so short a date as to put discounting out of the question, the manufacturer setting at once the lowest price on his goods.

DIVI DIVI. The commercial name of the pod of the *Cæsalpinia coriaria*, a leguminous plant, found in low, marshy situations in the north parts

of South America, principally in New Granada and Venezuela, and in some parts of the West Indies. It is used both for dyeing and tanning, but chiefly for the latter purpose. The pod is from 2 to 3 inches in length by ¾ inch in breadth, and when in perfection is of a rich brown colour. It contains a few small seeds, but the only valuable portion is a resinous matter of a bright yellow colour, easily pulverised, which lies betwixt the outer skin and the husk that encloses the seed, and contains a large quantity of tannin. The imports in 1866 amounted to 4,269 tons, worth about 13*l.* 5*s.* per ton. By far the greater portion is imported into Liverpool.

Divi Divi is used by dyers, not for the colouring principle which it contains, but for its strong astringent qualities as a mordant. For this purpose it is at present used to some extent instead of sumach, which is scarce and dear, and hence the recent high price of the article.

In tanning it accelerates the process, and imparts to the leather a clean and healthy appearance. (*Private information.*)

DIVIDEND. The name given to the payment made to creditors out of the estate of a bankrupt: to the annual interest payable upon the national debt, and other public funds; to the divisible profits of railways, and other joint-stock undertakings.

DJIDDA. A town of Arabia, on the Red Sea, about 21 miles from Mecca, of which it is the seaport, in lat. 21° 29′ N., long. 39° 14′ E. It is well built; the streets are unpaved, but spacious and airy; the houses high, and constructed, for the most part, of madrepores and other marine fossils. The supply of water is scanty, and its quality indifferent. Small vessels approach close to the quays; but large vessels are obliged to anchor in the roads, about 2 miles off, loading and unloading by means of lighters. The entrance to the roads is difficult, and should not be attempted without a pilot. Djidda is a place of considerable commercial importance. It is the entrepôt in which is centred the greater part of the commerce between India, Egypt, and Arabia. Many of its merchants possess large capitals—some of them as much as from 150,000*l.* to 200,000*l.* The trade in coffee brought from Mocha and other ports in Yemen is the most considerable, but it is said also to be the most hazardous. The returns are principally made in cash. The trade with India and the Persian Gulf is safer than the coffee trade, and is very considerable. Djidda has also a good deal of intercourse with the ports of Cosseir, Souakin, and Massouah, on the opposite coast of the Red Sea. The imports from the last two principally consist of slaves, gold, tobacco, dhourra or barley, hides, butter (of which immense quantities are made use of in Arabia), mats &c.; in return for which the Africans receive Indian goods suitable for their markets, dresses and ornaments for their women, dates (which are not produced in any part of Nubia), iron &c. The principal article of import from Cosseir is wheat; and not only Djidda, but the whole Hedjaz, or Holy Land of Arabia, is almost entirely dependent upon Egypt for corn. Coffee is the principal article sent in return. Business is transacted at Djidda with ease and expedition. The number of vessels belonging to the port is estimated at 250. Owing to the scarcity of timber, none of them are built at Djidda; those belonging to it being either purchased at Bombay or Muscat, or at Mocha, Hodeida, or Suez. For a considerable period each year, before and after the feast of Ramadhan, when pilgrims come from all quarters to visit Mecca, the town is thronged with strangers, and a great deal of mercantile business is transacted. Djidda is at present, and has been for a number of years, under the government of the Pacha of Egypt. The *moneys*, *weights*, and *measures* of the latter country [ALEXANDRIA] are now generally used in Djidda, the commerce of which has been much improved and extended in consequence of the comparative security and good order enforced by the pacha. (We have gleaned these details from the different works of Burckhardt, particularly from his *Travels in Arabia*, vol. i. pp. 1–100.)

DOCKS. Artificial basins for the reception of ships. The term has been supposed by some to be derived from the Greek δέχομαι, to receive; but it is obviously no other than the Teutonic *dock*, originally perhaps derived from *dekken*, to cover, enclose, or protect.

Docks are of two sorts, *wet* and *dry*. Wet docks are generally constructed with gates to retain the water. Ships are admitted at high water; and the gates being shut, they are kept constantly afloat. A dry dock is intended for the building, repairing, or examination of ships. The ships to be repaired or examined are admitted into it at high water; and the water either ebbs out with the receding tide, or is pumped out after the gates are shut.

Utility of Docks.—The construction of wet docks has done much to facilitate and promote navigation. A large vessel, particularly if loaded, could not be allowed to come to the ground, or to lie on the beach, without sustaining considerable injury, and perhaps being destroyed; and even the smaller class of vessels are apt to be strained, and otherwise hurt, if they are left dry, unless the ground be very soft. Hence, when large vessels have to be loaded or unloaded where there are no docks, and where the water close to the shore or quay is not sufficiently deep, the work can only be carried on during a particular period of each tide; it being necessary, in order to keep the vessel afloat, that she should leave the shore with the ebbing tide. Attempts have sometimes been made to obviate this inconvenience by running jetties or piers to such a distance into the sea that there might always be a sufficient depth of water at their heads; but this can only be done in peculiar situations, and it requires that the ship's position should be frequently changed. It is in most cases, too, impossible properly to protect the cargoes of ships loading or unloading at quays, or on the beach, from depredation. Previously to the construction of wet docks on the Thames, the property pillaged from ships was estimated at 500,000*l.* a-year, though this is probably much exaggerated.

I. DOCKS ON THE THAMES.

1. *East and West India Docks.*
2. *London Docks.*
3. *St. Katharine Docks.*
4. *Victoria Docks.*
5. *Surrey Commercial Docks.*
6. *Millwall Dock.*
7. *London Port Dues. Charges on Account of Lights, Pilotage &c. in the Thames. Shipping &c. of London.*

II. SOUTHAMPTON DOCKS, SHIPPING &C.
III. LIVERPOOL AND BIRKENHEAD DOCKS, SHIPPING &C.
IV. BRISTOL DOCKS, SHIPPING &C.
V. HULL DOCKS, SHIPPING &C.
VI. GREAT GRIMSBY DOCKS &C.
VII. NEWCASTLE DOCKS &C.
VIII. TYNE, SOUTH SHIELDS DOCKS &C.
IX. CARDIFF DOCKS &C.
X. GLASGOW DOCKS, SHIPPING &C.
XI. DUNDEE DOCKS, SHIPPING &C.
XII. LEITH DOCKS, SHIPPING &C.
XIII. CORK DOCKS.

I. Docks on the Thames.

It is singular that notwithstanding the obvious utility of wet docks, and the vast trade of the metropolis, there was no establishment of this sort on the north side of the Thames till nearly a century after a wet dock had been constructed at Liverpool. The Commercial Dock appears to have been opened so early as 1660. (*Post.*) The inconvenience arising from the crowded state of the river at the periods when fleets of merchantmen were accustomed to arrive, the insufficient accommodation afforded by the legal quays and sufferance wharves, the necessity under which many ships were placed of unloading in the river into lighters, and the insecurity and loss of property thence arising, had been long felt as almost intolerable grievances: but so powerful was the opposition to any change, made by the private wharfingers and others interested in the then existing order of things, that it was not till 1793 that a plan was projected for making wet docks, on anything like an adequate scale, for the port of London; and 6 years more elapsed before the Act for the construction of the West India Docks was passed.

1. *West India Docks, now conjoined with the East India Docks.*—The West India Docks were the first, and continue to be the most extensive, of the great warehousing establishments formed in the port of London. Their construction commenced in February 1800, and they were partially opened in August 1802. They stretch across the isthmus joining the Isle of Dogs to the Middlesex side of the Thames. They originally consisted of an Import and Export Dock, each communicating, by means of locks, with a basin of 5 or 6 acres in extent at the end next Blackwall, and with another of more than 2 acres at the end next Limehouse: both of these basins communicate with the Thames. To these works were added, in 1829, the South Dock, formerly the City Canal, which runs parallel to the Export Dock. This canal was intended to facilitate navigation by enabling ships to avoid the circuitous course round the Isle of Dogs. It was, however, but little used for that purpose, and is now appropriated to the wood trade, for the greater accommodation of which a pond of 19 acres has been formed on the south side for the reception of bonded timber. The Export Dock, or that appropriated for ships loading outwards, is about 870 yards in length by 135 in width; so that its area is near 25 acres: the North or Import Dock, or that appropriated for ships entering to discharge, is of the same length as the Export Dock, and 166 yards wide; so that it contains nearly 30 acres. The South Dock, which is appropriated both to import and export vessels, is 1,183 yards long, with an entrance to the river at each end; both the locks, as well as that into the Blackwall Basin, being 45 feet wide, are large enough to admit ships of 1,200 tons burden. At the highest tides, the depth of water in the docks is 24 feet; and the whole will contain, with ease, 600 vessels of from 250 to 500 tons. The separation of the homeward-bound ships, which is of the utmost importance for preventing plunder, and giving additional security to the revenue and the merchant, was, for the first time, adopted in this establishment. The Import and Export Docks are parallel to each other, being divided by a range of warehouses, principally appropriated to the reception of rum, brandy, and other spirituous liquors. There are smaller warehouses and sheds on the quays of the Export and South Docks, for the reception of goods sent down for exportation. The warehouses for imported goods are on the four quays of the Import Dock. They are well contrived, and of great extent, being calculated to contain 160,000 hogsheads of sugar, exclusive of coffee and other produce. There have been deposited, at the same time, upon the quays, under the sheds, and in the warehouses belonging to these docks, 148,563 hogsheads of sugar, 70,875 casks and 433,648 bags of coffee, 35,158 puncheons of rum and pipes of Madeira wine, 14,021 logs of mahogany, 21,350 tons of logwood &c. The whole area occupied by the docks, warehouses &c. includes about 295 acres; and the most effectual precautions are adopted for the prevention of fire and pilfering.

This spacious and magnificent establishment was formed by subscription, the property being vested in the West India Dock Company, the affairs of which were managed by 21 directors as a body corporate.

The West India Docks proved a very successful undertaking, and have been highly beneficial to the original shareholders as well as to the trade of the port. All West India ships frequenting the Thames were obliged to use them for a period of 20 years from their completion. The dividend on the Company's stock was limited to 10 per cent.; and after making dividends to the full amount, with the exception of the first half-year, they had in 1819 an accumulated fund of near 400,000*l.* But they then diminished their charges, at the suggestion of a committee of the House of Commons; and having been since still more considerably reduced, the surplus has been absorbed. The nearest dock-gate is at Limehouse, and the other about ½ mile farther from town.

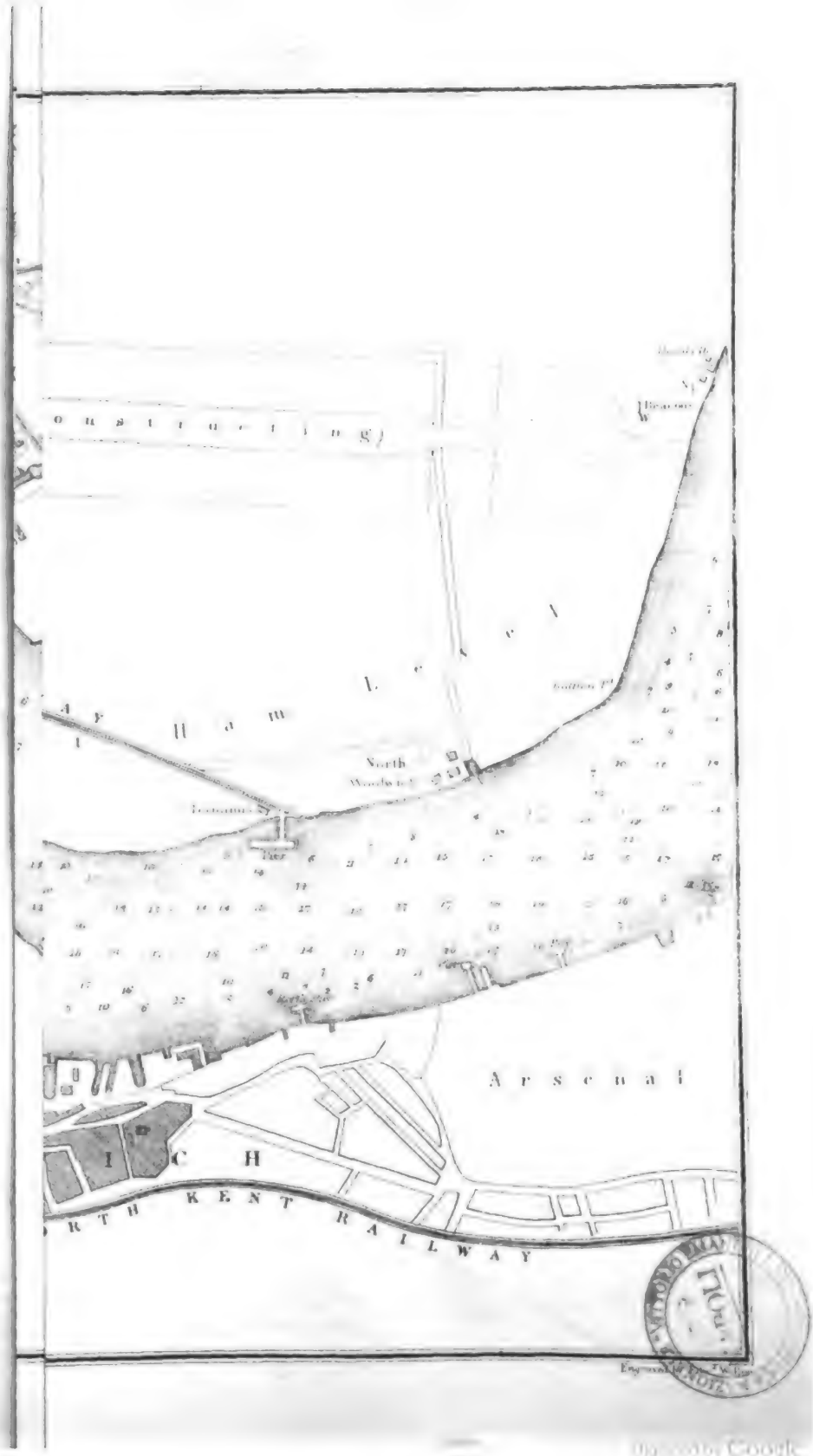
The East India Docks, united with those now described in 1838, are situated at Blackwall, about 3½ miles from the Exchange, and were originally intended for the accommodation of ships employed by the East India Company, or in the East Indian trade; but they are now open to vessels from all parts. There are 2 docks; 1 for ships unloading inwards, and 1 for those loading outwards. The Import Dock contains about 18 acres, and the Export Dock about 9 acres. The entrance basin, which connects the docks with the river, contains about 2¾ acres; the length of the entrance lock is 210 feet, the width of the gates 48 feet clear. The depth of water in the East India Docks is never less than 23 feet; so that they can accommodate ships of greater burden than any other establishment on the river. There is attached to them a splendid quay fronting the river, nearly 700 feet in length, with water sufficient at all times of the tide to float the largest steam ships; and the Export Dock is furnished with a machine for masting and dismasting the largest ships.

Exclusive of the magnificent warehouses attached to the West India Docks, the East and West India Dock Company possess the East India warehouses in Billiter Street, Fenchurch Street, Jewry Street, and Crutched Friars; in which they warehouse and show tea, indigo, silk, drugs, spices &c.

These docks have railway communications with the North London and the Blackwall lines.

The capital of both establishments, or of the United Company, amounts to 2,065,668*l.*, and the management is vested in a board of 38 directors. The consolidation of the establishment was advantageous to the shareholders by reducing the expense of management, and to the public by giving a greater choice of accommodation to vessels frequenting the docks.

The inconvenience of the distance at which these docks are situated from the Exchange has


Arsenal
KENT RAILWAY

been in a great degree obviated by the opening of the railways referred to, and by the exhibition of samples in the Company's upper warehouses. Still, however, the charge on account of cartage is a little heavier on goods warehoused at the docks of this Company than on those warehoused farther up the river; but, on the other hand, ships entering the East India or West India Docks avoid a considerable extent of troublesome, if not dangerous navigation, that must be undertaken by those bound for the London and St. Katharine Docks.

Rules and Regulations to be observed, and Rates to be paid, by Shipping in the East and West India Docks.

The docks and works of this Company are the East India Import and Export Docks and Basin, called the Eastern Docks; the West India Import and Export Docks, and the Blackwall and Limehouse Basins, called the Western Docks; and that (formerly the City Canal) called the South Dock.

Regulations for Shipping to be observed by Masters, Pilots, and other persons having the charge of Ships, Vessels, Lighters, or Craft coming into, lying in, and going out of, the East and West India Docks, pursuant to Act 2 Wm. IV. c. 52.

The Company's Moorings.—The moorings in the river, within 200 yards of each of the entrances at Blackwall, and that into Limehouse Basin, and within 150 yards of the Limehouse entrance of the South Dock, are reserved for the exclusive use of vessels entering into, or which have recently come out of, the docks.

Pilots must not attempt to place ships inside the buoys, if other ships have previously brought up, but bring them to their berths in due succession on the outside, unless they shall be expressly ordered by the dock-master to take a berth inside the tier for the convenience of docking.

Vessels about to Enter and Leave the Docks.

Signals.—A *blue* flag will be kept flying at each entrance the whole time proper for docking and undocking; at high-water mark the flag will be struck, after which no pilot must sheer his vessel in, unless directed so to do by the dock-master.

Preparing Ships for Admission.—No time should be lost in getting the anchors properly secured and stowed, sails furled, quarter boats lowered down, guns unloaded, gunpowder put out.

All ships are required to send down top-gallant yards and strike top-gallant masts, and to have their jib and mizen booms rigged close in, bomkins, martingales, and all outriggers unshipped, and the yards well topped up whenever ordered by the dock-master.

Order of Admission.—The dock-masters have, under the Dock Acts, full powers to direct the mooring, unmooring, moving, or removing, all ships, vessels, or craft within the Company's limits, and will direct the docking of vessels generally in the order in which they arrive; but if any vessel shall attempt to gain admittance contrary to the directions given by the dock-master, the owner, and the master, pilot, or other person in charge, must be responsible for all consequences.

Entering.—The ship must be ready to send good and sufficient warps to *each* pier, when directed by the dock-master.

When within the piers, proper ropes will be handed on board when requisite to guide and check the vessel through the lock; the vessel must be hauled ahead by her own warps, and they are on no account to be cast off unless ordered by the dock-master.

Every pilot must bring his boat into the Basin, or South Dock, as it is a most essential part of his duty to moor the ship.

Vessels about to Leave the Docks.—Export vessels should be hauled down in sufficient time to be at the river locks, at Blackwall, at low water, to prevent inconvenience during the time that other vessels are requiring admission, which must have the preference.

Vessels can only be let out after high water upon the special request of the officers in charge of them.

Ships going into the river must use their own ropes, as they are out of the dock-master's charge when clear of the outer gates.

Ships' Boats.—The Company take no charge of ships' boats, and are not responsible for them: it therefore rests with the owner of the ship to take such measures as will ensure their safety.

Discharging.—Two true copies of the manifest of the cargo must be delivered into the general office, at the Dock House, in Billiter Square, within twelve hours after every vessel shall enter the docks, or after the cargo shall have been reported at the Custom House, whichever shall first happen. Penalty for refusal or neglect, any sum not exceeding 5*l.* (2 Wm. IV. c. 52 *s.* 84.)

No ships can be allowed to break bulk until their cargoes are duly entered.

All baggage or presents should be sent as promptly as possible to the Baggage Warehouse, where an authority from the master for the delivery thereof must be lodged.

Packages of bullion or specie (whether cargo or private property) must be delivered by the captain, under his own responsibility.

The delivery of goods overside will also rest with the master, and he must take such steps as he may think necessary to protect his owners in respect to their freight.

Eastern and Western Import and Export Docks, the Basins, and South Dock.

All vessels entering or lying in these docks and basins continue in charge of the masters and owners.

It is the duty of the pilots, or officers and crews, to transport their respective vessels, except otherwise provided for by the table of rates, under their own responsibility, to or from the river, and to or from any part of the docks or basins, as directed by the dock-master.

Light ships, on entering from the river, must be provided with sufficient hands to dock and transport them, and should move in due time into the dock; otherwise they will be removed by the dock-master, and the owners charged with the expense.

Ships taking in cargoes will be moored at the quays in due rotation. Light ships not taking in goods must be moored in either of the docks or basins, as the dock-master may judge convenient.

While ships are lying at or moving to or from the quay, all outriggers should be got in and made snug; and sails are by no means to be loose while so moving, or after daylight.

No ship must be removed from her berth without notice being given to the dock-master, and his assent as to the time of removal being obtained.

Craft must be fastened to the ships from which they are receiving, or to which they may be delivering goods.

Convenient receptacles on the quays are provided, wherein all dust, ashes, and other refuse mat-

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ters are to be deposited, and which shall be cleared by the person appointed by the Company, and by no one else.

No vessel can be permitted to take in ballast after daylight, or before daybreak.

Ships' provisions or stores cannot be permitted to pass the gates without an order signed by the *owner*, or an officer of the ship.

Neither caulking nor plumbers' work can be allowed without special permission, to be obtained from the Principal of Police.

Fire and Candle.—Special licenses will be granted to use fire and candle in all the docks and basins, on application to the Principal of the Police, made by the master or owner of the vessel, specifying the names and capacity of the persons in charge of the ship, and engaging to be responsible for their attention to the regulations.

Every such license will express the place in which fire may be kept, and the circumstances under which it may be used: upon the slightest infringement of the conditions, the penalty prescribed by law will be rigidly enforced.

Opening and Shutting the Gates.—The gates will be opened at 6 o'clock in the morning, and shut at 8 o'clock in the evening, from March 1 to November 10; and from November 11 to the last day of February, opened at 7 in the morning, and shut at 7 in the evening.

Captains and chief mates may be furnished with tickets upon applying at the Police Office, at the Eastern or Western Import Dock, which will entitle them to *admission* till 9 o'clock P.M., but no person whatever can be allowed to *go out* after the hour for closing the gates.

Hours of Attendance.—The hours of attendance are, from March 1 to October 31 inclusive, *eight* in the morning to *four* in the afternoon: from November 1 to the last day of February, inclusive, *nine* in the morning to *four* in the afternoon; and there is to be no intermission of business during these hours.

No holidays are kept, except Sundays, Christmas Day, Good Friday, Fast Days appointed by Royal Proclamation, *and the King's or Queen's Birth Days.*

Tonnage Rates.

Sailing Vessels Inwards Discharged by the Company.

For docking, mooring, and removing within the docks and basins, unloading the cargo, and the use of the docks for four weeks from the final discharge,*—viz.

	Per ton register. s.	d.
Laden with sugar, otherwise than after-mentioned, or other goods packed in bales, bags, baskets, serons, casks, cases, chests, or similar packages (except oil direct from the fisheries, tallow, or ashes), metal in pigs, bars, rods, plates, or similar pieces, wood in billets, such as dye woods†	1	6
And in addition, for every load or ton of blue gum wood, and the like; or oil in iron tanks	0	6
Laden with chests of sugar, 5 cwt. and upwards, *including ship's cooperage*	2	0
Laden entirely, *or in part*, with hogsheads, and tierces of sugar or molasses from the West Indies, *including ship's cooperage*	2	6
Laden with mahogany, cedar, or other furniture wood, in logs or planks	2	6
Laden entirely with hemp or goods in bulk, or oil direct from the fisheries	1	9
And in addition for every ton of oil in tanks	0	6
Laden entirely with tallow	1	3
Laden with mixed cargoes, tallow, ashes, or goods in bulk—		
For every ton of hemp	2	0
For every ton of tallow or ashes	1	3
For every ton in bulk, except guano	1	9
The total number of tons charged not to exceed the register tonnage.		
Laden with wood, the growth of the North of Europe, or the North American Colonies, viz.:—		
Entirely with deals, staves, lath, or fire-wood	1	9
Entirely, or in part, with timber	1	9
And in addition, for every load of hardwood or masts	0	6
For every load of pine or fir timber	0	3

* When the discharge by the Company of any vessel is postponed by desire of the owners, six weeks only are allowed free of rent.

† The expense of labour incurred, and of materials broken or injured, in the discharge of cutch or gambier, and other packages when they adhere together, will be charged in addition.

	Per ton register. s.	d.
Laden with timber from Africa, or the East Indies, or like timber cargoes	3	0
And, in addition, for every load discharged over side	1	0
Laden with timber and spars from Vancouver Island, or similar cargoes	3	9
Laden with guano	1	9

Note.—Vessels which discharge the whole or greater part of their cargoes into lighters will be subject to such rates for discharging as shall be agreed upon between the ship-owner or master and the Company.

Sailing Vessels Inwards Discharged by their own Crews.

For the use of the docks† for any period not exceeding four weeks from the date of entrance:—

	Per ton register. s.	d.
Arriving from any port or place not otherwise specified	0	9
Arriving from any port in the United Kingdom or European port outside the Baltic, between the North Cape and Ushant‡	0	6
Delivering part of a cargo, and not remaining beyond one week, per ton delivered	0	6

Exceptions.

	Per ton register. s.	d.
Sloops and craft coastwise, with bricks, and vessels with broken granite, or paving stones, *not remaining beyond one week*	0	3
Colliers entering to await the sale of their cargoes, *not remaining beyond two weeks*	0	3

Other vessels than colliers, coastwise, on landing goods in the docks equal to one-third of their register tonnage, to be exempted from payment of the tonnage rate, but rent to *commence* after one clear day from the final landing of the goods.

Vessels entirely corn-laden, discharged in the docks, *in lieu of tonnage rate*, not remaining beyond two weeks—

	£	s.	d.
If under 50 tons register	1	1	0
If 50 and „ 100 „	1	11	6
100 „ „ 150 „	2	2	0
150 „ „ 200 „	3	3	0
200 „ „ 250 „	4	4	0
250 „ „ 300 „	5	5	0
300 „ „ 350 „	6	6	0
350 „ „ 400 „	7	7	0
400 „ „ 450 „	8	8	0
450 „ „ 500 „	9	9	0

and 2*l.* 2*s.* for every additional 50 tons register or less.

If corn vessels quit *without unloading*, rent to commence after *one clear day* from the date of entrance.

Vessels two-thirds laden with corn will be charged the usual tonnage rates on the other part of their cargoes, in proportion to their register tonnage.

If vessels to which the above exceptions apply load outwards, they will be charged the usual rate of 9*d.* per ton register.

Sailing Vessels Outwards, or Light Vessels, other than Steam Vessels.

	Per ton register. s.	d.
Entering to load or lay up, not having discharged their import cargoes in the docks—		
The use of the docks for any period not exceeding *four weeks* from the date of entering‡	0	9

Vessels Entering to Load from the Import Warehouses or from Vessels Discharging Overside.

	Per ton on the gross weight shipped. s.	d.
For the use of the docks for one week—		
If from import warehouses	0	6
Do. vessels overside	0	9

The number of tons charged not to exceed the *register tonnage.*

Exceptions.

Vessels under 100 tons register coming in to load corn or deals, fir timber, and like wood goods, wholly from the Company's warehouses, yards, or ponds free. Rent to commence after one week.

Steam Vessels.

	Per ton register. s.	d.
Entering to lay up, or to repair or fit their machinery—		
For the use of the docks for any period not exceeding *four weeks* from the date of entering	1	6
Entering to load or discharge cargo, the same dock rates as sailing vessels.		

* The expense of mooring, unmooring, and removing *is not included.*

† If such vessels load outwards, 3*d.* per ton additional will be charged.

‡ The expense of mooring, unmooring, and removing *is not included.*

Charges for Getting Out, Landing, Lifting, or Shipping Boilers and Heavy Machinery.

	Per ton. s. d.
Pieces under two tons each	5 0
Two tons, and not exceeding five tons each	6 6
Above five tons, and not exceeding ten tons each	7 6
Above ten tons, and not exceeding twenty tons each	10 0
Above twenty tons, and not exceeding thirty tons each	15 0
Above thirty tons, and not exceeding forty-five tons each	20 0
Rent, per week, for boilers, funnels, cylinders, and the like	0 3
Ditto for plates, shafts, and other gearing	0 1

If the Company are required to find the slings, and to sling, an additional charge of 10*s.* per cent. on value will be made on pieces 4 tons and upwards.

Vessels Entering only to Adjust Compasses.

	Per ton register. s. d.
Steam vessels	0 6
Sailing vessels	0 4

Not to remain beyond one week: continuing beyond that period to pay the full rates on light vessels.

Dock Rent,

For remaining over the periods specified.

	Per ton register. s. d.
Sailing vessels per week	0 1
Steam vessels lying up, repairing, or fitting machinery	0 4
Ditto, having discharged or loaded in the docks ,,	0 1½

All vessels *which re-enter* after having been out for repair will be allowed their privilege without reckoning the time they remained out.

For the more expeditious discharge of vessels unloaded by the Company, every assistance may be obtained in clearing the decks, or stiffening them; coopering water-casks, and shipping them when filled. (Where inconvenient and unnecessary delay occurs in discharging or loading of ships, vessels, lighters, or craft, it shall be lawful for the Company to cause to be employed a sufficient number of fit and proper persons, and to make a reasonable charge for the same upon the owner or owners, consignee or consignees.—Sec. 94.) Should the Company's moveable machinery be desired for such purpose, it will be lent upon application to the superintendent. The following charges will be made for such services:—

	s. d.
For labourers hired to work under the direction of the commanding officer of the ship, each man per day of the regulated hours of attendance	3 6

and not less than ½ day to be charged. Overtime will be charged in proportion.

Articles loaded, shipped, or struck down by the dock cranes or jiggers, under ½ tons per ton	1 0
½ tons, and under 5 tons ,,	1 8

and not less than 1 ton to be charged.

The use of the floating engine for washing ships, including the attendance of the man in charge, per day	10 0

and not less than 1 day to be charged.

Whenever assistance is required for moving within the docks, it will be furnished by the Dock Master on the following terms, viz.:—

A boat with warp and two hands - 10*s.*
Do. and four hands - 15*s.*

And for every additional hand employed, either on *board* or in the boats, 6*d.* per hour.

The warps are only lent in aid of the ship's warps.

Water from the East London Water Works.

	Per ton. s. d.
Supplied, filtered, and delivered on board	1 0
Unfiltered, from the tank	0 10

Table of Charges for Masting or Dismasting.

For ships of	Mainmast £ s. d.	Foremast £ s. d.	Mizenmast £ s. d.	Bowsprit £ s. d.
Tons				
1000 to 1500	9 0 0	8 2 0	3 12 0	4 10 0
800 1000	6 15 0	6 6 0	3 3 0	3 12 0
650 800	4 0 0	3 12 0	2 0 0	2 0 0
500 650	3 4 0	2 16 0	1 12 0	1 12 0
300 500	2 12 6	2 5 0	1 6 3	1 6 3
under 300	1 17 6	1 13 9	1 1 6	1 2 6

For Putting on or Taking off Tops.

For ships of	Main £ s. d.	Fore £ s. d.	Mizen £ s. d.
Tons			
1000 to 1500	0 15 0	0 15 0	0 10 0
800 1000	0 10 0	0 10 0	0 5 0
500 800	0 7 6	0 7 6	0 5 0
under 500	in proportion		

The prices of the above table are for each operation, which includes the use of masting-falls and slings.

Freight Books.—Abstract of cargoes, for the purpose of making up freight accounts, is supplied, on application at the Dock House, Billiter Square, at the following charges:—

	s. d.
Each abstract, containing the weights, measurement, or quantities, of 4 marks or parcels, or under	1 0
Do. of 5 to 10	2 0
Do. of 11 to 20	3 6

Upwards of 20, each mark or parcel, 3*d.*: but not to exceed 10*s.* 6*d.* including an abstract of the certificates of damage.

Rates and Charges must be paid before the vessels leave the docks, either at the docks or at the Dock House in London.

Regulations, &c. regarding Merchandise.

No ship is allowed to break bulk until her cargo is duly entered: it is therefore important that consignees should give directions for the entry of their respective consignments at the Custom House, as soon as the ship is reported.

Baggage and presents may be cleared at the baggage warehouses, after examination by the revenue.

Particular attention is necessary to the regularity of the indorsements of bills of lading, as the Company's officers cannot pass any bill on which the authority from the shipper to the holder is not deduced by a complete and accurate chain of indorsement.

Every bill of lading should be *specially* indorsed, so as to clearly designate the party to whose order the contents are to be delivered.

In all cases of informality in bills of lading, from want of indorsement &c. or of their being lost, application must be made to the Court by letter, stating the circumstances, and *enclosing any documents which will show the title to the goods*: in every such case the applicant must engage to indemnify the Company by bond or otherwise, as the Court may direct.

When bills of lading are produced, which are at variance with the manifest, as to the original consignee, the Company will not pass any delivery order founded thereon until three clear days shall have elapsed.

The delivery of goods afloat will be the act of the captain or officer in charge of the vessel.

No order can be received until the manifest of the cargo, duly certified by the captain, has been deposited at the Dock House: the orders of the importers of all goods intrusted to the East and West India Dock Company's management may then be passed.

When parties holding orders for delivery from the quays wish the goods housed in their own names, or in the names of other parties, they must lodge the order indorsed to that effect, and warrants will be granted accordingly.

All merchandise warehoused under the care of the Company is deliverable by warrant; but in the ordinary course of business muscovado sugar, wood (excepting ebony and dye-wood from the East Indies), goods imported in bulk, and sundry other articles, according to custom, are deliverable by cheques or sub-orders. Warrants, however, will be granted at the desire of the proprietor for

any article warehoused in packages, or for the whole quantity of a bulk, as imported, or for any allotment of such bulk, on payment of the expense of separating it into distinct and corresponding parcels.

That the course of business may be fully understood, the attention of importers and purchasers of produce is particularly requested to the following memoranda:—

Warrants for goods which are usually sold without lotting will be made out for such quantities as have been found generally convenient to the importers.

For goods which are lotted, made merchantable &c., the warrants will be made out as soon as the operations are performed. When directions from the importer are required, notice will be given on the landing accounts, or otherwise.

The first warrants or cheques will be issued to the order of the importers or their assigns (provided there is no stop upon the goods for freight or otherwise), upon payment of the prime rates or landing charges.

Such payments must include all charges incurred to the time of passing the order or issuing the warrants or cheques, excepting rent; charges accruing subsequently, and the rent, must be paid by the holders of the warrants before delivery of the goods. The proprietors of goods may, however, clear the rent and incidental charges to any desired date, and have new warrants or cheques accordingly.

Weight or gauge notes, corresponding to the warrants, will be furnished, when required, at the charge of twopence each.

The landing and consolidated rates are received at the Dock House; rent and extra charges by the receivers at the docks, at the Clearing Office at Fenchurch Street warehouse, and at the Billiter Street and Jewry Street warehouses, in whichever place the goods may be lodged.

When the assignment or removal of part of the goods only is intended, the warrants or cheques should be divided at the Dock House in London, as hereafter provided. If the quantity to be assigned must be weighed or measured, to separate it from the bulk, the division cannot be made until the *whole quantity* has been reweighed or re-measured.

If the delivery of the whole of the contents is directed, and the goods are not removed within *two days*, a new warrant or cheque for the remainder of the parcel must be taken out.

When the holders of warrants or cheques are desirous of assigning part of their contents, without delivery, reweighing, rehousing &c., new documents will be given in exchange, on lodging the originals, duly indorsed. The indorsement should specially direct the manner in which the contents are to be divided, and state the names of the parties in whose favour the warrants or cheques are to be issued, in the following form: '*Please to divide the within*;' or, when part is to be delivered: '*Deliver to Bearer* [state how many packages], *and grant new one for* [state how many packages] *in favour of* _____ *one for*,' &c.

Warrants may be exchanged or divided, without assigning the goods, when desired by the holder, at the same rate of charge.

Original warrants will be granted free of charge, beyond that of the stamp; but for other warrants the charge will be as follows, with the stamp in addition:—

For each warrant—

		£.
1 or 2	packages or quantities	1
3 or 4	„	2
5 to 7	„	3
8 to 10	„	4
11 to 15	„	5
16 to 20	„	6
21 to 25	„	7
26 to 30	„	8
31 to 35	„	9
36 to 40	„	10
41 to 45	„	11
46 and upwards	„	12
Goods in bulk, per ton		2
For every new cheque granted		1

If, from the nature of the contract between the seller and buyer, reweighing &c. may be necessary, new warrants, if desired, will be issued on depositing the warrants, indorsed with directions to that effect, containing the landing weights and reweights, as soon as the operations are completed.

When any alterations, such as repacking &c. are to be made (except when preparatory to immediate delivery), the warrants must be lodged, and others, representing the goods correctly, issued in the same manner.

In the case of casks of liquids used to fill up others, the warrant must be lodged, and the proprietor may either have a new warrant for the remainder, or it may be delivered (if not required to be used again in the same way) to his order.

The warrants must likewise be lodged, on giving orders to vat; but if immediate shipment is not intended, new warrants will be issued as soon as the casks are refilled.

In the four last-mentioned cases, the charges for performing the operations include the expense of the new warrants.

When warrants or cheques are lost or mislaid, the Company require that they should be advertised in the *Public Ledger*, the paper containing the advertisement, and an engagement to indemnify the Company by bond or otherwise to be enclosed with the application for duplicates. The new documents will not be issued (unless the original shall be found and delivered up) until seven clear days shall have elapsed from the date of notice by advertisement. Upon notice of the loss, the goods will be stopped, and the original document can on no account be acted upon unless first presented at the Secretary's Office.

Irregularities in the indorsements lessen the security of the proprietors of goods, and render the documents incomplete as authorities. The attention of the holders is therefore particularly called to that point, to prevent the impediments which must otherwise arise to the regular despatch of business; but they must not attempt to remove such impediments by indorsing any warrant, order, or cheque, without due authority.

Forms on which persons may be authorised to sign for others may be obtained in the General Office at the Dock House; and as no signature but that of the party named on the warrant, delivery-order, or cheque can be acted upon, when goods are made deliverable to order, persons so authorised should adhere to the following form:—

'For (*Name or firm*).
(*Signature of the person authorised*).'

Deposit Accounts.—To facilitate passing orders, and paying the charges due upon goods, the Company will open deposit accounts, upon request from the merchants, with such deposits as they think proper: when the balance is reduced below ten pounds, a further deposit must be made, ten pounds being the smallest sum which can be received at a time.

Parties having deposit accounts with the Company must transmit a note of advice on the proper form with each deposit, and it will be necessary

that they should invariably state on their order or warrants whom the charges are to be paid by, thus:—

'Charges to the (date) to our account,'
(Signature.)
Or 'Charges to be paid by the holder,
(Signature.)

By opening such accounts, the business of merchants with the Company, particularly where goods are upon rent, is much facilitated. The proper forms and pass books may be obtained on application at the Dock House.

Orders for Extra Work.—The charges for repacking, or preparing for exportation, and all work not comprised in these tables, will be fixed from time to time, with reference to the cost of labour and materials. No such work, however, can be done but by the order of the proprietors of the goods, or parties duly authorised by them.

The charges under this head must be paid by the parties giving the order, or clearing the goods.

Goods prepared for Shipment.—When goods are prepared for shipment, and are not taken away within the fixed number of days, they will be charged repiling or rehousing, and any additional rent which may have accrued.

The time allowed to elapse before repiling or rehousing is as follows: Mahogany and other measured wood, four clear working days; dyewoods, seven clear working days; and all other goods, three clear working days. When the export vessel loads in the docks, the time will be extended to the date of her departure.

Explanation of the Table of Rates and Charges on Goods Inwards.—The landing rate is charged upon the gross weight, and includes landing, or receiving by land, wharfage and housing, or piling on the quay, or loading from the landing scale; weighing or gauging at landing, and furnishing landing weights, tales or gauge accounts, and strength of spirits, as ascertained by the Customs. Goods taken away by water from the landing scale will be charged, in addition for 'Shipping,' one-third the 'Delivery by Water' rate.

Three working days (except in cases specially provided for in the table of rates) from the final weighing, gauging, or examination of each mark of goods landed under a duty-paid entry, or bill of sight, will be allowed to the proprietor to remove such goods from the quay; a like period will be allowed in other cases, provided notice in writing of such intended removal shall be given prior to the weighing, gauging, or examination; but in the absence of notice, the goods will be immediately housed or piled, and charged accordingly.

The consolidated rate is charged upon the nett weight, and includes (except where otherwise specially provided) landing or receiving by land, wharfage, housing, and weighing or gauging at landing; ordinary coopering or mending for housing; sampling; furnishing landing weights or gauge accounts; strength of spirits, as ascertained by the Customs; certificates of damage; rent for twelve weeks from the date of the importing ship breaking bulk, or first landing from craft; weighing for actual delivery, and delivery by land or water. This rate is charged on all goods to which it is affixed, unless notice be given by the importers, previous to the final weighing or gauging, of their desire to have them placed under the landing rate.

The management rate is charged on the gross weight, and applies only to cinnamon, cochineal, indigo, lac dye, seed lac, shellac, stick lac, East India and China silk, and tea.

Rent in all cases is chargeable on the gross weight, and commences on the day of the importing ship breaking bulk, or from the first date of landing from craft.

In the case of goods being unpiled, or broken out for any operation, and subsequently repiled or rehoused, the charge for unpiling, when not included in the rate for such operation, is the same as repiling.

Warrants and Transfers (see preceding page).

Table of Rates and Charges on Goods.

The Rates in these Tables are chargeable on all Goods imported or received into the Docks on and after 1865, the date of the Book issued by the Company; and from that date, on all Goods which may remain in the Warehouses or on the Quays, as far as regards rent and future operations, but they are not retrospective.

Goods Imported		Landing Rate	Re-weighing	Repiling or Rehousing	Delivery by Land	Delivery by Water	Rent	
							Per Week	Quantities &c.
	per	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	per
Acid, tartaric	ton	5 0	1 8	1 8	1 8	5 0	0 4	
Alkali, Scotch	,,	3 0	1 3	1 3	1 6	3 9	0 3	
Alkanet root	cwt.	0 4	0 2	0 2	0 2	0 6	1 0	ton
Almonds, casks, 5 cwt. and upwards, or serons	ton	4 0	1 6	1 6	1 6	4 6	0 4	
Casks, under 5 cwt.	cwt.	0 4	0 2	0 2	0 2	0 6	0 3	cask, 2 cwt. 2 qrs. and under 5 cwt.
							0 2	barrel, 1 cwt. 2 qrs. and under 2 cwt. 2 qrs.
							0 1	half-barrel, 1 cwt. 2 qrs. and under 2 cwt. 2 qrs.
							0 0½	quarter-barrel, under 1 cwt. 2 qrs.
Boxes, or ½ boxes	,,	0 6	0 2	0 2	0 2	0 6	2 0	100 boxes
							1 3	100 half-boxes
Shell, in cases or bales	,,	0 6	0 3	0 3	0 3	0 9	0 2	bale, 3 cwt. and upwards
							0 1½	bale, 1 cwt. 2 qrs. and under 3 cwt.
							0 1	bale, under 1 cwt. 2 qrs.
							0 2	case, 3 cwt. and under 4 cwt.
Aloes, in gourds	ton	6 0	2 8	2 8	3 0	8 0	0 7½	
In chests, casks, or bags	,,	5 0	2 0	2 0	2 6	6 0		
Alum	,,	3 0	1 3	1 3	1 6	3 6	0 3	
Aloes marina—								
In press-packed bales	,,	3 0	1 2	1 2	1 6	3 0	0 4	
In bags, not press-packed	,,	5 0	1 8	1 8	2 0	5 0	0 6	
Anchovies	cwt.	0 4½	0 2	0 2	0 1½	0 4½	2 6	100 barrels
							1 5	100 kegs
							0 0½	cask under 1½ cwt.
Angelica root	ton	5 0	1 8	1 8	2 0	5 0	0 1	barrel
							0 2	tierce
							0 3	hogshead
Annatto, casks or cases	,,	7 0	2 4	2 4	3 0	7 0	0 7	
Aniseed—as Seed Medicinal. Star	cwt.	0 4½	0 1½	0 1½	0 1½	0 4½	0 10	ton

Table of Rates &c.—continued.

Goods Imported		Landing Rate	Re-weighing	Repiling or Re-housing	Delivery by Land	Delivery by Water	Rent: Per Week	Rent: Quantities &c.
	per	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	per
Antimony	ton	4 0	1 8	1 8	2 0	3 0	0 4	
Ore	,,	3 0	1 2	1 2	1 6	3 6	0 2	
If loose, filling and weighing at delivery, or rehousing, 2s. per ton.								
Argol	,,	4 0	1 8	1 8	1 8	5 0	0 4	ton, in casks
							1 6	100 bags or cases under 2 cwt. each
							2 6	100 bags or cases 2 cwt. and under 4 cwt. each
Arrowroot	,,	7 6	2 6	2 6	2 6	7 6	0 7	
Or a consolidated rate of 20s. per ton nett in casks, or 30s. per ton nett in tins, boxes, or chests.								
Arsenic	,,	5 0	1 8	1 8	2 0	5 0	0 4	
Ashes, from America	,,	3 0	1 0	1 0	1 2	3 0	0 0½	cask
Russia	,,	3 0	1 0	1 0	1 2	3 0	0 2	
Black Sea	,,	3 0	1 0	1 0	1 2	3 0	0 3	
Asphaltum, rough:								
Loose or in casks	,,	3 0	1 0	1 0	1 2	3 0	0 2	
Filling and weighing loose at rehousing or delivery, 2s. per ton.								
Medicinal	,,	5 0	1 8	1 8	2 0	5 0	0 6	
Baggage—Consolidated rate:								
Examined on the quay: packages not exceeding 15 inches square, or 28 lbs. weight, gross package	s. d. 0 6	..	..	..	..	..	0 0½	
Under 2 cwt.	1 0	..	..	..	..	..	0 0¾	
2 cwt. and upwards	1 6	..	..	..	..	..	0 1½	
Examined within the warehouse: packages not exceeding 15 inches square, or 28 lbs. weight, gross package	1 6	..	..	..	..	..	0 0½	
Above 28 lbs. and under 1 cwt.	2 6	..	..	..	..	..	0 1	
1 cwt. and under 2 cwt.	3 0	..	..	..	..	..	0 2	
2 cwt. and upwards	3 6	..	..	..	..	..	0 3	
							0 0½	jar, bottle, or canister
							0 1	case of 5 canisters or under
							0 1½	6 ,, and ,, 10
							0 2	10 ,, ,, 15
							0 2½	15 ,, ,, 20
							0 3	20 ,, ,, 30
Balsam, in Jars, bottles, or canisters, single or in cases	cwt.	1 1½	0 4½	0 4½	0 1½	1 1½		
In casks	,,	0 6	0 2	0 2	0 2	0 6	0 1	cask under 2 cwt.
Cooper's attendance at landing and delivery is a separate charge.							0 1½	2 cwt. and under 5 cwt.
Canada	,,	0 6	0 2	0 2	0 2	0 6	0 2	5 ,, 5 ,,
Barilla	ton	3 0	1 3	1 3	1 6	3 0	0 2	
Filling and weighing at delivery or rehousing, 2s. per ton.								
Bark, oak or tanners':								
Long, loose	cwt.	0 6	0 2	0 2	0 2	0 6	0 8	ton
Not otherwise rated	ton	5 0	1 8	1 8	1 8	5 0	0 4	
Filling and weighing at delivery or rehousing, 2s. per ton.								
Quercitron, in casks	,,	3 0	1 0	1 0	1 0	3 0	0 4	
In cases about 1 cwt. 2 qrs.	cwt.	0 6	0 2	0 2	0 2	0 6	0 1	case
Jesuits' or Peruvian	,,	0 9	0 3	0 3	0 3	0 9	0 6	ton
Fresherberia or Cascarilla	,,	0 6	0 3	0 3	0 3	0 9	1 3	
Baskets:								
Faro about 1 cwt. 56 lbs.	bundle	0 9	0 4	0 4	0 4	1 0	0 1	
	,,	0 4½	0 2	0 2	0 2	0 6	0 0½	
Beef and pork	tierce	0 6	0 2	0 2	0 2	0 6	0 0¾	
,,	barrel	0 4½	0 1½	0 1½	0 1½	0 4½	3 0	
,, tub, kit, or half	barrel	0 3	0 1	0 1	0 1	0 3	2 0	100
Beer, spruce	keg	0 1½	..	0 0½	0 0½	0 1½	0 9	
,,	firkin	0 3	..	0 1	0 1	0 3	1 6	
,,	barrel	0 6	..	0 3	0 3	0 9	0 0½	
Berries, juniper, yellow, or bay	ton	4 0	1 8	1 8	1 8	5 0	0 4	
Bones, loose	,,	4 6	1 8	1 8	2 0	4 6	0 3	
In casks or bags	,,	3 0	1 0	1 0	1 0	3 0	0 3	
							0 2	bale or box, 2 cwt. and under
Books	cwt.	1 0	0 4	0 4	0 4	1 0	10 3	chest
Borax, rough or refined	ton	4 0	1 8	1 8	1 8	5 0	0 6	
Brimstone, unrefined	,,	3 0	1 2	1 2	1 2	3 0	10 2	loose
							10 3	in casks
Filling and weighing at delivery or rehousing, 2s. per ton.								
Roll or refined, in packages	,,	3 3	1 3	1 3	1 6	3 3	0 6	
Bristles	,,	5 0	2 0	2 0	2 4	7 0	0 6	
Brooms, American:								
2 cwt. and under	case	0 9	..	..	0 4	1 0	0 0¾	
Above 2 cwt. and not exceeding 3 cwt.	,,	1 0	..	..	0 5	1 3	0 1	
Above 3 cwt. and not exceeding 5 cwt.	,,	1 6	..	..	0 6	1 6	0 1½	
Above 5 cwt. and not exceeding 7 cwt.								
2 qrs.	,,	2 0	..	..	0 9	2 3	0 2	
In bundles, with long handles, 12 each	bundle	0 2	..	..	0 0¾	0 2	0 0¾	
Bushes	ton	4 0	1 8	1 8	1 8	5 0	0 9	
Bullion	sack or case	1 6	..	..	..	..	..	
,,	small package	1 0	..	..	..	..	..	
Cables:								
Iron chain, exclusive of weighing	ton	5 0	..	..	3 4	5 0	0 3	
Hemp, exceeding 8 inches girth	,,	10 0	3 4	3 4	3 4	10 0	0 4	
Cwr. 12 inches girth and upwards	,,	12 6	4 2	4 2	4 2	12 6	0 5	
Camphor	cwt.	0 4½	0 2	0 2	0 2	0 6	0 10	ton
Cane juice. *See* Molasses.								
Canes:								
Common rattan	1000	1 0	..	0 5	0 5	1 3	0 1	
Or a consolidated rate of 2s. per 1000, including counting for average:								
Split rattans	cwt.	0 4½	0 2	0 2	0 2	0 6	0 10	ton
Rattans, ground, large	1000							
Partridge, large	1000							
Bamboo, large	1000							
Malacca, large	1000	2 6	1 0	1 0	1 0	3 0		
Jumbo, large	1000							
And other sorts not enumerated, being of the diameter of three-quarters of an inch and above							0 0½	1000, averaging 14 lbs. per 100 and under
Or a consolidated rate, including counting for average, per 1000, 6s. 6d.:							0 0¾	1000, averaging 15 to 28 lbs. per 100
Rattans, ground, small	1000						0 1	1000, averaging 29 to 35 lbs. per 100
Partridge, small	1000							
Wrangees	1000							
Caroline	1000	2 6	1 0	1 0	1 0	3 0	0 2	1000, averaging 36 lbs. and upwards per 100

Table of Rates &c.—continued.

Goods Imported		Landing Rate	Re-weighing	Repiling or Re-housing	Delivery by Land	Delivery by Water	Rent Per Week	Rent Quantities &c.
Canes:	per	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	per
Dogshead	1000							
Bamboo, small	1000							
Bamboo Twigs	1000							
Dragon	1000	2 0	1 0	1 0	1 0	3 0		
And other sorts not enumerated, being of the diameter of less than three-quarters of an inch.								
Or a consolidated rate, including counting for average, per 1000, 5*s.* 10*d.*								
							0 3	case or cask under 4 cwt.
							0 4	case or cask 4 and under 8 cwt.
Cantharides	cwt.	1 0	0 1	0 4	0 4	1 0	0 6	case or cask 8 cwt. and upwards.
Caoutchouc. *See* India Rubber.								
							0 6	butt
							0 4	puncheon
Capers	cwt.	0 3	0 1	0 1	0 1	0 3	0 3	hogshead
							0 1	barrel
Laying up to gauge, a separate charge.								
Cardamoms	cwt.	0 4½	0 2	0 2	0 2	0 6	0 1½	chest
							1 3	ton, in bag.
Carpets, 70 and under 120 square yards	bale	2 0	..	0 8	0 8	2 0	0 4	
under 70 square yards	ballot	1 4½	..	0 2½	0 2½	1 4½	0 2	
Carraway seed—as Seed Medicinal.								
Cassia, Lignea and buds	cwt.	0 6	0 2	0 2	0 2	0 6	0 10	ton
Or a consolidated rate 1*s.* 6*d.* per cwt. nett.								
Fistula	cwt.	0 6	0 2	0 2	0 2	0 6	0 0½	
Charcoal, animal	ton	3 0	1 2	1 2	1 2	3 6	0 3	
Chestnuts. *See* Nuts.								
China root	cwt.	0 3	0 1½	0 1½	0 1½	0 4½	0 7½	ton
China ware or porcelain:								
above 50 and not exceeding 60 feet cube	case	4 6	..	..	2 0	4 6	0 6	
40 and not exceeding 50 feet cube	,,	4 0	..	..	1 6	4 0	0 5	
30 and not exceeding 40 feet cube	,,	3 6	..	..	1 6	3 6	0 4	
20 and not exceeding 30 feet cube	,,	3 0	..	..	1 0	3 0	0 3	
8 and not exceeding 20 feet cube	,,	2 6	..	..	1 0	2 6	0 3	
4 and under 8 feet cube	,,	1 6	..	..	1 0	1 6	0 2	
under 4 feet	box	1 0	..	..	1 0	1 0	0 1	
Cinnamon. *See* Management Rates.								
Citron, in salt	tripe	1 6	..	..	0 6	1 6	0 4	
	hogshead	1 0	..	..	0 4	1 0	0 3	
Cooper's attendance and laying up to gauge in addition.								
Preserved. *See* Succades.								
Clocks, American:								
under 5 feet cube	case	0 3	..	..	0 1½	0 4½	0 0½	
5 ft. and under 10 ft. cube	,,	0 6	..	..	0 3	0 7	0 1½	
10 ft. ,, 15 ft. ,,	,,	0 9	..	..	0 4	1 0	0 1	
15 ft. ,, 20 ft. ,,	,,	1 0	..	..	0 5	1 3	0 1	
Clock Movements:								
under 1 cwt. 2 qrs.	,,	0 2	..	..	0 3	0 2	0 1	
1 cwt. 2 qrs. and under 2 cwt.	,,	1 0	..	..	0 4	1 0	0 1½	
2 cwt. and under 3 cwt.	,,	1 6	..	..	0 6	1 6	0 1½	
Cloves	cwt.	0 6	0 2½	0 2½	0 2½	0 8	0 6	ton To take effect on and from February 1, 1859.
Or a consolidated rate of 9*s.* per cwt. nett in chests and casks, and 1*s.* 3*d.* per cwt. nett in bags, sacks, or mats.								
Cochineal. *See* Management Rates.								
Cocoa	cwt.	0 3	0 2	0 2	0 2	0 3	0 6	ton
Or a consolidated rate.								
In casks, 10½*d.* per cwt. nett.								
In bags, 8*d.* per cwt. nett.								
Cocoa nuts	100	1 6	..	..	0 6	1 6	0 3	
Cocculus Indicus	cwt.	0 4½	0 2	0 2	0 2	0 6	0 2½	
Codilla of Hemp or Flax	ton	6 0	2 0	2 0	3 0	5 0	0 6	ton
If sold from landing scale—								
To Importer	ton 5*s.*							
Buyer	ton 1*s.*							
Coffee	cwt.	0 3	0 2	0 2	0 2	0 3	0 6	ton
Or a Consolidated Rate:								
In casks and cases, 10½*d.* per cwt. nett.								
In bales, 8*d.* per cwt. nett.								
In bags bulked, 8*d.* per cwt. nett.								
In bags not bulked, 6½*d.* per cwt. nett.								
Coir, unwrought, press packed	ton	3 0	1 2	1 2	1 6	3 0		
not press packed, in packages	,,	5 0	1 8	1 8	2 0	5 0		
Rope, under 6 inches girth	,,	6 3	2 1	2 1	2 1	6 3	0 4	
Yarn, in packages	,,	5 0	1 8	1 8	1 8	5 0		
,, in dolls, loose	,,	7 6	2 6	2 6	2 6	7 6		
Cables. *See* Cables.								
Coloquintida	cwt.	0 10½	0 3½	0 3½	0 3½	0 10½	0 1	
Colours, in stere	ton	6 8	2 3	2 3	2 8	6 8	0 6	
Colombo root	cwt.	0 3	0 1½	0 1½	0 1½	0 4½	0 7½	ton
Copper and copper nails	ton	5 0	1 8	1 8	1 8	5 0	0 2	
Copper ore	,,	4 0	1 8	1 8	1 8	5 0	0 2	
If loose, filling and weighing at delivery or rehousing, 2*s.* per ton.								
Coquilla nuts	1000	1 0	..	..	0 4	1 0	0 0½	
Cordage, hempen, not exceeding 8 inches girth	ton	5 0	1 8	1 8	1 8	5 0	..	
Coriander seed—as Seed Medicinal.								
Cork	,,	7 0	2 4	2 4	2 4	6 0	1 0	
When not taken away direct from the landing scale will be charged delivery in addition as per rates.								
Corks, manufactured	cwt.	1 0	0 4	0 4	0 4	1 0	0 1	
Corn, grain, and seed, viz.:								Per last quarters, not including insurance from fire.
Wheat, barley, rye, maize, and other heavy grain, peas, horse or pigeon beans, tares &c.	,,	..	..	..	..	..	4 9	Wheat, rye, maize, and other heavy grain (except barley), peas, horse, or pigeon beans, tares &c.
Landing, wharfage, housing and delivering, per quarter, 9*d.*								
East India oil seeds:		..	..	..	..	..	4 3	Barley.
Landing, wharfage, housing, and delivering, per quarter, 7½*d.*		..	..	..	..	..	3 10	East India oil seeds.

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***Table of Rates &c.*—continued.**

Goods Imported		Landing Rate	Re-weighing	Re-piling or Re-housing	Delivery by Land	Delivery by Water	Rent Per Week	Rent Quantities &c.
		s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	per
Corn:								
Oats and other light grain, landing, wharfage, housing, and delivering,	per quarter, 8*d.*	..	..	..	..	..	3 10	per 100 quarters, not including insurance from fire.
Working out and delivering into craft:								
Oats and malt	½*d.* per qr.							
Other grain	1*d.* ,,							
Cotton piece goods, East India	bale	1 3	..	..	..	..	0 1½	
	box or cask	1 0	..	..	..	..	0 1½	
	trunk	0 9	..	..	..	..	0 1	
Cotton wool, East India, press packed	ton	3 0	1 2	1 2	1 2	3 6	0 5	
not press-packed	,,	6 8	2 6	2 6	2 6	7 6	0 6	
Cotton seed:								
in casks	,,	4 6	1 6	1 6	1 6	4 6	0 3½	
in bags or loose, if weighed at landing	,,	3 9	1 3	1 3	1 3	3 9		
Filling and weighing loose, at rehousing or delivery, 2*s.* per ton.								
If metered, as light grain.								
Cowries	,,	4 0	1 8	1 8	1 8	5 0	0 3	
Cream of Tartar	,,	4 0	1 8	1 8	1 8	5 0	0 6	
Crystal, rough	,,	5 0	1 8	1 8	1 8	5 0	0 7	
Cubebs	cwt.	0 4½	0 2	0 2	0 2	0 6	0 0½	
Cubic nitre	ton	3 4	1 8	1 8	1 8	5 0	0 3	
Cummin seed—as seed Medicinal.								
Currants:								
25 cwt. and upwards	butt	4 6	1 6	1 6	1 0	4 0	0 6	
15 and under 25 cwt.	,,	2 6	1 0	1 0	0 8	2 6	0 4	
9 ,, 15 ,,	pipe	2 0	0 9	0 9	0 6	2 0	0 3	
5 ,, 9 ,,	carotel	1 3	0 6	0 6	0 4	1 3	0 2	
2 cwt. 2 qrs. and under 5 cwt.	barrel	0 7½	0 3	0 3	0 2	0 7½	0 0½	
under 2 cwt. 2 qrs.	½ do.	0 5	0 2	0 2	0 2	0 5	0 0½	
,, 1 cwt. 2 qrs.	score cases	4 5	0 10	0 10	1 0	5 0	0 6	100
1 cwt. 2 qrs. and under 2 cwt. 2 qrs.	case	0 5	0 2	0 2	0 2	0 6	0 0½	
about 56 lbs.	score boxes	2 1½	0 8	0 8	0 9	2 6	0 8	100
Cutch. *See* Terra Japonica.								
Dates:								
under 1 cwt.	cask or case	0 5	0 2	0 2	0 2	0 6	0 0½	
1 cwt. and under 2 cwt.	,,	0 7½	0 3	0 3	0 3	0 8	0 0½	
2 ,, ,, 3 ,,	,,	0 10	0 4	0 4	0 4	1 0	0 1	
3 ,, ,, 5 ,,	,,	1 3	0 6	0 6	0 6	1 6	0 1½	
5 ,, ,, 7 ,,	,,	1 6	0 6	0 6	0 6	1 6	0 2	
7 ,, ,, 9 ,,	,,	1 9	0 8	0 8	0 8	1 9	0 2	
bags or skins	cwt.	0 3	0 1	0 1	0 1½	0 3	0 0½	
barrels	ton	4 6	1 6	1 6	2 6	5 0	0 7½	
Diamonds, plate, pearls, jewels, precious stones, and other valuable articles according to size and value.								
Divi divi	,,	1 9	1 6	1 6	1 6	1 6	0 3	
Filling and weighing, 2*s.* per ton on re-housing or delivery.								
Dragons' blood	cwt.	0 4½	0 2	0 2	0 2	0 6	0 0½	
Drugs not otherwise enumerated	,,	0 6	0 3	0 3	0 3	0 9	0 0½	
Eau de Cologne, and perfumed spirits, in bottles not exceeding 2 gals each:								
500 and under 800 bottles	case	1 6	..	..	0 6	1 6	0 4	
200 ,, 400 ,,	,,	1 0	..	..	0 4	1 0	0 2	
under 200 ,,	,,	0 6	..	..	0 2	0 6	0 1	
Elephants' teeth &c. *See* Ivory.								
Grinders	ton	5 0	1 8	1 8	1 8	5 0	0 6	
Emery stone. *See* Stone.								
Essences, and perfumed spirits, in jars, tins, or large bottles: under 56 lbs.	case	0 9	..	..	0 3	0 9	0 0½	
56 lbs. and under 84 lbs.	,,	1 0	..	..	0 4	1 0	0 1	
84 lbs. ,, 112 lbs.	,,	1 2	..	..	0 5	1 3	0 1½	
112 lbs. ,, 168 lbs.	,,	1 6	..	..	0 7	1 9	0 2	
168 lbs. ,, 224 lbs.	,,	1 9	..	..	0 8	2 0	0 3	
224 lbs. ,, 252 lbs.	,,	2 0	..	..	0 10	2 6	0 3½	
252 lbs. ,, 280 lbs.	,,	2 6	..	..	1 0	3 0	0 4	
280 lbs. ,, 308 lbs.	,,	3 3	..	..	1 3	3 9	0 4½	
308 lbs. ,, 336 lbs.	,,	4 0	..	..	1 6	4 6	0 5	
Feathers, bed	cwt.	0 7	0 3½	0 3½	0 5½	0 10½	0 1	bag or bale under 1 cwt. 1 qrs.
							0 1½	bag 1½ and under 2 cwt.
							0 2	bag 2 and under 3 cwt.
							0 3	bale 3 and under 5 cwt.
Ostrich	package	1 6 to 5 0	..	..	..	..	0 2	
							0 6	
Vultures:								
bales or casks, 5 cwt. & under 7½ cwt.	each	3 0	1 0	1 0	1 0	3 0	0 4	
2 ,, 5 ,,	,,	2 6	0 10	0 10	0 10	2 6	0 3	
under 2 cwt.	,,	1 6	0 6	0 6	0 6	1 6	0 2	
small bags under 56 lbs.	,,	0 6	0 2	0 2	0 2	0 6	0 0½	
Fenugreek seed. *See* Seed, Medicinal.								
Fibre, not otherwise rated:								
bales, press or box packed	ton	4 6	1 8	1 8	1 8	4 6	0 4	
packages not press packed	,,	6 0	2 0	2 0	2 0	6 0	0 5	
loose	,,	8 6	2 6	2 6	2 6	7 6	0 6	
Figs:								
chest, 3 qrs. to 1 cwt. 1 qr.	score	4 3	1 4	1 4	1 8	5 0	2 0	100
½ chest, about 56 lbs.	,,	2 6	0 10	0 10	0 10	4 0	1 3	100
¼ chest, about 28 lbs.	,,	1 6	0 6	0 6	0 6	2 6	1 5	ton
drums	,,							
½ and ¼ drums	,,	1 3	0 5	0 5	0 6	1 6		
⅛ or 1/16 drums	,,	1 0	0 4	0 4	0 6	1 6		
Skeleton cases, containing boxes or drums, under 2 cwt.	case	0 9	0 3	0 3	0 4	1 0	0 1½	
2 cwt. and under 2 cwt. 2 qrs.	,,	1 0	0 4	0 4	0 5	1 3	0 2	
2 cwt. 2 qrs. and under 5 cwt. 2 qrs.	,,	1 3	0 5	0 5	0 6	1 6	0 2	
Fish, preserved: boxes containing tins, under 56 lbs.	box	0 3	0 1	0 1	0 2	0 3	0 0½	
56 lbs. and under 84 lbs.	,,	0 4	0 2	0 2	0 2	0 4	0 0½	
84 lbs. and upwards	cwt.	0 4½	0 2	0 2	0 2	0 6	0 0½	
Flax	ton	5 0	1 8	1 8	1 8	4 6	0 3	
If sold from landing scales:								
to importer	ton 3*s.* 6*d.*							
to buyer	,, 1*s.* 6*d.*							
Flour, landing delivery by land or water	ton	1 9	..	1 0	..	..	0 2½	
Weighing on delivery, if required:								
1*d.* per barrel, chest, or sack.								
½*d.* per ½ barrel, or ½ chest.								
Weighing on board for transhipment:								
2*s.* per ton.								
Fruit. *See* the species of Fruit.								

Table of Rates &c.—continued.

Goods Imported		Landing Rate	Re-weighing	Repiling or Re-housing	Delivery by Land	Delivery by Water	Rent: Per Week	Rent: Quantities &c.
	per	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	per
Furniture:								
45 ft. and under 65 ft. cube	case or package	8 6	..	..	2 3	4 6	0 4	
25 ,, 45 ,,	,,	5 0	..	..	1 6	3 0	0 3	
15 ,, 25 ,,	,,	2 6	..	..	1 0	2 0	0 2	
5 ,, 15 ,,	,,	1 0	..	..	0 6	1 0	0 1	
under 5 ft. cube	,,	0 6	..	..	0 3	0 6	0 1	
Galangal	cwt.	0 3	0 1½	0 1½	0 1½	0 4½	0 10	ton
Galls	ton	5 0	1 8	1 8	2 0	5 0	0 20	
Gambier. *See* Terra Japonica.								
Gamboge	cwt.	0 4½	0 2	0 2	0 2	0 6	0 10	ton
Gentian root	ton	5 0	1 8	1 8	2 0	5 0	0 20	
Ginger	cwt.	0 4½	0 2	0 2	0 2	0 4½	0 6	ton
Or a Consolidated Rate:—								
In bags and packets, 9*d.* per cwt. nett. East India: in casks, 1*s.* per cwt. nett. West India: in casks, 1*s.* 4*d.* per cwt. nett, including tarring.								
preserved. *See* Succades.								
Ginseng root	cwt.	0 3	0 1½	0 1½	0 1½	0 4½	0 10	ton
Glass, common window	ton	5 0	1 8	1 8	1 8	5 0	0 6	
Goats' hair, or beards. *See* Wool.								
Grain. *See* Corn.								
Granilla	cwt.	0 2	0 3	0 3	0 3	0 2	0 0½	
Or a Consolidated Rate of 2*s.* 9*d.* per cwt. nett.								
Grass, China	cwt.	0 4½	0 1½	0 1½	0 1½	0 4½	0 6	ton
Grease: in packages under 5 cwt.	ton	5 0	1 8	1 8	1 8	5 0	0 3	
casks, 5 cwt. and upwards	,,	3 6	1 2	1 2	1 2	3 6		
Ground nuts, in shell	,,	4 6	1 6	1 6	1 6	4 6	0 5	
Filling and weighing at rehousing or delivery, 2*s.* per ton.								
Ground nut kernels	,,	3 9	1 3	1 3	1 3	3 9	0 3	
Guano	,,	4 6	0 6	0 6	1 0	4 6	0 1	
Filling and weighing loose at rehousing or delivery, 1*s.* per ton.								
Guinea grass	cwt.	0 6	0 2	0 2	0 2	0 6	0 10	ton
Gum, not otherwise rated, loose, or in packages	ton	5 0	2 0	2 0	2 0	5 0	0 6	
Kowrie	,,	5 0	2 0	2 0	2 0	6 0	0 6	ton, casks, or cases
Gutta percha	cwt.	0 4½	0 2	0 2	0 2	0 4½	0 4	ton, bags
							0 6	ton
Hair: horse, ox, or cow	,,	0 4	0 2	0 2	0 2	0 6	0 1	bale, case, or box under 5 cwt.
							0 1½	bale: not under 5 cwt.
							0 2	barrel: 5 cwt. and under 1 cwt.
							0 0½	cwt. loose
Hartall	ton	5 0	1 8	1 8	2 0	5 0	0 4	
Hats, Leghorn: package of 10 dozen and under		0 6	0 2	0 2	0 2	0 6	0 1	
Above 10 dozen and not exceeding 15 dozen	package	0 9	0 3	0 3	0 3	0 9	0 1½	
Above 15 dozen and not exceeding 20 dozen	,,	1 0	0 4	0 4	0 4	1 0	0 2	
Hellebore root	cwt.	0 3	0 1½	0 1½	0 1½	0 1½	0 10	ton
Hemp, Italian	ton	4 6	2 0	2 0	2 0	4 0	0 5	
If sold from landing scale:								
To importer 3*s.* 6*d.* per ton.								
To buyer 1*s.* per ton.								
European, loa, or press-packed	,,	4 0	1 6	1 6	1 6	3 9	0 4	
If sold from landing scale:								
To importer 2*s.* per ton.								
To buyer 1*s.* per ton.								
East India, press-packed	,,	3 0	1 2	1 2	1 2	3 6	0 3	
not press-packed in packages	,,	4 6	2 0	2 0	2 0	4 0	0 5	
China or Japan. *See* China Grass.								
Hides, wet salted, landed loose or in bundles, and requiring to be tied up, a consolidated rate of 22*s.* per 100, including landing, wharfage, housing, taring, tying up each, and cord, and weighing for delivery.								
Ditto, ditto, landed in bundles or loose, not requiring tying up, a consolidated rate of 17*s.* 6*d.* per 100, including landing, wharfage, housing, taring, and weighing for delivery.								
Ditto, ditto, in bundles imported from Algoa Bay and Cape of Good Hope. Management rate, comprising landing, wharfage, housing, or piling on quay, cutting open, shaking out salt, assorting to broker's directions, taring, weighing for average, tetying into bundles, and weighing off from the importer to the buyer, 9*s.* 6*d.* per 100 hides or skins on the total out turn.								
Horse, wet salted, from South America. Consolidated rate, comprising landing, wharfage, housing, taring, tying up in bundles of 2 hides each, cord, and weighing from importer to the buyer, per 100 hides, 17*s.* 6*d.*								
Hambro', dry (loose)	100	5 6	2 6	2 6	2 6	7 6	0 8	
Not otherwise enumerated: dry or dry salted (loose)	,,	4 9	2 1	2 1	2 1	6 3	0 6	
Wet salted (loose)	,,	9 6	4 2	4 2	4 2	12 6	0 10	
from South America	,,	6 3	2 10	2 10	2 10	8 6	0 6	
In bundles	100 hides	6 3	2 1	2 1	2 1	6 3	0 6	
Ox,* cow, or buffalo: wet salted (loose)	100	9 6	4 2	4 2	4 2	12 6	0 10	
Wet salted, with short horns	,,	12 6	5 6	5 6	5 6	16 8	2 0	
Other hides,* not enumerated: dry or dry salted (loose): averaging more than 22 lb. each	,,	9 3	4 2	4 2	4 2	12 6	0 10	
12 lb. and not exceeding 22 lb.	,,	6 9	3 0	3 0	3 0	9 0	0 8	
7 lb. and under 12 lb.	,,	4 6	2 1	2 1	2 1	6 3	0 6	
Under 7 lb.	,,	3 0	1 4½	1 4½	1 4½	4 2	0 4	
In bales, under 4 cwt.	bale	0 10	0 5	0 5	0 5	1 3	0 1	
4 cwt. ,, 6 cwt.	,,	1 0	0 6	0 6	0 6	1 6	0 2	

* Any weighing chargeable to the importer is to be charged at the rate of ½ of the landing rate, but this rule is not to apply to any other operation, or to any weighing, or reweighing, under any other circumstances.

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Table of Rates &c.—continued.

Goods Imported	Landing Rate	Re-weighing	Repiling or Re-housing	Delivery by Land	Delivery by Water	Rent Per Week	Rent Quantities &c.
						Per	
Other hides, in bales: per bale							
6 cwt. and under 10 cwt.	2 0	1 0	1 0	1 0	3 0	0 3	
10 cwt. „ 15 cwt. „	2 8	1 4	1 4	1 4	4 0	0 4	
15 cwt. „ 20 cwt. „	3 6	1 6	1 6	1 6	4 6	0 5	
20 cwt. „ 25 cwt. „	4 6	2 0	2 0	2 0	6 0	0 6	
25 cwt. „ 30 cwt. „	5 6	2 6	2 6	2 6	7 6	0 7	
In casks, landing rate and rent the same as in bales.							
Lash bale or chest	1 6	0 8	0 8	0 8	2 0	0 3	
Hide cuttings:							
Tanners' waste or clippings, in bales ton	3 6	1 2	1 2	1 2	3 6	0 6	
Loose „	5 0	1 8	1 8	1 8	5 0	0 10	
Honey: in jars or cases cwt.	0 6	0 2	0 2	0 2	0 6	0 0½	cwt. in cases
						0 0½	jar
In kegs „	0 4½	0 1½	0 1½	0 1½	0 4½	0 0½	keg
In barrels „	0 4½	0 1½	0 1½	0 1½	0 4½	0 1	barrel
In large casks „	0 3	0 1	0 1	0 1	0 3	0 6	ton
Cooper's attendance in addition, on crude or wild honey.							
Hoofs „	0 3	0 1½	0 1½	0 1½	0 4½	0 4	ton
Hops „	0 3	0 1½	0 1½	0 1½	0 4½	0 1	pocket or bale, under 2 cwt.
Horns, Ox, Cow, or Buffalo:							
Loose, including counting at landing „	0 6	0 2½	0 2½	0 2½	0 6	0 6	
In packages „	0 4½	0 2	0 2	0 2	0 6	0 6	
Tips and plates, loose „	0 6	0 2½	0 2½	0 2½	0 6	0 4	
In packages „	0 4½	0 2	0 2	0 2	0 6	0 4	ton
Hart, Stag, or Deer, loose, including counting at landing „	0 7½	0 2½	0 2½	0 2½	0 7½	0 10	
In packages „	0 6	0 2	0 2	0 2	0 6	0 10	
Shavings and waste „	0 3	0 1	0 1	0 1	0 3	0 4	
Indian corn: crushed ton	5 0	1 8	1 8	1 8	5 0	0 5	
India rubber:							
In blocks, or in packages containing bottles cwt.	0 4½	0 2	0 2	0 2	0 6	0 0½	
Loose, in bottles or small pieces „	0 9	0 3	0 3	0 3	0 9	0 1	
Indigo, East India. *See* Management Rates.							
Not East India „	0 9	0 3	0 3	0 3	0 9	0 1	aroon
Or a Consolidated Rate of 1s. 6d. per cwt. nett.							
Ipecacuanha „	0 6	0 3	0 3	0 3	0 9	0 10	ton
Iron, bar, rod, or pig:							
Consolidated rate, comprising landing, wharfage, sorting, and weighing at landing, and delivering, 5s. per ton ton	..	1 0	..	..	..	0 1	From date of breaking bulk
Lighterage, if done by Company, 1s. 6d. per ton.							
Old, other than scrap „	3 4	1 2	1 2	1 2	3 4	0 2	
Scrap „	5 0	1 8	1 8	1 8	5 0	0 2	
Manufactures or packages not otherwise described, or sheet „	5 0	1 8	1 8	1 8	5 0	0 2	
Isinglass cwt.	0 9	0 3½	0 3½	0 3½	0 10½	0 10	ton
Ivory „	0 10½	0 3½	0 3½	0 3½	0 10½	0 1	
Scrap „	0 6	0 2	0 2	0 2	0 6	0 0½	
Jalap „	0 6	0 3	0 3	0 3	0 9	0 1	bale, about 3 cwt.
						0 0½	„ 1½ cwt.
Junk or old rope ton	3 6	1 2	1 2	2 0	4 0	0 3	
Jute, press-packed „	3 0	1 2	1 2	1 2	3 6	0 3	
Kittool, or black fibre „	7 6	2 6	2 6	2 6	7 6	0 6	
Lac dye. *See* Management Rates.							
Lacquerred ware:							
above 50 ft. and not exed. 60 ft. cube case	4 6	..	..	2 0	4 6	0 6	
40 ft. „ 50 ft. „	4 0	..	..	1 6	4 0	0 5	
30 ft. „ 40 ft. „	3 6	..	..	1 6	3 6	0 4	
20 ft. „ 30 ft. „	3 0	..	..	1 0	3 0	0 3	
8 ft. „ 20 ft. „	2 6	..	..	1 0	2 6	0 3	
4 ft. and under 8 ft. chest	1 6	..	..	1 0	1 6	0 2	
under 4 ft. box	1 0	..	..	1 0	1 0	0 1	
Lard ton	5 0	1 8	1 8	1 8	5 0	0 6	
Lead „	2 6	0 10	0 10	0 10	2 6	0 1	
Ore and old „	3 0	1 0	1 0	1 0	3 0	0 2	
Black „	3 0	1 3	1 3	1 3	3 9	0 5	
Leather: Foreign (tanned) „	5 0	1 8	1 8	1 8	5 0	0 9	
Lemons. *See* Oranges.							
Lime juice 100 gallons	2 1	..	..	0 9	2 1	0 3	puncheon
						0 3	hogshead
						0 2	barrel
Laying up to gauge, and cooper's attendance at landing and delivery, form a separate charge.							
Linen, Russia bale	1 2½	0 4½	0 4½	0 4½	1 2½	0 2	
half bale, containing 10 pieces or boarded bale	0 9	0 3	0 3	0 3	0 9½	0 1	
„ „ quarter bale	0 7½	0 2½	0 2½	0 2½	0 7½	0 1	
Crash bale	1 2½	0 4½	0 4½	0 4½	1 2½	0 3	
„ half-bale	0 9	0 3	0 3	0 3	0 9	0 2	
„ quarter-bale	0 7½	0 2½	0 2½	0 2½	0 7½	0 1	
Sail cloth bolt or roll	0 1½	0 0½	0 0½	0 0½	0 1½	1 0	100 bolts or rolls
in mats, containing 2 pieces each	0 3	0 1	0 1	0 1	0 3	2 0	100 mats (2 pieces)
American Pilot Duck Cloth:							
bale, 2 cwt. and under 4 cwt. „	1 2½	0 4½	0 4½	0 4½	1 2½	0 3	
„ under 2 cwt. „	0 7½	0 2½	0 2½	0 2½	0 7½	0 1	
Liquorice root ton	8 0	3 4	3 4	3 4	10 0	1 0	loose
						0 10	in package
Paste or block „	5 0	1 8	1 8	2 1	6 3	0 6	
Juice, stick, or extract of „	5 0	2 6	2 6	2 6	7 6	0 10	
Lychees, under 56 lbs. box	0 6	..	..	0 3	0 6	0 0½	
56 lbs. and under 1 cwt. case	1 0	..	..	0 6	1 0	0 1	
Macaroni. *See* Vermicelli.							
Mace cwt.	1 0	0 4	0 4	0 4	1 0	0 0½	
Or a consolidated rate of 2s. 6d. per cwt. nett.							
Madder ton	3 4½	1 1½	1 1½	1 1½	3 4½	0 6	
Roots cwt.	0 4	0 1½	0 1½	0 1½	0 4½	0 0½	ton
Manganese ore ton	3 0	1 2	1 2	1 6	3 6	0 3	
Pilling and weighing on delivery or re-housing, 1s. per ton.							
Manna cwt.	0 9	0 3½	0 3½	0 3½	0 10½	0 1	chest or cask
Marble:							
Manufactured, sculptured works of art, and slabs:							
Charged according to the size and value.							

Table of Rates &c.—continued.

Goods Imported		Landing Rate	Re-weighing	Repiling or Re-housing	Delivery by Land	Delivery by Water	Rent Per Week	Quantities &c.
Marble:								
Rough, in cases	per cwt.	s. d. 0 6	s. d. ..	s. d. ..	s. d. 0 2	s. d. 0 6	s. d. 0 2	per case
							Delivered into unlocked craft, per ton of 40 cubic feet	Wharfage and Shipping
Blocks:							s. d.	s. d.
4 tons and under	ton	6 0	..	..	..	..	0 3	4 6
above 4 tons and not exceeding 10 tons	,,	10 0	..	..	..	..	0 3	7 6
above 10 tons	,,	20 0	..	..	..	..	0 3	15 0
Mats, bass	100	1 8¼	..	..	0 6½	1 8½	0 6	100 bundles
Meats, preserved—as Fish.								
Metallic—as Sugar.								
Molasses and cane juice	ton	3 4	1 8	1 8	1 8	3 4	0 4½	
Or a consolidated rate of 9s. per ton nett.								
Moss, Rock or Iceland	,,	7 6	2 6	2 6	2 6	7 6	0 9	
Mother o'pearl shells:								
Loose	,,	6 0	2 3	2 3	2 3	6 9		
In packages	,,	5 0	1 8	1 8	1 8	5 0	0 4	
Munjeet, in bales	cwt.	0 6	0 1½	0 1½	0 1½	0 1½	0 7½	ton
In bundles or bags	,,	0 6	0 2½	0 2½	0 2½	0 7½	0 9½	
Musical instruments:								
above 55 feet and not exceeding 90 feet	case	4 6	..	..	1 6	4 6	0 4	
,, to feet ,, 55 feet	,,	3 0	..	..	1 0	3 0	0 3	
15 feet and under	box	1 6	..	..	0 6	1 6	0 2	
Myrtaolana	ton	4 0	1 8	1 8	1 8	5 0	0 4	
Myrrh. *See* Gum.								
Nails	cwt.	0 3	0 1	0 1	0 1	0 3	0 0½	barrel or bag
Natron	ton	3 0	1 3	1 3	1 6	3 0	0 2	
Filling and weighing loose on delivery or rehousing, 2s. per ton.								
Nutmegs	cwt.	0 6	0 2	0 2	0 2	0 6	0 10	ton
Nuts, Barcelona, Brazil, chestnuts, filberts, Spanish, and walnuts: 2 bushels and under	bag	0 2	..	..	0 1	0 2	0 0	100 bags
above 2 and not exceeding 4 bushels: bag or sack		0 4	..	..	0 2	0 4	0 0	100 bags or sacks
Nux Vomica	cwt.	0 1½	0 1½	0 1½	0 0½	0 1½	0 0½	
Oil:								
Castor, in cases	,,	0 4	0 2	0 2	0 2	0 6		
in casks	ton	3 6	2 0	2 0	2 0	6 0	0 8	ton
Olive, in jars—								
Large jars	cwt.	0 4	0 2	0 2	0 2	0 6	0 6	
Common jars	,,	0 4	0 3	0 3	0 2	0 6	0 3	each
Half jars	,,	0 6	0 5	0 5	0 3	0 8	0 2	,,
Salad	half chest of 30 flasks	0 4	..	..	0 2	0 6	0 2½	,,
								about ½ chests
Palm and cocoa nut, in casks not exceeding 50 cwt. each	ton	3 6	1 3	1 3	1 3	3 9		
In large casks above 50 cwt.	,,	4 0	1 6	1 6	1 6	4 6	0 4	
In tanks, 50 cwt. and under	,,	4 0	1 6	1 6	1 6	4 6		
Above 50 cwt.	,,	5 0	2 0	2 0	2 0	6 0		
Seed, in duppers, canisters, and like packages	cwt.	0 4	0 2	0 2	0 2	0 6	0 0½	

	Per Ton of 252 Imperial Gallons		
	Olive or Seed	Fish not Newfoundland	Newfoundland
Landing, wharfage, laying up to gauge, and cooper's attendance at landing &c.	s. d. 5 6	s. d. 5 0	s. d. 5 0
Searching and filling up (to order)	1 0	1 0	1 0
Delivery by land from quay, or housing	1 6	1 6	1 2
Delivery by land from vault	1 6	1 6	1 6
Delivery by water from vault or quay	4 6	3 0	3 0
* Rent per week	0 6	0 4	0 4

Or a consolidated rate of 7s. per ton on Newfoundland oil; including delivery from the quay and one month's rent from the date of ship's report, and all charges except coopering. If not delivered within one month, the usual delivery rates will attach.

Oil cake	ton	3 0	1 2	1 2	1 2	3 6	0 3	
Old rope. *See* Junk.								
Olives, about 12 gallons	½ barrel	0 4	..	..	0 1½	0 4	0 1	
,, ,, 6 ,,	¼ barrel	0 3	..	..	0 1	0 3	0 0½	
,, ,, 2½ ,,	keg	0 2½	..	..	0 0¾	0 2½	0 0¾	
About 5 quarts, small keg	sease	1 6	..	..	0 6	1 6	0 2	
5 pint jars	,,	0 9	..	..	0 3	0 9	0 1	
In large packages	per 100 gallons	2 1	..	..	0 9	2 1	0 3	tierce
Laying up to gauge in addition.							0 2	barrel, 30 gallons
Onions, about 2 bushels	box	0 2	..	..	0 1	0 2	0 0½	
Above 2 bushels	,,	0 3	..	..	0 2	0 3	0 0¾	
Opium	cwt.	0 6	0 2	0 2	0 3	0 6	0 1½	chest, under 3 cwt.
Oranges and lemons	chest	0 6	..	..	0 2	0 6	0 1	
	box	0 4	..	..	0 1½	0 4	0 0½	
	case	0 2	..	..	0 3	0 2	0 1½	
Orange flower water:								
Case containing jars, 5 gallons and under	case	0 6	..	..	0 2	0 6	0 0¾	
Above 5 and not exceeding 10 gallons	,,	0 9	..	..	0 3	0 9	0 0¾	
Above 10 ,, 15 gallons	,,	1 0	..	..	0 4	1 0	0 1	
Peel	cwt.	0 6	0 2	0 2	0 2	0 6	1 3	ton
Orchella weed	ton	6 6	2 2	2 2	2 9	7 0	0 10	
Orpiment	,,	5 0	1 8	1 8	1 8	5 0	0 4	

* No charge made for rent if cleared from the quay within 14 days from final landing, but after that period the oil delivered from the quay will be subject to a weekly quay rent until the expiration of one calendar month from the commencement of the ship's discharge, or first landing from craft, when the charge for housing will attach on the quantity remaining, with rent from the day of the ship's breaking bulk, or first landing from craft, and any additional coopering necessary will be performed and charged for at the usual rates.

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Table of Rates &c.—continued.

Goods Imported		Landing Rate	Re-weighing	Re-piling or Re-housing	Delivery by Land	Delivery by Water	Rent Per Week	Rent Quantities &c.
		s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	
Orrice root	per ton	5 0	1 8	1 8	2 0	5 0	0 3	per hogshead
							0 2	tierce
							0 1	barrel or scrun
Oxide of zinc	,,	3 9	1 3	1 3	1 3	3 9	0 3	
Paddy, in bulk	quarter	As Heavy Grain						
In bags	ton	3 4	1 3	1 3	1 3	3 9	0 3	
Pails, American:								
In bundles containing 6 each	bundle	0 2	..	..	0 1	0 2	0 0½	
,, ,, 12 ,,	,,	0 4	..	..	0 2	0 6	0 0½	
About 1 cwt. 2 qrs.	case	0 9	..	..	0 4	1 0	0 1	
Palm kernels	ton	3 9	1 3	1 3	1 3	3 9	0 6	
Palmetto thatch	cwt.	0 6	0 2	0 2	0 2	0 6	0 10	ton, loose
							0 6	ton, packages
Paper	,,	0 6	0 2	0 2	0 2	0 6	0 10	ton
Rice—as Lacquered Ware.								
Pegs, clothes	barrel	0 4½	..	..	0 2	0 6	0 0½	
About 4 cwt.	case	1 3	..	..	0 6	1 6	0 2	
Boxes containing 6 gross each	score boxes	3 0	..	..	1 3	3 9	2 1	100 boxes
Packages containing 6 boxes, each 6 gross	package	0 9	..	..	0 4	1 0	0 1	
Ditto, 4 boxes, each 6 gross	,,	0 6	..	..	0 3	0 9	0 1	
Ditto, 3 ,, ,, 6 ,,	,,	0 4½	..	..	0 2	0 6	0 0½	
Shoe	barrel	0 4½	..	..	0 2	0 6	0 0½	
In cases containing bags, about 2 cwt. 3 qrs.	case	0 9	..	..	0 4	1 0	0 1	
Ditto, about 4 cwt. 2 qrs.	,,	1 3	..	..	0 6	1 6	0 2	
Pellitory root	cwt.	0 3	0 1½	0 1½	0 1½	0 4½	0 10	ton
Pepper	ton	3 4	1 3	1 3	1 3	3 4	0 6	
Or a Consolidated Rate:								
In bags, 8s. 6d. per ton nett.								
In cases, 10s. ,, ,,								
Long or Cayenne	cwt.	0 4	0 2	0 2	0 2	0 6	0 7	ton
Pimenta	ton	3 0	1 3	1 3	1 3	3 0	0 4	,,
Pickles	dozen bottles	0 2½	..	..	0 0½	0 2½	0 0½	dozen bottles
In casks	gallon	0 0½	..	..	0 0½	0 0½	0 4	pipe, puncheon, or butt
Laying up to gauge is a separate charge.					per 3 galls.		0 2	hogshead
							0 1	½ hhd., barrel, or ¼ cask
							0 0½	¼-barrel or half-quarter cask
							0 0½	⅛-barrel or keg
Pill boxes—as Toys.								
Pimento	cwt.	0 6	0 2	0 2	0 2	0 6	0 6	ton
Or a Consolidated Rate including bulking:								
In casks, 1s. 4d. per cwt. nett.								
In bags, 1s. ,, ,,								
Pink root	cwt.	0 6	0 2	0 2	0 2	0 6	0 10	ton
Plums, Portugal:								
Boxes, in canvas packages	dozen	0 9	0 3	0 3	0 3	0 9	1 0	100 boxes
In cases containing boxes or cartoons, 1 cwt. gross and under	case	0 6	0 2	0 2	0 2	0 6	0 1	
Above 1 cwt. gross and not exceeding 2 cwt.	,,	0 7½	0 3	0 3	0 3	0 9	0 1½	
Above 2 cwt. gross and not exceeding 3 cwt.	,,	0 10	0 4	0 4	0 4	1 0	0 2	
Pomegranate peel	cwt.	0 6	0 2	0 2	0 2	0 6	1 3	ton
Preserves—Consolidated Rate:								
Examined on the quay: packages of small value, and not exceeding 15 in. square, or 28 lbs. gross weight (*s. d.*)	pkg. 0 6	..	..	..	..	..	0 0½	
Above ditto and under 1 cwt.	,, 1 0	..	..	..	..	..	0 0½	
1 cwt. and under 2 cwt.	,, 1 6	..	..	..	..	..	0 0½	
2 cwt. and upwards	,, 3 0	..	..	..	..	..	0 1½	
Examined within the warehouse: packages of small value, and not exceeding 15 inches square, or 28 lbs. gross weight (*s. d.*)	package 1 6	..	..	..	..	..	0 0½	
Above ditto and under 1 cwt.	,, 2 6	..	..	..	..	..	0 1	
1 cwt. and under 2 cwt.	,, 4 0	..	..	..	..	..	0 2	
2 cwt. and upwards	,, 5 0	..	..	..	..	..	0 3	
Preserves. *See* Succades.								
Prunes or French plums:								
7 cwt. and upwards	hhd. or pun.	1 6	0 6	0 6	0 6	1 6	0 2	
5 ,, under 7 cwt.	barrel	1 0	0 4	0 4	0 3	1 0	0 1½	
2 ,, ,, 5 ,,	½ barrel	0 7½	0 2½	0 2½	0 2	0 7½	0 1	
1 ,, ,, 2 ,,	¼-barrel	0 5	0 2	0 2	0 2	0 6	4 2	}
Under 1 cwt.	⅛-barrel	0 3	0 1	0 1	0 1½	0 3	2 0	}
About ,,	chest	0 3½	0 1	0 1	0 1	0 3½	2 0	} 100
56 lbs.	¼-chest, score	4 3	1 4	1 4	1 4	4 3	1 3	}
28 lbs.	⅛ ,,	2 1½	0 8½	0 8½	0 6	2 1½	1 0	}
Cases containing boxes or cartoons. *See* Plums from Portugal.								
Pumice stone. *See* Stone.								
Quicksilver	bottle	0 2	0 1	0 1	0 1	0 3	1 8	100
,,	case	0 6	0 2	0 2	0 2	0 6	0 0½	
Radix contrayervæ	cwt.	0 6	0 3	0 3	0 3	0 9	0 2	case
senekæ	,,	0 6	0 3	0 3	0 3	0 9	0 10	ton
Rags, in bales	ton	3 6	1 3	1 3	1 6	4 0	0 4	ton, in bales, press-packed
							0 5	ton, in bales, not press-packed
Raisins:								
12 to 20 cwt.	butt	2 6	1 0	1 0	0 8	2 6	0 4	
9 and under 12 cwt.	pipe	2 0	0 9	0 9	0 6	2 0	0 3	
5 ,, 9 ,,	carotel	1 3	0 6	0 6	0 4	1 3	0 2	
2 cwt. 2 qrs. and under 5 cwt.	barrel	0 7½	0 2½	0 2½	0 2	0 9	0 0½	
1 cwt. 2 qrs. and under 2 cwt. 2 qrs.	½-barrel	0 5	0 1½	0 1½	0 2	0 6	0 0½	
Under 1 cwt. 2 qrs.	¼-barrel, score	4 3	0 10	0 10	0 10	5 0	2 0	}
Denia and Valencia, boxes	score	2 1½	0 8	0 8	0 9	2 6	1 3	}
½ and ¼ boxes	,,	1 3	0 5	0 5	0 6	1 6	1 0	}
Frails or baskets	,,	1 6	0 6	0 6	0 5	1 8	1 0	}
½ and ¼-frails or baskets	,,	0 10	0 3	0 3	0 4	1 0	1 0	}
Malaga, boxes	,,	1 8½	0 6½	0 6½	0 6	2 0	1 0	} 100
½ and ¼-boxes	,,	1 3½	0 6½	0 6½	0 6	1 6	0 10	}
Smyrna, cases, 1 cwt.	,,	4 3	0 10	0 10	1 0	5 0	2 6	}
56 lbs.	,,	2 1½	0 8	0 8	0 9	2 6	1 3	}
28 lbs.	,,	1 3	0 5	0 5	0 6	1 6	1 0	}
drums	,,	2 1½	0 8½	0 8½	0 6	2 6	1 0	}
½ and ¼-drums	,,	1 3½	0 5	0 5	0 6	1 6	1 0	}
Skeleton cases containing boxes or drums:								
Under 2 cwt.	each	0 9	0 3	0 3	0 4	1 0	0 1½	
2 cwt. and under 2 cwt. 2 qrs.	,,	1 0	0 4	0 4	0 5	1 3	0 2	
2 cwt. 2 qrs. and under 3 cwt. 2 qrs.	,,	1 3	0 5	0 5	0 6	1 6	0 2	
In bags	ton	4 3	1 3	1 3	1 3	5 0	0 3	
Rhatania root	cwt.	0 6	0 3	0 3	0 3	0 9	0 0½	

| Goods Imported | Landing Rate | Rent weighing &c. | Cartage or Town Dues | Primage ad Valorem | Primage Weight | Primage Measurement | Primage per Week | Primage per Week | Primage per Week

Table of Rates &c.—continued.

Goods Imported	Landing Rate	Re-weighing	Repiling or Re-housing	Delivery by Land	Delivery by Water	Rent Per Week	Rent Quantities &c.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	per
Skins per	1 0	0 4	0 4	0 4	1 0	0 2	
Furs - - - - tierce	0 6	0 2	0 2	0 2	0 6	0 1	
" - - barrel or smaller cask	2 0	0 8	0 8	0 8	2 0	0 4	
5 cwt. and under 7 cwt. - bale or case	1 6	0 6	0 6	0 6	1 6	0 3	
3 " 5 " - "	1 0	0 4	0 4	0 4	1 0	0 2	
1 cwt. 2 qrs. and under 3 cwt. "	0 9	0 3	0 3	0 3	0 9	0 1½	
56 lbs. and under 1 cwt. 2 qrs. "	0 6	0 2	0 2	0 2	0 6	0 0½	
Under 56 lbs. - - "							
Goat. *See* Sheep and Goat.							
Kid or Lamb - hhd., pun. or bale	1 6	0 6	0 6	0 6	1 6	0 3	
" - - - tierce	1 0	0 4	0 4	0 4	1 0	0 2	
" - - - barrel	0 6	0 2	0 2	0 2	0 6	0 1	
1 cwt. 2 qrs. and under 3 cwt. large bundle	1 0	0 4	0 4	0 4	1 0	0 2	
56 lbs. and under 1 cwt. 2 qrs. ordinary "	0 9	0 3	0 3	0 3	0 9	0 1½	
Under 56 lbs. - - small bundle	0 6	0 2	0 2	0 2	0 6	0 1	
Loose - - - 120	0 10	0 6	0 6	0 3½	0 10	0 3	
Leopard, lion, and tiger - - each	0 1½	0 0½	0 0½	0 0½	0 1½	0 0½	
Quebec or Hudson's Bay:							
case, bale, or puncheon	1 6	0 6	0 6	0 6	1 6	0 3	
large bundle	1	0 4	0 4	0 4	1 0	0 2	
ordinary bundle	0 9	0 3	0 3	0 3	0 9	0 1½	
small bundle or keg	0 6	0 2	0 2	0 2	0 6	0 1	
Seal - - - puncheon or jave	1 6	0 6	0 6	0 6	1 6	0 3	
hogshead	1 0	0 4	0 4	0 4	1 0	0 2	
barrel	0 9	0 3	0 3	0 3	0 9	0 1½	
loose - - - - 120	1 6	..	..	0 6	1 6	0 3	
Sheep or goat, Cape:							
100 skins and upwards - - bale	1 6	0 8	0 8	0 8	2 0	0 2	
75 and under 100 - - "	1 1½	0 6	0 6	0 6	1 6	0 1½	
50 " 75 - - "	0 9	0 4	0 4	0 4	1 0	0 1	
25 " 50 - - "	0 4½	0 2	0 2	0 2	0 6	0 0½	
13 " 25 - - "	0 3	0 1½	0 1½	0 1½	0 4½	0 0½	
under 13 - - "	0 1½	0 0½	0 0½	0 0½	0 2½	0 0½	
dry or dry salted, loose - - 100	1 6	0 8½	0 8½	0 8½	2 1	0 3	120
wet salted, loose - - "	2 3	1 0½	1 0½	1 0½	3 1½	0 4	120
East India, untanned:							
800 and under 1,000 - - bale	5 0	1 8	1 8	1 8	5 0	0 6	
600 " 800 - - "	4 0	1 4	1 4	1 4	4 0	0 5	
400 " 600 - - "	3 0	1 0	1 0	1 0	3 0	0 4	
200 " 400 - - "	2 0	0 8	0 8	0 8	2 0	0 3	
" 200 - - "	1 6	0 6	0 6	0 6	1 6	0 2	
loose - - - 120	1 0	0 6	0 6	0 4	1 0	0 2	
East India, tanned:							
7 cwt. and under 9 cwt. - - bale	3 0	1 0	1 0	1 0	3 0	0 4	
5 " " 7 " - - "	2 6	0 10	0 10	0 10	2 6	0 3	
3 cwt. 2 qrs. " 5 " - - "	2 0	0 8	0 8	0 8	2 0	0 3	
" 3 cwt. 2 qrs. - - "	1 6	0 6	0 6	0 6	1 6	0 2	
loose - - - 120	1 0	0 6	0 6	0 4	1 0	0 1½	
Hambro'—as Cape.							
Mogadore or Turkey:							
100 and upwards - - bale	1 3	0 6	0 6	0 6	1 6	0 2	120 skins
60 and under 100 - - "	0 7	0 3	0 3	0 3	0 9		
30 " 60 - - "	0 3	0 2	0 2	0 2	0 3		
" 30 - - "	0 2	0 1	0 1	0 1	0 2	0 0½	120 skins
loose - - - dozen	0 1½	0 0½	0 0½	0 0½	0 2	0 0	
Snake root - - - cwt.	0 6	0 3	0 3	0 3	0 9	0 10	ton
Soap, Castile or fancy - - "	0 6	0 2	0 2	0 2	0 6	0 0	"
Soda - - - - ton	3 0	1 3	1 3	1 6	3 0	0 4	puncheon
						0 2	hogshead
Soy, in casks - - - - gallon	0 1	..	..	0 1	0 1	0 1	barrel
Laying up to gauge an additional charge.				per 3 gals.		0 1	¼ cask
						0 0½	half-qr.-cask
In jars 6 gals. and not exceeding 12 gals. each	0 9	..	..	0 3	0 9	0 1	
Under 6 gals. - - - "	0 6	..	..	0 2	0 6	0 0½	
Spelter - - - - ton	2 6	1 0	1 0	1 0	3 0	0 1	ton loose
						0 2	ton in casks
Sponge - - - - cwt.	0 6	0 2	0 2	0 3	0 9	0 2	case, bale, or cask, under 1 cwt. 2 qrs.
						0 3	case, bale, or cask, 1 cwt. 2 qrs. and upwards
						0 10	ton in bales, press-packed
Starch - - - - ton	5 0	1 8	1 8	1 8	5 0	0 5	
Steel - - - - "	4 0	1 6	1 6	1 6	4 6	0 2	
Or a Consolidated Rate of 7*s.* 6*d.* per ton gross on kegs and cases, comprising landing, wharfage, sorting, weighing, housing, and delivery.							
Coopering and tarring in addition - -	..	..	..	..	..	..	From date of breaking bulk
Sticklac. *See* Management Rates.							
Stone, burr - - - - each	0 1½	0 0½	0 0½	0 0½	0 1½	0 0½	100
Emery - - - - ton	3 0	1 2	1 2	1 2	3 6	0 1	
Filling and weighing on delivery or re-housing 2*s.* per ton.							
Lithographic - - - ton	4 0	1 8	1 8	1 8	5 0	0 6	
Pumice - - - - "	6 0	2 6	2 6	2 6	7 6	0 8	loose
						0 4	in bricks
in casks - - - - "	4 0	1 8	1 8	1 8	5 0	0 6	
Turkey or hones - - - "	4 0	1 8	1 8	1 8	5 0	0 6	
Straw, manufactured:							
Under 1 cwt. - - - case	0 8	0 3	0 3	0 3	0 8	0 0½	
1 and under 2 cwt. - - - "	1 0	0 4	0 4	0 4	1 0	0 1	
2 " 3 " - - - "	1 6	0 6	0 6	0 6	1 6	0 1	
3 " 4 " - - - "	1 9	0 7	0 7	0 7	1 9	0 2	
4 cwt. and upwards - - - "	2 0	0 8	0 8	0 8	2 0	0 2	
Unmanufactured:							
1 cwt. and under 2 cwt. - - "	1 0	0 4	0 4	0 4	1 0	0 2	
2 " 3 " - - "	1 6	0 6	0 6	0 6	1 6	0 3	
3 cwt. and upwards - - "	2 0	0 8	0 8	0 8	2 0	0 4	
Succades, under 56 lbs. - - "	0 3	0 1	0 1	0 1	0 3	0 0½	
56 lbs. and not exceeding 84 lbs. - "	0 4	0 2	0 2	0 2	0 4	0 0½	
Cases above 84 lbs. - - cwt.	0 4½	0 2	0 2	0 2	0 4½	0 0½	
Sugar, in casks - - - ton	3 4	1 8	1 8	1 8	3 4	0 5	
In chests 5 cwt. and above, or in baskets "	3 4	1 8	1 8	1 8	3 4	0 5	
Chests, mats, or bags, under 5 cwt. - "	3 4	1 8	1 8	1 8	3 4	0 4	
Or a Consolidated Rate:							
	s. d.						
In casks, per ton nett - -	9 0						
In baskets " - -	8 0						
In chests, 5 cwt. and upwards, per ton nett - -	8 0						
In chests under 5 cwt. per ton nett -	6 9						
Mats or bags, per ton nett -	6 6						

Goods Imported		Landing Rates.	Re-weighing	Weighing or Re-housing	Delivery by Land	Delivery by Water	Rent Per Week	Rent Quantities &c.
Candy	per cwt.	s. d. 0 3	s. d. 0 1½	s. d. 0 1½	s. d. 0 3	s. d. 0 3	s. d. 0 0½	per
Sulphate of Zinc	cwt.	3 0	1 0	1 0	1 3	3 0	0 1	
Potash	ton	3 0	1 3	1 3	3 0	3 0	0 1½	
Sumach	,,	3 0	1 3	1 3	3 0	3 9	0 2	
Gums. *See* Juice.								
Gunpowder	,,	4 6	1 6	1 6	4 6	4 6	0 3	
Washing dirt	,,							
Filling and weighing loose on delivery, 2s. per ton.	,,							
Tallow in casks, 2s. per ton.	,,							
Jar, sold from the landing scale	,,							
For the importer	,,	3 6	1 6	1 6	3 6	3 6	0 2	
For the buyer	,,							
Delivery by water from quay, per ton, 2s. 4d.	,,							
In chests	,,	3 9	1 3	1 3	3 9	4 6	0 3	
Mediterranean, Cape, or American:								
Packages under 7 cwt., or blocks	,,	1 10	1 2	1 2	2 6	2 6	0 2	
Unpressed	,,	1 2	..	..	1 2	2 6	0 2	
Pressed	,,		..	..	..	..	..	
Consolidated Rate—								
Under 28 lbs. gross	,,	3 9	1 3	1 3	3 9	3 9	0 3	
Under 28 lbs. gross and under 56 lbs. gross	,,	5 0	1 8	1 8	5 0	5 0	0 3	
56 lbs. gross and upwards, not exceeding 1 cwt. nett	package	0 4½	0 2	0 2	0 4½	0 4½	0 0½	
exceeding 1 cwt. nett and under 2 cwts.	,,	0 6	0 3	0 3	0 6	0 6	0 0½	
2 cwts. nett and upwards	,,	0 9	0 4½	0 4½	0 9	0 9	0 0½	
Tannery waste. *See* Hide Cuttings.	cwt.	1 0	..	..	..	..	..	
Tapioca:								
Pearl	cwt.	1 0	0 4	0 4	0 4	1 0	0 1	case
Flour as Sago.								
Tea. *See* Management Rates.								
Terra Japonica	cwt.	0 1½	0 1½	0 1½	0 1½	0 3	0 0½	Barrel
Catechu								
Verde								
Umbra or Pozzolana	ton	4 0	1 8	1 8	1 8	5 0	0 3	
Weighing Pozzolana on board lighter	,,	4 0	1 8	1 8	1 8	5 0	0 3	
Tin	,,	5 0	1 2	1 8	1 8	5 0	0 3	
Ore				1 2	1 2	3 6		
Weighing on board for transhipment, per ton, 2s.	,,	3 0	1 4	1 4	1 4	4 0	0 3	
Tobacco	,,	4 0	1 8	1 8	1 8	5 0	0 3	
Tobacco, other than Remedies								
1 cwt.	,,	4 0	1 8	1 8	1 8	5 0	0 3	
1 to 2 cwt.	,,							
In cases, bales, baskets, or bundles	large	0 6	0 2	0 2	0 2	0 6	0 1	
	small	0 4½	0 1½	0 1½	0 1½	0 4½	0 0½	
	dozen	0 1	0 0½	0 0½	0 0½	0 1	0 0½	
Tortoise shell	,,	0 1½	0 1	0 1	0 1	0 1½	0 0½	
Tow, in bales not pressed	cwt.	1 0	0 4	0 4	0 4	1 0	0 1	case
Press packed	ton	5 0	2 0	2 0	2 0	5 0	0 1	Bale under 28 lbs.
Loose	,,	4 0	1 6	2 0	2 0	5 0	0 1	cart or carts
Toys	,,	5 6	2 0	2 6	2 0	5 0	0 3	
large case or cut		5 6	2 0	2 6	2 0	5 0	0 3	
middling case or cut		4 6	..	2 6	2 6	4 6	0 3	
small case or cut		3 6	..	..	1 6	3 6	0 3	
Turmeric	cwt.	2 0	..	..	1 0	2 0	0 1	Case 1 cwt.
Or a consolidated rate of 8d. per cwt. nett.	cwt.	0 3	0 1	0 1	0 1	0 3	0 0½	Case 6 cwt. and upwards
Twine								
Valerian	,,	0 3	0 1	0 1	0 1½	0 3	0 0½	ton
Valonia	,,	0 6	0 3	0 3	0 3	0 6	0 1	
Fitting and weighing on delivery or re-housing, 2s. per ton.	ton	4 0	1 6	1 6	1 6	3 6	0 3	,,
Vanelloes	case or canister	1 6	0 6	0 6	0 6	1 6	0 1½	
Vegetables, preserved—as Fish.								
Verdigris	ton	5 0	1 8	1 8	1 8	5 0	0 6	
Vermilion	cwt.	2 4	0 10	0 10	0 10	2 4	0 10	ton
Vermicelli:								
Case under 1 cwt.	,,	0 9	0 3	0 3	0 3	0 9	0 0½	box under 56 lbs.
Case 1 cwt. and under 3 cwt.	case	0 9	0 3	0 3	0 3	0 9	0 1	case 56 lbs. and under 2 cwt.
							0 2	case 2 and under 4 cwt.
3 cwt. and upwards	cwt.	0 3	0 1	0 1	0 1	0 3	0 4	Case 4 cwt.
							0 6	case 6 cwt. and upwards
							0 4	puncheon
Vinegar	100 galls.	2 1	..	..	0 9	2 1	0 2	hogshead, tierce, or barrel
							0 1½	quarter cask
Cooper's attendance, and laying up to gauge in addition.								
Walnuts. *See* Nuts.								
Water, mineral, in baskets or cases	12 bottles	0 2½	..	..	0 0²	0 2½	0 0½	
Loose	,,	0 3	..	..	0 1	0 3	0 0½	
Wax, bees', and vegetable of all kinds	ton	5 0	1 8	1 8	1 8	5 0	0 6	
Sealing	cwt.	0 6	0 3	0 3	0 3	0 9	0 1	
White bone	ton	7 6	2 6	2 6	2 6	7 6	0 4	
Fine	,,	7 6	2 6	2 6	2 6	7 6	0 6	
Whisks for brooms	100 bundles	3 0	..	1 0	1 0	3 0	0 3	
	loose, 1,000	3 0	..	1 0	1 0	3 0	0 4	
	lyste	1 10½	..	0 7½	0 7½	1 10½	0 3	
	½ bale	1 0	..	0 4	0 4	1 0	0 1½	
	¼ bale	0 9	..	0 3	0 3	0 9	0 1	
	⅛ of a bale	0 6	..	0 2	0 2	0 6	0 0½	
Manufactured	100	1 6	..	0 6	0 6	1 6	0 2	
Wine, in casks. *See* p. 516.								
in cases. *See* p. 516.								
Wood, dyers', and furniture. *See* p. 514.								
Wool, sheep or lambs'	cwt.	0 4½	0 1½	0 1½	0 1½	0 4½	0 0½	bale, under 56 lbs.
							0 0½	bale, 56 lbs. and under 1 cwt
								2 qrs.
							0 0½	bale, 1 cwt. 2 qrs. and under 3 cwt. 2 qrs.
							0 1	bale, 3 cwt. 2 qrs. and under 5 cwt.
							0 1½	bale, 5 cwt. and under 7 cwt. 2 qrs.
							0 3	bale
Virginia	,,	0 4½	0 1½	0 1½	0 1½	0 4½	0 1	bale, under 2 cwt.
Coney	,,	0 6	0 2	0 2	0 2	0 6	0 2	bale, 2 cwt. and upwards
							0 1	bale, under 2 cwt.
Goats'	,,	0 6	0 2	0 2	0 2	0 6	0 2	bale, 2 cwt. and upwards
Hair or beards	,,	0 10½	0 3½	0 3½	0 3½	0 10½	0 2	case

Three working days from the last day of weighing at the landing scale are allowed to count 2 above from the former, no rent will be charged for that period, of 3 clear days when not so counted; rent will be charged from the date of the Vessel's breaking bulk.

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Table of Rates &c.—continued.

				Colonial, Cape, Goat, Spanish, North and South America, Turkey, and Levant	Barbary and Morocco	Russia	German	Delivery by Land, and Mending at Delivery
Consolidated rate comprising landing, wharfage, housing, and 1½ weeks' rent from date of vessel breaking bulk; landing weights, original warrants, certificates of damage, or survey after landing; mending at landing, taring, lotting, sampling, unpiling for show, showing, filling in, mending, reweighing and repiling; per bale	cwt. qrs. lb.	Under	cwt. qrs. lb. 0 2 0	s. d. 0 10	s. d. ..	s. d. ..	s. d. ..	s. d. 0 4
	0 2 0	and ,,	0 3 0	1 0	..	..	..	0 4
	0 3 0	,,	1 0 0	1 6	..	..	..	0 4
	1 0 0	,,	1 2 0	2 6	..	..	..	0 6
	1 2 0	,,	2 0 0	3 6	2 6	4 0	..	0 6 / 0 8
	2 0 0	,,	3 2 0					
	3 2 0	,,	5 0 0	4 6	..	5 0	..	1 0
	5 0 0	,,	7 2 0	5 6	..	6 0	..	1 3
	7 2 0	,,	10 0 0	6 6	..	7 0	1 6 per cwt. gross	1 6 additional if shipped, per cwt. 1½d.

Goods Imported		Landing Rate	Re-weighing	Repiling or Re-housing	Delivery by Land	Delivery by Water	Rent per Week	Rent Quantities &c.
	per	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	per
Yarn, hempen	ton	5 0	2 0	2 0	2 0	5 0	0 5	
Zinc. *See* Spelter.								

Rates on Dyers' and Furniture Wood.

Goods Imported	per	Consolidated Rate	Landing Rate	Re-weighing	Repiling or Re-housing	Delivery by Land	Delivery by Water	Rent per Week	Rent per Week after the first year from the Vessel breaking bulk
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
Barwood, Bar-wood, Brazil, large, Camwood, Cocus-wood, Ebony, Fustic, large, Lignum-Vitæ, Logwood, Nicaragua, large, Quassia, Sanders	ton	6 6	4 6	1 1½	1 1½	1 1½	3 4½	0 1	{Black Ebony from the East Indies, Cocus Wood, and Lignum-Vitæ, 1d.
If under cover	ton	7 0	—	—	—	—	—	0 1½	
Brazilette, Brazil-wood, small, Nicaragua, small, Sapan	ton	8 0	5 6	1 4½	1 4½	1 4½	4 1½	0 2	
Fustic, young, Sandal, Sassafras, Jaccaranda, Mahogany, Rosewood, Satin, Tulip, Zebra, Bird's Eye Maple, Cedar and other furniture wood	ton	7 0	5 0	1 3	1 3	1 3	3 9	0 1½	s. d. 0 1

Special Charges.

		s. d.
Rummaging mahogany and other furniture wood	per ton	1 0
Delivering into decked vessels, additional	,,	0 6

The rates on other descriptions of wood are published in a separate table.

Management Rates.—These rates are charged upon the gross weight; and when the goods are to be placed upon the landing rate, notice must be given previous to the landing.

Cinnamon.

Rates.	Bale averaging 100 lbs. gross. s. d.
Landing: comprising landing, wharfage, weighing, furnishing landing weights, and delivery from the quay at the docks—	
From Ceylon	1 6
From Malabar	1 0
Landing and housing: comprising landing, wharfage, weighing, housing, furnishing landing weights, housing and delivery—	
From Ceylon	2 0
From Malabar	1 4
Management: comprising landing, wharfage, weighing, housing, unpacking, taring, sorting, brushing, repacking, attending show and sale, reweighing, piling away, furnishing warrants, and delivery	6 0
Note.—An addition l charge will be made for chests supplied to contain th- small and refuse; also, if imported in canes, a charge for gunny and rope supplied.	
Rent, per week	0 1

Cochineal.

Rates.	Per cwt. gross. s. d.
Landing: comprising landing, wharfage, weighing and furnishing landing weights, and loading or housing	0 9
Management:* comprising landing, wharfage, housing, weighing, stripping, taring, garbling, sampling, weighing to and from the garbler, mending, and bags supplied for garblings, overtakers and in substitution of original bags damaged	3 9
Rent, per week	0 1
Reweighing	0 3
Repiling or rehousing	0 3
Delivery, by land	0 3
water	0 9

* Under this rate, the importer has the option, at the time he pays the management rate, of commuting the delivery charges by land or water, including weighing at actual delivery, on payment of 7d. per cwt. gross on the whole of a mark or entire parcel.

Indigo.

Rates.	Chest. s. d.
Landing: comprising landing, wharfage, weighing gross, and delivery from the quay at the docks	3 0
Landing and housing: comprising landing, wharfage, weighing gross, housing and delivery	4 0

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Indigo—continued.

Rates.

Rates, applicable to goods worked and shown for purchasers' first samples if ordered before the chests are nailed down, and delivery—
When raised . . . Chest.
When not raised . . .

Table of Rates &c.—continued.

Lac Dye.

Rates.

Landing: comprising landing, wharfage, weighing, and furnishing landing weights, and loading or housing—
Per chest, 2 cwt. and under . . . s. d.
above 2 cwt. to 4 cwt. . . . 12 6
above 4 cwt. to 6 cwt. . . . 19 6
. . . 0 1½

Management: comprising landing, wharfage, housing, weighing, stripping, opening, sorting, sampling, tarring, raising, repairing, retaring, refilling, nailing down, hooping, and marking, providing chests for overtakers, reweighing, lotting, and piling away—
In chests, per cwt. gross . . . s. d.
Rent, per week, per ton gross . . . 0 9
Reweighing . . . 1 0
Repiling . . . 1 3
Rehousing or Delivery by land, per chest, 2 cwt. and under . . . 1 8
" above 2 cwt. to 4 cwt. . . . 0 7½
" above 4 cwt. to 6 cwt. . . . 0 3
Delivery by water, " 2 cwt. and under . . . 0 4
" above 2 cwt. to 4 cwt. . . . 0 5
" above 4 cwt. to 6 cwt. . . . 0 6
. . . 1 0
. . . 1 3

Seedlac and Sticklac.

Rates.

Landing: comprising landing, wharfage, weighing, and furnishing landing weights, and loading or housing . . . Per cwt. gross. s. d. 0 7½

Management: comprising landing, wharfage, housing, weighing, stripping, opening, starting into bulk, shivering if requisite, sampling, tarring, repairing, refilling, nailing down, providing bags or chests for overtakers, reweighing, lotting, and piling away—
In chests . . .
In bags . . .
Rent, per week . . . 1 0
Reweighing . . . 1 3
Repiling or rehousing . . . per ton gross 0 7½
Delivery, by land . . . 0 2½
water . . . 0 2½
. . . 0 2½
. . . 0 7½

Shellac.

Rates.

Landing: comprising landing, wharfage, weighing and furnishing landing weights, and loading or housing . . . Per cwt. gross. s. d. 0 7½

Shellac—continued.

Rates.

Management: comprising landing, wharfage, housing, weighing, stripping, opening, sorting to quality, starting into bulk, shivering if requisite, sampling, tarring, raising, repairing, retaring, refilling, nailing down, providing chests for overtakers, reweighing, lotting, and piling away— Per cwt. gross. s. d.
In chests . . . 1 10½
In bags . . . 1 3
Rent, per week . . . per ton gross 0 3
Reweighing . . . 0 2½
Repiling or rehousing . . . 0 2½
Delivery, by land . . . 0 2½
water . . . 0 2½
. . . 0 2½

East India and China Silk: Raw and Thrown.

Rates.	Rates. 150 lb. and under 200 lb. gross	100 lb. gross and under 150 lb.	Above 84 lb. and under 100 lb. gross.
	s. d.	s. d.	s. d.
Landing: comprising landing, wharfage, weighing, furnishing landing weights, and delivery from the quay at the docks . . .	1 6	1 0	0 9
Note.—If the silk is not landed from the quay the same day it is landed, it will be housed for warrants, and the landing and housing rate will attach.			
Landing and housing: comprising landing, wharfage, weighing for landing weights, housing, and delivery . . .	2 3	2 0	1 6
Note.—Sampling or inspection, or tarring for exchange only take place on such subject to this rate, on payment of the respective charges. Lotting and any further operations be required, the management rate will attach.			
Management: comprising landing and wharfage, or receiving by land, housing, weighing, and forwarding landing weights, stripping, tarring, new bags and repacking, including unpacking and repacking, first inspection, or first sampling, by importer or his agent, marking, reweighing, and delivery . . .	5 0	6 0	5 0
Rent, per week . . .	0 1½	0 1½	0 1½

Tea.

Rates, per Package	160 lb. and under 200 lb. gross	130 lb. and under 160 lb. gross	80 lb. and under 130 lb. gross	60 lb. and under 80 lb. gross	45 lb. and under 60 lb. gross	35 lb. and under 45 lb. gross	15 lb. and under 35 lb. gross	Under 15 lb. gross
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Landing and housing: comprising landing, wharfage, housing, separating into chops, weighing, tarring, furnishing landing weights, examining and turning out and in for damage, mending, laying down for *private* inspection, lotting, nailing down, placing in delivery pile, and delivery by land .	2 10	2 1	1 8	1 5	1 3	1 2	0 9	0 4
Management: comprising the same operations as the landing and housing rate; also laying down for *public* sale, attendance whilst on show, extra warehouse-room, and any other operations consequent thereon . . .	3 6	2 7	2 1	1 8	1 5	1 3	0 10	0 5
Rent, per week . . .	0 1	0 0½	0 0½	0 0½	0 0½	0 0½	0 0½	0 0½

Schedule of Rates and Charges on Wines and Spirits in Casks other than Rum.

The Landing Rate includes landing, wharfage, laying up to gauge, and gauging, watching, cooper's attendance at landing and while on the quay; accounts of landing gauges, warrants, if required, strength of spirits, as ascertained by the Customs, and first samples. Wines and spirits will be allowed to remain on the quay, subject to a weekly rent, for one calendar month from the commencement of the ship's discharge, or first landing from craft, after the expiration of which the housing and coopering rate will become chargeable.

N. B.—When wines or spirits have been cleared with the Customs, and delivery orders have been lodged with the Company within the calendar month as above, a further period, not exceeding fourteen days, will be allowed for clearing from the quay, on payment of the charge for delivery from the vault in lieu of that for delivery from the quay.

The Housing and Coopering Rate includes housing and coopering, cooper's attendance at housing, and superintendence in the vaults, for the first eighteen months, regauging, and sampling at delivery; and is applicable to all wines and spirits not cleared from the quay. Goods chargeable with this rate are subject to rent from the date of the ship's breaking bulk, or first landing from craft, and to cooper's superintendence after eighteen months.

Racking.—When racking is necessary, forty-eight hours' notice will be given to the proprietor, with the option of sending his own casks. No charge will be made when the casks are racked for preservation in the vault, within twelve months from the date of the ship breaking bulk; those for exportation or coastwise excepted.

Tasting can be permitted only under the pro-

prietor's written order. Tasting by the proprietor, or his clerk, is exempt from charge: the latter, however, must be authorised to sign orders, and be unaccompanied by any other person.

Coopering, when requisite, at landing, examination, or delivery, for the protection of the property, will be executed without awaiting the proprietor's order, unless he shall give directions to the contrary, and at the rates specified in this table.

Deficiencies.—When wines and spirits are imported in casks made of proper oak, the Company engages to be responsible for deficiencies in measure which shall exceed one gallon per cask for each year, or fraction of a year, the goods remain in charge; but the Company will not be answerable for deficiencies arising from the casks being made of other and inefficient materials; nor for deficiencies on spirits exceeding 20 per cent. over proof.

Payment of Charges.—The housing and coopering rate on the whole mark or parcel *housed* must be paid previous to the issue of warrants, or the transfer or delivery of any portion. Payment of rent, and other charges, will be required only on the quantity to be delivered or transferred.

Sizes of Wine and Spirit Casks.

Wines.	Full contents.
Half quarter-cask	10 and under 20 galls.
Quarter cask	20 ,, 33 ,,
Third cask	33 ,, 43 ,,
Hogshead	43 ,, 66 ,,
Pipe, or butt	66 ,, 126 ,,
Unsizeable	126 and upwards.

Spirits (Rum excepted).	
Half quarter-cask	10 and under 20 galls.
Quarter-cask	20 ,, 33 ,,
Third-cask	33 ,, 43 ,,
Hogshead	43 ,, 66 ,,
Unsizeable	66 ,, 100 ,,
Pipe, butt, or pun.	100 ,, 121 ,,
Unsizeable	121 and upwards.

Rates and Charges on Wines and Spirits other than Rum.

	Unsizeable Casks* per Ton of 210 Galls.	Pipes, Butts, or Puncheons.	Hhds.	Thirds	Quarter Casks	Half Quarter Casks	Casks under 10 Galls.	Cape	Rhenish Wine		
								Casks 66 to 75 Galls.	Double Aum.	Single Aum.	Half Aum.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Landing rate	2 4	1 2	0 7	0 6	0 5	0 4	0 3	0 11	1 0	0 7	0 5
Delivery by land from quay within the calendar month	3 0	1 6	1 0	0 10	0 7	0 5	0 3	1 2	1 0	0 7	0 6
If shipped, additional	1 4	0 8	0 5	0 5	0 4	0 3	0 2	0 6	0 6	0 4	0 3
Housing and coopering rate—											
Wines, frontbound, and claret	9 8	4 10	3 2	2 8	1 10	1 3	0 10	2 11	3 6	1 9	1 3
,, woodbound and sherry	12 8	6 4	3 11	3 1	2 4	1 11	1 4	..	..	..	..
Foreign spirits	11 2	5 7	3 6	2 11	2 1	1 7	1 1	..	..	..	..
† Casks landed with less than the standard number of iron hoops, pay in addition, for each hoop deficient	..	0 4½	0 4½	0 4½	0 4	0 4	0 3	0 4	0 4	0 4	0 4
Delivery by land from the vault, including cooper's attendance, or from the quay, after the expiration of the calendar month	5 0	2 6	1 6	1 3	1 1	0 9	0 6	2 0	1 9	1 2	0 10
If shipped, additional	1 4	0 8	0 5	0 5	0 4	0 3	0 2	0 6	0 6	0 4	0 3
Rent per week, on Cape and Marsala	0 9	0 4½	0 3	0 2	0 2	0 1	0 1	0 4	0 3	0 2	0 1
On other wines and spirits (rum excepted)	0 10	0 5	0 3	0 2	0 2	0 1	0 1	..	0 3	0 2	0 1
Cooper's superintendence after eighteen months, per week	0 2	0 1	0 0	0 0	0 0	0 0	0 0½	0 0	0 1	0 0	0 0

* Wines and spirits in vats or large casks exceeding 210 gallons each. Rates to be charged according to special arrangements between the importers and the Dock Company.

† The standard number of iron hoops is as follows, viz.:—Port and Lisbon pipes, ten; sherry butts, eight; Spanish red, brandy and Genev puncheons, six. Aums, hogsheads, and smaller casks, six.

Rates and Charges on Wines and Spirits in Cases.

		Cases containing					
		1 Dozen	2 Dozen	3 Dozen	4 Dozen	5 Dozen	6 Dozen
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Landing rate, including first tasting or sampling, housing and delivery by land within six clear working days from final examination	quarts	0 3	0 6	0 9	1 0	1 3	1 6
	pints	0 1½	0 3	0 4½	0 6	0 7½	0 9
Additional if shipped	quarts	0 1	0 2	0 3	0 4	0 5	0 6
	pints	0 0½	0 1½	0 2	0 2	0 2½	0 3
Rent from the date of the vessel breaking bulk or first landing from craft, per week	quarts	0 0½	0 0½	0 1½	0 2	0 2½	0 3
	pints	0 0½	0 0½	0 0½	0 1	0 1½	0 1½
Examination and coopering	quarts	0 3	0 6	0 9	1 0	1 3	1 6
	pints	0 2	0 4	0 6	0 6	0 7½	0 9
Breaking out and opening for subsequent samples or second tasting,* nailing down, and restowing	quarts	0 6	0 6	0 6	0 6	0 6	0 6
	pints	0 4	0 4	0 4	0 6	0 6	0 6
Lotting for public sale	quarts	0 2	0 2	0 2	0 2	0 2	0 2
	pints	0 2	0 2	0 2	0 2	0 2	0 2
Opening for inspection of customs when not unpacked, and nailing down	quarts	0 3	0 4	0 6	0 6	0 6	0 6
	pints	0 3	0 3	0 4	0 6	0 6	0 6
† Delivery by Land	quarts	0 2	0 4	0 6	0 8	0 10	1 0
	pints	0 1½	0 3	0 4	0 4	0 5	0 6
† Delivery by water	quarts	0 3	0 6	0 9	1 0	1 3	1 6
	pints	0 2	0 4	0 6	0 6	0 7½	0 9

* Tasting 2*d.* per bottle in addition.

† Chargeable after six clear working days from final examination.

Mem.—Bottles of 4 gills . . . are to be considered as pints.
Exceeding 4 and not exceeding 8 gills each ,, quarts.
8 ,, 12 ,, ,, ordinary magnums.
12 ,, 17 ,, ,, double magnums.

Overside Parcels.—Boxes of *samples* varying from 1 to 6 small bottles of 1 or 2 gills each—landing, housing, examining and delivery, box 6*d.*

Rates on *magnums* half as much more as on quarts: i.e. the charge on 12 magnums is equal to the charge on 18 quarts.

Rates on *double magnums* twice the rates on magnums.

Dividing 6-dozen cases into two 3-dozen cases, including new ends, unpacking, and repacking, each new case 3*s.* 3*d.*

Vatting Charges.

	s. d.
For unhousing, starting, the use of the vat (remaining one night), refilling and bunging up, per 100 gallons drawn from the vat	2 8
For remaining in the vat a second night, per 100 gallons ditto	0 6
For each additional night, per 100 gallons ditto	0 9
Water for reducing the strength, per puncheon	1 0
Spirits brought in from other docks for vatting, within seven days, by water, for receiving and delivering 100 gallons	2 4
Spirits brought in from other docks for vatting, by land, for receiving and delivery, 100 gallons	1 2

Note.—When casks are returning to the vault after refilling from the vat, the Company does not engage to be responsible for any deficiency in measure that does not exceed two gallons per cask for the first year, and one gallon per cask for each succeeding year, or fraction of a year.

Bottling.

	quarts s. d.
Consolidated rate for bottling, per dozen	0 9
Delivery, per dozen	0 2

Rent to commence three weeks after bottling—Rates as in Table 2.

Landing Rate includes landing, wharfage, gauging, housing, delivery from the quay by land or water, original warrants and accounts of gauges and strengths, as ascertained by the Customs, surveying and furnishing certificate of damage. Rum not intended to be warehoused will be allowed four clear days from the final gauging of the parcel for removal. If intended for immediate transhipment, it may remain on the quay seven clear days from that period, and when the export vessel loads in the docks, until the date of her departure, paying rent as if housed at landing.

Rent is chargeable from the date of the ship breaking bulk, or from the first landing from craft.

Consolidated Rate includes all expenses for landing, wharfage, gauging, coopering for housing, marking, sampling, housing and delivery, original warrants, furnishing gauges and strengths, as ascertained by the Customs, surveying and furnishing certificate of damage, and rent for twelve weeks from the ship's commencement of discharge. It is charged in all cases, *unless notice be given*, by the importers, to place the goods under the landing rate.

Before transfer by the Company, or delivery, the charges on the quantity to be transferred or delivered must be paid.

Sizes of Rum Casks.

	Full Contents
Half quarter-cask	under 20 gallons
Quarter-cask	20 and ,, 30 ,,
Barrel	30 ,, ,, 43 ,,
Hogshead	43 ,, ,, 58 ,,
Half-butt	58 ,, ,, 85 ,,
Puncheon or pipe	85 ,, ,, 117 ,,
Butt	117 ,, ,, 158 ,,
Leager	158 and upwards.

Cooperage and Extra Rates and Charges on Wines and Spirits other than Rum.

	Pipes,* Butts or Puns.	Casks Cape 65 to 75 Gals.	Hhds.	Thirds	Quarter Casks	Half-Quarter, or small Casks		Aums		
						10 Gals. and under 20 Gals.	Under 10 Gals.	Double	Single	Half
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Trimming, including wood hoops, or bouging off	2 0	1 8	1 2	1 0	0 9	0 7	0 5	1 6	1 0	0 9
Driving	0 10	0 7	0 6	0 5	0 4	0 3½	0 2½	0 6	0 4	0 4
Pitching and turning	0 3	0 2	0 1½	0 1½	0 1	0 1	0 1	0 2½	0 1½	0 1
Breaking out for coopering	0 6	0 4	0 3½	0 3	0 2	0 2	0 1½	0 6	0 3	0 2
Ditto for delivery, inspection, re dipping, or racking, and laying up again	1 0	0 8	0 7	0 6	0 4	0 3	0 2	0 9	0 6	0 4
Filling up	0 5	0 3	0 3	0 3	0 3	0 3	0 3	0 3	0 3	0 3
Casing or uncasing	1 6	1 1	0 11	0 9	0 6	0 4	0 3	1 2	0 9	0 6
Ditto in canvas	7 0	5 0	5 0	5 0	4 0	3 0	2 0	5 6	4 6	3 0
Racking	2 6	1 9	1 6	1 3	1 0	0 9	0 6	1 9	1 2	0 10
Racking from the lees	3 6	2 3	2 1	1 9	1 6	1 0	0 8	2 6	1 9	1 6
Ditto and repairing casks	15 0	13 0	12 6	10 6	9 0	7 0	4 8	12 6	9 0	6 0
Trimming cask cases	1 0	0 8	0 8	0 6	0 4	0 4	0 3	..	..	..
Sampling in the vault or second sampling on the quay	0 6	0 6	0 6	0 6	0 6	0 6	0 6	0 6	0 6	0 6
Tasting in store, each time	0 2	0 2	0 2	0 2	0 2	0 2	0 2	0 2	0 2	0 2
Ditto at public sale	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Painting casks	4 0	3 0	2 6	2 6	1 9	1 0	0 8	3 0	2 0	1 6
Painting the heads—each	1 0	0 9	0 9	0 9	0 6	0 6	0 4	1 0	0 9	0 6
Bark hoops—each	1 9	1 4	1 4	1 4	1 0	0 9	0 9	1 6	1 4	1 0
Iron hoops—each	0 8	0 8	0 8	0 8	0 6	0 5	0 5	0 8	0 6	0 6
New heads—each	3 6	3 0	3 0	2 9	2 6	2 3	2 3	3 6	3 0	2 6
Overdrawing and brandying or fining	1 0	0 9	0 9	0 6	0 6	0 6	0 4	0 9	0 6	0 6

	s. d.		s. d.		s. d.
Chimes—each	0 6	Rivets—each	0 1	Tins—each	0 1
Pieces of lead—each	0 9	Phials—each	0 8	Ditto marked—each	0 2

* Unlicensable casks, otherwise rated at 210 gallons to the tun, to be charged in the proportion of 2 pipes or 4 hogsheads to the tun.

	Consolidated rate	Landing rate	Delivery by Land	Delivery by water	Rent per week, including Cooper's attendance	
	s. d.	s. d.	s. d.	s. d.	d.	
Rum* per 100 gallons	10 0	3 6	1 2	3 6	8½	per leager
					6	butt
					4	puncheon
					3½	half butt
					2	hogshead
					1½	barrel or quarter-cask
					1	half quarter-cask

* When Rum is imported in Casks made of proper Oak, the Company engages to be responsible for deficiencies in *measure*, which shall exceed one gallon per Cask for each Year, or fraction of a Year, the Goods remain in charge; but the Company will not be answerable for deficiencies arising from the Casks being made of other and inefficient materials.

Cooperage and Extra Charges on Rum.

	s. d.
Sampling, first and second, with vial—per cask	1 0
without vial—,,	0 6
Driving—per pun. or pipe	0 9
Dressing—hhd., barrel or quarter-cask	0 6
Taking off tins and retinning—per cask	0 4
Starring bungs and rebunging—,,	0 2
Measuring—per pun.	2 0
Measuring—per hhd.	1 6
Filling up, not exceeding five gallons—per cask	0 3
Overdrawing—,,	0 3
Racking—per pun. or hhd.	0 9
Lead patches—each	0 6
Tins, plain—,,	0 1
marked—,,	0 2
New chimes—,,	0 6
Bung, or shive—,,	0 1
Tapping and sealing, complete—per cask	1 0
across the bung only—,,	0 4
Breaking out and restowing—per pun.	1 0
Marking, with scribing-iron or ink—per cask	0 1
with paint—,,	0 3
with branding-iron—,,	0 4
direction, with paint or cutting-in—,,	0 6

	New Heads, per head	Iron Hoops, per hoop	
	Rum	New	Old
	s. d.	s. d.	s. d.
Puncheon (110 gallons and under)	2 9	0 8	0 4
Half-butt	2 9	0 8	0 4
Hogshead	2 6	0 8	0 4
Quarter-cask	2 2	0 4	0 2
Half-quarter cask	2 2	0 4	0 2

Though the London and St. Katharine Docks now belong to one Company, and the undertaking and docks of the Victoria London Dock Company are transferred to the same management under the 27 & 28 Vict. c. 179, they may still with propriety be separately described.

prietor's written order. Tasting by the proprietor, or his clerk, is exempt from charge: the latter, however, must be authorised to sign orders, and be unaccompanied by any other person.

Coopering, when requisite, at landing, examination, or delivery, for the protection of the property, will be executed without awaiting the proprietor's order, unless he shall give directions to the contrary, and at the rates specified in this table.

Deficiencies.—When wines and spirits are imported in casks made of proper oak, the Company engages to be responsible for deficiencies in measure which shall exceed one gallon per cask for each year, or fraction of a year, the goods remain in charge; but the Company will not be answerable for deficiencies arising from the casks being made of other and inefficient materials; nor for deficiencies on spirits exceeding 20 per cent. over proof.

Payment of Charges.—The housing and coopering rate on the whole mark or parcel *housed* must be paid previous to the issue of warrants, or the transfer or delivery of any portion. Payment of rent, and other charges, will be required only on the quantity to be delivered or transferred.

Sizes of Wine and Spirit Casks.

Wines.	Full contents.
Half quarter-cask	10 and under 20 galls.
Quarter cask	20 ,, 33 ,,
Third cask	33 ,, 43 ,,
Hogshead	43 ,, 66 ,,
Pipe, or butt	66 ,, 126 ,,
Unaiseable	126 and upwards.

Spirits (Rum excepted).

Half quarter-cask	10 and under 20 galls.
Quarter-cask	20 ,, 33 ,,
Third-cask	33 ,, 43 ,,
Hogshead	43 ,, 66 ,,
Unaiseable	66 ,, 100 ,,
Pipe, butt, or pun.	100 ,, 121 ,,
Unaiseable	121 and upwards.

Rates and Charges on Wines and Spirits other than Rum.

	Unaiseable Casks per Tun of 210 Galls.	Pipes, Butts, or Puncheons.	Hhds.	Thirds	Quarter Casks	Half Quarter Casks	Casks under 10 Galls.	Cape	Rhenish Wine		
								Casks 66 to 75 Galls.	Double Aum.	Single Aum.	Half Aum.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Landing rate	2 4	1 2	0 7	0 6	0 5	0 4	0 3	0 11	1 0	0 7	0 5
Delivery by land from quay within the calendar month	3 0	1 6	1 0	0 10	0 7	0 5	0 3	1 2	1 0	0 7	0 6
If shipped, additional	1 4	0 8	0 5	0 4	0 3	0 2	0 2	0 6	0 6	0 4	0 3
Housing and coopering rate—											
Wines, ironbound, and claret	9 8	4 10	3 2	2 6	1 10	1 3	0 10	3 11	3 6	1 9	1 3
,, woodbound and sherry	12 8	6 4	3 11	3 1	2 4	1 11	1 4	..	..	..	..
Foreign spirits	11 2	5 7	3 6	2 11	2 1	1 7	1 2	..	..	..	..
† Casks landed with less than the standard number of iron hoops, pay in addition, for each hoop deficient	..	0 4½	0 4½	0 4½	0 4	0 4	0 3	0 4	0 4	0 4	0 4
Delivery by land from the vault, including cooper's attendance, or from the quay, after the expiration of the calendar month	5 0	2 6	1 6	1 3	1 1	0 9	0 6	2 0	1 9	1 2	0 10
If shipped, additional	1 4	0 8	0 5	0 5	0 3	0 3	0 2	0 6	0 6	0 4	0 3
Rent per week, on Cape and Marsala	0 9	0 4½	0 3	0 2	0 1	0 2	0 1	0 4	0 3	0 2	0 1
On other wines and spirits (rum excepted)	0 10	0 5	0 3	0 2	0 2	0 1	0 1	..	0 3	0 2	0 1
Cooper's superintendence after eighteen months, per week	0 2	0 1	0 0	0 0	0 0	0 0	0 0½	0 0	0 1	0 0	0 0

* Wines and spirits in vats or large casks exceeding 210 gallons each. Rates to be charged according to special arrangements between the importers and the Dock Company.

† The standard number of iron hoops is as follows, viz.:—Port and Lisbon pipes, ten; sherry butts, eight; Spanish red, brandy and Genev. puncheons, six. Aums, hogsheads, and smaller casks, six.

Rates and Charges on Wines and Spirits in Cases.

		Cases containing					
		1 Dozen	2 Dozen	3 Dozen	4 Dozen	5 Dozen	6 Dozen
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Landing rate, including first tasting or sampling, housing and delivery by land within six clear working days from final examination	quarts	0 3	0 6	0 9	1 0	1 3	1 6
	pints	0 1½	0 3	0 4½	0 6	0 7½	0 9
Additional if shipped	quarts	0 1	0 2	0 3	0 4	0 5	0 6
	pints	0 0½	0 1½	0 2	0 2½	0 3	0 3½
Rent from the date of the vessel breaking bulk or first landing from craft, per week	quarts	0 0½	0 0½	0 1½	0 1½	0 2½	0 2½
	pints	0 0½	0 0½	0 0½	0 1	0 1½	0 1½
Examination and coopering	quarts	0 3	0 6	0 9	1 0	1 3	1 6
	pints	0 2	0 4	0 6	0 6	0 7½	0 9
Breaking out and opening for subsequent samples or second tasting,* nailing down, and restowing	quarts	0 6	0 6	0 6	0 6	0 6	0 6
	pints	0 4	0 4	0 4	0 6	0 6	0 6
Lotting for public sale	quarts	0 2	0 2	0 2	0 2	0 2	0 2
	pints	0 2	0 2	0 2	0 2	0 2	0 2
Opening for inspection of customs when not unpacked, and nailing down	quarts	0 3	0 4	0 6	0 6	0 6	0 6
	pints	0 3	0 3	0 4	0 6	0 6	0 6
† Delivery by Land	quarts	0 2	0 4	0 6	0 8	0 10	1 0
	pints	0 1½	0 3	0 4	0 4	0 5	0 6
† Delivery by water	quarts	0 2	0 6	0 9	1 0	1 3	1 6
	pints	0 2	0 4	0 6	0 6	0 7½	0 9

* Tasting 2*d.* per bottle in addition.

† Chargeable after six clear working days from final examination.

Mem.—Bottles of 4 gills and exceeding 4 and not exceeding 8 gills each are to be considered as pints.
,, 8 ,, 12 ,, ,, quarts.
12 ,, 17 ,, ,, ordinary magnums.
,, ,, double magnums.

Overside Parcels.—Boxes of *samples* varying from 1 to 6 small bottles of 1 or 2 gills each—landing, housing, examining and delivery, box 6*d.*

Rates on *magnums* half as much more as on quarts: i.e. the charge on 12 magnums is equal to the charge on 18 quarts.

Rates on *double magnums* twice the rates on magnums.

Dividing 6-dozen cases into two 3-dozen cases, including new ends, unpacking, and repacking, each new case 8*s.* 3*d.*

Vatting Charges.

	s. d.
For unbousing, starting, the use of the vat (remaining one night), refilling and bunging up, per 100 gallons drawn from the vat	2 8
For remaining in the vat a second night, per 100 gallons ditto	0 6
For each additional night, per 100 gallons ditto	0 2
Water for reducing the strength, per puncheon	1 0
Spirits brought in from other docks for vatting, within seven days, by water, for receiving and delivering 100 gallons	2 4
Spirits brought in from other docks for vatting, by land, for receiving and delivery, 100 gallons	1 2

Note.—When casks are returning to the vault after refilling from the vat, the Company does not engage to be responsible for any deficiency in measure that does not exceed two gallons per cask for the first year, and one gallon per cask for each succeeding year, or fraction of a year.

Bottling.

	quarts
	s. d.
Consolidated rate for bottling, per dozen	0 9
Delivery, per dozen	0 2

Rent to commence three weeks after bottling—Rates as in Table 2.

Landing Rate includes landing, wharfage, gauging, housing, delivery from the quay by land or water, original warrants and accounts of gauges and strengths, as ascertained by the Customs, surveying and furnishing certificate of damage. Rum not intended to be warehoused will be allowed four clear days from the final gauging of the parcel for removal. If intended for immediate transhipment, it may remain on the quay seven clear days from that period, and when the export vessel loads in the docks, until the date of her departure, paying rent as if housed at landing.

Rent is chargeable from the date of the ship breaking bulk, or from the first landing from craft.

Consolidated Rate includes all expenses for landing, wharfage, gauging, coopering for housing, marking, sampling, housing and delivery, original warrants, furnishing gauges and strengths, as ascertained by the Customs, surveying and furnishing certificate of damage, and rent for twelve weeks from the ship's commencement of discharge. It is charged in all cases, *unless notice be given*, by the importers, to place the goods under the landing rate.

Before transfer by the Company, or delivery, the charges on the quantity to be transferred or delivered must be paid.

Sizes of Rum Casks.

	Full Contents
Half quarter-cask	under 20 gallons
Quarter-cask	20 and „ 30 „
Barrel	30 „ „ 43 „
Hogshead	43 „ „ 58 „
Half-butt	58 „ „ 85 „
Puncheon or pipe	85 „ „ 117 „
Butt	117 „ „ 158 „
Leager	158 and upwards.

Cooperage and Extra Rates and Charges on Wines and Spirits other than Rum.

	Pipes,* Butts or Puns.	Casks Cape 66 to 75 Gals.	Hhds.	Thirds	Quarter Casks	Half-Quarter, or small Casks		Anms		
						10 Gals. and under 20 Gals.	Under 10 Gals.	Double	Single	Half
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Trimming, including wood hoops, or bouging off	2 0	1 5	1 2	1 0	0 9	0 7	0 5	1 6	1 0	0 8
Driving	0 10	0 7	0 6	0 5	0 4	0 3½	0 2½	0 6	0 4	0 4
Pitching and turning	0 3	0 2	0 2	0 1½	0 1	0 1	0 1	0 2½	0 1½	0 1
Breaking out for coopering	0 8	0 4	0 3½	0 3	0 2	0 2	0 1½	0 6	0 3	0 2
Ditto for delivery, inspection, re dipping, or racking, and laying up again	1 0	0 8	0 7	0 6	0 4	0 3	0 2	0 9	0 6	0 4
Filling up	0 3	0 3	0 3	0 3	0 3	0 3	0 3	0 3	0 3	0 3
Casing or uncasing	1 6	1 1	0 11	0 9	0 6	0 4	0 3	1 2	0 9	0 6
Ditto in canvas	7 0	5 0	5 0	5 0	4 0	3 0	2 0	5 6	4 6	3 0
Racking	2 6	1 9	1 6	1 3	1 0	0 9	0 6	1 9	1 2	0 10
Racking from the lees	3 6	2 3	2 1	1 9	1 6	1 0	0 8	2 6	1 9	1 6
Ditto and repairing casks	15 0	13 0	12 6	10 6	9 0	7 0	4 8	12 6	9 0	6 0
Trimming cask cases	1 0	0 8	0 8	0 6	0 4	0 4	0 3	..	..	..
Sampling in the vault or second sampling on the quay	0 6	0 6	0 6	0 6	0 6	0 6	0 6	0 6	0 6	0 6
Tasting in store, each time	0 2	0 2	0 2	0 2	0 2	0 2	0 2	0 2	0 2	0 2
Ditto at public sale	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Painting casks	4 0	3 0	2 6	2 6	1 9	1 0	0 8	3 0	2 0	1 6
Painting the heads	1 0	0 9	0 9	0 9	0 6	0 6	0 4	1 0	0 9	0 6
Bark hoops	1 9	1 4	1 4	1 4	1 0	0 9	0 6	1 6	1 4	1 0
Iron hoops	0 8	0 8	0 8	0 8	0 6	0 5	0 4	0 8	0 6	0 6
New heads	3 6	3 0	3 0	2 9	2 6	2 3	2 3	3 6	3 0	2 6
Overdrawing and brandying or fining	1 0	0 9	0 9	0 6	0 6	0 6	0 4	0 9	0 6	0 6

	s. d.		s. d.		s. d.
Chimes - each	0 6	Rivets - each	0 1	Tins - each	0 1
Pieces of lead - each	0 9	Phials - each	0 6	Ditto marked - each	0 2

* Unsizeable casks, otherwise rated at 210 gallons to the tun, to be charged in the proportion of 2 pipes or 4 hogsheads to the tun.

	Consolidated rate	Landing rate	Delivery by Land	Delivery by water	Rent per week, including Cooper's attendance	
	s. d.	s. d.	s. d.	s. d.	d.	per
Rum* - - - per 100 gallons	10 0	3 6	1 2	3 6	8	leager
					6	butt
					4	puncheon
					3	half butt
					2	hogshead
					1	barrel or quarter-cask
					1	half-quarter-cask

* When Rum is imported in Casks made of proper Oak, the Company engages to be responsible for deficiencies in *measure*, which shall exceed one gallon per Cask for each Year, or fraction of a Year, the Goods remain in charge; but the Company will not be answerable for deficiencies arising from the Casks being made of other and inefficient materials.

Cooperage and Extra Charges on Rum.

	s. d.
Sampling, first and second, with vial - - per cask	1 0
without vial - „	0 6
Driving - - - - per pun. or pipe	0 9
Driving - - hhd., barrel or quarter-cask	0 6
Taking off tins and retinning - - - per cask	0 4
Starting bungs and rebunging - - - „	0 2
Measuring - - - - per pun.	2 0
Measuring - - - - per hhd.	1 6
Filling up, not exceeding five gallons - - per cask	0 3
Overdrawing - - - - „	0 3
Racking - - - - per pun. or hhd.	0 9
Lead patches - - - - each	0 6
Tins, plain - - - - - „	6 1
marked - - - - - „	0 2
New chimes - - - - - „	0 6
Bung, or shive - - - - - „	0 1
Tapping and sealing, complete - - per cask	1 0
across the bung only - „	0 4
Breaking out and restowing - - - per pun.	1 0
Marking, with scribing-iron or ink - - per cask	0 1
with paint - - - - „	0 3
with branding-iron - - „	0 4
direction, with paint or cutting-in - „	0 6

	New Heads, per head	Iron Hoops, per hoop	
	Rum	New	Old
	s. d.	s. d.	s. d.
Puncheon (110 gallons and under) -	2 9	0 8	0 4
Half-butt - - - -	2 6	0 8	0 4
Hogshead - - - -	2 6	0 8	0 4
Quarter-cask - - - -	2 2	0 4	0 2
Half-quarter cask - - -	2 2	0 4	0 2

Though the London and St. Katharine Docks now belong to one Company, and the undertaking and docks of the Victoria London Dock Company are transferred to the same management under the 27 & 28 Vict. c. 179, they may still with propriety be separately described.

2. *London Docks.*—These were the next undertaking of this sort set on foot in the Thames. They are situated in the parishes of St. George in the East, Wapping, and Shadwell, and were principally intended for the reception of ships laden with wine, brandy, tobacco, and rice. The western dock has a water area of above 20 acres, with a commodious jetty in the centre, 800 feet in length; and the water area of the new or eastern dock covers about 7 acres. The tobacco dock, which lies between the above, and exceeds 1 acre in extent, is particularly adapted for the reception of tobacco ships. The warehouses are capacious and magnificent. The great tobacco warehouse, on the north side of the tobacco dock, is the largest, finest, and most convenient building of its sort in the world. It is fitted to contain 24,000 hogsheads of tobacco, and covers the immense space of nearly *five* acres! This warehouse is wholly under the management of the officers of customs. The vaults, under the tobacco and other warehouses, include an area of the vast extent of about 18¼ acres, and, after allowing for gangways &c., have stowage for 66,000 pipes of wine and spirits! These docks were opened in 1805. All ships bound for the Thames, laden with wine, brandy, tobacco, and rice (except ships from the East and West Indies), were obliged to unload in them for the space of 21 years; but this monopoly expired in January 1826, and the use of the docks has since been optional. Hydraulic machinery is now in use alongside the quays and in many of the warehouses, and is being generally applied throughout the docks.

The entrances to the London Docks were formerly by the basins at Hermitage and Wapping. But in 1832 another entrance was effected by a basin constructed at Shadwell, about ¾ of a mile lower down the river than the Wapping entrance. And in 1858 this basin was farther enlarged so as to include a water area of above 6 acres; and it was then, also, furnished with a second, or new entrance lock, 350 feet in length, and 60 feet in width, having at spring tides a depth of 28 feet water over the sill of the dock gates. This additional basin has been a most material improvement; for while it has rendered the docks more easily accessible to all sorts of ships, the new entrance lock admits those of the largest burden.

The Company's premises include, in all, a space of about 100 acres. The stock amounted in 1859 to 4,910,393*l.* A considerable portion of this vast sum was required for the purchase of the houses that occupied the site of the docks.

3. *St. Katharine Docks.*—The original Company for the construction of these docks was incorporated by the Act 6 Geo. IV. c. 105 (local), and they were partially opened on October 25, 1828. They are situated immediately below the Tower, and are consequently the most contiguous of any to the City, the Custom House, and other places where business is transacted. The capital stock amounted to 1,939,800*l.*; but an additional sum of about 700,000*l.* was borrowed on the security of the rates, for the completion of the works and the purchase of extensive uptown warehouses, and of a freehold property with a river frontage from the Tower to the corner of Lower East Smithfield. A portion of this property has been appropriated to a steam packet wharf, where passengers embark and land without the aid or risk of boat conveyance. The purchase of the numerous houses that stood upon the ground occupied by the docks proved, as in the case of the London Docks, a heavy item of expense. The space included within the outer wall is about 24 acres, nearly 11 of which are water. There are 2 docks communicating by a basin. The lock leading from the river is 180 feet long, and 45 broad: it is so constructed that ships of upwards of 600 tons burden may pass in and out 3 hours before high-water, so that outward-bound ships have the opportunity of reaching Blackwall before the tide begins to recede. Ships of upwards of 1,000 tons register are docked and undocked without difficulty. Vessels are also docked and undocked by night as well as by day—an advantage peculiar to this establishment. A clear channel of not less than 300 feet in width is at all times kept in the Pool; and vessels drawing 22 feet water may lie afloat at low water at the principal buoy off the dock entrance. The warehouses and vaults are upon a very large scale; far more so than one might be disposed to infer from the extent of water. The warehouses are well contrived and commodious, and owing to their being built partly on pillars (within which what is called the quay work of the other docks is transacted), close to the water's edge, goods are hoisted direct from the hold of the vessel, without its being necessary to land them on quays; so that in this way a saving of room, time, and labour is effected.

The regulations to be observed by vessels using the St. Katharine Docks are similar to those enforced in the East and West India and London Docks, to which we beg to refer.

4. *The Victoria London Docks* are situated in the Plaistow Marshes, on the north side of the Thames, immediately below the East and West India Docks. They comprise a half-tide basin of 16 acres, an inner dock of 74 acres, and a portion (12 acres) of the canal intended to intersect the eastern lands of the Company. The depth of water varies from 24 feet 6 inches to 26 feet 6 inches. The entrance from the Thames is at Bow Creek, by means of a lock 320 feet in length, 28 feet in depth, and 80 feet in width. There are 6 jetties, on 5 of which are extensive warehouses. There are also several large warehouses on the north side of the dock, one of which, having an area of 4 acres of flooring, is appropriated to the storage of tobacco. There are also sheds capable of containing upwards of 100,000 tons of guano; the entire London trade in this article being now carried on in these docks. A branch of the Eastern Counties Railway is brought into the docks, so that goods can be conveyed by means of this, the North-Western, and other railways, without change of carriage, from the ship's side to any part of the kingdom.

The Victoria Dock estate comprises about 650 acres of land, extending from Bow Creek to Gallion Reach, a distance of nearly 3 miles. It was intended to continue the 74-acre dock by a wide canal through 450 acres of land to the eastward of the present dock, and to employ the water frontage on each side of the canal in providing various kinds of accommodation for shipping and trade, such as dry docks, warehouses, premises for steam ship companies &c. &c. There have been constructed by the Thames Graving Dock Company, on the south side of the 74-acre dock, graving docks on an entirely novel principle, in which ships are raised by hydraulic power on pontoons, floated into bays in shallow water, and there examined and repaired. Among the advantages of this plan are being able to accommodate a considerable number of ships at once, and the practicability of these docks being resorted to by shipping without the necessity for passing into the river, and irrespective of the state of the tide.

The Victoria Dock Company were owners of the Steelyard warehouses in Upper Thames Street; and their assignees are occupiers of extensive warehouses in Royal Mint Street, which, being

connected with the Blackwall Railway, communicate by railway with all parts of the kingdom.

The Company was created by Act of Parliament in 1850. By this and subsequent Acts it is authorised to raise a share capital of 1,200,000*l.*, and to borrow 399,000*l.*, making its total powers of raising money 1,599,000*l.*

The undertaking was leased to Messrs. Peto, Betts, and Brassey for 21 years from January 1855, they paying as rent 5 per cent. on all capital up to 700,000*l.*, and 6 per cent. on all beyond that amount; also 2,000*l.* per annum for the expenses of the Company's offices and management, with half the profits which may arise from the working of the undertaking after payment of rent. The lessees were bound to lodge security to the extent of 150,000*l.* for the performance of the provisions of the lease; but, as already explained, the Victoria Docks have been transferred to the management of the London and St. Katharine Dock Company.

Synopsis of the Routine of Public Business, with an Abstract of the Principal Regulations applicable to Goods in the London, St. Katharine, and Victoria Docks.

Bills of lading must be produced before goods can be delivered to parties claiming the same, in all cases where such goods are entered by the Company for want of entry by the merchant; as also when goods have been landed from places to the eastward of the Cape of Good Hope, with the exception of Van Diemen's Land and New South Wales. They will also be required for goods from the West Indies or United States of America, when entered by parties other than the consignees. Particular attention is necessary to the regularity of the endorsements of bills of lading, as the Company's officers cannot pass any bill on which the authority from the shipper to the holder is not deduced by a complete and accurate chain of endorsement.

Every bill of lading should be *specially* endorsed, so as to clearly designate the party to whose order the contents are to be delivered.

In all cases of informality in bills of lading, from want of endorsement &c., or of their being lost, application must be made to the secretary by letter, stating the circumstances, and *enclosing any documents which will show the title to the goods.* In every such case the applicant must engage to indemnify the Company, by bond or otherwise, as the Court may direct.

Orders for transfer or delivery, unless the goods are to be delivered from the landing scale, cannot be accepted until the goods *have been landed.*

The payment of the landing rates, whenever ascertained, on the whole of each mark or parcel of goods, will be required previously to the transfer or issue of warrants, or delivery of any part thereof. Charges upon goods must be paid, or carried to a deposit account, previous to an order for transfer being received by the Company.

Orders for delivery cannot be acted upon unless signed by the party in whose name the goods stand in the Company's books, or by a person duly authorised in writing, under the hand of the principal, to sign them; and should any interlineation, erasure, or alteration have been made in an order, it can only be accepted with the name or initials of the party set against such alteration.

When goods lodged in the custody of the Company have been stopped for freight, the proprietor may liberate them by making a deposit of the amount claimed with the Company, according to the provisions of the 'Merchant Shipping Acts Amendment Act,' 1862.

Warrants and Transfers.—Warrants for goods in general are issued, on written application at the dock, in favour of such person as the party in whose name they stand in the Company's books may direct. The first are issued free of expense, except for the stamp, as required by law; on all subsequent warrants and transfers the charges are as follows (stamp in addition):—

For each warrant or transfer containing—

	s.	d.
1 or 2 packages	0	1
3 „ 4 „	0	2
5 to 7 „	0	3
8 „ 10 „	0	4
11 „ 15 „	0	5
16 „ 20 „	0	6
21 „ 25 „	0	7
26 „ 30 „	0	8
31 „ 35 „	0	9
36 „ 40 „	0	10
41 „ 45 „	0	11
46 and upwards	1	0
Goods in bulk, per ton	0	2
For every new cheque granted	0	2

The contents of *one warrant* may be divided into others for smaller quantities, *at the will of the holder.*

Goods for which the Company's warrants have been issued are not subject to detention for freight or landing-charges. The warrant also supersedes a certificate of transfer, is preferable in point of security, and a saving in expense. It is the only document issued by the Company entitled to be considered a legal symbol of the goods therein described, and is transferable, by an endorsement, without being produced at the dock office, thus obviating the trouble and expense of transfers; but transfers may nevertheless be effected in the books of the Company by the holder of a warrant, if desired, on its lodgment at the dock.

No warrant will be issued until the rates on the goods are paid, nor until the stop for freight (if any) has been removed, or a deposit equal to the amount claimed on account of such stop made with the Company.

Merchants' orders for delivery or transfer may be exchanged for warrants at the dock office, on written instructions being previously lodged.

If, from the nature of the contract between the seller and buyer, re-weighing &c. may be necessary, new warrants, if desired, will be issued, on depositing the warrants, endorsed with directions to that effect, containing the landing-weights and re-weights, as soon as the operations are completed.

When any alterations, such as re-packing &c., are to be made (except when preparatory to immediate delivery), the warrants must be lodged, and others, representing the goods correctly, issued in the same manner.

In the event of warrants being lost, they must be advertised in such public newspaper as may be directed by the Company, and 7 days elapse subsequently to the advertisement, and the Company be indemnified, before any delivery can be effected; but whenever the delivery of the goods is pressing, the parties may obtain it immediately, upon depositing the estimated value. Under no circumstances will duplicate warrants be issued.

Weight notes, at usual charge, are issued, on authority in writing of the owner of the goods, at any time on or before the day of prompt, entitling the holder to inspect and sample the goods.

Authority to Sign Orders.—Proprietors of goods desiring to authorise their clerks to sign orders on their behalf must lodge an instruction in writing to that effect with the Company. Printed forms for that purpose may be obtained.

Brokers possessing general authorities in writing

from merchants to inspect their goods, or draw samples, should produce the same for registry with the Company.

Inspection.—Inspection or examination of goods may take place immediately upon presenting the warrant, weight-note, or an order from the proprietor.

Tasting or Sampling Wines.—Tasting of wine, and sampling of wine or spirits, will be allowed on presenting at the vault-keeper's office an order from the proprietor of the goods. When warrants have been issued, the number of the warrants must be stated on the order; and if third or subsequent samples are required, the charge for sampling and duty must be paid before delivery.

Tares.—With respect to goods subject to allowances for trade or customs tares, importers may lodge a general order with the Company, authorising them to act on their behalf; but when this is not done, the merchant's clerk, with a view to prevent delay, ought to make an immediate appointment with the proper officer, to settle the tares, as the landing accounts cannot be furnished until they are adjusted.

Landing and Gauge Accounts.—Landing and gauge accounts, with the amount of the landing-rates specified thereon, also accounts of the strengths of spirits, re-weights, re-gauge, and delivery weight of goods, will be delivered at the counting-houses of the proprietors in the City without any charge. Similar accounts to parties residing out of the City will be transmitted by post, unless countermanded. Applications relative to all such accounts must be made at the proper offices at the docks.

Samples.—When samples are required which can only be safely taken after the goods have been worked, sampling will not be performed previously without specific directions from the owner.

Goods worked for Sale.—The Company will proceed to the working for sale of all goods immediately on their being landed, unless notice to the contrary be given by the owner or consignee.

Goods withdrawn from sale, after being shown, will be subject to an extra charge on being again shown.

Empty casks and packages, if not removed from the dock within seven days from the date of their becoming empty, are sent to the stores, and sold by the Company.

Deposit accounts may be opened with the Company, which will materially facilitate the merchant's business and expedite deliveries, and add perfect security in the payment of charges; *but such accounts must not be overdrawn.*

The Dock Company will not be answerable for deficiencies in merchandise produced by natural causes, nor for other deficiencies, or liable to make good any losses, unless ascertained previously to the goods being removed from the premises of the Company.

No person is permitted to be employed in any work and labour to be performed within the dock premises, whether on board of ship, in lighter, or on shore (except the servants of the Company, or lightermen in the craft), without permission in writing from the superintendent.

The delivery of goods afloat will be the act of the captain or officer in charge of the vessel.

The inward rates upon goods landed at the London and St. Katharine Docks are classed under separate heads:—landing rate, landing and housing rate, consolidated rate, and management rate, viz.:—

The Landing Rate is charged upon the gross weight, and includes landing, or receiving by land, wharfage, weighing or gauging, and housing, or piling on the quays, or loading therefrom; original warrants, accounts of landing weights, re-weights and delivery weights, or gauges and re-gauges, and strengths of spirits.

Goods taken away by water from the landing scale will be charged in addition for 'shipping,' one-third of the 'delivery by water' rate.

Three working days (except in cases specially provided for in the table of rates) from the final weighing, gauging, or examination by the revenue, of goods of the same mark or parcel, landed under a duty-paid entry or bill of sight, will be allowed to the proprietors to remove such goods from the quay. A like period will be allowed in other cases, provided notice in writing of such intended removal shall be given prior to the weighing, gauging, or examination; but in the absence of notice the goods will be immediately housed or piled.

If, at the expiration of the respective periods, the housing of the goods shall be prevented by any informality or delay of the proprietors, or at their request (with the consent of the Company), watching will be charged, in addition to weekly rent, until the goods are removed from the quay.

Rent on goods housed under this rate is chargeable from the date of the importing ship breaking bulk, or from the first landing from craft.

The Consolidated Rate is charged upon the nett weight, and will attach on all goods to which that rate applies in the table, unless the proprietors shall, previously to the final weighing or gauging, give notice that the landing rate is to be charged thereon. It includes landing, or receiving by land, wharfage, housing, weighing or gauging, *ordinary coopering and mending for housing*, sampling, marking, furnishing landing weights, or gauge accounts, strengths of spirits, original warrants, certificates of damage, rent for twelve weeks from the date of the importing ship breaking bulk, or first landing from craft, weighing for actual delivery, and delivering, by land or water.

Goods cleared otherwise than for town delivery will be subject to a charge for any necessary coopering or mending performed.

Further warehouse rent will be charged *from* the expiration of the twelve weeks above mentioned.

The Management Rate is charged on the gross weight. The only articles to which this rate has been applied are indigo, silk, tea, cinnamon, lac dye, seed lac, stick lac, shellac, and cochineal.

Rent commences on the day of the importing ship's breaking bulk, or first landing from craft.

General Rules.—Rent in all cases is charged on goods from the day on which the importing vessel breaks bulk, or from the first landing from craft; is payable on the gross weight, and a week's rent will be charged for a fraction of a week.

When goods are prepared for shipment, and not taken away within the under-mentioned periods, they will be charged re-piling or re-housing, and any additional rent which may have accrued:—

Dye wood, 7 clear working days.

Mahogany and other furniture, or measured wood, 4 clear working days.

Other goods, 3 clear working days.

In the case of goods being unpiled or broken out for any operation, and subsequently re-piled or re-housed, the charge for unpiling, when not included in the rate for such operation, is the same as re-piling.

The table of rates generally is subject to such revision, from time to time, as shall be deemed expedient by the Dock Company.

Note.—The following goods—guano, resin, pitch, tar, sulphur, spirits of and other turpentine, and petroleum—and such others as the insurance offices will not allow to be stored in the Upper Docks, are warehoused exclusively at the Victoria Docks.

Memoranda.

The hours for the transaction of business are—

From March 1 to October 31, 8 o'clock A.M. to 4 o'clock P.M.

From November 1 to last day of February, 9 o'clock A.M. to 4 o'clock P.M.

Registers of ships inwards, for the use of merchants and others, in which are alphabetically arranged the names of vessels, where from, and where stationed, and which also contain the particulars of ships loading, are placed at the Superintendent's Office, London Docks; Long Room, St. Katharine Dock House; Superintendent's Office, Victoria Docks.

Visitors on Sundays or public holidays are admitted only under special circumstances.

Rates on certain Goods stored exclusively at the Victoria Docks.

Goods Imported	Landing Rate	Re-weighing	Re-piling or Re-housing	Delivery by Land	Delivery by Water	Rent	
						Per Week	Quantities &c.
	per	s. d.	s. d.	s. d.	s. d.	s. d.	per
Guano †	ton	3 0	0 6	0 9	1 6	2 3	0 0½
Pitch	,,	2 6	0 10	0 10	0 10	2 6	3 0 } 100 barrels
Rosin, unrefined	,,	2 6	0 10	0 10	0 10	2 6	3 0 } 10 3 ton, in tierces
refined	,,	3 9	1 3	1 3	1 9	4 6	0 6 ton
Sulphur, unrefined	,,	3 0	1 2	1 2	1 2	3 0	0 3
Tar	barrel	0 3	0 1	0 1	0 1	0 3	3 0 } 100 barrels
Turpentine, rough	ton	2 6	0 10	0 10	0 10	2 6	3 0 } 5 6 100 tierces
spirits of	,,	6 0	1 6	1 6	1 6	2 6	0 6

† Including filling into bags and sewing up

‡ Including cooper's superintendence at landing and delivery.

Petroleum.

	per ton or tun s. d.
Landing, wharfage, housing, and cooper's attendance at landing, and housing and sampling at landing	4 0
Weighing or gauging at landing	1 6
Coopering at landing (all round)	2 6
(Materials in addition.)	
Pitching and turning (on quantity done)	1 6
Rent, per week	0 6
Delivery by land from quay or warehouse	1 6
Delivery by water from quay or warehouse	2 6

The rates are applicable to goods brought in by land carriage.

Wharfage and shipping includes rent for three weeks (except on bullion, specie, jewellery, plate, tar &c.) from the date of reception, and during the period the vessel into which the goods are shipped is in the course of loading—any intermediate rent being chargeable.

Goods transferred from ship to ship will be subject to rent from the expiration of the three weeks above mentioned until the date of clearance for the vessel into which the goods are ultimately delivered; such charge for rent, and for any trucking or restowing that may be necessary, to be paid at the time of lodging the transfer order.

Goods intended for exportation, but received in bond, or ordered to be housed, will be subject to an extra charge for housing and unhousing, with rent from the date of reception, until cleared for the vessel into which they are shipped.

Water-borne goods landed at the request of the proprietor, or for the examination of the searchers, will be subject to the charges of landing and wharfage, wharfage and porterage.

Provisions and stores for the use of the ship's company (not being bonded or drawback goods) will not be subject to the charge for wharfage or porterage.

The Dock Company take no cognisance of, nor will they be responsible for, goods received into or discharged from a vessel in the docks by lighter.

The Company do not undertake to lower goods into the hold of a vessel.

Persons in charge of goods sent to the docks for shipment must come provided with regular shipping notes, specifying their mark, quality, and description; also the name of the ship, master, and port the goods are intended for; and when for more than one vessel, a separate note must be sent for each. These notes are to be delivered to the export foreman at the respective departments.

The duty of clearing goods devolves on the proprietors or shippers, who are responsible for all consequences arising from their not being duly cleared.

When goods cannot be shipped, either from want of room in the vessel, any informality in the document, or other cause, the order of the party in whose name the goods have been received will be necessary before they can be otherwise disposed of.

Accounts of charges on goods for shipment will be made out at the respective departments where the vessels are loading, and must be paid before the goods are put on board.

The master or mate of each vessel will be required to give a receipt to the Dock Company's officer for all goods delivered to his vessel by the Dock Company.

Registers of vessels loading outwards, and where stationed, are placed at the Superintendent's Office, London Docks; Long Room, St. Katharine Docks; Superintendent's Office, Victoria Docks.

The rate for landing, wharfage, shipping, housing, unhousing, is, in each case, one half the charge inserted in the column for wharfage and porterage, unless otherwise stated, and is charged on the gross weight of the package, except when it is otherwise specified.

Table of Rates and Charges on Wines and Spirits (other than Rum) landed in the London and St. Katharine Docks.

Wines and spirits (rum and British spirits excepted) landed in the docks will be chargeable with the following rates:—

The Landing Rate, which includes landing, wharfage, laying up to gauge and gauging, accounts of landing gauges and of strengths of spirits, first samples on the quay, warrants if required (but not the stamp upon the same), watching, cooper's attendance at landing whilst remaining on the quay, and at delivery by land or water from the quay.

Wines and spirits will be allowed to remain on the quay, subject to a weekly rent, for one

calendar month from the commencement of the ship's discharge, or first landing from craft, after the expiration of which the housing and coopering rate will become chargeable.

N.B.—When wines or spirits have been cleared with the Customs, and delivery orders for the same have been lodged with the Company within the calendar month as above, a further period, not exceeding fourteen days, will be allowed for clearing from the quay, on payment of the charge for delivery from the vault in lieu of that for delivery from the quay.

The coopering which may be requisite upon landing, examination, or delivery, will be performed, unless directions are received from the proprietors to the contrary, and will be charged at the rates hereinafter specified.

The Housing and Coopering Rate—applicable to wines and spirits not cleared from the quay, and also to such as shall be previously housed by order of the proprietor—includes coopering, housing, cooper's attendance at the same, and cooper's superintendence for eighteen months, re-gauging, and sampling at delivery. Goods chargeable with this rate are subject to rent from the date of the ship breaking bulk, or first landing from craft, and to cooper's superintendence after eighteen months.

Wines or spirits housed with the Company will not be liable to any additional charge for coopering, on removal to be sent to any port or place in the United Kingdom within six calendar months from date of final gauging, but will be chargeable with driving, and pitching, and turning, when requisite.

The Company will not be responsible for deficiencies on wines or spirits imported in casks not made of oak, nor on spirits exceeding 20 per cent. overproof; but are answerable for deficiencies in quantity, on those contained in other casks housed with the Company, beyond one gallon per cask, for each year, or part of a year, the goods shall remain in their custody, provided such deficiencies be claimed of the Company within six months after delivery, and shall be satisfactorily established by the customs' gauge on landing and delivery.

Contents by which the Denominations of Casks are determined.

Wines.

	gals.		gals.	
Casks, the full contents being	10 and under		20	- half qr.-cask
	20	,,	33	- quarter-cask
	33	,,	43	- third-cask
	43	,,	66	- hogshead
	66	,,	126	- pipe or butt
	126 and upwards			- unsizeable

Spirits (Rum excepted).

	gals.		gals.	
Casks, the full contents being	10 and under		20	- half qr.-cask
	20	,,	33	- quarter-cask
	33	,,	43	- third-cask
	43	,,	66	- hogshead
	66	,,	100	- unsizeable
	100	,,	121	- pipe, butt, or pun.
	121 and upwards			- unsizeable

Wines stored at the Victoria Docks.

	Rent per week.
Pipe or butt - - -	- 3d.
Hogshead or third cask	- 2
Quarter-cask - - -	- 1½
Octave - - -	- 1

5. *Surrey Commercial Docks.*—In addition to the docks already described, which are all on the north side of the river, there are on the south side the Commercial Docks, in the parish of Rotherhithe.

A portion of these docks appears to have existed so long ago as 1660, and consequently many years prior to the formation of any other wet dock in the British empire. It then bore the name of the Howland Great Wet Dock. At a later period it was called the Greenland Dock, being expressly prepared for the accommodation of Greenland whaling vessels. It was not until 1807 that it received the title of the Commercial Dock, and that the Commercial Dock Company was established. Large additions were at that time made to these docks, and they now cover a greater surface than any others belonging to the port of London. Since their last acquisition—viz. the Surrey Docks and Canal—the Company has been styled the Surrey Commercial Dock Company.

All these Docks are adapted chiefly for the reception of vessels laden with timber, deals, and wood articles in general, corn, iron, tar, guano, and other bulky commodities. But by an Act obtained in 1851 (14 & 15 Vict. c. 43) the Company acquired the privilege of landing and warehousing, if sanctioned by the Customs, nearly every description of goods. Under the authority of this Act, the Company purchased the adjoining East Country Docks, and have made such alterations and improvements upon them as were required by the increasing trade of the port of London, and the greater size of the ships by which it is frequented. The Commercial Docks, with their appurtenances, inclusive of the Surrey Docks and Canal, comprise an extent of about 335 acres, of which 176 acres are water. The entrance to the New South Dock from the river is 27 feet below Trinity *datum* over the sill of the gate and throughout the dock. The lock, which is 220 feet in length by 48 feet in width, has at neaps, or lowest tides, 22 feet water, admitting at spring tides vessels drawing more than 26 feet, which may at all times lie alongside the quays. Vessels of 1,800 tons register have been received into this dock.

A railway, laid round the docks, communicates with the various railways in the south of England, affording every facility for the transmission of guano, grain, timber, and other goods to the southern counties, and conversely. The Company have large warehouses, with granaries sufficient for the storage of above 120,000 quarters of corn.

The timber ponds attached to the docks will float above 50,000 loads of timber, while the yards will hold about 4,000,000 pieces of deal, and staves *ad libitum*.

The entire establishment is in a very efficient state, and does credit to the managers.

TONNAGE RATES AND RENT ON SHIPPING.

	Per ton register s.	d.
Vessels loaded—Arriving from any port in the United Kingdom or European port outside the Baltic, between North Cape and Ushant:		
For the use of the Docks for any period not exceeding 4 weeks - - - -	- 0	6
After 4 weeks, per week - - -	- 0	0½
Arriving from any other port:		
For the use of the Docks for any period not exceeding 4 weeks - - - -	- 0	9
After 4 weeks, per week - - -	- 0	0½

The foregoing can load outwards exempt from further charges, and if taken out for repair, will be allowed to re-enter without reckoning the time of their absence, but subject to the charge for docking and undocking.

	s.	d.	s.	d.
Vessels partly laden.—For every ton of goods in the ship - - -	0	9		
After 3 weeks, per week -			- 0	1
In no case to pay less than the rate of a light ship.				
Vessels coming in to load or to lie up:				
For the use of the Docks for 3 weeks - -			- 0	4
After 3 weeks, per week - -			- 0	1

Docking and Undocking.

	£	s.	d.
Under 100 tons register - -	- 0	10	6
100 tons register and upwards -	- 1	1	0
Coasting Vessels—Under 100 tons register coming in to load for any other port, if laden wholly from the Company's Yards, Warehouses, or Ponds, with use of the Docks for one week - - -			Free

Docking and Undocking—continued.

	s.	d.
Coasting Vessels—		
After 1 week, per week	0	1
Under 200 tons register, landing goods in the Docks, with use of the Docks for 1 week	0	3
After 1 week, per week	0	1
Laden with bricks, broken granite, or paving stones:		
For the use of the Docks for 1 week	0	3
After 1 week, per week	0	1
Vessels discharging their cargoes in the Island, Russia, or Stave Docks, wholly for the Canal—with the use of the Docks for 1 week	Free	
After 1 week, per week	0	1

Vessels wholly corn laden, in lieu of the preceding tonnage rates, will be charged for docking and undocking as follows:—

	£	s.	d.
Under 100 tons register	1	1	0
100 tons and under 200 tons register	2	2	0
200 „ 250 „	3	3	0
250 „ 300 „	4	4	0
300 „ 350 „	5	5	0
350 „ 400 „	6	6	0
400 „ 450 „	7	7	0
450 „ 500 „	8	8	0

and 1 guinea for every additional 50 tons, or less.

	s.	d.
Rent on above vessels (to commence after 14 days from date of entrance) per week, per ton register	0	1

If such vessels leave the dock without unloading, rent to commence after one clear day from date of entrance, in addition to the charge of docking and undocking.

N.B. Vessels laden with flour, seeds, or oil cake are not included in the last-mentioned rates.

	s.	d.
Vessels laden with mixed cargoes will be charged the proportionate tonnage or dockage rates.		
Rent on such vessels after 3 weeks, per week	0	1

Vessels loading outwards, excepting those previously exempted, will be charged, in addition to the rates before mentioned, the outward rate of 4*d.* per ton register if fully laden; or if partly laden, 4*d.* per ton on the quantity of goods taken in.

	s.	d.
Steam vessels coming in to lie up, or to fit machinery, for any period not exceeding 4 weeks	0	9
After 4 weeks, per ton per week, ditto	0	1
All rates on Steam vessels will be charged on the gross tonnage per register.		

The foregoing rates do not include the expense of mooring, unmooring, and removing.

Discharging Rates on Shipping.

	Per ton register s.	d.
Vessels laden with wood, from Europe or the North American Colonies	1	3
And in addition for every load of hard wood, masts, or pitch pine	6*d.*	
For every load of fir timber or balk	3*d.*	
Laden with timber from Africa or the East Indies, or the like cargoes	2	3
And in addition for every load discharged over-side	1*s.*	
Laden with mahogany or other furniture-wood in logs or planks	1	9
Laden with guano, cotton seed, sulphur, hemp, flax, or goods in bulk	1	0
Laden with ice	0	9
Laden entirely with tallow	0	6
Laden with mixed cargoes, tallow, hemp, flax, ashes, or goods in bulk:	s.	d.
For every ton of hemp or flax	1	3
„ of tallow or ashes	0	6
„ of other goods in bulk	1	0
Laden entirely with goods not previously mentioned, packed in bales, bags, baskets, casks, cases, chests, or other similar packages (each package or piece not exceeding 5 cwt.), and metal in pigs, bars, rods, plates, or similar pieces	0	9

If vessels have not proper convenience for discharging, or if their cargoes are of extra dimension or weight, additional rates will be charged.

	s.
Surveying ships, for stowage &c., and furnishing certificate	2
Charge for water supplied to ships, per 100 gals.	1

Notice.—It is the duty of the ship's officer in charge to see that a safe gangway is made on board or over a vessel, and that it is properly replaced whenever it is necessary to shift the same or alter the moorings, as the ship's officer is responsible for the safety and security of the gangway.

General Information.—Vessels and craft are docked and undocked, before and after high water according to circumstances. Deliveries from the warehouses and yards of the Company, by land or water, commenced before four o'clock, and capable of being completed before half-past four, will be proceeded with, if desired.

6. *Mill Wall Dock.*—The Mill Wall Dock Company have no published list of charges for ships or goods; but if any person wish to bring into this dock either ships or goods, the manager is ready to make favourable arrangements for transacting any business, which can be done at the Dock House Railway place close to the Terminus of the Blackwall Railway, Fenchurch Street.

In 1863 a Company was incorporated for constructing docks, warehouses &c. in the parish of Battersea, and its powers were extended by Parliament in 1864 and 1865.

7. *London Port Dues; Charges on account of Lights, Pilotage &c. in the Thames; Shipping &c. of London.*—It is highly desirable that expert pilots, brilliant lights, and every other means that it is possible to devise, should be afforded to render navigation safe and expeditious. But to secure these advantages, it is indispensable that the charges on their account should be moderate. If they be otherwise, navigators are not unfrequently tempted to resort to what are less expensive, though less secure, channels. This principle has not, however obvious, been always kept sufficiently in view either in this or in other countries. During the latter years of the war, and down to 1825, the charges on account of docks, lights, pilotage &c. on ships in the Thames, and most other British ports, were exceedingly heavy, and would, no doubt, had they been maintained, have materially injured our commerce. Instead, also, of encouraging the resort of foreign ships to our ports, a contrary policy was adopted; the charges laid on them being usually about double those laid on British ships. This regulation was intended to promote the employment of the latter; but, as it led to reprisals in other countries, its real influence is believed to have been quite different; while, by driving away foreigners, it injured the trade of the country, and prevented our ports from becoming, what they are so well fitted to be, the emporiums of the world. We are glad, however, to have to state that the circumstances now alluded to have been materially, or rather wholly, changed. In 1825 the various dock monopolies expired; and a very great reduction has since been made in the charges on account of the docks, which, as already seen, are now very moderate indeed.

Exclusive of the dock duties, certain *port* or *tonnage duties* were imposed on ships frequenting the port of London, by the Acts 39 Geo. III. c. 69, 43 Geo. III. c. 124 &c. partly to pay the harbour-masters, provide mooring chains &c., and partly to create a fund for the improvement of the port, and in particular for defraying the cost of making a navigable canal across the Isle of Dogs. But this canal having been sold for 120,000*l.* to the West India Dock Company, under the 10 Geo. IV. c. 130, and the sums advanced by the public for the improvement of the port having been repaid, it was judiciously resolved to reduce the port duties to the lowest rates capable of defraying the necessary expenses. This was effected by the 4 & 5 Wm. IV. c. 32, which imposes the following tonnage duties on vessels in the port:—

	per ton. d.
1st Class.—For every ship or other vessel trading coastwise between the port of London or any port or place in Great Britain, Ireland, the Orkneys, Shetland, or the Western Islands of Scotland, there shall be paid for every voyage in and out of the said port	½

	per ton.
2nd Class.—For every ship &c. entering inwards or clearing outwards from or to Denmark, Norway, or Lapland (on this side of the North Cape), or from Holstein, Hamburg, Bremen, or any other part of Germany bordering on or near the Germanic Ocean, or from or to Holland, or any other of the United Provinces, or Brabant, Antwerp, Flanders, or any other part of the Netherlands, or from or to France (within Ushant), Guernsey, Jersey, Alderney, Sark, or the Isle of Man, there shall be paid for every &c. as above	*d.* 4
3rd Class.—For every ship &c. entering inwards or clearing outwards from or to Lapland (beyond the North Cape), Finland, Russia (without or within the Baltic Sea), Livonia, Courland, Poland, Prussia, Sweden, or any other country or place within the Baltic Sea, there shall be paid for every &c. as above	4
4th Class.—For every ship &c. entering inwards or clearing outwards from or to France (between Ushant and Spain), Portugal, Spain (without the Mediterranean), or any of the Azores, Madeira, or Canary Islands, or any of the United States of America, or of the British colonies or provinces in North America or Florida, there shall be paid for every &c. as above	2
5th Class.—For every ship &c. entering inwards or clearing outwards from or to Greenland, Gibraltar, France, or Spain (within the Mediterranean), or any country, island, port, or place within or bordering on or near the Mediterranean or Adriatic Sea, or from the West Indies, Louisiana, Mexico, South America, Africa, East India, China, or any other country, island, port, or place within or bordering on or near the Pacific Ocean, or from any other country, island, port, or place whatsoever, to the southward of 25° of north latitude, there shall be paid &c. as above	2

Exemptions.—Ships of war, and ships the property of her Majesty or any of the Royal Family. Any vessel coming to or going coastwise from the port of London, or to any part of Great Britain, unless such vessel shall exceed 45 tons. Any vessel bringing corn coastwise, the principal part of whose cargo shall consist of corn. Any fishing smacks, lobster and oyster boats, or vessels for passengers. Any vessel or craft navigating the Thames above and below London Bridge as far as Gravesend only. Any vessel entering inwards or outwards in ballast.

Owing to the distance of London from the sea, and the rather intricate navigation at the mouth of the river, the charges on account of lights and pilotage must necessarily be comparatively heavy. They have, however, been very materially reduced of late years. The charges on account of the lights under the management of the Trinity House have been diminished, in almost every instance, as much as a half, and sometimes even more, since 1823. [LIGHT-HOUSES.] The practice of imposing discriminating light dues on foreign vessels no longer exists. For the rates of pilotage, see PILOTAGE.

The oppressive and troublesome charges in the port of London, imposed on alien goods under the names of package, scavage &c. [PACKAGE], were put an end to in 1833. At present, therefore, we believe we are warranted in affirming that, considering its distance from the sea, the public charges on shipping in the port of London are quite as reasonable as in any other port of the empire, or of the world. But we are inclined to think that further reductions may still be effected, particularly in the article pilotage.

The following statement shows the nature and amount of the various charges that are at present (1868) incurred by vessels in the port of London:—

Account of Charges that were Paid on a Ship of about 480 *Tons (from China) Entering and Departing the Port of London, Laden both Ways, everything being conducted with strict Economy, and excluding any Charge on account of Extraordinary Despatch or Superior Accommodation; and that would be Paid by a Ship of* 1,000 *Tons under the like Circumstances.*

Inward	480 Ton Ship	1000 Ton Ship
	£ s. d.	£ s. d.
Reporting at Custom-house	3 3 0	3 3 0
Tonnage duty, ¼d. per ton, and entry, 5s.	1 15 0	3 7 6
Pilotage, 15 feet, Downs to Gravesend, less ⅓ if towed by steam)	9 6 0	(20 ft.) 17 18 0
Gravesend to London " "	4 3 0	" 7 17 0
putting pilot on board in Downs, and pilotage from Dungeness	3 12 0	" 4 14 6
Waterman assisting with boats &c.	1 10 0	" 2 0 0
Towage from Mouse to Gravesend	(as per agreement)	(as per agreement)
Trinity lights dues, 2¾d. per ton, plus ¼d. per ton, and { 3s. 9d. per vessel 480 tons / 4s. 6d. " 1000 " }	6 8 9	13 4 11
Ramsgate dues, ¼d. per ton	0 15 0	1 11 3
Dock dues, 9d. per ton, discharging tea, 9d. per ton	36 0 0	75 0 0
	66 12 9	128 18 2
Outward		
Entering ship out at Custom-house	1 1 0	1 1 0
Tonnage duty, ¼d. per ton, and entry, 5s.	1 15 0	3 7 6
Trinity lights dues, 2¾d. per ton, plus ¼d. per ton, and { 3s. 9d. per vessel 480 tons / 4s. 6d. " 1000 " }	6 8 9	13 4 11
Ramsgate dues, ¼d. per ton	0 15 0	1 11 3
Pilotage, London to Downs, 15 feet	11 4 0	(20 ft.) 20 18 0
Landing pilot	(as per agreement)	(as per agreement)
Towage (depending on distance)	&c.	do.
Clearing out and victualling bill	3 3 0	5 5 0
Stevedore, 1s. 1d. per ton, taken on board	26 0 0	54 3 4
	40 6 9	99 11 0

Mem.—The charge for tonnage entry is usually 5s.
Dock rent after 4 weeks, from date of entrance if the cargo be discharged by crew, and from final date of discharge if the cargo be discharged by the Dock Company, 1d. per register ton per week.
Dock rates, tonnage rate, 9d. per register ton.
Discharging cargo, 9d. per register ton.
(No charge made for excess above register tonnage.)
Dover dues are 1½d. per ton, but only on vessels under 300 tons register; and the Ramsgate dues, under 300 tons, 1½d. per ton.
Lights.—Should the vessel call at Southampton, an extra charge is made of ½d. per ton; if at Plymouth, ¼d. per ton. There is also a charge on each ship varying from 1s. to 9s. according to the tonnage, inwards only.

Arrivals and Clearances Coastwise of Sailing and Steam Vessels at the Port of London in 1866.

	Sailing		Steam		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons
Arrivals	9,815	1,125,781	4,200	1,495,625	14,015	2,621,406
Clearances	5,384	399,912	1,793	730,046	7,627	1,129,958
Total	15,199	1,525,693	5,993	2,225,671	21,642	4,151,364

Amount of Shipping &c. belonging to the Port of London.—According to the official accounts, there belonged to this port on December 31, 1866, 2,558 sailing vessels; of these, 1,748, of the aggregate burden of 814,906 tons, were respectively above 50 tons register, while 810, of the aggregate burden of 28,248 tons, were respectively under 50 tons register. There then also belonged to the port 729 steam vessels, of the burden of 305,591 tons. In 1819 the gross customs duty collected in the port of London amounted to 7,749,463*l.*; in 1832 it amounted to 9,434,854*l.*; and in 1858 it had in-

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creased to 11,465,988*l.*! while in 1866, notwithstanding great reductions and remissions of duties, the revenue amounted to 10,550,063*l.* Excepting in New York and Liverpool, so vast an amount of shipping and commerce was never previously concentrated in any single port. London may be truly said to be *universi orbis terrarum emporium*. May her prosperity be as lasting as it is great!

Charges on a Vessel of 500 Tons Register, entering the Port of London in Ballast, and leaving in same state, being in Dock a Fortnight.

	£	s.	d.
Reporting at Custom-House	1	1	0
Pilotage, say 11 ft.: Putting pilot on board (including pilotage from Dungeness to the Downs)	3	12	0
Pilotage, say 11 ft.: Gravesend to London	2	10	0
Pilotage, say 11 ft.: total	12	18	0
Waterman	1	10	0
Ramsgate harbour dues, ¼d. per ton	0	15	8
Towage (per agreement).			
	16	4	8
Dock dues, 9*d.* per ton. Victoria Dock, 1*d.* per ton per week; Surrey Commercial and London Docks, 6*d.* per ton per week, if from north of Europe, and all others, 9*d.* per ton.			
Ballast (same as on board on entering).			
Pilotage outwards (London to Downs, 11 feet, 8*l.* 2*s.*; Landing pilot, as per agreement)	8	2	0
Towage (per agreement).			
Ramsgate harbour dues, ¼d. per ton	0	15	8
Clearing out	1	1	0
Total	9	18	8

Pilotage subject to reduction of ½ if towed by steam.

Charges for Ballast. [Ballast.]

	Per ton s.	d.
Common ballast delivered in the river	1	3
" " docks	1	7
Washed " " river	2	10
Heaving ballast with port	2	6
" without port	0	3
	0	5½

Trimming ballast (as per agreement).
Discharging ballast (according to description of ballast).

The following tabular statements will serve to illustrate the progress of the foreign trade and navigation of London:—

An Account of the Number and Tonnage of Vessels entering the Port of London from Foreign Parts, with Cargoes and in Ballast, distinguishing between British and Foreign Ships, in the undermentioned Years, from 1700 to 1866 inclusive.

Years	British		Foreign	
	ships	tons	ships	tons
1700	659	80,040	496	76,595
1750	1,198	198,023	184	36,346
1790	2,254	431,890	1,116	149,205
1791	2,184	419,374	1,236	149,053
1792	2,449	451,188	1,186	152,243
1793	2,548	478,105	1,193	157,019
War.				
1814-19	No Returns			1,995,857
1820	3,354	655,239	856	122,619
1825	3,909	785,565	1,743	302,122
1830	3,940	744,729	1,268	207,980
1835	3,740	740,255	1,057	188,893
1836	3,845	772,046	1,165	205,575
1837	4,079	821,788	1,547	240,135
1838	4,566	893,925	1,727	277,902
1839	4,880	988,867	2,375	357,163
1840	4,547	934,660	2,221	354,456
1841	4,612	999,259	1,999	317,608
1842	4,767	1,002,435	1,640	281,468
1843	4,589	1,022,560	1,625	295,121
1844	4,741	1,068,463	2,144	355,346
1845	5,125	1,109,387	2,439	393,104
1846	5,228	1,134,646	2,483	394,531
1847	6,271	1,436,988	3,132	494,791
1848	6,489	1,581,060	3,078	432,111
1849	6,295	1,445,519	3,017	445,295
1850	6,499	1,376,714	3,415	528,434
1851	6,593	1,449,353	3,748	720,969
1852	6,624	1,389,711	3,956	770,446
1853	6,261	1,524,219	5,302	1,009,894
1854	6,151	1,604,234	4,794	1,013,589
1855	5,745	1,598,497	4,025	859,089
1856	6,164	1,699,423	3,758	940,860
1857	6,570	1,808,854	4,189	1,026,253
1858	6,804	1,888,261	4,568	1,073,048
1859	6,868	1,777,905	4,401	1,030,791
1860	6,950	1,838,911	4,857	1,139,499
1861	6,675	1,782,585	4,894	1,180,587
1862	7,113	2,102,661	4,842	1,194,419
1863	7,104	2,287,570	4,504	1,153,919
1864	7,004	2,296,413	4,112	1,065,360
1865	7,313	2,482,779	4,297	1,163,113
1866	7,901	2,763,429	3,818	1,071,239

Account of the Quantities of the Principal Articles Imported into London in 1866.

Articles		Quantities
Animals, living:		
Oxen, bulls, and cows	number	142,100
Sheep and lambs	"	455,190
Bones (except whalefins)	tons	7,194
Cocoa	lbs.	5,064,096
Coffee	"	117,081,743
Corn: Wheat	cwt.	4,304,226
Barley	"	1,410,112
Oats	"	5,980,402
Peas	"	265,547
Beans	"	238,344
Indian corn or maize	"	1,440,052
Wheat meal and flour	"	529,648
Cotton, raw	"	821,776
Cotton manufactures	value	£650,229
Dyes and dyeing stuffs:		
Cochineal	cwt.	17,925
Indigo	"	58,790
Madder and madder root (including munjeet)	"	1,941
Flax: Dressed or undressed	"	7,079
Tow or codilla of flax	"	620
Fruits: Currants	"	479,655
Lemons and oranges	bushels	863,292
Raisins	cwt.	250,858
Guano	tons	41,247
Hemp	cwt.	255,215
Jute and other vegetable substances of the nature of undressed hemp	"	930,060
Hides, uncured	"	201,052
" cured	"	274,186
tanned, tawed, curried, or dressed (except Russia hides)	lbs.	1,808,882
Mahogany	tons	28,934
Metals: Copper ore and regulus	"	10,055
Copper, unwrought and part wrought	"	6,945
Iron in bars, unwrought	"	18,999
Spelter, unwrought and rolled	"	12,858
Tin, unwrought	"	165,508
Oil: Train, blubber, and spermaceti	tuns	3,345
Palm	cwt.	140,082
Cocoa-nut	"	108,172
Olive	tuns	5,219
Seed oil, of all kinds	"	4,124
Oilseed cakes	tons	54,152
Provisions: Bacon and hams	cwt.	296,154
Beef, salted	"	48,922
Pork, do.	"	84,625
Butter	"	386,676
Cheese	"	265,181
Eggs	great hundreds	650,419
Lard	cwt.	24,281
Rags, and other materials, for making paper	tons	14,088
Rice, not in the husk	cwt.	997,000
Saltpetre and cubic nitre	"	429,768
Seeds: Clover	"	85,762
Flaxseed and linseed	qrs.	271,964
Rapeseed	"	307,510
Silk, raw	lbs.	836,562
thrown	"	39,046
Silk manufactures of Europe:		
Broad stuffs	"	789,939
Ribbons	"	444,865
Silk manufactures of India: Handannas, corahs, choppas, Chinese clothes, romals, and taffaties	pieces	36,752
Spices: Pepper	lbs.	11,723,628
Pimento	cwt.	19,090
Spirits: Rum	gallons	5,473,160
Brandy	"	5,291,210
Geneva	"	59,210
Sugar, unrefined: Equal to white clayed	cwt.	61,124
Not equal to white, but equal to brown clayed	"	1,580,274
Not equal to brown clayed: Equal to brown muscovado	"	1,707,519
Not equal to brown muscovado	"	988,578
Total of sugar, unrefined	"	4,337,495
Sugar, refined, and sugar candy	"	135,571
molasses	"	99,091
Tallow	"	756,852
Tea	lbs.	136,774,261
Tobacco: Stemmed	"	10,710,417
Unstemmed	"	21,166,455
Manufactured, cigars and snuff	"	1,888,765
Wine: Red	gallons	4,864,918
White	"	5,598,217
Total of wine	"	10,463,135
Wood and timber: Not sawn or split, or otherwise dressed, except hewn	loads	246,089
Deals, battens, boards &c. sawn or split	"	593,910
Staves	"	34,702
Wool, sheep and lambs'	lbs.	154,798,240
alpaca and llama	"	3,210
Woollen manufactures	value	£765,460

The value of the imports into the port of London in ordinary years considerably exceeds double the value of the exports.

Account of the Number and Tonnage of British and Foreign Ships which arrived with Cargoes and in Ballast at the Port of London in 1866, specifying the Countries whence they arrived, and the Number and Tonnage of the Ships from each.

Countries whence Arrived	Entered											
	British						Foreign					
	With Cargoes		In Ballast		Total		With Cargoes		In Ballast		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
Foreign												
Russia:												
Baltic Ports	788	231,124	..	..	788	231,124	462	87,171	..	..	462	87,171
White Sea and Arctic Ocean	53	12,151	..	..	53	12,151	126	29,578	..	..	126	29,578
Black Sea and Sea of Azof	55	29,541	..	..	55	29,541	71	41,185	..	..	71	41,185
Sweden:												
Ports within the Baltic	70	17,332	..	..	70	17,332	403	131,957	..	..	403	131,957
Ports without the Baltic	82	32,135	..	..	82	32,135	160	35,399	..	..	160	35,399
Norway	80	15,194	..	..	80	15,194	457	150,515	..	..	457	150,515
Denmark	11	4,845	..	..	11	4,845	76	8,707	1	910	77	9,617
Prussia	256	67,645	..	..	256	67,645	348	88,928	..	..	348	88,928
Schleswig Holstein and Lauenburg	85	33,131	..	..	85	33,131	3	473	..	..	3	473
Germany	315	131,913	7	4,787	322	136,700	348	75,769	2	1,583	350	77,352
Holland	512	201,118	9	5,978	521	207,096	264	43,142	..	..	264	43,142
Java	1	396	..	..	1	396	1	231	..	..	1	231
Belgium	506	126,520	12	7,957	518	134,477	92	30,347	1	150	93	30,497
France:												
Ports without the Mediterranean	1,338	271,755	43	9,140	1,381	280,895	272	35,313	16	5,301	288	40,614
Ports within the Mediterranean	28	9,680	..	..	28	9,680	4	901	..	..	4	910
Algeria	7	2,163	..	..	7	2,163	5	1,128	..	..	5	1,128
Bourbon	..	..	..	..	..	..	1	300	..	..	1	300
Portugal:												
Portugal Proper	153	44,596	..	..	153	44,596	28	5,921	1	400	29	5,921
Azores	171	21,369	..	..	171	21,369	7	1,043	..	..	7	1,043
Madeira	5	498	..	..	5	498	7	2,735	..	..	7	2,735
Macao	1	457	..	..	1	457	..	..	..	..	..	..
Spain:												
Ports without the Mediterranean	85	25,988	..	..	85	25,988	31	11,261	1	430	32	11,691
Ports within the Mediterranean	62	18,378	..	..	62	18,378	18	6,520	..	..	18	6,520
Canaries	10	2,103	..	..	10	2,103	..	..	..	..	..	..
Philippine Islands	20	12,660	..	..	20	12,660	8	3,340	..	..	8	3,340
Italy	177	54,695	..	..	177	54,695	42	9,068	..	..	42	9,068
Papal States	2	474	..	..	2	474	3	286	..	..	3	286
Austrian Territories	32	15,975	..	..	32	15,975	50	18,714	..	..	50	18,714
Greece	44	18,107	..	..	44	18,107	1	99	..	..	1	99
Ionian Islands	15	5,612	..	..	15	5,612	..	..	..	..	..	..
Turkey	38	13,775	..	..	38	13,775	26	7,715	..	..	26	7,715
Wallachia and Moldavia	7	2,861	..	..	7	2,861	12	2,828	..	..	12	2,828
El Hedjaz	2	856	..	..	2	856	..	..	..	..	..	..
Egypt	55	14,491	..	..	55	14,491	23	8,990	..	..	23	8,990
Morocco	44	5,756	..	..	44	5,756	6	950	..	..	6	950
United States of America:												
Atlantic Ports, Northern	114	79,866	..	..	114	79,866	101	78,887	1	2	102	78,889
Southern	6	1,995	..	..	6	1,995	12	5,402	..	..	12	5,402
Cuba and Foreign West Indies	47	13,804	..	..	47	13,804	50	13,932	..	..	50	13,932
Central and Southern America	58	42,045	1	575	59	42,620	55	16,949	..	..	55	16,949
China (exclusive of Hong Kong)	132	92,060	..	..	132	92,060	1	302	..	..	1	302
Cochin China	14	9,542	..	..	14	9,542	..	..	..	..	..	..
Borneo	2	746	..	..	2	746	1	320	..	..	1	320
Siam	3	828	..	..	3	828	..	..	..	..	..	..
Japan	10	4,464	..	..	10	4,464	..	..	..	..	..	..
Pacific Islands	1	232	..	..	1	232	..	..	..	..	..	..
East Coast of Africa	5	1,979	..	..	5	1,971	2	661	..	..	2	661
Western Coast of Africa, Foreign Possessions	35	6,180	..	..	35	6,180	11	2,718	..	..	11	2,718
	5,527	1,716,423	72	28,437	5,599	1,744,860	3,597	938,295	23	8,776	3,620	947,071
British Possessions												
Channel Islands	748	114,519	1	797	749	115,316	..	..	..	..	..	..
Gibraltar	29	17,592	..	..	29	17,592	..	..	..	..	..	..
Malta and Gozo	1	1,692	..	..	1	1,692	..	..	..	..	..	..
Possessions in Africa	143	52,709	..	..	143	52,709	14	5,646	..	..	14	5,646
East Indies	458	376,396	1	580	459	377,996	26	16,442	..	..	26	16,442
Hong Kong	7	3,441	..	..	7	3,441	2	606	..	..	2	606
Australian Colonies	166	148,779	1	1,365	167	150,144	1	474	..	..	1	474
North American Colonies	202	133,434	2	1,719	204	135,146	109	64,045	..	..	109	64,045
West Indies	538	163,719	1	124	539	163,843	46	16,955	..	..	46	16,955
Falkland Islands	2	460	2	1,330	4	1,790	..	..	..	..	..	..
	2,294	1,012,711	8	5,858	2,302	1,018,569	198	104,168	..	..	198	104,168
Total	7,821	2,729,134	80	34,295	7,901	2,763,429	3,795	1,042,463	23	8,776	3,818	1,051,239

Account of the Quantities and Values of the Principal Articles, the Produce of the United Kingdom, Exported from London in 1866.

Articles		Quantities	Value	Articles		Quantities	Value
			£				£
Alkali: soda	cwts.	319,547	175,495	Drugs and chemical products	value	..	518,357
Apparel	value	..	1,770,083	Earthenware and porcelain	packages	30,910	217,965
Arms and ammunition:				Fish, herrings	barrels	38,160	41,919
Fire-arms (small)	no.	91,420	149,544	Glass of all kinds	value	..	383,212
Gunpowder	lbs.	8,823,320	265,075	Haberdashery and millinery	"	..	1,847,670
Beer and ale	barrels	365,042	1,221,137	Hardwares and cutlery, of all sorts	"	..	877,373
Butter	cwts.	12,368	69,034	Leather:			
Candles, stearine	lbs.	5,369,016	190,553	Tanned, unwrought	cwts.	24,697	285,408
Coals, cinders, and culm	tons	65,822	52,676	wrought	value	..	789,633
Cotton yarn	lbs.	14,631,643	1,472,194	Wrought saddlery and harness	"	..	147,843
Cotton manufactures:							
Piece goods	yards	476,406,516	10,699,861				
Hosiery and small wares	value	..	359,045				

Exports from London, 1866—continued.

Articles		Quantities	Value	Articles		Quantities	Value
			£				£
Linen yarn	lbs.	7,698,094	392,600	Painters' colours	value	..	542,621
Linen manufactures:				Paper (except hangings)	cwts.	125,183	583,416
Piece goods	yards	14,685,427	584,187	Salt	tons	13,414	18,784
Thread, tapes and small wares	value	..	24,343	Silk, thrown, and yarn	lbs.	246,141	330,292
Machinery and millwork	,,	..	789,623	manufactures	value	..	202,366
Metals:				Spirits, British and Irish	gallons	307,402	40,678
Iron: pig, bar, bolt, wire and cast	tons	60,334	578,697	Sugar, refined	cwts.	93,908	115,985
railroad	,,	72,724	689,265	Wool, sheep and lambs'	lbs.	3,469,697	313,860
of all other kinds	,,	85,077	1,478,860	Woollen and worsted yarn	,,	247,200	30,513
Steel, unwrought	,,	1,455	49,363	Woollen manufactures:			
Copper, ditto	cwts.	32,923	147,253	Cloths of all kinds	yards	3,567,077	743,208
part wrought and wrought	,,	249,640	1,103,312	Worsted and mixed stuffs	,,	41,615,415	2,484,579
Lead	tons	19,191	430,587	Flannels, carpets &c.	,,	6,709,585	646,385
Tin, unwrought	cwts.	54,208	155,239	Hosiery and other goods	value	..	195,806
plates	,,	107,634	151,828	All other articles	,,	..	6,808,807
Oil, seed	gallons	4,108,149	656,663	Total declared real value		..	41,449,797

II. Southampton Docks, Shipping &c.

Southampton, at the embouchure of the Itchen, on the E. side of the large inlet of the sea called Southampton Water, opposite to the Isle of Wight, lat. 50° 53′ 59″ N., long. 1° 24′ W., may be regarded as one of the outports of the metropolis. It is situated about 70 miles (direct distance) W.S.W. from London, the journey between them being performed by means of the South-Western Railway in from 2 to 3 hours. Southampton Water affords entrance at all times of tide, and secure anchorage in all weathers to any number of the largest merchant ships, being completely protected from the seas that would otherwise be thrown in by south-easterly gales by the Isle of Wight, its natural breakwater. Ships resorting to this port, or anchoring in Spithead Roads, or in the channel between the Isle of Wight and the mainland, may get to sea, in almost every wind, with comparative facility. Hence it is usual for ships from London bound for the Mediterranean, India, the West Indies, or America, to touch at Cowes, opposite to Southampton Water, to take on board passengers, who thus avoid the lengthened and difficult navigation round by the Forelands and Beachy Head, while at the same time they are all but certain of being immediately able to proceed on their voyage; and hence, also, Southampton is the station of the mail steamers for Alexandria, India, Cape of Good Hope, New Zealand and Australia by Panama, the West Indies &c. Latterly, too, the great natural advantages of its situation have been, and are in the course of being, most materially improved. The channel of the Itchen has been deepened; and docks connected with it have been constructed on a large scale, and with every suitable accommodation, by the Dock Company incorporated in 1836.

The docks are excavated on a tongue of land comprising about 175 acres, close to the terminus of the South-Western Railway. The first consists of an open dock or basin containing 16 acres water area. It has a depth of 18 feet at low water springs, the average rise of the tide being 13 feet; its quay-frontage extends to 3,300 feet, and it is surrounded by extensive bonded warehouses, vaults, sheds, and cellars.

The second or close dock (the first of a series intended to comprise three others of still larger dimensions) contains a water area of 10 acres, with an average permanent depth of 28 feet water. It is surrounded, like the open dock, by bonded warehouses, sheds, vaults, and numerous cranes. Waggons, on lines from the adjacent railway terminus, run to and from the quays, alongside which the ships are berthed. In the open dock there are powerful sheers, tested to the weight of 50 tons, for the shifting of boilers or other heavy machinery, for masting ships &c.

Attached to the wet docks are three large graving or dry docks of the following dimensions, viz.:—

	Eastern	Middle	Western
	Feet	Feet	Feet
Length from gates to head	538	284	546
Length on blocks	425	253	343
Width of gates	80	51	66
Depth of water over blocks, at ordinary springs	25	14	20
Neap	21	10	16

Large ships of from 1,000 tons in the smallest up to 5,000 tons in the largest of these docks can be docked and undocked with a facility unknown in most other ports.

Four steam engines are employed in pumping out the water from these graving docks, the engines each raising 120 tons of water per minute.

Tides at Southampton.—There is a double high water at this port, the knowledge of which is most important to the mariner. The first high water at the full and change of the moon is at 10h. 30m., the second high water at 12h. 45m., and low water at 4h. The rise at springs is 18 feet, and at neaps 8 feet. To ships using the graving docks this double tide is very advantageous, as the water remains nearly stationary for 2 hours; thus, without risk, allowing vessels to come out of dock, and others to enter, without losing a tide.

This double high water is probably caused by the tide at Spithead; for as long as it runs strong to the westward, the water is kept up at Southampton, and there is no fall of consequence until the tide begins to slack at Spithead; but when the tide makes to the eastward at that point, the water falls rapidly at Southampton.

After low water the tide rises pretty steadily for 7 hours, giving the *first* or proper high water; it then ebbs for an hour about 9 inches, at the end of which time it again commences to rise, and in about 1¼ h. reaches its former level, and sometimes higher: this is called the *second* high water.

The following are the charges at the Dry Docks:—

Rates to be Charged for every Ship or Vessel on the Gross Tonnage.

For each working day (not exceeding 100 tons), 1*l.*
(for every 50 tons above 100 tons), 2*s.*

The day (24 hours) to end at noon, and each fractional part of a day to be charged as one day.

It lies exclusively with the Dock Company to determine into which of the three docks a vessel shall be taken; and, with a view to the general accommodation of all parties requiring the use of the dry docks, it is ordered that no ship be allowed to remain longer than fourteen days in either of the dry docks, unless under special agreement.

In addition to the foregoing rate per day for occupation of the dock, every vessel will be charged as follows, viz.:—

For docking, pumping, and undocking, including use of stages, shores and shore ropes, saw pits, smithy, and pitch furnace:—

		£
For vessels not exceeding	300 tons	10
	500 "	15
	700 "	20
	1,000 "	25
	1,500 "	35
	2,000 "	40
	2,500 "	50
	3,000 "	60
	3,500 "	70
	4,000 "	80
	4,500 "	90
	5,000 "	100

In the case of extra pumping being required by the captain or owners for the sake of despatch, an additional charge will be made. Caps, and fixing the same, not exceeding 5 inches thick, each 2*s.* 6*d.*; exceeding 5 inches, per inch additional 6*d.*

The following Special Charges to be paid (when incurred) in addition to the foregoing Rates:—For caps split out, if 2½-inch, 2*s.* 6*d.* each; 3-inch, 3*s.*; 4-inch, 4*s.*; and so on in proportion.

For shores cut, in docking or hanging the ship, 1*s.* to 2*s.* 6*d.* each, according to injury.

The use of the joiner's shop, lock up warehouse, counting-house and store (with copper milling-machine when required) to be charged for in addition.

For the use of the steam-kiln, 10*s.* per day. Fuel for this service, as also for heating pitch, to be charged according to consumption.

N.B.—No ship will be allowed to enter the dry docks with gunpowder on board.

Southampton is distant by rail from London 80 miles, and from Birmingham 140, Manchester 216, and Liverpool 229, by way of Basingstoke, Reading, Oxford, Banbury, and Warwick. By the Coast-line of Railway it is distant from Portsmouth 16 miles, Brighton 60, and from Dorchester (to the west) 60 miles.

By sea it is distant from Havre 102 miles; and by means of a combination with the Havre and Paris Railway, a system of through rates has been introduced, by which all the towns on the continent connected by railway with Paris may send goods to Southampton for transhipment, or for the supply of the London and Birmingham markets.

This, as already noticed, is the point of departure and arrival of the packet ships belonging to the steam companies which carry on the mail packet service, and the general trade with the Cape, Ceylon, the East Indies, and China; with Australia, America, including the West Indies and Brazil; and with the Peninsula, Mediterranean, Constantinople, and the Levant generally.

A new service by steam has been opened with Hamburg, New York, and the Havannah; and Southampton is daily becoming of more importance as a great continental entrepôt. In 1866 the declared value of the exports of the produce of the United Kingdom from Southampton amounted to 3,718,975*l.*; the customs revenue for 1866 collected at the port being 116,609*l.*

The rates and charges which the Dock Company levy are generally a modification of those of the principal docks of the port of London.

Vessels Inwards			Vessels Outwards. Vessels not having discharged their Cargoes in Dock, but loading outwards		
Arriving from	Per Ton Register	Privilege	Sailing for	Per Ton Register	Privilege
1st Class.—Any port of the United Kingdom, Isle of Man, Jersey, Guernsey, and their dependencies, or European ports outside the Baltic, between the North Cape and the Straits of Gibraltar	6*d.*	Use of the docks for one week from date of entrance, with liberty to load outwards.	1st Class.—Any port of the United Kingdom, Isle of Man, Jersey, Guernsey, and their dependencies, or European ports outside the Baltic, between the North Cape and the Straits of Gibraltar	6*d.*	Use of the docks for one week from date of entrance, with liberty to load outwards.
2nd Class.—Any other port	9*d.*		2nd Class.—Any other port	9*d.*	

Rent, for every class, after the expiration of the privilege, 1*d.* per register ton per week; and any time under three days will be charged as half a week.

Emigrant ships 4*d.* per register ton, and will be entitled to four weeks' privilege.

Rates for Discharging Cargoes by the Company.

	Per ton register. *s.* *d.*
Cargoes, consisting in the whole or in part of sugar in hogsheads or tierces, including ship-cooperage	1 9
Cargoes, consisting of sugar in chests of 6 cwt. and upwards, including ship-cooperage	1 3
Cargoes, consisting of sugar in bags, mats, or chests under 6 cwt., coffee, cotton, rice, tea, saltpetre, silk, hides, tobacco, wool; flax, hemp, or jute, press-packed; tallow, rosin, turpentine, ashes, grain and seeds of all kinds, or other goods contained in casks, bales, serons, chests, cases, bags, baskets, or similar packages; also copper, copper ore, spelter, steel, iron, lead, or other metal in pigs, bars, rods, plates &c.	0 9
Cargoes, consisting of oil, wine, or spirits	0 9
flax and hemp, or of bones, alkalis and goods, in bulk	1 0
grain, and all descriptions of seeds and seed cake, in bulk	0 9
deals, planks, staves, and wood, in billets	1 0
Blue gum wood, or large timber, additional for every load delivered *s.* *d.*	0 6
If partly of hardwood or masts, then additional for every load delivered	0 6
If partly of pine or fir timber, additional for every load delivered	0 3
Oil, in iron tanks, additional for every ton	0 6
Cargoes, consisting of guano, including filling into bags or baskets in ship's hold, and sewing bags or baskets	1 6

Note.—Vessels which discharge the whole or the greater part of their cargoes into lighters will be subject to such rates as shall be agreed upon between the shipowners and the Company.

Separating such articles as cutch, india rubber &c. in an adhesive state, will be charged for extra.

No charge upon excess of cargo landed beyond the ship's register tonnage.

When vessels are discharged by their own crews, labourers to assist may be hired of the Company to work on board, at the rate of 3*s.* 6*d.* per day for each man; but they shall be under the directions and responsibility of the captains or representatives of the owners of vessels, both or either.

Aggregate Amount of Tonnage which entered the Port of Southampton in 1866.

	Tons		Tons
Russia: Baltic ports	2,520	Wallachia	1,041
White Sea	516	Moldavia	
Black Sea	3,759	Egypt	67,781
Sweden: Baltic ports	8,367	Cuba and foreign W. Indies	46,910
without Baltic ports	658	United States of America	1,707
Norway	2,444	Central and South America	90,914
Denmark	140	Total	401,213
Prussia	1,994	British Possessions:	
Germany	127,202	Channel Islands	51,922
Holland	419	Africa	12,085
Belgium	110	North America	2,774
France	111,948	West Indies	215
Portugal	40	East Indies	1,628
Spain	883		71,654
Italy	159		473,867
Austrian Territories	510		227,062
Greece	...	Coasting	
Turkey	2,261	Total	700,929

The dues levied by the corporation of Southampton on shipping are 2*d.* per ton each voyage, and 5*s.* for each ship above 100 tons. Ballast (of fine dry gravel) 1*s.* 3*d.* per ton.

There are efficient boats belonging to a Steam Tug Company, whose rates are very moderate.

The pilotage, under a sub-commission of the Trinity Board, from any place within the Isle of Wight to Southampton, is—

	d.
Vessels drawing 17 ft. and under, per last	2
Vessels drawing more than 17 ft., per foot	3
which with 5s. from outside amounts to 7s. and 8s. per foot of ship's draught.	
From Southampton to Sea.	
Vessels 17 ft. and under	6
17 and not above 20	7
More than 20	9

There are no town dues whatever on merchandise.

III. Liverpool and Birkenhead Docks, Shipping &c.

The rapid rise of the port of Liverpool to its present consequence, though no doubt principally owing, like that of the town itself, to the astonishing increase of manufactures and population in the extensive district of which it is the grand emporium, is also, in part, owing to the facilities that have been given to navigation and commerce by the construction of its wet and dry docks. The entrance to the estuary of the Mersey is a good deal encumbered with sand-banks, and the channel is crossed by a bar, which, however, has at low water spring tides, where deepest, 11 ft. water; and as the tide rises 21 ft. at neap, and 31 ft. at spring tides, there is water for the largest ships: the channels, too, being well indicated by light-houses and light-ships, and marked with buoys, there is no difficulty in making the port. In fact, since the opening of the Victoria and Queen's Channels, vessels of the largest size cross the bar at quarter flood.

But the land around being low, ships in the river are exposed to risk from gales of wind; and to obviate this inconvenience, and to facilitate their loading and unloading, the docks have been constructed, which constitute the great glory of the town. The second wet dock in the British empire was constructed here under an Act (8 Anne, c. 12) passed in 1709, and another about half a century after, since which period, and especially of late years, many new docks and basins have been constructed, some of which are on a very magnificent scale, with entrances capable of admitting ships requiring a width of 100 feet, and furnished with all sorts of conveniences. The water area of the docks in use in 1867 amounted in all to more than 239 acres, and that of the basins to more than 19 acres. The quay space is of the enormous extent of above 16 miles. The dry docks contain a total length at bottom of 10,136½ lineal feet.

The docks are defended on the side next the river by a sea-wall above 5 miles in length, which, if we take into account the difficulties attending its formation, will be found to be one of the greatest works of modern times. It averages 11 feet in thickness, and 40 feet in height from the foundations; all the more modern part being faced with Scotch granite. Every precaution is taken to prevent the accumulation of mud in the docks by the use of steam dredging-machines; and strict rules, enforced by vigilant police, are established to maintain good order, and prevent fire and depredation.

The docks are all constructed on property belonging to the 'Mersey Docks and Harbour Board,' in whom is vested the dock estate, which is managed solely for the benefit of the public. To secure this result, the board consists of 28 members, of whom 24 are chosen by parties who pay at least 10*l.* each a-year dock dues, and who must themselves pay 25*l.* each of said dues. The other 4 members are nominated by the conservators of the Mersey, that is, by the First Lord of the Admiralty, the Chancellor of the Duchy of Lancaster, and the Chief Commissioner of Woods and Forests for the time being. There were in 1858, 1,451 dock-rate payers on the register; and they only have a voice in the administration of the dock affairs. (Baines's *Liverpool in* 1859, p. 79.) Whenever there is any considerable surplus revenue after providing for current expenses and the interest of money borrowed, it is applied to the reduction of the dock rates. The bonding and other warehouses do not, however, generally belong to the dock estate, but are, for the most part, private property. Most of them are in the immediate vicinity of the docks, but some are at a considerable distance; and there is not in this respect the same accommodation, or, in some cases, the same security against fire and depredation, in the Liverpool as in the London docks, where, the warehouses being built along the dock-quays, goods are loaded and unloaded with the greatest possible facility, and are subsequently under efficient protection. But in this respect there has latterly been a great improvement. For the numerous and destructive fires which formerly took place in private warehouses have led to the adoption of certain stringent rules for their management, which have proved so effectual that no fire of any consequence has occurred for several years, and the premium of insurance on goods lodged in warehouses conducted according to the established regulations has been reduced from 35*s.* per cent. per annum, to 4*s.* per cent. on certified warehouses under private management, and to 3*s.* 6*d.* per cent. on dock warehouses.

The board have built corn warehouses on either side of the river, which are large enough to contain from 300,000 to 400,000 quarters of grain.

In 1866, 12,622 vessels, with a burden of 4,749,428 tons, entered Liverpool. A new observatory was completed at Bidston; and a sea wall, commenced in 1865 by the Weaver Navigation Company, was completed in 1866. Two new docks were finished in 1867.

Liverpool has two gridirons of 822½ lineal feet, and four landing stages, the combined length of which is 3,347½ feet.

The half tide and graving docks on the Herculaneum estate were completed and opened for use on March 16, 1866.

And in addition to those belonging to private parties, warehouses belonging to the Dock Trust, on the London plan, have been built round the quays of the Albert Dock, Stanley Dock, New Wapping Dock &c. All the dock quays have open sheds for the temporary deposit of goods alongside the ships, some of which are really magnificent structures. And besides these, there are also upon some of the dock quays, as in the Prince's Dock, Nelson Dock &c., what are termed transit sheds, of one storey, substantially built, and perfectly secured, into which ships can be discharged with unusual rapidity; the goods being removed to the proper warehouses at convenience.

Loading and Unloading of Ships.—In London this is effected by the servants of the different dock companies, whereas in Liverpool, except where the London system is introduced, it is effected by other parties under a plan introduced by the 9 & 10 Vict. c. 109, which has been found to answer extremely well. The owner of the ship, or the master in his behalf, unloads the cargo; and as the labour to accomplish this object depends on a variety of circumstances, such as the nature of the cargo, the magnitude of the ship, her proximity to the quay &c., the charge is regulated accordingly. The practice is for the shipowner or master to make a special agree-

ment with a master porter, or lumper (as he is commonly called), to execute the work. There are, however, in certain trades certain standard rates to which the terms in agreements usually approach. Thus, a Calcutta general cargo of 750 tons would be discharged for about 20*l.*; a tea cargo from China, of similar extent, for 16*l.* to 18*l.*; cotton (from United States), 12*s.* per 100 bales; guano 6*d.* per ton &c. &c. After the goods are delivered from the ship, it is the duty of the principal consignee of the cargo, or if he decline, the second and so on, and failing them, of the shipowner, to receive them on the quay, and to dispose of them in the warehouse or otherwise as may be necessary. The work so undertaken is paid for according to a fixed and moderate tariff.

Ballast.—The descriptions of ballast most commonly in use, and adopted respectively, according to the nature of the cargo, are—

Stone ballast, costing generally about 2*s.* 6*d.* per ton	}	laid
Copper dross " " 5*s.* 6*d.* "	}	down at
Iron kentledge " about from 3*l.* to 3*l.* 5*s.* per ton,	}	the ship's
but fluctuating, of course, with the price of iron	}	side;

and the charge for loading (including trimming in the ship's hold), and also for landing, is about 2*d.* per ton, each way; in, and from, 'ordinary ships in a proper berth.'

When a ship comes to port in ballast, she gets comparatively little for either stone ballast or copper dross. Indeed, when the supply of the former is plentiful, which it frequently is from so many cotton ships frequenting the port, the dealers will hardly take it away for nothing.

Vessels discharging in the Albert, Stanley, or New Wapping Docks, are supplied by the dock trustees with the *temporary* use of iron kentledge on the following terms; viz.—

> For the first 2 weeks, including shipping and receiving back, 1*s.* per ton.
> And for every week thereafter, 2*d.* additional.
> Any *deficiency* to be paid for at the rate of 5*l.* per ton.

There is commonly so ample a supply of dry stone ballast here, that *sand* ballast is *hardly ever* used, except by coasters, who load and unload it themselves.

Birkenhead.—Vast as is the accommodation afforded by the docks of Liverpool, it has been greatly increased by the works undertaken at Birkenhead. The latter is situated in the county of Chester, on the west side of the Mersey, directly opposite to and about 1,200 yards distant from Liverpool, of which it should be regarded as a suburb, or as forming an integral and important portion. Its population, which amounted in 1841 to 8,233, had increased in 1851 to 24,285, and in 1861 to 51,649. This increase appears to have taken place partly in consequence of the docks and other works commenced there, and partly in anticipation of their progress. And it is not to be denied that from the contiguity of Birkenhead to Liverpool, and from the nature of the soil, it offered many advantages for the construction of docks. Wallasey Pool, a creek or inlet of the sea, extending over about 130 acres, has been formed into 2 gigantic wet docks or floats—one containing above 52 and the other above 59 acres, with various subsidiary docks and basins, embracing, in all, a water area of above 165 acres, with a quay space extending to between 10 and 11 miles. Birkenhead also contains 3 graving docks, with a length of 1,928 lineal feet. Here, also, warehouses, with their appurtenances, planned on approved principles, and calculated to afford every facility for the loading and unloading of ships, the safe stowage of their cargoes &c., have been in part constructed. The accompanying plan gives a good idea of the extent and character of these works. They appear, however, to have been set about without due consideration; and it is doubtful whether they will ever be completed on the scale originally intended. The accommodation on the Liverpool side of the river might have been made adequate for the shipping frequenting the port, which is naturally drawn to it from its being the great seat of business. It is almost needless to add that the parties by whom the works at Birkenhead were undertaken were heavy losers by the speculation. The works were for some years at a stand-still; and they were not brought into their present state till after they had been purchased by the Liverpool corporation and included in the dock trust.

Commerce.—Though extraordinary, the rise of Liverpool has not, perhaps, been quite so rapid as has been represented. In the reign of Henry VIII. she is noticed by Leland as a place to which merchants resorted because of her moderate customs, and as being a great mart for Irish yarn. At a later period she is described by Camden as being 'the most convenient and frequented passage to Ireland;' and 'more celebrated for her beauty and populousness than for her *antiquity*.' (Gough's *Camden*, iii. 876, ed. 1806.) She was once joined for fiscal purposes with Chester, but she had more trade than the latter, and could not have been correctly described as 'the little creek of Liverpool.' In 1709 she had about 8,000 inhabitants, and 84 ships, of the burden of 5,789 tons; and in that year, as already seen, she applied for and obtained an Act for the construction of a wet dock. Since then her progress in commerce, and in the accumulation of wealth and population, has been quite extraordinary. It is not, however, difficult to discover the causes of the all but apparently miraculous progress of Liverpool. Much must be ascribed to the enterprise, sagacity, and persevering industry of her merchants; but she is, no doubt, mainly indebted for her rise and the vast magnitude of her commerce to her fortunate position, and, above all, to the increase of manufactures in Manchester and other towns in the contiguous district of Lancashire and West Yorkshire.

The situation of Liverpool necessarily renders her a principal seat of the trade between Great Britain and Ireland; and as the population and trade of the latter increased, it could not fail proportionally to increase the trade of this port. The gradual filling up of the Dee, and the consequent decline of Chester as a harbour, have also proved of no little advantage to Liverpool by rendering her the great mart for the salt of Nantwich, and other places in Cheshire, the exportation of which to foreign parts employs a great amount of shipping. Unquestionably, however, Liverpool would never have attained to half her present size or importance but for the cotton manufacture. Being the port through which Manchester, Oldham, Bury, Bolton, Ashton, and other great seats of manufacture could most conveniently obtain supplies of the raw material, and export their manufactured products, she has increased with every increase in this great department of industry; and it is no exaggeration to affirm that the creative influence of the wonderful inventions and discoveries of Hargreaves, Arkwright, Crompton, Cartwright, and

the other founders and improvers of the cotton manufacture, has been, though not so direct, quite as powerful in the docks and warehouses of Liverpool as in the mills of Manchester. Liverpool also exports large quantities of iron from the mining districts of Staffordshire and Wales, of earthenware from the Potteries, and of coal from the adjoining coal districts.

Four-fifths of the trade between the United Kingdom and the United States centres in Liverpool; and she has a large share of the trade with South America and the West Indies. She also carries on a considerable trade with the East Indies and China, though in this department she is surpassed by London. Indeed, the ships and products of Liverpool are to be found in every port, in every part of the world accessible to merchantmen.

In her earlier days Liverpool took an active part in privateering, and was also largely connected with the slave trade from the Bight of Biafra. But the estimate formed of that trade previously to 1807 was very different from what it is now; and Liverpool has made the best reparation possible for the part she took in it; for she established in its stead, and has followed up with zeal and perseverance, the trade in palm-oil, till it has become of the first importance. In proof of this statement it is enough to say that in 1866 no fewer than 785,751 cwt. of palm-oil, worth 1,579,385*l.*, were imported from the west coast of Africa into the United Kingdom; and that of these, 476,374 cwt. were imported into Liverpool. We are glad to have an opportunity of mentioning a circumstance of this sort, not so much on account of the credit which it reflects on the enterprising merchants by whom the trade has been established, as because it will, if anything can, introduce civilisation among the blacks, and impress them with a just sense of the advantages of industry and commerce.

Liverpool is the greatest port, not in the United Kingdom only, but in the world, for the shipment of emigrants. The numbers of emigrants from Liverpool during the three years 1865–67 were 121,109, 123,414, and 115,707, out of totals applicable to the United Kingdom, for the same years, of 209,801, 204,882, and 195,953. The great majority went to the United States.

The principal imports into Liverpool in the year 1866 were as follow:—

Articles		Quantities
Cocoa	lbs.	2,824,323
Coffee	,,	9,281,822
Corn and meal	cwt.	2,560,472
Cotton	,,	11,295,088
Tanned and dressed hides	lbs.	1,197,148
Palm oil	cwt.	476,374
Provisions. [Exps.]	,,	1,037,903
Rice	,,	1,217,319
Saltpetre	,,	656,924
Pepper	lbs.	2,781,013
Spirits	gallons	2,387,874
Sugar	cwt.	2,001,559
Tea	lbs.	2,747,647
Tobacco	,,	19,603,812
Wine	gallons	1,562,545
Wool	lbs.	58,268,417

The export of cattle, sheep, and swine from Ireland to Great Britain, the estimated value of which, in 1866, was 8,193,018*l.* (see Thom's *Almanack* for 1868), is carried on to a great extent through the port of Liverpool.

Quantities of Principal Duty-paying Articles Imported in Warehouse on December 31, 1865; *Received into and Delivered from Warehouse in* 1866; *and Remaining in Warehouse on December* 31, 1866, *at the Port of Liverpool.*

Articles		In Warehouse Dec. 31, 1865	Received in Warehouse, 1866	Delivered from Warehouse, 1866	In Warehouse Dec. 31, 1866
Cocoa	lbs.	491,257	2,819,141	2,870,448	440,250
Coffee	,,	1,466,010	10,238,704	9,620,819	2,083,895
Fruit: currants	cwt.	185,778	228,191	294,675	119,294
raisins	,,	21,774	67,328	71,703	17,395
Rum	gallons	1,794,545	1,790,885	1,723,434	1,861,996
Brandy	,,	695,651	895,688	590,285	1,000,854
Geneva	,,	43,563	72,527	74,126	41,964
Sugar, refined	cwt.	44,781	44,550	69,859	18,772
raw, equal to white clayed	,,	11,085	26,912	27,237	10,760
brown ,,	,,	155,196	273,791	338,758	90,229
not equal to brown clayed	,,	514,884	596,799	682,340	429,143
not equal to muscovado	,,	442,003	855,177	711,646	585,534
Molasses	,,	131,408	371,465	460,253	45,890
Tea	lbs.	2,060,044	6,331,699	6,532,166	2,759,281
Tobacco, unmanufactured	,,	34,795,666	19,183,710	24,512,643	29,466,733
manufactured	,,	983,461	869,203	1,111,225	741,442

The vast preponderance of Liverpool in the cotton trade will be obvious from an examination of the following statement, which is taken from the comprehensive and valuable tables published by Messrs. George Holt and Co., cotton brokers:—

Imports of Cotton Wool into Liverpool in Packages, 1866.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in 1866	Total in 1865
Growth of U.S. from N. Orleans & Natz.	48,719	40,613	60,189	34,711	65,919	46,915	26,576	8,161	14,911	7,510	14,035	13,423	385,740	211,740
Mobile	28,770	18,946	53,035	34,319	24,500	42,929	12,510	9,366	2,548	5,530	5,150	5,158	236,661	27,945
Florida	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Savannah & Darien	2,296	9,581	18,449	4,847	18,565	18,517	6,815	3,008	—	—	—	4,813	86,691	10,630
Charleston	2,731	10,251	4,918	7,667	5,885	5,062	7,157	—	893	2,670	—	5,097	52,163	35,308
Other ports	58,586	42,518	51,656	49,677	64,287	16,578	3,924	16,716	25,202	15,608	23,985	26,503	394,835	173,801
Total American	141,102	121,707	187,847	131,121	179,156	129,999	57,382	37,251	43,556	28,913	45,170	52,976	1,156,130	459,369
Brazil & Portugal	37,709	39,619	62,035	57,863	58,118	34,819	29,491	13,994	17,956	22,980	21,986	9,679	401,865	334,068
Mediterranean	30,647	20,119	32,521	35,571	6,250	4,470	5,680	8,679	6,706	7,016	17,104	25,720	200,083	411,328
East Indies	67,726	30,683	193,577	146,256	202,447	129,901	185,405	179,536	178,150	153,830	50,707	26,455	1,544,675	1,095,744
China	—	40	—	—	—	3,954	2,177	3,100	1,581	—	1,961	—	12,993	125,671
Demerara, West Indies &c.	11,830	5,986	4,712	20,707	6,843	7,387	8,009	5,462	4,475	6,315	5,510	3,038	90,274	113,328
Total, packages	289,014	218,154	480,692	390,917	452,810	309,735	288,144	248,022	252,424	219,054	142,438	117,818	3,409,020	2,539,708

Account of the Entries and Tonnage of Ships in the Liverpool Docks, and of the Amount of Dock Dues, in each Year from 1851 to 1866.

Year ending June 24	Foreign Trade				Coasting Trade								Total		
	Sailing Vessels		Steamers		Sailing Vessels		Steamers		Hovers						
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value			Vessels	Q	Value
	tons	£ s. d.	tons	£ s. d.	tons	£ s. d.	tons	£ s. d.	tons	£ s. d.				tons	£ s. d.
1851	1,482,636	108,147 1 7	171,169	7,717 5 8	696,856	203,995 3 5	1,138,436	19,715 5 6	178,169	1,786 5 11			21,071	3,797,666	340,695 9 10
1852	1,728,199	134,357 10 2	188,715	11,641 19 2	748,675	191,284 11 3	1,420,375	17,158 14 3	194,114	1,946 17 11			24,171	4,280,056	357,369 17 6
1853	1,765,511	117,149 4 2	189,401	11,666 19 2	611,267	9,693 1 10	1,184,051	18,211 9 4	207,121	2,076 14 11			22,030	4,356,551	158,797 7 0
1854	1,956,474	136,374 10 6	237,319	14,256 8 5	9,104	9,104 4 6	1,104,165	18,486 9 7	198,994	1,994 13 11			23,994	4,006,160	180,221 12 0
1855	1,876,844	131,971 12 8	214,205	13,020 5 5	10,102	10,102 15 7	1,099,262	18,536 17 10	185,876	1,862 14 5			20,866	4,386,618	193,500 18 9
1856	2,148,835	159,776 7 7	295,884	20,523 9 11	8,581	8,581 10 6	1,218,218	21,001 14 10	185,134	1,851 6 4			24,054	4,845,462	218,310 16 5
1857	2,048,581	146,625 7 5	314,791	21,884 11 7	618,161	9,104 4 10	1,215,638	21,001 14 10	185,134	1,851 6 4			24,054	4,380,847	200,057 8 3
1858	2,230,981	159,391 3 4	399,458	27,826 9 11	577,964	9,104 4 10	1,215,638	21,001 14 10	185,134	1,851 6 4			24,054	4,611,315	211,677 14 2
1859	2,218,881	161,267 10 4	447,595	30,561 10 11	581,187	9,104 4 10	1,215,638	21,001 14 10	185,134	1,851 6 4			24,054	4,651,238	224,784 10 6
1860	2,414,184	179,715 16 5	491,339	40,027 16 6	595,672	9,104 4 10	1,215,638	21,001 14 10	185,134	1,851 6 4			24,054	4,897,477	240,069 8 6
1861	2,379,169	183,533 12 5	564,151	46,151 6 5	594,238	9,104 4 10	1,215,638	21,001 14 10	185,134	1,851 6 4			24,054	4,939,163	258,218 18 3
1862	1,973,169	140,304 0 10	671,097	59,919 2 11	594,238	9,104 4 10	1,215,638	21,001 14 10	185,134	1,851 6 4			24,054	4,800,316	227,845 5 0
1863	1,666,478	119,665 0 9	806,995	63,732 6 0	594,238	9,104 4 10	1,215,638	21,001 14 10	185,134	1,851 6 4			24,054	4,712,640	211,396 18 7
1864	2,203,918	165,915 10 10	1,211,812	85,635 6 0	595,196	9,104 4 10	1,215,638	21,001 14 10	185,134	1,851 6 4			24,054	5,601,582	309,045 13 7
1865															
1866															

It is extremely difficult, or rather, we should say, quite impossible, to form any correct estimate of the total amount of the trade of Liverpool. In 1866 the real or declared value of the produce and manufactures of the United Kingdom exported from the port to foreign parts amounted to 87,486,497*l.*, as seen in the following statement.

Account of the Quantities and Values of the Principal Articles of British and Irish Produce Exported from Liverpool in 1866, with the total Value of the Exports, and the Amount of Customs' Duty collected at the Port in the same Year.

Articles	Quantities	Value
		£
Alkali: soda - - -	tons	1,797,616	815,651
Apparel - - -	value	—	604,615
Arms and ammunition:			
Fire-arms (proof) -	no.	88,202	109,238
Gunpowder - -	lbs.	3,833,965	92,743
Beer and ale - -	barrels	102,970	509,198
Butter - - -	cwts.	30,918	172,493
Candles, stearine -	lbs.	409,145	17,980
Cards, counters, and cotton tows		728,954	450,152
Cotton yarn - -	lbs.	47,601,578	4,135,229
Cotton manufactures:			
Piece goods - -	yards	1,695,175,616	37,511,761
Hosiery and wearing apparel - -	value	—	1,915,494
Drugs and chemicals, products - -	,,	—	199,117
Earthenware and glass - -	packages	186,295	1,171,977
Fish, herrings - -	barrels	5,264	7,078
Grain of all kinds -	value	—	266,015
Hardware, cutlery, and machinery - -	,,	—	2,413,496
Hardware and cutlery, of all sorts -	,,	—	2,190,496
Leather, tanned, unwrought - -	cwts.	6,079	85,508
Leather, wrought -	value	—	310,078
Leather, saddlery and harness -	,,	—	87,994
Linen yarn - -	lbs.	11,728,194	824,676
Linen manufactures:			
Piece goods - -	yards	185,402,551	6,516,251
Threads, laces, and small wares -	value	—	238,911
Machinery and mill-work	,,	—	1,561,091
Metals:			
Iron: pig, bar, bolt, wire, and cast -	tons	219,698	1,862,158
railroad - -	,,	71,079	800,080
of all other kinds	,,	150,991	1,925,023
Steel, unwrought -	,,	24,793	289,197
Copper, unwrought -	cwts.	26,346	109,667
part wrought and wrought	,,	135,519	535,307
Lead - - -	tons	5,800	126,456
Tin, unwrought -	cwts.	27,915	123,302
plates - -	,,	1,235,333	1,647,740
Oil, seed - -	gallons	1,907,110	312,659
Painters' colours -	value	—	84,115
Paper (except hangings) - -	cwts.	49,397	140,567
Salt - - -	tons	530,638	310,193
Silk, thrown, and yarn	lbs.	85,025	94,674
manufactures -	value	—	534,806
Spirits, British and Irish - -	gallons	209,770	93,596
Sugar, refined - -	cwts.	97,217	140,789
Wool, sheep and lambs'	lbs.	185,591	14,522
Woollen and worsted yarn - - -	,,	191,972	30,098
Woollen manufactures:			
Cloths of all kinds	yards	21,929,180	3,259,180
Worsted and mixed stuffs - -	,,	112,963,250	5,502,781
Flannels, carpets &c.	,,	13,273,515	1,499,536
Hosiery and other goods - -	value	—	472,179
All other articles -	,,	—	4,583,196
Total - -	-	—	87,486,497
Customs received		—	2,867,601

The mercantile marine of Liverpool is inferior only to that of New York. There belonged to the port on December 31, 1866, 2,998 ships, of which 2,569 were sailing vessels of the aggregate burden of 1,326,317 tons, and 429 steamers of the aggregate burden of 205,664 tons.

The gross customs revenue of Liverpool amounted in 1866 to 2,867,601*l.*, while that of London, in the same year, amounted to 10,550,063*l.* But it would be an error to suppose that the trade of the metropolis exceeded that of Liverpool in this proportion. Cotton wool, and other raw materials for manufactures, on which no duty is paid, form the principal part of the foreign imports of Liverpool; whereas London imports comparatively

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few of these articles, her trade being principally in articles of direct consumption, as sugar, tea, coffee, wines &c., on which duties are paid. This circumstance accounts for the comparatively large amount of the customs revenue received in the latter. There cannot, indeed, be any doubt that the foreign trade of Liverpool is now considerably greater than that of London. Her exports of the produce of the United Kingdom, as already seen, amounted in 1866 to 87,486,497*l.*, whereas the exports from London during the same year amounted to only 41,449,797*l.*

Account of the Number and Tonnage of British and Foreign Ships that cleared out with Cargoes and in Ballast from the Port of Liverpool in 1866, specifying the Countries for which they sailed, and the Number for each.

Countries to which departed	British						Foreign					
	With Cargoes		In Ballast		Total		With Cargoes		In Ballast		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
Foreign												
Russia:												
Baltic Ports	51	11,614	4	1,486	55	13,100	23	12,173	1	212	24	12,385
White Sea and Arctic Ocean	5	997	2	561	7	1,561	3	538	..	..	3	538
Black Sea and Sea of Azof	4	1,367	..	..	4	1,367	11	5,145	1	644	12	5,789
Sweden:												
Ports within the Baltic	..	..	..	..	..	..	3	1,087	7	3,387	10	4,474
Ports without the Baltic	..	..	1	570	1	570	4	1,857	1	358	5	2,215
Norway	9	1,666	..	..	9	1,666	31	6,025	9	3,498	40	9,523
Denmark	5	521	..	..	5	521	62	7,666	3	1,011	65	8,217
Iceland	4	273	..	..	4	273	13	1,313	..	..	13	1,313
Prussia	8	1,761	..	..	8	1,761	46	15,407	..	..	46	15,407
Schleswig Holstein and Lauenburg	1	104	..	..	1	104	1	273	..	..	1	273
Germany	15	7,111	1	539	16	7,665	10	2,660	10	6,790	20	9,449
Holland	57	25,258	..	..	57	25,258	24	4,207	..	..	24	4,207
Java	2	875	..	..	2	875	6	2,714	..	..	6	2,714
Belgium	59	24,359	2	995	61	25,354	19	5,364	..	..	19	5,364
France:												
Ports without the Mediterranean	215	94,713	1	151	215	94,864	151	18,386	6	1,556	157	19,942
Ports within the Mediterranean	3	733	..	..	3	733	1	225	..	..	1	225
Madagascar	1	189	..	..	1	189	..	..	..	..	..	..
Portugal:												
Portugal Proper	71	23,299	5	1,889	79	25,188	26	6,180	1	316	27	6,515
Azores	4	689	19	1,985	23	2,674	2	562	2	321	4	883
Spain:												
Ports without the Mediterranean	37	9,756	1	134	38	9,890	15	20,511	8	2,421	23	22,931
Ports within the Mediterranean	15	2,528	1	391	16	2,919	40	14,924	..	..	40	14,924
Philippine Islands	..	..	..	..	..	..	5	2,560	..	..	5	2,560
Italy	76	58,422	..	..	76	58,422	54	17,789	..	..	54	17,789
Papal States	..	..	..	..	..	..	1	213	..	..	1	213
Austrian Territories	27	26,599	..	..	27	26,599	4	1,568	..	..	4	1,568
Greece	1	189	..	..	1	189	1	302	..	..	1	302
Ionian Islands	1	186	..	..	1	186	..	..	..	..	..	..
Turkey	70	61,997	..	..	70	61,997	12	2,816	..	..	12	2,816
Wallachia and Moldavia	2	462	..	..	2	462	..	..	..	..	..	..
Syria	1	300	..	..	1	300	2	326	..	..	2	326
El Hedjaz	1	265	..	..	1	265	..	..	..	..	..	..
Egypt	96	97,736	4	1,649	100	99,385	9	4,036	1	160	10	4,196
Morocco	9	1,387	..	..	9	1,387	..	..	..	..	..	..
United States of America:												
Atlantic Ports, Northern	398	587,884	..	..	398	587,884	204	241,700	..	..	204	241,700
Southern	146	101,864	..	..	146	101,864	81	63,563	3	3,187	84	66,940
Pacific Ports	19	10,904	..	..	19	10,904	3	2,381	..	..	3	2,381
Cuba and Foreign West Indies	129	76,060	1	787	130	76,847	153	44,374	..	..	153	44,374
Central and Southern America	560	297,332	4	1,026	564	298,358	105	30,209	2	472	107	30,681
China	10	7,584	..	..	10	7,584	..	..	..	..	..	..
Siam	..	..	..	..	..	..	1	347	..	..	1	347
Japan	3	1,212	..	..	3	1,212	..	..	..	..	..	..
Pacific Islands	1	392	..	..	1	392	..	..	..	..	..	..
Arabia	2	1,682	..	..	2	1,682	..	..	..	..	..	..
Persia	1	909	..	..	1	909	..	..	..	..	..	..
East Coast of Africa	1	287	..	..	1	287	..	..	..	..	..	..
Western Coast of Africa, Foreign Possessions	107	36,138	1	21	108	36,159	2	740	..	..	2	740
	2,196	1,301,866	47	12,254	2,243	1,314,120	1,203	559,220	55	14,974	1,258	575,194
British Possessions.												
Channel Islands	9	918	..	..	9	918	..	..	..	..	..	..
Gibraltar	31	7,814	1	692	32	8,506	4	823	..	..	4	823
Malta and Gozo	29	15,551	..	..	29	15,551	21	7,227	..	..	21	7,227
Possessions in Africa	19	6,185	..	..	19	6,185	2	955	..	..	2	955
East Indies	337	348,773	2	1,667	339	350,440	22	16,909	..	..	22	16,909
Hong Kong	14	12,794	..	..	14	12,794	3	2,602	..	..	3	2,602
Australian Colonies	66	32,625	..	..	66	32,625	1	1,063	..	..	1	1,063
Aden	23	23,732	..	..	23	23,732	3	1,334	..	..	3	1,334
North American Colonies	337	240,345	24	24,108	361	264,451	21	8,877	4	2,124	25	11,001
West Indies	109	55,603	2	435	131	56,063	15	4,568	1	534	16	5,102
Falkland Islands	1	293	..	..	1	293	..	..	..	..	..	..
	995	796,633	29	26,903	1,024	823,536	92	44,958	5	2,658	97	45,616
Total	3,191	2,306,199	76	39,159	3,267	2,345,658	1,301	595,178	60	17,632	1,361	620,810

Arrivals and Clearances Coastwise of Sailing and Steam Vessels at the Port of Liverpool in 1866.

	Sailing Vessels		Steam Vessels		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons
Arrivals	3,786	336,459	3,776	1,287,926	7,562	1,624,385
Clearances	4,418	333,889	3,639	1,164,028	8,057	1,497,917
Total	8,204	670,348	7,415	2,451,954	15,619	3,122,302

Of the above, about half are supposed to be engaged in the Irish trade.

Lines of Packets.—Few things have conduced more to the progress of the trade of Liverpool, and we may add, of the empire, than the establishment of a regular communication by means of packet ships between this great emporium and other British and foreign ports. These sail to almost all parts of the world. Besides no fewer than 5 great lines of steam packets which maintain a regular intercourse with New York and Boston, in the United States, and Halifax, Nova Scotia, Quebec,

and Montreal, there are steamships sailing pretty regularly to Baltimore, New Orleans, and Mobile. The rates of passage in the steamers vary, of course, according to the accommodation required; but in general they may be taken at from 18*l.* to 26*l.* for the 1st, and at 16*l.* or 18*l.* for the 2nd, cabin to New York direct. The charge to Halifax is a little less. Steerage passengers in steamers to New York pay from 5*l.* 5*s.* to 8*l.* 8*s.*; and goods carried by them pay about 30*s.* to 50*s.* per ton measurement. It is not too much to say that these lines comprise the finest mercantile steam fleet in the world, and perform their voyages with surprising regularity.

But notwithstanding the numbers and the magnitude of the steam-ships employed in the American trade, its increase has been such that it continues to afford employment to numerous extensive lines of sailing packets. The ships of some of these lines sail regularly twice a week, or oftener if required, for New York; and those of others sail at stated periods for Baltimore, Philadelphia, and New Orleans. These, which are first-class ships varying from 1,500 to 2,500 tons burden, are all American built and owned. But they are mostly resorted to by steerage passengers, who are carried to New York for from 3*l.* to 4*l.* They are rarely used by the highest class of passengers, and even for steerage passengers they are being superseded by steamers.

For intermediate and steerage passengers, the ship supplies provisions &c., the minimum being the scale indicated by the Passengers' Act, but varying according to circumstances, and forming part of the bargain for the passage. The passengers, however, must find their own beds and bedding.

Exclusive of the North American lines, there are lines of steam-packets to South America, West Indies, Central America, Chili and Peru, Australia, and other remote parts; and to the Baltic, Hamburg, Rotterdam, Antwerp, Havre, and Bordeaux; to Oporto, Lisbon, and Cadiz; the east and south coasts of Spain and France, and the shores of Italy, and generally of the Mediterranean; touching at the Piræus, Constantinople, Syra, Smyrna, Alexandria &c. And in addition to the regular traders, all descriptions of vessels, some of them of very large size, are constantly arriving at and leaving the port from and for all parts, whether near or remote. The trade with America, however, greatly exceeds that with any other quarter; and next to the British, the flag of the United States is by far the most prevalent on the Mersey and in the docks of Liverpool.

It may almost be said that the Channel is bridged over by lines of steam-packets from Liverpool to Londonderry, Belfast, Dublin, Waterford, Cork, and other Irish ports; while other lines maintain a constant intercourse with the Clyde, Bristol, London &c.; and in addition to the steamers, the Channel trade affords employment to an immense number of the smaller class of sailing vessels.

Dock Dues on Ships.—All vessels entering inwards, or clearing outwards, at the port of Liverpool, pay for Dock Rates and Harbour Lights. The dock rates and tonnage dues amounted in the year ended June 24, 1868, to 494,802*l.* 3*s.* 5*d.*

	Tonnage, per ton	Harbour Lights, per ton	Total
	s. *d.*	*s.* *d.*	*s.* *d.*
Class 1.—Between St. David's Head and Carlisle, including the island of Anglesea	0 2½	0 0½	0 3
Between Carlisle and the Mull of Galloway, including the Isle of Man	0 2½	0 0½	0 3
Class 2.—Between the Mull of Galloway and Duncan's Bay Head, including the Orkney Islets, and all the islands on the western coast of Scotland, and between St. David's Head and the Land's End, including the Scilly Islands, and the east coast of Ireland from Cape Clear to Malling Head	0 4½	0 0½	0 4½
Class 3.—All the parts of the east and southern coasts of Great Britain, between Duncan's Bay Head and the Land's End, including the islands of Shetland, and all parts of the west coast of Ireland, from Cape Clear to Malling Head, including the islands on that coast	0 5½	0 0½	0 6
Class 4.—All parts of Europe to the northward of Cape Finisterre, and to the westward of the North Cape, and without the Kattegat and Baltic Sea, and including the islands of Guernsey, Jersey, Alderney, Sark, the Faro Isles, and Iceland	0 10	0 1½	0 11½
Class 5.—All parts within the Kattegat and Baltic, including the whole of Sweden, the White Sea, and all parts to the eastward of the North Cape, all parts in Europe, to the southward of Cape Finisterre, without the Mediterranean, Newfoundland, Greenland, Davis's Straits, Canaries, Western Islands, Madeira, and Azores	1 1½	0 1½	1 3
Class 6.—All parts on the east coast of North America, the West Indies, the east coast of South America to the northward of the Rio la Plata inclusive; all parts of the west coast of Africa, and islands to the northward of the Cape of Good Hope, and all parts within the Mediterranean, including the Adriatic; the Black Sea, and Archipelago, the islands of St. Helena, Ascension, and the Cape de Verde Islands	1 4½	0 1½	1 6
Class 7.—All parts in South America, to the southward of the Rio la Plata, the Pacific Ocean, in Africa and Asia, to the eastward of the Cape of Good Hope	1 4½	0 1½	1 6

All vessels arriving at or clearing from the said port are to pay the said rates from or for the most distant port or place from or for which they shall trade; but vessels arriving from any parts in ballast do not pay dockage on entering inwards; and should such vessels proceed to sea again in ballast, then only half of the dock rates are due, with the whole of the lights; but taking a cargo outwards subjects such vessels to full dock dues.

N.B.—New vessels built in Liverpool are subject only to half the above rates on the first outward clearance.

Floating Light at the Entrance of the River Mersey.—Towards this light the following rates are payable:—

All vessels sailing to or from Liverpool to any port or place between Duncan's Bay Head and the Land's End on the west side of Great Britain, and between Malling Head and Cape Clear on the east side of Ireland, ¼*d.* per ton.

All vessels sailing to or from Liverpool to any port or place between Duncan's Bay Head and the Land's End on the east and southern coasts of Great Britain, and between Malling Head and Cape Clear on the west coast of Ireland, ¼*d.* per ton.

All vessels sailing to or from Liverpool to any port or place not being within the United Kingdom of Great Britain and Ireland, or the adjacent islands to the northward of the Cape of Good Hope, and the northward of Cape Horn, ¼*d.* per ton.

All vessels sailing to and from Liverpool to any port or place to the eastward of the Cape of Good Hope and the westward of Cape Horn, 1*d.* per ton.

N.B.—In the day time, from sunrise to sunset, a blue flag, with the letters N.W. in white, will be hoisted at the main-mast head; and in thick and foggy weather, either by night or day, a bell will be kept constantly ringing to prevent vessels from running foul of the light-vessel.

Abstract of chief Bye-Laws (issued 1866) made under Dock Consolidation Act, 1858 &c.

When any delay shall take place in loading or discharging, the board may employ persons for that purpose, and masters of vessels are to assist in such work by clearing deck, and stowing away. Penalty on default, 5*l*.

Masters of vessels to obey directions of dock officers in relation to the manner of coming in or going out of dock, and not to offer any obstruction to the opening or shutting of gates. Penalty, 20*l*.

No person to open or shut, or attempt to open or shut, any dock gate, sluice, or clow: penalty, 100*l*. Nor any swing-bridge: penalty, 20*l*.

No ship to enter or be within any dock under sail. Penalty, 5*l*.

Masters of vessels in the river, near to dock entrances, to remove same when required by dock officers. Penalty, 10*l*.; and the expense of removal by the board to be also paid by such masters.

Masters and owners of vessels to obey the directions of, and to offer no obstruction to, dock officers as to the mooring, unmooring, moving, or removing any vessel from one part of any dock to another part, or to any other dock; or in the regulating the position, loading, and discharging of such vessels, and the quay space to be occupied by such vessels. Penalty, 10*l*.; and all expenses incurred by dock officers in carrying out this enactment to be also paid by such masters or owners.

Dock officers may employ riggers &c. for working vessels in and out of dock, at the expense of the masters or owners.

The board, in exercise of their authority to run docks dry for repair &c., may remove vessels at the expense of the owners.

All vessels in dock to be kept so loaded or ballasted as to be safely removed. Penalty, 50*l*.

Unserviceable vessels encumbering the docks may be sold by the board at the end of four months. (Sec. 58.) Board may also remove wrecks in dock or elsewhere at the owner's expense, and sell same to recover expenses.

No vessel to be brought into dock, or alongside piers &c. contrary to any order of dock officers. Penalty, 20*l*.

No vessel to be brought in any entrance, basin, or dock, when the signal is hoisted that the dock is full. Penalty, 20*l*.

Penalty on master for giving to dock officers false report as to draught of water, 100*l*.

No ballast, rubbish, dust, ashes, shingle, stone, or other refuse, or things, to be thrown into any dock. Penalty, 50*l*.

No ballast, stone, shingle, cinders, ashes, limestone, dung, rubbish, dust, or refuse of any kind to be laid upon any quay or pier within three yards from margin of the dock or river, and if so laid to be removed within twenty-four hours. Penalty, 5*l*.; and there is an additional penalty of 5*l*. for every further day the same shall remain unremoved.

Masters of vessels loading or discharging ballast, stones, shingle, coals, cinders, ashes, limestones, bricks, tiles, dung, rubbish, dust, or any other loose matter or thing, to use for such purpose a canvas, cloth, or wooden shoot, to the satisfaction of the dock master. Penalty, 5*l*.

Any goods (except timber, as to which there are other regulations) permitted to remain on any quay or pier beyond 4 o'clock P.M. of the second day next after landing or depositing thereon, will incur a quay rent of 5*s*. per hour, and which amount is doubled in the event of goods being allowed to remain over the third day, subject to certain powers of the board to mitigate the same. And in addition thereto, if permitted to remain thereon, so as, in the judgment of the harbour master, dock master, or traffic manager, to be an obstruction to business, the consignee will incur a penalty of 5*l*., and the board or their officers may warehouse and sell the goods.

Vessels damaging any of the works of the board may be detained until damage paid for or deposit made.

Penalty for offering bribes to dock officers and on the latter for receiving the same, 20*l*. each. (N.B.—If either of the parties giving or accepting such bribes shall, before proceedings are commenced, give information and discovery of such offence, he will be excused from the penalty.)

No person to assault, resist, obstruct, or impede any dock officer in the execution of his duty, or disobey his lawful orders, or use abusive or offensive language, or aid or incite others to do so. Penalty, 10*l*.

No ballast, ashes, or other bulky substance, or rubbish, to be thrown into the river, or any of the sea channels, or from any pier or quay. Penalty, 10*l*.

If any vessel shall load or discharge any portion of her cargo, without the previous consent of the board, in any part of the river north of an imaginary straight line from Rock Ferry Slip to the southern basin of Harrington Dock, the master or owner of such vessel will be liable to pay to the board double tonnage and dock rates; and if such vessel shall afterwards enter the docks, she will be further liable to the usual tonnage and other rates.

Persons wilfully or carelessly injuring any lightship, beacon, or buoy, landmark, lifeboat-house, or lifeboat, will incur a penalty of 20*l*., and be moreover required to make good the damage.

No vessel to be made fast to buoys other than mooring buoys. Penalty, 20*l*.

Timber alone to be placed on land exclusively appropriated for timber. Penalty, 5*s*. per hour.

No timber to be discharged into docks without consent of harbour master: penalty, 10*l*. And if so discharged by consent, and not removed within 24 hours afterwards, there is a further penalty of 5*s*. per hour.

Owners of timber permitting the same to remain on the quays or timber dépôt beyond the time prescribed by the bye-laws after the same has been passed by the Customs officers, will incur a quay rent of 5*s*. per hour, and 10*s*. per hour, respectively as above mentioned with respect to other goods left unduly on the quays. *Note.*—The time now allowed is prescribed by bye-law No. 97.

The board are authorised to sell any timber unlawfully laid on any quay or other place, or which may remain beyond the time within which the same is required to be removed.

As to the use of fires and lights on board ships in the docks, the following penalties are also imposed, viz.:—

For using a fire or light on board any vessel in any dock or basin not set apart or appointed by the board for that purpose, 100*l*.

For using a fire or light on board any vessel in a dock or basin set apart or appointed by the board for that purpose, but in a manner not authorised by the bye-laws, 20*l*.

For disobedience to any order given by an officer of the board, or by any police constable or watchman, for extinguishing any fire or light used in contravention of the bye-laws, or for obstructing an officer in boarding or searching any vessel for fires and lights, 10*l*.

For smoking tobacco or other substance within any shed, warehouse, or dock, or on any pier, or on board a vessel in any dock, 5*l*.

No aqua-fortis, oil of vitriol, or other goods of dangerous quality, to be placed on any quay unless distinctly marked as such outside the package, and without giving notice to the dock officers. Penalty, 20*l*. And if such goods are not removed both from the quays and vessels within two hours after notice from the dock officers, there is a further penalty of 20*l*. for every hour such goods &c. remain. And if not so removed, the board may remove them at the cost of the owner. And such goods must be watched from one hour before sunset to one hour after sunrise by the owners of such goods or the master of the vessel: penalty, 5*l*., and the board may watch the same at the owner's expense.

No persons to bring gunpowder into any dock or into vessels lying therein; and no masters of vessels having gunpowder on board to suffer such vessels to be brought or lie within the buoys moored off the docks, or within 300 yards of any dock or pier. Penalty, 100*l*.

The board are empowered to appropriate two places on their estate, on each side of the river, at which gunpowder may be landed; and the places at present allowed by this Act, and by the bye-laws for the regulation of gunpowder under the Act of 1865, for shipping or discharging gunpowder, are—the slip at the north side of the entrance of Toxteth Dock; one berth on the south side of the Harrington Basin; the Pier Head, outside of the Egerton Dock in Toxteth Park; the Magazines landing place at Bromborough, and the Ferry Slip at Tranmere; and by the 8th bye-law for the regulation of gunpowder, quantities not exceeding 25 lbs. in weight may be embarked from the north end of the Prince's Landing Stage on notice being previously given to the stage master.

Her Majesty's ships are exempt from the above prohibitions as to gunpowder, but any person claiming such exemption without being entitled to it will incur a penalty of 10*l*.

Persons falsely claiming to be liable to harbour rates only, will incur a penalty of 50*l*.

Masters or owners of vessels neglecting or refusing to pay harbour rates will incur double rates and a penalty of 20*l*. in respect of each refusal.

Persons not making a true report as to a ship's destination on payment of rates will incur a penalty of 10*l*.

Masters or owners of vessels entering and departing in ballast, not leaving the collector's certificate with the dock master, will incur double rates and a penalty of 20*l*.

Masters of vessels refusing to produce books &c., or giving false answers to the collector of rates on goods, will incur a penalty of 10*l*.

Masters or owners of vessels and goods evading or neglecting payment of dock rates will incur double rates and a penalty of 20*l*. in each case.

Masters or owners of importing vessels not signing and leaving at the dock office, within fourteen days after discharge, a full and accurate list of all goods imported, stating the quantities and distinguishing the nett weight and contents of such goods (according to the bills of lading), or the names of the persons actually paying the freight for the same; and the owner, charterer, consignee, broker, or agent of every exporting vessel not preparing a full and accurate list of all goods so exported by such vessel from the bills of lading and freight list thereof, and not signing and leaving at the dock office within fourteen days after clearance a correct transcript of such list, distinguishing therein the names of the several shippers of such goods, according to the bills of lading, will incur a penalty of 20*l*. in each case.

The penalties under Secs. 261 and 262 apply equally to principals and clerks or servants.

Masters of vessels giving false answers to dock officers as to the dimensions or draught of water of vessels going into the graving dock, or doing any act therein by which the draught of such vessels shall be increased while in the graving dock, will incur a penalty of 10*l*. and be liable to all damages to the board consequent thereupon.

Masters of vessels to be answerable for the acts of their crew or persons employed about such vessels, but may recover from such persons penalties incurred by their default.

Persons cutting or defacing any mooring rope or chain, or injuring any buoy, buoy-rope, or cable belonging to any lost anchor, will incur a penalty of 10*l*. and be required to pay the amount of damage.

Pilotage Rules and Regulations.

Any person acting as a pilot in the port of Liverpool, without a license, to forfeit 20*l*.

Pilots refusing to conduct ships, or assist ships in distress, to forfeit 10*l*. and lose their license.

No coasting vessel, inward or outward bound, of the burden of 100 tons or upwards (unless she be in ballast), is to refuse a pilot, as the master or owner &c. must pay the full pilotage if one is offered. No vessel is deemed a coaster unless she has been 6 months in that trade, or sailed from Liverpool on a coasting voyage.

Masters of vessels forcibly taking pilots beyond the limits of the port shall pay a forfeit not exceeding 20*l*., nor less than 5*l*.

Pilots misbehaving to have their license recalled; and if they act afterwards, to be liable to the same penalties as if they were not pilots.

That the master or commander of any ship or vessel inward-bound to the port of Liverpool, which shall be liable to pay pilotage, shall, on coming within the pilots' stations, display and keep flying the usual signal for a pilot to come on board, and every master or commander who shall omit so to do shall forfeit and pay any sum not exceeding 5*l*.

Masters of vessels inward or outward-bound refusing to take the first pilot who offers, to be liable to full pilotage.

Rewards for pilots assisting ships in distress to be settled by the pilot committee.

Compensation to be made to pilots for taking vessels out of port which have been forced back, to be fixed by the committee.

Every master to give the pilot a true account of the draught of his ship, and pilot authorised to admeasure.

No pilot to be allowed to lay a vessel aground without a written order from the master or owner: penalty 5*l*.

Every master sending a pilot to take charge of a vessel exceeding that for which he is licensed, excepting in cases of necessity, shall be fined in a sum not exceeding 5*l*.

Second-class pilots are limited to vessels not exceeding 500 tons, and 16 feet draught of water.

Third-class pilots, formerly 12 feet, are limited to pilot vessels not exceeding 250 tons register and 12 feet draught of water.

In consequence of a practice now too prevalent, it appears that persons not licensed, but representing themselves as such, are in the habit of taking charge of vessels as pilots: it is earnestly recommended that masters of vessels demand of all per-

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sons so representing themselves as pilots to take charge of vessels, to produce their license, which is only in force 12 months from the date of such license.

When it blows so strong as to prevent the pilots boarding a vessel with their small boat, the vessel should be steered with the wind on the quarter, the yards braced by, when the large boat sheers under the lee quarter, and the pilot jumps on board.

Stations of the Pilot-boats.—The boat having the turn to board displays a large red and white flag at the mast-head by day, and exhibits lights in accordance with art. 8 of the Merchant Shipping Amendment Act of 1862.

The two western boats cruise off Point Lynas, or to the northward and eastward of it as wind and weather may permit, and as far to the westward as the Middle Mouse, and to the eastward until Priestholm Island bears S.S.W. by compass.

The third western boat cruises to the eastward of Point Lynas, to board any vessels that may pass the first and second boats, but not further eastward than the west end of Great Ormshead bears S.S.W. by compass.

The fourth western boat cruises as far west as the eastern limit of the third boat, and eastward until Talargoch Chimney (on the west end of the Bar-land) bears S.S.W. by compass.

The fifth, or first Hoylake boat, cruises to the westward, so as to be within 5 miles of the North-west Lightship.

The sixth, or second Hoylake boat, to take pilots from vessels outward-bound, and to supply pilots to all vessels to the eastward of a line from the Point of Ayr to the Bell Beacon of the Horse Channel.

The seventh boat follows outward-bound vessels, to receive their pilots, and bring them to Liverpool.

N.B. The pilot committee recommend to the merchants &c. that when a pilot conducts a ship or vessel into the port to their satisfaction, the same pilot be employed to take the said vessel out again; but if he should be absent on duty, that one belonging to the same boat be employed.

The Liverpool Pilots' Committee.—This board, composed of some of the first shipowners of the port, formerly acted under a special Act of Parliament, but since January 1859 they are under the Consolidated Mersey Docks and Harbour Act; and their proceedings are submitted weekly, for confirmation, to the general board of the Mersey Docks and Harbour.

Liverpool Life Boats.—The dock trustees have established 5 life-boat stations, viz. at Liverpool, on Waterloo pierhead, 2 boats; Magazines, 2 boats; Hoylake, 2 boats (Hoylake 1 boat, Hilbre Island, 1 boat); Point of Air, 2 boats; Formby, 1 boat. The crews of the Liverpool and Magazines boats consist of a master and 10 men each; the boats on the other stations have a master and 12 men. The entire establishment is well conducted and efficient.

Dock Rates to be paid on the Principal Goods, Wares, and Merchandise Imported into the Port of Liverpool from Foreign Countries, or British Colonies, Plantations, or Settlements; or brought Coastwise from Ports or Places in the United Kingdom, including the Islands of Jersey, Guernsey, Alderney, Sark, and Man; or Exported from the said Port to Foreign Countries and British Colonies, Plantations, or Settlements. (*Extracted from Table in use* 1868.)

Articles		Quay Delivery Rate	Landing and Housing Rate	Delivery Rate
	per	s. d.	s. d.	s. d.
Ale and porter: butt, pipe, or puncheon		0 5	0 7	0 5
	hogshead	0 3	0 5	0 3
	barrel	0 2	0 3	0 2
	½ barrel	0 1	0 1½	0 1
	kilderkin, or ¼ barrel	0 1	0 1½	0 1
In bottles, 6 to 9 doz.	case or tierce	0 2	0 3	0 2
5 to 6 doz.	case or barrel	0 1	0 2	0 1
under 3 doz.	package	0 1	0 2	0 1
Annatto	ton	1 0	1 2	0 7
In baskets or small packages	,,	2 1	2 6	1 3
Apples	hogshead	0 5	0 6	0 3
	tierce	0 2	0 3	0 2
	box, basket or barrel	0 1	0 2	0 1
Ashes: American, Russian, Black Sea	ton	1 0	1 2	0 7
Bacon, in packages or bales	,,	1 3	1 8	0 8
loose	,,	1 6	1 10	0 10
Bark, oak, tanners', plantation, loose	,,	2 0	3 0	1 6
Beef and pork	tierce	0 2½	0 3	0 1½
	barrel	0 1½	0 2½	0 1½
	tub, kit, or ½ barrel	0 1	0 1	0 1
Unpacking to weigh net, and repacking, Per tierce or barrel - 1s. 6d. half-barrel - 1s. 0d.				
Bone ash, or ground bones, loose or in bags	ton	1 2	1 6	0 9
At Birkenhead	,,	1 0	1 4	0 8
Bones, in casks or bags	,,	1 0	1 2	0 7
loose	,,	1 6	1 9	1 0
Bones, bone-ash, or ground bones. Filling and weighing at re-housing or delivery - 6d. per ton. Filling - 3d. ,, Weighing and shipping - 9d. ,, Shipping - 6d. ,,				
Brass	ton	1 0	1 2	0 7
Brimstone, loose	,,	1 2	1 6	0 9
Filling and weighing at re-housing or delivery, 6d. per ton. Filling only, 3d. ,,				
In casks, cases, or baskets	,,	1 0	1 2	0 7
Butter, foreign:				
in barrels or large casks	,,	1 2	1 6	0 9
in kegs, about 45 lb. each	,,	1 9	2 1	1 0
Irish	firkin	0 0½	0 1	0 0½
	score kegs, or ¼ firkins	0 8	1 0	0 6
Weighing on delivery, 7d. per score firkins, ½ firkins, or kegs.				
In cases	each	0 4	0 6	0 3
Cheese, foreign, not in tubs or cases	ton	2 0	2 5	1 2
Cheese, foreign— Turning each time 1½d. per ton. Weighing at re-housing or delivery, 9d. per ton.	per	s. d.	s. d.	s. d.
In tubs or cases	ton	2 1	2 6	1 3
Cocoa and coffee:				
In casks, cases, serons, or frails	,,	2 0	2 6	3 4
In bags	,,	1 9	2 3	3 0
Copper, in sheets, ingots, slabs, or pigs	,,	1 0	1 2	0 7
nails and sheathing	,,	1 2	1 5	0 10
ore, barilla, regulus, or pyrites, loose	,,	1 2	1 6	0 9
Cork wood	,,	1 9	2 1	1 2
Cotton yarn or thread	,,	2 1	2 6	1 3
Earthenware	crate	1 0	1 6	1 0
Flax, loose, Russia	ton	1 8	2 3	1 0
all other	,,	2 6	3 6	2 0
Grain, viz.: wheat, barley, rye, oats, Indian corn, peas, beans, or tares, paddy, linseed, and seed in bulk	,,	1 0	1 3	0 10
Guano, in bags	,,	0 10	1 0	0 7
in bulk	,,	1 0	1 6	0 9
Gutta percha, in packages	,,	2 11	4 2	2 1
Hardware - large case, tierce, or cask		0 5	0 6	0 2
	box or barrel	0 2	0 3	0 2
	small case	0 1	0 2	0 1
Hides, skins, furs, and pelts, in cask, box, bale, or other package:				
under 1 cwt.	package	0 3	0 4	0 1
2 ,,	,,	0 4	0 6	0 2
4 ,,	,,	0 6	0 7	0 2
6 ,,	,,	0 7	0 9	0 1
10 ,,	,,	0 9	1 0	0 6
above 10 ,,	,,	1 0	1 2	0 8
Indigo, in serons	ton	2 6	3 4	2 1
sweepings, bag under ½ cwt.	each	..	..	0 1
½ cwt. and above	,,	..	..	0 1
Iron, in bars, rods, iron known for ships, or sheet iron	ton	1 2	1 5	0 10
pots	,,	1 6	2 0	1 5
ore	,,	1 2	1 6	0 9
shot, old iron, or pig	,,	1 0	1 2	0 7
pyrites, loose	,,	1 2	1 6	0 9
in packages	,,	1 0	1 2	0 7
wire	,,	1 6	2 1	1 3
Ivory	,,	5 10	7 11	4 2
Lac dye and lac lake	,,	2 1	2 11	1 3
Lard, in barrels or large casks	,,	1 2	1 6	0 9
in kegs about 45 lbs. each	,,	1 9	2 1	1 0
in bladders	20 bladders	0 3	0 5	0 2
Lead	ton	1 0	1 2	0 7

Dock Rates &c.—continued.

Articles		Quay Delivery Rate	Landing and Housing Rate	Delivery Rate
		s. d.	s. d.	s. d.
Lead ore, loose	per ton	1 2	1 6	0 9
Leather, foreign, loose, bales, or cases	,,	1 6	2 0	1 0
Irish (tanned) under 1 cwt.	bale	0 2	0 2	0 1
1 and under 2 cwt.	,,	0 2	0 3	0 1
2 and under 4 cwt.	,,	0 4	0 4	0 2
small or mid. crate	crate	0 5	0 6	0 3
large crate	,,	0 7	0 9	0 4
Machinery, in cases or packages	ton	1 6	1 9	0 9
Madder	,,	1 0	1 2	0 7
roots	,,	1 0	1 6	0 9
not press-packed	,,	1 6	1 9	1 0
ground	,,	1 0	1 2	0 7
Molasses, cane juice, and melado	,,	1 0	1 6	0 9
Olive oil, in large jars	,,	5 10	11 7	4 2
common jars, ½-jars, jars about 1 gal., cases containing 20 quart bottles	,,	7 1	12 1	5 10
	case	0 8	1 0	0 6
palm and palm nut and earth	ton	1 0	1 3	0 8
Opium	,,	2 11	4 2	2 1
Quicksilver, in bottles	bottle	0 1	0 2	0 1
	case	0 3	0 5	0 3
Rice, in packages	ton	1 0	1 6	0 9
when not weighed, per importer's order	,,	0 8	1 0	0 9
Rum	puncheon	1 4	2 0	1 4
	hogshead	0 8	1 1	0 9
Saltpetre	ton	1 3	1 6	1 0
Seeds of all descriptions, unless specially provided for, in bags, when weighed	,,	1 0	1 3	0 8
when not weighed, per importer's order	,,	0 9	1 0	0 8
Silk, raw or thrown (not East Indian or China)	,,	4 2	5 10	2 1

Articles		Quay Delivery Rate	Landing and Housing Rate	Delivery Rate
		s. d.	s. d.	s. d.
Silver ore, bags or cases	per ton	1 0	1 2	0 7
loose	,,	1 2	1 6	0 9
Soap	,,	1 8	2 6	0 10
Sponge	,,	2 6	3 4	2 6
Steel	,,	1 0	1 2	0 7
Sugar, in casks	,,	1 3	1 9	0 10
boxes and casks	,,	1 0	1 6	0 9
baskets, mats, and bags	,,	1 2	1 9	0 10
Tallow, in casks or cases	,,	1 3	1 6	0 10
skins and blocks	,,	1 6	1 9	1 0
Tapioca	,,	2 0	3 6	1 3
Tar	¼ barrel or barrel	0 1	0 1	0 1
Tea, in packages under 30 lbs.	each	5-16*d.*	0 0½	0 0
30 lbs. and under 45 lbs.	,,	5-16*d.*	0 1	0 0
45 ,, 60 ,,	,,	0 0½	0 1	0 1
60 ,, 80 ,,	,,	0 0½	0 1	0 1
80 ,, 130 ,,	,,	0 0½	0 1	0 1
130 lbs. and upwards	,,	0 0½	0 2	0 1
Tobacco, in hhds.	each	1 2	1 6	0 9
tierces	,,	0 6	0 9	0 3
bales, barrels, cases, serons, kegs, drums, and similar packages, under 1 cwt.	,,	0 0½	0 1½	0 0½
1 and under 2 cwt.	,,	0 1	0 2	0 0½
2 ,, 4 ,,	,,	0 2	0 3	0 1
4 ,, 6 ,,	,,	0 3	0 4	0 1½
Tow, in bales	ton	1 0	1 2	0 7
Walnuts	quarter	0 10	1 0	0 6
Wine and spirits, except rum, puncheon		0 10	1 11	1 4
hogshead		0 6	1 3	0 9
barrel or third		0 4	0 10	0 5
¼ cask		0 4	0 10	0 5
½ quarter cask		0 3	0 7	0 3
Wood, large	ton	1 2	1 9	0 0
small	,,	2 6	3 0	1 0
Zinc	,,	1 0	1 2	0 7

N.B. Books containing a complete list of the articles charged with dock rates may be had at the docks for a mere trifle.

In compiling this article we have derived considerable assistance from the elaborate work of Mr. Thomas Baines, entitled *A History of the Commerce and Town of Liverpool*, published in 1852; and from *Liverpool in* 1859, a smaller but very useful work of the same author. But we have been indebted for the most valuable part of our information to communications obligingly sent us by some of the most intelligent merchants belonging to the town.

IV. Bristol. Docks, Shipping, etc.

The city and seaport of Bristol is situated (lat. 51° 27′ N., long. 2° 35′ W.) on the river Avon, at about 6½ miles above its junction with the Severn, or upper part of the Bristol Channel.

The great range of tide peculiar to this locality enables some of the largest class of sailing vessels to come up the river to the town. Formerly vessels took the ground at low water; but to obviate the risk and damage frequently arising from this cause, an undertaking was projected and carried out by a private company between 1804 and 1809, by which about 3 miles of the then tidal river running through the city was converted into a floating harbour, a new channel for the tide being cut to the south of the town. The harbour or dock thus formed comprises about 55 acres of water space available for large vessels, while the total area floated and kept at one level is about 130 acres.

The area of watershed supplying this large float by the river Avon and its tributaries is upwards of 800 square miles. These docks are provided with two half tide basins for the temporary accommodation of vessels entering or leaving the port, viz. Cumberland Basin with an area of about 4 acres and entrance locks 54 feet and 45 feet wide, and Bathurst Basin with an area of about 2 acres and entrances 36 feet wide: there is also a single lock for barges and small craft bound inland.

The public quays occupy a length of about 2,000 yards, while the total length of frontage available in that part of the harbour appropriated to masted ships is about 7,000 yards. The free shed accommodation on the public quays has lately been much increased, and a system of transit sheds for bonded goods provided, which much facilitates the unloading of customable goods.

Ship building has always been carried on to a fair extent in the port, and there are several convenient graving docks, heaving-up slip &c., for repairs.

The docks of Bristol have been since 1848 the property of the city, the corporation of which, with a view to giving increased accommodation to larger steamers and to improve the navigation in the river, have obtained an Act of Parliament giving them power to provide larger and deeper entrance locks at Cumberland Basin, and to remove some of the most objectionable points and bends in the river. There are also railways in course of construction down both the right and left banks of the river, terminating at floating piers or landing stages at the roadstead at Kingroad.

A private company has also obtained an Act for the construction of a new dock near the river's mouth.

Bristol early possessed and continues to enjoy a large share of the trade with the West Indies. Among her foreign imports the most important are sugar, timber, grain of all sorts, flour, fruits, hemp, hides, oils, tallow, tea, tobacco, dye stuffs, brandy, wine, rum &c.

The exports consist principally of the produce of the various manufactures of the city, comprising refined sugar, brass and copper articles, spirits, glass, earthenware &c., with iron, salt, coal and culm the produce of the neighbourhood; and cotton, linen, and woollen goods. Bristol carries on an extensive and growing trade with Ireland, from which she imports corn, butter, bacon, potatoes, cattle, horses, sheep, pigs, salmon &c. She sends in return tea, raw and refined sugar, cheese, wrought iron, tin plates, copper, glass, woollens, leather &c.

The imports coastwise consist mostly of iron, tin, coal, salt, agricultural produce and foreign produce brought from other ports under bond and free.

The exports are chiefly foreign and colonial produce (especially groceries, spirits, and wines), and the various manufactures of the city. A steam communication for the conveyance of goods and passengers to Ireland was established in 1826, and has led to a great increase of the trade with that part of the empire.

Bristol had the honour of being the first port in the empire to establish a regular communication by steam with the United States. The first voyage by the Great Western Steam Ship was performed in 1838. The decline in the comparative importance of Bristol as a trading emporium has been chiefly manifested by contrasting her progress with that of Liverpool.

The average customs duties of Bristol for the 7 years ending with 1757 amounted to 155,189*l.*; those of Liverpool for the same period to 51,136*l.*

In 1784 the customs of Bristol had risen to 334,909*l.*—a great increase; but those of Liverpool had advanced in the same year to 648,684*l.*; and in 1846, while the customs duties of the former amounted to 919,149*l.*, those of the latter amounted to 3,622,057*l.* The customs duties collected at Bristol in 1866 amounted to 1,174,181*l.* One of the chief causes that have been commonly assigned for this comparative slowness of progress is the excess of local taxation, the town and harbour dues having been much heavier than those of any other of the larger ports. There can, however, be no doubt too much stress has been laid upon this circumstance in accounting for the slower progress of the trade of this port. The real cause of the rapid rise of Liverpool, Glasgow, and some other seaport towns is to be found not in the lowness of their port charges or in any peculiar advantages they individually enjoy, but in their having become the ports of the great manufacturing districts. The extraordinary growth of Liverpool is a consequence of the still more extraordinary growth of the cotton manufacture. Her rise has been dependent upon and consequent to the rise of Manchester, Bolton, Blackburn &c. Still, however, it is not to be denied that the trade of Bristol was seriously injured by the high charges that were formerly imposed on the shipping frequenting her port; but that grievance, after having been mitigated by various reductions effected since 1835, has at length been wholly obviated, and the charges on shipping in Bristol are now remarkable for their moderation.

This important reform took place in 1848, under the Local Act 11 & 12 Vict. c. 43, which transferred the property of the docks from the former Dock Company to the citizens, and vested their management in the Common Council.

In consequence of this change and of the reduction of the rates, ships that formerly paid 3*s.* and 2*s.* per ton of dock dues now pay 1*s.*, while those that paid 1*s.* now pay 6*d.*, and those that paid 8*d.* and 6*d.* now pay 4*d.* per ton. And it is of importance to observe that all charges on ships and goods outwards have been wholly abolished; so that as regards exports, Bristol is now an absolutely free port. By these and other reductions of the rates the trade of the port has greatly increased, as shown by the accompanying Tables; though during the last year or two the trade of Bristol has suffered in common with other ports by the disastrous civil war in the United States.

Dues on Shipping entering the Port of Bristol.

Dock Dues.

	£.	s.	d.
For every vessel trading from Africa, Honduras, Surinam, and other ports in South America, the United States of America, the East and West Indies, all the ports within the Straits of Gibraltar, the Southern whale fishery, the British colonies, Portugal, Prussia, Russia, Spain without the Straits, and Sweden, per ton	0	1	0
For every vessel trading from Flanders, France without the Straits, Germany, Guernsey, Holland, Jersey, Norway, Poland, and Zealand, per ton	0	0	6
For every vessel trading from Ireland, the Isle of Man, Scotland, or as a coaster, not including vessels from Cardiff, Newport, and other ports to the eastward of the Holmes, per ton	0	0	4
For every vessel from Cardiff, Newport, or any other port to the eastward of the Holmes (not being vessels one-third part of the lading of which shall consist of coal, scroff, iron, tin, tin plates, grain, copper, bricks, stone, coal tar, slate, bark, timber or wood), viz:			
If such vessel shall be under forty tons burden, each voyage	0	7	6
If such vessel shall be forty tons burden, and under seventy five tons, each voyage	0	12	6
If such vessel shall be seventy-five tons burden, and under one hundred tons, each voyage	0	18	0
If such vessel shall be one hundred tons burden, or upwards, each voyage	1	1	0
For every vessel from Cardiff, Newport, or any other port to the eastward of the Holmes, one-third part of the lading of which shall consist of coal, scroff, iron, tin, tin plates, grain, copper, bricks, stone, coal tar, slate, bark, timber or wood, viz:—			
If such vessel shall not exceed seventy-five tons burden, each voyage	0	5	0
If such vessel shall exceed seventy-five tons burden, each voyage	0	7	6

N. B.—There are no dock rates or other port charges payable on vessels leaving the port of Bristol.

Mayor's Dues,

Payable only by vessels coming from ports to the westward of the Holmes, and payable by such vessels not more than three times within the space of twelve calendar months.

	Per voyage *s.*
60 tons, and under 100 tons	5
100 „ 150 „	10
150 „ 200 „	15
200 „ 250 „	30
250 and upwards	40

Water-Bailiff's and Quay-Warden's Fees.

The following is a table of fees payable on and for all ships and other vessels upon every arrival at the quay and back of Bristol, Saint Augustine's Back, Redcliff Backs, the quay, in the parish of Clifton, called the Merchants' Floating Dock, the banks of the river Avon, and every part of the floating harbour within the city and county of Bristol, or any or either of such places:—

	s.	*d.*
For every ship or other vessel of or above the burden of 60 tons (except boats, trows, and barges)	5	0
For every ship or other vessel under the burden of 60 tons (except as aforesaid)	2	6
For every boat, trow, or barge	0	4

Anchorage and Moorage.

	s.	*d.*
All coasting vessels from ports westward of the Holmes not exceeding 10 tons, each voyage	0	9
above 40 „	1	6

	Anchorage *s.* *d.*	Moorage *d.*
All other vessels under 30 tons	2 6 each	0½ per ton
30 tons and under 100 tons	5 0 „	0½ „
100 tons and above	5 0 „	1 „

Dues on Goods Imported into the Port of Bristol.

Articles	Dock Dues			Wharfage			To	
		s.	*d.*		*s.*	*d.*	*s.*	*d.*
Alum	ton	0	9	ton	0	6		
Annatto	cwt.	0	1½	ton	0	6		
Argols	ton	1	6	ton	0	6		
Arrow root	cwt.	0	2	ton	0	6		
Apothecaries' wares and drugs	100 lbs.	0	2	ton	0	6		
Bacon and hams	ton	0	9	ton	0	6		
Bark				ton	0	6		
Beef and pork				barrel	0	0½		
Blacklead	ton	1	6	ton	0	6		
Bran	ton	0	6	ton	0	6		
Bones, bone ashes, and dust	ton	0	6	ton	0	3		

Dues on Goods &c.—continued.

Articles	Dock Dues		Wharfage		Town Dues	
	s. d.		s. d.		s. d.	
Butter	..		ton	0 6		
Brimstone	ton	0 9	ton	0 6		
Caoutchouc	cwt.	0 2	ton	0 6		
Charcoal	ton	1 0	ton	0 3		
Cheese	..		ton	0 6		
Chicory	ton	1 3	ton	0 6		
Cider	tun	1 0	tun	0 6		
Cocoa and coffee	ton	1 6	ton	0 6		
Cocoa and nuts	100	0 1	100	0 1		
Codfish	ton	0 9	ton	0 6		
Copper	ton	1 6	ton	0 6		
ore	ton	0 6	ton	0 3		
Corn: Barley, beans, Indian corn, peas	..		quarter	0 0½	100 bush.	1 0
Oats	..		quarter	0 0½	100 bush.	0 9
Wheat	..		quarter	0 0½	100 bush.	1 0
Cork	ton	1 6	ton	0 5		
Cotton	bale or packet	0 3	ton	0 6		
Cream of tartar	ton	1 6	ton	0 6		
Divi divi	ton	1 0	ton	0 6		
Earths: Red	ton	0 6	ton	0 4		
Purple and fullers'	..		ton	0 3		
Elephants' teeth	cwt.	0 6	ton	0 6		
Farina	ton	1 0	ton	0 6		
Flax	ton	1 6	ton	0 6		
Flour	..		sack	0 0½	ton	1 0
	..		barrel	0 0½		
Meal of all sorts of grain	..		barrel	0 0½	ton	0 9
Fruit: Almonds, plums, and prunes	cwt.	0 1	ton	0 6		
Currants, figs, and raisins	cwt.	0 1	ton	0 6	ton	0 10
Nuts	bushel	0 1	8 bush.	0 1		
Oranges and lemons	chest or box	0 1	chest	0 0½	chest	0 1½
			box	0 0½	box	0 0½
Gambier	ton	1 0	ton	0 6		
Grease (not lard or tallow)	ton	1 0	ton	0 6		
Guano	ton	0 6	ton	0 3	ton	0 1
Guinea grains	cwt.	0 4½	ton	0 6		
Gums	cwt.	0 2	ton	0 6		
Gypsum	ton	0 6	ton	0 6		
Stone	ton	0 3	ton	0 1		
Hair	cwt.	0 1½	ton	0 6		
Hemp	ton	1 6	ton	0 6		
Hides: Dry	cwt.	0 2	ton	0 6		
Wet	cwt.	0 1	ton	0 6		
Glue pieces	cwt.	0 1	ton	0 6		
Hoofs of cattle	ton	0 9	ton	0 3		
Horns	cwt.	0 1½	ton	0 6		
Ice	ton	0 4	ton	0 3		
Indigo	cwt.	0 6	ton	0 6		
Iron	ton	0 9	ton	0 6		
Old	ton	0 6	ton	0 3		
Jute	ton	1 0	ton	0 6		
Lard	ton	1 0	ton	0 6	ton	1 0
Lemon and lime juice	pipe	1 0	ton	0 6		
Lead	ton	1 0	ton	0 6		
Ore	ton	0 6	ton	0 3		
Litharge	ton	1 0	ton	0 6		
Madder	ton	1 6	ton	0 6		
Manganese	ton	0 9	ton	0 6		
Marble	ton	0 9	ton	0 6		
Mats	120	0 3	120	0 1		
Metal: old	ton	1 0	ton	0 6		
Molasses	ton	0 6	ton	0 6		
Myrobalams	ton	1 0	ton	0 6		
Ochre	ton	0 6	ton	0 6		
Orange, lemon, and citron peel	cwt.	0 2	ton	0 6		
Oil: Fish	tun	1 3	ton	0 6	ton	0 8
Blubber	tun	0 9	ton	0 6	ton	0 8
Nut	ton	1 6	ton	0 6	ton	0 8
Olive	tun	2 6	ton	0 6	ton	1 6
Palm	ton	1 3	ton	0 6	ton	0 8
Rape and all other seed oil	ton	1 6	ton	0 6	ton	0 8
Salad	chest or ½ chest	0 1½	ton	0 6	ton	1 6
Oil cake	ton	0 6	ton	0 6		
Oil nuts	ton	1 6	ton	0 6		
Onions	bushel	0 0½	bushel	0 0½		
Orchilla	ton	2 0	ton	0 6		
Ores: unenumerated	ton	0 3	ton	0 2		
Plaster of Paris	ton	0 6	ton	0 6		
Pepper and Pimento	100 lbs.	0 1	ton	0 6		
Plassava	ton	1 0	ton	0 6		
Pitch and Tar	barrel	0 1	barrel	0 0½		
Rosin	2½ cwt.	0 1	ton	0 4		
Turpentine	barrel	0 1	ton	0 6		
Pot and Pearl ashes	ton	1 6	ton	0 3		
Pumice stone	ton	0 9	ton	0 6		
Rags and junk	ton	0 6	ton	0 3		
Rice	..		ton	0 6	ton	0 10
Sago	ton	1 0	ton	0 6		
Saltpetre	ton	1 0	ton	0 6		
Sand and stone	ton	0 3	..			
Stone: Freestone and paving (unwrought)	ton	0 3	ton	0 3		
Paving (wrought; grind mill, ware	ton	0 3	ton	0 6		
Burr	ton	0 3	120	0 8		
Rags or whet	ton	0 3	1,000	0 1		
Starch	ton	1 6	ton	0 8		
Seeds: Canary	quarter	0 1	20 bush.	0 1		
Flax and Hemp	quarter	0 1	quarter	0 0½		
Linseed	quarter	0 1	quarter	0 0½		
Rape and all other oil seed	quarter	0 1	quarter	0 0½		
Carraway, clover, grass, garden, millet seed, and all seed sold by weight	quarter	0 2				
Shellac	cwt.	0 1½	ton	0 6		
Spelter	ton	1 0	ton	0 6		
Skins: Calf skins and kips, Dry	ton	1 0	ton	0 6		
Wet	cwt.	0 2	ton	0 6		
Kid, lamb, and seal	cwt.	0 1	ton	0 6		
Spirits: Brandy	100	0 2	ton	0 6		
Gin	pun.	1 6	pipe	0 3	pun.	0 10
Cases (of 12 bottles)	pun.	1 6	pipe	0 3	pun.	0 9
Rum	dozen	0 1	dozen	0 0½	dozen	0 0½
Spirits of turpentine	pun.	1 0	pun.	0 3	pun.	0 9
Soda and nitrate of soda	ton	1 6	ton	0 6		
Shumac	ton	1 0	ton	0 6		

Dues on Goods &c.—continued.

Articles	Dock Dues		Wharfage		Town Dues	
		s. d.		s. d.		s. d.
Sugar	ton	1 6	hhd.	0 2		
			tierce	0 1½		
			bbl.	0 1		
East India	ton	1 6	6 bags	0 1		
Java	ton	1 6	basket	0 0½	hhd.	0 6
			case	0 2	ton	0 8
Brazil	ton	1 6	basket	0 0½		
Havanna	ton	1 6	box	0 1		
Manilla	ton	1 6	12 bags	0 1		
Tallow	ton	1 3	ton	0 6	ton	1 0
					chest	0 4
					half do.	0 2
Tea	100 lbs.	0 2	ton	0 6	quar. do.	0 1
Tin	ton	1 6	ton	0 6		
Tobacco: Unmanufactured	ton	1 3	hhd	0 2		
			tierce	0 1		
Manufactured	cwt.	0 2	ton	0 6		
Tow	ton	1 0	ton	0 6		
Turmeric	ton	1 6	ton	0 6		
Valonia	ton	1 6	ton	0 6	ton	1 0
Vetches and tares	quarter	0 1	quarter	0 0½		
Wax	ton	1 6	ton	0 6		
Wine	pipe or butt	1 6	pipe	0 3	pipe	1 0
	dozen	0 1	dozen	0 0½	dozen	0 0½
in casses of 12 bottles	ton	1 0	ton	0 6	load	0 1½
Wood: Cedar, mahogany, and all other furniture wood	ton	1 0	ton	0 6		
Dye woods	120	1 0	120	0 3	as deals	
Battens, boards, and ends			120	0 3	120	1 0
Deals, 16 feet			120	0 3	120	0 9
from 6 feet to 16 feet			120	0 3	120	0 6
6 feet and under			120	0 3		
Deals and deck planks	120	2 0	120	0 3		
Lathwood and firewood	fathom	0 4	fathom	0 1		
Oars and oar rafters	120	1 0	120	0 10		
Spars, 24 feet long and above	120	1 6	120	0 10		
under 24 feet long	120	0 9	120	0 10		
Staves, 1¼ inch thick and above	120	0 4				
under 1¼ inch thick	120	0 2	1,000	0 4		
exceeding 50 inches	120	0 1				
not exceeding 50 inches						
Timber, fir, birch, elm and ash, including masts, oak, teak, wainscot logs, and all timber not before enumerated	load	0 8	load	0 3	load	0 4½
Wood hoops	1,000	0 6	1,000	0 4		
Wool	ton	2 0	ton	0 6		
Zinc	ton	1 0	ton	0 6		

Dock dues and wharfage.—All goods not particularly rated to pay the same as goods of the like value, description, or package.
Town dues.—All goods not particularly rated one penny per one hundred tons.

The following is an account of the various port and other charges which would be incurred by a ship of 500 tons bringing a cargo to Bristol; the dock dues being taken at the highest rate:—

	£	s.	d.	£	s.	d.
Pilotage from Lundy to Kingroad	7	7	0			
from Kingroad to Basin	1	10	0			
Assistant pilot	0	10	0			
5 men at 3s. 9d. each, 14s. 9d., and boat 5s.	1	1	9			
Haven master	0	4	0			
				10	12	9
Steam tug from Kingroad to Basin 5d. per ton				10	8	4
Lights (vary according to the port of loading)						
Anchorage 3s., moorage 1d. per ton, 41s. 8d.				2	6	8
Mayor's dues 10s., quay warden's fees 5s.				2	5	0
Dock dues, 1s. per ton (From the nearer towns only 6d. per ton).				25	0	0
Electric telegraph from Pill to the Commercial Rooms, 1s. to 3s. per message.						
				50	12	9

Produce of the Dock Dues on Tonnage and Goods at Bristol during each of the following Years ending April 30.

Year	Tonnage Rates			Rates on Goods			Totals		
	£	s.	d.	£	s.	d.	£	s.	d.
1844	17,905	13	9	7,694	12	9	25,600	6	6
1845	18,558	3	2	7,631	16	10	26,181	0	0
1846	19,822	5	10	8,214	7	5	28,036	8	3
1847	19,768	7	0	9,015	15	10	28,784	2	10
1848	21,025	6	2	8,659	15	2	29,685	1	4
1849	*19,145	6	6	9,553	19	2	28,699	5	8
1850	12,088	1	10	8,985	1	9	20,073	3	7
1851	12,794	8	6	9,870	12	6	22,665	1	0
1852	12,047	5	0	8,947	17	11	20,995	2	11
1853	12,821	17	6	7,444	17	8	20,266	15	2
1854	15,002	1	0	9,141	15	7	24,143	16	7
1855	13,012	19	0	8,433	8	6	21,446	7	4
1856	12,740	13	8	8,113	16	5	20,854	10	1
1857	17,047	10	0	10,481	18	1	27,528	8	1
1858	17,763	3	11	11,569	16	8	29,333	0	3
1859	18,840	2	0	11,979	17	11	30,819	19	11
1860	19,328	15	4	12,057	9	6	31,402	4	10
1861	22,720	11	7	12,958	17	2	35,679	8	9
1862	†19,826	16	11	10,553	19	11	30,380	16	10
1863	20,160	7	8	10,187	16	4	30,348	4	11
1864	17,915	4	10	8,457	11	1	26,372	15	11
1865	18,642	1	0	9,566	5	6	28,168	6	6

* The dock dues in the last six months of the year ending April 30, 1849, were at the reduced rates.
† A reduction of dues on tonnage and goods took effect June 1, 1861, estimated at 6,000*l.* per annum, on the receipts of the year ending April 30, 1861.

Pilotage,

For every Licensed Pilot who navigates a Ship or Vessel.

From Lundy to Kingroad.

			£	s.
If 80 and under	100 tons		3	3
100	200		4	4
200	300		5	5
300	500		8	6
500	600		9	7
600	800		8	8
800	1000		9	9
1000 tons and upwards			10	10

From Combe to Kingroad.

			£	s.
If 80 and under	100 tons		2	2
100	200		2	16
200	300		3	10
300	500		4	4
500	600		4	18
600	800		5	12
800	1000		6	6
1000 tons and upwards			7	0

From Minehead to Kingroad.

			£	s.
If 80 and under	100 tons		1	1
100	200		1	8
200	300		1	15
300	500		2	2
500	600		2	9
600	800		2	16
800	1000		3	3
1000 tons and upwards			3	10

From the Holmes to Kingroad.

			£	s.	d.
If 80 and under	100 tons		0	10	6
100	200		0	14	0
200	300		0	17	6
300	500		1	1	0
500	600		1	4	6
600	800		1	8	0
800	1000		1	11	6
1000 tons and upwards			1	15	0

Between Portishead, Kingroad, Hungroad, Broad Pill, and Cumberland Basin or Bathurst Basin.

			£	s.	d.
If under 80 tons			0	7	6
80 and under	100 tons		0	10	0
100	200		0	15	0
200	300		1	0	0
300	500		1	5	0
500	600		1	10	0
600	800		1	15	0
800	1000		2	0	0
1000 tons and upwards			2	5	0

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Account of the Number of Ships and their Tonnage, distinguishing between British and Foreign, which have Entered Inwards at Bristol with Cargoes (exclusive of Coasters) during each of the following Years ending Jan. 5 and Dec. 31.

Year	British		Foreign		Total	
Ending Jan. 5.	ships	tons	ships	tons	ships	tons
1844	375	78,231	25	5,278	340	83,609
1845	346	72,532	56	9,382	402	81,914
1846	360	82,237	69	14,254	429	96,491
1847	331	89,205	41	7,901	372	97,106
1848	405	96,618	46	7,928	451	104,546
1849	423	108,750	118	15,590	541	124,340
1850	477	107,468	169	22,464	646	129,932
1851	464	99,454	264	38,698	728	137,642
1852	454	96,714	211	42,464	665	139,178
1853	423	90,675	208	44,064	631	134,739
1854	432	95,201	344	78,933	776	174,134
1855	440	109,745	205	50,461	645	160,406
Ending Dec. 31.						
1855	403	87,503	170	41,511	570	129,016
1856	439	106,670	31	65,380	470	172,050
1857	406	98,975	284	86,787	690	185,762
1858	458	105,372	394	93,747	846	199,119
1859	437	103,645	353	95,955	790	202,600
1860	506	127,959	390	105,722	896	233,681
1861	517	131,113	356	134,908	873	266,021
1862	519	136,666	457	130,249	976	266,915
1863	536	140,935	439	105,317	975	246,252
1864	491	126,621	372	105,362	866	231,976

Account of the Number of Coasting Vessels and their Tonnage, distinguishing those employed between Great Britain and Ireland from other Coasters, which have Entered Inwards at Bristol during the following Years.

Year	Between Great Britain and Ireland		Other Coasters		Total	
Ending Jan. 5.	ships	tons	ships	tons	ships	tons
1844	490	85,978	5,356	284,517	5,846	370,495
1845	547	88,604	6,229	388,511	6,776	476,979
1846	708	103,793	6,334	390,524	6,912	494,317
1847	466	87,651	5,868	311,092	6,334	398,673
1848	404	85,147	5,881	305,782	6,285	390,929
1849	411	92,598	6,263	367,151	6,674	459,749
1850	438	95,156	6,176	333,593	6,614	428,749
1851	388	86,457	6,061	328,540	6,449	414,997
1852	339	75,754	5,754	313,722	6,093	389,476
1853	352	74,115	5,406	303,602	5,758	377,717
1854	422	84,114	4,461	267,259	4,883	351,373
1855	474	99,392	4,510	295,219	4,982	394,618
Ending Dec. 31.						
1855	457	91,691	4,753	308,896	5,210	400,587
1856	483	96,769	4,646	277,114	5,129	373,883
1857	559	108,302	4,448	257,377	5,005	366,179
1858	614	118,080	5,155	301,048	5,769	419,048
1859	511	126,462	5,974	351,518	6,485	477,980
1860	655	136,929	6,194	343,157	6,849	479,086
1861	619	137,713	6,094	335,361	6,743	473,074
1862	594	102,237	6,483	360,229	7,097	462,466
1863	519	142,651	6,070	351,860	6,589	494,511
1864	617	141,727	6,034	333,147	6,651	474,454

Declared Value of the Exports of British and Irish Produce and Manufactures, with the Customs Duties at the Port of Bristol, during each of the following Years.

Year	Exports			Duties
Ending Jan. 5.	£	s.	d.	£
1844	188,528	12	0	996,750
1845	170,148	18	0	1,007,872
1846	150,985	19	6	919,149
1847	161,709	4	8	981,514
1848	167,481	11	7	1,004,789
1849	147,014	17	10	1,036,763
1850	221,964	17	10	1,019,519
1851	262,486	3	11	1,051,891
1852	275,599	0	0	1,100,645
1853	307,710	0	0	1,230,490
1854	639,745	0	0	1,194,966
1855	659,674	0	0	1,288,387
Ending Dec. 31.				
1855	383,173	0	0	1,112,462
1856	466,853	0	0	1,292,930
1857	506,814	0	0	1,231,035
1858	477,212	0	0	1,295,569
1859	532,267	0	0	1,285,349
1860	561,842	0	0	1,319,191
1861	703,298	0	0	1,376,293
1862	703,542	0	0	1,315,177
1863	745,966	0	0	1,156,698
1864	804,910	0	0	1,103,880

V. Hull Docks, Shipping &c.

There are five docks in Hull, occupying, with their basins, a water area of 49¼ acres, viz.:—

Opened for business	Year	Area a.	r.	p.	Cost £
Old Dock -	1778	10	1	11	84,310
Humber Dock -	1809	9	3	24	235,086
Junction Dock -	1829	6	0	5	165,033
Railway Dock -	1846	2	3	9	120,744
Victoria Dock -	1850	20	1	3	455,317

A timber pond of 9 acres was constructed in 1853. A considerable quantity of shipping is also accommodated within that part of the river Hull that constitutes the old harbour, which may be computed at 10 acres of tidal water. The quays round the docks are spacious, and are entirely surrounded with warehouses and deal yards. Hull is the principal entrepôt of the Baltic timber trade on the east coast of Great Britain, and ranks as the third port in the kingdom, the value of her exports being inferior only to those from Liverpool and London; although, from the circumstance of her staple articles of import being subject to low duties or altogether free, her customs revenue is smaller than that of less important ports. In 1866 her exports amounted to 16,730,711*l.*, and the customs revenue to 339,463*l.*

The following tables exhibit the principal features and progress of the trade of Hull during the undermentioned years ending with 1867:—

Year	Tonnage of Shipping (ex. River Craft)	Amount of Dock Duties paid	Value of British Produce exported	Amount of Customs Revenue
		£	£	£
1843	653,309	30,115	10,131,418	660,192
1844	761,788	38,954	10,107,367	525,118
1845	710,038	36,945	10,798,338	607,963
1846	779,985	37,990	10,878,870	487,136
1847	833,039	39,684	9,534,941	453,755
1848	813,908	38,925	8,185,959	456,920
1849	790,831	38,494	9,721,812	399,348
1850	811,710	39,069	10,266,610	381,100
1851	827,994	38,266	10,492,261	353,623
1852	799,866	34,961	9,915,114	324,819
1853	888,056	36,122	From 10 or 12 to 15 millions	351,899
1854	850,229	32,930		322,212
1855	782,111	28,441		265,18
1856	1,078,787	40,263		345,587
1857	1,045,637	40,478	13,785,813	319,038
1858	1,006,697	40,815	—	281,666
1859	1,138,189	43,891	12,980,587	297,406
1860	1,215,203	46,857	14,338,787	272,199
1861	1,071,957	42,344	13,909,125	239,507
1862	1,014,137	36,193	11,916,325	275,037
1863	1,058,107	35,532	13,556,254	340,753
1864	1,106,196	37,067	16,052,398	291,256
1865	1,202,763	43,085	17,372,209	329,353
1866	1,343,819	45,351	16,730,711	339,163
1867	1,330,198	44,201	—	334,290

Tonnage of Steam Vessels (exclusive of River Steamers) frequenting the Port of Hull from the Year 1838 down to 1867.

Year	Tonnage of Steam Vessels on Foreign Voyages	Tonnage of Steam Vessels employed Coastwise	Total
1838	38,515	137,364	175,879
1839	48,568	134,922	183,490
1840	42,929	131,903	174,832
1841	46,745	122,742	169,487
1842	58,711	122,125	178,836
1843	58,083	126,804	184,887
1844	68,248	130,842	199,090
1845	67,760	132,907	200,667
1846	85,305	125,404	210,709
1847	102,784	131,278	234,062
1848	98,659	123,970	222,629
1849	123,657	109,5 6	233,193
1850	182,134	112,754	294,888
1851	200,808	106,160	306,968
1852	195,658	111,363	305,021
1853	181,943	114,639	297,582
1854	207,438	96,971	304,406
1855	211,491	97,917	309,408
1856	269,509	120,162	389,671
1857	415,493	159,934	575,197
1858	424,281	162,400	586,681
1859	386,143	155,848	541,991
1860	438,208	165,120	603,328
1861	443,180	141,625	584,805
1862	411,078	118,509	530,586
1863	441,233	129,722	570,955
1864	471,115	136,016	607,131
1865	514,917	131,266	646,183
1866	621,561	123,588	745,149
1867	636,941	114,783	751,724

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Shipping.—There belonged to the port on January 1, 1867, 510 sailing vessels, whereof 341 of the aggregate burden of 13,161 tons did not, and 169 of the aggregate burden of 30,027 tons did, exceed 50 tons each. At the same date there also belonged to the port 107 steamers, whereof 14 of the aggregate burden of 248 tons did not, and 93 of the aggregate burden of 42,822 tons did, exceed 50 tons each.

The following are the Dock and Harbour Dues payable to the Hull Dock Company for every ship or vessel trading between the port of Kingston-upon-Hull and the undermentioned ports and places:—

	For registered ton s. d.
Any port to the northward of Yarmouth, in Norfolk, or any port to the southward of the Holy Island:	
So much of the above rates as applies to Tetney Haven, Louth, and Heelon	abolished
Great Grimsby	0 1
All other ports comprised within the above limits	0 2
Any port or place between the North Foreland and Shetland, on the east side of England, except as above	0 3
Any other port or place in Great Britain, not before described	0 5
Any port or place in Denmark, Sweden, or Norway, below Elsineur, or any port or place in Germany, Holland, Flanders, France to the eastward of Ushant, Ireland, the islands of Guernsey and Jersey	0 6
Any port or place in the Baltic seas, and all other ports or places above the Sound	1 0
Any island, or port or place in Europe, to the westward of Ushant, without the Straits of Gibraltar	1 0
Every port or place in the West Indies, North or South America, Africa, Greenland, or any place to the eastward of the North Cape of Norway. All places within the Straits of Gibraltar, and all islands and places in the ocean to the southward of Cape St. Vincent, not hereinbefore named	1 4½
Every port or place in the East Indies, Australia, all islands and places in the Pacific Ocean, the North and South Pacific Oceans, the Great Southern Ocean, the Indian Ocean, and all other places in Africa, Asia, or America, to the eastward of the Cape of Good Hope, and to the westward of Cape Horn	1 4½

For every foreign ship or vessel (belonging to a State *not* in reciprocity with Great Britain) coming to or going with merchandise from any of the above-named ports or places, double the rates, tonnage, or duties before-mentioned, unless the said ships belong to British owners.

N.B. One-half of the foregoing rates will be remitted under the following circumstances, upon application in writing being made to the directors, and when they are satisfied that each case is bonâ fide, and such as calls for a mitigation thereof, viz.:—

1. Vessels taking refuge during winter, or in case of war, in the port, and entering any of the docks and basins of the Company, and not loading or discharging any part of their cargo other than stores.

2. Vessels not bound to Hull, but which may put into the port in distress, leaky or requiring repairs, and enter into any of the docks or basins, but have not taken on board any additional cargo (other than stores), or discharged any portion of their cargo within the said docks or basins.

Ships driven into port by stress of weather, or an enemy, are not liable to rates or duties unless they make use of the docks or basins.

Dock rent on vessels, payable only after 10 months' occupancy of the dock, ½*d.* per registered ton per week.

Wharfage rates fixed at a scale, being at an average about 40 per cent. below the rates levied at the docks in London, are charged only on such goods as actually pass over the dock quays either inwards or outwards; and such rates are payable *once* only in respect of the same goods, if in their original state. No charge accrues on goods put overside into craft, unless for labour actually performed; and all work on board ship or upon the quays may be performed either by the Company or the merchants, as the latter may elect. No charge is made for river craft or lighters using the docks.

Depth of Water.—The access to the docks is either from the river Hull or from the river Humber. The lock from the Humber into the Victoria Dock is capable of admitting at spring tide vessels drawing 28 feet, and at neap tides 22 feet. The width of entrance is 60 feet.

The Water Bailiff dues hitherto payable to the corporation of Hull, on certain goods imported and exported, were all permanently abolished on March 21, 1853.

Dues payable to the Corporation of Hull.

On Vessels entering Inwards and Outwards.

Anchorage.—Alien vessels under 100 tons burden, 1*s.* 6*d.*; 100 and under 200 tons, 2*s.*; 200 and upwards, 3*s.*

Jettage.—Under 100 tons, 13*s.* 6*d.*; if loads out more, 8*s.* 6*d.*; 100 and under 200 tons, 17*s.*; if loads out more, 5*s.*; 200 tons and upwards, 1*l.*; if loads out more, 7*s.*

Hostage.—For each pound sterling of the freight inwards, 2*d.*; and among the officers, per ship, 3*s.*

Ballast.—For each ton taken outwards, 2*d.*

Freemen are exempt from anchorage, but freemen as well as non-freemen pay jettage. The charge for jettage is not made unless with goods landed or taken in at Hull, or within the harbour.

British ships pay no hostage, and nothing for ballast.

	Anchorage	Jettage In	Jettage Out
	s. d.	s. d.	s. d.
British vessels under 45 tons burden	1 0	1 6	1 0
40 and not 45	1 0	2 0	1 0
45 " 50	1 6	2 0	1 6
50 " 100	1 6	2 6	2 6
100 " 150	2 0	3 6	3 6
150 " 200	2 0	4 6	4 0
200 " 250	2 6	5 0	5 0
250 " 300	2 6	6 0	6 0
300 and upwards	2 6	6 0	6 6

Dues payable to the Corporation of Trinity House.

Rates of Sea Pilotage for Ships and Vessels belonging to Subjects of Great Britain.

	Summer Rate, March 31 to Sept. 30	Winter Rate, Sept. 30 to March 31
	£ s. d.	£ s. d.
From Humber to Downs	0 10 0	0 12 6
Nore	0 8 0	0 10 0
Yarmouth	0 5 0	0 6 6
Bridlington	0 3 0	0 4 0
Stockton	0 7 0	0 6 6
Sunderland		
Shields		
Leith	0 8 0	0 10 6

Ships and vessels belonging to aliens to pay 2*s.* 6*d.* per foot in addition to the above rate.

Ships and vessels drawing less than 10 feet water to pay for 10 feet.

Buoyage.—British vessels under 20 tons, 2*s.*; 20 tons and under 30, 2*s.* 6*d.*; and 6*d.* additional for every 10 tons. Foreign vessels under 65 tons, 11*s.*; 65 tons and under 135, 14*s.*; 135 tons and under 170, 17*s.*; 170 tons and under 180, 1*l.*; and 1*s.* additional for every 10 tons.

Primage Rates.—The old primage rates of 3*d.* per ton weight or measurement of 40 cubic feet, payable to the Trinity House at Hull, upon all goods imported and exported, have been reduced to 2*d.* per ton, with the exception of the following articles; viz. coal, coke, cotton, chalkstone, and salt, the primage upon which is now only 1*d.* per ton.

Dues payable to the Pilot Commissioners at Hull.

Sand ballast 1*s.* 2*d.* per ton, stone ballast 1*s.* 10*d.* do.

Rates of River Pilotage at Hull.

From or to	To or from	Per Foot
		s. d.
The distance at sea where the North Ness of Dimlington bears west southwest, to the northward of Kilnsea North Cliff	Hawke Roads or Grimsby Roads - - -	2 6
	Whitebooth Roads -	3 6
	The port of Kingston-upon-Hull - - -	5 0
The distance at sea where Kilnsea North Cliff bears west north west to the northward of the New Sand Buoy or the Floating Light Vessel at the entrance of the River Humber.	Hawke Roads or Grimsby Roads - - -	1 6
	Whitebooth Roads -	2 6
	The port of Kingston upon-Hull - - -	4 0
The said new Sand Buoy on the Floating Light Vessel at the entrance of the River Humber, to the eastward of the point where the Spurn High Lighthouse bears north-east.	Hawke Roads or Grimsby Roads - - -	1 0
	Whitebooth Roads -	2 0
	The port of Kingston-upon-Hull - - -	3 6
	Outwards, with cargo in ballast -	4 0 2 8
The Spurn High Lighthouse bearing north-east.	Hawke Roads or Grimsby Roads - - -	1 0
	Whitebooth Roads -	2 0
	The port of Kingston-upon-Hull - - -	3 6
The Hawke Roads, the buoy of the Burcome or Grimsby Roads.	Whitebooth Roads -	1 6
Whitebooth Roads.	The port of Kingston-upon-Hull - - -	2 6
	The port of Kingston upon-Hull - - -	1 6

Berthage.

	s.
Vessels drawing 13 ft. water and upwards - - -	9
10 " and not exceeding 13 ft.	7
under 10 ft. water - - - -	4

For Detention on board Vessels performing Quarantine.

	s.
Vessels having British registers, or the owners subjects of the Queen of Great Britain, per diem - - - -	5
Vessels belonging to aliens, per diem - - - -	7

Exclusive of the day on which the vessel shall enter into quarantine, and of the day of her release therefrom.

For Attendance on board Vessels at Anchor in any of the Roadsteads of the Humber.

For every day of 24 hours' attendance, per diem - - 5*s.*
Part of a day's attendance same as for a whole day.

Masters of vessels from foreign ports who have passed an examination by the Hull Marine Board are not required to employ pilots; and vessels coastwise are under no restriction whatever to engage pilots.

The steam tugs are the property of private parties, who charge rates according to agreement.

The commerce of Hull depends principally on her advantageous situation, and the judicious arrangements of her extensive docks. She is the principal emporium of the large and fertile counties on the estuary of the Humber, and of those traversed by the numerous and important rivers, including the Trent, Don, Ouse &c., that have their embouchure in it. The natural facilities for internal communication thus enjoyed by Hull have been greatly extended by artificial means. She is now united partly by rivers and canals, and also by a chain of railways, with Manchester, Liverpool, Sheffield, Leeds, Bradford, and the manufacturing districts on the west; London, and the southern parts of England; the Midland Districts; and Bridlington, Scarbro' &c. on the east. A railway has also been constructed between Hull and the agricultural district of Holderness. She has become not merely the principal port for the East and West Ridings of Yorkshire, but also for a considerable portion of the trade carried on between Lancashire and the northern parts of Europe. Indeed, much of the Baltic trade that once proceeded by the circuitous route of the English Channel or north about to Liverpool, now stops short at Hull, and finds its way by the more certain and expeditious accommodation of the railways across the country. A regular and very frequent intercourse (with Hamburg almost daily) is kept up by steam packets with Hamburg, Rotterdam, Antwerp, Amsterdam, Gottenburg, St. Petersburg, and other continental ports; and with London, Leith, Aberdeen, Newcastle, and other coasting ports. The great articles of export are cotton stuffs and twist; woollen goods and woollen yarn; iron and hardware; linens and linen yarn; earthenware; machinery and millwork; coals, salt, and more recently raw cotton brought from Liverpool and Manchester, principally for shipment to Petersburg and the north of Europe.

Account of the Quantities and Declared Values of the Principal Articles the Produce of the United Kingdom Exported from Hull in 1866.

Articles		Quantities	Value
			£
Alkali: soda - -	cwts.	45,490	26,102
Apparel - -	value	—	1,866
Arms and ammunition:			
Fire arms (small) -	no.	1,779	1,209
Gunpowder - -	lbs.	—	—
Beer and ale - -	barrels	16,515	41,562
Butter - -	cwts.	92	494
Candles, stearine -	lbs.	—	—
Coals, cinders, and culm	tons	184,097	93,270
Cotton yarn - -	lbs.	44,138,846	4,393,372
Cotton manufactures:			
Piece goods - -	yards	65,951,389	1,866,379
Hosiery and small wares	value	—	256,240
Drugs and chemical products	"	—	86,779
Earthenware and porcelain	packs.	6,143	50,573
Fish, herrings - -	barrels	236	413
Glass of all kinds -	value	—	16,907
Haberdashery and millinery	"	—	112,624
Hardwares and cutlery, of all sorts - -	"	—	676,160
Leather:			
Tanned, unwrought -	cwts.	989	8,919
Wrought - -	value	—	19,001
Saddlery and harness -	"	—	1,580
Linen yarn - -	lbs.	6,469,973	652,175
Linen manufactures:			
Piece goods - -	yards	4,345,661	214,177
Thread, tapes and small wares - -	value	—	214,913
Machinery and millwork	"	—	1,217,933
Metals:			
Iron: pig, bar, bolt, wire, and cast	tons	26,477	312,923
rail-road -	"	7,970	172,496
of all other kinds	"	27,705	449,914
Steel, unwrought -	"	5,938	192,317
Copper, unwrought -	cwts.	2,990	14,790
part wrought, and wrought	"	15,862	69,993
Lead - -	tons	1,502	26,824
Tin, unwrought -	cwts.	289	1,591
plates - -	"	11,130	16,052
Oil, seed - -	gallons	2,657,301	398,961
Painters' colours -	value	—	27,434
Paper (except hangings)	cwts.	603	2,419
Salt - -	tons	10,936	8,478
Silk, thrown, and yarn -	lbs.	136,465	118,448
manufactures -	value	—	39,900
Spirits, British and Irish	gallons	1,278	171
Sugar, refined - -	cwts.	524	539
Wool, sheep and lambs'	lbs.	1,954,645	201,695
Woollen and worsted yarn	"	14,071,682	2,505,418
Woollen manufactures:			
Cloths of all kinds -	yards	1,019,437	167,639
Worsted and mixed stuffs	"	19,757,910	1,275,044
Flannels, carpets &c.	"	474,055	67,705
Hosiery and other goods	value	—	31,812
All other articles -	"	—	681,643
Total - -	-	—	16,230,711

The staple imports are timber, deals, grain, and seeds, sheep's wool, tallow, hemp, flax, hides, iron in bars, green fruit, bones, madder, bark, turpentine, cattle, sugar &c. The rise of Goole and Grimsby has not affected the commerce of Hull at all to the extent anticipated, and her superior facilities for trade and navigation will always ensure her a decided superiority over the other ports of the Humber. Hull used to be very largely engaged in the Northern whale fishery, having had, in 1818 and 1819, as many as 64 ships engaged in the trade. Subsequently, however, it rapidly declined, and from 1836 to 1845 only 1 ship was sent out! but it has since partially revived, though the business is one of extreme hazard; and

it is generally believed that, on the whole, the losses on the trade have fully countervailed the gains. The steam navigation of the port is again on the increase, as seen in the third table applicable to Hull; and many iron steamers and sailing vessels continue to be added to the shipping of the port. These, with the reductions in the dock rates and port charges, the increased facilities afforded for the shipment and warehousing of goods, and the intimate communications with the interior of the kingdom, and even with foreign countries, have given an extraordinary impulse to the trade of the port, and this, no doubt, will be maintained and increased if the peace of Europe should happily be preserved.

It is believed by many that the trade of the town and the well-being of its inhabitants would be much promoted by purchasing up the docks from their present proprietors, and placing them under trust for the benefit of the town, as at Liverpool and Bristol; and this, we are assured, might be accomplished with but little difficulty. (We are indebted for the greater part of the foregoing information to the obliging kindness of the able secretary to the docks.)

Account of the Quantities of the Principal Articles Imported into Hull during the Year 1866.

Articles		Quantities
Animals, living: oxen, bulls, and cows	no.	25,945
sheep and lambs	,,	48,540
Corn: wheat	cwts.	1,020,294
barley	,,	1,691,884
oats	,,	543,293
peas	,,	186,385
beans	,,	190,216
Indian corn or maize	,,	140,659
wheat meal and flour	,,	429,784
Flax: dressed or undressed	,,	228,686
tow or codilla of flax	,,	53,915
Fruits: lemons and oranges	bushels	243,997
Hemp	cwts.	107,856
Hides, untanned: dry	,,	19,127
wet	,,	23,723
tanned, tawed, curried, or dressed (except Russian hides)	lbs.	218,810
Oil: train, blubber, and spermaceti	tuns	94
olive	,,	6,940
seed oil, of all kinds	,,	1,234
Oilseed cakes	tons	20,514
Provisions: bacon and hams	cwts.	11,315
beef, salted	,,	996
pork ,,	,,	2,187
butter	,,	47,703
cheese	,,	31,580
eggs	great hundreds	13,475
lard	cwts.	11,118
Seeds: flaxseed and linseed	qrs.	530,570
rapeseed	,,	121,536
Silk, raw	lbs.	2,069
thrown	,,	400
Spirits: rum	gallons	38
brandy	,,	127,550
Geneva	,,	5,205
Sugar, unrefined	cwts.	5,865
refined, and sugar candy	,,	193,916
Tobacco, stemmed	lbs.	436
unstemmed	,,	147,122
manufactured, cigars and snuff	,,	55,718
Wine	gallons	179,935
Wood and timber:		
Not sawn or split, or otherwise dressed, except hewn	loads	38,168
Deals, battens, boards &c. sawn or split	,,	232,050
Staves	,,	4,021
Wool, sheep and lambs'	lbs.	13,813,762
alpaca and llama	,,	156
Woollen manufactures	value £	88,969

VI. Great Grimsby Docks &c.

Grimsby is a borough and seaport, in the county of Lincoln, on the south side of the estuary of the Humber, which at this point is about 7 miles across, 7 miles W. from the lighthouse on Spurn Head, which is in lat. 53° 34′ 44″ N., long. 0° 7′ 9″ E. Population, in 1861, 15,060. The long, low, narrow, hooked tongue of land which terminates in the Head protects a capacious roadstead, with good holding ground, extending to within a mile of the new works at Grimsby, and well known as a harbour of refuge to those who navigate the North Sea. The entrance to the river is marked by the lighthouse on Spurn Head, and by two light-ships in the Channel. Grimsby has, in consequence, the double advantage of a secure roadstead and of proximity to the open sea. The utility of this new harbour is evident from the scarcity of ports along this portion of the coast of England; for, if we except the leading port of Hull, which also lies on the Humber, 15 miles farther inland, there is no other port with docks but that of Grimsby, between Hartlepool in Durham and King's-Lynn in Norfolk, a distance of fully 150 miles.

Grimsby is a borough of considerable antiquity, and was formerly a port of such importance that in the reign of Edward III. it sent 11 ships to the siege of Calais. Owing, however, to the gradual filling up of its harbour, it latterly sunk into comparative insignificance. In 1802 a new harbour was constructed; but being accessible only at high water, it was not productive of all the advantages that were expected. But, in 1846, a new harbour, on a larger scale, accessible at all times of the tide, was commenced; and in anticipation of its being finished, Grimsby was made the terminus of two important railways.

The old dock or floating basin, constructed in 1801–2, measures about 19 acres; but being placed at the high-water margin of a flat shore, and being consequently accessible only towards high water, it is of very limited utility.

To secure a proper depth of water at the entrance of the new works was an object of the first importance; and to attain it they have, under the Act of 1845, been projected ¼ mile into the estuary in advance of the old dock, reclaiming at the same time and enclosing 130 acres of land.

The new works comprise a wet dock of upwards of 25 acres in extent, with two entrance locks, having in front a tidal basin of 15 acres. The latter, formed by two piers, together about 2,000 feet in length, is provided with landing quays of masonry. It has a depth of 9 feet at low water springs, and of 12½ feet at low water neaps; the rise of tide at the former being about 18, and at the latter about 12 feet. The facility of ingress and egress afforded by this basin is especially useful to steamers, which, as they usually convey passengers or light merchandise, do not require to enter a dock. Here they lie afloat alongside the piers at all times of the tide.

The new dock, opened in May 1852, is entered from the basin by two locks of massive masonry, furnished with double sets of gates for ebb and flood tides, the larger of which, constructed (by special agreement with the Government) to admit the largest class of war steamers, is of the following dimensions, viz.—Length between the gates 300 feet; breadth from wall to wall 70 feet; depth of water on sill, at low water spring tide, 7 feet; depth of water on sill, at low water neap tides, 10½; depth of water on sill, at high water spring tide, 25½; depth of water on sill, at high water neap tides, 22½ feet. At half tide the average depth of water on the sill of this lock is 16 to 17 feet, and at three-quarters tide 20 to 22 feet.

The smallest or second lock is designed for general purposes. Its length between the gates, 200 feet; breadth, from wall to wall, 45 feet; and its sill being 9 inches below that of the large lock, it has, at half tide, a depth of 17 to 18 feet water; and, at three quarters tide, of 21 to 22 feet. The lock gates, worked by hydraulic machinery, are opened and closed with ease and rapidity.

The water area of the new dock amounts, as already stated, to upwards of 25 acres, including a timber pond at its upper end: it has never less than 25 feet depth of water at its entrance, shoaling gradually to 20 feet at the timber pond. The

dock is filled with fresh water—a circumstance of considerable advantage to steamers. Wharfs or quays extend on both sides of the docks, upwards of 5,600 feet in length. They are traversed by railways, so that trains may be at once loaded from the ships, and the goods forwarded to their destination. The covered sheds and bonding warehouses, with suitable jetties, cranes, and other machinery, erected close to the quays, are extensive and convenient.

There is also a fish craft dock of about 6 acres, situated on the east side of the new dock. It is 80 feet long by 20 feet wide, with a depth of water on the sill at high water spring tides of 15 feet, and has a timber wharf 400 feet long and 35 feet wide partly roofed, with ice-houses, curing establishments &c. adjoining.

From the proximity of Grimsby to the mouth of the Humber, both sailing and steam vessels can get to sea from it with the greatest facility. It would seem, indeed, to be well fitted, not only for a commercial port, but also for a station for Government steamers and other ships of war in the event of our being engaged in hostilities with any of the Northern Powers. Grimsby is 190 miles from Rotterdam, with which it has regular steam communication, and 220 miles from Antwerp.

In connection with the wet dock, a graving dock for the repair of ships was opened in 1858. It has an entrance of 70 feet wide, and an average depth of 19 to 20 feet on the sill. It is further intended to open a channel of communication between the old and the new dock, which will add greatly to the utility and value of the former.

But, after all, the value of Grimsby as a commercial port will principally depend on its facilities of communication with the interior. And these are of the most extensive description. A direct branch of the Great Northern Railway, from Peterborough, passing through Boston and the east parts of Lincoln, and thus opening a rich agricultural country, brings Grimsby within 154 miles distance, or 4 or 5 hours' travelling, of London. The line of the Manchester, Sheffield, and Lincolnshire Railway Company, who are the proprietors of the works at Grimsby, unites it with Manchester (distance 117 miles) and Sheffield. It intersects in its course two trunk lines to the North, viz. the Midland and the Great Northern.

The agricultural district of Lincolnshire and the Midland counties, the manufacturing and mineral districts of Lancashire and Yorkshire, and the metropolis, are thus brought into direct and easy communication with a port that offers especial advantages for the trade with Holland, the Elbe, and the Baltic; and which is, indeed, extremely well situated for traffic, whether east, north, or south.

The number of vessels entered at this port during 1866 are as under:—

	No.	Tonnage
Inwards from Foreign Ports	1,016	250,271
Outwards	1,033	268,183
Coasting.		
Inwards	122	7,581
Outwards	366	48,865

Amount of Customs' duties received at Grimsby in 1866, 15,709*l.*; value of exports from the port in 1866, 8,205,807*l.*

The following table shows the rates and duties charged by the Manchester, Sheffield, and Lincolnshire Railway Company, at the Grimsby Docks, on vessels trading between the port of Grimsby and any of the after-mentioned places, and on vessels entering the docks for shelter or repairs:—

	s.	*d.*
For every vessel trading between the Port of Grimsby and any port or place in Denmark, Sweden, or Norway, below Elsinaur, or in Germany, Holland, Flanders, France to the eastward of Ushant inland, the Islands of Guernsey and Jersey, per registered ton	0	4
For every vessel trading between the Port of Grimsby and any port or place in the Baltic Seas, and all other ports or places above the Sound, or between the said port and any island or place or port of Europe to the westward of Ushant without the Straits of Gibraltar, per registered ton	0	7
For every vessel trading between the Port of Grimsby and any port or place in the West Indies, North and South America, Africa, Greenland, or any place to the eastward of the North Cape of Norway, all places within the Straits of Gibraltar, and all islands and places in the ocean to the southward of Cape St. Vincent, not before named, per registered ton	0	10
Dock rent is not charged on vessels trading as above named until they have been 10 months in the dock: the rate is then 1*d.* per ton per month.		
For every vessel coming into the docks in harbour to be laid up (such vessel not having made the last preceding voyage from the said Port of Grimsby, and paid duty as ordinarily upon her departure from the said docks, and not being regularly employed in the trade of the said port), for every ton the sum of	0	6
For each such vessel which shall remain more than 8 weeks, the further charge per ton per week of	0	0½
For every vessel exceeding 50 tons burden, entering the said docks for repairs, shelter from storms, or from any other accidental cause, per ton	0	3
For every such vessel, if remaining more than seven days, the further sum per ton per week of	0	1
For every vessel not exceeding 50 tons burden, so entering the said docks, the sum of	5	0
For each such vessel remaining in the docks more than twenty-four hours, the further sum per ton per week of	0	0½

The following are the rates and duties charged at the Grimsby Docks on the cargoes of coasting vessels, and vessels navigating the Humber, and rivers or canals communicating therewith:—

		Inwards		Outwards	
		s.	*d.*	*s.*	*d.*
Wool, flocks, spetches, woollen yarn, and dried pelts	per ton	0	6	2	3
Slates, tiles, iron, and bark	,,	0	6	0	6*
Lime	per chaldron	0	3	0	3*
Coals, slack, cinders, culm, coke, charcoal, or bricks	per ton	0	3	0	3*
Timber, wood, deals, planks, battens &c.	,,	0	6	English 1*d.* Foreign free	
Groceries	,,	1	0	1	0
Grain, vetches, and lentils	per quarter	0	1	0	2
Dung, compost, manure (unpacked)	per ton	5	0	5	0
Dry (packed)	,,	0	6	0	6
Goods not before specified	,,	0	6	0	6

* If shipped from railway waggons, free.

N.B.—Vessels making use of the Grimsby Docks are not subject to corporation dues of any kind.

Rates to be charged on the Registered Tonnage.

For	Vessels under 100 tons			And for every progressive 50 tons		
	£	*s.*	*d.*	£	*s.*	*d.*
One day	2	2	0	0	6	0
Two days	2	16	0	0	8	0
Three ,,	3	10	0	0	10	0
Four ,,	4	4	0	0	12	0
Five ,,	4	18	0	0	14	0
Six ,,	5	12	0	0	16	0
Seven ,,	6	6	0	0	18	0
Eight ,,	7	0	0	1	0	0
Nine ,,	7	14	0	1	2	0
Ten ,,	8	8	0	1	4	0
Eleven ,,	9	2	0	1	6	0
Twelve ,,	9	16	0	1	8	0
Thirteen ,,	10	10	0	1	10	0
Fourteen ,,	11	4	0	1	12	0

A special agreement will be made for vessels requiring to remain more than fourteen days.

In addition to the above rate per day for occupation of the dock, every vessel will be charged for pumping, use of horizontal shores, pitch-pots, and smithy, viz.:—

	£	*s.*	*d.*
Vessels not exceeding 500 tons	5	0	0
500 ,, 700 ,,	7	0	0
700 ,, 1,000 ,,	10	0	0
exceeding 1,000 ,,	15	0	0

Rules and Regulations.

1. To ensure to all parties as far as possible the use of the dock in the order of priority, a book is kept by the Harbour Master, in which all vessels

intended for repair in the Graving Dock must be entered, and the sum of 1 guinea paid at the time of such entrance. The said sum of 1 guinea will be allowed as part of the dockage, if the same be paid within ten days after the bill is delivered out: if not so paid, it will be forfeited. The entrance-money will also be forfeited if the vessel does not take her turn at the time specified at the time of entry, provided the dock is ready to receive her.

2. No changing of turns to be allowed, except in the case of a vessel having received damage by accident; and relief is to be given in such cases to vessels either inward or outward bound, according to the judgment and by the authority of the Harbour Master.

3. Any vessel staying in the Graving Dock more than 7 days must allow the gates to be opened for other vessels to go out or in, as their turn or turns may require, and must be responsible for its own shoring.

4. No vessel will be allowed to remain longer than 14 days in the Graving Dock, except under special agreement.

5. No vessel will be permitted to be broken up in the Graving Dock without the consent of the directors, under the hand of their secretary for the time being.

6. Ground blocks and horizontal shores only are to be provided by the Company; and if any of them are let adrift, lost, or negligently or wilfully damaged, the same must be made good by the owners of the vessel occasioning the loss or damage; and any vessel requiring to remove or take out blocks must replace the same; and if it is necessary to pump dock dry for that purpose, the vessel must pay an additional 5*l.* for pumping.

7. Every person who shall cut, destroy, or be guilty of wilful or negligent injury to any of the blocks, shores, machines, stoves, water-cisterns or pipes, pitch-pots, cranes, tackle, or other appendages, belonging to the Graving Dock or the property of the Company, or shall throw down heavy timber or other things upon the steps or stonework instead of using the slides or sledges provided for that purpose, shall not only make good the damage or injury done, but shall, over and above, forfeit the sum of ten shillings for each such offence. The damage to be computed and assessed by the Harbour Master.

8. No work of any description will be allowed to be done in the Graving Dock on Sunday, except upon proved emergency, and only by the express permission in writing of the Harbour Master.

9. No vessel will be allowed to enter the Graving Dock with gunpowder on board.

10. The Graving Dock must be cleaned out each day, at the expense of the vessel or vessels occupying it, to the satisfaction of the Harbour Master.

VII. Newcastle Docks &c.

Previously to 1857, the port of Newcastle-on-Tyne, although by far the most important of the Northern ports, possessed no dock accommodation. Under the 'Tyne Improvement Act, 1852,' however, the 'Northumberland Dock' was constructed at a place called 'Hayhole,' on the north side of the Tyne, and was opened on September 1, 1857. Its area is 55 acres, and that of the tidal basin at the entrance 2 acres. The greatest depth of water is 23, and the least 18½ feet. The accommodation provided at first was principally for an export dock for coals; and communication by railways has been opened with a considerable number of collieries, but the import trade carried on in the dock is annually increasing; and more sufficient quay accommodation has been constructed to meet each increase. The number of vessels which entered the docks in 1863 was 4,961; and in 1864, 5,032; and the amount of tonnage has since this date considerably increased.

The following is a schedule of the present rates and tolls on vessels and goods carried in vessels using the Northumberland Dock, leviable by order of the Tyne Improvement Commissioners, under the Tyne Improvement Act, 1852.

Tonnage Rates.

Outward Charges.	Rates
	d.
For every ship clearing for any port in the United Kingdom or the Isle of Man - - - per registered ton	2
For every ship clearing for any port in the White Sea or any port between the North Cape and Gibraltar, including the Baltic, and for British possessions in North America, per registered ton - - - -	2
For every ship clearing for any other port and place than above specified - - per registered ton	4
For every ship entering the dock for the sole and exclusive purpose of delivering or unloading ballast, gravel, or sand - - - - per registered ton	1½
For every ship entering and leaving the dock without delivering or loading a cargo - - per registered ton	2
Inward Charges.	
For every ship with a cargo from any port in the United Kingdom or the Isle of Man - - per registered ton	2
For every ship with a cargo from any port or place in Europe between Ushant and the Naze in Norway, except the ports of the Baltic Sea, or from any port in the islands of Guernsey and Jersey - - - per registered ton	4
For every ship with a cargo from any other port or place, per registered ton - - - - - -	6

For the above rates any ship may remain in the dock for any time not exceeding 4 weeks, and after the expiration of that time a further sum of ½*d.* per registered ton per week shall be payable in respect of such vessel.

River Craft will be charged at the rate of 8*d.* for a load of 8 chaldrons, or 20 tons, and in like proportion for a greater or less load.

Rates or Tolls on Goods.

	Rates.
	d.
For every ton of large or unscreened coals put on board any vessel in the dock for export, whether coastwise or foreign	2
For every ton of small coal put on board any vessel in the dock for export, whether coastwise or foreign - - -	1
For every ton of coke, culm, or cinders, put on board any vessel in the dock - - - - -	3
For every load of timber, each load containing fifty cubic feet, received or delivered from any vessel in the dock - -	3
And in case such timber shall continue in the dock for a longer period than one month, then for each week beyond such month - - - - - -	0½
For every ton weight of goods or merchandise of every other description received or delivered from any vessel in the dock - - - - - -	4
Or, at the option of the Commissioners, for every ton measurement of such goods and merchandise, each ton measurement containing forty cubic feet - -	6

And for every package or parcel of goods less than a ton, either of weight or measurement, the same sum as is payable in respect of a ton.

VIII. Tyne, South Shields Dock, &c.

The Tyne Dock, opened on March 3, 1859, is designed for the accommodation of ships of the largest burden, and is connected by railway with all parts of the kingdom.

There are two coal and coke shipping jetties with 22 spouts, where the largest description of vessels can be loaded afloat. Coals from the Northumberland and Durham coal-fields can be shipped to any extent.

There are nine warehouses capable of storing grain, fibre, hemp, tallow, and general merchandise.

Steam travelling and hydraulic cranes are provided in different parts of the dock.

Sheer legs capable of lifting 60 tons are now erected and are in use.

There is also extensive timber accommodation on land and water.

Dock Accommodation.

Dock.

Area in Acres	Depth of Water in Dock O. S. T.	Depth over Sill at High Water O. S. T.	Width of Entrance	
			East Lock	West Lock
50	feet 23	feet 21·6	feet 60	feet 80

Basin.

Area in Acres	Depth of Water At H. W. O. S. T.	Depth of Water At L. W.	Width of Entrance
	feet	feet	feet
10	25	11·6	250

High water at the Bar on full and change - 3h. 30m.
Ordinary spring rise of tide - - - 14ft. 9in.
Neaps - - - - - 11ft. 4in.

The datum is 15ft. below a notch cut in the S. W. corner of the Low Light &c.

List of Rates, Tolls, and Dues.

	Rates per ton d.
Inward Charges.	
For every ship with a cargo from any port in the United Kingdom, the Isle of Man, or in the Islands of Guernsey and Jersey	2
For every ship with a cargo from any port or place in Europe, between Ushant and the Naze in Norway, including the ports in the Baltic Sea	4
For every ship with a cargo from any other port or place	6
Outward Charges.	
For every ship clearing for any port in the United Kingdom, the Isle of Man, the White Sea, or any port between the North Cape and Gibraltar, including the Baltic, and for the British possessions in North America	2
For every ship clearing for any other port or place than above specified	4
For every ship entering or using the docks for the sole and exclusive purpose of delivering or unloading ballast, gravel, or sand	1½
For every ship entering and leaving the docks without delivering or loading a cargo	2

For the above rates any ship may remain in the docks for any time not exceeding 4 weeks, and after the expiration of that time a further sum of 1*d.* per ton per week shall be payable in respect of such vessel.

For keels, lighters, or other river craft, not exceeding 50 tons burden, entering and leaving the docks for the purpose of loading or discharging minerals or merchandise, 1s. each way.

Dues, Rates, or Tolls on Timber, Goods, or Merchandise Transferred to or from Vessels or River Craft in the Docks.

	Rates. d.
For every load of timber, of whatever description, each load containing fifty cubic feet, received or delivered from any vessel	3
For every ton weight of goods or merchandise, of every other description, received or delivered from any vessel	4
Or, at the option of the Company, for every ton measurement of such goods and merchandise, each such ton measurement containing forty cubic feet	6

And for every package or parcel of goods less than a ton either of weight or measurement, the same sum as is payable in respect of a ton.

When the quays or jetties are used for loading or unloading, the above dues, rates, or tolls are not exacted, but wharfage and other charges are payable, and information as to the same may be obtained on application to the collector at the dock office, or to the Company's goods manager, Newcastle.

The following are payable whether the animals be transferred to and from vessels or craft in the docks, or loaded or unloaded at the quays, wharfs, or jetties :—

	Rates per head. s. d.
Horses	1 6
Oxen, cows, and bulls	1 0
Ponies, mules, and asses	0 6
Calves and deer	0 2
Lambs, sheep, goats, and pigs	0 1

The highest tide ever known in the Tyne Docks was 27½ feet on the dock sills. The rise is frequently to 25, 25½, 26, and 26½. The average height of spring tides is 24½ feet on the sills. At no time is there less than 20 feet in the dock after the gates are closed, or less than 8 feet outside the dock. The number of vessels which entered the port of South Shields alone, in 1866, was 499 with a tonnage of 148,852, of which 67 were steam vessels with a tonnage of 34,979.

IX. Cardiff Docks &c.

Cardiff, situated on the river Taff, and having in 1861 a population of 32,954, has, in consequence of its connection by rail and canal with Merthyr Tydvil and the chief mining districts of South Wales, risen to very considerable importance. This has been much enhanced by the accommodation it offers in the Docks constructed at vast expense by the late Marquis of Bute.

The Taff River is navigable for small vessels up to near the South Wales Railway.

Glamorgan Canal.—The approach to this canal is by the river Taff. Width of gates of Sea Lock 27 feet; length of Sea Lock 103 feet; depth of water on sill of inner gates 13 feet; length of canal for loading and discharging vessels 5,412 feet; average width 100 feet; depth of water in canal 13 to 9 feet.

Penarth Dock.

Basin, 400 ft. × 330 ft.; lock, 270 ft. long; dock, 2,000 × 370 ft.; water, 35·8 ft. high tide, and 25·7 lowest, being 4 ft. more water than East Bute Dock, and 7 ft. more than West Bute Dock; gates 60 ft. wide.

Bute Docks.

Lat. 51° 27′ 46″ N.; long. 3° 10′ 20″ W.; High Water, full and change, 6 h. 37 m.

West Dock	East Dock	Tidal Dock
Sill of Sea Gates. Height at springs, 28 ft. 8½ in.; height at neaps, 18 ft. 7½ in.	*Sill of Sea Gates.* Height at springs, 31 ft. 8½ in.; height at neaps, 21 ft. 7½ in.	*Average depth of water.* At springs, 36 ft. 8½ in.; at neaps, 16 ft. 7½ in.
Width of Sea Gates, 45 ft.	*Sea Gates.* Width, 50 ft.	Ballast and other material are discharged by cranes on the south side.
Basin. Length, 500 ft.; width, 200 ft.	*Sea Lock.* Length between gates, 220 ft.; width, 55 ft.	The coal is shipped at the staiths on the north side, which communicate with the Rhymney and South Wales Railways.
Lock. Length between gates, 152 ft.; width, 36 ft.	*Basin.* Length, 340 ft.; width, 250 ft.	The dock charge on sailing or steam vessels is ¼*d.* per register ton.
Dock. Length, 4,000 ft.; width, 200 ft.; depth of water from 13 to 19 ft.	*Inner Lock.* Length between gates, 200 ft.; width, 47 ft.	
The staiths in the 19 and 13 ft. water combine the latest improvements in the shipping of coal, by which 1,500 tons may be shipped per hour from each staith.	*Dock.* Length, 4,300 ft.; width, northern portion 500 ft.; southern portion, 300 ft.; depth of water, 25 ft.	
By the steam ballast cranes on the eastern side, 40 tons per hour may be discharged by each crane.	The staiths afford the means of shipping coal brought by the Rhymney and Taff Vale narrow gauge lines, and by the South Wales broad gauge railway. The height of the staiths will admit of the largest vessels lying under and taking in cargo. Means are provided for putting 'stiffening' into vessels for discharging ballast, and for putting coal on board without breakage.	
The traffic to and from this dock is sent over the Taff Vale Railway.		

Remarks.—The anchorage off Penarth Head is excellent. The Cardiff and Penarth Flats and East and West Mud are composed of a thick stratum of soft alluvial clay and mud, on which the largest vessels loaded lie aground with perfect safety. Penarth Head, being about 200 ft. above high water mark, not only affords perfect shelter from the boisterous west wind, but generally is most desirable as a place of shelter and anchorage for the large and valuable vessels which frequent

the port. Steam-tugs are in attendance at every tide. There are also steamers plying between these docks and the ports of Liverpool, Cork, Whitehaven, Burnham, Bristol &c. By the Rhymney Railway and the Newport, Abergavenny, and Hereford Railway, there is a direct and unbroken narrow gauge communication between Cardiff, London, Birmingham, Chester, Liverpool, Manchester, and the North. The South Wales Railway (broad gauge) affords communication between this port and Milford Haven, Carmarthen, Swansea, Neath, Newport, Chepstow, Gloucester, and London.

The Port of Cardiff is the outlet for the large mineral and manufactured produce of the central portion of the South Wales Mineral Field, in which are the populous districts of Merthyr, Rhymney, and Aberdare, with which this port is connected by the Taff and Rhymney Railways, and Glamorgan Canal.

Table of Towage Rates in the Bute Docks.

			£	s.	d.
Vessels under 50 tons			0	2	6
of 50 tons and under 100 tons			0	3	6
100	200		0	5	0
200	300		0	7	6
300	500		0	10	0
500	700		0	12	6
700	900		0	15	0
900	1,000		1	0	0
1,000	1,100		1	2	6
1,100	1,200		1	5	0
1,200	1,300		1	7	6
1,300	1,400		1	10	0
1,400	1,500		1	12	6

And 2s. 6d. for every additional 100 tons or portion thereof.

The owners of the docks will not be responsible for any damage occurring to vessels while in tow by their steamer.

Table of Tonnage Rates on Shipping.

	per register ton
First Class.	
On all sailing, steam, or other vessels entering from or departing for any port in the United Kingdom, Isle of Man, Jersey, Guernsey, Alderney, and Sark, under 100 tons register	d.
100 tons and under 200 tons register	1½
200 tons register and upwards (except steam vessels)	2
Steam vessels 200 tons register and upwards	3
	2
Second Class.	
On all sailing, steam, or other vessels entering from or departing for any port in Europe, between the North Cape and Cape Finisterre	5
Third Class.	
On all sailing, steam, or other vessels entering from or departing for any other port in Europe and the Mediterranean	7
Fourth Class.	
On all sailing, steam, or other vessels entering from or departing for all other foreign ports whatsoever	9
Fifth Class.	
On all sailing, steam, or other vessels which do not enter within the gates of any dock or basin, but which either discharge or receive passengers or goods upon or from any pier, landing place, or jetty	3
Sixth Class.	
On all sailing, steam, or other vessels using the tidal harbour of the undertaker	0½
If any sailing, steam, or other vessel, being of less than 200 tons measurement, shall remain within any dock or basin for a period longer than 10 days; or being of 200 tons and less than 400 tons measurement for a longer period than 14 days; or being of 400 tons measurement or upwards for a period longer than 21 days, then for the period during which the vessel remains beyond those periods respectively the further rates following, that is to say:	
For the first week or any part thereof	1
second ,, ,,	1½
For every week or part of a week beyond the second week	2

Rates for the Discharge, Removal, and Deposit of Ballast.

Register Tonnage of Vessels from which the Ballast is discharged	Rates per Ton on the quantity of Ballast
	s. d.
Under 100 tons	0 6
100 and under 200 tons	0 8
200 ,, 400 ,,	0 9
400 ,, 600 ,,	0 10
600 ,, 800 ,,	0 11
800 ,, 1,000 ,,	1 0
1,000 and upwards	1 1

Additional Rates.—For the use of barges, if required, 4*d.* per ton on the quantity discharged.

For discharging ballast by night, 3*d.* per ton on the quantity so discharged.

For trimming ballast to within 15 ft. of any hatchway from which the ballast is to be discharged, 2*d.* per ton; or the captain can employ his crew for this purpose.

Application for barges, night work, and trimming of ballast, to be made at the Ballast Office.

X. Glasgow Docks, Shipping &c.

Glasgow, the commercial capital of Scotland, on both sides the Clyde, lat. (Observatory) 55° 51′ 32″ N., long. 4° 17′ W. (population, 1861, including suburbs, 446,395), is indebted for her present greatness to her advantageous situation on a fine river, in one of the richest coal and mineral districts of the empire. Originally the Clyde was much encumbered by fords and shallows, and for a lengthened period it served rather to excite and disappoint expectation than to confer any real commercial advantage on the city. In 1662, after several other schemes had failed, the magistrates of Glasgow purchased the ground on which Port Glasgow (16 miles lower down the river) now stands, where they formed a harbour and a graving dock, the first work of its kind in Scotland. For a considerable period the intercourse between Glasgow and its newly acquired port was principally carried on by land carriage; but from 1665 attempts were every now and then made to deepen the river. In 1688 a quay was formed at the Broomielaw; but even so late as 1775 no vessel drawing 6 ft. water could reach Glasgow except at spring tides. At length a plan, proposed in 1769 by Mr. Golburn, engineer, of Chester, for deepening the river to 7 ft. at neap tides, was adopted, and since then, by the continued use of numerous dredging machines, a depth of from 18 to 21 ft. water at neaps has been obtained. In 1864, of 46 vessels over 1,000 tons, 18, that drew more than 20 ft. water, came safely to the Broomielaw, while one of the largest steam vessels afloat, the Persia, of 3,600 tons burden, was launched in 1855 into the river about one mile below Glasgow, and came up to the harbour to receive its machinery. The river for 7 miles below the city is very much widened, and forms nearly a straight line: the sloping banks, formed of whinstone, being constructed in imitation of ashlar. The accommodation for shipping at the Broomielaw, or harbour, is now also very greatly extended. The quays extend upwards of 2½ miles in length, varying from 120 to 200 yards in width, and are amply furnished with sheds for goods, cranes, and other appliances for working a first-rate harbour. The quay has the important advantage of being directly connected, by means of the General Terminus Line, with the various railways that centre in the city. The Parliamentary trustees for managing the river have also acquired ground north of the harbour, on which they have power to construct docks.

That part of the Clyde which lies between Glasgow Bridge and the mouth of the river Kelvin forms the harbour of Glasgow. The area of its water space is 124 acres, of which 70 are occupied by shipping. The total length of quays on both sides of the harbour in 1867 was 4,577 yards, but 880 lineal yards of quay space must be added for the wet dock at Windmillcroft on the south side of the harbour.

Vessels of 21 ft. draught of water can lie alongside the quays; and as dredging operations are continually carried on, vessels of greater draught

will, in a short time, have no difficulty in entering the harbour. About 600,000 cubic yards of material are annually removed from the bed of the river.

The government of the harbour is vested in 25 'Trustees of the Clyde Navigation,' who are elected jointly by the Town Council, the shipowners and harbour ratepayers, the Chamber of Commerce, and the merchants' and trades' houses. Their jurisdiction extends as far down the Clyde as Newark Castle at Port-Glasgow, and they have powers under the 'Clyde Navigation Consolidation Act 1858' (21 & 22 Vict. c. 109) for making bye-laws, regulations &c. The Executive consists of a general manager, a treasurer, and 4 assistants; harbour-master, and 9 deputies; engineer and 5 assistants; tonnage collector, weighers, a superintendent, 2 inspectors, 3 serjeants, and 37 officers of police.

The revenue of the harbour for the year—

	£	s.	d.
1863 was - -	118,083	7	10
1864 „ - -	121,380	13	9
1865 „ - -	121,587	11	11
1866 „ - -	125,587	10	0
1867 „ - -	131,892	2	6

and the ordinary annual expenditure, including dredging, is about 42,000*l.* (42,104*l.* 12*s.* in the year ended June 30, 1867).

The total number of arrivals of sailing and steam vessels from home and foreign ports in the year

			Total
1861 was 4,804 sailing,	11,281 steam	-	16,085
1862 „ 4,573 „	11,291 „	-	15,864
1863 „ 4,620 „	10,555 „	-	15,175
1864 „ 4,569 „	9,962 „	-	14,531

In 1866 there belonged to Glasgow 536 sailing vessels of 233,073 tons, and 271 steam vessels of 99,280 tons.

The number of steam vessels actually employed at and trading from the river Clyde during the summer of 1865 was—

No. of Vessels	How Employed	Gross Tonnage	Register Tonnage	Nominal Horse Power	Draught of Water
					ft. ft. in.
28	To coast towns on Firth of Clyde -	4,952	2,421	2,285	3 to 5 3
15	Scotch ports -	3,119	2,035	1,610	6 „ 12 0
19	Irish „ -	8,793	6,106	2,850	10 „ 12 0
7	English „ -	3,667	2,673	910	10 „ 12 0
16	France and the Mediterranean	7,658	5,931	890	12 „ 15 0
8	New York and Quebec -	11,175	8,917	900	19 „ 21 0
93	Passenger steamers	38,964	28,113	9,545	—
31	Tug steamers -	2,179	718	1,273	5 „ 6 0
124	Total steamers -	41,143	28,831	10,818	—

The *rise* and *fall* of tide at the harbour of Glasgow at spring tides is 10 ft.; at neap tides is 8 ft.

Dimensions of Dry Docks.

Name and place of Dry Dock	Length within Gates	Width at Entrance	Depth of Water Spring-tides	Charge
	ft.	ft. in.	ft. in.	
Tod and Mac Gregor's, Glasgow - -	300	56 0	18 0	3*d.* per ton on gross tonnage for docking and undocking. This includes pumping out and use of shores, but not men's time. 1*d.* per ton per tide for first 14 tides, and ½*d.* per ton per tide for next 28 tides. A longer time as per agreement.
Mac Millan's, Dumbarton - -	300	41 0	15 0	
R. Steele and Co., Greenock - -	361	47 6	16 0	
Caird and Co., Greenock - -	200	45 0	18 0	
Greenock Old Town Dock - -	210	30 0	13 0	
New „ - -	360	38 0	13 0	
Port Glasgow Dry Dock, on blocks -	210	32 11	10 0	
inside gates -	235	—	neap 8 0	
Portland Shipping Company, Troon, on blocks -	278	37 6	spring 12 6 „ 10 6	

The patent slips at Glasgow and on the Clyde on which vessels are drawn up (at 3*d.* per ton, with ½*d.* per ton per tide while they are on for repairs) are as follows:—

	slip		tons
Barclay, Curle, and Co., Glasgow	- 1 for		500
„ „	- 1 „		800
Alex. Stephen and Sons, Glasgow	- 1 „		1,000
Tod and Mc. Gregor, Partick -	- 1 „	building for	1,000
Henderson, Coulborn, and Co., Renfrew	1 „		1,000
Scott, Mac Gill, and Co., Bowling	- 1 „		500
„ „	- 1 „		100
Denny and Rankin, Dumbarton	- 1 „		200
R. Steele and Co., Greenock -	- 1 „		300
Barr and Shearer, Ardrossan -	- 1 „		500
Andrew Mc. Lea, Rothesay -	- 1 „		200
Total 11 patent slips			

The following table shows the number of vessels built and launched on the Clyde in the years 1863 and 1864, and the number upon the stocks on December 31, 1864:—

Description of Vessels	Launched in 1863		Launched in 1864		On stocks December 31 1864	
	no.	tonnage	no.	tonnage	no.	tonnage
Sailing ships, iron -	31	29,168	50	39,024	37	15,846
wood -	14	5,875	6	3,250	3	1,080
composite	4	3,800	6	5,223	14	9,527
Total sailing ships	49	38,843	62	47,497	54	27,453
Steam ships, wood -	—	—	1	300	—	—
iron -	119	85,843	178	129,887	83	76,781
composite	2	1,710	1	591	5	4,970
Total steam ships	121	87,553	180	130,978	88	81,751
Grand total -	170	126,396	242	178,503	142	105,957

The number of vessels building on May 1, 1865, was 177.

Harbour Dues.—Rates on vessels, on each time of entering, or using or departing from the river or harbour:—

1. On all vessels, except as aftermentioned, arriving at or departing from the harbour, from or to any place in the United Kingdom of Great Britain and Ireland, per register ton, 1½*d.* inwards, 1½*d.* outwards.

2. On all steam-vessels arriving at or departing from the harbour, from or to any place within a line drawn from east to west across the Channel at Pladda, per register ton, ¾*d.* inwards, ¾*d.* outwards.

3. On all vessels arriving at or departing from the harbour, from or to any place out of the United Kingdom of Great Britain and Ireland, per register ton, 4*d.* inwards, 4*d.* outwards.

4. On all vessels that shall remain in the harbour over and above the first 24 lawful days, per register ton, per week, 1*d.*

5. On all vessels entering or departing from any of the wet docks or tidal basins, when constructed, in addition to the harbour rates, per register ton, 6*d.* inwards, 6*d.* outwards.

6. On all vessels that shall remain in any of the wet docks or basins over and above the first 24 lawful days, per register ton per week, 2*d.*

7. On all vessels entering or using the river, not liable for the above rates, and not trading with cargo liable for rates under schedule (H), per register ton, 6*d.* Provided that the last mentioned charge shall not extend to any vessels the goods in which are exempted from rates by this Act.

8. On all vessels entering or using the trustees' basin at Bowling, having previously been regularly trading on the river, per register ton, per week, ½*d.*

9. On all other vessels entering or using the said basin, per register ton per week, 2*d.*

Vessels proceeding empty for a cargo, or returning empty having discharged a cargo to or from any place beyond the limits of the harbour, shall not be liable to pay any rates for the empty trip, under Article 7.

Vessels passing to or from any place on the river Clyde above Hutcheson Bridge, through that portion of the river which is embraced within the limits of the harbour, shall not be liable for any of the rates specified in this schedule unless they shall use any of the said docks or tidal basins or any of the quays or other works constructed by the trustees on the banks of the river, within the limits of the harbour, or unless they shall take in or discharge their cargo or any part thereof within the said limits, or shall remain therein longer than may be necessary for passing through the same.

Rates for use of Ordinary Cranes.

	s.	d.
Each hogshead of sugar and boists, not exceeding 12 cwt.	0	3
from 12 to 15 ,,	0	4
from 15 to 20 ,,	0	6
Each ton of hemp	0	6
Ditto mahogany and other timber rated in the first column of schedule (B) at 1s. per ton	0	6
Ditto other timber	0	4
marble	1	0

Rates for Weighing.

	s.	d.
Each cart, waggon, or other carriage load or weight not exceeding 12 cwt.	0	1
exceeding 12 cwt.	0	2

Weighing duties to be paid by the owners, shippers, or importers of goods, if required by the collector or other officer appointed by the trustees for ascertaining the rates, provided the weight specified by the owner, shipper, or importer of the goods be found less than the real weight; but if equal to, or greater than, the real weight, the weighing duties are not to be exigible.

Weighing duties for coals to be paid only when weighed on the application of the owner or shipper.

Rates for the use of Planks, Stages, and Rhones.

	s.	d.
1. For planks or stages for loading or discharging vessels: for each plank or stage, per week	1	0
2. For rhones: for each waggon of coal loaded therewith	0	1

One shilling extra on each cargo for removing the rhone to and from the vessel.

Rates for use of Water.

	s.	d.
For the supply of water to vessels entering and using the harbour or docks per puncheon	0	8

But rates shall not be leviable unless water shall be actually supplied to vessels.

Rates for the Use of Cranes capable of lifting Ten Tons and upwards, putting in or taking out of Vessels old or new Machinery.

	£	s.	d.
For each hoist, not exceeding 1 ton	0	0	6
exceeding 1 ton and not exceeding 2 tons	0	1	0
2 ,, 3 ,,	0	2	0
3 ,, 4 ,,	0	3	0
4 ,, 5 ,,	0	10	0
5 ,, 6 ,,	0	15	0
6 ,, 8 ,,	1	0	0
8 ,, 10 ,,	1	10	0
10 ,, 12 ,,	2	0	0
12 ,, 15 ,,	3	0	0
15 ,, 20 ,,	5	0	0
20 ,, 25 ,,	7	10	0
25 ,, 30 ,,	10	0	0
30 ,, 35 ,,	12	10	0
35 ,, 40 ,,	15	0	0
40 ,, 45 ,,	17	10	0
45 ,, 50 ,,	20	0	0
50 ,, 60 ,,	25	0	0

All necessary use of the crane, from the lifting of a piece of machinery off its carriage until stowed or adjusted in the vessel, or from the lifting of a piece of machinery from the vessel until placed on its carriage, shall be included in one hoist.

Putting on board machinery, engines and boilers, including fitting up when the vessel is new and fitted out for the first time, per horse power of engine as per contract, 2*s.* 6*d.*; or per ton, 3*s.*

Taking out boilers and machinery for repairs, per horse power of engine, as per contract, 2*s.*; or per ton, 2*s.* 6*d.*

Putting on board boilers and machinery after being repaired, including fitting up, per horse power of engine as per contract, 1*s.* 6*d.*; or per ton, 2*s.*

Putting in or taking out boilers, per horse power of engine, as per contract, 1*s.*; or per ton, 3*s.*

The above rates to be charged per horse power of engine, or per ton, in the option of the trustees.

General repairs or jobbing, not included in the above, to be charged at the rate per day of 5*l.* 5*s.*

In addition to the rates for cranes, specified in this schedule, 6*d.* per hour to be paid for wages to cranemen attending while the crane is being worked.

Ballast.—The Clyde trustees remove ballast from vessels on either side the harbour, at a rate not exceeding 1*s.* per ton, and supply clean stone ballast at 1*s.* per ton.

The river Clyde is divided into three stages, and the following are the Tonnage Dues exigible upon each, viz.:—

The first stage extends from Hutcheson's Bridge to the Old Ferry at Renfrew, being about 600

Charges on a Ship of 500 Tons Register arriving at Glasgow with Cotton, and clearing out laden with Iron.

	Rates	Foreign	Coasting
		£ s. d.	£ s. d.
In with Cotton.			
Harbour dues on ship	4*d.* F. and 1½*d.* C.	8 6 8	3 2 6
Tonnage dues on 500 tons cotton	2*s.* F. and 4½*d.* C.	50 0 0	22 10 0
Lumpers' charges for unloading cargo	9*d.* per ton	7 10 0	same
Northern lights	1 4-16 and 9*d.* per 50 tons	2 8 1	0 0 0
Ore dues	1*d.* per ton	2 1 8	1 0 10
Towing ship	9*d.* per ton	18 15 0	same
Hauling do.	2*s.* per ft. (water)	1 10 0	same
Planks and stages	,,	0 15 0	same
Discharging and removing ballast, say 100 tons	1*s.* per ton	5 0 0	same
		85 0 5	
Note.—Vessels of more than 15 feet water are charged, in towing and pilotage, as drawing 15 feet.			
Out with Pig Iron.			
Harbour dues on ship	4*d.* F. and 1½*d.* C.	8 6 8	3 2 6
Tonnage dues on 500 tons pig iron	2*d.* F. and 9*d.* C.	26 5 0	same
Lumpers' charges for loading do.	5½*d.* per ton	23 6 8	same
Northern lights	1 4-16 & 9*d.* per 50 tons	9 2 1	0 0 0
Ore dues	1*d.* per ton	2 1 8	1 0 10
Towing ship	9*d.* per ton	18 15 0	same
Hauling do.	2*s.* per ft. (water)	1 10 0	same
Planks and stages	,,	0 15 0	same
Supplying ship with water	,,	0 12 0	same
		90 14 1	
Note.—If bar or rod iron, the charges would be as follows: Tonnage dues on 500 tons at 2*s.* 6*d.* F. and 6*d.* C., 9*l.* 10*s.* Lumpers' charges loading ditto at 10*d.* F. and C., 20*l.* 5*s.* 4*d.*			

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yards to the east of the present ferry, and the dues on goods carried or conveyed thereon are two-thirds of the tonnage dues exigible by the trustees.

The second stage extends from the Old Ferry at Renfrew to the mouth of Dalmuir Burn; and the dues exigible thereon are one-sixth of the tonnage dues; and

The third stage extends from Dalmuir Burn to Newark Castle; and the dues exigible thereon are one-sixth part of the tonnage dues.

Charges for Lights from the Clyde.

America and West Indies by North.

9l. 7s. 1d.	4 4-16 and 6d. per 50 tons if from a port south of Cape Cod.
9l. 7s. 5d.	4 6-16 and ditto if from a port north of Cape Cod.

By South.

21l. 6s. 10d.	10 2-16 and 6d. per 50 tons.

The charge for unloading and taking in a cargo is per agreement with licensed lumpers or porters who ply on the quay for hire. There are no fixed rates, but the following charges may be considered pretty near the mark: unloading cotton about 6*d.* per ton, and for taking in iron 9*d.* per ton. The other items of charge of a public kind affecting the ship are, towing up and down the river, planks and stages for discharging and loading the cargoes, supplying the ship with water and the removal of ballast if any on board, and ships loaded with cotton usually have ballast.

Entrance to the River.—As a guide to mariners, it may be mentioned that vessels of 19 ft. draught of water can arrive at the harbour of Glasgow, and that vessels drawing 17 ft. are considered regular traders. Vessels drawing 15 to 16 ft. may always arrive and depart without touching the bottom. At the entrance to the river vessels are placed under the charge of pilots acquainted with the channel, which is well marked with beacons and buoys. A ship on reaching the mouth of the river at Newark had best commence ascending as soon after half-flood as possible. There are no particular usages connected with the harbour of Glasgow beyond those adopted in most other rivers and harbours. Lights are permitted in the harbour from 6 A. M. to 10 P. M.

Glasgow may be said to be *cosmopolitan* in her commerce and manufactures, uniting within herself the businesses and trades of almost every other town and city in the United Kingdom. Hence it follows that while one branch of manufacture or trade may be dull, another may be prosperous; and accordingly Glasgow seldom feels any of those general depressions which so frequently occur in places which have only one or two branches of manufacture or commerce. The great industrial occupations of Glasgow are its cotton spinning and weaving; its collieries and iron manufactures; its iron ship building and machine making; and its chemical, porcelain and glass manufactures. According to Dr. Strang, the consumption of raw cotton in Glasgow in 1854 was above 1,900 bales per week, of from 430 to 440 lbs. each; and the number of power looms dependent on Glasgow was from 26,000 to 27,000, producing daily about 700,000 yards cloth. In the west of Scotland, of which Glasgow is the central mart, there were, in 1866, 6,275,000 tons of coals drawn from the pits, of which 1,036,541 tons were shipped, exclusive of the quantities sent beyond the boundaries by railways, leaving the larger proportion for the conversion of iron and the manufacturing consumption and domestic use of the Glasgow district. Of the produce of pig iron in the counties of Lanark and Ayr (1866), 139,408 tons were shipped from Glasgow alone direct to foreign countries, exclusive of the quantities sent away by railways. During the same year there were exported from Glasgow 49,488 tons of railroad and 12,737 tons of other kinds of malleable iron. The value of the whole coal and iron businesses to the district in 1854 was reckoned at about 4,872,000*l.*, of which 1,973,000*l.* was paid in wages to 33,900 persons. As to iron ship building and marine engine making, it may be stated that in 1864, 242 vessels were made, including both steam and sailing, having an aggregate tonnage of 178,506, for which also marine engines were made or had been made. In 1863 there were launched 150 iron vessels of 112,605 tons. Of these, 31 were iron sailing vessels of 26,762 tons, and 67 iron screw steamers of 52,280 tons, and 38 paddle steamers of 26,147 tons; and on May 1, 1865, there were building 177 vessels of all kinds. The chemical products of Glasgow are multifarious, consisting of sulphuric, muriatic, nitric and acetic acids and their various salts; bleaching powder, soda, soap, cudbear, bichromate of potash, sugar of lead, iodine, salts of ammonia, alum, prussiate of potash, naphtha, pitch, oil, animal charcoal, bone tar, cream of tartar &c. &c. The works of St. Rollox, situated in the north-east quarter of Glasgow, constitute perhaps the largest chemical establishment in the world. They cover about 12 acres of ground, employ above 1,000 men, consuming annually about 20,000 tons of common salt, and 80,000 tons of coal, and producing of soda, bleaching powder, sulphuric acid, soap &c. about 25,000 tons: 81,163 cwts. of soda were exported from Glasgow to foreign parts in 1866. The lofty chimneys of St. Rollox are among the curiosities of the city, one of them being 450 feet high, 50 feet diameter at the base, and 14 ft. at top. There are eight large potteries engaged in the manufacture of all kinds of china, porcelain, Parian, and other ware, 4 flint glass manufactories, and 12 bottle houses. The total produce of the business, which employs 2,000 people, may be fairly estimated at 120,000*l.*, while the quantity exported in 1866 from Glasgow amounted to 17,167 packages. The value of the exported produce of the flint glass manufactories of Glasgow in 1866 was 90,109*l.* The bottle houses produce about 15 millions of bottles, nearly half of which are exported from the Clyde. In the manufacture of tobacco pipes 600 persons are employed, who work up about 2,740 tons of clay, and who daily manufacture, finish, and pack about 2,700 gross pipes. The rapid progress which these industrial pursuits have made in Glasgow may be chiefly attributed to the demand which the foreign trade of the Clyde has created for bulky freight.

Accounts of the Customs Duties collected at Glasgow, and of the Number and Tonnage of the Ships belonging to the Port, in the undermentioned Years.

Years	Duties	No. of Ships	Tonnage
	£		
1793	125	..	..
1806	1,383	..	..
1815	8,300	59	4,879
1820	11,000	85	6,604
1830	59,013	253	40,978
1840	468,974	551	71,878
1850	640,568	507	137,909
1859	803,556	640	223,813
1865	725,243	815	319,652
1866	801,125	807	332,353
1867	1,0[illegible],249		

Nearly half the customs paid in Scotland are collected at Greenock.

Glasgow now ranks as the 4th exporting port in the empire, being in this respect surpassed only by Liverpool, London, and Hull.

Account of the Quantities and Values of the Principal Articles the Produce and Manufactures of the United Kingdom, Exported from Glasgow in 1866.

Articles		Quantities	Value
			£
Alkali: soda	cwts.	81,163	43,029
Apparel	value	—	97,712
Arms and ammunition:			
Fire-arms (small)	no.	—	5,996
Gunpowder	lbs.	—	3,018
Beef and ale	tons	6,843	192,421
Butter	lbs.	189,468	23,678
Candles, sperine		50,635	527
Candles, tallow, and culm		4,521	51,495
Cheese		9,168	827,531
Coals, cinders, and culm	tons	83,219	
Cocoa	lbs.	7,536,337	3,909,050
Cotton yarn			279,147
Cotton manufactures:		154,041,311	40,800
Cloths	yards	—	85,806
Cotton goods	value	17,167	3,526
Hosiery and small wares		1,240	90,109
Drugs and chemical products		—	267,929
Earthenware and porcelain		—	
Fish: herrings	barr.	—	27,721
Glass of all kinds	value	—	3,185
Haberdashery and millinery		596	10,815
Hardware and cutlery, of all sorts		—	6,625
Leather, tanned, unwrought	cwts.	—	11,799
wrought	value	199,569	
wrought saddlery and harness			1,011,504
	lbs.	26,336,523	36,776
Linen yarn		—	215,009
Linen manufactures:	yards	—	
Piece goods		—	
Thread, tapes, and small wares	value		632,015
Machinery and millwork		139,408	242,461
Metals:		49,188	260,188
Iron—pig, bar, bolt, wire, and rod	tons	28,737	1,499
Iron—rail road		38	3,771
Iron—of all other kinds	cwts.	856	
Steel, unwrought			27,122
Copper, unwrought		6,153	4,675
part wrought, and wrought		210	2,189
	tons	502	14,174
Lead and shot	cwts.	9,642	16,455
Tin, unwrought		93,718	20,690
plates	gals.	—	81,663
Oil, seal	value	22,648	1,031
Painters' colours	cwts.	1,290	
Paper (except hangings)	tons	—	19,614
Salt	lbs.	—	71,198
Silk, thrown, and yarn	value	569,776	
manufactures			5,697
Spirits, British and Irish	gals.	3,541	
Sugar, refined	cwts.	—	
Wool, sheep and lambs'	lbs.	53,701	6,515
Woollen and worsted yarn			
Woollen manufactures:		535,450	100,635
Cloths of all kinds	yards	4,159,190	220,135
Worsted and mixed stuffs		896,526	69,852
Flannels, carpets &c.		—	54,893
Hosiery and other goods	value	—	616,216
All other articles		—	
Total declared real value		—	9,807,235

The value of the exports of the produce of the United Kingdom from Greenock during the same year amounted to 543,221*l.* Those from Port Glasgow are comparatively inconsiderable.

Population.—If the foregoing figures give some idea of the rapid advance of Glasgow as a commercial and manufacturing city, the following table of its progressive population during the present century will render this more apparent:—

Years	Males	Females	Total	Total Increase each Census	Increase per Cent.
1801	..	..	83,769	..	..
1811	..	..	110,460	26,691	31·865
1821	68,119	78,934	147,053	36,593	33·11
1831	93,724	108,702	202,426	55,383	37·66
1841	133,313	147,369	280,682	78,256	38·22
1851	165,731	185,270	347,001	66,319	23·62

In 1861 the population of Glasgow ex. suburbs was 394,864, having been nearly quadrupled in 50 years

XI. Dundee Docks, Shipping &c.

Dundee, on the north side of the Frith of Tay, lat. 56° 28′ N., long. 2° 57′ 30″ W., 9 miles west from Buttonness Point (on which there are two first-class light-houses, with *fixed* lights), has increased with extraordinary rapidity since the Peace of 1815, and is now become the principal seat of the British linen manufacture, and has a very extensive trade. Down to 1815 the harbour was on a humble scale, and adapted to a very limited commerce. Only one small pier existed. But in the year referred to, an Act was obtained for separating the harbour from the other branches of the burgh revenue, for constructing an entirely new harbour on a scale commensurate with the growing importance of the place, and for investing the management in a board of commissioners. Additional Acts were obtained in 1830, 1836, 1843, and 1856; and the result is that Dundee has now four wet docks, having an area in all of 33¼ acres, and a tide harbour of 4¼ acres, the breadth of the entrances to which is from 40 ft. to 60 ft. There is also a splendid graving dock, having a 40 ft. entrance. A crane, reaching 28 ft. from the face of the quay wall on which it is placed, and capable of raising 30 tons, is erected at Earl Grey dock, so that every facility is afforded for taking out and putting in the boilers &c. of the largest steam vessels. There is also a Morton slip attached to the tide harbour, on which three vessels may be placed at once. The vessels are hauled up by a steam-engine of 16 horse power; a ship of 800 tons may be placed on the slip; one of the Dundee steamers, the Perth, weighing, without her boilers, 596 tons, has been repaired on it.

The quays are wide and spacious, affording berthage for above 65 vessels; and there are extensive and convenient carpenters' and other yards for ship building. The accommodation for the building and repairing of vessels is not surpassed in any port of the kingdom.

The expenditure on these great works down to May 1868 was as follows:—

	£	s.	d.	£	s.	d.
Total expenditure to May 1868				1,153,010	9	4½
Total shore dues &c. collected to May 1868	955,774	17	3½			
Amount of debt at May 1868	197,235	12	1			
Total income to May 1868				1,153,010	9	4½

The shore dues in 1765 yielded 126*l.*; 1775, 140*l.* 5*s.*; 1785, 490*l.*; 1795, 965*l.*; 1805, 1,272*l.* 10*s.*; 1814, 1,701*l.* 10*s.* 3*d.*; 1857-8, 20,592*l.*; and in 1867-8, 25,692*l.*

The customs revenue in the undermentioned years has been:—

Years	£	Years	£
1794	6,511	1856	56,678
1833	48,647	1857	59,084
1837	76,150	1858	53,392
1840	63,346	1865	80,221
1845	46,325	1866	76,728
1850	65,183	1867	85,408
1855	57,894	1868 (March 31)	82,842

The amount of custom duties does not, however, afford anything like a true criterion of the extent of the trade of the port, as flax, hemp, and jute, the chief articles of import from foreign countries, are not subject to any duty. The greater part of the sugar used in Dundee being either refined or of the sort called crushed lump, which is partially refined, there is scarcely any revenue derived from sugar, there being no refineries here, and no direct importation of raw sugar. When there was a duty on foreign corn, a considerable sum was received at this port; but now that the duty is only 3*d.* per cwt., the sum received from that source is very small.

Statement of the Number of Vessels and their Tonnage which Entered the Harbour in 1868.

Description	Number	Tonnage
From Foreign, belonging to Dundee	74	22,159
not belonging to Dundee	391	82,591
Coasting, belonging to Dundee	1,014	194,027
not belonging to Dundee	391	33,067
In the river Tay trade	1,145	27,156
Total	3,016	359,100

The docks are accommodated with four sheds, having 31,400 sq. ft. of floor, and nine cranes.

The Pilotage of the River Tay and Harbour of

Table showing the Size and Berthage of the Docks at Dundee.

Name of Dock	Acres	Berthage in Feet	Depth of Water at Springs	Depth of Water at Neaps	Remarks
			ft. in.	ft. in.	
Earl Grey's Dock - -	5½	2,645	18 8	13 6	These tides are an average of eight years.
King William's Dock -	6	2,555	16 2	11 0	
West tide harbour - -	4	1,580	18 8	13 6	
Camp. entrance Dock -	8½	2,425	23 0	17 10	
Victoria Dock - -	13½	3,518	23 0	17 10	When completed.
Graving dock* - -	270 ft. in length, 70 ft. wide at top of walls, 35 ft. at bottom.				
Patent slip* - - -	(600 feet in length, capable of taking up a ship of 800 tons, worked by an engine of 16 horse power				
Width of entrance—K.W.D.	40 ft. length of lock, 160 ft. betwixt the gates.				
E.G.D.	55 " 215 "				
Camp. and Vic. D.	60 ft. (single caisson—no lock).				

* The graving dock and patent slip are capable of taking three vessels on each at one time, each vessel being 350 tons.

Dundee is under the jurisdiction of a board, composed jointly of the trustees of the harbour of Dundee and the Corporation of the Fraternity of Masters and Seamen of Dundee. Certain rates of pilotage are exigible under the Dundee Harbour Acts, but the pilotage is not compulsory. The establishment has two pilot cutters, with necessary tenders; and one of the cutters is always at sea, cruising outside the buoy of Tay, unless driven in by stress of weather. There is a pilot master at the port, with an ordinary staff of 15 licensed pilots.

Statement of Tonnage Dues on Vessels entering the Harbour of Dundee.

Vessels &c.	Rates Inwards	Rates Outwards
	s. d.	s. d.
1. For all vessels navigating to the southward of the Tropic of Capricorn, per register ton	1 6	1 0
2. Between the Equator and the Tropic of Capricorn	1 3	1 0
3. Between the Tropic of Cancer and the Equator	1 0	1 0
4. To or from any port in North America, Greenland, Davis' Straits Fisheries, and all within the Straits of Gibraltar	0 10	0 10
5. To or from any port in Europe to the north of Dronthem in Norway, and to or from the Azores, Madeira, or Teneriffe Islands, and the west coast of Africa, between the Tropic of Cancer and the Straits of Gibraltar	0 9	0 9
6. To or from any port on the coast of Europe, between Gibraltar and Dronthem in Norway, including both these ports, and all ports in the Baltic	0 8	0 8
7. For all vessels navigating outwards to foreign ports, loaded in whole or in part with coals only, per ton register. In cases where it shall be shown to the satisfaction of the trustees, or their receiver of rates, that coals for export have been put on board of any such vessel equal in the number of tons to two third parts of the vessel's registered tonnage, other goods or articles may be put on board at the last-mentioned tonnage-rate.	—	0 4
8. To or from any port in Great Britain or Ireland, including the Islands of Guernsey, Jersey, Alderney, Sark, Man, the Shetland Islands, and Orkneys	0 3	0 3
9. All vessels loaded with coals, lime, or manure only, from any port in Great Britain &c. excepting Scotland	0 2	0 2
10. All vessels loaded with coals, lime, or manure only, from any port in Scotland	0 1½	0 1½
11. All vessels employed in the River Tay, carrying goods and entering the precincts of the port or harbour of Dundee	0 1½	0 1½
12. All steam vessels from any port in Great Britain, or places enumerated in No. 8, carrying passengers and their luggage exclusively	0 2	0 2
13. All steam-vessels employed in the River Tay, carrying passengers and their luggage exclusively, and vessels trading from the harbour, or carrying passengers to any part within the precincts	0 1	0 1
14. All steam vessels carrying goods and passengers to pay the same rates as sailing vessels.		

There belonged to the port, on January 1, 1867, 9 sailing vessels of less, and 170 of more, than 50 tons; the aggregate burden of the former being 287, and of the latter 39,548 tons: there then also belonged to the port 24 steamers, aggregate burden 7,046 tons. Latterly there has been a considerable extension of the carrying trade by steam from this port. Besides steamers to London and Hull weekly, there are regular sailing ships during the season to Hamburg and St. Petersburg, and two large screw steamers were (in 1859) fitted out for Davis' Straits and the Greenland seas, and now (1868) the number has increased to 10.

A Statement of the Principal Articles Imported and Exported at the Port of Dundee in the Year ending May 31, 1868.

Imports

Articles	Quantities
Flax - - - tons	25,493
codilla - - - "	4,404
Hemp - - - "	1,231
codilla - - - "	176
Jute - - - "	43,575
Lime - - - bolls	52,916
Coals, Scotch - - tons	3,485
English - - "	109,334
Timber - - - loads	46,196
Ashes - - - cwts.	—
Iron - - - tons	34
Guano - - - "	3,789
Tar - - - barrels	340 9
Whale and seal blubber - tuns	953
Whalebone - - - cwts.	93
Flour - - - sacks	3,035
Wheat - - - qrs.	20,876
Pease - - - "	41
Oats - - - "	25,274
Barley - - - "	1,080

Exports

Articles	Quantities
Linens:	
Osnaburgs - - pieces	9,916
Sheetings - - - "	119,545
Ravelling - - - "	9,860
Sail cloth - - - "	125,083
Sacking - - - "	190,374
Dowlas - - - "	8,596
Sundries - - - "	73,198
Total - - "	562,470
Yarns - - - cwts.	60,755
Grain:	
Wheat - - - qrs.	4,732
Barley - - - "	418
Oats - - - "	111
Pease - - - "	—
Cattle - - - no.	122

XII. Leith Docks, Shipping &c.

Leith, which may be called the port of Edinburgh, has 3 wet docks, containing about 16½ acres of water room. Two of these, opened in 1806 and 1817, are for the accommodation of the vessels ordinarily frequenting the port. The other, finished in 1852, is intended for the use of steamers. Leith has also 2 graving and 4 dry docks.

These docks have cost large sums; and owing to the harbour drying at low water, large sums have also been expended in the extension of the old, and the formation of a new pier. The former, consisting partly of stone, and partly of stone and wood intermixed, is of very great length; and the new, or western pier, which is nearly parallel to the other, is also of great length, and has a landing stage near its extremity, and a railway. The object in carrying out the piers was to form a harbour, which, at their extremity, should have

water sufficient to enable vessels to come to the landing stage at all times of the tide. But this object has not been fully attained; and though it had, we should have been inclined to regard the outlay upon it as little better than thrown away. The truth is, that the docks and new harbour at Leith are entirely misplaced. Instead of being where they are, the docks should have been constructed at Trinity or Granton, about ¾ or 1 mile west from Leith, being, however, nearer to it than the extremity of the new pier. And a deep water harbour, accessible at all times, having been already constructed at Granton, the outlay on the extension of the piers at Leith seems not a little preposterous.

The harbour at Granton has been formed by the Duke of Buccleugh. A pier, constructed in the most approved manner, projects into the sea about 1,700 ft. It is shaped like a T with its head to the north, and has harbours and landing places on both sides. It has been open for some years; but hitherto it has been principally resorted to by steamers. The Duke has also constructed a breakwater, which adds much to the security of the shipping.

The commerce of Leith is very considerable, and has been slowly but steadily improving. It carries on a limited trade with Australia, the East and West Indies, the Mediterranean, Canada, and the United States; but its chief foreign trade is with Holland and the north of Europe. The principal articles of export consist of linen manufactures and linen yarn, brought from Fifeshire and Dundee; cottons and cotton yarn from Lanarkshire; iron from the latter; with woollens and worsteds, coal, salt-fish, ale, spirits &c.; and as the port is now connected by branches with the leading railway lines that centre in Edinburgh, a considerable extension of its trade may be anticipated. The leading articles of import consist of corn and timber; flax and hemp; hides, guano, and provisions; sugar and other colonial products; wool, wine, spirits, dye stuffs &c. With regard to its domestic trade, there are companies which have vessels trading with London; and other companies have vessels trading with Hull, Newcastle, Liverpool, Greenock, Glasgow, Aberdeen, Montrose, Wick, Orkney, Shetland, Dundee, Stirling &c. The communication with London is kept up by first class steamers that sail twice a week during the entire year; but more vessels sail in summer than in winter. There is also a communication by steam with Newcastle and Hull twice a week; with Stirling twice a day; the opposite coast of Fife several times a day; and a regular communication with every important place on the east of Scotland, from Lerwick in Shetland, and Kirkwall in Orkney, to Berwick-upon-Tweed. The steamers sail, some from Leith and some from Granton. Leith formerly sent 8 or 10 vessels to the Greenland whale fishery, but such has been the decline of the business that she no longer sends a single ship.

Dock Rates on Vessels, per Register Ton.

	s.	d.
All vessels from Asia or Africa to the east of the Cape of Good Hope, including the Cap, or from South America	1	5
From West Indies, West Coast of Africa, Cape de Verde Islands, or Greenland and Davis' Straits fisheries	1	5
From within Straits of Gibraltar, or from N. America	1	2
From the Baltic all above the Sound, Ostego, Archangel, Jersey or Guernsey, Portugal, France, and Spain without the Straits of Gibraltar, Newfoundland, Madeira, and Western Islands	1	0
From Norway, Sweden, Denmark, Holstein, Hamburg, Bremen, Holland, and Flanders, that is, without the Baltic, and no farther south than Dunkirk	0	10
From ports in Great Britain and Ireland other than those mentioned below	0	8
From ports between Buchanness and Eyemouth, including the Firth of Forth, the Great Canal and the River Clyde as far down as Greenock	0	5

Dock Rates on Vessels, &c.—continued.

	s.	d.
All vessels entirely loaded with coals, either for wholesale or retail, and which are excluded from the docks—from ports in England	0	6
Ditto from ports in Scotland	0	4
All steam vessels from ports in the Firth of Forth, as far as Anstruther on the north, and North Berwick on the south, carrying passengers and their luggage exclusive of	0	0½
Note.—On all vessels arriving light, or in ballast to load coals, stones, cotton, pig iron, or street manure, the charge reduced, during the pleasure of the Commissioners, to	0	4

The harbour revenue of Leith in the year ended Whitsunday 1864 was 44,680*l.*

Account of the Quantities and Values of the Principal Articles, the Produce and Manufacture of the United Kingdom, Exported from Leith in 1866.

Articles		Quantities	Values
			£
Alkali, soda	cwts.	21,689	10,572
Apparel	value	..	1,953
Gunpowder	lbs.	18,900	460
Beer and ale	brls.	2,993	17,967
Candles, stearine	lbs.	215,036	11,940
Coals, cinders, culm	tons	71,176	29,777
Cotton yarn	lbs.	166,931	16,375
Cotton manufactures: piece	yards	2,292,661	64,973
Hosiery	value	..	4,345
Drugs and chemicals	..	..	31,437
Earthenware &c.	pkgs.	988	2,306
Fish: herrings	brls.	11,269	16,902
Glass	value	..	4,781
Haberdashery	..	..	6,705
Hardware and cutlery	..	..	6,098
Leather, tanned	cwts.	283	620
wrought	value	..	377
Saddlery	..	..	70
Linen yarn	lbs.	6,477,901	417,178
Manufactures: piece	yards	7,452,047	242,641
Thread &c.	value	..	1,559
Machinery	..	..	135,518
Metals: iron, pig, cast, bars, bolts &c.	tons	91,502	290,688
Railroad	..	177	1,842
Other kinds	..	1,402	15,156
Copper, unwrought	cwts.	510	2,765
wrought	..	23	183
Lead and shot	tons	55	690
Tin plates	..	107	940
Oil, seal	gllns.	5,188	695
Painters' colours	value	..	6,089
Paper, not hangings	cwts.	892	1,334
Salt	tons	15	26
Silk manufactures	value	..	295
Spirits	gllns.	11,107	1,109
Sugar, refined	cwts.	6	7
Wool	lbs.	666,351	23,267
Woollen yarn	..	345,283	48,305
Manufactured cloth	yards	5,951	1,175
Worsteds	..	2,502	1,039
Flannels and carpets	..	18,205	4,198
Hosiery	value	..	685
Other articles	..	..	499,619
Total	value	..	

The customs duty on goods imported during 1867 amounted to 607,264*l.*

There belonged to Leith on January 1, 1867, 84 sailing vessels of 50 tons and upwards, and 58 of less than 50 tons, the aggregate burden of the former being 22,479 tons, and of the latter 1,798 tons, exclusive of 52 large and 21 small steamers, having a joint tonnage of 20,859 tons.

Rates of Pilotage for Leith Harbour, as fixed by the Commissioners, and approved by the Trinity House and Board of Trade.

		s.	d.
For a vessel drawing not more than 7 feet of water		5	10
Above 7 and not above 8 feet		8	0
8	9	9	9
9	10	11	8
10	11	13	9
11	12	16	0
12	13	19	6

And for every foot or part of a foot above 13, an additional charge of 1*s.* 6*d.*

Extra Attendance.—For each 24 hours' extra attendance on board, when requested by the master, to the master-pilot 2*s.* and to each of the boatmen 1*s.*

Pilot Boats and Crews.

	s.
For vessels from foreign ports, under 70 tons	4
Ditto from ditto, of 70 and not exceeding 120	6
Ditto from ditto, exceeding 120 and not exceeding 250	8
Ditto from ditto, exceeding 250 tons	9

Coasting vessels of any size which require to take a pilot boat, or employ such, to be charged

only 2s. 6d. for attendance of boat and men, besides the pilotage.

The rates of pilotage &c. outwards are one-half of those inwards.

Where a vessel takes a steam tug, either in or out, the pilotage and charges for pilot boats and crews shall be one third less than the rates above specified.

In 1866 Granton, formerly a creek in the port of Leith, was made an independent port.

XIII. Cork Docks.

There are no wet docks in Cork, but at the city, situate on the river Lee, 10 miles from the mouth of the harbour, there are excellent quays, giving a frontage of 13,580 ft., to which vessels drawing 16 ft. of water can approach. There are large bonded warehouses and good storeage, with facilities for landing goods &c. Vessels of larger tonnage discharge at West Passage, 7 miles down the river, and 8 miles from the harbour's mouth, where there is an average depth of water of 38 ft.

The harbour affords safe anchorage in all weather for the largest merchant ships. It is a port of call for the American mail steamers, and for vessels arriving from the Mediterranean &c. for orders.

The port enjoys a large coasting trade between London, Liverpool, Bristol, and Glasgow in goods under bond; exporting corn, butter, cattle, whisky, and fish. The foreign imports consist of grain, wine, sugar, brandy, and wood.

The only port charges that ships are liable to are the harbour dues on tonnage and goods landed.

There are 4 graving docks here—2 at Cork, 1 at West Passage, and 1 at Monkstown Ferry, where there is large accommodation for the repair of ships.

Revenue of the Port for the 5 Years ended March 31.

Year	£
1861	289,361
1862	298,167
1863	302,687
1864	301,077
1865	297,511

The exports from Cork in the year 1866 amounted in value to 110,703*l.* The principal article was butter. The customs collected in 1867 amounted to 319,783*l.* There belonged to Cork in 1866 180 sailing vessels of a burden of 50 tons and under, giving a total tonnage of 4,497; over 50 tons 177, tonnage 26,497; steam vessels 39, tonnage 7,289.

DOG (Fr. chien; Ger. hund; Ital. cane; Lat. canis familiaris). Of this quadruped, emphatically styled 'the friend and companion of man,' there is a vast number of varieties. But to attempt to give any description of an animal so well known would be quite out of place in a work of this kind; and we mention it for the purpose principally of laying the following accounts before our readers, with a remark or two with respect to Asiatic dogs.

Cuvier, the great French naturalist, says, 'The dog is the most complete, the most remarkable, and the most useful conquest ever made by man: every species has become our property; each individual is altogether devoted to his master, assumes his manners, knows and defends his goods, and remains attached to him until death; and all this proceeds neither from want nor constraint, but solely from true gratitude and real friendship. The swiftness, the strength, and the scent of the dog have created for man a powerful ally against other animals, and were perhaps necessary to the establishment of society. He is the only animal which has followed man through every region of the earth.'

It is singular, however, that neither Cuvier, nor any one of those by whom his statements have been copied, should have mentioned that this account is applicable only to Europe. All Mohammedan nations regard the dog as impure, and will not touch it without an ablution. The same is also the case with the Hindoos. From the Hellespont to the confines of Cochin-China, dogs are unappropriated, and have no master. They prowl about the towns and villages; and though they are naturally more familiar, they are in no respect more domesticated, than the carrion crows, kites, vultures &c. which assist them in performing the functions of scavengers. In China and Cochin-China the dog is eaten as food: its flesh being, with the exception of that of the hog, the most common in their markets.

The changes in the law effected by 30 Vict. c. 5 were, first, a reduction of the duty for each dog from 12s. to 5s.; secondly, the abolition of the exemption of dogs used in tending or driving cattle or sheep; and, thirdly, the collection of the duty by means of a license for each dog, under the management of the officers of excise, instead of an assessment made by the persons appointed by the district commissioners of taxes for each parish.

The effect of these changes may be seen from the following statement of the

Number of Dogs charged to Assessed Taxes in the Year ended April 5, 1866, together with the Amount of Duty charged.

	Number charged to Assessed Taxes	Amount of Duty charged
		£
England - -	358,472	214,917
Scotland - -	36,365	21,778
Great Britain -	394,837	236,695

Number of Excise Dog Licenses granted between April 1 and November 15, 1867, or about 8 months, and Amount of Duty charged.

	Number of Licenses granted	Amount of Duty charged
		£
England - -	721,510	180,377
Scotland - -	96,160	24,040
Great Britain -	817,970	204,492

The unnecessary multiplication of dogs, particularly in large cities, is a very great nuisance: coming, as they often do, into the possession of those who are without the means of providing for them, they are frequently left to wander about in the streets; and from ill usage, want of food and of proper attention, are apt, during hot weather, to become rabid. In several places the nuisance has attained to a formidable height; and it is singular, considering the numerous fatal occurrences that have taken place, that no efforts should sooner have been made to have it abated. It has grown to its present excess, partly from too many exemptions having been granted from the duty, and partly from a want of care in its collection. The number of the former has now been lessened; and besides more rigidly enforcing the latter, it would be proper to enact that all dogs found wandering in the streets without masters should be impounded.

DOLLAR (Ger. thaler; Dan. and Swed. daler). No unit of monetary value has a wider circulation than this. It is used in Northern Germany, the Scandinavian Kingdoms, China and the Eastern Archipelago, and in the Northern continent of America. It is rapidly becoming the unit of

the currency in the colonies of British North America, and great part of South America.

According to Mr. Yates (*Current Coins of All Countries*) the dollar originally contained an ounce of silver. This accomplished numismatist adds that at about the beginning of the sixteenth century a Count Schlick, who possessed some silver mines at Joachimsthal in Bohemia, contracted to supply silver coins weighing an oz. to the Emperor and various German princes. It was from an abbreviation of the name Joachimsthaler that, according to Mr. Yates, the name thaler or dollar originated.

The following are the weights of the several dollars current in various countries as given by Mr. Yates:—

	grains.		grains.
Mexican	17	Prussian	21·95 / 19·5 / 18·5
Central America	17		
Danish	14·44		
Bremen	17·64	Hanover	16·8 / 17·5
Mecklenburg Schwerin	22		
Straits Settlements	16·8	Brunswick	21·95
Chilian	21·8	Oldenburg	21·95
New Granada	21·8	Hesse	18·9
Swedish	8·5	Frankfort	18·5
Norwegian	18·79	Würtemberg	18·5
Spanish	16·29	Austria	18·5
Peru	17	United States	26·74

The following is a valuation of dollars in English currency:—

By the German Monetary Convention of Jan. 24, 1857, in Austria, Prussia, Bavaria, Saxony, Hanover, Würtemberg, Baden, 19 of the lesser German States, and Frankfort-on-the-Maine:—

	s.	d.
⅔-thaler piece is equal to	6	0
1-thaler piece	2	11½
Austria.		
Maria Theresia thaler	4	2
Kronenthaler	4	7
Conventions thaler	4	2
Baden.		
Kronenthaler	4	7½
Bavaria.		
Kronenthaler	4	7½
China.		
Native Dollar	4	8
Denmark.		
Specieslaler	4	6½
Rigsdaler	2	3½
Mecklenburg Schwerin.		
New ⅔-thaler piece	2	4
Mexico.		
Dollar (peso)	4	4½
Netherlands.		
Rijksdaler (2½ guilders)	4	3
Norway.		
Specieslaler	4	6
South American Republics.		
Dollars varying from	3 / 4	0 / 6
Spain.		
Dollar (peso)	4	4½
Sweden.		
Riksdaler-species	4	7½
Rikesdaler-riksmynt	1	1½
United States.		
Dollar	4	3½
Würtemberg.		
Kronenthaler	4	7

Calculated at the rate of 62*d.* per oz. English standard silver. [COINS.]

For the above we are indebted to Mr. C. Trübner.

DOWN (Ger. dunen, flaumfedern; Dutch, dons; Fr. duvet; Ital. penna matta, piumini; Span. flojel, plumazo; Russ. puch; Lat. plumæ). The fine feathers from the breasts of several birds, particularly those of the duck kind. That of the eider duck is the most valuable. These birds pluck it from their breasts, and line their nests with it. Mr. Pennant says that it is so very elastic, that a quantity of it weighing only ¾ of an ounce, more than fills the crown of the largest hat. That found in the nest is most valued, and termed *live down*; it is much more elastic than that plucked from the dead bird, which is comparatively little esteemed. The eider duck is found on the western islands of Scotland, but the down is principally imported from Norway and Iceland. In 1865, 23,875 lbs. of down were imported, valued at 3,523*l.*; and 1,041 lbs. exported. In 1866 only 2,895 lbs. were imported.

DRAGON'S BLOOD. [BALSAM.]

DRAWBACK. A term used in Commerce to signify the remitting or paying back of the duties previously paid on a commodity on its being exported.

A drawback is a device resorted to for enabling a commodity affected by taxes to be exported and sold in the foreign market on the same terms as if it had not been taxed at all. It differs in this from a bounty—that the latter enables a commodity to be sold abroad for *less* than its natural cost, whereas a drawback enables it to be sold exactly at its natural cost. Drawbacks, as Adam Smith has observed, 'do not occasion the exportation of a greater quantity of goods than would have been exported had no duty been imposed. They do not tend to turn towards any particular employment a greater share of the capital of the country than would go to that employment of its own accord, but only to hinder the duty from driving away any part of that share to other employments. They tend not to overturn that balance which naturally establishes itself among all the various employments of the society, but to hinder it from being overturned by the duty. They tend not to destroy, but to preserve, what it is in most cases advantageous to preserve — the natural division and distribution of labour in the society.' (p. 221.)

Were it not for the system of drawbacks, it would be impossible, unless when a country enjoyed some very peculiar facilities of production, to export any commodity that was more heavily taxed at home than abroad; but the drawback obviates this difficulty, and enables merchants to export commodities loaded at home with heavy duties, and to sell them in the foreign market on the same terms as those fetched from countries where they are not taxed.

Most foreign articles imported into this country may be warehoused for subsequent exportation. In this case they pay no duties on being imported, and, of course, get no drawback on their subsequent exportation.

Sometimes a drawback exceeds the duty or duties laid on the article; and in such cases the *excess* forms a real bounty of that amount, and should be so considered.

The Act 16 & 17 Vict. c. 107 has the following clauses in relation to drawbacks:—

No drawback of excise shall be allowed upon any goods cleared for exportation unless the person intending to claim such drawback have given due notice to the officer of excise, and have produced to the searcher, at the time of clearing such goods, a proper document under the hand of the officer of excise, containing the description of such goods; and if such goods be found to correspond with the particulars of the goods contained in such document, and be duly shipped and exported, the searcher shall, if required, certify such shipment upon such document, and shall transmit the same to the officer of excise. (Sec. 122.)

No drawback to be allowed upon the exportation of any goods entered for drawback or as stores which shall be of less value than the amount of the drawback claimed; and all such goods so entered shall be forfeited, and the person who caused such goods to be entered shall forfeit the sum of 200*l.*, or treble the amount of drawback

claimed in such case, at the election of the Commissioners of Customs. (Sec. 123.)

No drawback to be allowed on any tobacco not wholly manufactured from tobacco on which the duty on importation shall have been paid, nor on any tobacco mixed with dirt, rubbish, or other substance; and every person who shall enter or ship, or cause to be entered or shipped, any tobacco contrary hereto, shall, over and above all other penalties which he may thereby incur, forfeit treble the amount of the drawback sought to be obtained, or 200*l.*, at the election of the Commissioners of Customs, and all such tobacco shall be forfeited. (Sec. 124.)

If any goods which have been cleared to be exported for any drawback be not duly exported to parts beyond seas, or be unshipped or relanded in any part of the United Kingdom (such goods not having been duly relanded or discharged as short-shipped under the care of the proper officers), or be carried to any of the Channel Islands (not having been duly entered, cleared, and shipped to be exported or carried direct to such islands), the same shall be forfeited, together with any ship, boat, or craft which may have been used in so unshipping, relanding, landing, or carrying such goods from the ship in which the same were shipped for exportation; and the master of such ship, and any person by whom or by whose orders or means such goods shall have been so unshipped, relanded, landed, or carried, or who shall aid, assist, or be concerned therein, shall forfeit a sum equal to treble the value of such goods, or a penalty of 100*l.*, at the election of the Commissioners of Customs. (Sec. 135.)

Beer Exported on Drawback.—When the original gravity of a sample is found to be less than that declared by the exporter, confirmatory experiments are in every case performed to remove all doubt as to the accuracy of the result. The barrels of beer represented by samples in 1865 were 421,565 in number; and in 1866, 353,320. (*Appendix to Eleventh Report of Inland Revenue Commissioners*, p. xxiii.)

[Debenture; Importation and Exportation.]

DUBBER. A leathern vessel, bottle, or jar, used in India to hold oil, ghee &c. Barrels, as already observed [Barrels], are entirely a European invention. Liquids, in Eastern countries are for the most part packed for exportation in leathern vessels. Dubbers are made of thin untanned goat skins; and are of all sizes, from a quart up to nearly a barrel.

DUNDEE DOCKS, SHIPPING &c. [Docks.]

DUNNAGE. In Commercial Navigation, loose wood, consisting of pieces of timber, boughs of trees, faggots &c. laid in the bottom and against the sides of the ship's hold, either, first, by raising the cargo when she is loaded with heavy goods, to prevent her from becoming too stiff [Ballast]; or, secondly, to prevent the cargo, should it be susceptible of damage by water, from being injured in the event of her becoming leaky. A ship is not reckoned seaworthy unless she be provided with proper and sufficient dunnage. Dunnage is, if necessary, free of freight. (Lord Tenterden *On the Law of Shipping*, part iii. c. 3; Stevens *On Storage*, art. 'Dunnage.')

DYES and DYE STUFFS. Materials that afford different colours, which the dyer extracts and imparts to other articles.

Mankind in their rudest as well as their most advanced state admire certain colours in preference to others; and when their clothes, or other things, do not naturally possess the colours which they prefer, they endeavour to have them supplied artificially. And hence the art of dyeing has been in use from the remotest ages. We may safely suppose that at first it would be practised in a very rude manner, by immersing the linens, woollens, cottons, or other articles to be dyed, in a solution of the colouring matter, or by some such simple process. But, though sometimes very brilliant, the colours imparted in this inartificial manner are, for the most part, of the most fugitive description. And yet it is sufficiently certain that a lengthened period must have elapsed, and many trials have taken place, before the happy, and, most probably, accidental, discovery was made of fixing colours, or rendering them permanent, by the use of mordants. (Goguet, *de l'Origine des Loix* &c. i. 130, English translation: and Bancroft *On Colours*, i. Introduction.) In modern times the arts of dyeing and calico printing have been greatly improved, and their products are now as remarkable for their cheapness as for their splendour.

We have given notices of the following articles under their respective heads; but it may be interesting to have their imports brought together in one point of view.

Account of the Quantities of the Principal Dyes and Dyeing Stuffs Imported into the United Kingdom during each of the 3 Years ending with 1866.

		1864	1865	1866
Barwood	tons	3,013	2,347	4,82
Brazil-wood	,,	2,070	2,741	1,201
Cochineal	cwts.	21,632	26,010	32,751
Fustic	tons	7,158	11,160	5,033
Galls	cwts.	7,998	15,964	17,549
Garancine	,,	42,714	35,571	49,150
Indigo	,,	76,214	66,306	74,956
Lac dye	,,	12,150	11,673	10,515
Logwood	tons	41,825	28,347	35,968
Madder and madder root	cwts.	296,166	237,352	345,082
Nicaragua wood	tons	486	312	12
Sumac	,,	12,292	13,045	13,884
Terra Japonica (Gambier) and Catch	,,	14,406	15,708	13,279
Turmeric	,,	1,461	1,502	1,109
Valonia	,,	22,673	19,702	29,506

The various dye stuffs &c. may be arranged thus under the colours they produce, viz.:—

Red.—*Madder*, and its derivatives (*garancine*, *alizarine*, *flowers of madder*), yielding different shades of red, amongst which Turkey red, also purple, chocolate, pink &c.; *orchilla*, or *orchilla weeds*; *cochineal* and *lac dye*, scarlet; *Brazil wood*; *aniline reds* (*magenta*, *aguleine*, *roseine*).

Blue.—*Indigo*; *Prussian blue*; *logwood blue*; *ultramarine*; *coal tar blues* (*azuline*, *chinaline*, *bleu de Paris*, *bleu de Mulhouse*, *tuluidine blue*).

Yellow.—*Weld*; *fustic*; *quercitron*; *Persian berries*; *turmeric*; *chromate of lead*; *picric acid*; *chrysaniline*.

Compound Colours.—*Safflower* (red &c.); *annotto* (orange); *archil* or *orchil* (reds, violet, mauves &c.); *French purple*; *murexide* (purple); *aloes* (maroons, pinks); *mauve*; *aniline brown*; *violine*; *Chinese green* (lo kao); *chrome green*; *emeraldine* (aniline green); *sandalwood* (brown, maroon &c.); *gall nuts* and *shumac* (black, drab, olive &c.); *catechu* (black, red, drab, salmon &c.); *iron oxide*, *manganese*, *pyrolignite* &c. (browns, greys &c.); *logwood* (black, purple, lilac &c.).

E

EARNEST. In Commercial Law, the sum advanced by the buyer of goods in order to bind the seller to the terms of the agreement. It is enacted by the 17th section of the famous Statute of Frauds, 29 Chas. II. c. 3, that 'no contract for the sale of any goods, wares, and merchandises, for the prices of 10*l.* sterling or upwards, shall be allowed to be good, except the buyer shall accept part of the goods so sold, and actually receive the same, or give something in *earnest* to bind the bargain, or in part payment, or that some note or memorandum in writing of the said bargain be made and signed by the parties to be charged by such contract, or their agents thereunto lawfully authorised.'

As to what amounts to sufficient earnest, Blackstone lays it down, that 'if any part of the price is paid down, if it is but a penny, or any portion of the goods is delivered by way of earnest, it is binding.' To constitute earnest, the thing must be given as a token of ratification of the contract, and it should be expressly stated so by the giver. (Chitty's *Commercial Law*, vol. iii. p. 289.)

After earnest and before the payment of the whole price, it appears that the property is in the vendee, subject only to the vendor's *lien*. (Smith's *Mercantile Law*, p. 485.)

EARTHENWARE (Ger. irdene waaren; Dutch, aardegoed; Fr. vaisselle de terre, poterie; Ital. stoviglie, terraglie; Span. loza de barro; Russ. gorschetschnüe passodü; Pol. glinianæ naczynia), or Crockery, as it is sometimes termed, comprises every sort of household utensil made of clay hardened in the fire. Its manufacture is, in England, of very considerable importance; and the improvements that have been made in it since the middle of last century have contributed powerfully to its extension, and have added greatly to the comfort and convenience of all classes.

'There is scarcely,' it has been well observed, 'any manufacture which is so interesting to contemplate in its gradual improvement and extension as that of earthenware, presenting, as it does, so beautiful a union of science and art, in furnishing us with the comforts and ornaments of civilised life. Chemistry administers her part, by investigating the several species of earths, and ascertaining as well their most appropriate combinations as the respective degrees of heat which the several compositions require. Art has studied the designs of antiquity, and produced from them vessels even more exquisite in form than the models by which they have been suggested. The ware has been provided in such gradations of quality as to suit every station from the highest to the lowest. It is to be seen in every country, and almost in every house, through the whole extent of America, in many parts of Asia, and in most of the countries of Europe. At home it has superseded the less cleanly vessels of pewter and of wood, and, by its cheapness, has been brought within the means of our poorest housekeepers. Formed from substances originally of no value, the fabrication has induced labour of such various classes, and created skill of such various degrees, that nearly the whole value of the annual produce may be considered as an addition made to the mass of national wealth. The abundance of the ware exhibited in every dwelling-house is sufficient evidence of the vast augmentation of the manufacture, which is also demonstrated by the rapid increase of the population in the districts where the potteries have been established.' (*Quarterly Review.*)

For the great and rapid extension of the manufacture we are chiefly indebted to the late Mr. Josiah Wedgwood, whose original and inventive genius enabled him to make many most important discoveries in the art, and who was equally successful in bringing his inventions into use. The principal seat of the manufacture is in Staffordshire, where there is a district denominated the Potteries, comprising a number of small towns and villages, and a population which is now (1868) estimated at over 140,000, by far the greater portion of which is engaged in the manufacture. There are no authentic accounts of the population of this district in 1760, when Mr. Wedgwood began his discoveries; but the general opinion is, that it did not at that time exceed 20,000. The village of Etruria, in the Potteries, was built by Mr. Wedgwood. The manufacture has been carried on at Burslem, in the same district, for several centuries.

The canals by which Staffordshire is intersected have done much to accelerate the progress of the manufacture. Pipe clay from Dorsetshire and Devonshire, and flints from Kent, are conveyed by water carriage to the places where the clay and coal abound; and the finished goods are conveyed by the same means to the great shipping ports, whence they are distributed over most parts of the globe.

The earthenware manufacture has increased considerably since 1814, but it is not possible to state the exact ratio. The prices of the different sorts of earthenware are said to have fallen 25 per cent. during the last 30 years. Wages have not fallen in the same proportion; but we are assured that a workman can, at the present day, produce about *four* times the quantity he did in 1790. We subjoin an

Account of the Value of the Earthenware and China Exported from the United Kingdom in 1866, *specifying the Countries to which it was principally sent, and the Values sent to each.*

Countries	Value
	£
Russia	21,963
Hamburg	46,431
Holland	11,437
United States	790,563
Brazil	29,808
France	43,335
Cuba	37,983
British East Indies	55,209
Australia	101,761
British North America	109,510
Total value of above and of the exports to all other countries	1,030,019

The above account sets the preponderance of the United States as a market for earthenware in a very striking point of view. We have been

assured that it is necessary to add ⅓ to the declared value of the exports, to get their true value.

It is estimated that the value of the various sorts of earthenware produced at the Potteries may amount to about 2,000,000*l.* a-year; and that the earthenware produced at Worcester, Derby, and other parts of the country, may amount to about 1,000,000*l.* more; making the whole value of the manufacture 3,000,000*l.* a-year. The consumption of gold at the Potteries is about 1,200*l.* a-week, and of coal about 13,000 tons a-week.

The export trade in earthenware, i.e. red pottery and brown stone ware, common earthenware, and porcelain, has somewhat declined of late years, though the value of the shipments in 1866 is considerably in excess of that of the shipments in the previous year.

EAST INDIA COMPANY. A famous association, originally established for prosecuting the trade between England and India, which they acquired a right to carry on exclusively. Since the middle of last century, however, the Company's political have become of more importance than their commercial concerns.

EAST INDIES, a popular geographical term not very well defined, but generally understood to signify the continents and islands to the east and south of the river Indus, as far as the borders of China, including Timor and the Moluccas, but excluding the Philippine Islands, New Guinea, and New Holland. China and the Philippine Islands were, however, included within the limits of the East India Company's peculiar privileges.

I. EAST INDIA COMPANY (HISTORICAL SKETCH OF).
II. EAST INDIES (STATE OF SOCIETY IN, GROWING DEMAND FOR ENGLISH GOODS, TRADE, COLONISATION, RAILWAYS &c.).
III. EAST INDIES (EXTENT, POPULATION, MILITARY FORCE, REVENUE &c. OF BRITISH).

I. EAST INDIA COMPANY (HISTORICAL SKETCH OF).

The persevering efforts of the Portuguese to discover a route to India, by sailing round Africa, were crowned with success in 1497. And it may appear singular, that, notwithstanding the exaggerated accounts that had been prevalent in Europe, from the remotest antiquity, with respect to the wealth of India, and the importance to which the commerce with it had raised the Phœnicians and Egyptians in antiquity, the Venetians in the middle ages, and which it was then seen to confer on the Portuguese, the latter should have been allowed to monopolise it for nearly a century after it had been turned into a channel accessible to every nation. But the prejudices by which the people of most European states were actuated in the sixteenth century, and the peculiar circumstances under which they were placed, hindered them from embarking with the alacrity and ardour which might have been expected in this new commercial career. Soon after the Portuguese began to prosecute their discoveries along the coast of Africa, they applied to the Pope for a bull, securing to them the exclusive right to and possession of all countries occupied by infidels which the Portuguese either had discovered, or might discover, to the south of Cape Non, on the west coast of Africa, in 27° 54′ north latitude; and the Pontiff, desirous to display, and at the same time to extend, his power, immediately issued a bull to this effect. Nor, preposterous as a proceeding of this sort would now appear, did any one then doubt that the Pope had a right to issue such a bull, and that all states and empires were bound to obey it. In consequence, the Portuguese were, for a lengthened period, allowed to prosecute their conquests in India without the interference of any other European power; and it was not till a considerable period after the beginning of the war which the blind and brutal bigotry of Philip II. kindled in the Low Countries, that the Dutch navigators began to display their flag on the Eastern Ocean, and laid the foundations of their Indian empire.

The desire to comply with the injunctions in the Pope's bull, and to avoid coming into collision, first with the Portuguese, and subsequently with the Spaniards, who had conquered Portugal in 1580, seems to have been the principal cause that led the English to make repeated attempts, in the reigns of Henry VIII. and Edward VI., and the early part of the reign of Elizabeth, to discover a route to India by a north-west or north-east passage—channels from which the Portuguese would have had no pretence for excluding them. But these attempts having proved unsuccessful, and the Pope's bull having ceased to be of any effect in this country, the English merchants and navigators resolved to be no longer deterred by the imaginary rights of the Portuguese from directly entering upon what was then reckoned by far the most lucrative and advantageous branch of commerce. Captain Stephens, who performed the voyage in 1582, was the first Englishman who sailed to India by the Cape of Good Hope. The voyage of the famous Sir Francis Drake contributed greatly to diffuse a spirit of naval enterprise, and to render the English better acquainted with the newly opened route to India. But the voyage of the celebrated Thomas Cavendish was, in the latter respect, the most important. Cavendish sailed from England in a little squadron, fitted out at his own expense, in July 1586; and having explored the greater part of the Indian Ocean, as far as the Philippine Islands, and carefully observed the most important and characteristic features of the people and countries which he visited, returned to England, after a prosperous navigation, in September 1588. But perhaps nothing contributed so much to inspire the English with a desire to embark in the Indian trade as the captures that were made about this period from the Spaniards. A Portuguese East India ship, or carrack, captured by Sir Francis Drake during his expedition to the coast of Spain, inflamed the cupidity of the merchants by the richness of her cargo, at the same time that the papers found on board gave specific information respecting the traffic in which she had been engaged. A still more important capture of the same sort was made in 1593. An armament, fitted out for the East Indies by Sir Walter Raleigh, and commanded by Sir John Borroughs, fell in, near the Azores, with the largest of all the Portuguese carracks, a ship of 1,600 tons burden, carrying 700 men and 36 brass cannon; and, after an obstinate conflict, carried her into Dartmouth. She was the largest vessel that had been seen in England; and her cargo, consisting of gold, spices, calicoes, silks, pearls, drugs, porcelain, ivory &c., excited the ardour of the English to engage in so opulent a commerce.

In consequence of these and other concurring causes, an association was formed in London in 1599 for prosecuting the trade to India. The adventurers applied to the Queen for a charter of incorporation, and also for power to exclude all other English subjects, who had not obtained a

license from them, from carrying on any species of traffic beyond the Cape of Good Hope or the Straits of Magellan. As exclusive companies were then very generally looked upon as the best instruments for prosecuting most branches of commerce and industry, the adventurers seem to have had little difficulty in obtaining their charter, which was dated December 31, 1600. The corporation was entitled 'The Governor and Company of Merchants of London trading into the East Indies.' The first governor (Thomas Smythe, Esq.) and 24 directors were nominated in the charter; but power was given to the Company to elect a deputy-governor, and in future to elect their governor and directors, and such other office-bearers as they might think fit to appoint. They were empowered to make by-laws; to inflict punishments, either corporal or pecuniary, provided such punishments were in accordance with the laws of England; to export all sorts of goods free of duty for 4 years; and to export foreign coin or bullion to the amount of 30,000*l.* a-year, 6,000*l.* of the same being previously coined at the mint; but they were obliged to import, within 6 months after the completion of every voyage except the first, the same quantity of silver, gold, and foreign coin that they had exported. The duration of the charter was limited to a period of 15 years; but with and under the condition that, if it were not found for the public advantage, it might be cancelled at any time upon 2 years' notice being given. Such was the origin of the British East India Company, the most celebrated commercial association of ancient or modern times, and which in course of time extended its sway over the whole of the Mogul empire.

It might have been expected that, after the charter was obtained, considerable eagerness would have been manifested to engage in the trade. But such was not the case. Notwithstanding the earnest calls and threats of the directors, many of the adventurers could not be induced to come forward to pay their proportion of the charges incident to the fitting out of the first expedition. And as the directors seem either to have wanted power to enforce their resolutions, or thought it better not to exercise it, they formed a subordinate association, consisting of such members of the Company as were really willing to defray the cost of the voyage, and to bear all the risks and losses attending it, on condition of their having the exclusive right to whatever profits might arise from it. It was by such subordinate associations that the trade was conducted during the first 13 years of the Company's existence.

The first expedition to India, the cost of which amounted, ships and cargoes included, to 69,091*l.*, consisted of five ships, the largest being 600, and the smaller 130 tons burden. The goods put on board were principally bullion, iron, tin, broad cloths, cutlery, glass &c. The chief command was intrusted to Captain James Lancaster, who had already been in India. They set sail from Torbay on February 13, 1601. Being very imperfectly acquainted with the seas and countries they were to visit, they did not arrive at their destination, Acheen in Sumatra, till June 5, 1602. But though tedious, the voyage was, on the whole, uncommonly prosperous. Lancaster entered into commercial treaties with the kings of Acheen and Bantam; and having taken on board a valuable cargo of pepper and other produce, he was fortunate enough, in his way home, to fall in with and capture, in concert with a Dutch vessel, a Portuguese carrack of 900 tons burden, richly laden. Lancaster returned to the Downs on September 11, 1603. (*Modern Universal History*, vol. x. p. 16; Macpherson's *Commerce of the European Powers with India*, p. 81.)

But notwithstanding the favourable result of this voyage, the expeditions fitted out in the years immediately following, though sometimes consisting of larger ships, were not, at an average, materially increased. In 1612 Captain Best obtained from the court at Delhi several considerable privileges; and amongst others, that of establishing a factory at Surat, which city was henceforth looked upon as the principal British station in the west of India, till the acquisition of Bombay.

In establishing factories in India, the English only followed the example of the Portuguese and Dutch. It was contended that they were necessary to serve as depôts for the goods collected in the country for exportation to Europe, as well as for those imported into India, in the event of their not meeting with a ready market on the arrival of the ships. Such establishments, it was admitted, are not required in civilised countries; but the peculiar and unsettled state of India was said to render them indispensable there. Whatever weight may be attached to this statement, it is obvious that factories formed for such purposes could hardly fail of speedily degenerating into a species of forts. The security of the valuable property deposited in them furnished a specious pretext for putting them in a condition to withstand an attack; while the agents, clerks, warehousemen &c. formed a sort of garrison. Possessing such strongholds, the Europeans were early emboldened to act in a manner quite inconsistent with their character as merchants, and but a very short time elapsed before they began to form schemes for monopolising the commerce of particular districts, and acquiring territorial dominion.

Though the Company met with several heavy losses during the earlier part of their traffic with India, from shipwrecks and other unforeseen accidents, and still more from the hostility of the Dutch, yet, on the whole, the trade was decidedly profitable. There can, however, be little doubt that their gains at this early period have been very much exaggerated. During the first 13 years they are said to have amounted to 132 per cent. But then it should be borne in mind, as Mr. Grant has justly stated, that the voyages were seldom accomplished in less than 30 months, and sometimes extended to 3 or 4 years; and it should further be remarked, that, on the arrival of the ships at home, the cargoes were disposed of at long credits of 18 months or 2 years; and that it was frequently even 6 or 7 years before the concerns of a single voyage were finally adjusted. (*Sketch of the History of the Company*, p. 13.) When these circumstances are taken into view, it will immediately be seen that the Company's profits were not, really, by any means so great as has been represented. Still it may not be uninstructive to remark that the principal complaint that was then made against the Company did not proceed so much on the circumstance of its charter excluding the public from any share in an advantageous traffic, as in its authorising the Company to export gold and silver of the value of 30,000*l.* a-year. It is true that the charter stipulated that the Company should import an equal quantity of gold and silver within 6 months of the termination of every voyage; but the enemies of the Company contended that this condition was not complied with, and that it was, besides, highly injurious to the public interest, and *contrary to all principle*, to allow gold and silver to be sent out of the kingdom. The merchants and others interested in the

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support of the Company could not controvert the reasoning of their opponents without openly impugning the ancient policy of absolutely preventing the exportation of the precious metals. They did not, however, venture to contend, if the idea really occurred to them, that the exportation of bullion to the East was advantageous on the broad ground of the commodities purchased by it being of greater value in England; but they contended that the exportation of bullion to India was advantageous because the commodities thence imported were chiefly re-exported to other countries from which a much greater quantity of bullion was obtained than had been required to pay for them in India. Mr. Thomas Mun, a director of the East India Company, and the ablest of its early advocates, ingeniously compares the operations of the merchant in conducting a trade carried on by the exportation of gold and silver to the seed-time and harvest of agriculture. 'If we only behold,' says he, 'the actions of the husbandman in the seed-time, when he casteth away much good corn into the ground, we shall account him rather a madman than a husbandman; but when we consider his labours in the harvest, which is the end of his endeavours, we find the worth and plentiful increase of his actions.' (*Treasure by Foreign Trade*, p. 50, ed. 1664.)

We may here remark that what has been called the *mercantile system* of political economy, or that system which measures the progress of a country in the career of wealth by the supposed balance of payments in its favour, or by the estimated excess of the value of its exports over that of its imports, appears to have originated in the excuses now set up for the exportation of bullion. Before this epoch, the policy of prohibiting the exportation of bullion had been universally admitted; but it now began to be pretty generally allowed that its exportation might be productive of advantage, provided it occasioned the subsequent exportation of a greater amount of raw or manufactured products to countries whence bullion was obtained for them. This, when compared with the previously existing prejudice (for it hardly deserves the name of system) which wholly interdicted the exportation of gold and silver, must be allowed to be a considerable step in the progress to sounder opinions. The maxim *ce n'est que le premier pas qui coute* was strikingly verified on this occasion. The advocates of the East India Company began gradually to assume a higher tone, and at length boldly contended that bullion was nothing but a commodity, and that its exportation should be rendered as free as that of anything else. Nor were these opinions confined to the partners of the East India Company—they were gradually communicated to others; and many eminent merchants were taught to look with suspicion on several of the previously received dogmas with respect to commerce, and were, in consequence, led to acquire more correct and comprehensive views. The new ideas ultimately made their way into the House of Commons; and in 1663 the statutes prohibiting the exportation of foreign coin and bullion were repealed, and full liberty given to the East India Company and to private traders to export them in unlimited quantities.

But the objection to the East India Company, or rather the East India trade, on the ground of its causing the exportation of gold and silver, admitted of a more direct and conclusive, if not a more ingenious reply. However compendious soever the ancient intercourse with India by the Red Sea and the Mediterranean, it was unavoidably attended with a good deal of expense. The productions of the remote parts of Asia, brought to Ceylon, or the ports on the Malabar coast, by the natives, were there put on board the ships which arrived from the Arabian Gulf. At Berenice they were landed, and carried by camels 250 miles to the banks of the Nile. They were there again embarked, and conveyed down the river to Alexandria, whence they were despatched to different markets. The addition to the price of goods by such a multiplicity of operations must have been considerable; more especially as the price charged on each operation was fixed by monopolists, subject to no competition or control. Pliny says that the cost of the Arabian and Indian products brought to Rome when he flourished (A.D. 70) was increased a hundred-fold by the expenses of transit (*Hist. Nat.* lib. vi. c. 23); but there can be little or no doubt that this is to be regarded as a rhetorical exaggeration. There are good grounds for thinking that the less bulky sorts of Eastern products, such as silk, spices, balsams, precious stones &c., which were those principally made use of at Rome, might, supposing there were no political obstacles in the way, be conveyed from most parts of India to the ports on the Mediterranean by way of Egypt, at a decidedly cheaper rate than they could be conveyed to them by the Cape of Good Hope.

But at the period when the latter route to India began to be frequented, Syria, Egypt &c. were occupied by Turks and Mamelukes—barbarians who despised commerce and navigation, and were, at the same time, extremely jealous of strangers, especially of Christians or infidels. The price of the commodities obtained through the intervention of such persons was necessarily very much enhanced; and the discovery of the route by the Cape of Good Hope was, consequently, of the utmost importance; for, by putting an end to the monopoly enjoyed by the Turks and Mamelukes, it introduced, for the first time, something like competition into the Indian trade, and enabled the western parts of Europe to obtain supplies of Indian products for about ⅓ of what they had previously cost. Mr. Mun, in a tract published in 1621, estimates the quantity of Indian commodities imported into Europe, and their cost when bought in Aleppo and in India, as follows:—

Cost of Indian Commodities consumed in Europe when bought in Aleppo (or Alexandria).

lbs.	£	s.	d.
6,000,000 pepper cost, with charges &c. at Aleppo, 2s. per lb.	600,000	0	0
450,000 cloves, at 4s. 9d.	106,875	10	0
150,000 mace, at 4s. 9d.	35,626	0	0
400,000 nutmegs, at 2s. 4d.	46,666	2	4
350,000 indigo, at 4s. 4d.	75,833	6	8
1,000,000 Persian raw silk, at 12s.	600,000	0	0
	1,463,000	19	0

But the same quantities of the same commodities cost, when bought in the East Indies, according to Mr. Mun, as follows:—

lbs.	£	s.	d.
6,000,000 pepper, at 2½d. per lb.	62,500	0	0
450,000 cloves, at 9d.	16,875	0	0
150,000 mace, at 8d.	5,000	0	0
400,000 nutmegs, at 4d.	6,666	13	4
350,000 indigo, at 1s. 2d.	20,416	12	4
1,000,000 raw silk, at 8s.	400,000	0	0
	511,458	5	8

Which being deducted from the former, leaves a balance of 953,542*l.* 13*s.* 4*d.* And supposing that the statements made by Mr. Mun are correct, and that allowance is made for the difference between the freight from Aleppo and India, the result would indicate the saving which the discovery of the route by the Cape of Good Hope occasioned in the purchase of the above-mentioned articles. (*A Discourse of Trade from England to the East Indies*, by T. M., original edition, p. 10. This

tract, which is very scarce, is reprinted in Purchas's *Pilgrims*.)

In the same publication (p. 37) Mr. Mun informs us that, from the beginning of the Company's trade to July 1620, they had sent 79 ships to India; of which 34 had come home safely and richly laden, 4 had been worn out by long service in India, 2 had been lost in careening, 6 had been lost by the perils of the sea, and 12 had been captured by the Dutch. Mr. Mun further states that the exports to India since the formation of the Company had amounted to 840,376*l.*; that the produce brought from India had cost 356,288*l.*, and had produced here the enormous sum of 1,914,600*l.*; that the quarrels with the Dutch had occasioned a loss of 84,088*l.*; and that the stock of the Company, in ships, goods in India &c. amounted to 400,000*l.*

The hostility of the Dutch, to which Mr. Mun has here alluded, was long a very formidable obstacle to the Company's success. The Dutch early endeavoured to obtain the exclusive possession of the spice trade, and were not at all scrupulous as to the means by which they attempted to effect this their favourite object. The English, on their part, naturally exerted themselves to obtain a share of so valuable a commerce; and as neither party was disposed to abandon its views and pretensions, the most violent animosities grew up between them. In this state of things it would be ridiculous to suppose that unjustifiable acts were not committed by the one party as well as the other; though the worst act of the English appears venial when compared with the conduct of the Dutch in the massacre at Amboyna in 1622. While, however, the Dutch Company was vigorously supported by the Government at home, the English Company met with no efficient assistance from the feeble and vacillating policy of James and Charles. The Dutch either despised their remonstrances, or defeated them by an apparent compliance; so that no real reparation was obtained for the outrages they had committed. During the civil war Indian affairs were necessarily lost sight of; and the Dutch continued, until the ascendancy of the republican party had been established, to reign triumphant in the East, where the English commerce was nearly annihilated.

But, notwithstanding their depressed condition, the Company's servants in India laid the foundation, during the period in question, of the settlements at Madras and in Bengal. Permission to build Fort St. George was obtained from the native authorities in 1640. In 1658 Madras was raised to the station of a presidency. In 1645 the Company began to establish factories in Bengal, the principal of which was at Hooghly. These were, for a lengthened period, subordinate to the presidency at Madras.

No sooner, however, had the civil wars terminated than the arms and councils of Cromwell retrieved the situation of our affairs in India. The war which broke out between the Long Parliament and the Dutch in 1652 was eminently injurious to the latter. In the treaty of peace, concluded in 1654, it was stipulated that indemnification should be made by the Dutch for the losses and injuries sustained by the English merchants and factors in India. The 27th article bears, 'that the Lords, the States-General of the United Provinces, shall take care that justice be done upon those who were partakers or accomplices in the massacre of the English at Amboyna, as the republic of England is pleased to term that fact, provided any of them be living.' A commission was at the same time appointed, conformably to another article of the treaty, to enquire into the reciprocal claims which the subjects of the contracting parties had upon each other for losses sustained in India, Brazil &c.; and, upon their decision, the Dutch paid the sum of 85,000*l.* to the East India Company, and 3,615*l.* to the heirs or executors of the sufferers at Amboyna. (Bruce's *Annals*, vol. i. p. 489.)

The charter under which the East India Company prosecuted their exclusive trade to India, being merely a grant from the Crown, and not ratified by any Act of Parliament, was understood by the merchants to be at an end when Charles I. was deposed. They were confirmed in this view of the matter from the circumstance of Charles having himself granted, in 1635, a charter to Sir William Courten and others, authorising them to trade with those parts of India with which the Company had not established any regular intercourse. The reasons alleged in justification of this measure, by the Crown, were, that 'the East India Company had neglected to establish fortified factories, or seats of trade, to which the King's subjects could resort with safety; that they had consulted their own interests only, without any regard to the King's revenue; and in general that they had broken the condition on which their charter and exclusive privileges had been granted to them.' (Rym. *Fœdera*, vol. xx. p. 146.)

Courten's association, for the foundation of which such satisfactory reasons had been assigned, continued to trade with India during the remainder of Charles's reign; and no sooner had the arms of the Commonwealth forced the Dutch to desist from their depredations, and to make reparation for the injuries they had inflicted on the English in India, than private adventurers engaged in great numbers in the Indian trade, and carried it on with a zeal, economy, and success that monopoly can never expect to rival. It is stated in a little work, entitled *Britannia Languens*, published in 1680, the author of which has evidently been a well-informed and intelligent person, that during the years 1653, 1654, 1655, and 1656, when the trade to India was open, the private traders imported East India commodities in such large quantities, and sold them at such reduced prices, that they not only fully supplied the British markets, but had even come into successful competition with the Dutch in the market of Amsterdam, 'and very much sunk the actions (shares) of the Dutch East India Company.' (P. 132.) This circumstance naturally excited the greatest apprehensions on the part of the Dutch Company; for, besides the danger that they now ran of being deprived, by the active competition of the English merchants, of a considerable part of the trade which they had previously enjoyed, they could hardly expect that, if the trade were thrown open in England, the monopoly would be allowed to continue in Holland. A striking proof of what is now stated is to be found in a letter in the third volume of Thurlow's *State Papers*, dated at the Hague, January 15, 1654, where it is said that 'the merchants of Amsterdam have advice that the Lord Protector intends to dissolve the East India Company at London, and to declare the navigation and commerce of the East Indies free and open; which doth cause great jealousy at Amsterdam, *as a thing that will very much prejudice the East India Company in Holland.*'

Feeling that it was impossible to contend with the private adventurers under a system of fair competition, the moment the treaty with the Dutch had been concluded the Company began to solicit a renewal of their charter; but in this they were not only opposed by the free traders, but by a part of themselves. To understand how this happened,

it may be proper to mention that Courten's association, the origin of which has been already noticed, had begun, in 1648, to found a colony in Assuda, an island near Madagascar. The Company, alarmed at this project, applied to the council of state to prevent its being carried into effect; and the council, without entering on the question of either party's rights, recommended them to form a union, which was accordingly effected in 1649. But the union was, for a considerable time, rather nominal than real; and when the Dutch war had been put an end to, most of those holders of the Company's stock who had belonged to Courten's association joined in petitioning the council of state that the trade might in future be carried on, not by a joint stock, but by a *regulated* Company; so that each individual engaging in it might be allowed to employ his own stock, servants, and shipping in whatever way he might conceive most for his own advantage. (*Petition of Adventurers*, November 17, 1656; Bruce's *Annals*, vol. i. p. 518.)

This proposal was obviously most reasonable. The Company had always founded their claim to a monopoly of the trade on the alleged ground of its being necessary to maintain forts, factories, and ships of war in India; and that as this was not done by Government, it could only be done by a Company. But, by forming the traders with India into a regulated Company, they might have been subjected to whatever rules were considered most advisable; and such special duties might have been laid on the commodities they exported and imported as would have sufficed to defray the public expenses required for carrying on the trade, at the same time that the inestimable advantages of free competition would have been secured; each individual trader being left at liberty to conduct his enterprises, subject only to a few general regulations, in his own way and for his own advantage. [Companies.]

But notwithstanding the efforts of the petitioners, and the success that was clearly proved to have attended the operations of the private traders, the Company succeeded in obtaining a renewal of their charter from Cromwell in 1657. Charles II. confirmed this charter in 1661, and at the same time conferred on them the power of making peace or war with any power or people *not of the Christian religion*; of establishing fortifications, garrisons, and colonies; of exporting ammunition and stores to their settlements duty free; of seizing and sending to England such British subjects as should be found trading to India without their leave; and of exercising civil and criminal jurisdiction in their settlements, according to the laws of England. Still, however, as this charter was not fully confirmed by any Act of Parliament, it did not prevent traders, or interlopers as they were termed, from appearing within the limits of the Company's territories. The energy of private commerce, which, to use the words of Mr. Orme, 'sees its drift with eagles' eyes,' formed associations at the risk of trying the consequence at law, being safe at the outset and during the voyage, since the Company were not authorised to stop or seize the ships of those who thus attempted to come into competition with them. Hence their monopoly was by no means complete; and it was not till after the Revolution, and when a free system of government had been established at home, that, by a singular contradiction, the authority of Parliament was interposed to enable the Company wholly to engross the trade with the East.

In addition to the losses arising from this source, the Company's trade suffered severely, during the reign of Charles II., from the hostilities that were then waged with the Dutch, and from the confusion and disorders caused by contests among the native princes; but in 1668 the Company obtained a very valuable acquisition in the island of Bombay. Charles II. acquired this island as a part of the marriage portion of his wife, Catharine of Portugal; and it was now made over to the Company, on condition of their not selling or alienating it to any persons whatever, except such as were subjects of the British crown. They were allowed to legislate for their new possession; but it was enjoined that their laws should be consonant to reason, and 'as near as might be' agreeable to the practice of England. They were authorised to maintain their dominion by force of arms; and the natives of Bombay were declared to have the same liberties as natural-born subjects. The Company's western presidency was soon after transferred from Surat to Bombay.

In 1664 the French East India Company was formed, and 10 years afterwards they laid the foundation of their settlement at Pondicherry.

But the reign of Charles II. is chiefly memorable in the Company's annals from its being the era of the commencement of the tea trade. The first notice of tea in the Company's records is found in a despatch, addressed to their agent at Bantam, dated January 24, 1667–8, in which he is desired to send home 100 lbs. of tea, 'the best he can get.' (Bruce's *Annals*, vol. ii. p. 210.) Such was the late and feeble beginning of the tea trade—a branch of commerce that has long been of vast importance to the British nation, and without which it is more than probable that the East India Company would long since have ceased to exist, at least as a mercantile body.

In 1677 the Company obtained a fresh renewal of their charter; receiving at the same time an indemnity for all past misuse of their privileges, and authority to establish a mint at Bombay.

During the greater part of the reigns of Charles II. and James II. the Company's affairs at home were principally managed by the celebrated Sir Josiah Child, the ablest commercial writer of the time; and in India by his brother, Sir John Child. In 1681 Sir Josiah published an apology for the Company, under the signature of Φιλόπατρις—'A Treatise wherein is demonstrated that the East India Trade is the most National of all Foreign Trades:' in which, besides endeavouring to vindicate the Company from the objections that had been made against it, he gives an account of its state at the time. From this account it appears that the Company consisted of 556 partners; that they had from 35 to 36 ships, of from 775 to 100 tons, employed in the trade between England and India, and from port to port in India (p. 23); that the customs duties upon the trade amounted to about 60,000*l.* a-year; and that the value of the exports, 'in lead, tin, cloth, and stuffs, and other commodities of the production and manufacture of England,' amounted to about 60,000*l.* or 70,000*l.* a-year. Sir Josiah seems to have been struck, as he well might, by the inconsiderable amount of the trade; and he therefore dwells on the advantages of which it was indirectly productive in enabling us to obtain supplies of raw silk, pepper &c. at a much lower price than they would otherwise have fetched. But this, though true, proved nothing in favour of the Company; it being an admitted fact that those articles were furnished at a still lower price by the interlopers or private traders.

Sir Josiah Child was one of the first who projected the formation of a territorial empire in India. But the expedition fitted out in 1686, in the view of accomplishing this purpose, proved unsuccessful; and the Company were glad to accept peace on the terms offered by the Mogul. Sir John

Child, having died during the course of these transactions, was succeeded in the principal management of the Company's affairs in India by Mr. Vaux. On the appointment of the latter, Sir Josiah Child, to whom he owed his advancement, exhorted him to act with vigour, and to carry whatever instructions he might receive from home into immediate effect. Mr. Vaux returned for answer, that he should endeavour to acquit himself with integrity and justice, and that he would make the laws of his country the rule of his conduct. Sir Josiah Child's answer to this letter is curious:—'He told Mr. Vaux roundly that he expected his orders were to be his rules, and not the laws of England, which were a heap of nonsense, compiled by a few ignorant country gentlemen, who hardly knew how to make laws for the good government of their own private families, much less for the regulating of companies and foreign commerce.' (Hamilton's *New Account of the East Indies*, vol. i. p. 232.)

During the latter part of the reign of Charles II. and that of his successor, the number of private adventurers, or interlopers, in the Indian trade, increased in an unusual degree. The Company vigorously exerted themselves in defence of what they conceived to be their rights; and the question with respect to the validity of the powers conferred on them by their charter was at length brought to issue by a prosecution carried on at their instance against Mr. Thomas Sandys, for trading to the East Indies without their license. Judgment was given in favour of the Company in 1685. But this decision was ascribed to corrupt influence; and instead of allaying, only served to increase the clamour against them. The meeting of the Convention Parliament gave the Company's opponents hopes of a successful issue to their efforts; and had they been united, they might probably have succeeded. Their opinions were, however, divided—part being for throwing the trade open, and part for the formation of a new Company on a more liberal footing. The latter being formed into a body, and acting in unison, the struggle against the Company was chiefly carried on by them. The proceedings that took place on this occasion are amongst the most disgraceful in the history of the country. The most open and unblushing corruption was practised by all parties. '*It was, in fact, a trial which side should bribe the highest; public authority inclining to one or other as the irresistible force of gold directed.*' (*Modern, Universal History*, vol. x. p. 127.) Government appears, on the whole, to have been favourable to the Company, and they obtained a fresh charter from the Crown in 1693. But in the following year the trade was virtually laid open by a vote of the House of Commons, 'that all the subjects of England had an equal right to trade to the East Indies unless prohibited by Act of Parliament.' Matters continued on this footing till 1698. The pecuniary difficulties in which Government was then involved induced them to apply to the Company for a loan of 2,000,000*l.*, for which they offered 8 per cent. interest. The Company offered to advance 700,000*l.* at 4 per cent.; but the credit of Government was at the time so low, that they preferred accepting an offer from the associated merchants, who had previously opposed the Company, of the 2,000,000*l.* at 8 per cent., on condition of their being formed into a new and exclusive Company. While this project was in agitation, the advocates of free trade were not idle, but exerted themselves to show that, instead of establishing a new Company, the old one ought to be abolished. But, however conclusive, their arguments, having no adventitious recommendations in their favour, failed of making any impression. The new Company was established by authority of the Legislature; and as the charter of the old Company was not yet expired, the novel spectacle was exhibited of two legally constituted bodies, each claiming an exclusive right to the trade of the same possessions!

Notwithstanding all the pretensions set up by those who had obtained the new charter during their struggle with the old Company, it was immediately seen that they were as anxious as the latter to suppress every thing like free trade. They had not, it was obvious, been actuated by any enlarged views, but merely by a wish to grasp at the monopoly, which they believed would redound to their own individual interest. The public, in consequence, became equally disgusted with both parties; or, if there were any difference, it is probable that the new Company was looked upon with the greatest aversion, inasmuch as we are naturally more exasperated by what we conceive to be duplicity and bad faith than by fair, undisguised hostility.

At first the mutual hatred of the rival associations knew no bounds. But they were not long in perceiving that such conduct would infallibly end in their ruin; and that while one was labouring to destroy the other, the friends of free trade might step in and procure the dissolution of both. In consequence they became gradually reconciled; and in 1702, having adjusted their differences, they resolved to form themselves into one Company, entitled *The United Company of Merchants of England trading to the East Indies.*

The authority of Parliament was soon after interposed to give effect to this agreement.

The United Company engaged to advance 1,200,000*l.* to Government without interest, which, as a previous advance had been made of 2,000,000*l.* at 8 per cent., made the total sum due to them by the public 3,200,000*l.*, bearing interest at 5 per cent.; and Government agreed to ratify the terms of their agreement, and to extend the charter to March 25, 1726, with 3 years' notice.

While those important matters were transacting at home, the Company had acquired some additional possessions in India. In 1692 the Bengal agency was transferred from Hooghly to Calcutta. In 1698 the Company acquired a grant, from one of the grandsons of Aurengzebe, of Calcutta and two adjoining villages; with leave to exercise judiciary powers over the inhabitants, and to erect fortifications. These were soon after constructed, and received, in compliment to William III., then king of England, the name of Fort William. The agency at Bengal, which had hitherto been subsidiary only, was now raised to the rank of a presidency.

The vigorous competition that had been carried on, for some years before the coalition of the old and new Companies, between them and the private traders, had occasioned a great additional importation of Indian silks, piece goods, and other products, and a great reduction of their price. These circumstances occasioned the most vehement complaints amongst the home manufacturers, who resorted to the arguments invariably made use of on such occasions by those who wish to exclude foreign competition; affirming that manufactured India goods had been largely substituted for those of England; that the English manufacturers had been reduced to the cruel necessity either of selling nothing, or of selling their commodities at such a price as left them no profit; that great numbers of their workmen had been thrown out of employment; and, last of all, that Indian goods

were not bought by British goods, but by gold and silver, the exportation of which had caused the general impoverishment of the kingdom! The merchants and others interested in the India trade could not, as had previously happened to them in the controversy with respect to the exportation of bullion, meet these statements without attacking the principles on which they rested, and maintaining, in opposition to them, that it was for the advantage of every people to buy the products they wanted in the cheapest market. This just and sound principle was, in consequence, enforced in several petitions presented to Parliament by the importers of Indian goods; and it was also enforced in several able publications that appeared at the time. But these arguments, how unanswerable soever they may now appear, had then but little influence; and in 1701 an Act was passed, prohibiting the importation of Indian manufactured goods for home consumption.

For some years after the re-establishment of the Company, it continued to prosecute its efforts to consolidate and extend its commerce. But the unsettled state of the Mogul empire, coupled with the determination of the Company to establish factories in every convenient situation, exposed their affairs to perpetual vicissitudes. In 1715 it was resolved to send an embassy to Delhi, to solicit from Furucksur, an unworthy descendant of Aurengzebe, an extension and confirmation of the Company's territory and privileges. Address, accident, and the proper application of *presents* conspired to insure the success of the embassy. The grants or patents solicited by the Company were issued in 1717. They were in all 34. The substance of the privileges they conferred was, that English vessels wrecked on the coasts of the empire should be exempt from plunder; that the annual payment of a stipulated sum to the Government of Surat should free the English trade at that port from all duties and exactions; that those villages contiguous to Madras formerly granted and afterwards refused by the Government of Arcot should be restored to the Company; that the island of Diu, near the port of Masulipatam, should belong to the Company, paying for it a fixed rent; that in Bengal, all persons, whether European or native, indebted or accountable to the Company, should be delivered up to the presidency on demand; that goods of export or import, belonging to the English, might, under a *dustuck* or passport from the president of Calcutta, be conveyed duty free through the Bengal provinces; and that the English should be at liberty to purchase the lordship of 37 towns contiguous to Calcutta, and in fact commanding both banks of the river for 10 miles south of that city. (Grant's *Sketch of the History of the East India Company*, p. 128.)

The important privileges thus granted were long regarded as constituting the great charter of the English in India. Some of them, however, were not fully conceded, but were withheld or modified by the influence of the emperor's lieutenants, or soubahdars.

In 1717 the Company found themselves in danger from a new competitor. In the course of that year some ships appeared in India, fitted out by private adventurers from Ostend. Their success encouraged others to engage in the same line, and in 1722 the adventurers were formed into a Company under a charter from his Imperial Majesty. The Dutch and English Companies, who had so long been hostile to each other, at once laid aside their animosities, and joined heartily in an attempt to crush their new competitors. Remonstrances being found ineffectual, force was resorted to; and the vessels of the Ostend Company were captured, under the most frivolous pretences, in the open seas and on the coasts of Brazil. The British and Dutch Governments abetted the selfish spirit of hostility displayed by their respective Companies; and the Emperor was, in the end, glad to purchase the support of Great Britain and Holland to the Pragmatic Sanction, by the sacrifice of the Company at Ostend.

Though the Company's trade had increased, it was still inconsiderable; and it is very difficult, indeed, when one examines the accounts that have from time to time been published of the Company's mercantile affairs, to imagine how the idea ever came to be entertained that their commerce was of any considerable, much less paramount, importance. At an average of the 10 years ending with 1724, the total value of the British manufactures and other products annually exported to India amounted to only 92,410*l.* 12*s.* 6*d.* The average value of the bullion annually exported during the same period amounted to 518,102*l.* 11*s.*; making the total annual average exports 617,513*l.* 3*s.* 10*d.*—a truly pitiful sum, when we consider the wealth, population, and industry of the countries between which the Company's commerce was carried on, and affording by its smallness a strong presumptive proof of the effect of the monopoly in preventing the growth of the trade.

In 1730, though there were 3 years still unexpired of the Company's charter, a vigorous effort was made by the merchants of London, Bristol, and Liverpool to prevent its renewal. It has been said that the gains of the Company, had they been exactly known, would not have excited any very envious feelings on the part of the merchants; but, being concealed, they were exaggerated; and the boasts of the Company as to the importance of their trade contributed to spread the belief that their profits were enormous, and consequently stimulated the exertions of their opponents. Supposing, however, that the real state of the case had been known, there was still enough to justify the utmost exertions on the part of the merchants; for the limited profits made by the Company, notwithstanding their monopoly, were entirely owing to the misconduct of their agents, which they had vainly endeavoured to restrain, and to the waste inseparable from such unwieldy establishments.

The merchants on this occasion followed the example that had been set by the petitioners for free trade in 1656. They offered, in the first place, to advance the 3,200,000*l.* lent by the Company to the public, on more favourable terms; and, in the second place, they proposed that the subscribers to this loan should be formed into a *regulated* Company, for opening the trade, under the most favourable circumstances, to all classes of their countrymen.

It was not intended that the Company should trade upon a joint stock, and in their corporate capacity, but that every individual who pleased should trade in the way of private adventure. The Company were to have the charge of erecting and maintaining the forts and establishments abroad; and for this, and for other expenses attending what was called the enlargement and preservation of the trade, it was proposed that they should receive a duty of 1 per cent. upon all exports to India, and of 5 per cent. upon all imports from it. For ensuring obedience to this and other regulations, it was to be enacted that no one should trade to India without license from the Company; and it was proposed that 31 years,

with 3 years' notice, should be granted as the duration of their peculiar privilege.

'It appears from this,' says Mr. Mill, 'that the end which was proposed to be answered by incorporating such a Company was the preservation and erection of the forts, buildings, and other fixed establishments required for the trade of India. This Company promised to supply that demand which has always been held forth as peculiar to the India trade, as the grand exigency which, distinguishing the traffic with India from all other branches of trade, rendered monopoly advantageous in that peculiar case, how much soever it might be injurious in others. While it provided for this real or pretended want, it left the trade open to all the advantages of private enterprise, private vigilance, private skill, and private economy—the virtues by which individuals thrive and nations prosper; and it gave the proposed Company an interest in the careful discharge of its duty by making its profits increase in exact proportion with the increase of the trade, and, of course, with the facilities and accommodation by which the trade was promoted.

'Three petitions were presented to the House of Commons in behalf of the proposed Company, by the merchants of London, Bristol, and Liverpool. It was urged that the proposed Company would, through the competition of which it would be productive, cause a great extension of the trade; that it would produce a larger exportation of our own produce and manufactures in India, and reduce the price of all Indian commodities to the people at home; that new channels of traffic would be opened in Asia and America as well as in Europe; that the duties of customs and excise would be increased; and that the waste and extravagance caused by the monopoly would be entirely avoided.' (Mill's *India*, vol. iii. p. 37.)

But these arguments did not prevail. The Company magnified the importance of their trade, and contended that it would be unwise to risk advantages already realised for the sake of those that were prospective and contingent. They alleged that, if the trade to India were thrown open, the price of goods in India would be so much enhanced by the competition of different traders, and their price in England so much diminished, that the freedom of the trade would certainly end in the ruin of all who had been foolish enough to adventure in it. To enlarge on the fallacy of these statements would be worse than superfluous. It is obvious that nothing whatever could have been risked, and that a great deal would have been gained, by opening the trade in the way that was proposed. And if it were really true that the trade to India ought to be subjected to a monopoly, lest the traders by their competition should ruin each other, it would follow that the trade to America—and not that only, but every branch both of the foreign and home trade of the empire—should be surrendered to exclusive Companies. But such as the Company's arguments were, they seemed satisfactory to Parliament. They, however, consented to reduce the interest on the debt due to them by the public from 5 to 4 per cent., and contributed a sum of 200,000*l.* for the public service. On these conditions it was agreed to extend their exclusive privileges to Lady-day 1766, with the customary addition of 3 years' notice.

For about 15 years from this period the Company's affairs went on without any very prominent changes. But notwithstanding the increased importation of tea, the consumption of which now began rapidly to extend, their trade continued to be comparatively insignificant. At an average of the 8 years ending with 1741, the value of the British goods and products of all sorts, exported by the Company to India and China, amounted to only 157,944*l.* 4*s.* 7*d.* a-year! During the 7 years ending with 1748 they amounted to only 188,176*l.* 16*s.* 4*d.* When it is borne in mind that these exports included the military stores of all sorts forwarded to the Company's settlements in India and at St. Helena, the amount of which was at all times very considerable, it does appear exceedingly doubtful whether the Company really exported, during the entire period from 1730 to 1748, 150,000*l.* worth of British produce as a legitimate mercantile adventure! Their trade, such as it was, was entirely carried on by shipments of bullion; and even its annual average export, during the 7 years ending with 1748, only amounted to 548,711*l.* 19*s.* 2*d.* It would seem, indeed, that the Company had derived no perceptible advantage from the important concessions obtained from the Mogul emperor in 1717. But the true conclusion is, not that these concessions were of little value, but that the deadening influence of monopoly had so paralysed the Company, that they were unable to turn them to account; and that, though without competitors, and with opulent kingdoms for their customers, their commerce was hardly greater than that carried on by some single merchants.

In 1732 the Company were obliged to reduce their dividend from 8 to 7 per cent., at which rate it continued till 1744.

The opposition the Company had experienced from the merchants when the question as to the renewal of their charter was agitated in 1730 made them very desirous to obtain the next renewal in as quiet a manner as possible. They therefore proposed, in 1743, when 23 years of their charter were yet unexpired, to lend 1,000,000*l.* to Government, at 3 per cent., provided their exclusive privileges were extended to 1780, with the usual notice; and, as none were expecting such an application, or prepared to oppose it, the consent of Government was obtained without difficulty.

But the period was now come when the mercantile character of the East India Company—if, indeed, it could with propriety be at any time said to belong to them—was to be eclipsed by their achievements as a military power, and the magnitude of their conquests. For about two centuries after the European powers began their intercourse with India, the Mogul princes were regarded as amongst the most opulent and powerful of monarchs. Though of a foreign lineage—being descended from the famous Tamerlane, or Timur Beg, who overran India in 1400—and of a different religion from the great body of their subjects, their dominion was firmly established in every part of their extensive empire. The administration of the different provinces was committed to officers, denominated soubahdars, or nabobs, intrusted with powers, in their respective governments, similar to those enjoyed by the Roman prætors. So long as the emperors retained any considerable portion of the vigour and bravery of their hardy ancestors, the different parts of the government were held in due subordination, and the soubahdars yielded a ready obedience to the orders from Delhi. But the emperors were gradually debauched by the apparently prosperous condition of their affairs. Instead of being educated in the council or the camp, the heirs of almost unbounded power were brought up in the slothful luxury of the seraglio; ignorant of public affairs; benumbed by indolence; depraved by the flattery of women, of eunuchs, and of slaves; their minds contracted with their enjoyments; their inclinations were vilified by their habits; and

their government grew as vicious, as corrupt, and as worthless as themselves. When the famous Kouli Khan, the usurper of the Persian throne, invaded India, the effeminate successor of Tamerlane and Aurengzebe was too unprepared to oppose, and too dastardly to think of avenging, the attack. This was the signal for the dismemberment of the monarchy. No sooner had the invader withdrawn than the soubahdars either openly threw off their allegiance to the emperor, or paid only a species of nominal or mock deference to his orders. The independence of the soubahdars was very soon followed by wars amongst themselves; and, being well aware of the superiority of European troops and tactics, they anxiously courted the alliance and support of the French and English East India Companies. These bodies, having espoused different sides, according as their interests or prejudices dictated, began very soon to turn the quarrels of the soubahdars to their own account. Instead of being contented, as hitherto, with the possession of factories and trading towns, they aspired to the dominion of provinces; and the struggle soon came to be, not which of the native princes should prevail, but whether the English or the French should become the umpires of India.

But these transactions are altogether foreign to the subject of this work; nor could any intelligible account of them be given without entering into lengthened statements. We shall only, therefore, observe that the affairs of the French were ably conducted by La Bourdonnais, Dupleix, and Lally, officers of distinguished merit, and not less celebrated for their great actions than for the base ingratitude of which they were the victims. But though victory seemed at first to incline to the French and their allies, the English affairs were effectually retrieved by the extraordinary talents and address of a single individual. Colonel (afterwards Lord) Clive was equally brave, cautious, and enterprising; not scrupulous in the use of means; fertile in expedients; endowed with wonderful sagacity and resolution; and capable of turning even the most apparently adverse circumstances to advantage. Having succeeded in humbling the French power in the vicinity of Madras, Clive landed at Calcutta in 1757, in order to chastise the soubahdar, Surajah ul Dowlah, who had a short while before attacked the English factory at that place, and inhumanly shut up 146 Englishmen in a prison, where, owing to the excessive heat and want of water, 123 perished in a single night. Clive had only 700 European troops and 1,400 Sepoys with him when he landed; but with these, and 570 sailors furnished by the fleet, he did not hesitate to attack the immense army commanded by the soubahdar, and totally defeated him in the famous battle of Plassey. This victory threw the whole provinces of Bengal, Bahar, and Orissa into our hands, and they were finally confirmed to us by the treaty negotiated in 1765.

Opinion has been long divided as to the policy of our military operations in India; and it has been strenuously contended that we should never have extended our conquests beyond the limits of Bengal. The Legislature seems to have taken this view of the matter; the House of Commons having resolved, in 1782, 'that to pursue schemes of conquest and extent of dominion in India are measures repugnant to the wish, the honour, and the policy of this nation.' But others have argued, and apparently on pretty good grounds, that, having gone thus far, we were compelled to advance. The native powers, trembling at the increase of British dominion, endeavoured, when too late, to make head against the growing evil. In this view they entered into combinations and wars against the English; and the latter having been uniformly victorious, their empire necessarily went on increasing, till all the native powers have been swallowed up in its vast extent.

The magnitude of the acquisitions made by Lord Clive powerfully excited the attention of the British public. Their value was prodigiously exaggerated; and it was generally admitted that the Company had no legal claim to enjoy, during the whole period of their charter, all the advantages resulting from conquests to which the fleets and armies of the state had largely contributed. In 1767 the subject was taken up by the House of Commons; and a committee was appointed to investigate the whole circumstances of the case, and to calculate the entire expenditure incurred by the public on the Company's account. During the agitation of this matter the right of the Company to the new conquests was totally denied by several members. In the end, however, the question was compromised by the Company agreeing to pay 400,000*l.* a-year for 2 years; and in 1769 this agreement, including the yearly payment, was further extended for 5 years more. The Company at the same time increased their dividend, which had been fixed by the former agreement at 10, to 12½ per cent.

But the Company's anticipations of increased revenue proved entirely visionary. The rapidity of their conquests in India, the distance of the controlling authority at home, and the abuses in the Government of the native princes, to whom the Company had succeeded, conspired to foster a strong spirit of peculation among their servants. Abuses of every sort were multiplied to a frightful extent. The English, having obtained, or rather enforced, an exemption from those heavy transit duties to which the native traders were subject, engrossed the whole internal trade of the country. They even went so far as to decide what quantity of goods each manufacturer should deliver, and what he should receive for them. It is due to the directors to say that they exerted themselves to repress these abuses; but their resolutions were neither carried into effect by their servants in India, nor sanctioned by the proprietors at home; so that the abuses, instead of being repressed, went on acquiring fresh strength and virulence. The resources of the country were rapidly impaired; and while many of the Company's servants returned to Europe with immense fortunes, the Company itself was involved in debt and difficulties; and so far from being able to pay the stipulated sum of 400,000*l.* a-year to Government, was compelled to apply in 1772 to the Treasury for a loan!

In this crisis of their affairs Government interposed, and a considerable change was made in the constitution of the Company. The dividend was restricted to 6 per cent. till the sum of 1,400,000*l.*, advanced to them by the public, should be paid. It was further enacted that the court of directors should be elected for 4 years, 6 members annually, but none to hold their seats for more than 4 years at a time; that no person was to vote at the courts of proprietors who had not possessed his stock for 12 months; and that the amount of stock required to qualify for a vote should be increased from 500*l.* to 1,000*l.* The jurisdiction of the Mayor's Court at Calcutta was in future confined to small mercantile cases; and in lieu of it, a new court was appointed, consisting of a chief justice and 3 principal judges appointed by the Crown. A superiority was also given to Bengal over the other presidencies, Mr. Warren Hastings being named in the Act as governor-general of India. The governor-general, coun-

cillors, and judges were prohibited from having any concern whatever in trade; and no person residing in the Company's settlements was allowed to take more than 12 per cent. per annum for money. Though strenuously opposed, these measures were carried by a large majority.

At this period (1773) the total number of proprietors of East India stock, with their qualifications as they stood in the Company's book, were as follows:—

	Proprietors	Stock £	s.	d.
Englishmen, possessing 1,000*l.* stock and upwards	457	1,018,238	19	11
Foreigners, possessing 1,000*l.* stock and upwards	223	890,940	17	0
Englishmen, possessing 500*l.* stock and upwards	1,246	634,464	1	8
Foreigners, possessing 500*l.* stock and upwards	93	50,386	0	0
Total	2,155	2,594,029	18	7

Notwithstanding the vast extension of the Company's territories, their trade continued to be apparently insignificant. During the 3 years ending with 1773 the value of the entire exports of British produce and manufactures, including military stores, sent out by the Company to India and China, amounted to 1,469,411*l.*, being at the rate of 489,803*l.* a-year; the annual exports of bullion during the same period being only 84,933*l.*! During the same 3 years 23 ships sailed annually for India. The truth, indeed, seems to be, that, but for the increased consumption of tea in Great Britain, the Company would have entirely ceased to carry on any branch of trade with the East, and that the monopoly would have excluded us as effectually from the markets of India and China as if the trade had reverted to its ancient channels, and the route by the Cape of Good Hope been relinquished.

In 1781 the exclusive privileges of the Company were extended to 1791, with 3 years' notice; the dividend on the Company's stock was fixed at 8 per cent.; three fourths of their surplus revenues, after paying the dividend and the sum of 400,000*l.* payable to Government, was to be applied to the public service, and the remaining fourth to the Company's own use.

In 1780 the value of British produce and manufactures exported by the Company to India and China amounted to only 386,152*l.*; the bullion exported during the same year was 15,014*l.* The total value of the exports during the same year was 12,648,616*l.*; showing that the East India trade formed only *one thirty-second* part of the entire foreign trade of the empire.

The administration of Mr. Hastings was one continued scene of war, negotiation, and intrigue. The state of the country, instead of being improved, became worse; so much so, that in a council minute by Marquis Cornwallis, dated September 18, 1789, it is distinctly stated '*that one third part of the Company's territory is now a jungle for wild beasts.*' Some abuses in the conduct of their servants were, indeed, rectified; but, notwithstanding, the nett revenue of Bengal, Bahar, and Orissa, which in 1772 had amounted to 2,126,766*l.*, declined in 1785 to 2,072,968*l.* This exhaustion of the country, and the expenses incurred in the war with Hyder Ally and France, involved the Company in fresh difficulties; and being unable to meet them, they were obliged in 1783 to present a petition to Parliament, setting forth their inability to pay the stipulated sum of 400,000*l.* a-year to the public, and praying to be excused from that payment and to be supported by a loan of 900,000*l.*

All parties seemed now to be convinced that some further changes in the constitution of the Company had become indispensable. In this crisis Mr. Fox brought forward his famous India Bill, the grand object of which was to abolish the courts of directors and proprietors, and to vest the government of India in the hands of seven commissioners appointed by Parliament. The coalition between Lord North and Mr. Fox having rendered the ministry exceedingly unpopular, advantage was taken of the circumstance to raise an extraordinary clamour against the bill. The East India Company stigmatised it as an invasion of their chartered rights; though it is obvious that, from their inability to carry into effect the stipulations under which those rights were conceded to them, they necessarily reverted to the public; and it was as open to Parliament to legislate upon them as upon any other question. The political opponents of the Government represented the proposal for vesting the nomination of commissioners in the Legislature as a daring invasion of the prerogative of the Crown, and an insidious attempt of the minister to render himself all-powerful by adding the patronage of India to that already in his possession. The bill was, however, carried through the House of Commons; but, in consequence of the ferment it had excited, and the avowed opposition of his Majesty, it was thrown out in the House of Lords. This event proved fatal to the Coalition ministry. A new one was formed, with Mr. Pitt at its head; and Parliament being soon after dissolved, the new minister acquired a decisive majority in both Houses. When thus secure of Parliamentary support, Mr. Pitt brought forward his India Bill, which was successfully carried through all its stages. By this bill a Board of Control was erected, consisting of six members of the privy council, who were 'to check, superintend, and control all acts, operations, and concerns which in anywise relate to the civil or military government or revenues of the territories and possessions of the East India Company.' All communications to or from India, touching any of the above matters, were to be submitted to this Board; the directors being ordered to yield obedience to its commands, and to alter or amend all instructions sent to India as directed by it. A secret committee of three directors was formed, with which the Board of Control might transact any business it did not choose to submit to the court of directors. Persons returning from India were to be obliged, under very severe penalties, to declare the amount of their fortunes; and a tribunal was appointed for the trial of all individuals accused of misconduct in India, consisting of a judge from each of the Courts of King's Bench, Common Pleas, and Exchequer; 5 members of the House of Lords, and 7 members of the House of Commons; the last being chosen by lot at the commencement of each session. The superintendence of all commercial matters continued, as formerly, in the hands of the directors.

During the administration of Marquis Cornwallis, who succeeded Mr. Hastings, Tippoo Saib, the son of Hyder Ally, was stripped of nearly half his dominions; the Company's territorial revenue was, in consequence, greatly increased; at the same time that the permanent settlement was carried into effect in Bengal, and other important changes accomplished. Opinion has been long divided as to the influence of these changes. On the whole, however, we are inclined to think that they have been decidedly advantageous. Lord Cornwallis was, beyond all question, a sincere friend to the people of India, and laboured earn-

estly, if not always successfully, to promote their interests, which he well knew were identified with those of the British nation.

During the 3 years ending with 1793 the value of the Company's exports of British produce and manufactures fluctuated from 928,783*l.* to 1,031,262*l.* But this increase is wholly to be ascribed to the reduction of the duty on tea in 1784, and the vast increase that consequently took place in its consumption. [TEA.] Had the consumption of tea continued stationary, there appear no grounds for thinking that the Company's exports in 1793 would have been greater than in 1780, unless an increase had taken place in the quantity of military stores exported.

In 1793 the Company's charter was prolonged till March 1, 1814. In the Act for this purpose a species of provision was made for opening the trade to India to private individuals. All his Majesty's subjects residing in any part of his European dominions were allowed to export to India any article of the produce or manufacture of the British dominions, except military stores, ammunition, masts, spars, cordage, pitch, tar, and copper; and the Company's civil servants in India, and the free merchants resident there, were allowed to ship, on their own account and risk, all kinds of Indian goods, except calicoes, dimities, muslins, and other piece goods. But neither the merchants in England, nor the Company's servants or merchants in India, were allowed to export or import except in Company's ships. And in order to insure such conveyance, it was enacted that the Company should annually appropriate 3,000 tons of shipping for the use of private traders; it being stipulated that they were to pay in time of peace 5*l.* outwards, and 15*l.* homewards, for every ton occupied by them in the Company's ships; and that this freight might be raised in time of war with the approbation of the Board of Control.

It might have been, and indeed most probably was, foreseen that very few British merchants or manufacturers would be inclined to avail themselves of the privilege of sending out goods in Company's ships, or of engaging in a trade fettered on all sides by the jealousy of powerful monopolists, and where consequently their superior judgment and economy would have availed almost nothing. As far, therefore, as they were concerned, the relaxation was more apparent than real, and did not produce any useful results. (In a letter to the East India Company, dated March 21, 1812, Lord Melville says: 'It will not be denied that the facilities granted by that Act [the Act of 1793] have not been satisfactory, at least to the merchants either of this country or of India. They have been the source of constant dispute, and they have even entailed a heavy expense upon the Company, without affording to the public any adequate benefit from such a sacrifice.' *Papers published by East India Company*, 1813, p. 84.) It was, however, made use of to a considerable extent by private merchants in India, and also by the Company's servants returning from India, many of whom invested a part, and some the whole of their fortune in produce fit for the European markets.

The financial difficulties of the East India Company led to the revolution which took place in its government in 1784. But notwithstanding the superintendence of the Board of Control, its finances have continued nearly in the same unprosperous state as before. We have been favoured from time to time with the most dazzling accounts of revenue that was to be immediately derived from India; and numberless Acts of Parliament have been passed for the appropriation of surpluses that never had any existence except in the imagination of their framers. The proceedings that took place at the renewal of the charter in 1793 afford a striking example of this. Lord Cornwallis had then concluded the war with Tippoo Saib, which had stripped him of half his dominions; the perpetual settlement, from which so many benefits were expected to be derived, had been adopted in Bengal; and the Company's receipts had been increased, in consequence of accessions to their territory, and subsidies from native princes &c., to upwards of *eight* millions sterling a-year, which it was calculated would afford a future annual surplus, after every description of charge had been deducted, of 1,240,000*l.* Mr. Dundas (afterwards Lord Melville), then President of the Board of Control, availed himself of these favourable appearances to give the most flattering representation of the Company's affairs. There could, he said, be no question as to the permanent and regular increase of the Company's surplus revenue; he assured the House that the estimates had been framed with the greatest care; that the Company's possessions were in a state of prosperity till then unknown in India; that the abuses which had formerly insinuated themselves into some departments of the Government had been rooted out; and that the period was at length arrived when India was to pour her golden treasures into the lap of England! Parliament participated in these brilliant anticipations, and in the Act prolonging the charter it was enacted, 1. That 500,000*l.* a-year of the surplus revenue should be set aside for reducing the Company's debt in India to 2,000,000*l.*; 2. That 500,000*l.* a-year should be paid into the exchequer, to be appropriated for the public service as Parliament should think fit to order; 3. When the India debt should be reduced to 2,000,000*l.*, and the bond debt to 1,500,000*l.*, *one sixth* part of the surplus was to be applied to augment the dividends, and the other *five sixths* were to be paid into the Bank, in the name of the Commissioners of the National Debt, to be accumulated as a *guarantee fund*, until it amounted to 12,000,000*l.*; and when it reached that sum, the dividends upon it were to be applied to make up the dividends on the capital stock of the Company to 10 per cent., if at any time the funds appropriated to that purpose should prove deficient &c.

Not one of these anticipations was realised! Instead of being diminished, the Company's debts began immediately to increase. In 1795 they were authorised to add to the amount of their floating debt. In 1796 a new device to obtain money was fallen upon. Mr. Dundas represented that as all competition had been destroyed in consequence of the war, the Company's commerce had been greatly increased, and that their mercantile capital had become insufficient for the extent of their transactions. In consequence of this representation, leave was given to the Company to add *two millions* to their capital stock by creating 20,000 new shares; but as these shares sold at the rate of 173*l.* each, they produced 3,460,000*l.* In 1797 the Company issued additional bonds to the extent of 1,417,000*l.*; and notwithstanding all this, Mr. Dundas stated in the House of Commons, March 13, 1799, that there had been a deficit in the previous year of 1,319,000*l.*

During the administration of the Marquis Wellesley, which began in 1797–8 and terminated in 1805–6, the British empire in India was augmented by the conquest of Seringapatam and the whole territories of Tippoo Saib, the cession of large tracts by the Mahratta chiefs, the capture of

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Delhi, the ancient seat of the Mogul empire, and various other important acquisitions; so that the revenue, which had amounted to 8,059,000*l.* in 1797, was increased to 15,403,000*l.* in 1805. But the expenses of government, and the interest of the debt, increased in a still greater proportion than the revenue, having amounted in 1805 to 17,672,000*l.*, leaving a deficit of 2,269,000*l.* In the following year the revenue fell off nearly 1,000,000*l.*, while the expenses continued nearly the same; and there was, at an average, a continued excess of expenditure, including commercial charges, and a contraction of fresh debt, down to 1811–12.

Notwithstanding the vast additions made to their territories, the Company's commerce with them continued to be very inconsiderable. During the 5 years ending with 1811, the exports to India by the Company, exclusive of those made on account of individuals in their ships, were as under:—

Year	£	Year	£
1807	958,416	1810	1,010,815
1808	919,541	1811	1,033,816
1809	866,153		

The exports by the private trade, and the *privilege* trade, that is, the commanders and officers of the Company's ships, during the above-mentioned years, were about as large. During the 5 years ending with 1807–8 the annual average imports into India by British private traders, only amounted to 305,496*l.* (*Papers*, published by the East India Company in 1813, 4to. p. 56.)

The Company's exports included the value of the military stores sent from Great Britain to India. The ships employed in the trade to *India and China* during the same 5 years varied from 44 to 53, and their burden from 36,671 to 45,342 tons.

For some years before the termination of the Company's charter in 1813, the conviction had been gaining ground among all classes that the trade to the East was capable of being very greatly extended; and that it was solely owing to the want of enterprise and competition, occasioned by its being subjected to a monopoly, that it was confined within such narrow limits. Very great efforts were, consequently, made by the manufacturing and commercial interests to have the monopoly set aside, and the trade to the East thrown open. The Company vigorously resisted these pretensions, and had interest enough to procure a prolongation of the privilege of carrying on an exclusive trade to China to April 10, 1831, with 3 years' notice; the Government of India being continued in their hands for the same period. Fortunately, however, the trade to India was opened, under certain conditions, to the public. The principal of these conditions were, that private individuals should trade, directly only, with the presidencies of Calcutta, Madras, and Bombay, and the port of Penang; that the vessels fitted out by them should not be under 350 tons burden; and that they should abstain, unless permitted by the Company or the Board of Control, from engaging in the carrying trade of India, or in the trade between India and China. And yet, despite these disadvantages, such is the energy of individual enterprise as compared with monopoly, that the private traders gained an almost immediate ascendancy over the East India Company, and in a very short time more than *trebled* our trade with India!

In the Report of the committee of the House of Lords on the foreign trade of the country, printed in May 1821, it is stated that 'the greatly increased consumption of British goods in the East since the commencement of the free trade cannot be accounted for by the demand of European residents, the number of whom does not materially vary; and it appears to have been much the greatest in articles calculated for the general use of the natives. That of the cotton manufactures of this country alone is stated, since the first opening of the trade, to have been augmented from *four* to *five*-fold [it is now (1868) augmented many hundreds of times]. The value of the merchandise exported from Great Britain to India, which amounted in 1814 to 870,177*l.*, amounted in 1819 to 3,052,741*l.* [this is the amount of the Company's exports only, and the sum is not quite accurate. *Post*]; and although the market appears then to have been so far overstocked as to occasion a diminution of nearly ⅓ in the exports of the following year, that diminution appears to have taken place more in the articles intended for the consumption of Europeans than of natives; and the trade is now stated to the committee by the best informed persons to be reviving. When the amount of population, and the extent of the country over which the consumption of these articles is spread, are considered, it is obvious that any facility which can, consistently with the political interests and security of the Company's dominions, be given to the private trader for the distribution of his exports, by increasing the number of ports at which he may have the option of touching in pursuit of a market, cannot fail to promote a more ready and extensive demand.'

Besides the restraints imposed by the Act of 1813 on the proceedings of the free traders (these restraints were a good deal modified by the 3 Geo. IV. c. 80, passed in pursuance of the recommendation of the committee quoted above), they frequently experienced very great loss and inconvenience from the commercial speculations of the East India Company. The latter had commercial residents, with large establishments of servants, some of them intended for coercive purposes, stationed in all the considerable towns; and the Marquis Wellesley has stated 'that the intimation of a wish from the Company's resident is always received as a command by the native manufacturers and producers.' The truth is, that it was not in the nature of things that the Company's purchases could be fairly made: the natives could not deal with their servants as they would have dealt with private individuals; and it would be absurd to suppose that agents authorised to buy on account of Government, and to draw on the public treasury for the means of payment, should generally evince the prudence and discretion of individuals directly responsible in their own private fortunes for their transactions. The interference of such persons would, under any circumstances, have rendered the East India trade peculiarly hazardous. But their influence in this respect was materially aggravated by the irregularity of their appearances. No individual, not belonging to the court of directors, could foresee whether the Company's agents would be in the market at all; or, if there, to what extent they would either purchase or sell. So capricious were their proceedings, that in some years they laid out 700,000*l.* on indigo, while in others they did not lay out a single shilling; and so with other things. A fluctuating demand of this sort necessarily occasioned great and sudden variations of price, and was injurious alike to the producers and the private merchants.

And besides being injurious to the private trader, and to the public generally, both in India and England, this trade was of no advantage to the East India Company. How, indeed, could

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it be otherwise? A Company that maintained armies and retailed tea, that carried a sword in one hand and a ledger in the other, was a contradiction; and, had she traded with success, would have been a prodigy. It was impossible for her to pay that attention to details which is indispensable to the carrying on of commerce with advantage. She may have gained something by the monopoly of the tea trade, though even that is questionable; but it is admitted on all hands that she lost heavily by her trade to India. When, therefore, the question as to the renewal of the charter came to be discussed in 1832 and 1833, the Company had no reasonable objection to urge against their being deprived of the privilege of trading. And the Act 3 & 4 Wm. IV. c. 85, for continuing the charter till 1854, *terminated the Company's commercial character*, by enacting that the Company's trade to China was to cease on April 22, 1834, and that the Company was, as soon as possible after that date, to dispose of their stocks on hand and close their commercial business; and the wonderful increase that has since taken place in the trade with the East is the best proof of the sagacity and soundness of the opinions of those by whose efforts the incubus of monopoly was removed.

From this period down to 1858, when the Company was, as a governing body, finally abolished, its functions were wholly political, and the directors were, in truth, little more than a council to assist and advise the President of the Board of Control. During the period now alluded to (from 1834 to 1858) some most important events have taken place in India. The British Empire has been increased by the acquisition in 1845 of the territory of Scinde, at the mouths of the Indus; in 1849 of the extensive and fertile country of the Punjab (Five Rivers), in N.W. India, between the Sutlej and the Indus; and in 1852 of Pegu and Martaban in Burmah. Being occupied by comparatively brave and hardy races, the subjugation of Scinde and the Punjab was not effected without much difficulty, and after the occurrence of several well-fought battles.

The period referred to is also distinguished by the ill-advised invasion of Affghanistan in 1839. This unprovoked aggression led to the greatest reverse that has ever happened to the English in India. But the disastrous retreat from Caubul having been avenged, and the *prestige* of our arms restored, we finally withdrew from the country in 1842. And it is to be hoped that we may never again, unless from the most urgent necessity, attempt to extend our empire in that quarter beyond its present limits.

A conviction had been for a lengthened period gaining ground, that the Company's intervention in the Government of India had become inexpedient, and that it should be directly administered by the Crown. In 1853 a step was taken in this direction by the Act 16 & 17 Vict. c. 95, which reduced the number of directors from 24 to 18, part of which were to be nominated by the Crown, and made other changes. It is not easy to say how long this modified system might have gone on, had it not been for the outbreak of the gigantic mutiny of 1857. It would be foreign to our object to introduce details with respect to the origin of this insurrection, its progress and suppression. These are known to all our readers. Here it is sufficient to mention that the incipient prejudice against the Company having been strengthened, though without much reason, by the disasters in India, advantage was taken of their occurrence to introduce a bill into Parliament for transferring its government from the Company to the Crown, which soon after (August 2, 1858) became the Act 21 & 22 Vict. c. 106. Thus has terminated, after a prolonged existence of about 258 years, the East India Company, the most celebrated joint-stock association of which history has preserved any account. (It still exists in name for some routine matters; but it is probable that this phantom, *magni nominis umbra*, will speedily disappear.) Its commercial had long been sunk in its military and political character. It had subjugated one of the most extensive empires in the world. And though its policy has been in many respects of a very questionable description, it is entitled to the high praise of having vigorously exerted itself to restrain abuses on the part of its servants, to protect the vast population within its dominion, and provide for their well-being.

The government of India is now vested, under the 21 & 22 Vict. c. 106, in a Secretary of State, assisted by a council of 15 members: 8 of the latter were nominated by her Majesty, and 7 by the East India Company. On vacancies taking place among the former, their successors are to be nominated by the Crown; and vacancies among the Company's nominees are to be filled up by election by the council. Members hold their situations during good behaviour, receive a salary of 1,200*l.* a-year, and a retiring pension of 500*l.* a-year. The majority of the council are to consist of persons who have either served or resided in India for 10 years. They are not allowed to sit in Parliament.

II. East Indies (State of Society in, growing Demand for English Goods, Trade, Colonisation, etc.).

1. *Distinction of Castes in India. Inaccuracy of the Representations as to the Inhabitants being unalterably attached to ancient Customs and Practices.*—We have taken occasion, in the preceding sketch of the history of the East India Company, repeatedly to notice the small extent of the trade carried on by its agency. It was contended, however, that this was to be ascribed, not to the deadening influence of monopoly, but to the peculiar state of the people of India. A notion has long been prevalent in this quarter of the world that the Hindoos are a race unsusceptible of change or improvement of any sort; that every man is brought up to the profession of his father, and can engage in none else; and that, owing to the simplicity and unalterableness of their habits, they never can be consumers, at least to any considerable extent, of foreign commodities. 'What is now in India has always been there, and is likely still to continue.' (Robertson's *Disquisition*, p. 202.) The Hindoos of this day are said to be the same as the Hindoos of the age of Alexander the Great. The description of them given by Arrian has been quoted as applying to their actual situation. It is affirmed that they have neither improved nor retrograded; and we are referred to India as to a country in which the institutions and manners that prevailed 3,000 years ago may still be found in their pristine purity! The President de Goguet lays it down distinctly, in his learned and invaluable work *On the Origin of Laws, Arts, and Sciences*, that in India 'every trade is confined to a particular caste, and can be exercised only by those whose parents professed it.' (*Origin of Laws &c.*, Eng. trans. vol. iii. p. 24.) Dr. Robertson says that '*the station of every Hindoo is unalterably fixed; his destiny is irrevocable; and the walk of life is marked out from which he must never deviate.*' (*Disquisition on India*, p. 199.) The same opinions are maintained by later authorities. Dr. Tennant says that 'the

whole Indian community is divided into 4 great classes; and each class is stationed between certain walls of separation, which are impassable by the purest virtue and most conspicuous merit.' (Quoted by Mr. Rickards, p. 6.) This unalterable destiny of individuals has been repeatedly assumed in the despatches and official papers put forth by the East India Company, and has been referred to on all occasions by them and their servants as a proof that the depressed and miserable condition of the natives is not owing to misgovernment, or to the weight of the burdens laid upon them; and that it is in vain to think of materially improving their condition, or of making them acquainted with new arts, or giving them new habits, so long as the institution of castes, and the prejudices to which it has given rise, preserve their ascendancy unimpaired.

But notwithstanding the universal currency which the opinions now referred to have obtained, and the high authority by which they are supported, they are, in all the most essential respects, entirely without foundation! The books and codes of the Hindoos themselves, and the minute and careful observations that have recently been made on Indian society, have shown that the influence ascribed to the institution of castes by the ancients, and by the more early modern travellers, has been prodigiously exaggerated. In the first part of his work on India, Mr. Rickards established, partly by references to the authoritative books of the Hindoos, and partly by his own observations, and those of Mr. Colebrooke, Dr. Heber, and other high authorities, that the vast majority of the Hindoo population may, and in fact do, engage in all sorts of employments. It has been further shown that there is nothing in the structure of Indian society to oppose any serious obstacle to the introduction of new arts, or the spread of improvement; and that the causes of the poverty and misery of the people must be sought for in other circumstances than the institution of castes, and the nature of Hindoo superstition.

The early division of the population into the 4 great classes of priests (Brahmins), soldiers (Cshatryas), husbandmen and artificers (Vaisyas), and slaves (Sudras), was maintained only for a very short period. The Hindoo traditions record that a partial intermixture of these classes took place at a very remote epoch; and the mixed brood thence arising were divided into a vast variety of new tribes, or castes, to whom, speaking generally, no employments are forbidden.

'The employments,' says Mr. Rickards, 'allowed to these mixed and impure castes may be said to be every description of handicraft and occupation for which the wants of human society have created a demand. Though many seem to take their names from their ordinary trade or profession, and some have duties assigned them too low and disgusting for any others to perform, but from the direst necessity, yet no employment, generally speaking, is forbidden to the mixed and impure tribes, excepting three of the prescribed duties of the sacerdotal class; viz. teaching the *Vedas*, officiating at a sacrifice, and receiving presents from a pure-handed giver; which three are exclusively *Brahminical*.'

Mr. Colebrooke, who is acknowledged on all hands to be one of the very highest authorities as to all that respects Indian affairs, has a paper in the fifth volume of the *Asiatic Researches*, on the subject of castes. In this paper Mr. Colebrooke states that the *Jatimala*, a Hindoo work, enumerates *forty-two* mixed classes springing from the intercourse of a man of inferior class with a woman of a superior class, or in the *inverse* order of the classes. Now, if we add to these the number that must have sprung from intermixture in the *direct* order of the classes, and the hosts further arising from the continued intermixture of the mixed tribes amongst themselves, we shall not certainly be disposed to dissent from Mr. Colebrooke's conclusion, 'that the subdivisions of these classes have further multiplied distinctions to an *endless variety*.'

Mr. Colebrooke has given the following distinct and accurate account of the professions and employments of the several classes at the present day. It forms a curious commentary on the 'irrevocable destiny' of Dr. Robertson, and the 'impassable walls' of Dr. Tennant.

'A *Brahman*, unable to subsist by his duties, may live by the duty of a soldier: if he cannot get a subsistence by either of these employments, he may apply to tillage and attendance on cattle, or gain a competence by traffic, avoiding certain commodities. A *Cshatrya* in distress may subsist by all these means; but he must not have recourse to the highest functions. In seasons of distress a further latitude is given. The practice of medicine and other learned professions, painting and other arts, work for wages, menial service, alms, and usury, are among the modes of subsistence allowed both to the *Brahman* and *Cshatrya*. A *Vaisya*, unable to subsist by his own duties, may descend to the servile acts of a *Sudra*; and a *Sudra*, not finding employment by waiting on men of the higher classes, may subsist by handicrafts; principally following those mechanical operations, as joinery and masonry, and practical arts, as painting and writing, by which he may serve men of superior classes; and although a man of a lower class is in general restricted from the acts of a higher class, the *Sudra* is expressly permitted to become a trader or a husbandman.

'Besides the particular occupation assigned to each of the mixed classes, they have the alternative of following the profession which regularly belongs to the class from which they derive their origin on the mother's side: those at least have such an option who are born in the direct order of the classes. *The mixed classes are also permitted to subsist by any of the duties of a Sudra; that is, by menial service, by handicrafts, by commerce, and agriculture.* Hence it appears THAT ALMOST EVERY OCCUPATION, THOUGH REGULARLY IT BE THE PROFESSION OF A PARTICULAR CLASS, IS OPEN TO MOST OTHER CLASSES; and that the limitations, far from being rigorous, do in fact reserve only the peculiar profession of the *Brahman*, which consists in teaching the *Veda*, and officiating at religious ceremonies.'

'We have thus,' says Mr. Rickards, by whom this passage has been quoted, 'the highest existing authority for rejecting the doctrine of the whole Hindoo community "being divided into four castes," and of their peculiar prerogatives being guarded inviolate by "impassable walls of separation." It is also clear that the intermixture of castes had taken place, to an indefinite extent, at the time when the *Dherma Sastra* was composed, which Sir William Jones computes to be about 880 years B.C.; for the mixed classes are specified in this work, and it also refers in many places to past times, and to events which a course of time only could have brought about. The origin of the intermixture is therefore lost in the remotest and obscurest antiquity; and having been carried on through a long course of ages, a heterogeneous mass is everywhere presented to us, in these latter times, without a single example, in any particular state, or kingdom, or separate portion

of the Hindoo community, of that quadruple division of castes which has been so confidently insisted upon.

'I have myself seen carpenters of five or six different castes, and as many different bricklayers, employed on the same building. The same diversity of castes may be observed among the craftsmen in dockyards, and all other great works; and those who have resided for any time in the principal commercial cities of India must be sensible that every increasing demand for labour, in all its different branches and varieties of old and new arts, has been speedily and effectually supplied, in spite of the tremendous institution of castes, which we are taught to believe forms so impassable an obstruction to the advancement of Indian industry.'

2. *Growing Demand for English Goods.*—It is difficult to suppose that the directors of the East India Company should not have been early aware of the fallacy of the opinions as to the fixedness of Indian habits. So far, however, as we know, they did not, in this instance, evince any acquaintance with the discoveries of their servants. On the contrary, in all the discussions that took place with respect to the opening of the trade in 1814, the Company invariably contended that no increase of trade to India could be expected. In a letter of the chairman and deputy chairman to the Right Honourable Robert Dundas, dated January 13, 1809, it is stated that the small demand for foreign commodities in India 'results from the nature of the Indian people, their climate and their usages. The articles of first necessity their own country furnishes more abundantly and more cheaply than it is possible for Europe to supply them. The labour of the great body of the common people only enables them to subsist on rice, and to wear a slight covering of cotton cloth: they, therefore, *can purchase none of the superfluities we offer them.* The comparatively few in better circumstances, restricted, like the rest, by numerous religious and civil customs, of which all are remarkably tenacious, find few of our commodities to their taste; and their climate, so dissimilar to ours, renders many of them unsuitable to their use; so that a commerce between them and us cannot proceed far upon the principle of supplying mutual wants. Hence, except woollens, in a very limited degree, for mantles in the cold season, and metals, on a scale also very limited, to be worked up by their own artisans for the few utensils they need, hardly any of our staple commodities find a vent among the Indians; the other exports which Europe sends to India being chiefly consumed by the European population there, and some of the descendants of the early Portuguese settlers; all of whom, taken collectively, form but a small body in view to any question of national commerce.' (*Papers published by authority of the East India Company*, 1813, p. 21.)

The volume from which we have made this extract contains a variety of passages to the same effect. So confident, indeed, were the Company that they had carried the trade to India to the utmost extent of which it was capable, that it was expressly stated, in resolutions passed in a general court held at the India House on January 26, 1813, 'that no large or sudden addition can be made to the amount of British exports to India or China;' that the Company had suffered a loss in attempting to extend this branch of their trade; that the warehouses at home were glutted with Indian commodities for which there was no demand; and that to open the outports to the trade would be no other than 'a ruinous transfer of it into new channels, to the destruction of immense and costly establishments, and the beggary of many thousands of industrious individuals.'

Luckily, however, these representations were unable to prevent the opening of the trade, and the result has sufficiently demonstrated their fallacy. The enterprise and exertion of individuals have vastly increased our exports to India—to that very country which the Company had so confidently pronounced was, and would necessarily continue to be, incapable of affording any additional outlet for our peculiar products!

The commercial accounts for 1812 and 1813 were unfortunately destroyed by the fire at the Custom-house. The trade to India was opened on April 10, 1814; and in that year the declared or real value of the products exported from Great Britain to the countries eastward of the Cape of Good Hope, excepting China, by the East India Company, was 826,558*l.*, and by the private traders 1,048,132*l.* In 1817 the Company's exports had declined to 638,382*l.*, while those of the private traders had increased to 2,750,333*l.*; and in 1828 the former had sunk to only 488,601*l.*, while the latter had increased to 3,979,072*l.*, being more than double the total exports to India, as well by the Company as by private traders, in 1814! Since then the market has continued progressively to increase. At an average of the 6 years ending with 1849, the declared value of the exports of British goods amounted to no less than 6,313,668*l.* a-year; the declared value of those exported in 1849 being 6,803,274*l.* In 1854, previously to the late outbreak, the exports to India had reached the sum of 10,025,969*l.*

The Company stated, and no doubt truly, that they lost a very large sum in attempting to extend the demand for British woollens in India and China, which, notwithstanding, continues very limited. But in their efforts to force the sale of woollens, they seem to have entirely forgotten that we had attained to great excellency in the manufacture of cotton stuffs, the article principally made use of as clothing in Hindostan; and that, notwithstanding the cheapness of labour in India, the advantage we derived from our superior machinery might enable us to offer cotton stuffs to the natives at a lower price than they could afford to manufacture them for. No sooner, however, had the trade been opened to private adventurers than this channel of enterprise was explored; and the result has been, that, instead of bringing cottons from India to England, the former has become *one of the best and most extensive markets for the cottons of the latter.* We question, indeed, whether, in the whole history of commerce, another equally striking example can be produced of the powerful influence of competition in opening new and almost boundless fields for the successful prosecution of commercial enterprise.

In 1814, the first year of the free trade to India, the exports of cotton amounted to 817,000 yards, of which only about 170,000 yards, valued at 17,778*l.*, were exported by the Company! The progress of the trade has since been such, that in 1866 we exported to India 544,699,474 yards cotton stuffs, and 19,849,406 lbs. twist and yarn, ex. hosiery, lace, and small wares, the aggregate declared value of the whole being 12,773,302*l.*

The demand for several other articles of British manufactures has increased with great rapidity. Notwithstanding all that has been said as to the immutability of Hindoo habits, the fact is not to be denied that a taste for European products and customs is rapidly spreading itself over India; and the fair presumption is, that it will continue to gain ground according as education is more

diffused, and as the natives become better acquainted with our language, arts, and habits. The authenticity of Dr. Heber's statements cannot be called in question; and there are many passages in different parts of his Journal that might be quoted in corroboration of what has now been stated. Our limits, however, will only permit of our making a very few extracts.

'Nor have the religious prejudices and the unchangeableness of the Hindoo habits been less exaggerated. Some of the best informed of their nation, with whom I have conversed, assure me that half their most remarkable customs of civil and domestic life are borrowed from their Mohammedan conquerors; and *at present there is an obvious and increasing disposition to imitate the English in everything*, which has already led to very remarkable changes, and will, probably, to still more important. The wealthy natives now all affect to have their houses decorated with Corinthian pillars, and filled with English furniture; they drive the best horses and the most dashing carriages in Calcutta: many of them speak English fluently, and are tolerably read in English literature; and the children of one of our friends I saw one day dressed in jackets and trowsers, with round hats, shoes, and stockings. In the Bengalee newspapers, of which there are two or three, politics are canvassed with a bias, as I am told, inclined to Whiggism; and one of their leading men gave a great dinner, not long since, in honour of the Spanish revolution: among the lower orders the same feeling shows itself more beneficially in a growing neglect of caste.' (Vol. ii. p. 306.)

'To say that the Hindoos or Mussulmans are deficient in any essential feature of a civilised people is an assertion which I can scarcely suppose to be made by any who have lived with them: their manners are at least as pleasing and courteous as those in the corresponding stations of life among ourselves; their houses are larger, and, according to their wants and climate, to the full as convenient as ours; their architecture is at least as elegant; nor is it true that in the mechanic arts they are inferior to the general run of European nations. Where they fall short of us (which is chiefly in agricultural implements, and the mechanics of common life), they are not, so far as I have understood of Italy and the south of France, surpassed in any degree by the people of those countries. Their goldsmiths and weavers produce as beautiful fabrics as our own; and it is so far from true that they are obstinately wedded to their old patterns, that they show an anxiety to imitate our models, and do imitate them very successfully. The ships built by native artists at Bombay are notoriously as good as any which sail from London or Liverpool. The carriages and gigs which they supply at Calcutta are as handsome, though not as durable, as those of Long Acre. In the little town of Monghyr, 300 miles from Calcutta, I had pistols, double-barrelled guns, and different pieces of cabinet-work brought down to my boat for sale, which in outward form (for I know no further) nobody but perhaps Mr. ——— could detect to be of Hindoo origin; and at Delhi, in the shop of a wealthy native jeweller, I found brooches, ear-rings, snuff-boxes &c. of the latest models (so far as I am a judge), and ornamented with French devices and mottoes.' (Vol. ii. p. 382.)

As Bishop Heber penetrated into the interior of India, he found the same taste as in Calcutta, for European articles and for luxuries, prevalent everywhere among the natives. Of Benares he writes as follows:—

'But what surprised me still more, as I penetrated farther into it, were the large, lofty, and handsome dwelling-houses, the beauty and apparent richness of the goods exposed in the bazaars, and the evident hum of business. Benares is in fact a very industrious and wealthy as well as a very holy city. It is the great mart where the shawls of the north, the diamonds of the south, and the muslins of Dacca and the eastern provinces centre; and it has very considerable silk, cotton, and fine woollen manufactories of its own; while English hardware, swords, shields, and spears, from Lucknow and Monghyr, and *those European luxuries and elegancies which are daily becoming more popular in India*, circulate from hence through Bundelcund, Gorruckpoor, Nepaul, and other tracts which are removed from the main artery of the Ganges.' (Vol. i. p. 289.)

Proceeding still farther into the interior of the country, and when at Nusseerabad, distant 1,051 miles from Calcutta, the Bishop continues his Journal in the same strain; viz.:—

'European articles are, at Nusseerabad [near Ajmeer, in the heart of the Rajpoot country], as might be expected, very dear; the shops are kept by a Greek and two Parsees from Bombay: they had in their list all the usual items of a Calcutta warehouse. English cotton cloths, both white and printed, are to be met with commonly in wear among the people of the country, and may, I learned to my surprise, be bought best and cheapest, as well as all kinds of hardware, crockery, writing-desks &c., at Pallee, a large town and celebrated mart in Marwar, on the edge of the desert, several days' journey west of Joudpoor, where, till very lately, no European was known to have penetrated.' (Vol. ii. p. 36.)

As to the character of the Hindoos, their capacity, and even anxious desire, for improvement, the Bishop's testimony is equally clear and decided; and as this is a point of pre-eminent importance, the reader's attention is requested to the following statements:—

'In the schools which have been lately established in this part of the empire, of which there are at present 9 established by the Church Missionary, and 11 by the Christian Knowledge Societies, some very unexpected facts have occurred. As all direct attempts to convert the children are disclaimed, the parents send them without scruple. But it is no less strange than true, that there is no objection made to the use of the Old and New Testament as a class-book; that so long as the teachers do not urge them to eat what will make them lose their caste, or to be baptised, or to curse their country's gods, they readily consent to everything else; and not only Mussulmans, but Brahmins, stand by with perfect coolness, and listen sometimes with apparent interest and pleasure, while the scholars, by the road side, are reading the stories of the creation and of Jesus Christ.' (Vol. ii. p. 290.)

'Hearing all I had heard of the prejudices of the Hindoos and Mussulmans, I certainly did not at all expect to find that the common people would, not only without objection, but with the greatest thankfulness, send their children to schools on Bell's system; and they seem to be fully sensible of the advantages conferred by writing, arithmetic, and above all by a knowledge of English. There are now in Calcutta, and the surrounding villages, 20 boys' schools, containing 60 to 120 each; and 23 girls', each of 25 or 30.' (Vol. ii. p. 300.)

'In the same holy city [Benares] I visited another college, founded lately by a wealthy Hindoo banker, and intrusted by him to the management of the Church Missionary Society,

in which, besides a grammatical knowledge of the Hindoostanee language, as well as Persian and Arabic, the senior boys could pass a good examination in English grammar, in Hume's History of England, Joyce's Scientific Dialogues, the use of the globes, and the principal facts and moral precepts of the Gospel; most of them writing beautifully in the Persian, and very tolerably in the English character, and excelling most boys I have met with in the accuracy and readiness of their arithmetic.' (Vol. ii. p. 388.)

'The different nations which I have seen in India (for it is a great mistake to suppose that all India is peopled by a single race, or that there is not as great a disparity between the inhabitants of Guzerat, Bengal, the Dooab, and the Deccan, both in language, manners, and physiognomy, as between any four nations in Europe) have, of course, in a greater or less degree, the vices which must be expected to attend on arbitrary government, a demoralising and absurd religion, and (in all the independent states, and in some of the districts which are partially subject to the British) a laxity of law, and an almost universal prevalence of intestine feuds and habits of plunder. The general character, however, has much which is extremely pleasing to me: they are brave, courteous, intelligent, and most eager after knowledge and improvement, with a remarkable talent for the sciences of geometry, astronomy &c., as well as for the arts of painting and sculpture. In all these points they have had great difficulties to struggle with, both from the want of models, instruments, and elementary instruction; the indisposition, or rather the horror entertained, till lately, by many among their European masters, for giving them instruction of any kind; and now from the real difficulty which exists of translating works of science into languages which have no corresponding terms.' (Vol. ii. p. 409.)

Even if our space permitted, it would be unnecessary to add to these extracts. The facts and circumstances now mentioned must, we think, satisfy every one that there is nothing in the nature of Indian society, in the institution of castes as at present existing, or in the habits and customs of the natives, to hinder them from advancing in the career of civilisation, commerce, and wealth. 'It may safely be asserted,' says Mr. Hamilton, 'that with so vast an extent of fertile soil, peopled by so many millions of tractable and industrious inhabitants, Hindostan is capable of supplying the whole world with any species of tropical merchandise; the production, in fact, being only limited by the demand.'

3. *Trade with India.*—We had occasion to animadvert, in former editions of this work, on the difficulties under which the trade with India then laboured in consequence of the duties on sugar, rum, and other Indian products being very much higher than those laid on the same articles when imported from the colonies in the West Indies. It is needless, however, to enlarge on the manifest inexpediency of such policy, or to enter into any lengthened arguments to prove that Governments are bound to treat all who are subject to their authority with the same equal and impartial justice. The discriminating duties now referred to have been all abolished, and the products of India and of our other dependencies come into the home market on the same equal terms. The beneficial influence of this wise and liberal policy has been strikingly evinced in the increased imports of sugar, cotton, indigo, rice, wool &c., from India. These imports have been so very great, that despite the vast increase in the shipments of cotton stuffs and yarn, iron, machinery, woollens, and other articles of British produce for India, the value of the imports from has greatly exceeded the value of the exports to that continent; and hence the heavy drain of bullion to the East. This drain, no doubt, has always, or almost always, existed; but the late extraordinary excess of the imports over the exports has proportionally increased its magnitude.

Indigo grows luxuriantly from the Equator to the 30th degree of lat.; but in India the best is produced in Bengal and Bahar, between lat. 23° and 27° N., and long. 84° and 90° E.: everywhere else the product is inferior. The annual produce of all the Bengal provinces may be estimated at about 60,000,000 lbs., produced on about 1,250,000 acres of cultivated land; the planters, at an average, farming about 2,500 acres each. The prime cost of the article to the planters has been estimated at 1,700,000*l.*; the gross profit on which, including risk and charges to the port of exportation, amounts to 40 per cent. The export by sea of indigo from British India has, however, fallen in value from 2,093,474*l.* in 1849 to 1,860,141*l.* in 1865. The production of silk in India is confined to Bengal, and the produce, though large, is of inferior quality.

Opium has been, for many years past, and still is, an article of great and rapidly increasing export to China, the Malay Islands, and elsewhere. The exports, chiefly to China, were valued in 1866 at 11,122,746*l.* This vast importation into China not being balanced by any corresponding exportation of ordinary merchandise is the cause of the large exports of bullion from it to India. The poppy may be said to take the place in Indian agriculture that the vine and olive occupy in that of Southern Europe. Its growth within the British territories has been confined chiefly to Bahar, the Benares districts, and the province Malwah, where it is extensively cultivated, and yields a large revenue to Government.

The principal export of cotton was formerly to China; but the export to Great Britain is now become very considerable, having amounted to 84,101,961 lbs. in 1848, and to no fewer than 614,578,384 lbs. in 1866. This importation amounts to nearly one half in quantity, and well nigh a third in value, of our whole annual consumption of cotton wool!

Notwithstanding the vast, and all but unlimited, capacities of British India for the production of sugar, its total export in 1838 amounted to little more than two-thirds of the exports of sugar from the Mauritius! This miserable result was wholly, or almost wholly, ascribable to the inferior quality of East Indian sugars, owing to the very rude and imperfect methods in which they were prepared. No doubt it was partly, also, ascribable to the circumstance of East Indian sugars having been burdened, previously to 1836, with a duty of 8*s.* per cwt. over and above the duty charged on West Indian sugars. But in the course of that year Bengal sugars were put on the same footing, in respect of duties, as those of the West Indian colonies; and of late years a great improvement has been effected in the manufacture of East Indian sugars, the best of which are now about equal to the best of those from Jamaica and Demerara. In 1866 the imports from the British East Indies amounted to 842,760 cwts.

The abolition of the discriminating duty, in favour of Bengal sugars, being founded on reason and equity, it has since been extended to all parts of British India, and to Ceylon. Nothing, indeed, as already observed, could be more unjust and inconsistent with sound principle than to impose

higher duties on the products of one portion or dependency of the empire than on those of another.

The corn of India, both rice and wheat, is inferior to that of most other countries, for the same reason that its cotton and sugar are inferior, both being the produce of a rude husbandry and rude preparation. Rice is scalded instead of being kiln-dried; and wheat is never dried at all, except in the sun. It was supposed that the latter might be largely imported under a free corn trade into England; but it does not appear that there are any real grounds for such an opinion. Indian wheat is, speaking generally, very inferior to British wheat; and it could not be imported, in ordinary years, at less than from 40*s.* to 44*s.* per quarter. Its price, free on board at Calcutta, may be taken at 16*s.* or 17*s.* per quarter; to which if we add 16*s.* or 18*s.* for freight to England, and 7*s.* or 9*s.* for profits and landing charges here, it is abundantly plain that, except in high-priced years, it would not answer to import Indian corn. The value of the rice exported by sea from British India in 1865 was 5,573,537*l.*, while that of wheat was but 110,265*l.*

The exports of wool, principally obtained from Bombay and the north-west provinces, have increased with extraordinary rapidity. The imports of Indian wool into England in 1833, when the trade began, were so inconsiderable as to amount to only 3,721 lbs., whereas in 1851 they had increased to 4,529,520 lbs., and in 1866 to 25,695,624 lbs.

Previously to the discovery of nitrate of soda in South America, Bengal and Bahar had a monopoly of the trade in saltpetre; and, contrary to what might have been anticipated, the exports from the latter do not appear to have been much affected by that discovery. Dyes, shell-lac, linseed, safflower, sal-ammoniac, castor oil, coffee from Malabar, tea from Assam &c., tin, antimony, catechu, and pearl sago are other exports worthy of mention, and which owe their importance as such principally to the commercial enterprise and talent of Europeans. (These articles are, however, referred to under their several heads.)

The trade with India has been enormously developed of late years, partly in consequence of the greater attention which has been given to its varied products, of the enterprise which has introduced British capital into the peninsula, both for the construction of railways and for the cultivation of several important articles, and of the great demand which has arisen for Indian cotton, owing to the cessation of American supplies. The discovery of coal in very large quantities will no doubt hereafter stimulate the adoption of artificial fuel in that country for many kinds of industrial enterprise. The following table will exhibit briefly the growth of the trade with India:—

Statement showing the Value of the General Imports into the United Kingdom from, and Exports thence to, British India from 1856 *to* 1866.

Year	Imports	Exports
	£	£
1856	17,263,000	11,025,000
1857	18,650,000	12,192,000
1858	14,989,000	17,291,000
1859	15,245,000	20,783,000
1860	15,106,000	17,634,000
1861	21,969,000	17,033,000
1862	34,153,551	15,546,496
1863	48,434,640	20,817,409
1864	52,295,599	20,757,867
1865	37,395,452	18,833,191
1866	36,901,997	20,671,319

Total Number and Tonnage of Foreign and Native Vessels engaged in the Foreign and Coasting Trades, Entered and Cleared at Ports in British India, in each of the Years ended April 30, 1863, 1864, 1865, *and* 1866.

Years ended April 30	Entered		Cleared		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons
1863	21,387	2,788,958	20,114	2,823,947	41,501	5,612,905
1864	25,748	3,509,979	24,126	3,341,273	49,874	6,851,252
1865	26,823	3,913,510	26,020	4,007,607	52,843	7,920,917
1866	24,870	3,695,364	23,531	3,926,020	48,401	7,621,384

Account of the Quantities and Declared Values of the Principal Articles, the Produce of the United Kingdom, Exported to India (ex Singapore and Ceylon) in each of the 3 *Years ending with* 1866.

Principal and other Articles		Quantities			Declared Real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Apparel and haberdashery	value	—	—	—	248,824	233,609	249,783
Arms and ammunition:							
Firearms (steel)	no.	11,154	15,373	15,959	18,430	16,961	18,292
Gunpowder	lbs.	115,832	168,615	360,066	7,639	10,746	19,609
Beer and ale	bar.	165,430	190,076	192,470	486,155	550,789	535,438
Books printed	cwts.	3,360	2,573	2,932	52,774	45,843	44,040
Carriages	no.	1,162	1,518	617	117,751	137,255	84,984
Coals, culm, and cinders	tons	233,778	241,926	308,805	155,265	141,956	181,080
Copper, wrought and unwrought	cwts.	316,373	188,685	197,165	1,547,153	845,897	787,968
Cotton yarn	lbs.	16,337,862	13,602,960	19,849,406	2,190,924	1,487,549	2,166,107
Cottons, entered by the yard	yards	459,256,572	503,780,170	515,401,092	10,279,078	9,809,925	10,628,116
at value	value	—	—	—	96,294	84,955	99,066
Drugs and chemical products	,,	—	—	—	45,938	58,634	63,948
Earthenware and porcelain	,,	—	—	—	64,431	73,992	67,008
Glass manufactures	,,	—	—	—	160,456	161,855	137,902
Hardwares and cutlery, unenumerated	cwts.	51,315	59,397	55,552	218,558	226,153	150,970
Iron, wrought and unwrought	tons	130,077	192,079	225,960	1,415,500	1,961,804	2,377,974
Lead and shot	,,	1,584	1,205	1,379	36,697	30,026	35,904
Leather, wrought and unwrought	value	—	—	—	38,096	37,128	28,524
saddlery and harness	,,	—	—	—	46,681	47,099	22,416
Linens, entered by the yard	yards	4,119,535	2,610,172	2,055,495	186,877	111,699	89,015
Machinery; steam engines	value	—	—	—	213,995	277,155	491,650
all other sorts	,,	—	—	—	286,765	315,364	195,696
Paper, of all sorts (including paper hangings)	cwts.	26,830	25,867	26,019	98,015	88,209	86,438
Painters' colours (not otherwise described)	value	—	—	—	46,806	35,767	42,540
Provisions and tobacco	,,	—	—	—	43,282	47,165	52,481
Provisions (not otherwise described)	,,	—	—	—	74,754	94,601	97,672
Salt	tons	163,106	117,807	153,954	80,958	58,552	79,954
Stationery, other than paper	value	—	—	—	28,263	26,850	27,753
Telegraphic wire &c.	,,	—	—	—	32,671	12,206	56,858
Tin plates	,,	—	—	—	10,766	12,774	15,798
Umbrellas and parasols	,,	—	—	—	44,821	44,675	44,715
Woollens, entered by the yard	yards	7,245,859	4,111,580	5,818,993	803,068	480,987	637,013
at value	value	—	—	—	21,707	21,399	23,197
Zinc, wrought and unwrought	cwts.	60,125	46,139	55,781	52,925	36,737	54,847
All other articles	value	—	—	—	669,650	653,443	869,840
Total	value	—	—	—	10,931,857	18,260,413	20,009,490

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Account of the Quantities and Computed Values of the Principal Articles Imported from India into the United Kingdom in each of the 3 Years ending with 1866.

Principal and other Articles		Quantities			Computed Real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Aloes	lbs.	64,135	107,952	23,226	3,113	5,725	1,547
Arrack	cwts.	31,289	59,192	101,997	22,334	42,201	65,995
Berries, Myrobalan	"	7,401	5,215	6,168	16,323	10,842	15,796
Borax	"	4,404	1,838	885	26,224	10,600	5,605
Cardamoms	lbs.	78,130	95,433	62,767	17,537	22,943	14,832
Cassia	"	896,385	1,656,907	641,156	14,130	21,979	8,348
Cloves	"	17,151,620	15,927,100	13,099,176	539,208	549,711	452,802
Coffee	cwts.	81,109	69,207	97,868	105,274	121,821	168,341
Coir, and rope, twine, and strands, not	"	5,905	13	—	1,251	5	—
Corn: Wheat	"	4,484,301	3,968,724	5,197,597	22,891,661	24,539,099	25,051,490
Cotton, raw	pieces	37,981	39,078	65,179	17,029	21,571	47,065
Cotton manufactures	tons	2,210	1,647	1,491	53,135	41,641	61,079
Drugs	cwts.	810	1,109	2,003	248	1,050	7,602
Dyes: Indigo	"	1,564	2,896	2,781	12,207	25,361	15,899
Galls	"	26,157	37,209	16,875	57,244	59,833	37,110
Ginger	"	1,650	1,760	275	13,808	12,195	2,113
Gums: Arabic	"	1,404	5,358	1,370	4,212	17,748	6,215
Assafœtida	"	12,043	11,380	10,297	27,849	21,506	61,921
Lac-dye	"	19,614	46,192	48,353	243,096	195,942	186,949
Shellac	"	23,705	15,270	25,066	85,785	15,944	26,184
Hemp, rough, or undressed	"	2,018,256	2,609,845	1,621,118	2,173,414	1,766,610	1,472,388
Jute	"	162,695	164,970	173,610	599,596	595,096	614,901
Hides, not tanned	lbs.	217,500	551,359	461,303	9,662	24,666	22,659
Tanned, tawed, curried, or in any way dressed	tons	1,226	1,522	1,762	31,294	40,273	51,337
Horns in strips, and pieces of horns	cwts.	62,001	50,974	54,635	1,890,956	1,697,275	1,707,510
Indigo							
Jute: See Hemp							
Madder root (including munjeet)	"	14,790	2,475	3,181	19,212	3,220	4,349
Nuts and kernels, unenumerated, for expressing oil therefrom	tons	841	235	113	14,024	3,296	1,514
Oil: Castor	cwts.	18,026	19,013	19,284	44,068	49,329	57,564
Cocoa-nut	"	149,052	56,253	9,526	291,072	153,739	23,903
Seal	tuns	688	130	78	31,992	5,168	2,539
Train or blubber	"	652	273	1	23,296	30,815	37
Oilcake	cwts.	7,719	9,996	11,524	24,998	28,325	32,436
Pepper	lbs.	551,921	718,133	851,055	6,055	11,807	13,926
Petroleum	tons	95	1,117	120	9,197	28,623	2,019
Rice, not in the husk	cwts.	3,667,969	1,707,237	2,276,960	1,723,034	1,061,898	1,358,367
Rough, or in the husk	qrs.	4,500	2,000	36,208	10,571	5,850	66,122
Safflower	cwts.	10,304	6,187	8,946	53,111	34,015	56,750
Saltpetre	"	307,710	249,697	314,110	499,637	308,982	320,003
Seeds: Linseed and Flax	qrs.	682,089	741,679	267,759	2,050,781	2,250,898	928,116
Mustard	cwts.	1,633	3,158	10,981	1,510	4,822	31,434
Poppy	qrs.	15,040	35,222	41,891	41,853	97,801	115,786
Rape	"	126,382	151,503	310,334	350,415	496,759	896,487
Sesamum	"	1,126	45	375	1,271	131	1,256
Unenumerated, for expressing oil therefrom	"	50,563	32,698	33,292	78,619	88,023	95,156
Senna	lbs.	395,504	693,910	881,621	15,145	17,649	19,294
Silk, raw	"	107,774	183,224	125,561	154,612	208,681	135,777
Waste	cwts.	3,922	6,722	5,366	46,272	161,457	90,988
Manufactures: Crapes, choppas, handannas, and Tussore cloths	pieces	66,941	74,219	36,738	48,123	53,584	26,138
Skins, goat, undressed	no.	107,982	104,849	114,869	4,274	4,774	4,723
Tanned or tawed	"	1,643,373	1,906,918	1,643,911	135,220	182,197	183,623
Sheep, tanned or tawed	"	1,220,941	1,370,546	1,189,122	49,391	51,396	56,672
Spirits: Rum	gallons	12,854	50	57	912	3	2
Sugar, unrefined	cwts.	711,126	419,414	342,760	817,242	411,592	289,178
Refined and candy	"	14,511	10,789	171	30,727	15,511	246
Tallow	"	1,569	2,165	1,527	5,148	4,407	5,331
Tea	lbs.	3,634,509	3,932,014	5,413,583	390,584	339,847	524,502
Teeth, elephants'	cwts.	2,620	2,058	1,515	82,519	65,915	56,855
Turmeric	tons	1,376	1,202	1,466	35,851	29,836	34,076
Wax, bees'	cwts.	1,273	1,847	2,019	12,149	16,908	17,735
Wood: Teak	loads	3,852	4,896	6,815	50,038	58,115	63,987
Wool, sheep and lambs'	lbs.	20,352,365	17,105,617	25,666,259	976,220	811,960	1,060,312
All other articles	value	—	—	—	260,812	208,112	204,574
Total	value	—	—	—	32,295,399	37,395,452	36,201,997

Exportation of the Precious Metals to India.—There is a vast portion of the earth's surface, including Turkey in Asia, Arabia, Persia, India, China, and other Eastern territories, into which bullion has been largely imported from the remotest ages. During the intercourse of the Phœnicians, Greeks, and Romans with the East, gold and silver, obtained from the mines of Spain and other European countries, always formed important articles of export to Arabia and India. The same notions of the mischievous influence of the exportation of these metals that have prevailed in modern times were also prevalent in antiquity, and various efforts were in consequence made to hinder its taking place. That such had been the practice in the earlier periods of Roman history is evident from the statement of Cicero ('Exportari aurum non oportere, cum sæpe antea Senatus, tum me consule gravissime judicavit:' *Oratio* pro L. Flacco, cap. 28), and the prohibition was repeatedly renewed, though with very little effect, by the Emperors. Tiberius complained to the Senate that the wealth (meaning gold and silver) of the state was irrecoverably consigned to foreign and hostile nations in exchange for luxuries and female ornaments. (Taciti *Annal.*, lib. iii., cap. 53.) Pliny computed the annual drain of cash to India only for these objects at 50,000,000 sesterces, or 400,000*l.* (*Hist. Nat.*, vi. 23); and to India, China, and Arabia at double that sum (Ibid., xii. 18.) The drain thus early commenced, though varying in intensity, has continued, with but little interruption, down to the present times. Since the establishment of the East India Company in 1600 gold and silver have usually been among the best and safest articles of export to the East; and despite the vast quantities of these metals, but more especially of silver, that have thus been poured into India, they appear of late years to be in greater request than ever in that and the adjacent countries. The supplies thrown upon their markets, like the water poured into the sieves of the Danaids, completely disappear, or are so absorbed that the demand for fresh supplies continues without any abatement.

Humboldt estimated that, of the entire produce of the American mines at the commencement of this century, amounting, as already seen, to 43,500,000 dols., no less than 25,500,000 were sent to Asia—17,500,000 by the Cape of Good Hope,

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4,000,000 by the Levant, and 4,000,000 through the Russian frontier. And though it is generally believed by later authorities that this estimate was beyond the mark, still there is no manner of doubt that the drain of bullion to the East was then, and for several years before and after, of the most formidable dimensions. Gradually, however, it began to diminish, partly in consequence of the decrease in the supplies of bullion from America subsequently to 1808, and partly, and we believe principally, from the great and sudden increase in the exports of cottons and other manufactured goods to India which followed the opening of the trade in 1813. Such, indeed, was the influence of these and other concurring causes, that in 1832 and 1833 the export of bullion from England to India had not merely ceased, but the tide had actually begun to set in the opposite direction. This abnormal state of things did not continue for any very lengthened period. For a few years there was no very decided movement of bullion either from Europe to the East, or from the East to Europe. But this approach to an equilibrium has wholly passed away. The drain of bullion from Europe to the East has again set in with renewed force, and is become deeper and broader than at any former period; and yet, despite their continued influx, there is no general rise of prices nor anything to show that India is becoming saturated with the precious metals, or even with silver. On the contrary, the supply appears to be as deficient as ever; and it is doubtful whether this apparently bottomless abyss be not of itself sufficient to swallow up the largest portion, if not the whole, of the late extraordinary additions to the supply of bullion.

Indian Railways and Telegraphs.

The following gives the statistics of Indian Railways and Telegraphs:—

Length of Railways open for Traffic, and the various Traffic Operations, in each Presidency or Province of British India, in each of the Years ended June 30, 1863, 1864, 1865, and 1866.

Presidencies or Provinces	Years ended June 30			
	1863	1864	1865	1866
Length of Line open for Traffic	Miles	Miles	Miles	Miles
Bengal	611	813	1,284	1,267
North-west Provinces	292	346		
Madras	322	527	630	690
Bombay	652	738	800	1,178
Scinde	114	114	114	114
Punjab	43	43	145	255
Total	1,234	2,581	2,973	3,492
Passengers Conveyed	No.	No.	No.	No.
Bengal	2,996,486	4,614,571	5,582,707	5,011,364
North-west Provinces	477,161	636,343		
Madras	1,021,258	1,639,197	1,995,680	1,156,451
Bombay	3,756,121	4,401,453	4,751,984	3,005,794
Scinde	126,080	Not rendered	112,047	293,062
Punjab	356,826	120,919	436,092	334,539
Total	9,202,944	11,051,683	12,876,510	10,120,210
Receipts from Passenger Traffic	£	£	£	£
Bengal	255,429	376,817	674,599	593,585
North-west Provinces	82,081	107,911		
Madras	111,823	149,697	166,467	189,095
Bombay	211,786	258,938	427,201	461,437
Scinde	13,196	84,588	16,366	6,691
Punjab	12,193	16,484	17,899	27,839
Total	686,508	974,370	1,302,432	1,278,580
Receipts from Goods Traffic	£	£	£	£
Bengal	370,802	552,518	888,419	1,462,823
North-west Provinces	125,988	177,329		
Madras	104,744	168,374	213,807	282,642
Bombay	378,259	415,718	639,520	1,469,286
Scinde	76,717	14,253	66,107	46,475
Punjab	522	682	7,381	62,450
Total	961,532	1,328,874	1,815,243	3,323,656
Total Receipts	£	£	£	£
Bengal	626,231	929,333	1,562,928	2,056,411
North-west Provinces	208,069	285,240		
Madras	220,567	298,036	380,274	476,667
Bombay	590,045	674,656	1,066,730	1,930,723
Scinde	89,913	98,811	82,493	53,166
Punjab	12,715	17,166	25,280	90,289
Total	1,648,040	2,303,244	3,117,675	4,607,256
Working Expenses	£	£	£	£
Bengal	523,384	817,298	735,511	919,087
North-west Provinces	111,486	157,460		
Madras	154,747	185,261	195,270	207,443
Bombay	285,176	378,060*	679,035	1,001,508
Scinde	70,919	92,154	76,986	43,085
Punjab	8,343	12,403	19,241	54,874
Total	954,055	1,372,636	1,708,043	2,225,995
Nett Receipts	£	£	£	£
Bengal	302,847	412,037	827,417	1,137,324
North-west Provinces	96,583	127,780		
Madras	65,820	139,775	185,004	269,224
Bombay	304,869	296,596*	387,695	929,215
Scinde	18,994	6,657	5,507	10,085
Punjab	4,372	4,763	6,039	35,595
Total	693,485	950,6088	1,409,682	2,381,241

* Exclusive of the working expenses of Bombay, Baroda, and Central India Railway, the returns for which have not been received.

Indian Telegraphs.—Length of lines open on April 30, 1866, 13,390 miles. Length of lines from Deesa to Hyderabad 245 miles; from Ferozepore to Loodiana 77 miles.

Scale of Charges for a Group of 20 Words.

	miles	R.	A.		miles	R.	A.
Not exceeding	100	0	8	Above 800 and not ex.	1,200	3	0
Above 100 and not ex.	200	1	0	" 1,200 "	1,600	4	0
200 "	400	1	8	" 1,600 "	2,000	5	0
400 "	800	2	0				

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In addition to a booking fee of 8 annas on each message, and so on, adding 1 rupee for every 400 miles or fraction of 400 miles. Half the rates for every 10 words, or fraction of 10 words, after first group.

Two rupees in addition to the above scale will be charged for every group of 20 words sent to or from any station in Ceylon, and a half rate, viz. 1 rupee, for every additional 10, or fraction of 10 words, in excess of 20.

Causes of the Drain of Bullion to India.—It is difficult to account for the long-continued and heavy drain of bullion to India. It would seem, however, to be principally owing to the following circumstances, viz.:—1. To the country having no mines of its own (this statement may not, perhaps, be strictly correct. It is affirmed that gold and silver have been produced in India; but if so, it is admitted on all hands that the production has been so inconsiderable as to be unworthy of notice); 2. To the great amount of the population, their early civilisation and poverty, and their habit of wearing ornaments of silver and gold; and, 3. To that burying and hoarding of the precious metals which is perhaps more prevalent in India than anywhere else.

1. The influence of the first of these causes of the importation of the precious metals into India is too obvious to require any illustration.

2. The influence of the second cause of the importation referred to is of the most powerful kind. From the remotest period the people of India have been in a considerably advanced state of civilisation, which, owing to the early institution of castes and other circumstances, has continued in a comparatively stationary state. Owing also to the economical habits of the people, and the facility with which they have obtained subsistence, their wages have always been, and continue to be, extremely low: and from the combination of these and other causes, the businesses carried on in India have, with few exceptions, been generally on a petty scale; and while comparatively few large payments have to be made, the every-day transactions of an immense population, though individually small, amount in the aggregate to a very great sum; and hence the extraordinary demand for silver to serve as coin in retail transactions, and for *cowries*, inferior in value even to the smallest coins.

And in addition to the very great sums required for currency, another, and also a very large sum, is absorbed in jewellery or trinkets. The habit of wearing rings, bracelets, brooches, hair-pins, and such like personal ornaments of gold and silver, but generally the latter, is universal in India, and cannot fail to occasion a very large expenditure. There are no data on which to build up an approximate estimate of the gross amount of the sums invested in the coin in circulation and in trinkets in India. It has, however, been said that it is quite conceivable it should come up to 400,000,000*l.* sterling. (Newmarch, in Tooke *On Prices*, vi. p. 723.) And to those who bear in mind that the total population of India is not less now (1868) than 200,000,000, and that metallic ornaments are worn by all but the most degraded persons, this conjectural estimate may not appear to be in any degree extravagant.

But if it be not very far from the mark, the wear and tear or abrasion and loss upon so great a sum, being taken at only 1 per cent., would require an influx of bullion to the extent of 4,000,000*l.* a-year; and as this source of loss may be regarded, so to speak, as a constant quantity, it is plain that if, owing to circumstances affecting the commerce of the peninsula, or any other cause, this supply should be diminished for a few years, the demand for bullion would be proportionally increased as soon as the disturbing force had ceased to operate.

3. The practice of burying or hoarding of treasure has been carried to a greater extent in India, Persia, Turkey in Asia, and other Eastern countries than anywhere else. Despotism and a want of security have always prevailed in these countries. The inhabitants have in consequence been accustomed to regard the money which they have committed to the earth as their only real wealth, and have availed themselves of every opportunity to place portions of their means beyond the grasp of their avaricious and tyrannical masters; and as many of the hoards so deposited will never be brought to light, the practice has undoubtedly been a principal cause of the constant flow of bullion to the East. (For accounts of the discovery of concealed treasures see D'Herbelot, *Bibliothèque Orientale*, i. 206, and ii. 347, ed. 1777.)

Bernier, 'that most curious traveller,' as he is called by Gibbon (*Decline and Fall*, i. p. 267, ed. 1838), remarks on this subject as follows, viz.:—'Avant que de finir, je dirai d'où peut venir que cet empire du Mogol étant ainsi une abyme d'or et d'argent, comme j'ai dit dans le commencement, on ne voit neanmoins pas qu'entre le peuple il y en ait davantage qu'ailleurs, au contraire le peuple y paroit moins pecunieux et l'argent s'y trouve plus rare qu'en beaucoup d'autres endroits.

'La premiere raison est qu'il s'en consomme beaucoup a fondre et refondre tous ces anneaux de nez et d'oreilles, chaines, bagues, et brasselets des pieds et des mains que portent les femmes; et principalement dans cette incroyable quantitè de manufactures où il en entre tant, que se perd, et qu'on ne sçait ce qu'il devient, comme dans toutes ces broderies, alachas ou étoffes de soye rayes &c.' And then, having adverted to the injustice and exactions to which the mass of the people are exposed, he goes on to state—'D'ou vient qu'un chacun est dans une crainte perpetuelle de ces sortes de gens, et surtout des Gouverneurs, plus qu'une esclave de son maitre. Que pour l'ordinaire ils affectent de paroitre gueux et sans argent, très-simples dans le vestement, logement, ameublement, et encore plus dans le boire et le manger. Qu'ils apprehendent même souvent de se mesler trop avant dans le negoce, dans la crainte qu'ils ont qu'on ne les croye riches et qu'on ne leur trâme quelque piece pour les ruiner; si bien qu'enfin ils ne trouvent point de meilleur remede que de cacher et enfouir leur argent bien secretement et bien profondement en terre, sortant ainsi hors du commerce ordinaire des hommes, et perissant enfin là dedans, sans que le Roy, ni l'etat, ni que ce soit en profite. Ce qui arrive non seulement entre les paisans et artisans, mais ce qui est plus considerable entre toutes sortes de marchands, soit Mahometans soit Gentils; mais principalment entre les Gentils, qui sont presque seuls les maitres du negoce et de l'argent, infatuez qu'ils sont de cette croyance, que l'or et l'argent qu'ils cachent durant leur vie leur servira après la mort; et c'est à mon avis la veritable raison pourquoi il paroit, si peu d'argent en commerce parmi le peuple.' (Bernier, *Voyage dans les Etats du Grand Mogol*, i. pp. 306–311, Amsterdam, 1710.)

At a later date Mr. Luke Scrafton has referred to the same practice in still stronger terms:—'In India,' says he, 'the Hindoos bury their money underground often with such secresy as not to trust their own children with the knowledge of it; and it is amazing what they will suffer rather than betray it. When their tyrants have tried all manner of corporal punishments upon them, they threaten to defile them; but even that fails; for resentment prevailing over the love of life, they frequently rip up their bowels or poison themselves, and carry the secret to their graves. And the sums lost in this manner in some measure account why the silver of India does not appear to increase,

though there are such quantities continually coming into it, and none going out.' (*On the Government of Hindostan*, p. 16.)

The comparative security that was lately enjoyed by the natives in most parts of India may have done something to lessen this habit; but one so widely diffused and so deeply rooted cannot be easily or speedily modified: and though the illegal exactions of their rulers were curbed and partially put down in the countries directly under the Company's government, there was in Oude and many other parts of India, previously to the late insurrection, a great deal of disorder, oppression, and robbery. Since that unfortunate outbreak, insecurity and disorders of all sorts have immeasurably increased, and have proportionally stimulated the practice of hoarding. The rebellion raging in China has had similar effects; and we have been assured by those who, from experience and observation, are well qualified to form an opinion on such a subject, that it may be moderately estimated that in India and China, during the half-dozen years ending with 1857, a sum of not less than 100,000,000*l.* sterling has been consigned to the earth.

The circumstances thus briefly noticed may be considered as the leading causes of the all but perennial drain of bullion to the East. Other circumstances, already adverted to, depending on the peculiar state of the trade between England and Europe generally and the East, have since 1848 largely increased the export of the precious metals to India. But the further details connected with this part of the subject are reserved for the article PRECIOUS METALS.

Account of the Imports and Exports of Treasure into and from India during each of the 32 Years ending with 1865–6.

Year	Imports	Exports	Excess of Imports
	£	£	£
1834–35	1,893,043	194,741	1,698,282
1835–36	2,146,465	108,109	2,038,356
1836–37	2,036,167	263,934	1,772,233
1837–38	2,610,101	340,656	2,269,445
1838–39	3,010,920	347,906	2,663,014
1839–40	1,945,264	470,523	1,474,741
1840–41	1,786,253	366,486	1,419,767
1841–42	1,841,335	515,076	1,326,259
1842–43	3,145,292	215,797	2,927,495
1843–44	4,794,678	746,076	4,048,602
1844–45	3,751,172	1,106,340	2,645,532
1845–46	2,495,959	816,028	1,679,931
1846–47	2,939,992	713,870	2,226,092
1847–48	1,973,391	1,426,038	547,353
1848–49	4,304,303	2,539,743	1,664,760
1849–50	3,396,807	971,244	2,425,563
1850–51	3,811,409	541,289	3,270,520
1851–52	5,052,059	919,089	4,132,970
1852–53	6,831,377	1,055,230	5,776,147
1853–54	4,471,956	1,483,296	3,388,660
1854–55	2,028,436	1,267,053	761,283
1855–56	11,301,288	601,177	10,700,111
1856–57	14,413,699	1,253,428	13,160,271
1857–58	15,813,416	813,395	15,000,021
1858–59	12,817,031	661,936	12,155,095
1859–60	16,356,963	875,166	15,481,797
1860–61	10,677,077	1,116,493	9,560,578
1861–62	14,951,977	681,196	14,270,781
1862–63	20,508,967	1,111,140	19,397,827
1863–64	22,494,540	1,270,435	21,224,105
1864–65	21,363,352	1,444,775	19,918,577
1865–66	26,537,301	2,165,352	24,393,949
Total excess of imports - - -			227,154,017
Average annual excess of imports - -			7,098,563

The great influx of late years has been due to the general increase of exports from India, and in particular for the years 1862–6, in consequence of the payments for cotton. The total import of bullion into the presidencies of Bengal, Madras, and Bombay, including British Burmah, for the ten years 1856–57 to 1865–66, is 176,424,430*l.*, being an average of 17,642,443*l.* per annum.

4. *Colonisation of India.*—Considerable obstacles were long thrown in the way of Europeans establishing themselves in India, and particularly of their acquiring or holding land. This policy was dictated by various considerations; partly by a wish to prevent the extrusion of the natives from the soil, which it was supposed would be eagerly bought up by Europeans, and partly by the fear lest the latter, when scattered over the country, and released from any effectual control, should offend the prejudices of the natives and get embroiled with them. Now, however, it seems to be the general opinion of those best acquainted with India, that but little danger is to be apprehended from these circumstances; that the few Europeans established in it as indigo planters &c. have contributed very materially to its improvement; and that the increase and diffusion of the English population, and their permanent settlement in the country, are at once the most likely means of spreading a knowledge of our arts and sciences, and of widening and strengthening the foundations of our ascendancy. It is obvious, indeed, that the duration of our power in India must depend on a very uncertain tenure unless we take root, as it were, in the soil, and a considerable portion of the population be attached to us by the ties of kindred, and of common interests and sympathies. In this respect we should imitate the Roman in preference to the Lacedæmonian or Athenian policy. In a former edition of this work we observed that, looking at the density of population in India, the low rate of wages, the nature of the climate, and other similar circumstances, it seemed very doubtful whether it would ever become the resort of any considerable number of English settlers, at least of such a number as would be sufficient, within any reasonable period, to form anything like a powerful native English interest; and we have now to state that these anticipations have been more than realised, and that though the restraints on the settlement of Englishmen in India have been practically at an end since 1834, very few have availed themselves of the privilege. There may, no doubt, though we see little reason to anticipate such a result, be a greater emigration to India in time to come; and to whatever extent it may be carried, it promises to be highly advantageous. 'We need not, I imagine,' said Lord William Bentinck, 'use any laboured argument to prove that it would be infinitely advantageous for India to borrow largely in arts and knowledge from England. The Legislature has expressly declared the truth: its acknowledgment has been implied in the daily acts and professions of Government, and in all the efforts of humane individuals and societies for the education of the people. Nor will it, I conceive, be doubted that the diffusion of useful knowledge, and its application to the arts and business of life, must be comparatively tardy unless we add to precept the example of Europeans, mingling familiarly with the natives in the course of their profession, and practically demonstrating, by daily recurring evidence, the nature and the value of the principles we desire to inculcate, and of the plans we seek to have adopted. It seems to be almost equally plain, that, independently of their influencing the native community in this way, various and important national advantages will result from there being a considerable body of our countrymen and their descendants settled in the country. To question it, is to deny the superiority which has gained us the dominion of India; it is to doubt whether national character has any effect on national wealth, strength, and good government; it is to shut our eyes to all the perils and difficulties of our situation; it is to hold as nothing community of language, sentiment, and interest between the government and the governed; it is to disregard the evidence afforded by every corner of the globe in which the British flag is hoisted; it is to tell our merchants and manufac-

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turers that the habits of a people go for nothing in creating a market; and that enterprise, skill, and capital, and the credit which creates capital, are of no avail in the production of commodities.'

In order to facilitate the development of agriculture and the employment of British capital in India, Lord Canning (being Governor-General) issued a series of ordinances in October 1861 for the sale of waste lands, and the redemption of the land tax—the object being to effect 'the sale of waste lands in perpetuity, discharged from all prospective demand on account of land revenue,' and 'permission to redeem the existing land revenue by the immediate payment of one sum equal in value to the revenue redeemed.'

III. East Indies. Extent, Population, Military Force, Revenue, etc.

1. *Extent, Population, &c. of British Dominions in Hindostan.*

Abstract of Area and Population of India, distinguishing British, Native, and Foreign Native States, according to latest Returns. (Issued from India Office, May 1868.)

	Area in Square Miles	Population
British India.		
Under the Governor-General of India in Council	46,154	5,619,953
Lieutenant-Governor of Bengal	199,515	37,505,599
Lieutenant-Governor of North-West Provinces	83,380	30,110,615
Lieutenant-Governor of Punjab	100,411	15,166,157
Chief Commissioner of British Burmah	90,070	2,330,453
Governor of Madras	141,719	24,206,509
Governor of Bombay and Sind	148,539	13,039,106
Chief Commissioner of Oude	22,456	6,502,884
Chief Commissioner of Central Provinces	114,718	9,104,511
Total under British administration	947,292	143,585,789
Native States.		
In Bengal	117,151	4,152,923
North-West Provinces	8,158	2,294,400
Punjab	105,442	7,154,588
Central India	185,610	14,622,592
Madras	116,125	12,880,228
Bombay	66,004	6,804,523
Total of Native States	596,790	47,909,199
Foreign Native States.		
Under French Government	188	203,887
Portuguese Government	1,066	313,462
Total of Foreign Native States	1,254	517,349
Total Area and Population of India	1,545,336	192,012,137

The principal native states are Hyderabad or the Nizam's dominions, Nepaul, Scindia, Holkar, Mysore, Rajpootana, Cashmere, Guzerat, Travancore, &c. These states are, for the most part, surrounded by British territories, and generally administered in accordance with the advice of the British agents appointed to reside at their respective courts. It may be thought that their entire absorption into the British dominions would be desirable; but though this would most likely be beneficial in the end, it could not fail to occasion much discontent. The annexation of Oude by Lord Dalhousie, notwithstanding its government was of the worst possible description, is believed to have been a prominent cause of the late rebellion; and it is right to add that the annexation policy of that distinguished statesman, which was looked on with so much favour, is now repudiated by the most eminent authorities both in this country and India.

In 1805, according to the official returns, the total number of British-born subjects in Hindostan was 31,000. Of these, 22,000 were in the army as officers and privates; the civil officers of Government of all descriptions were about 2,000; the free merchants and mariners who resided in India under covenant, about 5,000; the officers and practitioners in the courts of justice, 800; the remaining 1,700 consisting of adventurers who had smuggled themselves out in various capacities. Since the date above mentioned no detailed reports have been published: but there is no reason to believe that down to the outbreak of 1857 the total number of British subjects in Hindostan exceeded 45,000 or 50,000, if so many: the removal of the restrictions on their settlement having, as already seen, added very few to the previous number. Now (1868), however, they are estimated at about 100,000.

The army required for the protection of these extensive provinces, and for the retaining them under due subordination, has been, with the exception of that of Russia, probably the largest standing army in the world. In 1796 it amounted to 55,000; in 1864, 1865, and 1866 it consisted of the following effective force, in British, native, and contingent native troops:—

Return of the Actual Strength of Her Majesty's Forces (Royal and Local Troops) in British India on May 1, 1864, on April 1, 1865, and on March 1, 1866.

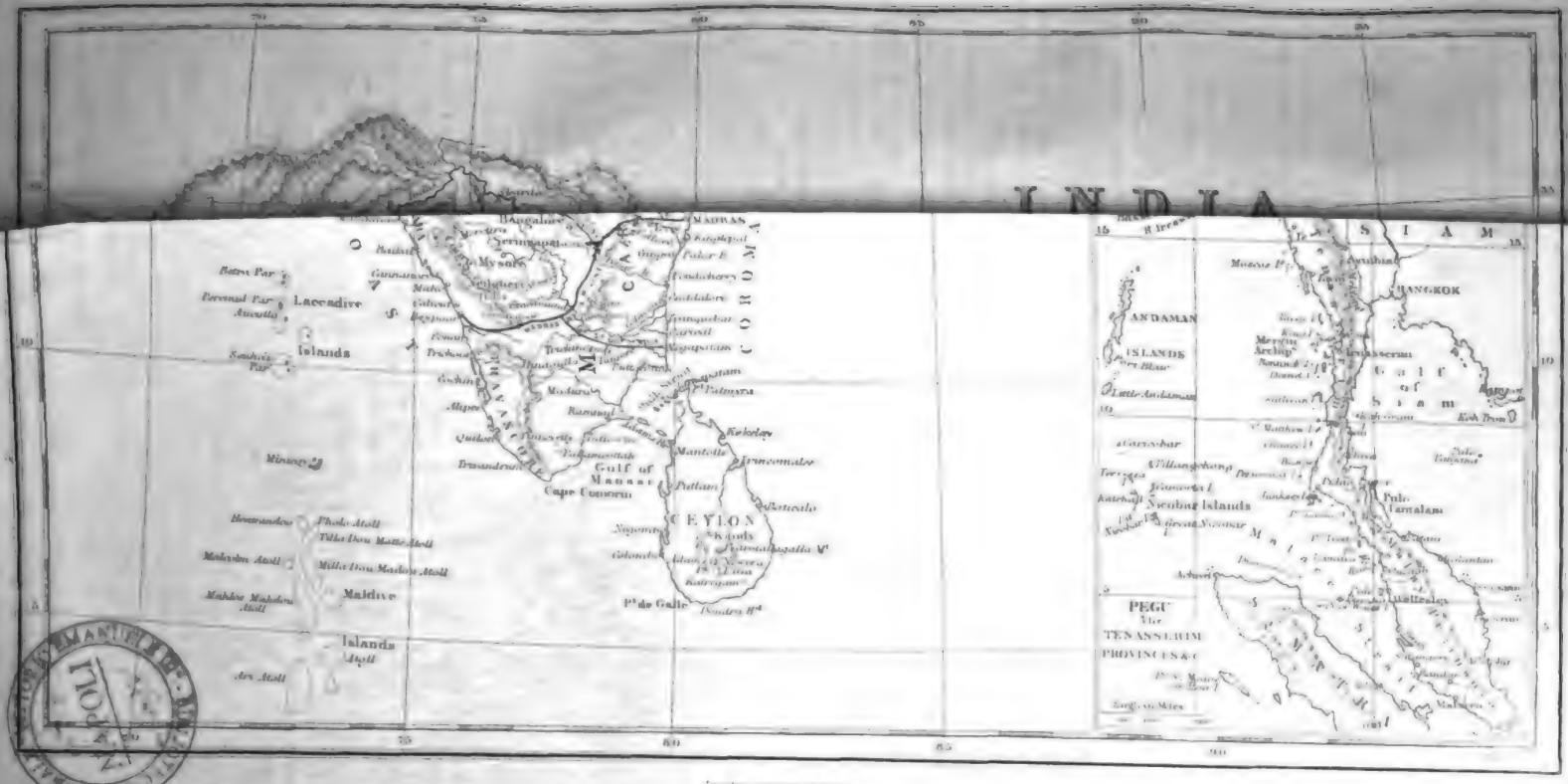
Presidencies	European Commissioned and Non-commissioned Officers and Men			Native Commissioned and Non-commissioned Officers and Men			Total		
	1864	1865	1866	1864	1865	1866	1864	1865	1866
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Bengal, including North-West Provinces and Punjab	45,184	42,128	39,377	61,619	43,796	43,202	106,803	85,924	82,579
Madras	15,563	16,002	14,618	49,875	46,693	46,517	65,438	62,695	61,135
Bombay	14,096	13,750	13,968	40,271	27,826	27,254	54,367	41,576	41,222
Total	74,803	71,880	67,963	151,765	118,315	116,973	226,628	190,195	184,936

N.B.—Including the Civil Force not under the Orders of the Commander-in-Chief.

The contingent troops of the Native States commanded by British officers, and available, under treaties, to the British Government, may be estimated at about 25,000 men, chiefly furnished by the Nizam, Scindia, Mysore, and the Guicowar.

Each presidency has its separate army, commander-in-chief, staff &c.; but the commander-in-chief of the Supreme Government has a general authority over the armies of all the presidencies. Among the native troops, called *Sepoys*, the infantry consists chiefly of Hindoos, and the cavalry of Mohammedans. The Bengal army was mostly composed of high-caste men, but in the Madras and Bombay armies men of all castes and denominations were enlisted. The troops are not raised by any forced levy or conscription; military service in India is quite voluntary, and has been so popular that each regiment has had a number of supernumeraries ready to take the place of such soldiers as die or leave. The men have been well paid, clothed, and fed. Corporal punishment of natives is not allowed, imprisonment being, in the Indian as in the French army, the principal engine by which discipline is kept up. Since the mutiny in 1857 the native army has been considerably reduced and reorganised, and the native artillery has been abolished. The artillery of the regular army in India is now entirely European.

A good deal of conflicting evidence was given


INDIA
Laccadive Islands
Maldive Islands
Mysore
MADRAS
COROMANDEL COAST
MALABAR COAST
Gulf of Manaar
Cape Comorin
CEYLON
Kandy
Trincomalee
Point de Galle
SIAM
BANGKOK
ANDAMAN ISLANDS
Nicobar Islands
Gulf of Siam
PEGU
The TENASSERIM PROVINCES &c

before the Parliamentary committees, in 1832 and 1833, as to the real state of the Indian army, and the degree of dependence to be placed on it; but none could have anticipated the entire, or all but the entire, defection of the Bengal native army, and the bloodshed and calamities by which it was followed. If we wish to retain possession of the country, we must in future depend less on the native, and more on the European force distributed over its surface.

Two systems are open to us, on either of which we may attempt permanently to establish our power in India, viz.: 1st. By maintaining the laws and customs, and outwardly respecting the religious and other prejudices, of the natives; and 2nd. By vigorously labouring to subvert all these, and to effect a moral and religious revolution by, in as far as possible, Anglicising the country. We have hitherto acted on the first of these plans; and though its results have not certainly been of the most satisfactory description, it is the safest and most economical, the most in accordance with the tolerant spirit of the age, and it might, in the course of centuries, if our ascendancy were so far prolonged, lead to nearly the same results as the second. The latter, however, provided it were skilfully conducted, and that we were prepared to maintain a force in India adequate to suppress any disturbance that might take place, particularly at the outset of the plan, would accomplish its object in a much shorter period, and would probably be, in the end, the best for all parties, and more especially for the natives.

Advantage of India to England.—The popular opinions in regard to the vast advantages derived by England from the government of India are as fallacious as can well be imagined. It is doubtful, indeed, whether its advantages compensate for its disadvantages. India never has been, and never can be, a field for the resort of ordinary emigrants. It has, it is true, furnished an outlet for considerable numbers of well-educated young men of the middle classes, but the fortunes of those who return to spend the evening of their days in England are far short of compensating for the outlay on themselves and on those who die in the service. And there is but little ground to think that the legitimate trade we carry on with India (we say *legitimate*, for a considerable portion of our trade with India is carried on upon account of the British troops serving in the peninsula) is greater than it would have been had it continued subject to its native rulers; neither is it by any means improbable that the large public debt of India will, in the end, have to be partially or wholly provided for by this country.

We may flatter our vanity by dwelling on the high destiny and glory of providing for the regeneration and well-being of 190 or 200 millions of human beings; but we have yet to learn whether this be not an undertaking that is greatly beyond our means, and whether, in attempting to elevate a debased and enervated race (supposing that we really make such an attempt) 12,000 miles from our shores, we may not be sapping the foundations of our own power and greatness.

Nothing during the outbreak of 1857 has been more extraordinary than the fact of its having failed to bring forward a single native chief of talent. In every contest the inferiority even of the best drilled sepoys, when brought face to face with Europeans, has been most striking. No superiority of numbers gave them a chance of success. They continue to be precisely what they were at Plassey and Assaye.

2. *Revenue and Expenditure of British India.*—The far greater part of the revenue of India is at present, and has always been, derived from the soil. The land has been held by its immediate cultivators generally in small portions, with a perpetual and transferable title; but they have been under the obligation of making an annual payment to Government of a certain portion of the produce of their farms, which might be increased or diminished at the pleasure of the sovereign, and which has, in almost all cases, been so large as seldom to leave the cultivators more than a bare subsistence. Under the Mohammedan government, the *gross* produce of the soil was divided into equal or nearly equal shares between the ryots, or cultivators, and the Government. We regret we are not able to say that the British Government has made any material deductions from this enormous assessment. Its oppressiveness, with the impossibility of assessing it on anything like a fair and sound principle, have done far more than anything else to prevent our ascendancy in India, and the comparative tranquillity and good order we have introduced, from having the beneficial effects that might have been anticipated. The cultivators throughout Hindostan are proverbially poor; and till the amount of the assessment to which they are subject be effectually reduced, and they are secured from the interference of the revenue officers, they cannot be otherwise than wretched. They are commonly obliged to borrow money, to buy their seed and carry on their operations, at a high interest, on a species of mortgage over the ensuing crop. Their only object is to get subsistence—to be able to exist in the same obscure poverty as their forefathers. If they succeed in this, they are satisfied. Mr. Colebrooke, whose authority on all that relates to India is so deservedly high, mentions that the

Abstract View of the Gross Revenues of India for the Years 1862–67.

Heads of Revenue	1862-63	1865-64	1864-65	1865-66	1866-67
	£	£	£	£	£
Land revenue	19,570,147	20,503,423	20,095,061	20,473,897	19,136,449
Sayer and forest	500,580	504,413	541,757	567,682	511,310
Abkaree (excise)	1,951,080	2,091,870	2,224,036	2,244,874	2,119,789
Tributes and contributions	725,763	715,290	681,114	709,632	629,345
Assessed and Income taxes	1,882,212	1,485,672	1,281,817	691,241	22,127
Customs	2,104,366	2,384,061	2,296,949	2,279,657	2,050,864
Salt	5,214,750	5,093,696	5,323,584	5,349,149	5,343,910
Opium	8,055,476	6,851,999	7,264,405	6,512,264	6,803,413
Stamps	1,489,658	1,733,216	1,972,098	1,994,632	1,803,773
Mint	371,116	360,759	377,859	494,354	259,991
Post-offices	425,528	449,882	362,533	406,466	496,439
Electric telegraph	75,523	91,762	99,099	190,463	219,472
Law and justice, and police (fees, fines &c.)	484,842	631,598	675,996	790,529	815,319
Marine (pilot dues &c.)	189,046	307,715	308,095	198,890	228,543
Education	...	...	...	...	60,658
Public works	443,553	461,785	588,673	917,465	538,139
Miscellaneous (civil	404,057	615,605	469,820	2,368,661	344,181
Miscellaneous (military	836,529	717,431	735,567	728,340	737,268
Interest	24,564	74,277	247,674	216,824	255,513
Total for India	45,145,752	44,613,052	45,692,807	48,253,740	42,172,433

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quantity of land occupied by each ryot, or cultivator, in Bengal, is commonly about 6 acres, and rarely amounts to 24; and it is obvious that the abstraction of a half or even a third of the produce raised on such patches can leave their occupiers nothing more than the barest subsistence for themselves and their families. Indeed, Mr. Colebrooke tells us that the condition of ryots subject to this tax is generally inferior to that of a hired labourer, who receives the miserable pittance of 2 annas, or about 3 pence, a day of wages. The métayer system is the curse of every European country into which it has been introduced; and yet we seem to think that it may be advantageously acted upon in most parts of India!

Abstract Account of the Charges on the Revenue of India, including those Disbursed in England, for the Years 1862–67.

Expenditure	1862-63	1863-64	1864-65	1865-66	1866-67
	£	£	£	£	£
Claims and demands upon gross revenue: Allowances, refunds, and drawbacks	342,066	333,565	257,513	420,171	421,830
Charges of collection and costs incurred:					
Land, saver, and abkaree	2,076,970	2,384,412	2,518,703		2,271,880
Assessed taxes	72,676	45,116	35,065		1,188
Customs	178,706	177,491	207,064		188,810
Salt cost	213,539	77,556	118,096	5,840,235	317,519
Salt charges	287,872	227,709	195,308		
Opium cost	1,689,723	2,096,789	2,140,036		1,077,330
Opium charges	166,555	199,704	228,650		
Stamps	98,097	103,393	77,581		98,119
Mint	180,723	164,182	157,468		237,152
Post-office	481,196	502,671	426,456		466,642
Electric telegraph	352,689	321,856	261,928		469,269
Total of charges of collection and costs incurred	5,446,057	5,906,823	6,901,107	5,840,235	5,087,470
Allowances and assignments under treaties and engagements	1,735,663	1,721,735	1,675,037	1,801,793	1,745,170
Allowances to district and village officers &c.	568,046	585,089	595,094	389,634	339,619
Miscellaneous	26,581	26,675	35,506	—	—
Contingencies, special and temporary	9,783	841	6,772	—	—
Total of the direct claims and demands upon the gross revenue	8,138,819	8,642,569	8,177,644	8,452,153	7,637,387
Army	12,764,325	12,697,069	13,181,957	16,763,720	15,825,791
Indian navy and marine	744,590	567,555	571,627	636,989	770,630
Public works (imperial), including 1 per cent. income tax fund	4,082,847	5,134,289	4,974,572	5,060,703	5,196,599
Loss by railway transactions	317,785	211,234	146,048	67,043	731,049
Salaries and expenses of public departments	1,091,956	1,157,491	1,380,517	1,262,782	1,271,284
Law and justice	2,074,146	2,120,656	2,243,065	2,423,396	2,597,788
Police	2,141,269	2,300,482	2,361,011	2,384,330	2,262,971
Education, science and art	400,561	441,856	530,249	670,739	674,717
Political agencies and other foreign services	211,515	214,148	240,648	220,656	267,098
Superannuation and retired allowances, and gratuities for charitable and other purposes	740,896	692,918	909,425	668,987	766,472
Miscellaneous	265,405	334,856	793,337	1,711,422	1,669,442
Civil contingencies	103,165	116,594	123,346	639,536	79,305
Interest upon debt	3,351,640	3,093,250	3,261,261	3,707,386	4,889,301
Total expenditure	36,800,803	38,087,772	39,452,720	37,716,999	37,002,397

It is seen from these statements that the territorial revenues at the disposal of the Indian Government equal those of the most powerful monarchies. At present they are greater than those of either Russia or Austria, being inferior only to those of Great Britain and France. Still, however, the financial situation of India is not very prosperous. Vast as its revenue has been, its expenditure appears, in most instances, to have been still larger. In 1857 the debts in India, exclusive of the bond debts at home, amounted to above 52,000,000*l.*; and the heavy expenditure occasioned by the late rebellion has increased the debt to over 90 millions.

Besides the land revenue, a considerable revenue is derived in India from the monopolies of salt and opium, the sale of spirituous liquors, land and sea customs, post-office &c. (For an account of the land revenue system of British India, see art. 'India, British,' in *Geog. Dict.*) Of these monopolies, the first is, in all respects, decidedly the most objectionable. Few things, indeed, would do more to promote the improvement of India than the total abolition of this monopoly. An open trade in salt, with moderate duties, would, there can be no doubt, be productive of the greatest advantage to the public, and perhaps of an increase of revenue to Government. The opium monopoly, though far less objectionable than the last, is notwithstanding very oppressive. It interferes with the industry of the inhabitants; those who are engaged in the cultivation of opium being obliged to sell their produce at prices arbitrarily fixed by the Government agents. It would be useless to waste the reader's time by pointing out in detail the mischievous effects of such a system; they are too obvious not to arrest the attention of everyone.

Account exhibiting the Total Gross and Nett Revenue and Charges of the British Possessions in India for 15 *Years from* 1835–36 *to* 1849–50. (Campbell's *Modern India*, p. 419.)

Years	Gross Revenue	Nett Revenue	Charges	Surplus	Deficit
	£	£	£	£	£
1835-36	20,680,846	16,391,000	14,944,152	1,466,848	..
1836-37	20,978,580	16,715,000	14,966,776	1,748,224	..
1837-38	23,854,710	16,070,000	15,286,682	780,318	..
1838-39	..	16,320,000	16,701,000	..	381,000
1839-40	..	15,512,000	17,650,000	..	2,138,000
1840-41	..	16,111,000	17,865,000	..	1,754,000
1841-42	..	16,834,000	18,605,000	..	1,771,000
1842-43	..	17,483,000	18,831,000	..	1,346,000
1843-44	..	18,284,000	19,424,000	..	1,140,000
1844-45	..	18,271,000	18,854,000	..	583,000
1845-46	..	18,998,000	20,493,576	..	1,495,576
1846-47	25,272,190	19,896,000	20,867,202	..	971,202
1847-48	24,628,960	18,748,000	20,659,791	..	1,911,791
1848-49	25,231,000	19,442,000	20,913,115	..	1,471,115
1849-50	27,737,853	21,686,172	21,621,326	61,846	..
Total	..	..	..	2,093,388	15,764,684

Amount of the Public Debt of British India, distinguishing that raised in England, with the Amount of Interest paid, on the 30th April of each Year.

Years ended April 30	In India		In England		Total	
	Debt	Interest	Debt	Interest	Debt	Interest
	£	£	£	£	£	£
1840	52,700,692	1,543,950	1,734,300	51,893	54,434,992	1,595,843
1841	54,187,827	1,619,189	1,734,300	54,383	55,922,127	1,673,572
1842	54,187,173	1,737,093	1,734,300	61,253	55,921,473	1,798,346
1843	50,670,340	1,844,163	1,734,300	62,205	52,404,640	1,906,368
1844	53,744,151	1,900,390	1,734,300	59,363	55,478,451	1,959,753
1845	40,146,150	1,961,700	2,990,600	64,339	43,136,750	2,026,039
1846	41,208,749	2,112,055	2,990,600	69,271	44,199,349	2,181,326
1847	41,502,849	2,181,561	2,990,600	70,010	44,493,449	2,251,571
1848	44,544,823	2,241,410	3,899,600	109,984	48,444,423	2,351,394
1849	46,917,615	2,385,916	3,899,500	150,509	51,817,115	2,536,425
1850	46,917,615	2,385,916	3,899,500	153,723	51,817,115	2,539,639
1851	47,131,018	2,443,876	3,899,500	141,970	52,030,518	2,585,846
1852	50,035,968	2,451,500	3,899,997	121,922	55,111,965	2,573,422
1853	51,199,815	2,479,133	3,899,997	117,909	55,275,812	2,597,042
1854	51,215,193	2,495,877	3,899,997	112,012	55,295,190	2,607,889
1855	52,513,094	2,635,915	3,915,317	153,518	56,428,411	2,789,433
1856	49,762,476	2,180,604	3,915,317	152,036	53,677,793	2,332,640
1857	51,616,922	2,210,960	3,915,317	155,494	55,532,239	2,366,454
1858	53,446,922	2,196,672	15,089,477	159,166	68,536,399	2,355,838
1859	55,546,552	2,738,623	26,138,000	378,739	81,684,552	3,117,362
1860	60,703,084	3,123,527	29,976,000	760,864	90,679,084	3,884,391
1861	66,092,231	3,272,104	35,095,500	1,061,235	101,187,731	4,333,339
1862	71,969,160	3,134,897	31,839,100	1,456,038	107,808,260	4,590,935
1863	71,901,041	3,351,680	26,310,900	1,486,946	103,211,941	4,838,627
1864	72,416,859	3,485,456	26,125,100	1,372,599	98,541,959	4,858,056
1865	73,656,135	3,361,961	26,916,400	1,271,174	100,572,535	4,633,135
1866	73,287,645	3,327,651		1,249,765	98,583,551	4,577,416
1867	72,332,455					
1868	71,437,851					

Account of the Public Registered Debt of India as it stood on March 31, 1867, and the Rate of Interest borne by the same.

Registered Debt	Amount of Debt	Rate of Interest	Annual Amount of Interest
	£		£
India and Bengal:			
Loans	360,724	6 per cent.	21,643
Ditto	10,665,150	5½ per cent.	586,582
Ditto	20,875,055	5 per cent.	1,043,752
Ditto	371,210	4½ per cent.	16,705
Ditto	31,260,986	4 per cent.	1,250,439
Ditto	80,870	3½ per cent.	2,830
Ditto	763	3½ per cent.	26
Ditto	1,234,480	6, 5, 4, and 3½ per cent.	49,468
Loan transferred from Fort Marlborough	9,500	5 and 2½ pie per cent. per diem	434
Treasury notes	405,000	4 per cent.	16,200
Treasury bills	2,554,644	6 and 4½ per cent.	152,855
Loan on account of the Mysore Princes	181,479	3, 4, and 3½ per cent.	6,903
Civil, medical &c. funds	67,999,839	—	3,147,901
Miscellaneous deposits			
Total			
Oude:	11,550	5 per cent.	578
Treasury notes	11,177	4½ per cent.	503
Police superannuation fund	22,727	—	1,081
Total			
Central Provinces:	16,913	4½ per cent.	761
Police superannuation fund			
British Burmah:	6,690	5 per cent.	334
Treasury notes	13,513	4½ per cent.	608
Police superannuation fund	20,203	—	942
Total			
East and West Berar:	3,201	4½ per cent.	144
Police superannuation fund			
North-Western Provinces:	20,000	4 per cent.	800
Miscellaneous deposits	41 650	5 per cent.	2,082
Treasury notes	31,824	4½ per cent.	1,567
Police superannuation fund	96,474	—	4,449
Total			
Punjab:	14,900	5 per cent.	745
Treasury notes	20,027	4½ per cent.	901
Police superannuation fund	34,927	—	1,646
Total			
Madras:	15,400	8 per cent.	1,232
Loans	8,050	6 per cent.	483
Ditto	1,106,484	6, 5, and 4½ per cent.	60,904
Civil, military, and medical funds	154,213	6, 5, and 4 per cent.	6,172
Miscellaneous deposits	379,132	5 and 4 per cent.	23,475
Treasury notes	1,661,279	—	92,266
Total			
Bombay and Sind:	2,016,721	8, 6, 5, 4½, and 4 per cent.	145,155
Civil assents (Indian navy)	445,571	6, 5, 4, and 3½ per cent.	18,579
Pensioners, military, and other service funds	8,750	5, 4, and 3½ per cent.	436
Miscellaneous deposits	210	5 pie per cent. per diem	12
Treasury notes	2,471,252	—	164,182
Treasury bills	£72,526,815*	—	£3,311,575
Total			
Grand Total			

* The balances of the books for 1865-66 have been taken as the basis of these figures: differences will appear on a comparison with the accounts for 1865-66, in which the amounts were posted from separate debt statements, and not from the books, the books for 1865-66 not then being all ready.

However much these accounts of the financial concerns of our Eastern empire may be at variance with the exaggerated ideas entertained respecting it, as well by a large proportion of the people of England as by foreigners, it will excite no surprise in the mind of anyone who has ever reflected on the subject. It is due indeed to the directors to state, that while in power, though they occasionally acted on erroneous principles, they always exerted themselves to enforce economy in every branch of their expenditure, and to impose and collect their revenues in the best and cheapest manner. But though they succeeded in repressing many abuses, it would be idle to suppose that they should

Total Amount of the Public Debt of British India (exclusive of East India Company's Stock Debt), distinguishing the Debt Raised in England and India respectively, with the Amount of Interest Paid thereon, in each of the Years 1863–1866 ended April 30, and 11 Months ended March 31, 1867.

Year	Raised in India						Raised in England			Total	
	Description of Debt					Interest Paid	Description of Debt		Interest Paid	Debt	Interest Paid
	Registered Debt	Treasury Notes	Temporary Loans	Deposits, including the Civil, Military, and other Funds &c.	Total		Bond Debt	Debenture and other Loans &c.			
	£	£	£	£	£	£	£	£	£	£	£
1863	64,584,294	1,635,118	165,763	5,950,960	72,336,135	3,351,689	3,116,000	28,723,100	1,456,916	104,495,235	4,838,596
1864	61,233,538	1,775,694	447,137	5,750,976	72,207,345	3,093,250	3,114,900	25,193,800	1,372,599	98,518,145	4,465,849
1865	61,199,185	1,857,421	411,141	5,884,408	72,352,155	3,261,261	3,096,000	23,029,100	1,221,124	98,477,555	4,482,385
1866	63,138,816	1,827,453	429,183	6,044,799	71,437,251	3,367,651	3,067,300	23,879,100	1,249,765	98,383,651	4,577,416
1867	63,613,973	1,906,862	429,213	6,376,767	72,326,815	3,413,375	5,000,000	24,538,000	1,306,293	102,064,815	4,719,668

ever have succeeded in entirely rooting them out. How can it be imagined that strangers sent to India, conscious that they are armed with all the strength of government, placed under no real responsibility, exempted from the salutary influence of public opinion, fearing no effectual exposure through the medium of the press, and anxious only to accumulate a fortune, should not occasionally abuse their authority? or that they should manage the complicated and difficult affairs of a vast empire, inhabited by a race of people of whose language, manners, and habits they are almost wholly ignorant, with that prudence, economy, and vigilance, without which it were idle to expect that any great surplus revenue should ever be realised?

EBONY (Ger. ebenholz; Dutch, ebbenout; Fr. ébène; Ital. ebano; Russ. ebenowoederewo; Lat. ebenus). A species of wood brought principally from the West and East Indies. It is exceedingly hard and heavy, of great durability, susceptible of a very fine polish, and on that account used in mosaic and other inlaid work. There are many species of ebony. The best is that which is jet black, free from veins and rind, very compact, astringent, and of an acrid, pungent taste. This species (denominated by botanists *Diospyrus Ebenus*) is found principally in Madagascar, the Mauritius, and Ceylon. The centre only of the tree is said to be valuable. In 1866 we imported 1,922 *tons* of ebony, principally from the West coast of Africa, Ceylon &c. Besides the black, there are red, green, and yellow ebonies; but the latter are not so much esteemed as the former. Cabinet-makers are in the habit of substituting pear-tree and other woods dyed black for genuine ebony: these, however, want its polish and lustre, though they hold glue better. The price of ebony varied in the year 1866 from 8*l.* 13*s.* 6*d.* to 9*l.* 12*s.* 6*d.* the ton. The duty, 1*s.* per ton, was repealed from March 26, 1866.

EEL (*Anguilla muræna* of Linnæus). A fish, the appearance of which is too well known to require any description. It is a native of almost all the waters of Europe, frequenting not only rivers, but stagnant pools. Eels are in many places extremely abundant, particularly in Holland and Jutland. Several ponds are appropriated in England to the raising of eels, and considerable numbers are taken in the Thames and other rivers. But a large portion of the eels used in England are furnished by Holland. Indeed, very few except Dutch eels are ever seen in London; and even Hampton and Richmond are principally supplied by them. The trade is carried on by Dutch traders, who employ in it several small vessels, by means of which the market is regularly and amply provided for. A cargo of eels is supposed to average from 15,000 to 20,000 lbs. weight, and was charged down to 1853, when it was repealed, with a duty of 18*l.* 18*s.* In 1866, 13,710 cwts. of eels were imported from Holland, valued at 43,187*l.*

EGGS (Fr. œufs; Lat. ova). Eggs differ in size, colour, taste &c. according to the different species of birds that lay them. The eggs of poultry are those most commonly used as food, and form an article of very considerable importance in a commercial point of view. The eggs of plovers, which are esteemed a great delicacy, are also extensively used in London during a part of the season, and make, indeed, a perpetually recurring dish at fashionable dinners. Vast quantities of the eggs of poultry are brought from the country to London and other large towns, besides being very largely imported from the Continent. At this moment the trade in eggs forms no inconsiderable branch of our trade with France, and affords constant employment to a number of small vessels.

In 1854 the duty on eggs was fixed at 8*d.* per cubic foot (about 200) on those brought from a foreign country, and at 4*d.* per ditto on those brought from a British possession. This duty, which produced 24,721*l.* in 1858, was repealed in that year.

In 1866 we imported no fewer than 438,878,880 eggs, almost entirely from France, Belgium, and Spain, but especially France, which furnished by far the largest portion of the entire supply. These eggs were valued at 1,105,653*l.* They are reckoned by the great hundred of 120.

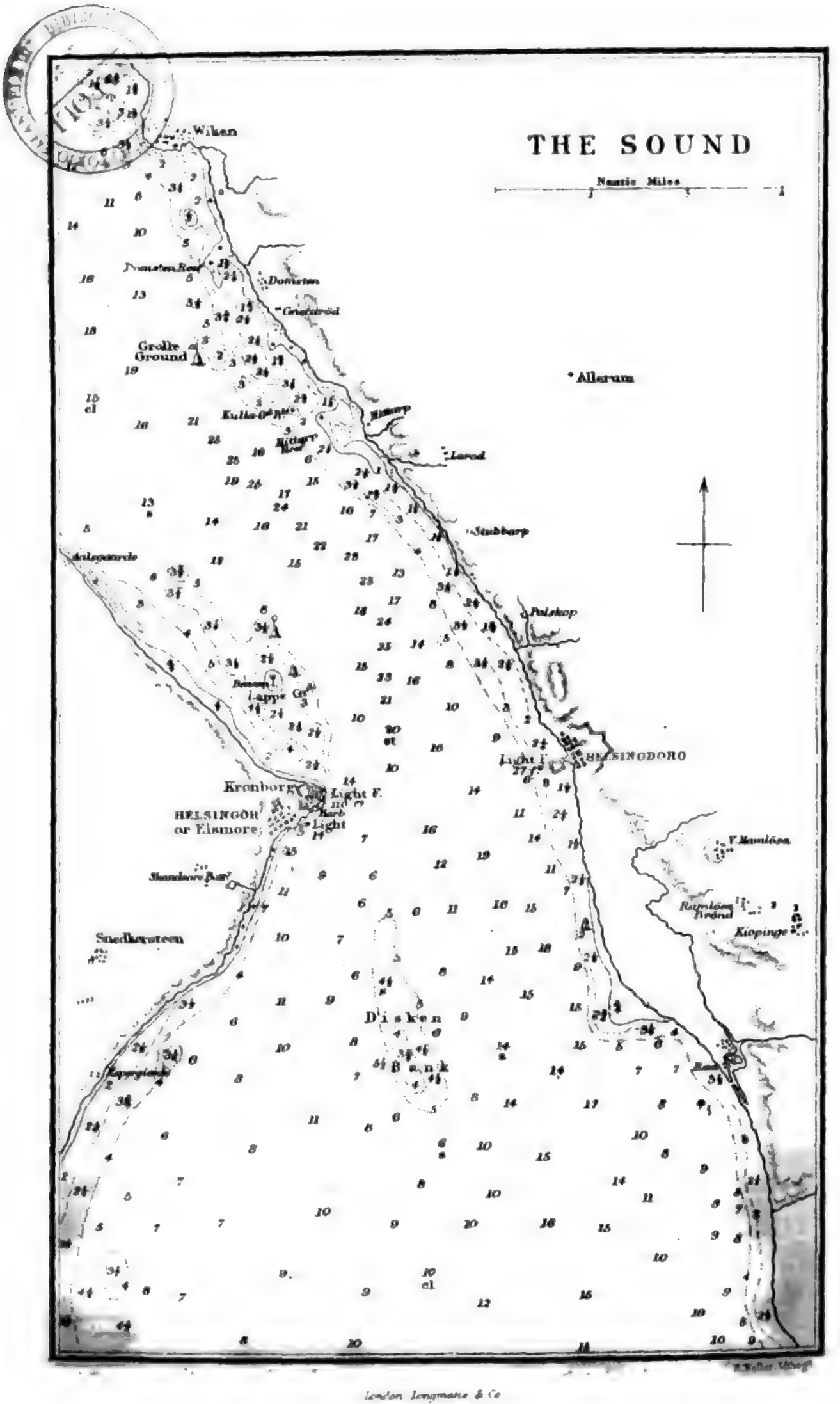
Plovers' eggs are found in most parts of England, but especially in the fens. Considerable supplies are also derived from Holland. Eggs are reckoned at 40 cubic feet to the ton.

EJOO. [GOMUTI.]

ELEMI (Fr. résine élémi; Ger. oelbaumharz; Span. gomma de limon). A concrete, resinous exudation, the botanical source of which is undetermined; procured originally from the Levant, but now supplied chiefly from Manilla. It is used for the most part in pharmacy. It is a soft, unctuous, adhesive mass, becoming harder and more resinous by age, of a yellowish-white colour, with a rather fragrant, fennel-like odour, almost entirely soluble in rectified spirit. (*British Pharmacopœia of the Medical Council*, 1867.)

ELEPHANTS' TEETH. Under 20 lbs. weight, they are called scrivellas. In Bengal and Madras they are reckoned at 16 cwt. to the ton in bulk, 50 cubic feet in cases; Bombay 18 cwt. in bundles, 20 cwt. loose. (Stevens *On Stowage.*) [IVORY.]

ELM (*Ulmus*). A tree common in Great Britain, said to have been introduced to this country by the Crusaders. The tree does best in low and moist soils. It attains to a great size, and lives to a great age: its trunk is often rugged and crooked, and it is of slow growth. The colour


THE SOUND
Nautic Miles
Wiken
Grolle Ground
Allerum
Stubbarp
Palskop
HELSINGODORO
Kronborg
Light F.
HELSINGÖR
or Elsinore
Light
Diseken
Bank
London, Longmans & Co

of the heart-wood of elm is generally darker than that of oak, and of a redder brown. The sap-wood is of a yellowish or brownish white, with pores inclined to red. It is in general porous, and cross-grained, sometimes coarse-grained, and has no larger septa. It has a peculiar odour. It twists and warps much in drying, and shrinks very much both in length and breadth. It is difficult to work, but is not liable to split, and bears the driving of bolts and nails better than any other timber. In Scotland, chairs and other articles of household furniture are frequently made of elm wood; but in England, where the wood is inferior, it is chiefly used in the manufacture of coffins, casks, packing cases, pumps, pipes &c. It is appropriated to these purposes from its great durability in water, which also occasions its extensive use as piles and planking for wet foundations. The naves of wheels are frequently made of elm; those of the heavy waggons and drays of London are made of oak, which supports a heavier weight, but does not hold the spokes so firmly. Elm is said to bear transplanting better than any other large tree. (Tredgold's *Principles of Carpentry*, pp. 201-203 &c.)

ELSINEUR or HELSINGOR. A town of Zealand, on the Sound, about 22 miles north of Copenhagen, lat. 56° 2′ 17″ N., long. 12° 38′ 2″ E. Population 8,442 in 1861. Adjacent to Elsineur is the castle of Cronborg, which commands the entrance to the Baltic by the Sound. All merchant ships passing to and from the Baltic were obliged, previously to 1857, to salute Cronborg Castle by hoisting their colours when abreast of the same; and no merchant ship was allowed to pass the Sound without clearing out at Elsineur, and paying toll, according to the provisions in the treatics to that effect negotiated with Denmark by the different European powers. The first treaty with England having reference to this subject is dated in 1450. The Sound duties had their origin in an agreement between the King of Denmark on the one part, and the Hanse Towns on the other, by which the former undertook to construct light-houses, landmarks &c. along the Kattegat, and the latter to pay duty for the same. The duties have since been varied at different periods; but being a serious obstruction to navigation, and much objected to, they were finally repealed in 1857, on compensation being made to Denmark according to the subjoined treaty. The accompanying plan of the Sound is taken from the Admiralty Chart, compiled by Danish authorities.

Navigation of the Baltic.—This is exhibited in the following account of the number of ships that passed (going and returning) the Sound at different periods, previous to the repeal of the dues, from 1777 to 1856, specifying the countries to which they belonged:—

Countries	1777	1780	1783	1790	1814	1816	1820	1825	1830	1835	1840	1851	1856
British Islands	2,552	1,701	2,537	3,771	2,319	1,848	3,397	5,186	4,274	2,472	4,071	4,811	4,772
Holland	2,567	2,058	1,571	2,009	551	876	853	630	1,227	654	947	2,060	1,908
Sweden	1,773	1,880	2,136	430	2,759	2,042	1,519	1,519	1,188	991	1,364	2,255	2,538
Denmark	1,110	1,341	1,787	1,586	476	787	792	803	744	752	974	1,518	2,396
Prussia	472	671	1,358	599	1,033	1,014	1,554	2,391	2,253	1,938	2,998	2,664	2,836
Russia	47	43	114	6	495	599	242	356	405	625	814	1,047	422
United States	..	..	20	44	..	168	169	230	152	126	143	134	91
France	91	..	20	123	12	16	63	72	199	146	239	288	389
Spain	10	..	15	32	22	9	..	..	8	7	18	..	2
Hanover	..	..	..	..	55	263	458	413	645	586	768	661	829
Imperial (Austria)	5	30	66	6	..	..	..	..	..	..	..	2	..
Dantzic	251	174	161	248	..	..	..	..	..	..	..	..	..
Mecklenburg	..	..	..	..	..	386	547	602	664	583	962	1,077	799
Oldenburg	..	..	..	21	18	9	47	54	56	46	85	222	160
Lübeck	78	82	79	89	28	45	64	121	80	71	96	125	86
Bremen	82	146	176	177	248	111	59	54	79	43	59	53	35
Hamburg	22	31	61	104	56	3	15	31	25	21	23	77	86
Rostock	79	104	101	339	..	..	..	..	..	..	..	..	..
Portugal	18	21	28	28	42	48	2	9	..	..	..	..	30
Courland	2	7	25	22	..	..	..	..	..	..	..	..	..
Venice	..	2	4	(It.) 6	9	..	..	..	6	..	5	..	..
Norway	..	..	..	..	83	794	946	951	1,202	1,357	2,025	2,894	3,275
Other places	..	..	..	99	..	..	..	..	..	37	73	51	56
Totals	9,055	8,791	10,269	9,742	8,186	8,871	10,926	13,140	13,212	10,255	15,662	19,919	20,680

The statements in this table for the years 1777 and 1780 are taken from the valuable work entitled *Voyage de Deux François au Nord de l'Europe* (i. 360); the other years are taken from the returns sent by the British consul at Elsineur, and other sources. We have seen no two returns of the shipping that pass the Sound which quite agree, though the differences are not very material. The British consul first began to send returns of the tonnage in 1831.

The Oder, Vistula, and other great rivers which flow into the Baltic, and the many large cities that are built on or near its shores, have made it the theatre of a very extensive commerce. In this respect its importance was much increased by the foundation of Petersburg, the trade of which is now of great extent and value. Raw products, including corn, timber, hemp and flax, tallow, hides, linseed, bristles, wool &c., constitute the principal articles of export from the Baltic ports; colonial products, manufactured goods, dry stuffs, wine, salt, coal &c. being among the principal articles of import. The leading ports, setting out from the Sound, are Copenhagen, Lübeck, Wismar, Rostock, Swinemunde, Dantzic (which, next to Odessa, is the principal European port for the shipment of wheat), Königsberg, Memel, Riga, Petersburg, and Stockholm. The United Kingdom has by far the largest portion of the foreign trade of the Baltic. This is evident from the fact of the British ships passing the Sound greatly exceeding those of any other country. In 1857 we imported from the Baltic about 1,580,000 qrs. wheat, 980,000 do. barley, and 1,260,000 do. oats; and in 1866, 14,876,500 cwt. of wheat, 4,314,722 cwt. of barley, and 6,472,870 cwt. of oats, exclusive of very large quantities of tallow, hemp and flax, timber, linseed, bristles &c.

The harbour as well as the railway bedding or patent slip, which were finished in the autumn of 1868, were (says Mr. Hudson, the United States' Consul at Elsineur) 'of the greatest benefit to the town and its shipping. The harbour contains about 200,000 square feet, with a depth of 18 feet. The docks are 1,740 feet in length, with plenty of good wharfage. The depth at the mouth of the harbour is 18 feet, with a breadth of 128 feet. The patent slip is an inclined plane of 692 feet in length, being 265 feet above and 427 feet under the water, and a stationary engine raises the vessel on the bedding. Vessels of 1,000 tons burden are raised with the greatest facility, and 2 good-sized vessels can occupy the bedding at the same time. It is well worthy the attention of masters and owners

of vessels. Repairs are generally done with despatch.' (For new Danish laws as to measurement of vessels, see COPENHAGEN.)

Pilotage &c.—When ships come into Elsineur roads, or lie wind-bound near the Lappen, watermen come on board to enquire if the master will be carried ashore to clear; and in rough weather it is always best to make use of their services, their boats being generally very safe. The Danish authorities have published a table of rates, being the highest charge that can be made by the boatmen upon such occasions; but captains may bargain with them for as much less as they please. Most ships passing the Sound take on board pilots, the signal for one being a flag at the fore-topmast-head. Those bound for the Baltic take a pilot at Elsineur, who either carries the ship to Copenhagen, or Dragoe, a small town on the south-east extremity of the Island of Amack, where she is clear of the grounds. Those leaving the Baltic take a pilot from Dragoe, who carries the ship to Elsineur. Sometimes, when the wind is fresh from the E. and S.E., it is impossible for a ship bound for Copenhagen or the Baltic to double the point of Cronborg; and in that case an Elsineur pilot is sometimes employed to moor the ship in the channel towards Kull Point on the Swedish shore, in lat. 56° 18′ 3″ N., long. 12° 26′ E. But this does not often happen, as the Danish Government employ steam tugs for the special purpose of bringing ships, in adverse weather, round Cronborg Point. The pilots are regularly licensed, so that, by employing them, the captain's responsibility is at an end. Their charges are fixed by authority, and depend on the ship's draught of water. We subjoin a copy of the tariff applicable to pilots taken on board at Elsineur to carry ships to Dragoe, Copenhagen, or Kull Point, with the sums both in silver and in Rigsbank paper dollars.

Pilotage from April 1 to September 30.

Ships drawing water	Dragoe				Copenhagen				Kull Point			
	Silver		Paper		Silver		Paper		Silver		Paper	
feet	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.
Under 8	11	78	12	18	9	10	9	38	5	72	5	89
Between 8 and 9	13	16	13	56	10	6	10	36	6	63	6	83
9 — 10	14	50	14	94	11	2	11	33	7	53	7	76
10 — 11	15	84	16	36	11	94	12	34	8	44	8	69
11 — 12	17	22	17	74	12	91	13	33	9	35	9	63
12 — 13	18	56	19	16	13	87	14	32	10	25	10	56
13 — 14	19	90	20	54	14	83	15	31	11	16	11	50
14 — 15	21	28	21	92	15	78	16	30	12	7	12	43
15 — 16	22	62	23	34	16	75	17	28	12	93	13	36
16 — 17	24	65	25	43	18	56	19	16	13	84	14	30
17 — 18	26	68	27	52	20	37	21	2	15	44	15	90
18 — 19	28	71	29	61	22	19	22	86	17	3	17	54
19 — 20	30	74	31	72	24	0	24	72	18	59	19	19
20 — 21	32	77	33	80	25	77	26	58	20	19	20	80
21 — 22	34	80	35	89	27	59	28	46	21	74	22	43
22 — 23	36	83	38	1	29	40	30	32	23	34	24	28

Pilotage from October 1 to March 30.

Ships drawing water	Dragoe				Copenhagen				Kull Point			
	Silver		Paper		Silver		Paper		Silver		Paper	
feet	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.	r. b. dr.	sch.
Under 8	14	92	15	40	11	85	11	70	7	53	7	76
Between 8 and 9	16	73	17	30	12	61	13	2	8	73	9	3
9 — 10	18	56	19	16	13	88	14	64	9	92	10	26
10 — 11	20	37	21	2	15	19	15	64	11	16	11	50
11 — 12	22	19	22	86	16	47	17	0	12	36	12	73
12 — 13	24	0	24	72	17	73	18	30	13	85	14	0
13 — 14	25	77	26	58	19	4	20	62	14	75	15	21
14 — 15	27	59	28	46	20	29	20	90	15	95	16	48
15 — 16	29	40	30	32	21	57	22	26	17	17	17	68
16 — 17	32	12	33	12	24	0	24	72	18	37	18	92
17 — 18	34	80	35	88	26	39	27	22	20	48	21	14
18 — 19	37	52	38	68	28	79	29	70	22	57	23	28
19 — 20	40	24	41	48	31	21	32	19	24	68	25	46
20 — 21	42	92	44	28	33	60	34	65	26	79	27	64
21 — 22	45	64	47	9	36	4	37	16	28	88	29	78
22 — 23	48	36	49	85	38	43	39	62	31	8	32	0

N.B.—When a pilot is taken on board at Dragoe to carry a ship to Elsineur, the charge is the same as that given under the first head of the above column. (*Archives du Commerce*, tome iii. p. 145.)

The *Moneys*, *Weights*, and *Measures* of Elsineur are the same as those of Copenhagen (which see), except that the rixdollar is divided into 4 *orts* instead of 6 marcs: thus, 24 skillings make 1 ort, and 4 orts 1 rixdollar.

Treaty for Abolition of Sound Dues agreed to at Copenhagen, on March 14, 1857, by the following Powers:—The Queen of the United Kingdom of Great Britain and Ireland, the Emperor of Austria, the King of the Belgians, the Emperor of the French, the King of Hanover, the Grand Duke of Mecklenburg-Schwerin, the Grand Duke of Oldenburg, the King of the Netherlands, the King of Prussia, the Emperor of Russia, the King of Sweden and Norway, and the Senates of the Free Hanseatic Cities of Lübeck, Bremen, and Hamburg, on the one part; and the King of Denmark on the other part.

I. The King of Denmark engages to the Queen of the United Kingdom of Great Britain and Ireland &c.—

1. Not to levy any duty of customs, tonnage, lights, lighthouses, beacons, or any other charge whatever, either in regard to vessels or cargo, upon ships sailing from the North Sea to the Baltic, or vice versâ, on passing through the Belts or the Sound, whether they simply traverse the Danish waters or whether they may be obliged by casualties or by commercial operations to anchor or lie-to therein. No vessel whatever shall henceforward be subjected, under any pretext, to any detention or impediment whatever in the passage of the Sound or of the Belts; but the King of Denmark expressly reserves to himself the right of regulating, by special arrangements, not involving visit or detention, the treatment, in regard to duties and customs, of vessels belonging

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to Powers which are not parties to the present Treaty.

2. Not to levy upon such of the said vessels as may enter or depart from Danish ports, whether with cargo or in ballast, and whether they have or have not performed any operation of commerce therein, nor upon their cargoes, any tax whatever to which such vessels or their cargoes would have been liable on account of the passage through the Sound and the Belts, and which is abolished by the stipulations of the preceding paragraph; and it is well understood that the taxes which shall be so abolished, and which consequently shall not be levied either in the Sound and the Belts or in Danish ports, shall never be reimposed indirectly by any augmentation, for that purpose, of the port and customs dues now existing, nor by the introduction, for that purpose, of fresh dues of navigation or customs; nor in any other manner whatever.

II. The King of Denmark engages, moreover, to the above-mentioned high contracting parties—

1. To preserve and maintain in the best state all the lights and lighthouses actually existing either at the entrance or in the approaches to his ports, harbours, roads, and rivers or canals, or along his coasts, as well as the buoys, beacons, and sea-marks actually existing, and serving to facilitate navigation in the Kattegat, the Sound, and the Belts.

2. To take into most serious consideration, as heretofore, in the general interest of navigation, the utility or expediency either of changing the position or the form of such lights, lighthouses, buoys, beacons, and sea-marks, or of increasing the number thereof; the whole without charge of any kind upon foreign vessels.

3. To superintend, as heretofore, the service of pilotage, the employment of which, in the Kattegat, the Sound, and the Belts, shall at all times be at the option of captains and masters of vessels. It is understood that the charges for pilotage shall be moderate; that the rate thereof shall be the same for Danish vessels and for foreign vessels; and that the charge for pilotage shall be exacted from those vessels only which shall have voluntarily employed pilots.

4. To permit, without any restriction, any private individuals, Danes or foreigners, to establish and to station in the Sound and in the Belts, freely and on the same conditions, whatever nation they may belong to, tugs serving exclusively for the towing of vessels which may desire to employ them.

5. To extend to all the roads or canals which do now or may hereafter connect the North Sea and the Elbe with the Baltic, the exemption from dues *which is at present* accorded, on some of those lines of communication, to the national or foreign goods enumerated in the following list:—

Agaric; amadou, not prepared; yellow amber; living animals of all kinds; antimony; live trees and shrubs; slates and slate-pencils; slate for roofing; silver in bars and for remelting; arsenic; asphaltum (bitumen Judaicum or glutinous bitumen); assafœtida; valonia; berries or seeds of juniper; brooms and rubbers (unless comprised under the article 'brushes'); bamboo, Indian reeds or canes, and other rough reeds not manufactured; butter; spermaceti, and oil of spermaceti; grain; buckwheat, barley, oats, maize, rye, wheat, vetches; wood for the use of apothecaries; dye-woods; wood of all kinds; float-wood, wood to be used instead of cork as floats for fishing nets; bole, white and red, and terra sigillata; borax, crude or refined; gut; bricks; pounded brick, or brick powder; bronze or bell-metal; brushwood (*buisson*); bulbs or roots of flowers; cadmium; calamine; camphor; cantharides; floor-stones (*carreaux*); maps and charts; castoreum; ashes; potash, soda, and other kinds of ashes; wooden hoops; hemp, dressed or undressed; charcoal; teasles; wheelwright's work (*charronnage*); lime; rags; cement of all kinds; wax; isinglass; shells; corals; cordage; ox and cow horns (or horns of black cattle) as well as horn-tips; cotton; copper; rose-copper (Garkupher, not forged or prepared by rollers) and copper in sheets for coining; waste of grain; grits as forage for cattle; bran, straw, chaff, and other waste of grain; elephant's teeth or ivory; teeth of the walrus (the sea-horse or sea-cow); law or business documents; staves, or stave wood; tortoise-shell; patterns of no value; scaleboards for binders, shoemakers, furbishers, as well as split twigs; meerschaum; packages, old or used; casks, cases, trunks, chests, bags or sacks, and old wicker flasks, empty; emery; tin, raw, unwrought, and rasped tin (*étain râpé*); whalebone, whalefins, whalebone not split; flour or meal made of grain which is free from transit duty: feldspar, not pulverised; pig-iron, raw; bar-iron of all kinds (hoop-iron, however, is liable to duty); beans; figures and statues in plaster; flowers and flower-plants; flores cassiæ (cassia buds); hay; dung and artificial manure; also, for example, patent manures, *noir animal* &c. (Chile saltpetre, sulphated ammoniac, and similar goods are not exempt, notwithstanding they may be intended for manure. Plaster in powder is, however, exempt from transit duty when certified as intended to be used only for manure); rough ice (natural); acorns; globes; tar and tar-water; seeds, hemp, flax, colza, and other seeds of all kinds, as well as seeds for the use of apothecaries, as, for example, fennel-seed (caraway and aniseed are liable to duty); clothes and baggage of travellers, household furniture, and implements which have been used, if they are transported in consequence of a change of residence; clothes or garments, which have been worn, transported, according to the judgment of the officers of customs, as travellers' baggage, without its being necessary for the owner to accompany them; fresh pot-herbs, as well as whortleberries or bilberries, strawberries, raspberries, gooseberries, red or spotted whortleberries (*airelles rouges ou ponctuées*), green gooseberries, hips, fresh grapes, horse-radish, and onions; coal of all kinds, as well as coke and cinders; oil of hemp; oysters; reed for thatching; wool of all kinds; milk; brass, unwrought (not forged and not prepared by rollers); blubber, liver &c. for making train-oil; bacon; lentils; lees of wine in a dry state (sediment of wine); cork; flax, dressed or undressed; printed books with the prints which belong to them, bound or unbound; malt; manganese; manna; medals; metals, unwrought (bronze and other alloys of metals similar to brass), not forged, and not prepared by rollers; black lead; ore, not melted, of all kinds; minerals, and objects of natural history, such as earths, stones, and ores, plants and fruits, shells, insects, birds, and other animals, stuffed or preserved in spirit of wine for cabinets of natural history or scientific collections; models of all kinds; coin of all kinds; moss for packing and stuffing, and *coton silvestre*; music, manuscript or printed; musk; mother-of pearl, rough or in shells; mats, used; galls; objects of art, such as statues, busts, bas-reliefs; opium; gold in bars, and for remelting; peeled, shelled, or hulled barley, and groats made of grain which is free from transit duty; bones; osiers, peeled or unpeeled; rope-maker's work, including hemp-webs and fishing-

nets; straw, and straw cut or chopped; skins, curried or not curried, without exception, such as fur-skins, calf or sheep skins, cordovan, morocco &c.; walrus-skins (of the sea-horse or sea-cow); juniper-poles; pearls (real); pumice-stone; blood-stone or hæmatites; lime-stone; chalk-stone, and chalk in powder; plaster-stone; precious stones; stones of all kinds; veneers; platina unwrought; lead in pigs, blocks, and moulds, old lead for remelting, and old sheet-lead; feathers for beds, and down; hair of all kinds (including bristles, hair, and wool of pigs); hair curled or crisped is liable to duty; peas; fresh fish; pitch; potatoes; pozzolana; paper-cuttings and shavings, and waste of paper of all kinds; brown-red, or Spanish brown (*rouge brun*); blood; leeches; salt (except medicinal salt); steatite; tallow; sumach; pictures, as well as engravings, lithographies, and stanographies; tanner's bark or tan; Cologne earth, white; clay, such as pipe-clay, marl, English clay, china clay, fuller's earth, clay for refining sugar (or sugar clay), and other kinds of clay, argil, and marl, unless they fall under the class of colours; turtles; turf; tripoli; tiles; quills; sea-weed for packing and stuffing; Muscovy glass (*verre de Moscovie ou pierre spéculaire*); meat, fresh and salted; quicksilver; vehicles of all kinds, as well as railway carriages and tenders (locomotives are liable to duty); detached parts of such vehicles and railway carriages (and dismounted vehicles and railway carriages) are liable to duty, unless they can be considered as wheelwright's work (*ouvrage de charron*); crab's eyes; zinc, raw, not wrought, or in cakes.

It is understood that if hereafter other articles should, on any line of communication whatever, be allowed a similar exemption, such exemption from transit duty shall be extended as a matter of right to all the lines of communication above specified.

6. To reduce on all the said roads or canals to a uniform rate, in proportion to weight, not exceeding sixteen (16) skillings Danish, per 500 lbs. Danish, the transit duty on all goods which are now chargeable with duty, such charge not to be augmented by any other charge, under any denomination whatever.

In case the transit duties should be reduced below the rate above specified, the King of Denmark engages to place all the roads or canals which do or may connect the North Sea and the Elbe with the Baltic or its tributaries, on a footing of perfect equality with the most favoured roads which now exist, or may hereafter be established, upon his territory.

7. The King of Sweden and Norway having, by a special convention concluded with the King of Denmark, contracted with the said King the engagement to maintain the lighthouses upon the coasts of Sweden and Norway which serve to light and facilitate the passage of the Sound and the entrance of the Kattegat, the King of Denmark engages to make a definite arrangement with the King of Sweden and Norway for insuring for the future the maintenance and support of those lighthouses as hitherto, without any charge on that account upon vessels passing by the Sound and the Kattegat.

III. The engagements contained in the two preceding Articles shall come into operation from and after April 1, 1857.

IV. As compensation for the sacrifices which the stipulations above mentioned will impose upon the King of Denmark, the Queen of the United Kingdom of Great Britain and Ireland, and the other contracting parties, engage on their part to pay to the King of Denmark, who accepts the same, a total sum of 30,476,825 rix-dollars, to be thus assessed:—

	Rd. R. M.
Upon Great Britain	10,126,855
Austria	29,134
Belgium	301,455
Bremen	218,585
France	1,919,003
Hamburg	107,012
Hanover	123,387
Lübeck	102,996
Mecklenburg	373,663
Norway	667,285
Oldenburg	28,127
Netherlands	1,408,060
Prussia	4,110,027
Russia	9,739,993
Sweden	1,599,503

It is fully understood that each of the high contracting parties shall be eventually responsible only for the share placed to its own charge.

V. The sums specified in the preceding Article may, subject to the reservations hereinafter set forth in sec. 3, Art. VI., be paid in 20 years, by 40 equal half-yearly payments, which shall cover both capital and the interest accruing on instalments not due.

VI. Each of the high contracting Powers engages to regulate and determine with the King of Denmark, by a separate and special Convention:—

1. The mode and the place of payment of the forty above-mentioned half-yearly instalments for the amount placed to its charge by Art. IV.

2. The mode and the rate of conversion into foreign money of the amounts of Danish currency specified in the same article.

3. The conditions and the mode of entire or partial redemption which each power expressly reserves to itself the right to effect at any time, in order to anticipate the total discharge of its share of the indemnity hereinbefore stipulated.

VII. The execution of the reciprocal engagements contained in the present treaty is expressly declared to be subject to the fulfilment of the formalities and rules prescribed by the constitutional laws of those of the High Contracting Parties for whom such a sanction is needful, and who engage to take measures for obtaining the same with the least possible delay.

VIII. The present treaty shall be ratified, and the ratifications shall be exchanged, at Copenhagen before April 1, 1857, or as soon as possible after that date.

In witness whereof the respective Plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at Copenhagen, March 14, 1857.

Then follow the signatures.

At the rate of 9 rix-dollars to 1 pound sterling, the total compensation awarded to Denmark by the above treaty amounts to 3,386,258*l.*, of which the portion to be paid by Great Britain amounts to 1,125,206*l.*

The United States were not a party to the above Treaty, but they soon after (April 11, 1857) agreed to pay Denmark a compensation of 717,829 rix-dollars for the abolition of the dues levied on their ships. The determination of the United States not to submit to the payment of the dues was, in fact, the immediate cause of their abolition.

EMBARGO. An order issued by the government of a country to prevent the sailing of ships.

When hostilities are apprehended with a country, it is not unusual to take the questionable step of laying an embargo on its ships and goods: sometimes an embargo is imposed on vessels laden with articles of which it is thought expedient to prevent the exportation; sometimes it is resorted to, in cases of emergency, in the view of obtaining ships for the conveyance of troops or other purposes; and sometimes, as in the case of the embargoes of the United States in 1807 and 1812, it

is intended as a hostile demonstration. But an embargo for the prevention of intercourse with others rarely answers: that stoppage of trade which it is intended to effect is in general as injurious to those by whom the embargo is enacted as to those against whom it is levelled.

EMERALD (Fr. émeraude; Ger. smaragd; Ital. smeraldo; Lat. smaragdus; Span. esmeralda; Pers. pachec; Arab. zamarut). A precious stone in high estimation. It is distinguished from all other gems by its peculiar *emerald green* lustre, varying in intensity from the palest possible tinge to a full and deep colour, than which, as Pliny has truly stated, nothing can be more beautiful and pleasing: 'nullius coloris aspectus jucundior est.' It emulates, he continues, if it do not surpass, the verdure of the spring; and the eye, satiated by the dazzling glare of the more brilliant gems, or wearied by intense application, is refreshed and strengthened by the quiet, enlivening green of the emerald. In Pliny's time the best came from Scythia. Those met with in modern times do not often exceed the size of a walnut. Some of a much larger size, and perfect, have been found, but they are extremely rare. Nero used one as an eye-glass in surveying the combats of the gladiators. Hitherto it has always been found crystallised. Specific gravity from 2·6 to 2·77. (Plin. *Hist. Nat.* lib. xxxvii. c. 5; Thomson's *Chemistry*.)

The green of the emerald is said to be derived from organic substances.

The emerald is found at Muzo in New Granada, near Santa Fé de Bogotá, in a bituminous limestone rock. The mines were let at a rent of 8,000*l*. per annum, but the speculation does not seem to have answered. It is also found in mica slate at Henbachthal, in Salzburg, in Siberia, and in the Burman empire near Ava. But the emerald has been known from the remotest ages. It is rarely found perfect. Latterly it has enormously increased in value: Mr. Emanuel says that perfect emeralds of a deep rich grass green are now worth from 20*l*. to 40*l*. the carat. The size of the emerald does not increase its value in the same ratio that it does that of the diamond and ruby. It may be added that there are many very fine emeralds in European and Asiatic treasuries, those which belong to the Russian, Saxon, and Papal crowns being singularly large and beautiful. In the Austrian treasury there is an emerald weighing 2,000 carats, and the Duke of Devonshire has one 9 ounces in weight. (Emanuel *On Diamonds &c.*)

EMERY (Fr. émeril, émeri; Ger. smirgel; Ital. smerglio, smeregio; Span. esmeril; Russ. nashdak; Lat. smiris). A mineral brought to Britain from Naxos, Smyrna &c. It occurs also in Germany, Italy, and Spain. It is always in shapeless masses, and mixed with other minerals. Colour intermediate between greyish black and bluish grey. Specific gravity about 4. Lustre glistening and adamantine. Emery is extensively used in the polishing of hard bodies. Its fine powder is obtained by trituration. (Thomson's *Chemistry*.)

Most part of the emery that is at present used in the arts comes from Asia Minor. In 1847 an American geologist discovered a deposit of emery in the vicinity of Smyrna, and the supplies from thence are very extensive. The quantity, however, received from Asia Minor varies greatly from year to year. Thus for the five years ending with 1866 the imports into the United Kingdom from this region have been 6,502, 33,964, 27,610, 3,150, and 36,908 cwts. The price of emery is about 9*s*. per cwt.

Emery is really a coarse variety of corundum. It is found in Cornwall, and latterly it is said to have been discovered in large quantities in California.

When Mediterranean wheat is freighted at 1*s*. per quarter, emery stone is rated at 4*s*. 8*d*. per ton of 20 cwt.

ENGROSSING. 'The buying up of corn and other dead victuals, with intent to sell them again.' (Blackstone, book iv. c. 42.) We have shown, in another article, how absurd it is to suppose that this practice should have any injurious influence [CORN LAWS]. But, for a long time, most scarcities that occurred were either entirely ascribed to the influence of engrossers and forestallers [FORESTALLING] or, at least, were supposed to be materially aggravated by their proceedings. In consequence, however, of the prevalence of more just and enlarged views upon such subjects, the statutes that had been made for the suppression and punishment of engrossing, forestalling &c. were repealed in 1772. But notwithstanding this repeal, engrossing continues to be an indictable offence, punishable at common law by fine and imprisonment; though it is not at all likely, were an attempt made, that any jury would now be found ignorant or prejudiced enough to convict any one on such a charge.

ENTRY, BILL OF. [IMPORTATION.]

ERMINE (Ger. hermelin; Fr. hermine, ermine; Russ. gornostai). A species of weasel (*Mustela candida*, Linn.) abundant in all cold countries, particularly Russia, Norway, Lapland &c., and producing a most valuable species of fur. In summer the ermine is of a brown colour, and is called the *stoat*. It is in winter only that the fur has that beautiful snowy whiteness and consistence so much admired. [FURS.]

ESPARTO. A species of rush—the *Stipa tenacissima* of botanists. It is found in the southern provinces of Spain, and is particularly abundant on all the sterile, uncultivated, and mountainous districts of Valencia and Murcia. Beckmann (*History of Inventions*, vol. ii. p. 288, Eng. ed.) supposes, apparently with good reason, that the *Stipa tenacissima* is the plant described by Pliny under the name of *Sparta*, who ascribes its application to useful purposes to the Carthaginians. (*Hist. Nat.* lib. xix. c. 2.) It is still used for the same purposes as in antiquity, being manufactured into cordage, shoes, matting, baskets, nets, mattresses, sacks &c. Cables made of esparto are said to be excellent: being light, they float on the surface of the water, and are not, therefore, so liable as hempen cables to be cut or injured by a foul bottom. They are exclusively made use of in the Spanish navy. Esparto is largely consumed in the manufacture of *alpergates*. These are light shoes worn by the Valencian peasantry, having platted soles made either of esparto or hemp, but principally of the former. They are extremely cheap and commodious in hot climates; and besides being in extensive demand at home, used to be exported in immense quantities to both Indies: but since the emancipation of Spanish America this trade has greatly fallen off. The Spanish peasantry have attained to wonderful dexterity in the manufacture of esparto. 'After having soaked the rush in water, the women and children, without either wheel or spindle, contrive to twist two threads at the same time. This they do by rubbing them between the palms of their hands, in the same manner as a shoemaker forms a thread upon his knees, with this difference, that one motion gives the twist to each thread, and at the same time unites them. To keep the threads asunder, the thumb of the right hand is interposed between them; and when that is wanted for other

purposes, the left thumb supplies its place. Two threads being thus twisted into one of the bigness of a large crow-quill, 46 yards are sold for little more than ¼*d.*, the materials being worth about ¼ part of the price.' (Townsend's *Travels in Spain*, vol. iii. p. 177—see also p. 129; Fischer's *Picture of Valencia*, Eng. ed. p. 92, and p. 57 &c.)

But despite the falling off in the exports of esparto shoes to America, this branch of industry has materially advanced of late years. Many thousands of women and young persons are said to be constantly employed in the country between Alicant and Almeria in the production of nets, mats, and other light articles, exclusive of great numbers of men engaged in the manufacture of cables and cordage of all sorts. Esparto matting has come into very extensive demand, and the various articles made from the rush, *esparto labrado*, form a considerable item in the exports of Spain. About 20,000 tons are annually shipped from Aguilas, near Carthagena, besides considerable quantities from the latter, Alicant, and Valencia [ALICANT]. They are mostly sent to Marseilles; but partly also to other ports of Spain, and to England and other countries. Machinery has been successfully introduced into various branches of the manufacture, and the demand for its produce is said to be rapidly extending. We imported in 1866, 70,041 tons of esparto and other vegetable fibre for making paper. (*Annales du Commerce Extérieur*, 1858; *Parl. Papers*; &c.)

ESTRICH or ESTRIDGE (Fr. duvet d'autruche; Ital. penna matta di strozzo; Span. plumazo de avestrux; Lat. *struthionum* plumæ molliores). The fine soft down which lies immediately under the feathers of the ostrich. The finest is used as a substitute for beaver in the manufacture of hats, and the coarser or stronger sort is employed in the fabrication of a stuff which resembles fine woollen cloth. Estridge is brought from the Levant, Italy, and other parts of the Mediterranean.

EUPHORBIUM (Ger. euphorbiengummi; Lat. euphorbium; Fr. euphorbe; Arab. akal-nafzah). This is a kind of resin, obtained from Northern Africa, the Cape of Good Hope, the Canary Islands and Western Africa, and also from Egypt and the East. It is exceedingly acrid, producing a sense of insupportable heat in the mouth and throat. At one time it was used in medicine, both externally and internally, but in consequence of its violent action its use is now discontinued. Its chief employment is for veterinary purposes.

EXCHANGE. In Commerce, this term is generally used to designate that species of mercantile transactions by which the debts of individuals residing at a distance from their creditors are cancelled without the transmission of money.

Among cities or countries having any considerable intercourse together, the debts mutually due by each other approach, for the most part, near to an equality. There are at all times, for example, a considerable number of persons in London indebted to Hamburg; but speaking generally, there are about an equal number of persons in London to whom Hamburg is indebted. And hence, when A of London has a payment to make to B of Hamburg, he does not remit an equivalent sum of money to the latter, but he goes into the market and buys a *bill* upon Hamburg; that is, he buys an order from C of London addressed to his debtor D of Hamburg, requesting him to pay the amount to A or his order. A, having endorsed this bill or order, sends it to B, who receives payment from his neighbour D. The convenience of all parties is consulted by a transaction of this sort. The debts due by A to B, and by D to C, are extinguished without the intervention of any money. A of London pays C of ditto, and D of Hamburg pays B of ditto. The debtor in one place is substituted for the debtor in another; and a postage or two, and the stamp for the bill, form the whole expenses. All risk of loss is obviated.

A bill of exchange may, therefore, be defined to be an order addressed to some person residing at a distance, directing him to pay a certain specified sum to the person in whose favour the bill is drawn, or his order. In mercantile phraseology, the person who draws a bill is termed the *drawer*; the person in whose favour it is drawn, the *remitter*; the person on whom it is drawn, the *drawee*; and after he has accepted, the *acceptor*. Those persons into whose hands the bill may have passed previously to its being paid are, from their writing their names on the back, termed *indorsers*; and the person in whose possession the bill is at any given period is termed the *holder* or *possessor*.

The negotiation of *inland* bills of exchange, or of those drawn in one part of Great Britain and Ireland on another, is entirely in the hands of bankers, and is conducted in the manner already explained. [BANKING.] Bills drawn by the merchants of one country upon another are termed *foreign* bills of exchange, and it is to their negotiation that the following remarks principally apply.

I. *Par of Exchange.*—The *par* of the currency of any two countries means, among merchants, the equivalency of a certain amount of the currency of the one in the currency of the other, *supposing the currencies of both to be of the precise weight and purity fixed by their respective mints.* Thus, according to the mint regulations of Great Britain and France, 1*l.* sterling is equal to 25 fr. 20 cent., which is said to be the par between London and Paris. And the exchange between the two countries is said to be at par when bills are negotiated on this footing; that is, for example, when a bill for 100*l.* drawn in London is worth 2,520 fr. in Paris, and conversely. When 1*l.* in London buys a bill on Paris for more than 25 fr. 20 cent., the exchange is said to be in favour of London and against Paris; and when, on the other hand, 1*l.* in London will not buy a bill on Paris for 25 fr. 20 cent., the exchange is against London and in favour of Paris.

The foregoing statements explain what is usually meant by the *par* of exchange; but its exact determination, or the ascertaining of the precise equivalency of a certain amount of the currency of one country in the currency of another, is exceedingly difficult. If the standard of one be gold and that of another silver, the par must necessarily vary with every variation in the relative values of these metals. This, however, is not all: even where two countries use the same metal for a standard, its value may be greater in one than in the other, and in estimating the par of exchange between them this difference must be taken into account. In illustration of this we may take the case of France and Mexico: they both use silver for a standard; but silver being largely produced in Mexico, is always cheaper there than in France, and is extensively imported into the latter; and taking the cost of this importation at 2 or 3 per cent., it is plain that the exchange would be really at par when it appeared to be 2 or 3 per cent. against Mexico. But the value of the precious metals, even in contiguous countries, is always exposed to fluctuations from the over

issue or withdrawal of paper, from circumstances affecting the balance of payments &c., as shown above. It is obvious, therefore, that it is all but impossible to say, by merely looking at the mint regulations of any two or more countries, and the prices of bullion in each, what is the par of exchange between them. And, luckily, this is not necessary. The importation and exportation of bullion is the real test of the exchange. If bullion be stationary, neither flowing into nor out of a country, its exchanges may be truly said to be at par; and, on the other hand, if there be an efflux of bullion from a country, it is a proof that the exchange is against it, and conversely if there be an influx of bullion into a country.

II. *Circumstances which determine the Course of Exchange.*—The exchange is affected, or made to diverge from par, by two classes of circumstances: *first*, by any discrepancy between the actual weight or fineness of the coins, or of the bullion for which the substitutes used in their place will exchange, and their weight or fineness as fixed by the mint regulations; and, *secondly*, by any sudden increase or diminution of the bills drawn in one country upon another.

1. It is but seldom that the coins of any country correspond exactly with their mint standard; and when they diverge from it, an allowance corresponding to the difference between the actual value of the coins and their mint value must be made in determining the *real* par. Thus, if, while the coins of Great Britain corresponded with the mint standard in weight and purity, those of France were either 10 per cent. worse or debased below the standard of her mint, the exchange, it is obvious, would be at *real* par when it was *nominally* 10 per cent. against Paris, or when a bill payable in London for 100*l.* was worth in Paris 2,772 fr. instead of 2,520 fr. In estimating the real course of exchange between any two or more places, it is always necessary to attend carefully to this circumstance; that is, to examine whether their currencies be all of the standard weight and purity, and if not, how much they differ from it. When the coins circulating in a country are either so worn or rubbed as to have sunk considerably below their mint standard, or when paper money is depreciated from excess or want of credit, the exchange is at real par only when it is against such country to the extent to which its coins are worn or its paper depreciated. When this circumstance is taken into account, it will be found that the exchange during the latter years of the war, though apparently very much against this country, was really in our favour. The depression was nominal only, being occasioned by the great depreciation of the paper currency in which bills were paid.

2. Variations in the actual course of exchange, or in the price of bills, arising from circumstances affecting the currency of either of two countries trading together, are *nominal* only: such as are *real* grow out of circumstances affecting their trade.

When two countries trade together, and each buys of the other commodities of precisely the same value, their debts and credits will be equal, and, of course, the *real* exchange will be at par. The *bills* drawn by the one will be exactly equivalent to those drawn by the other, and their respective claims will be adjusted without requiring the transfer of bullion or any other valuable produce. But it very rarely happens that the debts reciprocally due by any two countries are equal. There is almost always a balance owing on the one side or the other; and this balance must affect the exchange. If the debts due by London to Paris exceeded those due by Paris to London, the competition in the London market for bills on Paris would, because of the comparatively great amount of payments our merchants had to make in Paris, be greater than the competition in Paris for bills on London; and, consequently, the real exchange would be in favour of Paris and against London.

The cost of conveying bullion from one country to another forms the limit within which the rise and fall of the *real* exchange between them must be confined. If 1 per cent. sufficed to cover the expense and risk attending the transmission of money from London to Paris, it would be indifferent to a London merchant whether he paid 1 per cent. premium for a bill of exchange on Paris, or remitted money direct to that city. If the premium were less than 1 per cent., it would clearly be his interest to make his payments by bills in preference to remittances: and that it could not exceed 1 per cent. is obvious; for every one would prefer remitting money to buying a bill at a greater premium than sufficed to cover the expense of a money remittance. If, owing to the breaking out of hostilities between the two countries, or to any other cause, the cost of remitting money from London to Paris were increased, the fluctuations of the *real* exchange between them *might* also be increased; for the limits within which such fluctuations *may* range correspond in all cases with the cost of making remittances in cash.

Fluctuations in the *nominal* exchange, that is, in the value of the currencies of countries trading together, have no effect on foreign trade. When the currency is depreciated, the premium which the exporter of commodities derives from the sale of the bill drawn on his correspondent abroad is only equivalent to the increase in the price of the goods exported, occasioned by this depreciation. But when the premium on a foreign bill is a consequence, not of a fall in the value of money, but of a deficiency in the supply of bills, there is no rise of prices; and in these circumstances the unfavourable exchange operates as a stimulus to exportation. As soon as the *real* exchange diverges from *par*, the mere inspection of a price current is no longer sufficient to regulate the operations of the merchant. If it be unfavourable, the premium which the exporter will receive on the sale of his bill must be included in the estimate of the profit he is likely to derive from the transaction. The greater that premium, the less will be the difference of prices necessary to induce him to export. And hence an unfavourable *real* exchange has an effect exactly the same with what would be produced by granting a bounty on exportation equal to the premium on foreign bills.

But for the same reason that an unfavourable *real* exchange increases exportation, it proportionally diminishes importation. When the exchange is really unfavourable, the price of commodities imported from abroad must be so much lower than their price at home as not merely to afford, exclusive of expenses, the ordinary profit of stock on their sale, but also to compensate for the premium which the importer must pay for a foreign bill if he remit one to his correspondent, or for the discount, added to the invoice price, if his correspondent draw upon him. A less quantity of foreign goods will, therefore, suit our market when the *real* exchange is unfavourable; and fewer payments having to be made abroad, the competition for foreign bills will be diminished, and the *real* exchange rendered proportionally

favourable. In the same way it is easy to see that a favourable *real* exchange must operate as a *duty* on exportation, and as a *bounty* on importation.

It is thus that fluctuations in the *real* exchange have a necessary tendency to correct themselves. They can never, for any considerable period, *exceed* the expense of transmitting bullion from the debtor to the creditor country. But the exchange cannot continue either permanently favourable or unfavourable to this extent. When favourable, it corrects itself by restricting exportation and facilitating importation; and when unfavourable, it produces the same effect by giving an unusual stimulus to exportation, and by throwing obstacles in the way of importation. The true PAR forms the centre of these oscillations; and although the thousand circumstances which are daily and hourly affecting the state of debt and credit prevent the ordinary course of exchange from being almost ever precisely at *par*, its fluctuations, whether on the one side or the other, are confined within certain limits, and have a constant tendency to disappear.

This natural tendency which the exchange has to correct itself is powerfully assisted by the operations of the bill-merchants.

England, for example, might owe a large excess of debt to Amsterdam; yet, as the aggregate amount of the debts *due* by a commercial country is generally balanced by the amount of those which it has to receive, the deficiency of bills on Amsterdam in London would most probably be compensated by a proportional redundancy of those on some other place. Now, it is the business of the merchants who deal in bills, in the same way as of those who deal in bullion or any other commodity, to buy them where they are cheapest, and to sell them where they are dearest. They would, therefore, buy up the bills drawn by other countries on Amsterdam, and dispose of them in London; and by so doing, would prevent any great fall in the price of bills on Amsterdam in those countries in which the supply exceeded the demand, and any great rise in Great Britain and those countries in which the supply happened to be deficient. In the trade between Italy and this country, the bills drawn on Great Britain amount almost invariably to a greater sum than those drawn on Italy. The bill-merchants, however, by buying up the excess of the Italian bills on London, and selling them in Holland and other countries indebted to England, prevent the *real* exchange from ever becoming very much depressed.

III. *Negotiation of Bills of Exchange.*—Bills of exchange may be made payable on *demand* (the invariable term of payment in the case of checks), at *sight*, at a certain specified time *after sight* or *after date*, or at *usance*, which is the usual term allowed by the custom or law of the place where the bill is payable. In most countries, though not in all, a few days are allowed for payment beyond the term when the bill becomes due. These are denominated *days of grace*, and vary in different parts. In Great Britain and Ireland, 3 days' grace are allowed on all bills except those payable on demand, which must be paid as soon as presented. The following is a statement of the usance and days of grace, if any, for bills drawn upon some of the principal commercial cities:—

[*m | d*, *m | s*, *m | d*, *d | s*, *d | a*, respectively denote *months after date*, *months after sight*, *days after date*, *days after sight*, *days after acceptance*.]

London on	Usance	Days of G
Amsterdam	1 m|d.	0
Rotterdam	1 m|d.	0
Antwerp	1 m|d.	0
Hamburg	1 m|d.	12
Altona	1 m|d.	12
Dantzic	14 d|s.	10
Paris*	30 d|d.	0
Frankfort	14 d|s.	4
Bremen	1 m|d.	5
Barcelona	60 d|d.	14
Geneva	30 d|d.	3
Madrid	2 m|s.	14
Cadiz	60 d|d.	6
Bilbao	2 m|d.	14
Gibraltar	2 m|s.	14
Leghorn	3 m|d.	0
Leipsic	14 d|s.	0
Genoa	3 m|d.	30
Venice	3 m|d.	6
Viennat	14 d|s.	3
Malta	30 d|d.	13
Naples	3 m|d.	3
Palermo	3 m|d.	0
Lisbon	30 d|s.	6
Oporto	30 d|s.	6
Rio Janeiro	30 d|d.	6
Dublin	2½ d|s.	3
New York	60 d|s.	3

* In France, days of grace were suppressed by the *Code Commerce*, art. 135.

† In Austria, bills payable at sight, or on demand, or at less th 7 days after sight or date, are not allowed any days of grace. Petersburg, bills after date are allowed 10 days' grace, but after sig only 3 days' grace.

In the dating of bills, the New Style is used i every country in Europe, with the exception Russia.

The Stamps on Bills of Exchange and Promissory Notes have been fixed by the 17 & 18 Vict c. 83; 28 Vict. c. 15; 23 & 24 Vict. c. 111; 2 & 25 Vict. c. 21; and 27 & 28 Vict. c. 56, as follow viz.:—

		Duty £	s.	d.
Inland bill of exchange or promissory note, for the payment to the bearer, or to order, at any time, otherwise than on demand, of any sum of money:				
Not exceeding	£5	0	0	1
Exceeding	5 and not exceeding 10	0	0	2
	10 " 25	0	0	3
	25 " 50	0	0	6
	50 " 75	0	0	9
	75 " 100	0	1	0
	100 " 200	0	2	0
	200 " 300	0	3	0
	300 " 400	0	4	0
	400 " 500	0	5	0
	500 " 750	0	7	6
	750 " 1,000	0	10	0
	1,000 " 1,500	0	15	0
	1,500 " 2,000	1	0	0
	2,000 " 3,000	1	10	0
	3,000 " 4,000	2	0	0
	4,000 and for every 1,000*l.* and part of 1,000*l.* thereby made payable	0	10	0
Foreign bill of exchange or promissory note drawn in, but payable out of, the United Kingdom:				
If drawn singly or otherwise than in a set of three or more, the same duty as on an inland bill of the same amount and tenor.				
If drawn in sets of three or more, for every bill of each set, where the sum payable thereby shall not exceed	£25	0	0	1
Exceeding	£25 and not exceeding 50	0	0	2
	50 " 75	0	0	3
	75 " 100	0	0	4
	100 " 200	0	0	8
	200 " 300	0	1	0
	300 " 400	0	1	4
	400 " 500	0	1	8
	500 " 750	0	2	6
	750 " 1,000	0	3	4
	1,000 " 1,500	0	5	0
	1,500 " 2,000	0	6	8
	2,000 " 3,000	0	10	0
	3,000 " 4,000	0	13	4
	4,000 and for every 1,000*l.* or part of 1,000*l.* thereby made payable	0	3	4
Foreign bill of exchange drawn out of, and payable out of the United Kingdom, but indorsed or negotiated within the United Kingdom, the same duty as on a foreign bill drawn within the United Kingdom, and payable out of the United Kingdom.				
Foreign bill of exchange for the payment of money exceeding 500*l.* drawn out of the United Kingdom, and payable or indorsed or negotiated within the United Kingdom. For every 100*l.* or part of 100*l.* of the money thereby made payable		0	1	

In London bills of exchange are bought sold by brokers, who go round to the princ merchants and discover whether they are bu or sellers of bills. A few of the brokers of influence, after ascertaining the state of the

tive supply and demand for bills, suggest a price at which the greater part of the transactions of the day are settled, with such deviations as particular bills, from their being in very high or low credit, may be subject to. The price fixed by the brokers is that which is published in Wittenhall's List; but the first houses generally negotiate their bills on ½, 1, 1½, and 2 *per cent.* better terms than those quoted. In London and other great commercial cities, a class of middlemen speculate largely on the rise and fall of the exchange; buying bills when they expect a rise, and selling them when a fall is anticipated.

It is usual, in drawing foreign bills of exchange, to draw them in sets or duplicates, lest the first should be lost or miscarry. When bills are drawn in sets, each must contain a condition that it shall be payable only while the others remain unpaid: thus, the first is payable only, 'second and third unpaid;' the second, 'first and third being unpaid;' and the third, 'first and second unpaid.'

The stat. 17 & 18 Vict. c. 83 directs that the duties in respect of bills of exchange drawn out of the United Kingdom shall be denoted by proper adhesive stamps, to be obtained from the Commissioners of Inland Revenue, and applied to the same. (Sec. 3.)

The holder of a bill drawn out of the United Kingdom shall affix the proper adhesive stamp to the same before negotiating it, under a penalty of 50*l.* (Sec. 5.)

Persons drawing a bill purporting to be one of a set, and not drawing the whole number of the set, shall forfeit 100*l.*; and persons receiving such bills shall not be entitled to recover on the same. (Sec. 6.)

Foreign promissory notes for payment of money within the United Kingdom are to pay the same duty as Inland Bills of Exchange (23 & 24 Vict. c. 111). Inland promissory notes exceeding 4,000*l.* the same duty as Inland Bills (23 & 24 Vict. c. 111).

No one acquainted with the fundamental rules of arithmetic can have any difficulty whatever in estimating how much a sum of money in one country is worth in another, according to the state of the exchange at the time. The common arithmetical books abound in examples of such computations. But in conducting the business of exchange, a direct remittance is not always preferred. When a merchant in London, for example, means to discharge a debt due by him in Paris, it is his business to ascertain not only the state of the direct exchange between London and Paris, and, consequently, the sum which he must pay in London for a bill on Paris equivalent to his debt, but also the state of the exchange between London and Hamburg, Hamburg and Paris &c.; for it frequently happens that it may be more advantageous for him to buy a bill on Hamburg, Amsterdam, or Lisbon, and to direct his agent to invest the proceeds in a bill on Paris, rather than remit directly to the latter. This is termed the ARBITRATION of exchange. An example or two will suffice to show the principle on which it is conducted.

Thus, if the exchange between London and Amsterdam be 35*s.* Flemish (old coinage) per pound sterling, and between Paris and Amsterdam 1*s.* 6*d.* Flemish per franc, then, in order to ascertain whether a direct or indirect remittance to Paris would be most advantageous, we must calculate what would be the value of the franc in English money if the remittance were made through Holland; for if it be less than that resulting from the direct exchange, it will obviously be the preferable mode of remitting. This is determined by stating, as 35*s.* Flemish (the Amsterdam currency in a pound sterling) : 1*s.* 6*d.* Flemish (Amsterdam currency in a franc) :: 1*l.* : 10*d.* the proportional or *arbitrated* value of the franc. Hence, if the English money, or bill of exchange, to pay a debt in Paris, were remitted by Amsterdam, it would require 10*d.* to discharge a debt of a franc, or 1*l.* to discharge a debt of 24 francs: and therefore, if the exchange between London and Paris were at 24, it would be indifferent to the English merchant whether he remitted directly to Paris, or indirectly *viâ* Amsterdam; but if the exchange between London and Paris were *above* 24, then a direct remittance would be preferable; while, if, on the other hand, the direct exchange were less than 24, the indirect remittance ought as plainly to be preferred.

'Suppose,' to borrow an example from Kelly (*Universal Cambist*, vol. ii. p. 137), 'the exchange of London and Lisbon to be at 68*d.* per milree, and that of Lisbon on Madrid 500 rees per dollar, the arbitrated price between London and Madrid is 34*d.* sterling per dollar; for, as 1,000 rees : 68*d.* :: 500 rees : 34*d.* But if the direct exchange of London on Madrid be 35*d.* sterling per dollar, then London, by remitting directly to Madrid, must pay 35*d.* for every dollar; whereas, by remitting through Lisbon, he will pay only 34*d.*: it is therefore the interest of London to remit indirectly to Madrid through Lisbon. On the other hand, if London draws directly on Madrid, he will receive 35*d.* sterling per dollar; whereas, by drawing indirectly through Lisbon, he would receive only 34*d.*: it is therefore the interest of London to draw directly on Madrid. Hence the following rules:—

'1. Where the certain price is given, draw through the place which produces the lowest arbitrated price, and remit through that which produces the highest.

'2. Where the uncertain price is given, draw through that place which produces the highest arbitrated price, and remit through that which produces the lowest.'

In compound arbitration, or when more than 3 places are concerned, then, in order to find how much a remittance passing through them all will amount to in the last place, or, which is the same thing, to find the arbitrated price between the first and the last, we have only to repeat the different statements in the same manner as in the foregoing examples.

Thus, if the exchange between London and Amsterdam be 35*s.* Flemish for 1*l.* sterling; between Amsterdam and Lisbon 42*d.* Flemish for 1 old crusade; and between Lisbon and Paris 480 rees for 3 francs: what is the arbitrated price between London and Paris?

In the first place, as 35*s.* Flemish : 1*l.* : : 42*d.* Flemish : 2*s.* sterling = 1 old crusade.

Second, as 1 old crusade, or 400 rees : 2*s.* sterling : : 480 rees : 2*s.* 4·8*d.* sterling = 3 francs.

Third, as 2*s.* 4·8*d.* sterling : 3 francs : : 1*l.* sterling : 25 francs, the arbitrated price of the pound sterling between London and Paris.

This operation may be abridged as follows:—

1*l.* sterling = 35*s.* Flemish.
3½ shillings Flem. = 1 old crusade.
1 old crusade = 400 rees.
480 rees = 3 francs.

$$\text{Hence } \frac{35 \times 400 \times 3}{480 \times 3\frac{1}{2}} = \frac{4,200}{168} = 25 \text{ francs.}$$

This abridged operation evidently consists in arranging the terms so that those which would form the divisors in continued statements in the Rule of Three are multiplied together for a com-

mon divisor, and the other terms for a common dividend. The ordinary arithmetical books abound with examples of such operations.

The following account of the manner in which a very large transaction was actually conducted by indirect remittances will sufficiently illustrate the principles we have been endeavouring to explain.

In 1804 Spain was bound to pay to France a large subsidy; and, in order to do this, three distinct methods presented themselves:—

1. To send dollars to Paris by land.
2. To remit bills of exchange directly to Paris.
3. To authorise Paris to draw directly on Spain.

The first of these methods was tried, but it was found too slow and expensive; and the second and third plans were considered likely to turn the exchange against Spain. The following method, by the indirect or circular exchange, was therefore adopted.

A merchant, or *banquier*, at Paris, was appointed to manage the operation, which he thus conducted:—He chose London, Amsterdam, Hamburg, Cadiz, Madrid, and Paris as the principal pinges on which the operation was to turn, and he engaged correspondents in each of these cities to support the circulation. Madrid and Cadiz were the places in Spain whence remittances were to be made; and dollars were, of course, to be sent to where they bore the highest price, for which bills were to be procured on Paris, or on any other places that might be deemed more advantageous.

The principle being thus established, it only remained to regulate the extent of the operation, so as not to issue too much paper on Spain, and to give the circulation as much support as possible from real business. With this view, London was chosen as a place to which the operation might be chiefly directed, as the price of dollars was then high in England; a circumstance which rendered the proportional exchange advantageous to Spain.

The business was commenced at Paris, where the negotiation of drafts issued on Hamburg and Amsterdam served to answer the immediate demands of the state; and orders were transmitted to these places to draw for the reimbursements on London, Madrid, or Cadiz, according as the course of exchange was most favourable. The proceedings were all conducted with judgment, and attended with complete success. At the commencement of the operation, the course of exchange of Cadiz on London was 36*d.*; but by the plan adopted Spain got 39½*d.*, or above 8 *per cent.* by the remittance of dollars to London, and considerable advantages were also gained by the circulation of bills through the several places on the Continent. (Kelly's *Cambist*, vol. ii. p. 168; Dubost's *Elements of Commerce*, 2nd ed. p. 228.)

The following table specifies the value of the moneys of account of the principal places with which this country has exchange transactions, taking silver at 5*s.* per oz., and specifies also the *par* of exchange with such places on this hypothesis. (Abstracted from Tate's *Modern Cambist* to which the reader is referred for farther explanations.)

					Par of Exchange
Petersburg	100 copecks	= 1 rouble	= 3*s.* 1½*d.* giving	6 roub. 40 cop.	= 1*l.*
Berlin	30 sil. groschen	= 1 Prus. doll.	= 2*s.* 10½*d.*	6 doll. 27 s. g.	= 1*l.*
Copenhagen	96 skillings	= 1 Rig. doll.	= 2*s.* 2½*d.*	9 doll. 10 sk.	= 1*l.*
Hamburg	16 schillings	= 1 mark	= 1*s.* 5½*d.*	13 mks. 10½ sch.	= 1*l.*
Amsterdam	100 centimes	= 1 florin	= 1*s.* 8*d.*	11 fl. 97 cents	= 1*l.*
Antwerp	100 centimes	= 1 florin	= 1*s.* 8*d.*	11 fl. 97 cents	= 1*l.*
Paris	100 centimes	= 1 franc	= 9½*d.*	25 fr. 57 cents	= 1*l.*
Frankfort	24½ guld. or flor.	= 1 mark	= 1*s.* 7½*d.*	12 3-40 guldens	= 1*l.*
Vienna	60 kreutzers	= 1 florin	= 2*s.* 04-10*d.*	9 fl. 50 kr.	= 1*l.*
Venice	100 centisimi	= 1 lira Austriaca	= 8·15*d.*	29 li. 52 cent.	= 1*l.*
Genoa	100 centisimi	= 1 lira Nuova	= 9½*d.*	25 li. 57 cent.	= 1*l.*
Leghorn	100 centisimi	= 1 lira Toscana	= 7·82*d.*	30 li. 69 cent.	= 1*l.*
Madrid	8 reals	= 1 dollar of Plate	= 5*s.* 1½*d.*	6 doll. 2½ reale	= 1*l.*
Lisbon	1,000 reis	= 1 milreis	= 4*s.* 8*d.*	4 mil. 285 reis	= 1*l.*
New York	100 cents	= 1 dollar	= 4*s.* 2*d.*	4 doll. 80 cents	= 1*l.*
Rio Janeiro	1,000 reis	= 1 milreis	= 2*s.* 7*d.*	7 mil. 777 reis	= 1*l.*
Havannah	100 cents	= 1 dollar	= 4*s.* 6-13-22½*d.*	4 doll. 44 cents	= 1*l.*

It is easy from this table to calculate the value of any of the above coins, taking silver at 5*s.* 2*d.*, 5*s.* 6*d.* per oz., or any other price, and thence to deduce the par of exchange at such rates. The values of the coins in the Table of Coins [COINS] are estimated on the hypothesis that silver is worth 5*s.* 2*d.* per oz.

LAW OF BILLS OF EXCHANGE.

The chief legal privileges appertaining to bills are, first, that though only a simple contract, yet they are always presumed to have been originally given for a good and valuable consideration; and, secondly, they are assignable to a third person not named in the bill or party to the contract, so as to vest in the assignee a right of action in his own name; which right of action no release by the drawer to the acceptor, nor set-off or cross demand due from the former to the latter, can affect.

All persons, whether merchants or not, being legally qualified to contract, may be parties to a bill. But no action can be supported against a person incapable of binding himself, on a bill drawn, indorsed, or accepted by such incapacitated person: at the same time the bill is good against all other competent parties thereto.

Bills may be drawn, accepted, or indorsed by the party's agent or attorney verbally authorised for the purpose. When a person has such authority, he must either write the name of his principal, or state in writing that he draws &c. as agen thus: 'per procuration, for A B.'

Where one of several partners accepts a bi drawn on the firm, for himself and partners, or i his own name only, such acceptance binds th partnership if it concern the trade. But the ac ceptance of one of several partners on behalf himself and partners will not bind the others, it concern the acceptor only in a separate an distinct interest, and the holder of the bill, at th time he becomes so, was aware of that circun stance. If, however, he be a bonâ fide holder f a sufficient consideration, and had no such knov ledge at the time he first became possessed of th bill, no subsequently acquired knowledge of th misconduct of the partner in giving such securi will prevent him from recovering on such bil against all the partners.

Although no precise form of words is requir to constitute a bill of exchange or promissory not yet it is necessary that it should be *payable at events*, and not depend on any contingency; an that it be made for the payment of money onl and not for payment of money and performance some other act, as the delivery of a horse, or t like.

If, however, the event on which the payment to depend must inevitably happen, it is of no i portance how long the payment may be in su pense; so a bill is negotiable and valid if dra payable 6 weeks after the death of the drawe

father, or payable to an infant when he shall become of age.

Any material alteration of a bill after it has been drawn, accepted, or indorsed, such as the date, sum, or time of payment, will invalidate it; but the mere correction of a mistake, as by inserting the words 'or order,' will have no such effect.

The negotiability of a bill depends on the insertion of sufficient operative words of transfer; such as by making it payable to A or order, or to A or bearer, or to bearer generally.

Although a bill is presumed to have been originally drawn upon a good and valuable consideration, yet in certain cases a want of sufficient consideration may be insisted on in defence to an action on a bill. Certain considerations have been made illegal by statute; as for signing a bankrupt's certificate, for money won at gaming, or for money lent on a usurious contract. But with respect to gaming, it is held that a bill founded on a gambling transaction is good in the hands of a bonâ fide holder; and by 58 Geo. III. c. 93 a bill or note in the hands of an innocent holder, although originally founded on a usurious contract, is not invalid.

In general, if a bill is fair and legal in its origin, a subsequent illegal contract or consideration on the indorsement thereof will not invalidate it in the hands of a bonâ fide holder.

A bill cannot be given in evidence in a court of justice unless it be duly stamped, not only with a stamp of the proper value, but also of the proper denomination.

Acceptance of a bill.—An acceptance is an engagement to pay a bill according to the tenor of the acceptance, which may be either *absolute* or *qualified*. An *absolute* acceptance is an engagement to pay a bill according to its request, which is done by the drawee writing 'Accepted' on the bill, and subscribing his name, or writing 'Accepted' only; or merely subscribing his name at the bottom or across the bill. A *qualified* acceptance is when a bill is accepted conditionally; as when goods conveyed to the drawee are sold, or when a navy bill is paid, or other future event which does not bind the acceptor till the contingency has happened.

An acceptance may be also partial: as to pay 100*l.* instead of 150*l.*, or to pay at a different time or place from that required by the bill. But in all cases of a conditional or partial acceptance, the owner should, if he mean to resort to the other parties to the bill in default of payment, give notice to them of such partial or conditional acceptance.

In all cases of presenting a bill for acceptance, it is necessary to present the bill at the house where the drawee lives, or where it is made payable. By 1 & 2 Geo. IV. c. 78 all bills accepted payable at a banker's or other place are to be deemed a general acceptance; but if they are accepted payable at a banker's 'only, and not otherwise or elsewhere,' it is a qualified acceptance, and the acceptor is not liable to pay the bill, except in default of payment when such payment shall have been first demanded at the banker's. The drawee is entitled to keep the bill 24 hours when presented for acceptance. The acceptance of an inland bill must be *in writing on the face of the bill*, or if there be more parts than one, on one of such parts: nothing short of this constitutes a valid acceptance.

When a bill is made payable *at sight*, or at a certain time *after sight*, it must, in either case, in order to fix the time when it is to be paid, be presented for acceptance; and the date of the acceptance should appear thus: 'Accepted, 10th September, 1868.'

Due diligence is the only thing to be considered in presenting any description of bill for acceptance; and such diligence is a question depending on the situation of the parties, the distance at which they live, and the facility of communication between them.

When the drawee refuses to accept, any third party, after protesting, may accept for the honour of the bill generally, or for the drawee, or for the indorser; in which case the acceptance is called an acceptance *supra protest*.

The drawers and indorsers are discharged from liability, unless due notice of non-acceptance when presented for acceptance, or non-payment at the time the bill becomes due, is given. These notices must be given with all due diligence to all the parties to whom the holder means to resort for payment. Generally, in both foreign and inland bills, notice is given next day to the immediate indorser, and such indorser is allowed a day, when he should give fresh notice to the parties who are liable to him.

Notice may be sent by the post, however near the residence of the parties may be to each other; and though the letter containing such notice should miscarry, yet it will be sufficient; but the letter containing the notice should be delivered at the General Post-Office, or at a receiving-house appointed by that office. In all cases of notice, notice to one of several parties is held to be notice to all; and if one of several drawers be also the acceptor, it is not necessary to give notice to the other drawers.

Upon the non-acceptance or non-payment of a bill, the holder, or a public notary for him, should protest it; that is, draw up a notice of the refusal to accept or pay the bill, and the declaration of the holder against sustaining loss thereby. Inland bills need not be protested: in practice they are usually only noted for non-acceptance; but this, without the protest, is wholly futile, and adds nothing whatever to the evidence of the holder, while it entails a useless expense on those liable to pay.

Indorsement of bills.—An indorsement is the act by which the holder of a negotiable instrument transfers his right to another person, termed the indorsee. It is usually made on the back of a bill, and must be in writing; but the law has not prescribed any set form of words as necessary to the ceremony, and in general the mere signature of the indorser is sufficient.

All bills payable to order or to bearer for 1*l.* and upwards are negotiable by indorsement; and the transfer of them for a good consideration, before they are payable, gives a right of action against all the precedent parties on the bill, if the bills in themselves are valid; but a transfer after they are due will only place the holder in the situation of the person from whom he takes them.

Bills may be transferred either by delivery only, or by indorsement and delivery: bills payable to order are transferred by the latter mode only; but bills payable to bearer may be transferred by either mode. On a transfer by delivery, the person making it ceases to be a party to the bill; but on a transfer by indorsement, he is to all intents and purposes chargeable as a new drawer.

A bill originally transferable may be restrained by restrictive words; for the payee or indorsee, having the absolute property in the bill, may, by express words, restrict its currency by indorsing it 'Payable to A B only,' or 'to A B for his use,' or any other words clearly demonstrating his intention to make a restrictive and limited indorse-

ment. Such special indorsement precludes the person in whose favour it is made from making a transfer, so as to give a right of action against the special indorser, or any of the preceding parties to the bill.

In taking bills to account or discount, it is important well to examine all special indorsements. Lord Tenterden decided that a person who discounts a bill indorsed 'Pay to A B or order *for my use*,' discounts it subject to the risk of having to pay the money to the special indorser, who so limited the application *for my use*: thus a party may be liable to pay the amount of the bill twice over, unless he previously ascertains that the payment has been made conformably to the import of the indorsement.

After the payment of part, a bill may be indorsed over for the residue.

Presentment for Payment.—The holder of a bill must be careful to present it for payment at the time when due, or the drawer and indorsers will be exonerated from their liability: even the bankruptcy, insolvency, or death of the acceptor will not excuse a neglect to make presentment to the assignees or executor; nor will the insufficiency of a bill in any respect constitute an excuse for non-presentment: the presentment should be made at a reasonable time of the day when the bill is due; and if by the known custom of any trade or place bills are payable only within particular hours, a presentment must be within those hours. If a bill has a qualified acceptance, the presentment should be at the place mentioned in such qualified acceptance, or all the parties will be discharged from their obligations.

If a bill fall due on Sunday, Good Friday, Christmas Day, or any public fast or thanksgiving day, the presentment must be on the day preceding these holidays. By 7 & 8 Geo. III. c. 15, if a bill or note be payable on the day preceding these holidays, notice of the dishonour may be given the day following the holiday; and if Christmas Day fall on Monday, notice may be given on Tuesday.

Bills, however, payable at usance, or at a certain time after date or sight, or after demand, ought not to be presented for payment precisely at the expiration of the time mentioned in the bills, but at the expiration of the *days of grace*. These are not allowed in some countries: they also vary where they are allowed, and should always be computed according to the usage of the place where the bill is due. (See head III. of this article: *Negotiation of Bills of Exchange*.) At Hamburg, the day on which the bill falls due makes one of the days of grace, but nowhere else.

On bills payable on demand, or when no time of payment is expressed, no days of grace are allowed; but they are payable instantly on presentment. On bank post bills no days of grace are claimed; but on bills payable at sight the usual days of grace are allowed from the sight or demand, as notified by the date of the acceptance.

Payment of a bill should be made only to the holder; and it may be refused unless the bill be produced and delivered up. On payment a receipt should be written on the back; and when a part is paid, the same should be acknowledged upon the bill, or the party paying may be liable to pay the amount a second time to a bonâ fide indorser.

Promissory Notes and Checks.—The chief distinction between promissory notes and bills of exchange is, that the former are a direct engagement by the drawer to pay them according to their tenor, without the intervention of a third party as a drawee or acceptor. Promissory notes may be drawn payable on demand to a person named therein, or to order, or to bearer generally. They are assignable and indorsable; and in all respects so nearly assimilated to bills by 3 & 4 Anne c. 9, that the laws which have been stated as bearing upon the latter may be generally understood as applicable to the former. In Edis *v.* Bury, it has been decided, in case an instrument is drawn so equivocally as to render it uncertain whether it be a bill of exchange or promissory note, the holder may treat it as either against the drawer.

Promissory notes, bills, drafts, or undertakings in writing, being made negotiable or transferable, for a less sum than 20*s.*, are void, and persons uttering such are subject to a penalty not exceeding 20*l.*, recoverable before a justice of peace.

The issue of any promissory note payable to bearer on demand for a less sum than 5*l.* by the Bank of England, or any licensed English banker, is prohibited. By 26 & 27 Vict. c. 105, those parts of 17 Geo. III. c. 30 which restrain the negotiation of bills of exchange and promissory notes for a less sum than 5*l.*, and the schedules C. & D. of 8 & 9 Vict. c. 38, enacting similar restraints in Scotland, are repealed.

A check or draft is as negotiable as a bill of exchange, and vests in the assignee the same right of action against the assignor.

Checks are of two sorts: that is, they may be either on plain or on stamped paper. The distinction was introduced by the 16 & 17 Vict. c. 59. The peculiar conditions and limitations under which plain checks must be drawn, and the privileges enjoyed by those on stamped paper, are briefly stated in the art. CHECKS, to which the reader is referred.

Any person drawing, accepting, or paying any bill or promissory note not duly stamped is liable to a penalty of 50*l.*; and a penalty of 50*l.* is imposed on parties sending or receiving unstamped checks or drafts at a greater distance than 15 miles in a direct line from the place where they are issued.

It used to be of especial importance to bankers and others taking bills and notes, that they should not only be aware of the responsibility of the acceptors and other parties to such bills and notes, but that they should have some knowledge of those from whom they received them; for, if the instrument turned out to have been lost or fraudulently obtained, they might be deprived of their security, on an action by the owner to recover possession. Lord Tenterden decided, 'if a person take bill, note, or any other kind of security under circumstances which ought to excite suspicion in the mind of any reasonable man acquainted with the ordinary affairs of life, and which ought to put him on his guard to make the necessary enquiries, and he do not, then he loses the right of maintaining possession of the instrument against the rightful owner.' (Guildhall, Oct. 25, 1826.) But it has since been decided, in contravention of this doctrine, that the claim of the bonâ fide holder of a bill or note that has been lost or stolen is not invalidated by the want of the suspicions or enquiries referred to by Lord Tenterden, or even by gross negligence; and that to defeat the holder's claim it must be shown that he took the instrument malâ fide. (Chitty *On Bills*, 9th ed. p. 257.) This is an important, and, as we think, a sound decision: it facilitates the negotiation of bills, and clears up and gives precision to the law.

Before concluding this article on mercantile paper, it may not be improper to introduce one or two cautions with regard to acceptances, and ac-

commodation paper, and proceedings in case of the loss of bills.

1. A man should not put his name as acceptor to a bill of exchange without well considering whether he has the means of paying the same when due, as otherwise he may be liable not only to the costs of the action against himself, but also to the costs of the action against the other parties to the bill. The shrewd tradesman is generally anxious to get the acceptance of his debtor at a short date, well knowing that it not only fixes the amount of the debt, but it is more speedily recoverable by legal procedure than a book debt.

2. Traders who wish to support their respectability, and desire to succeed in business, should be cautious in resorting to what is called the system of cross-accommodation acceptances: it seldom ends well, and usually excites suspicion as to the integrity of the parties; it being an expedient often adopted by swindlers to defraud the public. Independent of the expense in stamps and discounts, and frequently in noting, interest, and law expenses, the danger attending such accommodation is sufficient to deter from the practice. Suppose, for instance, A and B mutually accommodate each other to the amount of 1,000*l.*, the acceptances being in the hands of third persons: both A and B are liable to such third persons to the extent of 2,000*l.* each; and should A by any unforeseen occurrence be suddenly rendered unable to meet his acceptances, the holders of the whole, as well the acceptances of A as the acceptances of B, will resort to B for payment; and it may so happen that although B could have provided for his own share of the accommodation paper, he may be unable to provide for the whole, and may thus become insolvent.

3. In case of the loss of a bill, the 9 & 10 Wm. III. c. 17 provides that if any inland bill be lost or missing within the time limited for its payment, the drawer shall, on sufficient security given to indemnify him if such bill be found again, give another bill of the same tenor with the first.

EXCHEQUER BILLS. [Funds.]

EXCISE. The name given to the duties or taxes laid on certain articles produced and consumed at home; but, exclusive of these, the duties on licenses and post-horses are also placed under the management of the excise, and are consequently included in the excise duties.

An excise of one sort or other has existed in all modern, and perhaps also in all ancient states. It was introduced into Rome by Augustus, who imposed a duty of 1 per cent. (centesima rerum venalium) on all articles, whether great or small, sold in public markets or by auction. Though extremely moderate, a duty of this sort could not fail, from the difficulties in the way of its assessment, its interference with the dealings of individuals, and the abuses to which it must have led, to occasion clamour and discontent; and these in no long time became so very prevalent, that Tiberius was obliged to declare that the maintenance of the army, for the support of which this tax had been appropriated, depended on its being continued. (Taciti *Annal.*, lib. i. sec. 78.) In the sequel it underwent various changes. It appears to be sufficiently well established that it applied only to Rome, and perhaps to some few of the other great towns. In the smaller towns its produce would not indeed have sufficed to defray the cost of its collection. It therefore had at bottom a good deal in common with the octrois or town duties charged on commodities coming into Paris and other great continental cities. But the defective mode of its assessment must have made it infinitely more troublesome and onerous. (Gibbon, *Decline and Fall*, i. 211, ed. 1838; Dureau de la Malle, *Economie Politique des Romains*, ii. 45.)

Excise duties had been from an early period established in Holland, and the large revenue which they afforded pointed them out to the leaders of the popular party in the great civil war as the most likely means by which they could raise funds to carry on the great contest in which they had embarked. They were consequently introduced by a parliamentary ordinance in 1643; being then laid on the makers and vendors of ale, beer, cider, and perry. The royalists soon after followed the example of the republicans, both sides declaring that the excise should be continued no longer than the termination of the war. But it was found too productive a source of revenue to be again relinquished; and when the nation had been accustomed to it for a few years, the Parliament declared in 1649 that the 'impost of excise was the most easy and indifferent levy that could be laid upon the people.' And it is worthy of remark that the regulations embodied in Cromwell's Excise Act of 1657, authorising officers to make searches, and directing the giving of notices &c., are very similar to those now in force.

The same reasons that made the excise be continued down to the Restoration secured its existence subsequently to that epoch. A portion of its produce was at the same time assigned in perpetuity to the Crown, in compensation for its relinquishing the hereditary revenues arising from wardships and other feudal prerogatives which were then abolished. And, notwithstanding Mr. Justice Blackstone says that 'from its first original to the present time its very name has been odious to the people of England' (*Com.* book i. c. 8), it has continued progressively to gain ground, and is at this moment imposed on various important articles, and furnishes a large share of the public revenue of the kingdom.

It is probable that the prejudice to which Blackstone alludes did not originate so much in any dislike to the duties themselves as in the peculiar circumstances connected with their imposition. Originally they were let in farm, which is a most unpopular proceeding; and down to a recent period there was hardly a single duty the assessment of which was not made the subject of numerous lengthened, obscure, and contradictory statutes, so that it was hardly possible for any trader, however desirous to comply with the law, to avoid getting into serious scrapes. The duties being frequently also carried to an oppressive extent, smuggling was practised; and when a party was prosecuted, whether for an intentional or unintentional infraction of the law, or for attempting to defraud the revenue, the case might be laid before judges (without the intervention of a jury) in whose decision the public had little confidence. No wonder, therefore, that the excise should have been unpopular. But the obnoxious practice of letting the duties to farmers has been long abandoned, and of late years the laws and regulations connected with their assessment have been much simplified. In this respect, indeed, nothing should be omitted to render the rules for assessing the duties brief, level to the comprehension of every one, and calculated to interfere as little as possible with the details and processes of manufacture; and, supposing their assessment to be sufficiently simplified, and that they are of a reasonable amount, but little objection can be made to the duties because of the summary jurisdiction exer-

cised by the commissioners and justices. On the contrary, this practice has some material advantages. When parties are prosecuted in the Court of Exchequer for offences against the revenue, their case is, of course, submitted to a jury. But in this court, as in others, delays frequently take place, and the expenses are always very considerable; whereas in cases of summary jurisdiction, or those adjudged by the commissioners and justices, there is little or no delay, and little or no expense. And considering that all parties who fancy themselves aggrieved by the decision of the commissioners are entitled (4 Vict. c. 20 s. 26) to appeal at a very trifling cost to a baron of exchequer, who rejudges the case, while those who suppose themselves aggrieved by a sentence of the justices may appeal to the quarter-sessions (7 & 8 Geo. IV. c. 53 s. 82), there really appears to be more to approve than to object to in the summary jurisdiction.

Quantities of the several Articles subject to Duties of Excise, Charged with Duty; Exported; and Retained for Home Consumption in the United Kingdom, in each of the Years (ended March 31) 1863, 1864, and 1865, with the Nett Amount of Revenue received for each Article.

Articles	Quantities Charged with Duty and Free of Duty			Quantities Exported to Foreign Countries on Drawback and Free of Duty			Quantities Retained for Home Consumption in the United Kingdom		
	1862-63	1863-64	1864-65	1862-63	1863-64	1864-65	1862-63	1863-64	1864-65
Chicory - - cwts.	4,147	11,366	5,753	—	—	—	4,147	11,366	5,753
Hops - - lbs.	—	—	—	8,554,298	—	—	val. £3,010	£7,211	£10,463
Malt:									
Charged with duty bushels	41,064,850	47,930,671	48,538,689	202,365	247,985	212,735	39,716,032	46,331,568	47,078,783
Used in beer exported (estimated) - ,,				1,116,433	1,351,121	1,247,171			
Free of duty for distillation and exportation - ,,	4,092,541	4,733,068	4,819,492	214,045	212,996	232,323	£1,907,408	£2,547,533	£2,800,660
Total of malt - ,,	45,157,111	52,663,742	53,358,181	1,532,843	1,812,102	1,692,229	3,848,539	4,520,072	4,587,169
							43,564,571	50,851,640	51,665,952
Spirits:									
Charged with duty gallons	19,760,832	20,231,125	21,238,862	597,756	537,000	564,835	19,163,126	19,694,125	20,673,977
Free of duty for exportation - ,,	4,492,290	4,289,878	4,445,821	4,492,290	4,289,878	4,445,821	£4,178,761	£4,188,781	£4,390,872
Total of spirits - ,,	24,253,172	24,521,003	25,684,683	5,090,046	4,826,878	5,010,706	19,163,126	19,694,125	20,673,977
Sugar, home made - cwts.	140	—	1,063	—	—	—	{ 140 £39	—	1,063 £39

The excise duties formerly imposed on salt, leather, candles, beer, glass, hops, paper, and other less important articles, have been repealed. On the other hand, an excise duty on chicory, equal to the customs duty on coffee, has been imposed. And we doubt whether there be one of the existing duties which can be fairly objected to on principle, or for its injuriously interfering with the manufacture, or being too high. Whatever may have been the case formerly, the excise is now fully entitled to the eulogium passed upon it by Arthur Young:—'Excises are by much the fairest, most equal, and least burdensome of all taxes. They are paid voluntarily. Not a shilling is contributed but in proportion to the free consumption. The Dutch, who have been deservedly esteemed the wisest nation in Europe in all matters of taxation, have been enabled to preserve their industry under burdens of which we have no experience, and scarcely any conception, principally by their having adopted this mode of taxation.' (*Political Arithmetic*, part ii. p. 46.)

The excise duty on sugar was imposed, by the Act 3 & 4 Vict. c. 57, on all sugar raised in the United Kingdom, whether from beet-root, potatoes, or other materials. It is the same as the duty on British colonial sugar. Probably, however, the better policy would be to prohibit the home production of such articles, inasmuch as it is sure to facilitate smuggling and adulteration.

The laws with respect to the general management of the excise were consolidated by the 7 & 8 Geo. IV. c. 5, from which the following particulars are selected:—

Commissioners.—Four commissioners were to constitute a board, but the Boards of Excise, and Stamps and Taxes, were consolidated by the 12 & 13 Vict. c. 1. They are to be subject, in all things relating to their peculiar duty, to the orders of the Treasury. They may appoint collectors and other subordinate officers, and give them such salaries and allowances as the Treasury shall direct; but they are not allowed to increase the number of inferior officers without the permission and approval of the Treasury. No member of the House of Commons can be a commissioner of excise.

Officers of Excise.—Until this year (1868) no officer of excise was to vote or interfere at any election of a member of Parliament under pain of forfeiting 500*l.* and being rendered incapable of ever holding any office or place of trust under her Majesty; but by 31 & 32 Vict. c. 73, the disabilities of revenue officers to vote at such elections are removed.

No person holding any office of excise is to deal in any sort of goods subject to the excise laws.

Any person bribing or offering to bribe any officer of excise shall forfeit 500*l.*; and every officer accepting such bribe, or doing, conniving at, or permitting any act or thing whereby any of the provisions of the excise laws may be evaded or broken, shall forfeit 500*l.* and be declared incapable of ever after serving her Majesty in any capacity whatever. But if any of the parties to such illegal transactions shall inform against the other before any proceedings thereupon shall have been instituted, he shall be indemnified against the penalties and disabilities imposed for such offences.

Duties and Powers of Officers.—It is lawful for any officer to enter any building or other place, used for carrying on any trade subject to the excise, either by night or by day (but if by night, in the presence of a constable or peace officer), to inspect the same &c.; and upon an officer making oath that he has cause to suspect that goods forfeited under the Excise Acts are deposited in any private house or place, two commissioners of excise, or one justice of the peace, may grant a warrant to the officer to enter such house or place (if in the night in the presence of a constable) to search for and seize such forfeited goods.

Specimen Books may be left by the officers on the premises of persons subject to the excise laws, and anyone who shall remove or deface such books shall be liable to a penalty of 200*l.*

Removing Goods to avoid duty.—Goods fraudulently removed or secreted in order to avoid the duty to be forfeited; and every person assisting in such removal shall forfeit and lose treble the value of such goods, or 100*l.*, at the discretion of the commissioners.

Obstructing Officers.—All persons who shall oppose, molest &c. any officer of excise in the execution of his duty shall respectively, for every such offence, forfeit 200*l.*

Officers violently resisted in making any seizure may oppose force to force; and in the event of their wounding, maiming, or killing any person when so opposed, they shall be admitted to bail, and may plead the general issue.

Justices, mayors, bailiffs, constables &c. are required to assist excise officers; and any constable or peace officer who, on notice and request, declines going with an excise officer, is to forfeit 20*l.* for every such offence.

Claimants of Goods seized.—No claim shall be entered for goods seized except in the real names of the proprietors of such goods. Claimants are bound with two sureties in a penalty of 100*l.* to pay the expenses of claim; and in default thereof, the goods are to be condemned.

Proceedings in Courts of Law.—All penalties under the excise laws may be sued for and recovered in the Courts of Exchequer at Westminster, Edinburgh, or Dublin respectively, according as the offence may have taken place in England, Scotland, or Ireland; provided that the proceedings in the courts commence within 3 years after the commission of the offence.

Informations for the recovery of penalties against the excise laws in London may be heard and adjudged by any three or more of the commissioners of inland revenue; and in other places such informations may be exhibited before one or more, and heard and adjudged by any two or more, justices of the peace. The 28 & 29 Vict. c. 96 s. 25 gives right of appeal where the penalty exceeds 50*l.*

Mitigation of Penalties.—Justices are authorised, if they see cause, except when there is a special provision to the contrary, to mitigate any penalty incurred for any offence committed against the excise laws to *one fourth* part thereof; and the commissioners of excise, when they see cause, further to mitigate or entirely remit such penalty.

Distribution of Penalties.—Down to 1868 all penalties and forfeitures incurred under the Excise Acts were distributed, half to her Majesty, and half to the officer or person who should discover, inform, or sue for the penalty. But by 31 & 32 Vict. c. 124 such penalties are, after October 1, 1868, to belong to her Majesty, and rewards are to be paid, like charges of collection, out of Supplies voted by Parliament. (Secs. 1 & 2.) On proof of any officer acting collusively in making a seizure, the commissioners may direct his share to be forfeited.

Oaths and Affirmations.—Persons wilfully taking or making any false oath or affirmation as to any matter connected with the excise laws shall, upon being convicted of such offence, suffer the pains and penalties incident to wilful and corrupt perjury; and those procuring or suborning such persons to swear or affirm falsely shall, upon conviction, be liable to the pains and penalties incident to subornation of perjury.

Actions against Excise Officers.—No writ, summons, or process shall be sued out or served upon, nor shall any action be brought, raised, or prosecuted against, any officer of excise, for any thing done under any of the excise laws, until after the expiration of 1 calendar month next after notice in writing has been delivered to such officer, specifying the cause of such action, and the name and place of abode of the person in whose name it is to be brought. No action shall lie against any excise officer for any thing done under the excise laws unless it be brought within 3 months after the cause of action shall have arisen. If judgment be given against the plaintiff, and in favour of the defendant, the latter shall, in every such action, have treble costs awarded.

Forging Certificates &c.—By the 41 Geo. III. c. 91 it is enacted that if any one shall forge, counterfeit, or knowingly give any forged certificate required to be granted by any officer of excise, he shall be guilty of felony, and being convicted, shall be transported for 7 years.

All individuals carrying on any business subjected to the control of the excise must take out licenses, renewable chiefly on July 5 or October 10, annually. [LICENSES.]

All such individuals are also obliged to make entries of every building, place, vessel, or utensil, as the case may be, in the name of the real owner, with the officer of excise in whose survey such building, place &c. shall be situated. Individuals found employed in uncentered excise manufactories are severally liable in a penalty of 30*l.* for the first offence; and in the event of any such offender refusing or neglecting to pay such penalty, he is to be committed to the house of correction or other prison for 3 months, to be kept to hard labour, till the fine of 30*l.* has been paid, or the term of 3 months has expired; and if found guilty of a second offence, the fine is to be 60*l.*; and in the event of its not being paid, the imprisonment is to be for 6 months. (7 & 8 Geo. IV. c. 53 s. 33.)

Permits are usually necessary for the removal of exciseable commodities. [PERMITS.]

EXPECTATION, of life. [INSURANCE.]

EXPORTATION. In Commerce, the act of sending or carrying commodities from one country to another. [IMPORTATION AND EXPORTATION.]

EXPORTS. The articles exported or sent beyond seas. [IMPORTS AND EXPORTS.]

F

FACTOR. An agent employed by some one individual or individuals to transact business on his or their account. He is not generally resident in the same place as his principal, but usually in a foreign country. He is authorised, either by letter of attorney or otherwise, to receive, buy, and sell goods and merchandise; and generally to transact all sorts of business on account of his employers, under such limitations and conditions as the latter may choose to impose. A very large proportion of the foreign trade of this and most other countries is now carried on by means of factors or agents.

Factors and brokers are in some respects nearly identical, but in others they are radically different. 'A factor,' said Mr. Justice Holroyd, 'differs materially from a broker. The former is a person to whom goods are sent or consigned; and he has not only the possession, but, in consequence of its being usual to advance money upon them, has

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also a special property in them, and a general lien upon them. When, therefore, he sells in his own name, it is within the scope of his authority; and it may be right, therefore, that the principal should be bound by the consequences of such sale. But the case of a broker is different: he has not the possession of the goods, and so the vendor cannot be deceived by the circumstance; and besides, the employing a person to sell goods as a broker does not authorise him to sell in his own name. If, therefore, he sells in his own name, he acts beyond the scope of his authority, and his principal is not bound.'

A factor is usually paid by a per-centage or commission on the goods he sells or buys. If he act under what is called a *del credere* commission—that is, *if he guarantee the price of the goods sold on account of his principal*—he receives an additional per-centage to indemnify him for this additional responsibility. In cases of this sort the factor stands in the vendee's place, and must answer to the principal for the value of the goods sold; but where the factor undertakes no responsibility, and intimates that he acts only on account of another, it is clearly established that he is not liable in the event of the vendee's failing.

The sound maxim that the principal is responsible for the acts of his agent prevails universally in courts of law and equity. In order to bind the principal, it is necessary only that third parties should deal bonâ fide with the agent, and that the conduct of the latter should *be conformable to the common usage and mode of dealing*. Thus, a factor may sell goods upon credit, that being in the ordinary course of conducting mercantile affairs: but a stock broker, though acting bonâ fide, and with a view to the benefit of his principal, cannot sell stock upon credit *unless he have special instructions to that effect*; that being contrary to the usual course of business.

A sale by a factor creates a contract between the owner and buyer; and this rule holds even in cases where the factor acts upon a *del credere* commission. Hence, if a factor sell goods, and the owner *give notice to the buyer to pay the price to him*, and not to the factor, the buyer will not be justified in afterwards paying the factor, and the owner may bring his action against the buyer for the price unless the factor has a lien thereon; but if no such notice be given, a payment to the individual selling is quite sufficient.

If a factor buy goods on account of his principal, where he is accustomed so to do, the contract of the factor binds the principal to a performance of the bargain, and the principal is the person to be sued for non-performance. But it is ruled that if a factor enter into a charterparty of affreightment with the master of a ship, the contract obliges *him* only, unless he lade the vessel with his principal's goods, in which case the principal and lading become liable, and not the factor. Where a factor who is authorised to sell goods in his own name makes the buyer debtor to himself, then, though he be not answerable to the principal for the debt if the money be not paid, yet he has a right to receive it if it be paid, and his receipt is a sufficient discharge: the factor may, in such a case, enforce the payment by action, and the buyer cannot defend himself by alleging that the principal was indebted to him in more than the amount.

'Where a factor,' said Lord Mansfield, 'dealing for a principal, but concealing that principal, delivers goods in his own name, the person contracting with him has a right to consider him, to all intents and purposes, as the principal; and though the real principal may appear, and bring an action on that contract against the purchaser of the goods, yet that purchaser may set off any claim he may have against the factor in answer to the demand of the principal.'

Merchants employing the same factor run the joint risk of his actions, although they are strangers to each other: thus, if different merchants remit to a factor different bales of goods, and the factor sell them as a single lot to an individual who is to pay one moiety of the price down and the other at 6 months' end; if the buyer fail before the second payment, each merchant must bear a proportional share of the loss, and be content to accept his dividend of the money advanced. (Beawes, *Lex Merc.*)

A factor employed without his knowledge in negotiating an illegal or fraudulent transaction has an action against his principal. On this ground it was decided that a merchant who had consigned counterfeit jewels to his factor, representing them to be genuine, should make full compensation to the factor for the injury done to him by being concerned in such a transaction, as well as to the persons to whom the jewels had been sold.

The office of a factor or agent being one of very great trust and responsibility, those who undertake it are bound, both legally and morally, to conduct themselves with the utmost fidelity and circumspection. A factor should take the greatest care of his principal's goods in his hands: he should be punctual in advising him as to his transactions on his behalf, in sales, purchases, freights, and more particularly bills of exchange: he should deviate as seldom as possible from the terms, and never from the *spirit and tenor*, of the orders he receives as to the sale of commodities: in the execution of a commission for purchasing goods, he should endeavour to conform as closely as practicable to his instructions as to the quality or kind of goods: if he give more for them than he is authorised, they may be thrown on his hands; but he is bound to buy them for as much less as he possibly can. After the goods are bought, he must dispose of them according to order. If he send them to a different place *from* that to which he was directed, they will be at his risk, unless the principal, on getting advice of the transaction, consent to acknowledge it.

'Whoever,' says Dr. Paley, 'undertakes another man's business makes it his own; that is, promises to employ upon it the same care, attention, and diligence that he would do if it were actually his own; for he knows that the business was committed to him with that expectation. And he promises nothing more than this. Therefore an agent is not obliged to wait, enquire, solicit, ride about the country, toil, or study, whilst there remains a possibility of benefiting his employer. If he exert as much activity, and use such caution as the value of the business in his judgment deserves—that is, as he would have thought sufficient if the same interest of his own had been at stake—he has discharged his duty, although it should afterwards turn out that by more activity and longer perseverance he might have concluded the business with greater advantage.' (*Moral and Political Philosophy*, c. 12.)

There seems to be a good deal of laxity in this statement. It is necessary to distinguish between those who, in executing a commission, render their services for the particular occasion only, without hire, and those who undertake it *in the course of business*, making a regular charge for their trouble. If the former bestow on it that ordinary degree of care and attention which the *generality of mankind* bestow on similar affairs of their own, it is all, perhaps, that can be expected;

but the latter will be justly censurable if they do not execute their engagements on account of others with that care and diligence which a '*provident and attentive father of a family*' uses in his own private concerns. It is their duty to exert themselves proportionally to the exigency of the affair in hand; and neither to *do* anything, how minute soever, by which their employers may sustain damage, nor omit anything, however inconsiderable, which the nature of the act requires. Perhaps the best general rule on the subject is, to suppose a factor or agent bound to exert that degree of care and vigilance which may *be reasonably expected of him by others*. At all events it is clear he is not to be regulated by his own notions of the 'value of the business.' A man may neglect business of his own, or not think it worth attending to; but he is not, therefore, to be excused for neglecting any similar business he has undertaken to transact for others. (There are some very good observations on this subject in Sir William Jones's *Essay on Bailments*, 2nd ed. p. 53 and *passim*.)

A factor who sells a commodity under the price he is ordered may be obliged to make good the difference, unless the *commodity be of a perishable nature and not in a condition longer to be kept*; and if he purchase goods for another at a fixed rate, and, their price having afterwards risen, he fraudulently takes them to himself, and sends them somewhere else, in order to secure an advantage, he will be found, by the custom of merchants, liable in damages to his principal.

An agent employed to sell is not allowed to be the purchaser, at least not unless he make known that he intends to be such and furnish his employer with all the knowledge he himself possesses, or unless the court, perceiving that the principal would lose by a resale, think fit on that account to uphold the transaction. So neither can an agent employed to purchase be himself the seller, unless there was a plain understanding between him and the principal. And if an agent who is employed to purchase, purchase for himself, he will be considered a trustee for his principal. (Smith *On Mercantile Law*, p. 114.)

If a factor, in conformity with a merchant's orders, buy with his money, or on his credit, a commodity he is directed to purchase, and, without giving advice of the transaction, sells it again at a profit, appropriating that profit to himself, the merchant may recover it from him, and have him amerced for fraud.

If a factor buy, conformably to his instructions, goods of which he is *robbed*, or which suffer some unavoidable injury, he is discharged, and the loss falls on the principal. But if the goods be *stolen* from the factor, he will not be so easily discharged; for the fact of their having been abstracted by *stealth*, and not by *violence*, raises a strong presumption that he had not taken that reasonable care of them which was incumbent upon him. If, however, he can prove that the goods were lodged in a place of security, and that he had not been guilty of positive negligence, nor exercised less care towards them than towards his own property, he will not be held responsible even for a theft committed by his servants. (Jones *On Bailments*, 2nd ed. p. 76; Chitty *On Commercial Law*, vol. iii. p. 368.)

If a factor, having money in his hands belonging to his principal, neglect to insure a ship and goods according to order, he must, in the event of the ship miscarrying, make good the damage; and if he make any composition with the insurers after insurance, without orders to that effect, he is answerable for the whole insurance. A principal at the end of a very long letter directed his agent thus: 'Observe, the premium on this value is also to be insured;' but the agent, not noticing this sentence, neglected to insure the premium, and being sued, was held liable for the omission.

If goods are remitted to a factor, and he make a false entry of them at the Custom-house, or land them without entry, and they are in consequence seized or forfeited, he is bound to make good the damage to his principal; but if the factor make his entry according to invoice or letters of advice, and, these proving erroneous, the goods are seized, he is discharged.

It is now a settled point that a factor has a lien on goods consigned to him, not only for incidental charges, but as an item of mutual account for the balance due to him so long as he remains in possession. If he be surety in a bond for his principal, he has a lien on the goods sold by him on account of such principal, to the amount of the sum he is bound for.

It being the general rule of law 'that property does not change while *in transitu*,' or in the hands of a carrier, a consignment made *before* the bankruptcy of a consignor, but not arriving till *after*, remains the property of the consignor, except, indeed, where the *delivery* is made *by the order* and upon the account of the consignee, and is a complete *alienation from* the consignor. In the case, therefore, of a consignment to a factor, the property remains the consignor's, and passes into the hands of *his* assignees. When a factor has a lien on goods, he has a right to the price, though received after the bankruptcy.

Where general or unlimited orders are given to a factor, he is left to buy and sell on the best conditions he can; and if detriment arise to a principal from the proceedings of a factor acting under such authority, he has no redress, unless he can show that he acted fraudulently or with *gross negligence*.

A factor or broker acting against the interest of his principal cannot even receive his commission. If he pay money on account of his principal without being authorised, he cannot recover it back.

An agent cannot delegate his rights to another so as to bind the principal, unless expressly authorised to nominate a sub-agent.

(For further information as to the general powers and liabilities of factors and agents, see Beawes, *Lex Mercatoria*, art. 'Factors,' 'Supercargoes' &c.; Chitty's *Commercial Law*, vol. iii. c. 3; Woolrych *On Commercial Law*, pp. 317—329; Smith's *Mercantile Law*, pp. 109, 169; &c.)

[Brokers.]

Under the law with respect to the transactions of factors or agents on third parties that prevailed down to the Act 6 Geo. IV. c. 94, it was held that a factor, as such, had no authority to *pledge*, but only to *sell*, the goods of his principal; and it was repeatedly decided that a principal might recover back goods on which a bonâ fide advance of money had been made by a third party, without his being bound to repay such advance, and notwithstanding this third party was wholly ignorant that the individual pledging the goods held them as a mere factor or agent. It used also to be held that bonâ fide purchasers of goods from factors or agents not vested with the power of sale might be made liable to pay the price of the goods a second time to the real owner.

The extreme hardship and injurious influence of such regulations are obvious. It is the business of a principal to satisfy himself as to the conduct and character of the factor or agent he employs; and if he make a false estimate of them, it is more

equitable, surely, that he should be the sufferer than those who have no means of knowing any thing of the matter. The injustice of the law in question, and the injury it did to the commerce of the country, had frequently excited attention, and were very ably set forth by the late Lord Liverpool in his speech in the House of Lords on moving the second reading of the bill referred to.

'Those of their Lordships who were acquainted with commercial transactions would know that money was frequently advanced on goods without its being possible for the person advancing the money to have any further acquaintance with the transactions than that the factor was in actual possession of the goods. It then became a question, putting fraud out of view, if the factor became a bankrupt, or in any other way failed to execute his engagements, whether the loss should fall on the principal who had consigned these goods, or on the *pledgee* who had advanced money on them. It had been of late ruled that if the factor were intrusted only to dispose of the property, the loss must fall on the pledgee. He meant to contend that this was contrary to equity, and contrary to *analogy*—that it was disapproved of by high authority, and was contrary to the law in every country of the world, except this, and the United States of America, which had drawn their law from this country. It was contrary to equity, he thought, that the pledgee, who had advanced his money without any fraud, but on the bonâ fide possession of the goods, should suffer. He had placed no confidence, but the principal who had appointed the factor had placed confidence. He could limit him in his operations as he pleased—he could give him any kind of instructions—he might qualify his power—he was bound to take precautions before placing confidence; and he was in all respects more liable to suffer from his faults than the pledgee. The latter knew nothing of the power of the factor; he saw only the goods, and advanced his money on what was a sufficient security for repayment. On every principle of natural equity, therefore, the loss ought to fall, not on the *pledgee*, but on the principal. He knew that this view was connected with one very important question—that of possession and title; but it was not possible for transactions to go on unless the possession was admitted as the title to the goods. If this were an indifferent question, or a question involving only a few cases, he would not have called on their Lordships to legislate on this subject; but all the commercial interests of the country were connected with it. And he might say he believed that two thirds of the whole commerce of the country was carried on by consigning goods to a factor, and leaving it to his discretion to dispose of them to the greatest advantage, sending them to market when he pleased, and raising money on them when he could not send them to market. Bills of exchange, Exchequer bills, and money bills of every description were subject to this rule. If a person consigned Exchequer bills to a second person, and he parted with them, the third party who obtained them was held to have a right to them. Commercial proceedings were of as much importance as money proceedings, and he could not see why they should not receive the same security. It might be asked, perhaps, when this was felt to be so great an evil, why it was not altered before; but it seemed to be one of those things which had grown up gradually, and which did much mischief before they became extensively known. The first decision, he believed, which established the law as it now stood was delivered in 1742; and he knew that Lord Chief Justice Gibbs had said he could not explain the origin of that decision. He supposed it might have been dictated by some fraud. That decision, the Lord Chief Justice maintained, was at variance with the best interests of commerce, and had grown out of circumstances he could not explain. From the time of the first decision, the decisions had not been numerous, till of late years. He did not doubt but the judges had decided according to the law as it was established by these precedents; but in doing that, they had expressed their regret that these precedents had been established. [Here his Lordship read an extract from opinions delivered by the late Lord Chief Justice Ellenborough, and a late judge, Mr. Le Blanc, expressing their regret, in deciding cases according to these precedents, that they had been established.] He inferred from these opinions that these judges, though they had felt themselves obliged to decide in this way, supposed that the law was contrary to the general analogy of our laws and to the principles of justice. He then came to the last consideration—the law of this country being in this respect different from the law of all other countries except the law of the United States of America. In all other countries the law was recognised to be what he wished to establish it by the bill before their Lordships. When there was no evidence of fraud, it was held that the man advancing money on goods held by a factor should not suffer for his faults, but that the person who confided in the factor must be the sufferer. This was also the law in Scotland. He had understood, too, that the evils of the law were felt in America, and that means had been taken for bringing it before the Congress, with a view to assimilate the law of America to the law of other countries. If the question were examined by the principles of equity, by analogy with other cases, by the authority of those who decided in our courts, or by the practice of other countries, it would be found that the reasons were strong in favour of the bill. It was of great importance in commercial transactions that our law should be like the laws of other countries. It was not the same with the laws relative to real property—to our local law, if he might so call it; but when the bill was founded on equity and analogy, he thought it was an additional reason in its favour that it assimilated our commercial law to the commercial law of other countries. He did not know if he had made himself understood, or if he had sufficiently explained the object of the bill; but the measure was founded in justice, and he hoped to have their Lordships' consent to it.' The noble Earl concluded by moving the second reading of the bill.

Nothing can be clearer or more satisfactory than the principle laid down by Lord Liverpool in the above extract from his speech: but the Act 6 Geo. IV. c. 94, which his Lordship introduced, did not fully carry out his views; for while it confirms bonâ fide sales, made in the ordinary course of business, in cases in which the purchaser had notice that the seller was merely an agent, it does not confirm bonâ fide advances made on goods, or on documents of title to goods, under the same circumstances. To obviate this discrepancy, to get rid of the litigation to which certain ambiguities in the 6 Geo. IV. c. 94 had given rise, and to facilitate commerce, the following statute, 5 & 6 Vict. c. 39, was passed in 1842.

Bonâ fide Advances to Persons intrusted with the Possession of Goods or Documents of Title, though known to be Agents, protected.—From and after the passing of this Act, any agent intrusted with the possession of goods, or of the documents of title to goods, shall be deemed and taken to be owner of such goods and documents so far as to

give validity to any contract or agreement by way of pledge, lien, or security bonâ fide made by any person with such agent, as well for any original loan, advance, or payment made upon the security of such goods or documents as also for any further or continuing advance in respect thereof; and such contract or agreement shall be binding upon and good against the owner of such goods, and all other persons interested therein, notwithstanding the person claiming such pledge or lien may have had notice that the person with whom such contract or agreement is made is only an agent. (Sec. 1.)

Bonâ fide Deposits in Exchange protected.—Where any such contract or agreement for pledge, lien, or security shall be made in consideration of the delivery or transfer to such agent of any other goods or merchandise, or document of title, or negotiable security, upon which the person so delivering up the same had at the time a valid and available lien and security for or in respect of a previous advance by virtue of some contract or agreement made with such agent, such contract and agreement, if bonâ fide on the part of the person with whom the same may be made, shall be deemed to be a contract made in consideration of an advance within the true intent and meaning of this Act, and shall be as valid and effectual, to all intents and purposes, and to the same extent, as if the consideration for the same had been a bonâ fide present advance of money; provided always that the lien acquired under such last-mentioned contract or agreement upon the goods or documents deposited in exchange shall not exceed the value at the time of the goods and merchandise which, or the documents of title to which, or the negotiable security which shall be delivered up and exchanged. (Sec. 2.)

But the Statute to be construed to protect only Transactions bonâ fide.—This Act, and every matter and thing herein contained, shall be deemed and construed to give validity to such contracts and agreements only, and to protect only such loans, advances, and exchanges, as shall be made bonâ fide, and without notice that the agent making such contracts or agreements as aforesaid has not authority to make the same, or is acting malâ fide in respect thereof against the owner of such goods and merchandise; and nothing herein contained shall be construed to extend to or protect any lien or pledge for or in respect of any antecedent debt owing from any agent to any person with or to whom such lien or pledge shall be given, nor to authorise any agent intrusted as aforesaid in deviating from any express orders or authority received from the owner; but that, for the purpose and to the intent of protecting all such bonâ fide loans, advances, and exchanges as aforesaid (though made with notice of such agent not being the owner, but without any notice of the agent's acting without authority), and to no further or other intent or purpose, such contract or agreement as aforesaid shall be binding on the owner and all other persons interested in such goods. (Sec. 3.)

Meaning of the Term 'Document of Title' &c.—Any bill of lading, India warrant, dock warrant, warehouse keeper's certificate, warrant, or order for the delivery of goods, or any other document used in the ordinary course of business as proof of the possession or control of goods, or authorising or purporting to authorise, either by indorsement or by delivery, the possessor of such document to transfer or receive goods thereby represented, shall be deemed and taken to be a document of title within the meaning of this Act; and any agent intrusted as aforesaid, and possessed of any such document of title, whether derived immediately from the owner of such goods or obtained by reason of such agent's having been intrusted with the possession of the goods or of any other document of title thereto, shall be deemed and taken to have been intrusted with the possession of the goods represented by such document of title as aforesaid, and all contracts pledging or giving a lien upon such document of title as aforesaid shall be deemed and taken to be respectively pledges of and liens upon the goods to which the same relates; and such agent shall be deemed to be possessed of such goods or documents, whether the same shall be in his actual custody or shall be held by any other person subject to his control or on his behalf; and where any loan or advance shall be bonâ fide made to any agent intrusted with and in possession of any such goods or documents of title as aforesaid, on the faith of any contract or agreement in writing to consign, deposit, transfer, or deliver such goods or documents of title as aforesaid, and such goods or documents of title shall actually be received by the person making such loan or advance, without notice that such agent was not authorised to make such pledge or security, every such loan or advance shall be deemed and taken to be a loan or advance on the security of such goods or documents of title within the meaning of this Act, though such goods or documents of title shall not actually be received by the person making such loan or advance till the period subsequent thereto; and any contract or agreement, whether made direct with such agent as aforesaid or with any clerk or other person on his behalf, shall be deemed a contract or agreement with such agent; and any payment made, whether by money or bills of exchange, or other negotiable security, shall be deemed and taken to be an advance within the meaning of this Act; and an agent in possession as aforesaid of such goods or documents shall be taken, for the purposes of this Act, to have been intrusted therewith by the owner thereof, unless the contrary can be shown in evidence. (Sec. 4.)

Agent's Civil Responsibility not to be diminished.—Nothing herein contained shall lessen, vary, alter, or affect the civil responsibility of an agent for any breach of duty or contract, or non-fulfilment of his orders or authority in respect of any such contract, agreement, lien, or pledge as aforesaid. (Sec. 5.)

Agent making Consignments contrary to Instruction of Principal, guilty of Misdemeanor.—If any agent intrusted as aforesaid shall, contrary to or without the authority of his principal in that behalf, for his own benefit and in violation of good faith, make any consignment, deposit, transfer, or delivery of any goods or documents of title so intrusted to him as aforesaid, as and by way of a pledge, lien, or security; or shall, contrary to or without such authority, for his own benefit and in violation of good faith, accept any advance on the faith of any contract or agreement to consign, deposit, transfer, or deliver such goods or documents of title as aforesaid; every such agent shall be deemed guilty of a misdemeanor, and being convicted thereof, shall be sentenced to transportation for any term not exceeding 14 years nor less than 7 years, or to suffer such other punishment by fine or imprisonment, or by both, as the court shall award: and every clerk or other person who shall knowingly and wilfully act and assist in making any such consignment, deposit, transfer, or delivery, or in accepting or procuring such advance as aforesaid, shall be deemed guilty of a misdemeanor, and being convicted thereof, shall be liable, at the discretion of the court, to any of the punishments which the court shall

award, as hereinbefore last mentioned: provided nevertheless that no such agent shall be liable to any prosecution for consigning, depositing, transferring, or delivering any such goods or documents of title, in case the same shall not be made a security for or subject to the payment of any greater sum of money than the amount which at the time of such consignment, deposit, transfer, or delivery was justly due and owing to such agent from his principal, together with the amount of any bills of exchange drawn by or on account of such principal, and accepted by such agent: provided also that the conviction of any such agent shall not be received in evidence in any action at law or suit in equity against him, and no agent intrusted as aforesaid shall be liable to be convicted by any evidence in respect of any act done by him, if he shall, at any time previously to his being indicted for such offence, have disclosed such act, on oath, in consequence of any compulsory process of any court of law or equity in any action, suit, or proceeding which shall have been bonâ fide instituted by any party aggrieved, or if he shall have disclosed the same in any examination or deposition before any commissioner of bankrupt. (Sec. 6.)

Right of Owner to redeem &c.—Nothing herein contained shall prevent such owner as aforesaid from having the right to redeem such goods or documents of title pledged as aforesaid, at any time before such goods shall have been sold, upon repayment of the amount of the lien thereon, or restoration of the securities in respect of which such lien may exist, and upon payment or satisfaction to such agent, if by him required, of any sum of money for or in respect of which such agent would by law be entitled to retain the same goods or documents, or any of them, by way of lien as against such owner, or to prevent the said owner from recovering of and from such person with whom any such goods or documents may have been pledged, or who shall have any such lien thereon as aforesaid, any balance or sum of money remaining in his hands as the produce of the sale of such goods, after deducting the amount of the lien of such person under such contract or agreement: provided always, that in case of the bankruptcy of any such agent, the owner of the goods which shall have been so redeemed by such owner shall, in respect of the sum paid by him on account of such agent for such redemption, be held to have paid such sum for the use of such agent before his bankruptcy, or in case the goods shall not be so redeemed, the owner shall be deemed a creditor of such agent for the value of the goods so pledged at the time of the pledge, and shall, if he shall think fit, be entitled in either of such cases to prove for or set off the sum so paid, or the value of such goods, as the case may be. (Sec. 7.)

Clause 8 refers to the interpretation of the Act.

In order further to enforce honesty on the part of agents and other like persons, the statute 24 & 25 Vict. c. 96 enacts that under certain circumstances they shall be guilty of misdemeanor, and punishable with penal servitude. When any person intrusted as a banker, merchant, broker, attorney, or other agent, with any money or security for its payment, with a direction in writing to apply, pay, or deliver it, or any part of it, or its proceeds, for any purpose or to any person specified in such direction, in violation of good faith, and contrary to the terms of such direction, converts it to the use and benefit of himself or any person other than the person so intrusting him. Whenever any person intrusted as a banker, broker, attorney, or other agent, with any chattel, valuable security, or any power of attorney for the sale and transfer of any share or interest in any public stock or fund (British or foreign), or in any stock or fund of any body corporate, company, or society for safe custody, or for any special purpose, without any authority to sell, negotiate, transfer, or pledge, in violation of good faith, and contrary to the object or purpose for which it was intrusted to him, sells, negotiates, transfers, pledges, or in any manner converts it or its proceeds to his own use or benefit, or the use or benefit of any person other than the person by whom he was so intrusted. (Trustees and mortgagees are excepted, and the parties specified are not restrained from disposing of securities.) So again in cases where the agent transfers &c. part of the estate. So with the fraudulent use of powers of attorney. So with pledging goods intrusted to a factor or agent for an advance of money or valuable security on contract to consign or deliver. Clerks assisting factors are punishable in the same manner. But the remedy of the principal is against the factor, not against the innocent or bonâ fide purchaser.

A principal is not criminally responsible for the act of his agent, except he expressly commanded it.

For the revocation of an agent's power to commit his principal to third parties, see Smith's *Mercantile Law*, p. 153.

FACTORAGE or COMMISSION. The allowance given to factors by the merchants and manufacturers &c. who employ them: it is a percentage on the goods they purchase or sell on account of their principals; and varies in different countries, and as it refers to different articles. It is customary for factors, as observed in the previous article, to insure the debts due to those for whom they sell for an additional, or *del credere*, commission, generally averaging from 1½ to 2 per cent. Factorage or commission is also frequently charged at a certain rate per cask, or other package, measure, or weight, especially when the factor is only employed to receive or deliver: this commission is usually fixed by special agreement between the merchant and factor.

FACTORY. In Commerce, a place where merchants and factors reside, to negotiate business for themselves and their correspondents on commission. These establishments, of great significance in the past history of commerce, have no practical existence at present. In modern usages, factory is used as an abbreviation for manufactory. For a short account of Factory Acts, see COTTON MANUFACTURES.

FAIRS AND MARKETS. These institutions are very closely allied. A fair, as the term is now generally understood, is only a greater species of market recurring at more distant intervals. Both are appropriated to the sale of one or more species of goods, the hiring of servants or labourers &c.; but fairs are, in most cases, attended by a greater concourse of people, for whose amusement various exhibitions are got up.

1. *Origin of Fairs.*—Institutions of this sort are peculiarly serviceable in the earlier stages of society, and in rude and inland countries. The number of shops, and the commodities in them, are then either comparatively limited, or they are but little frequented by dealers; so that it is for the advantage of all that fairs should be established, and merchants induced to attend them. For this purpose various privileges have been annexed to fairs, and numerous facilities afforded to the disposal of property in them. To give them a greater degree of solemnity, they were originally, both in the ancient and modern world, associated with religious festivals. In most places, indeed, they are still held on the same day with

Factorage, Brokerage, and Commission Table.

Amount	At ¼ per Cent.			At ½ per Cent.			At ¾ per Cent.			At ⅞ per Cent.			At 1 per Cent.			At 1¼ per Cent.			At 1½ per Cent.			At 1¾ per Cent.			At 2 per Cent.		
£	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1	0	0	0¼	0	0	0½	0	0	0¾	0	0	1	0	0	1¼	0	0	1½	0	0	1¾	0	0	2	0	0	2
2	0	0	0½	0	0	1	0	0	1½	0	0	2	0	0	2½	0	0	3	0	0	3½	0	0	4	0	0	4
3	0	0	0¾	0	0	1½	0	0	2¼	0	0	3	0	0	3¾	0	0	4½	0	0	5¼	0	0	6	0	0	6
4	0	0	1	0	0	2	0	0	3	0	0	4	0	0	5	0	0	6	0	0	7	0	0	8	0	0	8
5	0	0	1¼	0	0	2½	0	0	3¾	0	0	4½	0	0	6¼	0	0	7½	0	0	9	0	0	10	0	0	10
6	0	0	1½	0	0	3	0	0	4½	0	0	5½	0	0	7½	0	0	9	0	0	10½	0	1	0	0	1	0
7	0	0	2	0	0	4	0	0	5¼	0	0	6½	0	0	8¾	0	0	10½	0	1	0¼	0	1	2	0	1	2
8	0	0	2¼	0	0	4½	0	0	6	0	0	7½	0	0	10	0	1	0	0	1	2¼	0	1	4	0	1	4
9	0	0	2½	0	0	5	0	0	6¾	0	0	8½	0	0	11¼	0	1	1½	0	1	3½	0	1	6	0	1	6
10	0	0	3	0	0	6	0	0	9	0	0	10	0	1	0	0	1	3	0	1	6	0	1	9	0	2	0
20	0	0	6	0	1	0	0	1	6	0	1	8	0	2	0	0	2	6	0	3	0	0	3	6	0	4	0
30	0	0	9	0	1	6	0	2	3	0	2	1	0	3	0	0	3	9	0	4	6	0	5	3	0	6	0
40	0	1	0	0	2	0	0	3	0	0	3	4	0	4	0	0	5	0	0	6	0	0	7	0	0	8	0
50	0	1	3	0	2	6	0	3	9	0	4	4	0	5	0	0	6	3	0	7	6	0	8	9	0	10	0
60	0	1	6	0	3	0	0	4	6	0	5	0	0	6	0	0	7	6	0	9	0	0	10	6	0	12	0
70	0	1	9	0	3	6	0	5	3	0	5	8	0	7	0	0	8	9	0	10	6	0	12	3	0	14	0
80	0	2	0	0	4	0	0	6	0	0	6	8	0	8	0	0	10	0	0	12	0	0	14	0	0	16	0
90	0	2	3	0	4	6	0	6	9	0	7	0	0	9	0	0	11	3	0	13	6	0	15	9	0	18	0
100	0	2	6	0	5	0	0	7	6	0	7	11	0	10	0	0	12	6	0	15	0	0	17	6	1	0	0
200	0	5	0	0	10	0	0	15	0	0	15	10	1	0	0	1	5	0	1	10	0	1	15	0	2	0	0
300	0	7	6	0	15	0	1	2	6	1	3	9	1	10	0	1	17	6	2	5	0	2	12	6	3	0	0
400	0	10	0	1	0	0	1	10	0	1	11	8	2	0	0	2	10	0	3	0	0	3	10	0	4	0	0
500	0	12	6	1	5	0	1	17	6	1	19	7	2	10	0	3	2	6	3	15	0	4	7	6	5	0	0
600	0	15	0	1	10	0	2	5	0	2	7	6	3	0	0	3	15	0	4	10	0	5	5	0	6	0	0
700	0	17	6	1	15	0	2	12	6	2	15	5	3	10	0	4	7	6	5	5	0	6	2	6	7	0	0
800	1	0	0	2	0	0	3	0	0	3	3	4	4	0	0	5	0	0	6	0	0	7	0	0	8	0	0
900	1	2	6	2	5	0	3	7	6	3	11	3	4	10	0	5	12	6	6	15	0	7	17	6	9	0	0
1,000	1	5	0	2	10	0	3	15	0	3	19	2	5	0	0	6	5	0	7	10	0	8	15	0	10	0	0
2,000	2	10	0	5	0	0	7	10	0	7	18	4	10	0	0	12	10	0	15	0	0	17	10	0	20	0	0
3,000	3	15	0	7	10	0	11	5	0	11	17	6	15	0	0	18	15	0	22	10	0	26	5	0	30	0	0
4,000	5	0	0	10	0	0	15	0	0	15	16	8	20	0	0	25	0	0	30	0	0	35	0	0	40	0	0
5,000	6	5	0	12	10	0	18	15	0	19	15	10	25	0	0	31	5	0	37	10	0	43	15	0	50	0	0
10,000	12	10	0	25	0	0	37	10	0	39	11	8	50	0	0	62	10	0	75	0	0	87	10	0	100	0	0

Amount	At 1½ per Cent.			At 2 per Cent.			At 2½ per Cent.			At 3 per Cent.			At 4 per Cent.			At 4½ per Cent.			At 5 per Cent.		
£	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1	0	0	3¾	0	0	4½	0	0	6	0	0	7	0	0	9¾	0	0	10½	0	1	0
2	0	0	7	0	0	9	0	1	0	0	1	2¼	0	1	7	0	1	9	0	2	0
3	0	0	10½	0	1	2	0	1	6	0	1	9¾	0	2	4½	0	2	8½	0	3	0
4	0	1	2¼	0	1	7	0	2	0	0	2	4½	0	3	2¼	0	3	7	0	4	0
5	0	1	6	0	2	0	0	2	6	0	3	0	0	4	0	0	4	6	0	5	0
6	0	1	9¾	0	2	4½	0	3	0	0	3	7	0	4	9¾	0	5	4½	0	6	0
7	0	2	1	0	2	9½	0	3	6	0	4	2¾	0	5	7	0	6	3	0	7	0
8	0	2	4½	0	3	2¾	0	4	0	0	4	9½	0	6	4½	0	7	2¼	0	8	0
9	0	2	8¼	0	3	7	0	4	6	0	5	4¾	0	7	2¼	0	8	1	0	9	0
10	0	3	0	0	4	0	0	5	0	0	6	0	0	8	0	0	9	0	0	10	0
20	0	6	0	0	8	0	0	10	0	0	12	0	0	16	0	0	18	0	1	0	0
30	0	9	0	0	12	0	0	15	0	0	18	0	1	4	0	1	7	0	1	10	0
40	0	12	0	0	16	0	1	0	0	1	4	0	1	12	0	1	16	0	2	0	0
50	0	15	0	1	0	0	1	5	0	1	10	0	2	0	0	2	5	0	2	10	0
60	0	18	0	1	4	0	1	10	0	1	16	0	2	8	0	2	14	0	3	0	0
70	1	1	0	1	8	0	1	15	0	2	2	0	2	16	0	3	3	0	3	10	0
80	1	4	0	1	12	0	2	0	0	2	8	0	3	4	0	3	12	0	4	0	0
90	1	7	0	1	16	0	2	5	0	2	14	0	3	12	0	4	1	0	4	10	0
100	1	10	0	2	0	0	2	10	0	3	0	0	4	0	0	4	10	0	5	0	0
200	3	0	0	4	0	0	5	0	0	6	0	0	8	0	0	9	0	0	10	0	0
300	4	10	0	6	0	0	7	10	0	9	0	0	12	0	0	13	10	0	15	0	0
400	6	0	0	8	0	0	10	0	0	12	0	0	16	0	0	18	0	0	20	0	0
500	7	10	0	10	0	0	12	10	0	15	0	0	20	0	0	22	10	0	25	0	0
600	9	0	0	12	0	0	15	0	0	18	0	0	24	0	0	27	0	0	30	0	0
700	10	10	0	14	0	0	17	10	0	21	0	0	28	0	0	31	10	0	35	0	0
800	12	0	0	16	0	0	20	0	0	24	0	0	32	0	0	36	0	0	40	0	0
900	13	10	0	18	0	0	22	10	0	27	0	0	36	0	0	40	10	0	45	0	0
1,000	15	0	0	20	0	0	25	0	0	30	0	0	40	0	0	45	0	0	50	0	0
2,000	30	0	0	40	0	0	50	0	0	60	0	0	80	0	0	90	0	0	100	0	0
3,000	45	0	0	60	0	0	75	0	0	90	0	0	120	0	0	135	0	0	150	0	0
4,000	60	0	0	80	0	0	100	0	0	120	0	0	160	0	0	180	0	0	200	0	0
5,000	75	0	0	100	0	0	125	0	0	150	0	0	200	0	0	225	0	0	250	0	0
10,000	150	0	0	200	0	0	250	0	0	300	0	0	400	0	0	450	0	0	500	0	0

the wake or feast of the saint to whom the church is dedicated; and till the practice was prohibited, it was customary, in England, to hold them in churchyards. (Jacob's *Law Dictionary*, art. 'Fair.') But since the growth of towns, and the opportunities afforded for the disposal and purchase of all sorts of produce at the weekly or monthly markets held in them, the utility of fairs, in this country at least, has very much diminished; they have, also, lost much of their ancient splendour; and though some of them are still well attended, and of real use, a good number might be advantageously suppressed.

But it is far otherwise in inland countries, where the facilities for carrying on commercial transactions are comparatively circumscribed. There it is of the utmost importance that certain convenient places and specified periods should be appointed for the bringing together of commodities and dealers. This is not only the readiest and best means of promoting commerce, but also of softening national antipathies, and diffusing a knowledge of the products, arts, and customs of other countries.

2. *Establishment of English Fairs.*—No fair can be holden without grant from the Crown, or a prescription which supposes such grant. And before a patent is granted, it is usual to have a writ of *ad quod damnum* executed and returned, that it may not be issued to the prejudice of a similar establishment already existing. The grant usually contains a clause that it shall not be to the hurt of another fair or market; but this clause, if omitted, will be implied in law; for if the franchise occasion damage either to the king or a subject, in this or any other respect, it will be revoked; and a person whose ancient title is prejudiced is entitled to have a *scire facias* in the king's name to repeal the letters patent. If his Majesty grant power to hold a fair or market in a particular place, the lieges can resort to no other, even though it be inconvenient; but if no place be appointed, the grantees may keep the fair or market where they please, or rather where they can most conveniently.

3. *Times of holding Fairs and Markets.*—These are either determined by the letters patent appointing the fair or market, or by usage. The statute 2 Edw. III. c. 15 enacts that the duration of the fair shall be declared at its commencement, and that it shall not be continued beyond the specified time. By statute 5 Edw. III. c. 5 any merchant selling goods after the stipulated time is to forfeit double the value of the goods sold.

4. *Effects of Sales in Fairs and Markets.*—A bonâ fide sale made in a fair or open market, in general, transfers the complete property of the thing sold to the vendee; so that, however vicious or illegal the title of the vendor may be, the vendee's is good against everyone except the king. But the sale, in order to come within this rule, must take place *on the market day, and at the place assigned for the market.* The city of London is said to be a market overt every day of the week except Sunday; every shop being a market overt for such things as the shopkeeper professes to deal in. The property of goods may, however, be changed, and effectually transferred to the buyer, by a bonâ fide sale in a shop out of London, whether the shopkeeper be the vendor or vendee, if the goods are of the kind in which he trades. A wharf in London is not within the custom, and is not a market overt for articles brought there. But a sale in a market will not be binding if it be such as carries with it a presumption of fraud: as, for example, if it take place in a back room, or secret place; if the sale be covinous, and intended to defraud the real owner; or if the buyer know that the vendor is not the real owner of the goods &c. It is very difficult to transfer the property of horses, even when they are sold in an open market, without the consent of the real owner. [Horses.]

5. *Court of Pié Poudre.*—To every fair or market there was incident, even without any express words in the grant, a court of *pié poudre*, in allusion to the dusty feet of the suitors. The steward or mayor might preside. It had cognisance of all questions as to contracts made in the market, respecting goods *bought and delivered there* &c. Formerly *pié poudre* courts were held at every considerable fair, but they are now entirely laid aside.

6. *Clerk of the Market.*—Owners and governors of fairs are to take care that everything be sold according to just weights and measures, and for that and other purposes they may appoint a clerk of the fair or market, who is to mark and allow all such weights &c.; charging 1*d.* for sealing and marking a bushel, ½*d.* for marking a half bushel or peck, and ¼*d.* for marking a gallon, pottle, quart, pint &c., under penalty of 5*l.* (22 Chas. II. c. 8.)

7. *Tolls.*—Being a matter of private benefit to the owners of fairs or markets, and not incident to them, tolls are not exigible unless specially granted in the patent; but the king may by a new grant authorise a reasonable toll to be taken. If the toll granted be excessive, the patent will be void. It is a general rule, unless changed by a contrary custom obtaining time out of mind, that no toll be paid for anything brought to a fair or market before the same is sold, and that it shall then be *paid by the buyer.*

The owner of a house next to a fair or market is not allowed to open his shop during such fair or market without paying *stallage* (toll for having a stall); on the ground that if he take the benefit of the market, he ought to pay the duties thereon. This regulation has been a good deal complained of.

The owners of fairs and markets are required by statute (2 & 3 Philip & Mary c. 7) to appoint a person in a special open place to take the toll. The most important part of this person's duty has reference to his entering the horses sold with 3 distinguishing marks, and the names &c. of those who buy and sell them. [Horses.]

An action lies against any one who refuses to pay the customary toll.

(For further information as to British fairs and markets, see Chitty *On Commercial Law*, vol. ii. c. 9.)

The 3 Geo. IV. c. 55 enacts that at all fairs held within 10 miles of Temple Bar, business and amusements of all kinds shall cease at 11 o'clock in the evening, and not recommence before 6 o'clock in the morning, under a penalty of 40*s.* to be paid by any master, mistress, or other person having the care or management of any house, shop, room, booth, standing, tent, caravan, or waggon, where any breach of this enactment shall have been committed. Power is also given by the same Act to any two justices of the peace, within their respective jurisdictions, to put a stop to any fair which is held without charter, prescription, or lawful authority.

Three Acts relative to fairs have been passed in 1868 (one each for England and Ireland), c. 51 and 12 of 31 & 32 Vict., making provision for altering the days on which fairs are to be held, and the other, c. 106, for the prevention of unlawful fairs in the metropolitan police district.

8. *Principal British Fairs.*—Among these may be specified Stourbridge in Cambridgeshire, once the greatest fair in England. Bristol has 2 considerable fairs, 1 in March, and 1 in September. Exeter December fair, for cattle, horses, and most sorts of commodities. Weyhill fair, in Hampshire (October 10), has, probably, the greatest display of sheep of any fair in the kingdom. Bartholomew fair, in London, used to be of considerable importance, but latterly it was appropriated only to shows of wild beasts, and such like exhibitions, and was very properly suppressed. St. Faith's, near Norwich (October 17), is the principal English fair for Scotch cattle. They are sold to the graziers and feeders of Norfolk, Suffolk, Essex &c., by whom they are fattened for the London markets, where they are met with in great abundance. But besides those sold at St. Faith's, large numbers of Scotch cattle are disposed of at Market Harborough, Carlisle, Ormskirk, and other places. Ipswich has 2 considerable fairs —1 in August for lambs, and 1 in September for butter and cheese: it is reckoned that above 100,000 lambs are annually sold at the former. Woodborough-hill, in Dorset, for West country manufactures, as kerseys, druggets &c. Woodstock October fair, for cheese. Northampton and Nottingham have each several large fairs, for horses, cattle, cheese &c. The August fair of Horncastle, in Lincolnshire, is the largest horse fair in the kingdom, many thousand horses being exhibited for sale during its continuance: it is resorted to by crowds of dealers from all parts of Great Britain, by several from the Continent, and sometimes even from North America. Howden, in Yorkshire, has also a very large horse fair, particularly for Yorkshire hunters. Devizes, in Wiltshire, has several large fairs for sheep and cattle. There is usually a large display of cheese at the Gloucester April fair. A guild, or jubilee, commencing the last week of August, is held every 20th year at Preston, in Lancashire; the last was held in 1862, and was well attended. The October fair of Market Harborough, Leicestershire, lasts 9 days, and a great deal of business is usually done in cattle, cheese &c. Woodbridge Lady-day fair is celebrated for the show of Suffolk horses. Falkirk fair, or tryst, is one of the most important in Scotland for the sale of cattle and sheep. The October fair of Ballinasloe, in the county Galway, is famous for the display of cattle and sheep: by far the largest proportion of these animals raised for sale in Connaught being disposed of at it. They are mostly lean, and are kept for 1 year in Leinster before they are fit for the Dublin or Liverpool markets.

We subjoin an

Account of the Number of Sheep and Cattle exhibited at the October Fairs of Ballinasloe, in the undermentioned Years, from 1790 *to* 1867, *both inclusive.*

Years	Sheep, total sold and unsold	Horned Cattle, total sold and unsold	Years	Sheep, total sold and unsold	Horned Cattle, total sold and unsold	Years	Sheep, total sold and unsold	Horned Cattle, total sold and unsold
1790	61,931	8,632	1822	90,177	9,017	1847	80,519	10,454
1795	68,217	7,996	1823	95,999	10,909	1848	67,015	8,162
1800	70,356	7,749	1824	84,234	10,505	1849	61,416	12,758
1804	87,164	8,801	1825	90,265	10,266	1850	51,072	15,795
1805	84,354	10,104	1826	94,105	8,240	1851	54,549	11,659
1806	87,393	12,190	1827	91,375	8,549	1852	52,187	11,805
1807	80,962	8,568	1828	97,384	11,513	1853	62,356	12,512
1808	82,799	9,347	1829	86,119	9,343	1854	79,899	18,409
1809	76,948	8,457	1830	81,556	7,276	1855	84,182	22,740
1810	91,001	7,258	1831	64,176	7,209	1856	99,658	26,123
1811	86,489	7,462	1832	63,054	8,128	1857	80,718	20,788
1812	83,529	9,988	1833	56,112	8,761	1858	97,379	25,046
1813	77,088	9,264	1834	66,714	9,657	1859	94,650	18,112
1814	80,280	9,611	1835	62,131	8,584	1860	81,261	17,474
1815	94,564	8,149	1836	63,634	9,183	1861	75,118	19,115
1816	78,553	8,183	1837	69,336	9,137	1862	71,997	18,340
1817	70,399	6,802	1838	92,269	14,143	1863	75,191	22,876
1818	70,827	9,610	1839	96,231	11,750	1864	71,335	18,819
1819	78,222	9,733	1840	91,282	12,004	1865	66,550	17,607
1820	80,776	8,405	1841	77,189	14,161	1866	73,502	19,350
1821	85,100	7,284	1842	76,815	14,564	1867	75,564	23,731

9. *Principal French Fairs.*—Among these may be specified the fairs of St. Germain's, Lyons, Rheims, Chartres, Rouen, Bordeaux, Troyes, and Bayonne; but they are much fallen off.

The most important of the modern French fairs is that of Beaucaire, on the right bank of the Rhone, opposite to Tarascon, 14 miles E. of Nismes. It is very favourably situated for an entrepôt, being, exclusive of the command of internal navigation afforded by the Rhone, connected by canals with the sea and the *Canal du Midi*. The fair, which commences on the 22nd and finishes on the 28th of July, was formerly the greatest in Europe; and, though a good deal fallen off, it is still attended by a vast concourse of people, not from France only, but also from Switzerland, Germany, Italy, Spain, and the Levant. Almost every sort of article, whether of convenience or luxury, may then be met with in the town. It is said that the number of visitors still amounts to from 70,000 to 80,000, and the amount of business done to 150,000,000 fr.; but we have little doubt that these estimates are very greatly exaggerated, and that the first would be nearer the mark were it reduced to 50,000 or 60,000. All bills due at this fair are presented on the 27th, and protested on the 28th. A tribunal instituted for the purpose takes cognisance of and immediately settles all disputes growing out of transactions that take place at the fair. A military force attends to preserve order, and the prefect of the department, who is always present, entertains the principal merchants and strangers. (*Geographical Dictionary*, art. 'Beaucaire,' and the authorities there referred to.)

10. *German Fairs.*—The principal German, or rather European, fairs, are those of Frankfort-on-the-Maine, Frankfort-on-the-Oder, and Leipsic. The concourse of merchants, and the business done at these fairs, are generally very great. They are copiously supplied with the cotton stuffs, twist, cloths, and hardware of England; the silks and jewellery of France; the printed cottons of Switzerland and Austria; the raw, manufactured, and literary products of Germany; the furs of the North; Turkey carpets; Cachemere shawls &c.; and there also are to be found merchants of all countries, those of Ispahan negotiating with those of Montreal for the purchase of furs, and Georgians and Servians supplying themselves with the cottons of Manchester and the jewellery of Paris. There, in fact, are met the representatives, as it were, of every people in the world, labouring, though without intending it, to promote each other's interest, and to extend and strengthen those ties that bind together the great family of the human race.

The fairs at Frankfort-on-the-Maine should begin, the first on Easter Tuesday, and the second on the Monday nearest to September 8. Their duration is limited to 3 weeks, but they usually begin from 8 to 15 days before their legal commencement. Accounts are kept in rixdollars: 1 rixdollar of account = 1½ florin, or 4½ copsticks, or 22½ batzen. The rixdollar = 3*s.* 1·8*d.*; so that the par of exchange is 141 batzen per 1*l.* sterling. 100 lbs. common Frankfort weight = 103 lbs. avoirdupois. The foot = 11·27 English inches.

The fairs at Frankfort-on-the-Oder are 3 in number: viz. *Reminiscere*, in February or March; *St. Margaret*, in July; and *St. Martin*, in November. They ought, strictly speaking, to terminate in 8 days, but they usually extend to 15. The Prussian Government gives every facility to those who attend these fairs. Accounts are kept in Prussian money, that is, in rixdollars of 2*s.* 11½*d.* 100 lbs. Prussian = 103 lbs. avoirdupois. The foot = 12·356 English inches.

The fairs of Leipsic are still more celebrated than those of either Frankfort. They are held thrice a-year—on January 1, at Easter, and at Michaelmas. The first is the least important. The Easter and Michaelmas fairs are famous, particularly the former, for the vast number of new publications usually offered for sale. They are attended by all the principal booksellers of Germany, and by many from the adjoining countries, who adjust their accounts, learn the state of the trade in all parts of the world, and endeavour to form new connections. Most German publishers have agents in Leipsic, which is to the literature of Germany what London is to that of Great Britain. As many as 5,000 new publications have been in a single Leipsic catalogue! They are also great markets for Saxon woollens and other goods, British calicoes, French silks, and, in fact, for most descriptions of produce. The fairs ought to close in 8 days, but they usually continue for about 3 weeks.

No days of grace are allowed. The holder of a bill must demand payment on the day it becomes due; and, if not paid, he must have it protested on that very day, and returned by the first opportunity. If he neglect any of these regulations, he loses all right of recourse upon the drawer and indorsers. Money of account at Leipsic same as at Frankfort-on-the-Maine. 100 lbs. Leipsic = 103 lbs. avoirdupois. The foot = 11·11 English inches. (Kelly's *Cambist*; *Manuel* de Nelkenbrecher; Bowring's *Report on the Prussian Commercial Union*, pp. 255–269; &c.)

Dr. Bright gives, in his *Travels in Hungary* (pp. 201–223), an interesting account of the fairs held at Debreczin and Pesth. The latter has be-

come the grand centre of Hungarian commerce, most part of which is conducted at its fairs.

11. *Italian Fairs.*—Of these, the most celebrated is that of Sinigaglia, a small but handsome town of the Papal dominions, on the Misa, near its confluence with the Adriatic. The fair commences on the 20th of July, and should terminate on the last day of that month, but it usually continues 8 or 10 days longer. The duties on goods brought to the fair are extremely moderate, and everything is done to promote the convenience of those frequenting it. All sorts of cotton, woollen, and silk goods, colonial produce, iron and steel, hardware, jewellery, brandy and liqueurs, timber, drugs, spices &c. are brought here by the English, French, Austrians, Swiss &c. These are exchanged for the various raw and manufactured products of Italy and the Levant; consisting, among others, of raw, thrown, and wrought silks; oil, fruits, cheese, alum, soda, sumach, sulphur &c. Accounts are kept in scudi of 20 soldi; the scudo = 4*s.* 4*d.* very nearly. 100 lbs. Sinigaglia = 73¾ avoirdupois. The ell or braccio measures 25·33 English inches. (*Manuel* de Nelkenbrecher; Macgregor's *Tariffs*: 'Italy,' p. 121.)

12. *Russian Fairs.*—These are numerous, and many of them are well attended. The most important is held at Nijnii-Novgorod, at the confluence of the Oka with the Wolga, lat. 56° 19′ 40″ N., long. 44° 28′ 30″ E. Previously to 1817 this fair was held in a less convenient situation, at Makarieff, lower down the Wolga; but the buildings for the accommodation of the merchants at the latter having been accidentally burnt down in 1816, Government took advantage of the circumstance to remove the fair to Nijnii. It is principally carried on within the new bazaars constructed for that purpose on the left bank of the Oka. These, which are divided into parallel rows or streets, are constructed of stone walls roofed with iron, having covered galleries in front supported by iron pillars. They are built on piles, and, to guard against inundations, the ground on which they stand has been raised about 20 feet. Being enclosed on 3 sides by canals, and on the 4th by a navigable inlet of the Oka, there is every facility for the delivery and shipment of goods. The establishment is of great extent, comprising 2,524 booths, and is admitted on all hands to be at once the largest and most perfect of its kind that is anywhere to be met with. But, in addition to the above, there are about as many shops and booths constructed of wood, which belong to private parties. The fair begins in July, and continues for a month or 6 weeks.

The total value of all sorts of produce brought to the fair in 1852 amounted to 64,591,000 silver roubles: of this sum, Russian produce made 49,274,000 roubles; colonial and European produce, 8,754,000 do.; drugs and dye stuffs, 2,580,000 do.; Chinese produce, 6,886,000 do.; Persian produce, 1,234,000 do.; with the produce of Khiva and Bokhara 886,000 do. The sales amounted to 56,264,000 roubles. (Tegoborski, *Forces Productives de la Russie*, iii. 281.) The stationary population of the town, which may amount to about 25,000, is, during the fair, said to amount to from 100,000 to 130,000, including Chinese, Persians, Armenians, Tartars, Bokharians &c. Theatrical exhibitions, shows of wild beasts, and other sports, add to the attractions of the scene.

Another celebrated Russian fair is held in the month of December, at Kiachta, in Mongolia, on the Chinese frontier, lat. 50° 21′ 5″ N., long. 106° 28′ 15″ E. The town is small, the population not exceeding 4,000 or 5,000; but by far the largest part of the commerce between the Russian and Chinese empires is transacted at its fair, and it is also the centre of the political intercourse between them. The commodities brought hither by the Russians consist principally of Russian and German broad cloths, furs, sheep and lamb skins, leather, coarse linens, worsted stuffs, cattle &c., with, for the most part, bullion. These they exchange with the Chinese for tea, raw and manufactured silk, nankeens, porcelain, sugar candy, rhubarb, tobacco, musk &c.; the value of the articles, however, other than tea, being comparatively inconsiderable. The quantity of tea purchased at the Kiachta fairs by the Russians, which in 1814 was only 9,080 poods, increased between 1817 and 1847 very considerably, and amounted in 1850, according to the official returns, to 210,179 poods, or 7,566,444 lbs. of very superior tea, worth about 2*s.* 6*d.* per lb., and 85,440 poods (3,076,840 lbs.) inferior or black tea. At an average of the 6 years ending with 1850, the total imports of all sorts of tea into Russia through Kiachta were estimated at 11,748,464 lbs. Eng. a-year. According to the same accounts the total value of the exports to China through Kiachta, in 1850, amounted to 6,916,071 silver roubles, and that of the imports to about the same. The customs duty received at Kiachta in 1848 amounted to 923,554*l.* But the effect on the trade produced by the abolition of the Kiachta monopoly and the legal importation of sea-borne tea in 1862 is best shown by the receipts of the Kiachta Custom-house, which fell from 4,490,114 silver roubles in 1861 to 2,050,569 in 1863 (*Report* of Mr. Lumley, Sec. of Embassy, May 1867). The Russian trade is in the hands of a comparatively small number of merchants, some of whom are very rich; that of the Chinese is much more diffused. Commodities may be conveyed from Kiachta to European Russia either by land or by water. In the former case the journey takes a year; in the latter it takes 3 years, or rather 3 very short summers; the rivers being for the most part of the year frozen over. (Schnitzler, *Statistique Générale de l'Empire de la Russie*, p. 143; &c.) We subjoin

An Account of the Principal Fairs in Russia, and of the Value of the Goods Exhibited and Sold at each in 1851. (Tegoborski, iii. 288.)

Fairs	Goods exhibited	Goods sold	Per Cent. Goods Sold
	Sil. Roub.	Sil. Roub.	
Nijnii-Novgorod - -	60,976,000	53,690,000	88
Irbit, gov. Perm -	35,551,000	28,741,000	81
Kharkoff, in January -	12,770,000	7,938,000	62
Poltava, in August -	9,216,000	5,400,000	59
Korennaia, gov. Koursk -	6,939,000	2,735,000	40
Ourioupinskaia, Don Cossacks	6,028,000	3,592,000	60
Kharkoff, in August -	3,192,000	1,992,000	57
Krolevitz, gov. Tchernigoff	4,566,000	2,520,000	55
Poltava, in February -	3,961,000	1,768,000	44
Do. Feast of the Ascension -	3,554,000	1,310,000	37
Other principal fairs -	24,982,000	12,182,000	48
Totals - -	175,735,000	122,168,000	70

13. *Turkish Fairs.*—Several important fairs, of which little or nothing is known in this country, are held at various places in European Turkey. Among others may be specified those of Usundji, or Usundjova, in Roumelia; Janina, in Albania; Strouga, on the Lake of Ocrida; Novi-Bazar, in Upper Mœsia; Islivni, in Thrace; Prelip and Nicopoli, in Macedonia; Eski-Djouma, in Bulgaria; and Zeitoun and Pharsalia, in Thessaly.

The largest and most important of these fairs is that of Usundji, held at the village of that name, on the Usundji, a tributary of the Maritza, about 44 miles west by north of Adrianople. It was

visited by M. Blanqui in 1841, and by Mr. Spencer in 1850. The latter says (but statements of this sort are very apt to be exaggerated) that it was attended by from 80,000 to 100,000 people, who had journeyed hither from all parts of European Turkey for the purpose of disposing of their wool, hides, raw cotton, leeches, and other products of the country, and of purchasing in return the manufactures of the West. The show of the latter is very extensive. Sheds are erected in the village by Government, which serve as warehouses for the merchants, and every house is converted into a han for the reception of strangers. But by far the greater number of the latter have, notwithstanding, to encamp with their camels, horses &c. on the surrounding plain. Blanqui speaks in high terms of commendation of the good order that prevailed, in the absence of anything like police, among the motley population at the fair. (Blanqui, *Voyage en Bulgarie*, p. 252; Spencer's *Travels in European Turkey*, ii. 346; &c.)

This great fair, which lasts 15 days (Blanqui), is held, like the other fairs, in autumn, immediately after harvest. But though it be largely frequented by German, Swiss, Italian, and Greek merchants, who transact a great amount of business, it is very little, if at all, known in England. This is the more surprising, seeing that we have consuls at Adrianople and other places not very distant from the seat of the fair; and it might have been supposed that these functionaries would have been anxious to send home the most ample details with respect to this and other fairs in their vicinity, describing the products which might be most advantageously bought and sold at these marts, the routes by which they might be most easily reached, and so forth. But if such reports any where exist, they have not, at all events, been published; and hence, probably, the fact of the business of these fairs being mostly in the hands of foreigners.

14. *Eastern Fairs.*—The most important fair in the Eastern world is that held at Mecca during the resort of pilgrims in the month of Dhalhajja. It used to be frequented by many thousands of individuals of all ranks and orders, brought together from the remotest corners of the Mohammedan world; and though the numbers attending it have declined of late years, the concourse is still very great. [CARAVAN.]

Hurdwar, in Hindostan, in lat. 29° 57′ N., long. 78° 2′ E., 117 miles north-east from Delhi, is famous from its being one of the principal places of Hindoo pilgrimage, and the greatest fair in India. The town, which is inconsiderable, is situated on the Ganges, at the point where that sacred stream issues from the mountains. The pilgrimage and fair are held together at the vernal equinox; and Europeans, nowise addicted to exaggeration, who have been repeatedly present on these occasions, estimate that from 200,000 to 300,000 strangers are then assembled in the town and its vicinity. But every twelfth year is reckoned peculiarly holy; and then it is supposed that from 1,000,000 to 1,500,000, and even 2,000,000 pilgrims and dealers are congregated together from all parts of India and countries to the north. In 1819, which happened to be a twelfth year, when the auspicious moment for bathing in the Ganges was announced to the impatient devotees, the rush was so tremendous that no fewer than 430 persons were either trampled to death under foot, or drowned in the river! The foreigners resorting to Hurdwar fair for commercial purposes only, consist principally of natives of Nepaul, the Punjab, and Peshawur, with Afghans, Usbeck Tartars &c. They import vast numbers of horses, cattle, and camels; Persian dried fruits, shawls, drugs &c.: the returns are made in cotton piece goods, indigo, sugar, spices, and other tropical productions. The merchants never mention the price of their goods, but conduct the bargain by touching the different joints of their fingers, to hinder the bystanders gaining any information. During the Mahratta sway, a kind of poll-tax and duties on cattle were levied; but all is now free, without impost or molestation of any sort. Owing, also, to the precautions adopted by the British Government, the most perfect order is preserved—much to the surprise and satisfaction of the natives; for, antecedent to our occupation of the country, the fairs usually ended in disorder and bloodshed. (*Private information*, and the excellent account of Hurdwar in Hamilton's *Gazetteer*.)

The fairs of Portobello, Vera Cruz, and Acapulco, once so famous, are now totally deserted; that of the Havannah is also much fallen off.

FATHOM. A measure of length, 6 feet, chiefly used for measuring the length of cordage, and the depth of water and mines.

FEATHERS, BED-FEATHERS (Fr. plumes, plumes à lit; Ger. federn, bettfedern; Dutch, bedveern, pluimen; Ital. piume; Span. plumas) make a considerable article of commerce; particularly those of the ostrich, goose, heron, swan, peacock, and other poultry. The feathers of the ostrich have been held in the highest estimation from antiquity downwards, and have furnished favourite decorations for the fans and headdresses of ladies, the helmets of warriors, and the most splendid processions. Many parts of Great Britain supply feathers for beds, and an inferior sort is brought from Ireland. Eider down, the finest variety of its class, is imported from the north of Europe; the ducks that supply it being inhabitants of Greenland, Iceland, and Norway. The eider duck breeds in the islands on the west of Scotland, but not in sufficient numbers to form a profitable branch of trade to the inhabitants. Hudson's Bay furnishes very fine feathers, especially for quills. The down of the swan is brought from Dantzic, as well as large quantities of superior feathers.

The duty on feathers was repealed in 1845. In 1866 the following quantities were imported; viz.

Feathers for beds	-	-	cwts. 12,470
Ostrich white	-	-	lbs. 11,577
black	-	-	,, 27,629
Other sorts, unenumerated	-	-	,, 34,199

FIDDLES, or VIOLINS (Ger. violinen, geigen; Dutch, vioolen; Fr. violons; Ital. violini; Span. violines; Russ. skripizii). Musical instruments, too well known to need any particular description. The finest-toned violins are those made in Italy; they are usually called Cremonas, from the name of the town where they were formerly manufactured in the highest perfection: 100 guineas and more have not unfrequently been given for a first-rate Cremona violin.

FIGS (Ger. feigen; Dutch, vygen; Fr. figues; Ital. fichi; Span. higos; Lat. fici, caricæ; Arab. teen). The fruit of the fig tree (*Ficus carica*), a native of Asia, but early introduced into Europe.

It flourishes in Turkey, Greece, France, Spain, Italy, and Northern Africa, and even sometimes ripens its fruit in the open air in this country. Figs, when ripe, are for the most part dried in ovens to preserve them, and then packed very closely in the small chests and baskets in which we import them. The best come from Turkey: those of Kalamata, in the Morea, are said to be the most luscious. (Thomson's *Dispensatory*.)

Dried figs form a very considerable article of commerce in Provence, Italy, and Spain; besides

affording, as in the East, a principal article of sustenance for the population. In Spain, figs are chiefly exported from Andalusia and Valencia; but they are more or less abundant in every province. In the northern parts of France there are many fig gardens, particularly at Argenteuil.

In 1866, 76,181 cwts. figs were admitted to consumption. The duty, which was reduced in 1840 to 15*s.* 9*d.* per cwt., and in 1860 to 7*s.*, amounted in 1866 to 26,665*l.* Of 95,721 cwts. figs imported in 1866, no fewer than 51,138 came from Turkey, 12,458 cwts. being supplied by Spain, 24,380 by Portugal, and 3,037 by Austria, probably at second hand from Turkey.

No abatement of duty is made on account of any damage received by figs.

FILE, FILES (Dan. file; Dutch, vylen; Fr. limes; Ger. feilen; Ital. lime). An instrument of iron or forged steel, cut in little furrows, used to polish or smooth metals, timber, and other hard bodies.

FIR. [PINE.]

FIRE-ARMS. Under this designation are comprised all sorts of guns, fowling-pieces, blunderbusses, pistols &c. The manufacture of these weapons, of which Birmingham is the chief seat, is of considerable importance; employing at all times, but especially during war, a large number of persons.

(For an account of the manufacture of small arms see Ure's *Dictionary of Arts, Manufactures &c.*)

In consequence of the frequent occurrence of accidents from the bursting of insufficient barrels, the Legislature has most properly interfered, not to regulate their manufacture, but to prevent all persons from *using or selling* barrels that have not been regularly *proved* in a public proof-house. The first Act for this purpose was passed in 1813; but it was soon after superseded by a fuller and more complete one, the 55 Geo. III. c. 59. This statute imposes a fine of 20*l.* on any person *using*, in any of the progressive stages of its manufacture, any barrel not duly proved; on any person *delivering* the same, except through a proof-house; and on any person *receiving*, for the purpose of making guns &c., any barrels which have not passed through a proof-house. These penalties to be levied on conviction before 2 justices; with like penalties, to be similarly levied, on persons counterfeiting the *proof-marks*. Taking the 10 years ending with 1864, the average annual number of barrels proved in England was 611,630.

FIRE-WORKS. By 9 & 10 Wm. III. all sorts of fire-works were declared to be a common nuisance. But this Act was repealed by 23 & 24 Vict. c. 139, which enacts that it shall not be lawful for any person to sell, or offer or expose to sale, any firework without a license for that purpose from the justices of the peace, as provided by that Act and the 24 & 25 Vict. c. 130, and 25 & 26 Vict. c. 98; and no such firework shall be sold to any person apparently under 16 years of age; and any person offending against this enactment shall for every offence forfeit any sum not exceeding 5*l.* And if any person throw, cast, or fire, or aid or assist in throwing, casting, or firing, any squib, serpent, rocket, or other firework in or into any thoroughfare or public place, he shall for every such offence forfeit any sum not exceeding 5*l.* [GUNPOWDER.]

FIRKIN. A measure of capacity, equal to 9 ale gallons, or 7½ Imperial gallons, or 2,538 cubic inches. [WEIGHTS AND MEASURES.]

FIRLOT. A dry measure used in Scotland. The Linlithgow wheat firlot is to the Imperial bushel as ·998 to 1, and the Linlithgow barley firlot is to the Imperial bushel as 1·456 to 1. [WEIGHTS AND MEASURES.]

FISH (Ger. fische; Dutch, visschen; Dan. and Swed. fisk; Fr. poissons; Ital. pesci; Span. pescados; Port. peixes; Russ. rüb; Pol. rybi; Lat. pisces). A term used in natural history to denote every variety of animal inhabiting seas, rivers, lakes, ponds &c. that cannot exist for any considerable time out of the water. But in a commercial point of view, those fishes only are referred to that are caught by man, and used either as food or for some other useful purpose. Of these, herring, salmon, cod, pilchard, mackerel, turbot, lobster, oyster, whale &c. are among the most important.

The supply of fish in the seas round Britain is most abundant, or rather quite inexhaustible. 'The coasts of Great Britain,' says Sir John Boroughs ('Soveraignty of the British Seas,' 1633), 'doe yield such a continued sea harvest of gain and benefit to all those that with diligence doe labour in the same, that no time or season of the yeare passeth away without some apparent meanes of profitable employment, especially to such as apply themselves to fishing; which, from the beginning of the year unto the latter end, continueth upon some part or other upon our coastes; and these in such infinite shoales and multitudes of fishes are offered to the takers, as may justly move admiration, not only to strangers, but to those that daily are employed amongst them.' 'That this harvest,' says Mr. (afterwards Sir John) Barrow, 'ripe for gathering at all seasons of the year—without the labour of tillage, without expense of seed or manure, without the payment of rent or taxes—is inexhaustible, the extraordinary fecundity of the most valuable kinds of fish would alone afford abundant proof. To enumerate the thousands, and even millions, of eggs which are impregnated in the herring, the cod, the ling, and indeed in almost the whole of the esculent fish, would give but an inadequate idea of the prodigious multitudes in which they flock to our shores: the shoals themselves must be seen in order to convey to the mind any just notion of their aggregate mass.' (For an account of the shoals of herrings, see HERRING.)

But, notwithstanding these statements, there has been a growing complaint of a scarcity of such fish as breed in the Channel; and it was affirmed, in the report of the Commons' committee of 1833 on the Channel fisheries, that the fact of such scarcity existing has been completely established. The committee ascribed it to various causes, but principally to the destruction of the spawn or brood of fish by fishing with trawl or drag nets with small meshes, near the shore, during the breeding season; a practice prohibited by several statutes, which seem, however, to have fallen into disuse. The committee represented the fishermen as being generally in a very depressed state, and that the business was for the most part very unprofitable. We believe that this is the fact; but we do not know any period when the same might not have been said with quite as much truth. Adam Smith has remarked that from the age of Theocritus downwards, fishermen have been proverbially poor (*Wealth of Nations*, p. 45); and a library might be filled with the Acts, reports, plans, tracts &c. that have been printed in this country during the last two centuries, containing regulations, schemes, suggestions &c. for the improvement of fisheries and fishermen. But it is not too much to say that not one of these well-meant endeavours,

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notwithstanding the enormous expense incurred in carrying some of them into effect, has been productive of any material advantage! and we see no reason to think that the suggestions of the committee of 1833, supposing they were to be acted upon, would have had any better success.

The injury done to the breeding grounds might, perhaps, be obviated; but besides this, the committee laid much stress on the encroachments of the French and other foreign fishermen, and on the license given to import foreign-caught turbot &c. duty free! We confess it appears to us quite visionary to suppose that these circumstances could have much influence. Our fishermen, living upon the very shores of the bays to which the French are said to resort, have advantages on their side sufficient, surely, to insure them a superiority, without the forcible expulsion, supposing that could be accomplished, of their foreign competitors. A man who does not succeed in a business carried on at his own door so well as one who resides 100 miles off, must look for the cause in his want of skill or industry, and should seek rather to improve himself than to discard his rival. The proposition for excluding turbot &c. of foreign catch is one that could not be listened to for a moment. Such exclusion would not be of the slightest advantage to the British fishermen unless it occasioned a rise in the price of the fish; and we need not say that if the Legislature interfere at all in the matter, it should have for its object the lowering, not the raising, of prices. A convention for fixing the limits of the oyster and other fisheries on the coasts of the United Kingdom and of France was signed at Paris on August 2, 1839. Another convention with France for regulating these fisheries was ratified January 14, 1868.

A Royal Commission which reported on the sea fisheries of the United Kingdom in 1866 took somewhat opposite views to those of the committee of 1833. The commissioners found that the supply of fish had increased, and not diminished, of late years, and that beam trawling in the open sea is not a wastefully destructive mode of fishing; and they recommend that unrestricted freedom of fishing and selling fish be permitted to all, whether natives or foreigners. We append portions of two tables illustrative of the price of fish in Manchester and Newcastle-on-Tyne, showing the marked increase in that of the latter attributable to the effect of railway communication.

All that it is possible to do for the fishery, by relieving it from tithes and other burdens, and facilitating the disposal of the fish in the markets of this and other countries, should be done; but except in so far as its interests may be promoted in this way, and perhaps by some new regulations for preserving the brood, we do not see what more is to be done by legislative interference. The appointment of inspectors of salmon fisheries, and the enforcement of regulations for the preservation and improvement of this fish under various Acts from 24 & 25 Vict. c. 109 to 28 & 29 Vict. c. 119 and 121, have already done much good. It will be seen, in our articles on the HERRING and WHALE FISHERIES, that the bounty system was attended with vast expense, without leading to any useful result. All sorts of fish, of whatever take, are now admitted free of duty.

The price of fish in the metropolis, though reduced of late years, is still very high, at least as compared with beef. This has been pretty generally believed to be in no small degree owing to the salesmen of Billingsgate market being able, in great measure, to regulate both the supply of the article and its price. The committee of 1833, however, declared that though they minutely examined the subject, it did not appear that any improper monopoly or injurious regulations subsisted either in the mode of supplying the market or in the sale of the fish.

The demand for fish in other central towns has been similarly augmented. The quantity of fish carried by 12 railways in 1864, viz. 122,381 tons, is contrasted in the Sea Fisheries Commissioners' *Report* with the quantity (99,724 tons) conveyed by the same lines in 1862.

Sir John Barrow, in a valuable article on the fisheries, in the *Encyclopædia Britannica*, estimated the value of the entire annual produce of the foreign and domestic fisheries of Great Britain at 8,300,000*l*. But it is admitted by every one who knows any thing of the subject that this estimate is very greatly exaggerated. We doubt much whether the entire value of the fisheries can be reckoned so high as 5,500,000*l*. In 1866 we imported 1,547,598 cwts. of fish, valued at 631,552*l*., of which 113,131 cwts., chiefly from Norway and Holland, were fresh, and 393,591 cwts. cured or salted, while we exported fish in the same year, chiefly herrings, to the value of 811,471*l*. [COD; HERRING; LOBSTER; MACKEREL; OYSTER; PILCHARD; SALMON; TURBOT; WHALE.]

Account showing the Prices of Fish in the Manchester Fish Market in the 4 Years 1856–7, *and* 1864–5. *The figures show the Prices in the first week in January.*

Names of Fish		1856	1857	1864	1865
Turbot	per lb.	1*s.* to 1*s.* 6*d.*	1*s.* to 1*s.* 9*d.*	1*s.* 2*d.* to 1*s.* 6*d.*	8*d.* to 1*s.*
Soles	per	3*d.* to 4*d.*	6*d.* to 8*d.*	8*d.* to 1*s.*1*d.*	6*d.* to 8*d.*
Cod	per	2*d.* to 4*d.*	3*d.* to 6*d.*	4*d.* to 6*d.*	3*d.* to 4*d.*
Sprattings	per	1*s.* 6*d.*	1*s.* 6*d.*	10*d.* to 1*s.*	1*s.* to 1*s.* 6*d.*
Haddock	per	2*d.* to 4*d.*	2*d.* to 4*d.*	3*d.*	3*d.* to 4*d.*
Plaice	per	2*d.*	1½*d.* to 2*d.*	1½*d.* to 2*d.*	1½*d.* to 2*d.*
Brill	per	4*d.* to 6*d.*	4*d.* to 6*d.*	5*d.* to 6*d.*	4*d.* to 5*d.*
Ray	per	2*d.*	2*d.* to 4*d.*	3*d.*	3*d.*
Halibut	per	4*d.* to 6*d.*	6*d.* to 8*d.*	7*d.* to 8*d.*	6*d.*

The above are the *retail* prices. Wholesale prices about one-third less.

Account showing the Prices paid for Fish in the Market and Town of Newcastle-upon-Tyne on March 1 *in each of the* 4 *Years* 1856–7 *and* 1864–5. (Collected and compiled by the Keeper of the Market, appointed by the Corporation.)

Names of Fish		1856	1857	1864	1865
Turbot	per stone	2*s.* to 2*s.* 6*d.*	2*s.* 3*d.* to 2*s.* 9*d.*	4*s.* to 5*s.* 6*d.*	4*s.* 6*d.* to 6*s.* 6*d.*
Soles	per pair	9*d.* to 1*s.* 3*d.*	1*s.* to 1*s.* 6*d.*	1*s.* 9*d.* to 2*s.*	1*s.* 9*d.* to 2*s.*
Cod	each	9*d.* to 1*s* 3*d.*	1*s.* to 1*s* 6*d.*	2*s.* 3*d.* to 3*s.*	2*s.* 6*d.* to 3*s.*
Codlings	"	3*d.* to 9*d.*	3*d.* to 9*d.*	6*d.* to 1*s.* 3*d.*	6*d.* to 1*s.* 3*d.*
Haddock	"	3*d.* to 6*d.*	3*d.* to 6*d.*	5*d.* to 9*d.*	6*d.* to 9*d.*
Skate	"	6*d.* to 9*d.*	9*d.* to 1*s.*	2*s.* 3*d.* to 3*s.*	2*s.* 6*d.* to 3*s.*
Whiting	per stone	9*d.* to 1*s.*	9*d.* to 1*s.*	1*s.* 3*d.* to 1*s.* 6*d.*	1*s.* 3*d.* to 1*s.* 6*d.*
Lobsters	"	1*s.* to 2*s.*	1*s.* to 2*s.*	1*s.* to 2*s.*	1*s.* to 2*s.*

FLAX (Ger. flachs; Dutch, vlasch; Fr. lin; Ital. and Span. lino; Russ. len, lon; Pol. len; Lat. linum). An important plant (*Linum usitatissimum*) cultivated from the earliest ages in Great Britain and many other countries; its fibres being manufactured into thread, and its seed crushed for oil. But in general we have been in the habit of importing a large proportion of our supplies. The premiums given by the Legislature to force the cultivation of flax had little effect; the fact being, as Mr. Loudon has stated, that its culture is found to be, on the whole, less profitable than that of corn. When allowed to ripen its seed, it is one of the most severe crops.

Probably, however, the case may be different in Ireland, the soil and climate of which appear to be better suited than those of Britain to the growth of flax. There, at all events, its cultivation has been rapidly extended within the last 20 years. This is evinced by the fact that while the land under flax in Ireland in 1847 amounted to only 58,312 acres, it had increased in 1851 to 140,356 acres, to 301,693 acres in 1864, and on an average of the 3 years 1865-1867 it amounted to 256,015 acres. This extension has been owing, in some measure, to the exertions of a society for promoting the growth of flax, and it remains to be seen whether it be really an advantage.

Russia supplies by far the largest portion of the flax imported into this country, the principal sorts being Petersburg, Narva, Riga, Revel, Pernau, Liebau, Memel, and Oberland. Petersburg and Narva flax are nearly of the same quality, the latter being but little inferior to the former. Both sorts come to us in bundles of 12, 9, and 6 heads. The Riga flax seems to deserve the preference of any imported from the Baltic. It is the growth of the provinces of Marienburg, Druania, Thiesenhausen, and Lithuania.

The best Marienburg is called simply Marienburg (M), or Marienburg clean; the second quality, cut (GM); and the third, *risten drayband* (RD): of the three other provinces, the first quality bears the name of *rakitzer*—as *Druania rakitzer* (DR), *Thiesenhausen rakitzer* (TR), and *Lithuania rakitzer* (LR). The cut flax of these three provinces is the second quality; and to the third quality belong the *badstub* and *badstub cut* (B and BG), the *paternoster* (PN), and *hafs three band* (HD). *Badstub* and *paternoster* are the refuse of the *rakitzer* flax, and the *three band* again the refuse of the former sorts, and consequently very ordinary. The Revel and Pernau consist of Marienburg, *cut*, *risten*, *hafs three band*, and *three band*. The Liebau and Memel growths are distinguished by the denomination of *four* and *three band*. These two sorts, as well as the Oberland flax, come from Königsberg, Elbing &c., and are little esteemed in the British markets.

Flanders or Dutch flax is well dressed, and of the finest quality.

Flax is extensively cultivated in Egypt. Of late years, some of the Italian ports, which used to be supplied from Russia, have been fully supplied on lower terms from Alexandria.

The *Phormium tenax*, or New Zealand flax, has been said to exceed every other species in strength of fibre and whiteness; qualities which, if it really possess them in the degree stated, must make it peculiarly well fitted for being made into canvas and cordage. In point of fact, however, there is a great diversity of opinion as to its real merits, and it fetches at present (1868) but a low price. In 1831 and 1832 the imports of New Zealand flax amounted respectively to 15,725 and 15,867 cwts.; but they fell off in 1835 to 7,812 cwts., and since then only trifling quantities have been imported. It is alleged that this is a consequence of the imperfect preparation of the flax, which has hitherto been entirely intrusted to the native women; but without presuming to say whether the defects with which it is charged be inherent in the flax itself, or depend on its preparation, it is abundantly certain that, unless it be furnished of a superior quality, it will not suit our markets.

When flax is brought to the principal Russian ports whence it is shipped, it is classified according to its qualities, and made up in bundles by sworn inspectors (*brackers*) appointed by Government for the assortment of that and all other merchandise. These functionaries are said to perform their task with laudable impartiality and exactness. A ticket is attached to every bundle of assorted flax, containing the names of the inspector and owner, the sort of flax, and the period when it was selected or inspected. [HEMP.] Good flax should be of a fine bright colour, well separated from the tow, codilla, or coarser portion of the plant; and of a long, fine, and strong fibre. In purchasing flax, it is usual to employ agents wholly devoted to this peculiar business.

Account of the Quantities and Values of the Flax and Tow, and Codilla of Flax, Imported into the United Kingdom in 1866, *specifying the Countries from which they were brought, and the Quantities and Values brought from each.*

Whence Imported	Flax dressed	Value	Flax undressed	Value	Flax or Codilla	Value
	cwts.	£	cwts.	£	cwts.	£
Russia	26,105	92,124	1,006,791	2,786,345	212,613	527,076
Prussia	2,235	8,112	48,351	134,693	3,403	8,581
Hamburg	1,490	5,287	—	—	6,092	15,901
Holland	1,341	6,312	59,087	235,490	8,046	20,795
Belgium	4,209	19,995	108,823	435,292	35,538	90,553
France	—	—	14,991	59,964	3,204	8,533
Other Parts	87	343	3,951	10,466	1,131	2,883
Total	35,467	132,173	1,241,024	3,362,250	270,107	674,210

In 1866 the price of dressed flax varied from 4*l.* 15*s.* to 8*l.* 10*s.* 7*d.*, that of undressed from 4*l.* to 2*l.* 13*s.* The Russian being 2*l.* 15*s.* 4*d.*, that of codilla and tow was from 2*l.* 12*s.* 3*d.* to 2*l.* 9*s.* 7*d.*

The duty on flax, which previously to 1845 was only 1*d.* per cwt., was repealed in the course of that year. For an account of the exports of flax and hemp from Russia, see PETERSBURG.

Charges at Petersburg on 12 *Head Flax, per ton.*

Circa 16 bobbins=63 poods=1 ton.	Rup.	rou.	cop.
Duty, 540 cop. per bercovitz		54	2
Quarantine duty, 1 per cent.		0	54
Additional duty, 10 per cent.		3	40
		37	76
Custom-house charges, 4 per cent.		1	51
Receiving and weighing, 40 cop. per bobbin		6	40
Bracking, 1 roub. per bercovitz		6	30
Binding, 75 cop. per "		4	72
Lighterage and attendance to Cronstadt, 5 rou. per 60 poods		8	40
Mats		3	0
Brokerage, 60 cop. per ton		0	60
Fixed charges	R.	73	69

Brokerage, ½ per cent.
Commission and extra charges, 3 per cent.
Stamps, ¼ per cent. } ½ per cent.
Brokerage on bills, ¼ per cent. }
are charges varying according to the price paid.

Riga flax is bought at so much per shippound. 6 shippound = 1 ton.

The charges of importation are the same, or nearly so, as on Petersburg flax.

Charges here, per ton, taking the price at 45l.

	£	s.	d.
Insurance, 12s. 6d. per cent., and policy during the summer, for best risks	0	6	9
Sound dues	0	5	6
Freight, say 52s. 6d. per ton in full	2	12	6
Customs	0	1	8
Landing charges	1	11	0
Discount, 3½ per cent. (being sold at 9 months' credit)	1	13	9
Brokerage, ½ per cent.	0	4	6
	5	15	8
Loss by tare, 2 per cent.	0	18	0
	6	13	8

9 Head Flax.
26 bobbins=63 poods=1 ton.

	Rou. cop.
Fixed charges at Petersburg amount to	80 35

The other charges same as on 12 head; the charges of import may be called the same as on 12 head also, the difference being only on the value; which makes the insurance, discount, and brokerage of less amount. The increase of fixed charges at Petersburg is owing to the larger number of bobbins to the ton.

6 Head Flax.
47 bobbins=63 poods=1 ton.

	Rou. cop.
Fixed charges, per ton	91 52
Other charges, *vide supra*.	

FLAX-SEED or LINSEED (Fr. lin, graine de lin; Ger. leinsaat; Dutch, lynzaad; Ital. linseme; Span. linaza; Port. linhaca; Polish, siemie, lniane; Russ. semja lenjanoe; Lat. lini semen). The seed of flax. It contains a great deal of oil, which it yields by expression; and is cultivated either that it may be used in sowing, or sent to the crushing mills to be converted into oil.

As the quality of the crop depends much on the seed employed, a good deal of care is requisite in selecting the best. Generally speaking, it should be chosen of a bright, brownish colour, oily to the feel, heavy, and quite fresh. Dutch seed is in the highest estimation for sowing: it not only ripens sooner than any other that is imported, but produces larger crops, and of the quality that best suits our principal manufactures. American seed produces fine flax, but the produce is not so large as from Dutch seed. British flax-seed is sometimes used instead of Dutch; but the risk of the crop misgiving is so much greater, 'that those only who are ignorant of the consequences, or who are compelled from necessity, are chargeable with this act of ill-judged parsimony.' (Loudon's *Encyclopædia of Agriculture*.) Crushing seed is principally imported from India, but considerable quantities are also brought from Russia and Italy.

Account of the Quantities and Values of Flax and Linseed Imported into the United Kingdom in 1866, *specifying the Countries from which they were chiefly brought, and the Quantities and Values brought from each.*

Whence Imported	Quantities	Value
	qrs.	£
Russia	746,727	2,051,019
Prussia	61,115	149,871
Holland	20,837	66,467
British India	267,739	922,116
Other Parts	62,318	185,463
Total	1,158,736	3,374,936

Account of the Quantities of Flax and Linseed Imported into the United Kingdom in each of the 8 *Years ending with* 1867.

	1860	1861	1862	1863	1864	1865	1866	1867
Flax and Linseed - - qrs.	1,330,623	1,160,270	1,088,470	1,104,578	1,434,973	1,435,419	1,158,736	1,095,360

The price of these seeds varied in 1866 from 2l. 7s. 6d. to 3l. 9s. 9d. per quarter.

The duty of 1d. per quarter formerly imposed on flax-seed and linseed was repealed in 1846.

FLOTSAM, JETSAM, and LAGAN. In order to constitute a legal wreck, the goods must come to land. If they continue at sea, the law distinguishes them by the foregoing uncouth and barbarous appellations: *flotsam* is when the goods continue swimming on the surface of the waves; *jetsam* is when they are sunk under the surface of the water; and *lagan* is when they are sunk, but tied to a cork or buoy to be found again. (Blackstone, book i. c. 8.) Foreign liquors, brought or coming into Great Britain or Ireland as derelict, flotsam &c., are to pay the same duties and receive the same drawbacks as similar liquors regularly imported.

FLOUR (Ger. feines mehl, semmelmehl; Dutch, bloem; Fr. fleur de farine; Ital. fiore; Span. flor). The meal of wheat corn, finely ground and sifted. There are three qualities of flour, denominated *firsts*, *seconds*, and *thirds*, of which the first is the purest. [Corn Laws and Corn Trade.]

FOOCHOW. This port, one of the principal Chinese Treaty ports, is the capital of the province of Fu-kien, and is situated in lat. 26° 02′ 24″ N. and long. 119° 25′ 0″ E. The sea on the east of the province is that known as the Formosa Channel. The province is mountainous, but there is access to its interior by the two great rivers, the Min which drains the Bohea region, and the Fu-kien. The advantages of the port as a place from which black teas could be most conveniently shipped were recognised as early as 1830, and it was included among the four open ports of the Treaty of Nankin in 1842. It lies 34 miles from the mouth of the Min, and its population is estimated at 600,000, the walls being more than 8 miles in circuit.

The navigation of the estuary of the Min is intricate and dangerous, the guide to the transit being the prominent landmark called Sharp Island Peak. At about 8 miles from the mouth the stream contracts to a channel not more than half a mile in width, at the passes of Kin-pai and Minguan. Above these passes is the anchorage for foreign vessels at Lo-sing Island, called also Pagoda Island. Vessels are held to have entered the port after they have passed Kin-pai, and the shipment and discharge of cargo take place at Pagoda Island, Kushan, and the river between the Bridge and Tien-how Island. The shallowness of the river above Pagoda Island, about 10 miles from Foochow, precludes the passage of any but very light craft. There is also an artificial bar, constructed in 1841, with a view to preventing the access of British ships of war to the city.

Foochow is 185 miles from Amoy, 335 from Swatow, and 510 from Hong-kong, and communications by steamer are maintained between these ports. It is distant 410 miles from Shanghai. The local weights are different from those employed elsewhere, being one third less. Thus the

Foochow catty is nearly equal to the lb. avoirdupois. The payments are reckoned in Sycee, cut dollars being 13·2 per cent. discount, clean Mexican 12 per cent. Pilots conduct vessels from the mouth, at 3 dols. from White Dogs to Sharp Peak per foot of draught, and 1·50 dols. thence to Pagoda anchorage. There is a dock at the latter spot, 300 feet long, 95 broad, and 22 deep. Rates, 1 Mexican dollar per registered ton for first three days, 16 cents for succeeding days. The dock is owned and managed by Europeans.

The chief exports of Foochow are of tea, of which 17,839,567 dols. in value were exported in 1866, 19,717,882 dols. in value in 1865; the quantities exported in the following periods were:—

	lbs.
1861-2	56,000,000
1862-3	52,000,000
1863-4	61,000,000
1864-5	63,000,000
1865-6	65,000,000

Two thirds of this quantity reached the United Kingdom, the remainder Australia, the United States &c. The qualities are Congou, Souchong, and to the United States Oolong. Another important article of export is timber.

The Customs regulations, with the exception of those declaring the limits of the port, are the same as those of AMOY, and the authorities for the foregoing statements the same as have been consulted for that article.

FOOT. A measure of length consisting of 12 inches. [WEIGHTS AND MEASURES.]

FOREIGN-GOING SHIPS. [SHIPS; SHIPPING.]

FORESTALLING. The buying or contracting for any cattle, provision, or merchandise on its way to the market, or dissuading persons from buying their goods there, or persuading them to raise the price, or spreading any false rumour with intent to enhance the value of any article. In the remoter periods of our history several statutes were passed prohibiting forestalling under severe penalties; but as more enlarged views upon such subjects began to prevail, their impolicy became obvious, and they were consequently repealed in 1772. (*Wealth of Nations*, book iv. chap. 5.) [ENGROSSING.]

FRANKINCENSE. [ROSIN.]

FRAUDULENT PREFERENCE. [BANKRUPTCY; INSOLVENCY AND BANKRUPTCY.]

FREIGHT. The sum paid by the merchant or other person hiring a ship, or part of a ship, for the use of such ship or part during a specified voyage or for a specified time.

The freight is most commonly fixed by the charterparty [CHARTERPARTY] or bill of lading [BILL OF LADING]; but in the absence of any formal stipulations on the subject, it would be due according to the custom or usage of trade.

In the case of a charterparty, if the stipulated payment be a gross sum for an entire ship, or an entire part of a ship, for the whole voyage, the gross sum will be payable although the merchant has not fully laden the ship; and if a certain sum be stipulated for every ton, or other portion of the ship's capacity, for the whole voyage, the payment must be according to the number of tons &c. which the ship is proved capable of containing, without regard to the quantity actually put on board by the merchant. On the other hand, if the merchant have stipulated to pay a certain sum per cask or bale of goods, the payment must be, in the first place, according to the number of casks and bales shipped and delivered; and if he have further covenanted to furnish a complete lading, or a specific number of casks or bales, and failed to do so, he must make good the loss which the owners have sustained by his failure.

If an entire ship be hired, and the burden thereof be expressed in the charterparty, and the merchant bind himself to pay a certain sum for every ton &c. of goods which he shall lade on board, but does not bind himself to furnish a complete lading, the owners can only demand payment for the quantity of goods actually shipped. But if the merchant agree to load a full and complete cargo, though the ship be described as of less burden than she really is, the merchant must load a full cargo, according to the *real burden* of the ship, and he will be liable for freight according to what ought to be loaded.

The delivery of goods at the place of destination is in general necessary to entitle the owner to freight; but with respect to living animals, whether men or cattle, which may frequently die during the voyage without any fault or neglect of the persons belonging to the ship, it is ruled that if there be no express agreement whether the freight is to be paid for the lading or for the transporting them, freight shall be paid as well for the dead as for the living: if the agreement be to pay freight for the *lading*, then death certainly cannot deprive the owners of the freight; but if the agreement be to pay freight for *transporting* them, then no freight is due for those that die on the voyage, because as to them the contract is not performed. These distinctions have been made in the civil law, and have been adopted into the modern systems of maritime law.

Freight is most frequently contracted to be paid either by the whole voyage, or by the month, or other time. In the former case the owners take upon themselves the chance of the voyage being long or short: but in the latter the risk of the duration falls upon the merchant; and if no time be fixed for the commencement of the computation, it will begin from the day on which the ship breaks ground and commences her voyage, and will continue during the whole course of the voyage, and during all unavoidable delays *not occasioned by the act or neglect of the owners or master*, or by such circumstances as occasion a suspension of the contract for a particular period. Thus, the freight will be payable for the time consumed in necessary repairs during a voyage, provided it do not appear that the ship was insufficient at the outset, or that there was any improper delay in repairing her.

In the absence of an express contract to the contrary, the entire freight is not earned until the whole cargo be ready for delivery, or has been delivered to the consignee according to the contract for its conveyance.

If a consignee receive goods in pursuance of the usual bill of lading, by which it is expressed that he is to pay the freight, he, by such receipt, makes himself debtor for the freight, and may be sued for it; but a person who is only an agent for the consignor, and who is known to the master to be acting in that character, does not make himself personally answerable for the freight by receiving the goods, although he also enters them in his own name at the Custom House.

In some cases freight is to be paid, or rather an equivalent recompense made to the owners, although the goods have not been delivered at the place of destination, and though the contract for conveyance be not strictly performed. Thus, if part of the cargo be thrown overboard for the necessary preservation of the ship and the remainder of the goods, and the ship afterwards reach the place of destination, the value of this part is to be

answered to the merchant by way of general average, and the value of the freight thereof allowed to the owner. So, if the master be compelled by necessity to sell a part of the cargo for victuals or repairs, the owners must pay to the merchant the price which the goods would have fetched *at the place of destination*, and therefore are allowed to charge the merchant with the money that would have been due if they had been conveyed thither.

When goods are deteriorated during a voyage, the merchant is entitled to a compensation, provided the deterioration has proceeded from the fault or neglect of the master or mariners; and of course he is not answerable for the freight, unless he accept the goods, except by way of deduction from the amount of the compensation. On the other hand, if the deterioration has proceeded from a principle of decay naturally inherent in the commodity itself, whether active in every situation, or in the confinement and closeness of a ship, or from the perils of the sea, or the act of God, the merchant must bear the loss and pay the freight; for the master and owners are in no fault, nor does their contract contain any insurance or warranty against such an event. In our West India trade, the freight of sugar and molasses is usually regulated by the weight of the casks at the port of delivery here, which, in fact, is in every instance less than the weight at the time of the shipment; and, therefore, the loss of freight occasioned by the leakage necessarily falls upon the owners of the ship by the nature of the contract.

Different opinions have been entertained by Valin, Pothier, and other great authorities as to maritime law, with respect to the expediency of allowing the merchant to abandon his goods for freight in the event of their being damaged. This question has not been judicially decided in this country. 'The only point,' says Lord Tenterden, 'intended to be proposed by me as doubtful, is the right to abandon for freight alone at the port of destination: and in point of practice, I have been informed that this right is never claimed in this country.' (*Law of Shipping*, part iii. c. 7.)

Freight being the return made for the conveyance of goods or passengers to a particular destination, no claim arises for its payment in the event of a total loss; and it is laid down by Lord Mansfield, that 'in case of a total loss with salvage, the merchant may either take the part saved or abandon.' (Abbott, part iii. c. 7.) But after the merchant has made his election, he must abide by it.

It often happens that a ship is hired by a charterparty to sail from one port to another, and thence back to the first—as, for example, from London to Leghorn, and from Leghorn back to London—at a certain sum to be paid for every month or other period of the duration of the employment. Upon such a contract, *if the whole be one entire voyage*, and the ship sail in safety to Leghorn, and there deliver the goods of the merchant and take others on board to be brought to London, but happen to be lost in her return thither, nothing is due for freight, although the merchant has had the benefit of the voyage to Leghorn; but, *if the outward and homeward voyages be distinct*, freight will be due for the proportion of the time employed in the outward voyage. 'If,' said Lord Mansfield, in a case of this sort, 'there be *one entire voyage out and in*, and the ship be cast away on the homeward voyage, no freight is due; no wages are due, because the whole profit is lost; and by express agreement the parties may make the outward and homeward voyage one. Nothing is more common than two voyages: *wherever there are two voyages and one is performed*, and the ship is lost on the homeward voyage, freight is due for the first.' (K. B. Trin. Term, 16 Geo. III.)

It frequently happens that the master or owner fails to complete his contract, either by not delivering the whole goods to the consignee or owner, or by delivering them at a place short of their original destination: in these cases if the owner or consignee of the goods *derive any benefit from their conveyance*, he is liable to the payment of freight according to the proportion of the voyage performed, or *pro ratâ itineris peracti*: and though contracts of this nature be frequently entire and indivisible, and the master or owner of the ship cannot, from their nature, sue thereon, and recover a rateable freight, or *pro ratâ itineris*, yet he may do so upon a fresh *implied* contract, for as much as he deserves to have, unless there be an express clause in the original charterparty or contract to the contrary. A fresh implied contract is inferred from the owner's or consignee's acceptance of the goods. Many difficulties have, indeed, arisen in deciding as to what shall amount to an acceptance: it is not, however, necessary actually to receive the goods; acceptance may be made by the express or implied directions, and with the consent, of the owner or consignee of the goods, but not otherwise.

It sometimes happens that the owner of the ship, who is originally entitled to the freight, sells or otherwise disposes of his interest in the ship: where a chartered ship is sold *before* the voyage, the vendee, and not the vendor or party to whom he afterwards assigns the charterparty, is entitled to the freight. But where a ship has been sold *during* the voyage, the owner, with whom a covenant to pay freight has been made, is entitled to the freight, and not the vendee. A mortgagee who does not take possession is not entitled to the freight.

The time and manner of paying freight are frequently regulated by express stipulations in a charterparty, or other written contract; and when that is the case, they must be respected: but if there be no express stipulation contrary to or inconsistent with the right of *lien*, the goods remain as a security till the freight is paid; for the master is not bound to deliver them, or any part of them, without payment of the freight and other charges in respect thereof. But the master cannot detain the cargo on board the vessel till these payments be made, as the merchant would, in that case, have no opportunity of examining the condition of the goods. In England, the practice is, when the master is doubtful of payment, to send such goods as are not required to be landed at any particular wharf, to a public wharf, ordering the wharfinger not to part with them till the freight and other charges are paid. No right of lien for freight can exist unless the freight be earned: if the freighter or a stranger prevent the freight from becoming due, the ship owner or master's remedy is by action of damages.

(For further information and details with respect to this subject, see the art. CHARTER-PARTY in this Dictionary; Abbott (Lord Tenterden) *On the Law of Shipping*, part iii. c. 7; Chitty's *Commercial Law*, vol. iii. c. 9; Smith's *Mercantile Law*, 7th ed. p. 295; Molloy *de Jure Maritimo*, book ii. c. 4; &c.)

FRUIT (Ger. obst, früchte; Dutch, ooft; Fr. fruit; Ital. frutta, frutte; Span. fruta; Russ. owoschtsch; Lat. fructum). This appellation is bestowed by commercial men upon those species

of fruit, such as oranges, lemons, almonds, raisins, currants, apples &c., which constitute articles of importation from foreign countries.

FULLERS' EARTH (Ger. walkererde; Dutch, vollïarde; Fr. terre à foulon; Ital. terra da purgatori; Span. tierra de batan; Russ. schiffernaia; Lat. terra fullonum). A species of clay, of a greenish white, greenish grey, olive and oil green, blue, and sometimes spotted colour. It is usually opaque, very soft, and feels greasy. It is used by fullers to take grease out of cloth before they apply the soap. The best is found at Reigate in Surrey. The remarkable detersive property on woollen cloth depends on the alumina, which should be at least one fifth of the whole, but not much more than one fourth, lest it become too tenacious. The use of fullers' earth has greatly declined, though even at present about 12,000 tons of the substance are annually raised at Reigate. Malcolm, in his *Survey of Surrey*, published in 1809, says that he took considerable pains in endeavouring to ascertain the consumption of fullers' earth, and that he found it to be about 6,300 tons a-year for the entire kingdom, of which about 4,000 tons were furnished by Surrey.

FUNDS (Public). The name given to the public funded debt due by Government.

The practice of borrowing money in order to defray a part of the war expenditure began, in this country, in the reign of William III. In the infancy of the practice it was customary to borrow upon the security of some tax, or portion of a tax, set apart as a fund for discharging the principal and interest of the sum borrowed. This discharge was, however, very rarely effected. The public exigencies still continuing, the loans were, in most cases, either continued, or the taxes were again mortgaged for fresh ones. At length the practice of borrowing for a fixed period, or, as it is commonly termed, upon *terminable* annuities, was almost entirely abandoned, and most loans were made upon *interminable* annuities, or until such time as it might be convenient for Government to pay off the principal.

In the beginning of the funding system, the term fund meant the taxes or funds appropriated to the discharge of the principal and interest of loans; those who held Government securities, and sold them to others, selling, of course, a corresponding claim upon some fund. But after the debt began to grow large, and the practice of borrowing upon interminable annuities had been introduced, the meaning attached to the term fund was gradually changed, and instead of signifying the security upon which loans were advanced, it has for a long time signified the principal of the loans themselves.

Owing partly, perhaps, to the scarcity of disposable capital at the time, but far more to the supposed insecurity of the Revolutionary establishment, the rate of interest paid by Government in the early part of the funding system was comparatively high; but as the country became richer, and the confidence of the public in the stability of Government was increased, ministers were enabled to take measures for reducing the interest, first in 1716, and again in 1749.

During the reigns of William III. and Anne the interest stipulated for loans was very various; but in the reign of George II. a different practice was adopted. Instead of varying the interest upon the loan according to the state of the money market at the time, the rate of interest was generally fixed at *three* or *three and a half* per cent.; the necessary variation being made in the principal funded. Thus, suppose Government were anxious to borrow, that they preferred borrowing in a 3 per cent. stock, and that they could not negotiate a loan for less than 4½ per cent.; they effected their object by giving the lender, in return for every 100*l.* advanced, 150*l.* 3 per cent. stock; that is, they bound the country to pay him or his assignees 4*l.* 10*s.* a-year in all time to come, or otherwise to extinguish the debt by a payment of 150*l.* In consequence of the prevalence of this practice, the principal of the debt now existing amounts to nearly *two fifths* more than the sum actually advanced by the lenders.

Some advantages are, however, derivable, or supposed to be derivable, from this system. It renders the management of the debt, and its transfer, more simple and commodious than it would have been, had it consisted of a great number of funds, bearing different rates of interest; and it is contended that the greater field for speculation afforded to the dealers in stocks bearing a low rate of interest has enabled Government to borrow, by funding additional capitals, for a considerably less payment on account of interest than would have been necessary had no such increase of capital been made.

But in point of fact, these advantages are inconsiderable, while the disadvantages inseparable from the practice of funding a large amount of stock at a low rate of interest are great and lasting. During war, especially if any considerable portion of its expenditure be defrayed by means of loans, the rate of interest uniformly rises, and is usually much higher than during peace. If, therefore, loans were funded in stocks bearing a rate of interest equivalent to the market rate when they happen to be contracted for, the charge on their account might be reduced soon after the return of peace, according to the fall in the rate of interest; whereas, when loans are funded in stocks bearing a low rate of interest, with a corresponding increase of capital, it becomes impossible to take advantage of the fall of interest at the return of peace, and the country is burdened with the war interest in all time to come! It is not easy to exaggerate the injury we have sustained by overlooking this plain principle. In 1815, to specify only one of many similar instances, Government bargained for a loan of 36,000,000*l.*, it being stipulated that every subscriber of 100*l.* should be entitled to 174*l.* 3 per cent. stock, and 10*l.* 4 per cent. stock, making the interest on the loan 5*l.* 12*s.* 4*d.* per cent. The great improvidence of this transaction is obvious. If interest from 5*l.* 15*s.* to 6*l.* per cent. had been paid for the loan, it might have been obtained without funding any additional capital; and had that been done, we should have been able, within 4 or 5 years, in consequence of the fall of interest after the peace, to reduce the charge on account of the loan to 3 or 3½ per cent.; but, owing to the way in which the contract was made, we have not had, and shall not have, any means of reducing the exorbitant charge on account of this loan, so long as the market rate of interest is above 3 per cent., except by paying 174*l.* for every 100*l.* originally received, exclusive of the 10*l.* of 4 per cent. stock! But this, as already stated, is only one instance out of many of the same sort. We believe, indeed, that we are within the mark when we affirm that, owing to this erroneous method of funding, the country is at present paying from 6,000,000*l.* to 7,000,000*l.* a-year on account of the public debt more than it would have had to pay, had the same sum been borrowed and funded without any increase of capital. (For a further and full discussion of this

—*An Account of the Principal and Interest of the Public Funded Debt of Great Britain and Ireland, and the Charge thereupon, in the Year ended March* 31, 1868.

DEBT

		Capitals	Capitals transferred to and standing in the Names of the Commissioners	Capitals Unredeemed
GREAT BRITAIN.	per cent.	£ s. d.	£ s. d.	£ s. d.
New annuities	2½	5,843,974 2 5	19,149 18 10	5,824,824 3 7
Exchequer bonds, created per 16 Vict. c. 23	2½	418,500 0 0	—	418,500 0 0
Debt due to the Bank of England	3	11,015,100 0 0	—	11,015,100 0 0
Consolidated annuities	3	389,806,767 7 8	267,371 14 0	389,539,395 13 8
Reduced annuities	3	106,184,991 9 0	97,639 5 11	106,087,355 3 1
New annuities	3	190,928,800 4 0	249,537 0 3	190,678,963 3 9
Total	3	697,935,662 0 8	614,848 0 2	697,320,814 0 6
New annuities	3½	240,746 6 4	—	240,746 6 4
"	5	430,249 14 4	624 15 0	429,624 19 4
Total Great Britain		702,868,932 3 9	634,622 14 0	702,234,309 9 9
IRELAND.				
New annuities	2½	3,080 0 0	—	3,080 0 0
Consolidated annuities	3	5,952,166 17 5	2,103 4 4	5,950,063 13 1
Reduced annuities	3	111,148 15 11	0 13 4	111,148 2 7
New annuities	3	30,275,383 16 1	17,945 14 8	30,257,438 1 5
Debt due to the Bank of Ireland	3	2,630,769 4 8	—	2,630,769 4 8
New annuities	5	3,500 0 0	—	3,500 0 0
Total, Ireland		38,976,048 14 1	20,059 12 4	38,956,019 1 9
Total United Kingdom on March 31, 1868		741,844,980 17 10	654,682 6 4	741,190,328 11 6

CHARGE

	In Great Britain	In Ireland	Total Annual Charge of Unredeemed Debt
Due to the public creditor	£ s. d.	£ s. d.	£ s. d.
Annual interest of unredeemed debt	21,655,609 17 10½	1,168,735 3 5½	22,824,345 1 3½
Annuities per 18 Vict. c. 18, expiring April 1885	116,000 0 0	—	
Annuities per 23 & 24 Vict. c. 109, and subsequent Acts, expiring April 1885 (Fortifications)	347,153 0 0	—	
Annuities per 26 Vict. c. 14 and 25, 29 Vict. c. 5, and 30 Vict. c. 26, expiring April 1885	1,105,633 14 3	—	
Annuities per 30 Vict. c. 26, expiring July 1885	1,315,203 0 0	—	
Red Sea Telegraph Company's annuity, per 25 & 26 Vict. c. 39, expiring Aug. 1, 1908	26,000 0 0	—	
Annuities for a limited term of years, per 59 Geo. III. c. 34, 10 Geo. IV. c. 24, and 3 Wm. IV. c. 14; expire at various periods, viz.—			
Granted up to March 31, 1868 £ 1,756,182 0 6			
Deduct, expired and unclaimed up to do. 1,702,386 11 6	53,795 9 0	—	
Life annuities, per 48 Geo. III. c. 142, 10 Geo. IV. c. 24, 3 Wm. IV. c. 14, and 16 & 17 Vict. c. 45; viz.—			
Granted up to March 31, 1868 £ 3,465,525 1 10			
Deduct, expired and unclaimed up to do. 2,491,777 1 6	973,748 0 4	—	
Tontine and other life annuities, per various Acts { English £ 12,761 0 6 / Irish 13,850 11 0	26,611 11 6	—	
Management	25,931,491 12 11½	1,168,735 3 5½	27,100,226 16 4½
	313,438 0 8	10,897 11 6	324,335 12 2
Total annual charge, exclusive of 19,661*l.* 7*s.* 2*d.* on capitals standing in the names of the commissioners on account of unclaimed stock and dividends	25,244,929 13 7½	1,179,632 14 11½	26,424,562 8 6½

ABSTRACT

	Capitals	Capitals transferred to and standing in the Names of the Commissioners	Capitals Unredeemed
	£ s. d.	£ s. d.	£ s. d.
Great Britain	702,868,932 3 9	634,622 14 0	702,234,309 9 9
Ireland	38,976,048 14 1	20,059 12 4	38,956,019 1 9
Total United Kingdom on March 31, 1868	741,844,980 17 10	654,682 6 4	741,190,328 11 6
On March 31, 1867	770,188,624 16 3	647,620 13 4	769,541,004 2 11

ABSTRACT

Annual Charge of Unredeemed Debt	Due to the Public Creditor	Management	Total
	£ s. d.	£ s. d.	£ s. d.
Great Britain	25,931,491 12 11½	313,438 0 8	25,244,929 13 7½
Ireland	1,168,735 3 5½	10,897 11 6	1,179,632 14 11½
Total United Kingdom on March 31, 1868	27,100,226 16 4½	324,335 12 2	26,424,562 8 6½
On March 31, 1867	25,668,155 2 5½	322,256 4 11	25,990,122 7 2½

Deferred annuities outstanding March 31, 1868	£ s. d.
Deferred life annuities, per 10 Geo. IV. c. 24, 3 Wm. IV. c. 14, and 16 & 17 Vict. c. 45	11,420 5 0
Deferred annuities for terms of years, per ditto	585 6 0
	12,005 11 0

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subject, see the 3rd edition of the *Treatise on Taxation* and the *Funding System*, by the author of this work, pp. 460–470.)

That this improvident system should have been so extensively acted on by our finance ministers during the American and French wars is the more surprising, seeing that experience had already demonstrated the advantages of funding limited capitals at a comparatively high rate of interest. Although during the reigns of William III. and Anne loans were mostly contracted at a very high rate of interest, no attempt was made to disguise this fact by assigning to the parties large amounts of stock bearing a low rate of interest. The stock created was the exact amount of the loans, the interest on it being increased according to the supposed insecurity of the Government, the scarcity of floating capital &c. Now, mark the consequences of this. So early as 1716 Sir Robert Walpole, availing himself of the greater facility with which money was procured after the Treaty of Utrecht, and of the greater stability of the Government, was able, by offering to pay off the creditors, to reduce the charge on account of the debt thus created from 1,598,602*l.* to 1,274,146*l.*, being a saving of 324,456*l.*, or about one fifth of the entire charge. In 1727 a further saving of about 340,000*l.* a-year was effected by reducing the interest on the greater portion of the debt *from* 5 to 4 per cent.; and in 1749, during the administration of Mr. Pelham, the interest was again reduced from 4 to 3 per cent.—a measure which produced a fresh saving of 565,000*l.* a-year.

Happily the practice of funding in a 5 per cent. stock was not entirely abandoned during the late war. In 1822 the total British and Irish 5 per cent. stock amounted to about 150,000,000*l.*; and, by offering to pay it off, a reduction of interest was then effected to the extent of about 1,200,000*l.* a-year. And since that period further savings have been effected by the reduction of the interest on the 4 and 4½ per cent. stock. But, unfortunately, by far the greatest proportion of the debt created during the late war, and that with the American colonies, was funded in the 3 per cents.; and, as already stated, the charge on that portion has in consequence been hitherto, and will, most probably, continue to be, for an indefinite period, unsusceptible of diminution.

We subjoin

II.—*A Return showing the Results of the Operations undertaken in* 1822, 1824, 1825, 1830, 1834, *and* 1844, *for Reducing the Charge on account of the National Debt, and the Terms upon which such Reduction was made; also showing the Annual Interest on the Funded Debt saved thereby.*

Year			Gross Capitals	Annual Interest	Annual Interest saved
			£	£	£
1822	5 per cents. reduced to 4 per cents.; viz. 105*l.* 4 per cents. for 100*l.* 5 per cents., per 3 Geo. IV. c. 9	Five per cent. (Navy) Annuities, capital	152,429,143		
		Amount of Dissents paid off	2,794,776		
			149,627,367	7,481,393	
		Bonus of 5*l.* per cent. allowed to those who assented	7,481,350		
		Capital 4*l.* per cent.	157,109,217	6,284,368	
					1,197,025
	Bank of Ireland Debt at 5 per cent. reduced to 4 per cent. at par, per 3 Geo. IV. c. 28	Bank *of Ireland* Debt, at 5 per cent.	1,153,846	57,692	
		Same Capital, at 4 per cent.	1,153,846	46,153	
					11,539
1824 & 1825	5 per cents. 1797, reduced to 3 per cents.; viz., 138*l.* 6*s.* 8*d.* consolidated 3 per cents. for 100*l.* 5 per cents., 37 Geo. III. c. 10	Capital at 5 per cent.	1,013,668		
		Deduct Dissents paid off	41,011		
			972,657	48,632	
		Capital at 3 per cent.	1,296,876	38,906	
					9,726
1830	4 per cents. exchanged for 100*l.* of 3½ per cents., or 70*l.* of 5 per cents., per 11 Geo. IV. c. 13	4 per cent. Annuities, formerly Navy 5 per cents. Capital	153,671,091		
		Amount of Dissents paid off	2,880,915		
			150,790,176	6,031,607	
		Which was exchanged for 150,119,609*l.*, 3*l.* 10*s.* per cent. Annuities	Interest: 5,254,186		
		669,529*l.*, 5*l.* per cent. Annuities	23,469		
				5,277,655	
					753,952
1834	4 per cents. 1826 reduced to 3½ per cents. at par, per 4 & 5 Wm. IV. c. 31	4 per cent. Annuities created in 1826 Capital	10,699,911	414,916	
		Same Capital, at 3*l.* 10*s.* per cent., including 4,155,721*l.* Dissents, vested in Commissioners for the Reduction of the National Debt on account of the Fund for Banks for Savings	10,699,911	371,891	
					55,115
1841	Bank of Ireland Debts, at 5 and 4 per cents., reduced to 3½ per cent., per 3 and 4 Vict. c. 75, and Warrant of Treasury, January 30, 1841	Debt at 5 per cent.	1,015,384	50,769	
		Debt at 4 per cent.	1,615,384	64,615	
			2,630,768	115,384	
		Same Capital at 3½ per cent.	2,630,768	92,076	
					23,308
1844	3½ per cents. reduced at par to 3¼ per cents. until October 10, 1854, and from that period to be reduced to 3*l.* per cents., and not liable to further reduction until after October 10, 1874, per 7 Vict. c. 4 and 5	New 3*l.* 10*s.* per cent. Annuities Capital	137,243,517		
		Reduced 3*l.* 10*s.* per cent. Annuities "	67,701,606		
		3*l.* 10*s.* per cent. Annuities, 1818 "	9,514,369		
		Old 3*l.* 10*s.* per cents. and Debentures "	14,401,171		
			248,860,663		
		Amount of Dissents and Non assents paid off	105,332		
			248,757,311	8,706,505	
		Same capital at 3*l.* 5*s.* per cent.	248,757,311	8,064,812	
					641,693
					3,601,990

The following account (No. III.) exhibits the progress of the national debt of Great Britain from the Revolution to the present time:—

III.—*Account of the Principal and Annual Charge of the Public Debt at different Periods since the Revolution.*[a]

	Principal Funded and Unfunded	Interest and Management
	£	£
Debt previously to the Revolution in 1689	664,263	39,855
Excess of Debt contracted during the reign of William III. above debt paid off	12,102,902	1,175,469
Debt at the accession of Queen Anne in 1702	12,767,225	1,215,324
Debt contracted during the reign of Anne	23,408,255	1,347,811
Debt at the accession of George I. in 1714	36,175,160	3,063,135
Debt contracted during the reign of George I.	16,318,163	†
Debt at the accession of George II. in 1727	52,323,923	2,760,934
Debt contracted between the accession of George II. and the Peace of Paris in 1763, 3 years after the accession of George III., above debt paid off	80,199,196	2,671,799
Debt in 1763	132,716,049	5,432,733
Debt paid off from 1763 to 1775	5,873,278	329,214
Debt at commencement of American war in 1775	126,842,811	4,703,519
Debt contracted during the American war	118,224,244	1,961,722
Debt after conclusion of American war in 1786	245,066,855	6,664,241
Debt paid from 1786 to 1793	5,805,154	232,302
Debt at commencement of French war in 1793	239,663,421	9,432,179
Debt contracted during French war	591,507,711	21,880,689
Debt at the consolidation of the English and Irish Exchequers at the commencement of 1817	839,382,145	31,591,927
Excess of debt cancelled over debt contracted from 1817 to March 31, 1862	28,611,907	5,425,226
Debt on March 31, 1862, and charge thereon during preceding year	809,770,238	26,166,701
Excess of debt cancelled over debt contracted from March 31, 1862 to March 31, 1867	23,272,134	‡
Debt on March 31, 1867, and charge thereon during preceding year	777,197,801	26,177,042

[a] The earlier portion of this account has been taken chiefly from an elaborate paper compiled by Mr. Chisholm, formerly of the Exchequer, showing the progress of the debt since 1691. (*Par. Papers, No. 445, Sept. 1, 1868.*)

† Interest on debt reduced.

‡ In 1864, 3,000,788*l.* of the unredeemed public debt was cancelled, and a terminable annuity substituted. The capitalized value of the annuity should therefore be added to the principal in the first column.

IV.—*Account showing the Total Amount of the Unredeemed Funded Public Debt of the United Kingdom, and the Annual Charge thereon, in the following Years.*

Year ending	Capital of Unredeemed Funded Debt	Annual Charge thereon
	£	£
Feb. 1, 1817	796,200,191	29,812,014
Jan. 5, 1818	776,742,403	29,310,454
1820	794,980,481	29,789,638
1825	781,123,822	28,372,206
1830	771,251,932	28,265,900
1835	745,675,299	27,783,454
1836	758,549,866	28,535,192
1837	761,422,570	28,524,739
1838	761,275,148	28,585,503
1839	761,347,690	28,585,503
1840	766,047,694	28,748,791
1841	766,351,725	28,556,324
1842	772,530,758	28,701,458
1843	773,008,240	28,609,708
1844	772,169,092	28,546,882
1845	769,197,644	27,839,244
1846	766,871,822	27,702,880
1847	764,608,284	27,666,555
1848	774,401,851	27,705,234
1849	774,302,638	27,773,190
1850	775,168,317	27,717,936
1851	769,879,562	27,687,884
1852	765,129,582	27,614,413
1853	761,672,204	27,570,881
1854	755,311,701	27,436,193
1855	752,259,272	27,236,699
March 31, 1856	775,750,994	27,370,807
1857	780,119,772	27,500,112
1858	779,225,195	27,477,443
1859	786,801,154	27,741,804
1860	785,982,000	27,761,455
1861	785,119,609	26,491,794
1862	784,242,338	25,646,664
1863	783,506,709	25,718,334
1864	777,429,894	25,605,242
1865	775,788,695	25,875,710
1866	773,513,677	25,806,942
1867	769,541,001	25,800,128
1868	741,195,748	25,424,562

V.—*Amount of the Unfunded Debt in Exchequer Bills and Bonds, and of the Annual Charge thereon, in the following Years, viz.:—*

Years ending Jan. 5 and March 31	Amount of Exchequer Bills &c.	Charge of Interest per Annum
	£	£
1830	25,400,550	806,076
1831	27,271,650	726,165
1832	23,133,250	604,365
1833	27,278,000	677,740
1834	27,999,000	775,506
1835	28,511,550	676,117
1836	28,976,600	688,791
1837	29,387,000	692,095
1838	24,011,550	871,509
1839	24,026,000	641,370
1840	19,985,000	788,577
1841	21,076,150	550,350
1842	18,543,850	797,046
1843	18,142,100	651,691
1844	18,407,700	504,051
1845	18,091,500	482,763
1846	18,380,000	424,874
1847	18,310,100	454,393
1848	17,916,500	455,348
1849	17,780,200	787,381
1850	17,788,200	666,124
1851	17,746,000	494,790
1852	17,742,800	493,176
1853	17,742,800	259,850
1854	16,074,800	199,125
1855	20,151,400	805,260
* 1856	28,183,700	870,484
1857	27,080,000	1,088,670
1858	25,911,500	984,643
* 1859	18,217,400	968,185
1860	19,278,500	457,879
1861	16,689,100	400,987
1862	16,517,900	600,900
1863	16,193,400	495,666
1864	13,136,000	427,288
1865	10,744,500	409,542
1866	8,187,700	328,800
1867	7,995,800	287,142
1868	7,931,100	255,586

* To March 31.

The above statement (No. III.) shows that a reduction of 61,884,341*l.* was effected in the principal of the national debt, and of 5,414,305*l.* in the annual charge on account thereof, between February 1817, and March 31, 1868. The diminution has been brought about, despite the loans effected during the interval, partly by the application of surplus revenue to buy up stock, but more by the reduction of the interest on the 4 and 5 per cent. stocks existing in 1817, and by that paid on the unfunded debt. The total annual saving by the reduction of interest on the funded debt between 1822, when the first, and 1844, when the last reduction was made (that of the 3½ per cent. annuities, mentioned in former impressions of this work), has been 3,051,800*l.*; and, considerable as this is, it would have been three times as great but for the pernicious practice, previously pointed out, of funding large nominal capitals.

We subjoin a brief notice of the different unredeemed funds or stocks constituting the public debt, as they stood on March 31, 1868.

I. Funds bearing Interest at Two and a half per Cent.

New Annuities at 2½ per cent.—This is a stock created in 1853, under the 16 & 17 Vict. c. 23. Previously to the passing of this Act, the existing stock of the once famous, or rather, perhaps, infamous South Sea Company, amounted to 3,662,784*l.* For many years previously the Company had been entirely divested of its commercial character, and the duty of the directors was restricted to the transfer of the Company's stock from one purchaser to another, and the payment of the dividends upon it, both of which operations were performed at the South Sea House, and not at the Bank. But in 1853, when the price of stocks was unusually high, it was proposed to create a new 2½ per cent. stock; and in this view the proprietors of the South Sea Stock were offered for every 100*l.* of it subscribed into the new 2½ per cent. stock, 110*l.* of the latter, with a guarantee against the interest being reduced for

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VI.—*Amount of the Unfunded Debt in Exchequer Bills and Exchequer Bonds, and of the Interest paid thereon, in the following Years, viz.:—*

Years	Exchequer Bills: Amount outstanding at the close of the Year	Exchequer Bills: Rate of Interest at which Bills were issued during the Year	Exchequer Bills: Amount of Interest paid during the Year	Exchequer Bonds: Amount outstanding at the close of the Year	Exchequer Bonds: Rate of Interest per Annum payable on the Bonds	Exchequer Bonds: Amount of Interest paid during the Year
	£	Per diem	£	£	—	£
1853– ending Jan. 5, 1854	16,014,100	1*d.* and 2*d.*	334,289	—	—	—
1854–5 ,, Mar. 31, 1855	17,151,400	2*d.* and 2½*d.*	595,200	6,000,000	3½	105,000
1855–6 ,, ,, 1856	21,182,700	2*d.* and 2½*d.*	610,085	7,000,000	3½	210,000
1856–7 ,, ,, 1857	20,089,000	2½*d.*	747,493	7,000,000	3½	245,000
1857–8 ,, ,, 1858	20,911,500	2½*d.* and 2*d.*	776,643	5,960,000	3½	210,000
1858–9 ,, ,, 1859	13,277,400	1½*d.*	734,153	5,000,000*	3½ and 3½	156,250
1866–7 ,, ,, 1867	5,656,800	3½*l.* p.c. per an.	199,750	2,500,000	3½ and 3½	87,250
1867–8 ,, ,, 1868	5,611,100	2*l.* 17*s.* 6*d.* do.	165,918	2,500,000	3½ and 3½	87,250

* £2,000 paid off on May 5, 1859.

40 years, or till 1894. It is evident, however, from this statement, that the interest on the sum transferred from the old South Sea Stock was not really 2½, but 2¾, or 2*l.* 15*s.* per cent. The non-commuted portion was paid off on April 5, 1854.

There can be little or no doubt that but for the unforeseen change in the money market which began to take place about the period when the 16 & 17 Vict. c. 23 was passed, the whole, or by far the greater portion, of the old South Sea Stock would have been converted into the 2½ per cent. stock. But the rise in the rate of interest, occasioned by the threatened disturbances on the Continent and the anticipations of a deficient harvest, hindered the conversion that would otherwise have taken place. Still, however, it is of great importance to have laid the foundation of a 2½ per cent. stock. These annuities amounted for the United Kingdom on March 31, 1868, to 3,827,904*l.* There are besides 418,300*l.* of Exchequer Bonds created by 16 Vict. c. 23 which bear this rate of interest.

II. Funds bearing Interest at Three per Cent.

1. *Debt due to the Banks of England and Ireland.*—This consists of the sum of 11,015,100*l.* lent by the Bank to the public at 3 per cent.; dividends payable on April 5 and October 10. This must not be confounded with the Bank capital of 14,553,000*l.* on which the stockholders divide. The dividend on the latter is at present, and has been for some time past, 9 per cent. The debt to the Bank of Ireland amounts to 2,680,769*l.*

2. *Three per Cent. Consols, or Consolidated Annuities.*—This stock forms by much the largest portion of the public debt. It had its origin in 1751, when an Act was passed, consolidating (hence the name) several separate stocks bearing an interest of 3 per cent. into one general stock. At the period when the consolidation took place, the principal of the funds blended together amounted to 9,137,821*l.*; but by the funding of additional loans and parts of loans in this stock, it amounted for the United Kingdom, on March 31, 1868, to the immense sum of 395,489,459*l.*!

The consolidated annuities are distinguished from the 3 per cent. reduced annuities by the circumstance of the interest upon them never having been varied, and by the dividends becoming due at different periods. This stock is, from its magnitude and the proportionally great number of its holders, the soonest affected by all those circumstances which tend to elevate or depress the price of funded property; and on this account it is the stock which speculators and jobbers most commonly select for their operations. Dividends payable January 5 and July 5.

3. *Three per Cent. Reduced Annuities.*—This fund was established in 1757. It consisted, as the name implies, of several funds which had previously been borrowed at a higher rate of interest; but, by an Act passed in 1749, it was declared that such holders of the funds in question as did not choose to accept in future of a reduced interest of 3 per cent. should be paid off—an alternative which comparatively few embraced. The debts that were thus reduced and consolidated amounted, at the establishment of the fund, to 17,571,574*l.* By the addition of new loans they amounted on March 31, 1868, for the United Kingdom, to 106,198,503*l.* Dividends payable April 5 and October 10.

4. *New Annuities.*—This stock was formed in 1844 by the Acts 7 Vict. c. 4 and c. 5, which directed that the following stocks, viz.:—

		£
New 3½ per cent. Annuities, formed in	1830	157,243,517
Reduced 3½ per cent.	1824	67,701,606
3½ per cent. Annuities	1818	9,514,369
Old 3½ per cent. Annuities and Debentures		14,401,171
		248,860,663

should be converted into a new stock bearing interest at 3¼ per cent. till October 10, 1854, when the interest was reduced to 3 per cent., with the proviso that it is not to be farther reduced till 1874. The new unredeemed stock created under this arrangement amounted, on March 31, 1868, to 220,936,421*l.* Dividends payable April 5 and October 5.

III. Funds bearing more than Three per Cent. Interest.

1. *New 5 per Cent. Annuities.*—This stock was formed in 1830, at the same time with the new 3½ per cent. annuities referred to above, under the 11 Geo. IV. c. 13. This statute gave the holders of the then existing 4 per cent. stock, the interest on which was to be reduced, the option of subscribing into the new 3½ per cent. annuities, or into a new 5 per cent. stock, at the rate of 100*l.* 4 per cents. for 70*l.* 5 per cents. Few, however, availed themselves of the latter alternative. Amount, March 31, 1868, 433,125*l.*

2. *New 3½ per Cent. Annuities*, formed, as before stated, in 1853. Amount on March 31, 1868, 240,746*l.*

IV. Annuities.

1. *Annuities per 16 & 17 Vict. c. 45, 18 Vict. c. 18, 23 & 24 Vict. c. 109, 25 & 26 Vict. c. 89, 26 Vict. c. 14 & 25, 29 Vict. c. 5, & 30 Vict. c. 26.*—All these expire in 1885 except those of the 25 & 26 Vict., the Red Sea Telegraph Company's annuity, which ceases on Aug. 9, 1908.

2. *Annuities per 48 Geo. III., 10 Geo. IV. c. 24, and 3 & 4 Wm. IV. c. 14.*—These Acts authorised the commissioners for the reduction of the national debt to grant annuities for terms of years and life annuities; accepting in payment either money or stock, according to rates specified in tables to be approved by the Lords of the Treasury. No annuities are granted on the life of any *nominee*

under 15 years of age, nor in any case not approved by the commissioners. Annuities for terms of years not granted for any period less than *ten* years. These annuities are transferable, but not in parts or shares. Those for terms of years, payable January 5 and July 5; and those for lives, April 5 and October 10.

Irish Debt.—It seems unnecessary to enter into any details with respect to the public debt of Ireland. The various descriptions of stock of which it consists, and their amount, are specified above. The dividends on the Irish debt are paid at the Bank of Ireland; and, in order to accommodate the public, stock may be transferred, at the pleasure of the holders, from Ireland to Great Britain, and from the latter to the former.

Exchequer Bills are bills of credit issued by authority of Parliament. They are for various sums, and bear interest (generally from 1½*d.* to 2½*d.* per diem per 100*l.*) according to the usual rate at the time. The advances of the Bank to Government are made upon Exchequer Bills; and the daily transactions between the Bank and Government are principally carried on through their intervention. Notice of the time at which outstanding Exchequer bills are to be paid off is given by public advertisement. Bankers prefer investing in Exchequer bills to any other species of stock, even though the interest be for the most part comparatively low; because the capital may be received at the Treasury at the rate originally paid for it, the holders being exempted from any risk of fluctuation, except in the amount of the premium or discount at which they may have bought the bills. Exchequer bills were first issued in 1696, and have been annually issued ever since. The amount outstanding on March 31, 1868, was 5,611,100*l.*

In 1853 *Exchequer Bonds* were issued bearing interest at 2½ per cent. for 10 years, and thereafter 2½ per cent. for 30 years, or till 1894, to such holders of South Sea and 3 per cent. stock as chose to accept the same, a bond for 100*l.* being given for every 100*l.* stock subscribed. (16 & 17 Vict. c. 23.) On March 31, 1868, the Exchequer bonds outstanding amounted to 2,300,000*l.*

India Stock and India Bonds are always quoted in the list of the prices of the public funds. The stock on which the East India Company divided was 6,000,000*l.*; the dividend on which has been from 1793, 10½ per cent. The other stocks are 4 and 5 per cents. India bonds are generally for 100*l.*, 500*l.*, and 1,000*l.* each, and bear at present 4 and 5 per cent. interest respectively, and are payable March 31 and September 30. In selling them, the interest due down to the day of sale is, with the premium, added to the amount; the total being the sum to be paid by the purchaser. The premium, which is, consequently, the only variable part of the price, is influenced by the circumstances which influence the price of stocks generally, the number of bonds in circulation &c.

The price of stocks is influenced by a variety of circumstances. Whatever tends to shake or to increase the public confidence in the stability of Government tends at the same time to lower or increase the price of stocks. They are also affected by the state of the revenue; and, more than all, by the facility of obtaining supplies of disposable capital, and the interest which may be realised upon loans to responsible persons. From 1730 till the Rebellion of 1745, the 3 per cents. were never under 89, and were once, in June 1737, as high as 107. During the Rebellion they sunk to 76, but in 1749 rose again to 100. In the interval between the Peace of Paris, in 1763, and the breaking out of the American war, they averaged from 80 to 90; but towards the close of the war they sunk to 54. In 1792 they were, at one time, as high as 96. In 1797 the prospects of the country, owing to the successes of the French, the mutiny in the fleet, and other adverse circumstances, were by no means favourable; and in consequence the price of 3 per cents. sunk, on September 20, on the intelligence transpiring of an attempt to negotiate with the French republic having failed, to 47⅜, being the lowest price to which they have hitherto fallen.

VII.—*Account of the Highest and Lowest Price of the Principal English and Foreign Funds in each of the 5 Years ending with* 1857, *and of Consols in each of the* 6 *Years ending with* 1867.

Stock	1853		1854		1855		1856		1857	
English	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
Consols	101	99⅝	96½	85½	95⅞	85¼	96⅛	87½	93⅝	86½
3 per cent. reduced	101⅜	99⅞	96	85½	94	86⅜	94⅞	87⅛	94⅛	86⅝
3½ per cent. new	101½	99⅛	96⅛	85	94⅛	86⅛	97⅜	87⅞	94⅜	86⅝
Bank stock	230½	208	221½	201	216	205	220	209	224½	207
India stock	234	238	241	220	236	220	236	218	227½	207
Long annuities	6⅛	5⅛	5⅜	4⅜	4⅛	5⅜	3 9-16	2 15-0	⅞	1⅜
India bonds	83*s.* p.	10*s.* p.	12*s.* p.	20*s.* d.	57*s.* p.	8*s.* d.	25*s.* p.	12*s.* d.	5*s.* p.	50*s.* d.
Exchequer bills	75*s.* p.	17*s.* p.	22*s.* p.	2*s.* d.	27*s.* p.	12*s.* d.	24*s.* p.	12*s.* d.	9*s.* p.	59*s.* d.
Foreign										
Austrian 5 per cent.	101⅛	93	87	73	67⅛	65	99⅛	81⅜	94	87
Belgian 4½ per cent.	100⅜	94½	93	84	95¼	90⅛	99⅝	92⅛	100	98
Brazilian 5 per cent.	104	97	102	90	103	98¼	103⅛	99	103½	98
Buenos Ayres 6 per cent.	72⅛	56	63⅛	48	60	51	88	54	96	79
Chilian 6 per cent.	108	99⅛	103	98⅛	105	99	106⅛	102⅛	105⅛	100
Danish 5 per cent.	86⅛	81½	85	76	84	81	86	83	88	81
Dutch 2½ per cent.	67⅞	62	62⅜	51	64⅛	60⅛	67	63	66	62⅛
Dutch 4 per cent.	99⅛	92	96¼	80½	97	90⅝	99⅛	95	100	94
French rentes	105*f.* 75*c.*	98	99*f.*	84*f.*	99*f.* 40*c.*	89*f.* 75*c.*	97*f.* 75*c.*	90*f.*	95*f.* 40 *c.*	87*f.* 50*c.*
Russian 5 per cent.	121⅛	111	112½	88	102	94	113	97	113⅛	104
Spanish 3 per cent.	50	44	44⅜	33	40⅛	36	48	38¼	43⅛	30⅜
Turkish 6 per cent.	..	..	..	..	..	..	107⅛	88⅜	99	84⅛
Turkish 4 per cent.	..	..	..	..	..	..	107	93	102⅜	95⅛

	1862		1863		1864		1865		1866		1867	
Consols	93⅝	92⅛	93⅛	92⅛	90⅞	89⅛	91⅛	86⅜	90⅛	84	96⅜	89⅝

VIII.—*Prices of the different Descriptions of British Funds on Wednesday, August* 19, 1868.

Bank stock, div. 8 per cent.	-	-	244
3 per cent. reduced annuities	-	-	94⅛
3 per cent. consols annuities	-	-	94⅛
New 3 per cent. annuities	-	-	94⅛
New 3½ per cent.	-	-	-
New 2½ per cent.	-	-	75⅜
5 per cent.	-	-	-
India stock, 10½ per cent.	-	-	216½
5 per cent.	-	-	115
4 per cent.	-	-	104⅜
enfaced paper, 5 per cent.	-	-	103⅛
India stock, enfaced paper, 5½ per cent.	-	-	110½
debentures, 5 per cent.	-	-	-
bonds, 4 per cent. 1,000*l.*	-	-	-
under 1,000*l.*	-	-	-
Bank stock for account, Sept. 8	-	-	-
3 per cent. consols for account, Sept. 8	-	-	94
India stock for account, Sept. 8	-	-	-
Exchequer scrip	-	-	-
Exchequer bills, 1,000*l.* 2 per cent.	-	-	20*s.* p.
500*l.*	-	-	20*s.* p.
100*l.* and 200*l.*	-	-	20*s.* p.

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Agreements for the sale of stock are generally made at the Stock Exchange, which is frequented by a set of middlemen, called *jobbers*, whose business is to accommodate the buyers and sellers of stock with the exact sums they want. A jobber is generally possessed of considerable property in the funds, and he declares a price at which he will either sell or buy. Thus, he declares he is ready to buy 3 per cent. consols at 93½, or to sell at 93⅝; so that, in this way, a person willing to buy or sell any sum, however small, has never any difficulty in finding an individual with whom to deal. The jobber's profit is generally ⅛ per cent., for which he transacts both a sale and a purchase. He frequently confines himself entirely to this sort of business, and engages in no other description of stock speculation.

We borrow the following details from Dr. Hamilton's valuable work on the National Debt:—

'A bargain for the sale of stock being agreed on, is carried into execution at the Transfer Office, at the Bank. For this purpose the seller makes out a note in writing, which contains the name and designation of the seller and purchaser, and the sum and description of the stock to be transferred. He delivers this to the proper clerk, and then fills up a receipt, a printed form of which, with blanks, is obtained at the office. (The letters of the alphabet are placed round the room, and the seller must apply to the clerk who has his station under the initial of his name. In all the offices there are supervising clerks, who join in witnessing the transfer.) The clerk in the mean time examines the seller's accounts, and if he find him possessed of the stock proposed to be sold, he makes out the transfer. This is signed in the books by the seller, who delivers the receipt to the clerk; and upon the purchaser's signing his acceptance in the book, the clerk signs the receipt as witness. It is then delivered to the purchaser upon payment of the money, and thus the business is completed.

'This business is generally transacted by brokers, who derive their authority from their employers by powers of attorney. Forms of these are obtained at the respective offices. Some authorise the broker to sell, others to accept a purchase, and others to receive the dividends. Some comprehend all these objects, and the two last are generally united. Powers of attorney authorising to sell must be deposited in the proper office for examination one day before selling; a stockholder acting personally, after granting a letter of attorney, revokes it by implication.

'The person in whose name the stock is invested when the books are shut, previous to the payment of the dividends, receives the dividend for the half year preceding; and, therefore, a purchaser during the currency of the half year has the benefit of the interest on stock he buys, from the last term of payment to the day of transfer. The price of stock, therefore, rises gradually, *cæteris paribus*, from term to term; and when the dividend is paid, it undergoes a fall equal thereto. Thus, the 3 per cent. consols should be higher than the 3 per cent. reduced by ¼ per cent. from April 6 to July 5, and from October 10 to January 5; and should be as much lower from January 5 to March 5, and from July 5 to October 10; and this is nearly the case. Accidental circumstances may occasion a slight deviation.

'The dividends on the different stocks being payable at different terms, it is in the power of the stockholders to invest their property in such a manner as to draw their income quarterly.

'The business of speculating in the stocks is founded on the variation of the price of stock, which it probably tends in some measure to support. It consists in buying or selling stock according to the views entertained, by those who engage in this business, of the probability of the value rising or falling.

'This business is partly conducted by persons who have property in the funds; but a practice also prevails, among those who have no such property, of contracting for the sale of stock on a future day at a price agreed on. For example, A may agree to sell B 10,000*l.* of 3 per cent. stock, to be transferred in 20 days, for 6,000*l.* A has, in fact, no such stock; but if the price, on the day appointed for the transfer, be only 58, he may purchase as much as will enable him to fulfil his bargain for 5,800*l.*, and thus gain 200*l.* by the transaction: on the other hand, if the price of that stock should rise to 62, he will lose 200*l.* The business is generally settled without any actual purchase of stock, or transfer; A paying to B or receiving from him the difference between the price of stock on the day of settlement, and the price agreed on.

'This practice, which amounts to nothing else than a wager concerning the price of stock, is not sanctioned by law; yet it is carried on to a great extent: and as neither party can be compelled by law to implement these bargains, their sense of honour, and the disgrace attending a breach of contract, are the principles by which the business is supported. In the language of the Stock Exchange, the buyer is called a *Bull*, and the seller a *Bear*, and the person who refuses to pay his loss is called a *Lame Duck*; and the names of these defaulters are exhibited in the Stock Exchange, where they dare not appear afterwards.

'These bargains are usually made for certain days fixed by a committee of the Stock Exchange, called *settling days*, of which there are about 8 in the year; viz. one in each of the months of January, February, April, May, July, August, October, November; and they are always on Tuesday, Wednesday, Thursday, or Friday, being the days on which the commissioners for the reduction of the national debt make purchases. The settling days in January and July are always the first days of the opening of the Bank books for public transfer, and these days are notified at the Bank when the consols are shut to prepare for the dividend. The price at which stock is sold to be transferred on the next settling day is called the price *on account*. Sometimes, instead of closing the account on the settling day, the stock is carried on to a future day, on such terms as the parties agree on. This is called a *continuation*.

'All the business, however, which is done in the stocks *for time* is not of a gambling nature. In a place of so extensive commerce as London, opulent merchants, who possess property in the funds, and are unwilling to part with it, have frequently occasion to raise money for a short time. Their resource in this case is to sell for money, and buy for account; and although the money raised in this manner costs more than the legal interest, it affords an important accommodation, and it may be rendered strictly legal and recoverable.' (Third ed. pp. 314–317.)

It would be foreign to the object of this work to enter upon any examination of the advantages and disadvantages of the funding system, which we have elsewhere discussed at considerable length.

(*Treatise on Taxation*, pp. 420–441, 3rd ed.) Perhaps, on the whole, the latter preponderate, though it is not to be denied that the former are very considerable. The purchase of funded property affords a ready method of investment; and as neither the Bank of England nor any of the London private banks allows interest upon deposits, it is plain that, had it not been for the facilities given by the funds, individuals unable to employ their savings in some branch of business would, down to a late period, have derived no immediate advantage from them, unless they resorted to the hazardous expedient of lending upon private credit. But since the establishment of joint-stock banks in the metropolis, which allow interest on deposits, the advantage of the funds as a means of commodious investment is not quite so obvious, though, probably, it is little less real; for it may be doubted whether the banks in question, or even the Scotch banks, which have been long in the habit of allowing interest on deposits, could do so, or whether, in fact, they could be conducted at all, without the aid of the funds.

The subjoined account of the number of dividend warrants issued in the quarters ending with October 10, 1851, and January 5, 1852, and for the first dividend day of 1865, are very important documents. The large number (over 90,000 in 1865) of holders of sums not producing above *5l.* of quarterly dividend is principally to be ascribed to the circumstances already mentioned as peculiar to the banking system of the metropolis; and there can be little doubt that their number would be materially diminished, did the Bank of England and the private banks allow a reasonable rate of interest on deposits. It is evident from these accounts that the number of persons having a direct interest in the funds is much greater than they represent. The dividends upon the funded property belonging to the Equitable and other insurance companies, the different banking companies &c. are paid upon single warrants, as if they were due to so many private individuals; whereas they are, really, paid to these individuals only because they act as factors or trustees for a vast number more. It is consequently quite absurd to pretend, as is sometimes done, that any interference with funded property would affect only some 260,000 or 270,000 individuals out of a population of 30,000,000. Any attack upon the dividends would really be destructive, not merely of the interests of those to whom dividend warrants are issued, but of *all* who depend upon them; it would destroy our whole system of insurance and banking, and overspread the country with bankruptcy and ruin. Not only, therefore, is every proposal for an invasion of the property of the fundholders bottomed on injustice and robbery, but it would, were it acted upon, be little less ruinous to the community than to the peculiar class intended to be plundered.

The following table has been calculated, in order to show in which of the public funds money may be invested so as to yield the greatest interest. It gives the prices, differing by 1 per cent., from 50 to 93 for 3 per cents. &c. at which they all must be to yield the *same* interest; so that, supposing the 3 per cents. to be at 80, a sum invested in them, or in the 3½ per cents., will yield the same interest, provided the latter be at 93⅓; if the 3½ per cents. be *below* this sum, it will of course be more advantageous, in so far at least as interest is concerned, to invest in them than in the 3 per cents.; while, if they be *above* 93⅓, it will be less advantageous.

To get the *true value* of the different funds at any particular period, in order to compare them accurately together, it is necessary to deduct from each the amount of interest accruing upon it from the payment of the last dividend.

IX.—*Table showing the Prices the different Funds must be at to produce an equal Interest, and also the annual Interest produced by* 100*l. sterling invested at any of those Prices.*

3 per Cent. Price	3½ per Cent. Price	4 per Cent. Price	5 per Cent. Price	Interest
£	£ s. d.	£ s. d.	£ s. d.	£ s. d.
50	58 6 8	66 13 4	83 6 8	6 0 0
51	59 10 0	68 0 0	85 0 0	5 17 7
52	60 13 4	69 6 8	86 13 4	5 15 4
53	61 16 8	70 13 4	88 6 8	5 13 2
54	63 0 0	72 0 0	90 0 0	5 11 1
55	64 3 4	73 6 8	91 13 4	5 9 0
56	65 6 8	74 13 4	93 6 8	5 7 1
57	66 10 0	76 0 0	95 0 0	5 5 3
58	67 13 4	77 6 8	96 13 4	5 3 5
59	68 16 8	78 13 4	98 6 8	5 1 8
60	70 0 0	80 0 0	100 0 0	5 0 0
61	71 3 4	81 6 8	101 13 4	4 18 4
62	72 6 8	82 13 4	103 6 8	4 16 9
63	73 10 0	84 0 0	105 0 0	4 15 2
64	74 13 4	85 6 8	106 13 4	4 13 8
65	75 16 8	86 13 4	108 6 8	4 12 3
66	77 0 0	88 0 0	110 0 0	4 10 10
67	78 3 4	89 6 9	111 13 4	4 9 6
68	79 6 8	90 13 4	113 6 8	4 8 2
69	80 10 0	92 0 0	115 0 0	4 6 11
70	81 13 4	93 6 8	116 13 4	4 5 8
71	82 16 8	94 13 4	118 6 8	4 4 6
72	84 0 0	96 0 0	120 0 0	4 3 3
73	85 3 4	97 6 8	121 13 4	4 2 2
74	86 6 8	98 13 4	123 6 8	4 1 0
75	87 10 0	100 0 0	125 0 0	4 0 0
76	88 13 4	101 6 8	126 13 4	3 18 11
77	89 16 8	102 13 4	128 6 8	3 17 11
78	91 0 0	104 0 0	130 0 0	3 16 11
79	92 3 4	105 6 8	131 13 4	3 15 11
80	93 6 8	106 13 4	133 6 8	3 15 0
81	94 10 0	108 0 0	135 0 0	3 14 0
82	95 13 4	109 6 8	136 13 4	3 13 2
83	96 16 8	110 13 4	138 6 8	3 12 5
84	98 0 0	112 0 0	140 0 0	3 11 5
85	99 3 4	113 6 8	141 13 4	3 10 7
86	100 6 8	114 13 4	143 6 8	3 9 9
87	101 10 0	116 0 0	145 0 0	3 8 11
88	102 13 4	117 6 8	146 13 4	3 8 2
89	103 16 8	118 13 4	148 6 8	3 7 4
90	105 0 0	120 0 0	150 0 0	3 6 8
91	106 3 4	121 6 8	151 13 4	3 5 11
92	107 6 8	122 13 4	153 6 8	3 5 2
93	108 10 0	124 0 0	155 0 0	3 4 6

X.—*Account of the Number of Persons who were entitled to Dividends on the Portions of the Public Debt held by them which became due at the Quarters ended October* 10, 1851, *and January* 5, 1852, *and on the* 1*st Dividend Day of* 1865, *arranged in Classes according to the Amount of Dividend paid to each.*

Description of Stock, 1851-2		Not exceeding 5*l.*	10*l.*	50*l.*	100*l.*	200*l.*	300*l.*	500*l.*	1000*l.*	2000*l.*	Exceeding 2000*l.*	Total
Number to whom dividends were payable												
On 3*l.* per cent. reduced annuities	*	12,429	5,360	12,321	3,596	2,080	618	340	176	68	28	37,016
On 3*l.* 5*s.* per cent.	*	33,313	15,561	32,872	7,804	4,072	1,046	706	290	86	46	95,756
On long annuities	*	2,412	2,029	4,764	851	413	143	75	45	18	24	10,774
On annuities for terms of years	*	522	444	1,036	191	93	27	29	8	6	11	2,367
On 3*l.* per cent. consolidated annuities	†	39,934	17,685	39,377	10,986	6,905	1,998	1,409	613	175	78	119,160
On 3*l.* per cent. annuities, 1726	†	116	51	127	32	17	4	3	1	—	—	350
On new 3*l.* per cent. annuities	†	79	25	124	32	20	3	3	19	—	—	237
On annuities for terms of years	†	560	415	1,131	210	89	29	24	—	8	13	2,501
Totals		89,315	41,570	91,752	23,702	13,688	3,868	2,593	1,142	561	200	268,191

* Dividends payable October 10. † Dividends payable January 5.

Account of Number of Persons entitled to Dividends &c.—continued.

Description of Stock, 1865	Not exceeding									Exceeding 2000*l.*	Total
	5*l.*	10*l.*	50*l.*	100*l.*	200*l.*	500*l.*	500*l.*	1000*l.*	2000*l.*		
3 per cent. consolidated annuities	43,225	19,270	41,279	11,337	6,869	1,848	1,329	671	210	93	126,351
New 5 per cent. annuities	37	21	126	34	15	4	—	—	—	—	241
3½ „ (1851)	21	13	38	5	10	3	2	—	—	—	92
3½ „	185	77	270	70	44	14	8	5	4	1	678
Annuities for terms of years	53	72	191	18	12	3	—	1	2	2	354
India 5 per cent. stock	2,964	1,737	5,153	1,032	528	155	62	15	7	1	11,654
4 „	7	34	219	95	84	23	11	3	1	—	477
4 „	89	77	142	60	22	9	4	4	3	1	411
3 per cent. reduced annuities	11,631	4,929	11,278	3,198	1,782	506	293	159	64	34	35,873
New 3 per cent. annuities	31,900	13,583	27,129	6,555	3,543	950	649	286	97	58	84,748
Annuities for 30 years	364	309	619	85	59	10	2	1	1	3	1,457
Annuities for terms of years	64	71	113	28	12	3	2	—	1	2	326
Red Sea and Indian telegraph annuity payable Feb. 4, 1865	57	43	136	28	14	3	3	4	1	—	289
Totals	90,601	40,435	86,725	22,743	12,991	3,531	2,369	1,149	391	195	260,951

* Dividends payable January 5. † Dividends payable April 5.

Foreign Funds.—Exclusive of the funded and unfunded debt due by the British Government, and by India and the various colonies, more than 19-20ths of which is held by British subjects, our countrymen are also large creditors of foreign states. With the exception of Spain, the interest on the debts of most European states is paid with great regularity; and their funds form what may, on the whole, be reckoned, at least so long as peace is preserved, a pretty secure investment. Our countrymen are also large creditors of the new South American States, and of the United States of North America. Owing, however, to the anarchy in which the former have been almost constantly involved, and the consequent want of power, and probably also of inclination, on the part of their rulers, to make any adequate provision for the payment of their debts, a large arrear of interest has, in most instances, been allowed to accumulate, with but little prospect of its being speedily reduced.

The public debt of the United States, which amounted, at the close of the last war with this country, to 158,713,049 dollars, was entirely paid off in 1835. This proceeding, so honourable to the United States, naturally tended to raise the character of American securities in the English market, and enabled the Government to contract the loans required to carry on the late war with Mexico on very favourable terms. The debt of the Union existing on November 17, 1857, amounted to 25,165,155 dols.; but it has since been enormously increased by the expenditure on account of the civil war 1861–1865, and amounted on June 30, 1865, to 558,873,540*l.*

But in addition to the debt of the Union, the majority of the States, and several also of the principal cities, have contracted peculiar debts of a less or greater amount. In most cases these were incurred to promote the execution of some public undertaking, such as the construction of canals or railways, the excavation of docks, the erection of buildings, the establishment of banks or insurance companies, and so forth. We subjoin from the *American Almanac* &c.—

XI.—*An Account of the Debts of the different States in January* 1858, *and Total Amount of Debts at different times from* 1852 *to* 1867.

States	Absolute Debt	Contingent Debt	Total Debt	Annual Interest on Absolute Debt
	dols.	dols.	dols.	dols.
Maine	699,500	326,700	1,026,200	41,970
New Hampshire	—	—	—	—
Vermont	—	—	—	—
Massachusetts	1,314,000	4,949,555	6,263,555	70,600
Rhode Island	—	386,311	386,311	—
Connecticut	—	—	—	—
New York	31,671,914	770,000	32,441,914	1,900,000
New Jersey	95,000	—	95,000	5,700
Pennsylvania	39,881,738	—	39,881,738	1,989,810
Delaware	—	—	—	—
Maryland	10,754,204	4,100,000	14,854,204	600,000
Virginia	28,812,967	3,898,500	32,711,467	1,703,964
North Carolina	7,181,923	—	7,181,923	431,500
South Carolina	3,192,743	3,000,000	6,192,743	184,620
Georgia	2,632,732	—	2,632,732	157,963
Florida	158,000	—	158,000	11,060
Alabama	5,888,134	—	5,888,134	316,600
Mississippi	2,371,707	5,000,000	7,371,707	156,000
Louisiana	4,380,591	6,322,551	10,703,142	300,000
Texas	—	—	—	—
Arkansas	1,424,345	1,100,000	2,524,345	82,800
Tennessee	4,742,857	8,014,000	12,756,857	248,571
Kentucky	5,574,244	—	5,574,244	335,000
Ohio	17,100,969	—	17,100,969	1,068,935
Michigan	2,269,467	—	2,269,467	137,000
Indiana	7,367,074	—	7,367,074	316,726
Illinois	12,834,000	—	12,834,000	770,000
Missouri	692,000	18,436,000	19,038,000	36,805
Iowa	128,010	—	128,010	10,000
Wisconsin	—	—	—	—
California	3,910,906	218,021	4,128,927	258,152
Minnesota	250,000	—	250,000	20,000
Total, near January 1, 1852	169,076,638	33,481,124	202,557,762	8,666,885
1853	184,323,845	31,868,921	216,147,786	9,291,534
1854	191,671,291	30,155,112	221,891,803	9,940,831
1855	192,088,258	44,767,851	236,794,149	9,466,975
1856	182,020,283	56,879,029	238,902,312	10,000,812
1857	187,000,030	57,911,229	245,911,259	10,004,871
1858	194,388,345	57,121,589	251,510,983	11,263,067
1865	1,100,581,917	1,268,194,156	2,366,955,077	—
1867	1,637,890,641	873,909,372	2,511,800,013	143,781,591

* These tables are believed to be accurate, being compiled almost exclusively from official reports made by the treasurers and auditors to the Legislatures of the several States.

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Some of the debts so contracted have been advantageously laid out; but a large portion borrowed in 1835, and other periods of wild excitement, were contracted on very disadvantageous terms, and expended on projects some of which have turned out extremely ill. This, however, was the affair of the States themselves, and did not afford so much as the shadow of an excuse for the conduct of those States which have declined to provide for the payment of their debts. It was not, indeed, to be wondered at that in the distress into which the Union was thrown by the crash of 1837, and the depression following thereon, some of the States should have been compelled to suspend payment of their debts; but a necessity of this sort could be temporary only. The indebted States are all rich, and eminently flourishing and prosperous communities, and it might have been expected that they would have made every effort to resume payment in full of their debts at the earliest possible moment. But this, we are sorry to say, has not been the case with some of them, as will be seen from the following statement, obligingly furnished to us for our last edition by a gentleman connected with the United States, and extremely well versed in these matters:—

'The following States of the Union failed to pay the interest on the whole or a part of their debts during the period of depression which followed 1837, viz. Michigan, Pennsylvania, Indiana, Illinois, Maryland, Arkansas, Mississippi, Louisiana, Florida, and Texas. Of these, Pennsylvania has resumed payment of interest, and has funded the arrears thereof, which had accrued during the suspension, in stock bearing interest from the date when the respective dividends became due. The interest on this stock was 6 per cent.; but after it had remained unpaid for 3 years, the State, notwithstanding her wealth, was mean enough to oblige the holders to accept in exchange 5 per cent. stock, with the payment of the overdue interest at 5 instead of 6 per cent.; while she at the same time laid a direct tax of 5 per cent. on the dividends payable on her debt, including the portion held by foreigners. Maryland has also resumed payment of interest in full, and has paid off the dividends which had accumulated during the period of suspension, with interest upon them from their maturity; but, like Pennsylvania, she laid a tax of 5 per cent. (recently reduced to 3 per cent.) on the dividends of all her debt, including that belonging to foreigners. The debt of Louisiana consisted of two parts, one comparatively small (about 1,500,000 dollars), which was the direct debt of the State, and which has always been punctually provided for; the other much larger (about 20,000,000 dollars), arising from the loan of the credit of the State to various banks as security for their engagements, and which became a charge upon the State in consequence of the inability of the banks to provide for the claims upon them. The State did not make any provision for this latter portion of debt from her treasury; but the various banks which suspended payments have, after a shorter or longer interval, themselves provided for their bonds guaranteed by the State; so that there are not at present any overdue obligations outstanding for which the credit of the latter is pledged.

'Michigan has repudiated the greater part of her debt, viz. the portion sold to the Bank of the United States, excepting a small proportion of the amount, for which she admits her liability. She has sold certain public works, receiving her bonds in payment to the extent to which she has acknowledged her liability, and has thus greatly reduced the amount outstanding, and has provided for the payment of interest on the latter, excepting the repudiated portion. The State of Indiana has a small proportion of her debt guaranteed by the Bank of Indiana, the interest on which has been regularly paid. The other, and much the larger portion, has been disposed of, after several years of suspension, in the following manner: one half of the principal has been funded in a new stock, bearing 5 per cent. interest, of which, however, only 4 per cent. was paid for a certain time, the other 1 per cent. being funded in a deferred stock. One half of the arrears of interest was also funded in a deferred 2½ per cent. stock. For the other half of the principal and interest the State has declined to make any provision from its funds. But as the Wabash and Erie Canal, one of the works for which the debt was contracted, was in an unfinished state, the bondholders were offered the option of advancing the sum required for its completion, and receiving the nett income of the canal and the produce of the sale of certain public lands granted to aid in its construction, towards the payment, first, of their advances, and then of the half of the principal and interest of their State bonds not provided for by the State. A considerable part of the bondholders having acted upon this proposal by contributing the necessary sum, the canal has been completed. Its revenue, and the produce of the land sales, will be applied, first, to the repayment of the advances, then to the payment of the interest and principal of the bonds of the subscribers, and lastly, if there should be any eventual surplus, to the payment of the bonds held by non-subscribers. It is hoped that the bonds of the subscribing bondholders may in time be provided for by the canal and sales of land; but the prospect of benefit to the non-subscribers from this arrangement is remote and uncertain. Illinois has confined her provision for her debt to imposing a permanent tax of 25 cents in the 100 dols. on all property in the State, and enacting that the produce of this tax, whatever it may amount to, shall be applied towards paying the interest on the bonds, applying it first towards the payment of the oldest overdue coupons, and then to those of more recent date in succession. The largest amount produced by this tax has only sufficed to pay about 1¾ per cent. per annum on the principal of the bonds. It is hoped that from the rapid increase of the wealth of the State, the tax will equally improve in productiveness, and that it may eventually equal the interest of the bonds, which is at the rate of 6 per cent. But until that shall be the case, the amount of the debt must increase every year by the difference between a year's interest and the produce of the tax for the year, which becomes an addition to the very large amount of interest now overdue. And as no provision is made for paying, either now or hereafter, the interest accruing on this very large and increasing arrear, the bondholders must, under the most favourable working of the law, be eventually considerable losers. Arkansas has not made any provision from the State funds towards her debt; but as the State bonds were issued to provide capital for a bank, its assets are liable for the payment of the bonds.

'The debt of Mississippi was contracted to furnish capital for the Union Bank and the Planters' Bank. She has repudiated the bonds issued for the benefit of the former, amounting to 5,000,000 dollars, and has made no provision either for these or for 2,000,000 dollars issued to

the Planters' Bank, her liability for which she acknowledges. By a recent change in the constitution of the State, her courts of law have been allowed to take cognisance of the claims of individuals against the State, and under this law a suit was brought, which resulted in a decision of the supreme court of the State affirming the obligation of the State in the case of the Union Bank bonds, which had been repudiated. It is a very ominous circumstance that one of the judges who decided in favour of the bondholders, and who, having completed his term of service, became a candidate for re-election, was rejected by the vote of the people because of his decision. Florida has not provided for her debt from the State funds. Its amount has been greatly reduced by debtors of the banks, to whom the State bonds were issued, buying them up at low prices, and paying them into the banks in discharge of their debts.

'Texas has announced her intention of profiting by her own laches, that is, of settling her debt on the principle of only recognising the amount which the bonds have cost the bondholders—a principle which will operate a very great reduction of its magnitude. Only a part of the bondholders have submitted to this decision. 5,000,000 dollars paid to Texas by the Federal Government have been appropriated by her towards the settlement of her debt in the way now stated.'

This is not a very favourable statement; but Michigan, Illinois, and those States which had made such ineffectual provision for the payment of their debts, have since been induced to adopt more efficient measures. A very small sacrifice on their part would enable them entirely to wipe off that foul stain on their honour and their credit, under which some of them are even now suffering. Mississippi, we are afraid, continues her policy, if so we may call it, of repudiation. *We cannot find fault with the policy of the States* which have taxed some of their dividends due to foreigners; for, though such a proceeding be not easily justified on principle, it is unluckily in accordance with the example we have set in subjecting the dividends due to the foreigner to the income tax.

The total State debt of California amounted, as seen above, in January 1858, to 4,928,127 dols.; but this sum was raised by county and city debts to an aggregate of 12,163,090 dols. It is highly to the credit of the people of this new State that on a proposal for the repudiation of the debt being submitted to their consideration, it was rejected by 57,661 votes to 16,970 do. (*American Almanac for* 1859, p. 336.)

Soon after Pennsylvania had been unwise enough to repudiate her debt, the following forcible appeal was addressed to Congress by the late Rev. Sydney Smith:—

The humble Petition of the Rev. Sydney Smith to the House of Congress at Washington.

'I petition your honourable house to institute some measures for the restoration of American credit, and for the repayment of debts incurred and repudiated by several of the States. Your petitioner lent to the State of Pennsylvania a sum of money for the purpose of some public improvement. The amount, though small, is to him important, and is a saving from a life income, made with difficulty and privation. If their refusal to pay (from which a very large number of English families are suffering) had been the result of war, produced by the unjust aggression of powerful enemies; if it had arisen from civil discord; if it had proceeded from an improvident application of means in the first years of self-government; if it were the act of a poor State struggling against the barrenness of nature—every friend of America would have been contented to wait for better times; but the fraud is committed in profound peace, by Pennsylvania, the richest State in the Union, after the wise investment of the borrowed money in roads and canals, of which the repudiators are every day reaping the advantage. It is an act of bad faith which (all its circumstances considered) has no parallel, and no excuse.

'Nor is it only the loss of property which your petitioner laments: he laments still more that immense power which the bad faith of America has given to aristocratical opinions, and to the enemies of free institutions in the Old World. It is in vain any longer to appeal to history, and to point out the wrongs which the many have received from the few. The Americans who boast to have improved the institutions of the Old World, have at least equalled its crimes. A great nation, after trampling under foot all earthly tyranny, has been guilty of a fraud as enormous as ever disgraced the worst king of the most degraded nation of Europe.

'It is most painful to your petitioner to see that American citizens excite, wherever they may go, the recollections that they belong to a dishonest people, who pride themselves on having tricked and pillaged Europe; and this mark is fixed by their faithless legislators on some of the best and most honourable men in the world, whom every Englishman has been eager to see and proud to receive.

'It is a subject of serious concern to your petitioner that you are losing all that power which the friends of freedom rejoiced that you possessed, looking upon you as the ark of human happiness and the most splendid picture of justice and of wisdom that the world had yet seen. Little did the friends of America expect it, and sad is the spectacle, to see you rejected by every State in Europe, as a nation with whom no contract will be made, because none will be kept; unstable in the very foundations of social life, deficient in the elements of good faith—men who prefer any load of infamy, however great, to any pressure of taxation, however light.

'Nor is it only this gigantic bankruptcy for so many degrees of longitude and latitude which your petitioner deplores, but he is alarmed also by that total want of shame with which these things have been done, the callous immorality with which Europe has been plundered, that deadness of the moral sense which seems to preclude all return to honesty, to perpetuate this new infamy, and to threaten its extension over every State of the Union.

'To any man of real philanthropy, who receives pleasure from the improvements of the world, the repudiation of the public debts of America, and the shameless manner in which it has been talked of and done, is the most melancholy event which has happened during the existence of the present generation. Your petitioner sincerely prays that the great and good men still existing among you may, by teaching to the United States the deep disgrace they have incurred in the Old World, restore them to moral health, to that high position they have lost, and which, for the happiness of mankind, it is so important they should ever maintain; for the United States are now working out the greatest of all political problems, and upon that confederacy the eyes of thinking men are intensely fixed, to see how far the mass of mankind can be trusted with the management of their own affairs, and the establishment of their own happiness.'

The following table gives a statement of the public debt of each country according to the latest returns:—

Countries	Year	Total	Per Head of Population
		£	£ s. d.
Russian Empire	1861	263,609,644	3 11 1
Sweden (annual)	1863	2,496,482	0 14 5
Norway	1859	1,721,635	1 1 6
Denmark	1863	10,770,159	4 0 0
Prussia	1864	41,651,707	2 3 3
Oldenburg	1864	625,025	2 1 2
Hanover	1864	7,202,740	3 14 10
Brunswick (for 3 years)	1863	1,707,707	5 16 5
Bavaria (annual)	1864	28,152,789	5 17 1
Saxony (annual)	1864	10,035,627	4 5 10
Würtemberg (for 3 years)	1863	6,292,835	3 12 0
Baden (for 2 years)	1865	8,645,914	6 0 11
Electoral Hesse (annual)	1862	1,525,777	2 1 0
Ducal Hesse (annual)	1864	598,332	0 6 0
Hamburg	1863	4,559,561	15 19 2
Holland	1864	81,042,493	23 1 4
Belgium	1864	25,344,016	5 6 0
France	1864	559,088,985	14 7 2
Portugal	1861	41,651,440	9 11 6
Spain and Balearic Islands	1865	163,947,471	10 4 6
Switzerland		—	—
Austria	1864	247,094,474	6 14 10
Italy	1864	176,225,039	7 19 5
Greece	1863	10,707,364	9 15 3
Turkey, empire of	1864	49,500,000	1 8 0
United States (Year ended June 30)	1865	558,873,546	17 15 5
Brazil	1861	22,943,716	2 5 9
Chili	1865	2,933,415	1 15 0
Peru	1863	6,557,648	2 14 10
United Kingdom	1863	808,289,598	27 16 0

(For accurate information on the debts of various communities, see Fenn *On Funds*, by Nash, 1867.)

FURS. In Commerce, the skins of different animals, covered, for the most part, with thick fine hair, the inner side being converted by a peculiar process into a sort of leather. Furs, previously to their undergoing this process, are denominated *peltry*.

Beaver fur was formerly in very extensive use in the hat manufacture; but the introduction of silk and other hats has all but entirely superseded its employment in this way, and its value, though now much scarcer than formerly, has, in consequence, fallen off very considerably. The fur of the middle-aged or young animal, called cub beaver, is most esteemed. It is the finest, most glossy, and takes the best dye. Fitch, or the fur of the fitchet or polecat, is principally imported from Germany: it is soft and warm, but the unpleasant smell which adheres to it depresses its value. Marten and mink (a diminutive species of otter) are principally imported from the United States and Canada. The fur of the musquash or musk rat (a diminutive species of beaver) is imported in vast quantities from our possessions in North America, which also supply us with considerable quantities of otter skins. Nutria skins are principally brought from Buenos Ayres. The more valuable furs, as ermine, sable &c., come principally from Russia.

FUR TRADE. We are indebted for the following details with respect to the fur trade to one of the most extensive and intelligent fur merchants of London:—

'Though practically engaged in the fur trade, I fear I shall be able to say little with regard to it not already known to you; but were I to write on the subject, I should divide the trade into 2, or rather 3 classes.

'1. The 1st class would comprise articles of necessity; among which I should principally number an immense variety of lamb skins, varying so widely from each other in size, quality, colour, and value, that to most persons they would appear as the produce of so many different species of animals. These lamb skins are produced in all parts of the globe, and are everywhere consumed; but they form, in particular, an essential part of the dress of thousands among the lower classes in Russia, Poland, East Prussia, Hungary, Bohemia, and Saxony. In Russia and other cold climates the skins of various other animals may be considered as articles of actual necessity.

'2. The 2nd class would in a measure form part of the first, as it also comprises furs which through habit and fashion have now become articles of necessity. I should here enumerate all those different skins commonly called *hatting furs*. But the demand for these has, owing to the introduction of silk and straw hats, greatly fallen off, though it is still considerable. The furs used for hat making were beaver, musquash, otter, nutria, hare, and rabbit; but each of these may be subdivided into 20 different sorts or classes.

'Neutria, or nutria, is comparatively a new article. It began first to be imported in large quantities about 1810, from the Spanish possessions in South America. [NUTRIA.] The skin is used for different purposes, being either dressed as a peltry, or cut (shorn) as a hatting fur; and if well manufactured and prepared, it bears some resemblance to beaver fur, and is used for similar purposes.

'3. Under the 3rd and last class I should bring all those furs which, though continually sold, and used in immense quantities, must still be considered mere articles of fashion, as their value varies according to the whims and fancies of different nations. There are, however, exceptions among these; and many furs may be considered as standard articles, since they are always used, though their price is much influenced by changes of fashion.

'This class comprises an endless variety of furs, as under it may be brought the skins of most animals in existence; almost all of them appearing occasionally in the trade.

'Furs being entirely the produce of nature, which can neither be cultivated nor increased, their value is not influenced by fashion alone, but depends materially on the larger or smaller supplies received. The weather has great influence on the quality and quantity of furs imported from all quarters of the globe; and this circumstance renders the fur trade more difficult, perhaps, and precarious than any other. The quality, and consequently the price, of many furs will differ every year. It would be completely impossible to state the value of the different articles of furs, the trade being the most fluctuating imaginable. I have often seen the same article rise and fall 100, 200, and 300 per cent. in the course of a twelvemonth; nay, in several instances, in the space of 1 month only.

'Among the furs which always rank very high (though, like all the rest, they change in value) may be specified the Siberian sable, and the black and silver fox. These articles are at all times comparatively very scarce, and command high prices.

'The chief supplies of peltries are received from Russia (particularly the Asiatic part of that empire) and from North America. But many other countries produce very beautiful and useful furs; and though we are most indebted to Asia and America, Europe furnishes a very considerable quantity. Africa and Australia are of little importance to the fur trade, as, from their situation, they furnish but few articles, and consume still less. From the former we draw leopard and tiger skins (the most beautiful of that species), while the *only* production of the latter is the kangaroo: this, however, is never used as a fur, being chiefly consumed by leather dressers and tanners for the sake of its pelt.

'Besides numerous private traders, there are several fur companies of very old standing, who in various countries do a great amount of business. Among these, the Hudson's Bay Company (in London) deserves to be mentioned first, not only from the extent of their business, but because it is one of the oldest chartered companies in England.

'The American Fur Company (in New York) stands next. They chiefly traded to London,

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whither they send the produce of the United States and other parts of North America.

'The third company is the Russo-American (in Moscow). They traded to the Russian possessions on the western coast of North America, whence they drew their supplies, which were chiefly consumed in Russia, and sent to China.

'The fourth and last company of any consequence is the Danish Greenland Company (in Copenhagen): they do but a very limited business; exposing their goods for sale once a-year in Copenhagen.

'The principal consumption of the furs which I should bring under the head of the 3rd class is in China, Turkey, and Russia, and among the more civilised countries of Europe, particularly in England. Germany consumes a considerable quantity. The consumption of America is comparatively little. In Africa none but the Egyptians wear fur. In Australia none is consumed.

'Most of the companies sell their goods by public sale, and the principal fur fairs are held at Kiachta (on the borders of China); Nijnii Novgorod, between Moscow and Casan, in Russia; and twice a-year at Leipsic. [FAIRS.]

'It is a remarkable feature of the fur trade, that almost every country or town which produces and exports furs, imports and consumes the fur of some other place, frequently the most distant. It is but seldom that an article is consumed in the country where it is produced, though that country may consume furs to a very great extent.'

The following details with respect to the North American fur trade may not be uninteresting:—

This trade was first practised by the French settlers at Quebec and Montreal, and consisted then, as now, in bartering fire-arms, ammunition, cloth, spirits, and other articles in demand among the Indians, for beaver and other skins. In 1670 Charles II. established the Hudson's Bay Company, to which he assigned the exclusive privilege of trading with the Indians in and about the vast inlet known by the name of Hudson's Bay. The company founded establishments at Forts Churchill and Albany, Nelson River, and other places on the west coast of the bay. But the trade they carried on, though said to be a profitable one, was of very limited extent; and their conduct on various occasions shows how thoroughly they were 'possessed with that spirit of jealousy which prevails in some degree in all knots and societies of men endued with peculiar privileges.' (*European Settlements*, vol. ii. p. 268.) Burke has, in the same place, expressed his astonishment that the trade has not been thrown open. But as the company's charter was never confirmed by any Act of Parliament, all British subjects are lawfully entitled to trade with those regions; though from the difficulties attached to the trade, the protection required in carrying it on, and the undisguised hostility which private traders have experienced from the agents of the company, the latter have been allowed to monopolise it with but little opposition. In 1783–4 the principal traders engaged in the fur trade of Canada formed themselves into an association known by the name of the North-West Company, having their chief establishment at Montreal. This new company prosecuted the trade with great enterprise and very considerable success. The course of their proceedings in their adventurous undertakings has been minutely described by Mr. Mackenzie, one of the agents of the company, in his *Voyage from Montreal through the Continent of America*. This gentleman informs us that some of those engaged in this trade are employed at the astonishing distance of upwards of 4,000 miles north-west of Montreal. A very numerous caravan, if we may so call it, sets out every year for *Le Grand Portage*, on Lake Superior, where they meet those who have wintered in the remoter establishments, from whom they receive the furs collected in the course of the season, and whom they, at the same time, furnish with fresh supplies of the various articles required in the trade. Fort Chepeywan, on the Lake of the Hills, in long. 110° 26′ W., used to be one of the most distant stations of the servants of the North-West Company; but many of the Indians who traded with the fort came from districts contiguous to, and sometimes even beyond, the Rocky Mountains.

The competition and success of the North-West Company seem to have roused the dormant energies of the Hudson's Bay Company. The conflicting interests and pretensions of the two associations were naturally productive of much jealousy and ill will. Under the auspices of the late Earl of Selkirk, who was for a considerable period at the head of the Hudson's Bay Company, a colony was projected and founded on the Red River, which runs into Lake Winnipec. The North-West Company regarded this establishment as an encroachment upon their peculiar rights; and the animosities thence arising led to the most violent proceedings on the part of the servants of both companies. At length, however, the more moderate individuals of each party began to perceive that their interests were not materially different; and the rival companies, wearied and impoverished by their dissensions, ultimately united under the name of the *Hudson's Bay Fur Company*, which at present engrosses most of the fur trade of British America. By 31 & 32 Vict. c. 105 (1868) her Majesty is enabled to accept a surrender, upon terms, of the lands, privileges, and rights of the Hudson's Bay Company, and to admit the same into the Dominion of Canada.

The *North American Fur Company*, the leading directors of which reside in the city of New York, have long enjoyed the principal part of the Indian trade of the great lakes and the Upper Mississippi. But with the exception of the musk rat, most of the fur-clad animals are exterminated in the vicinity of the lakes. The skins of racoons are of little value, and the beaver is now scarce on this side the Rocky Mountains.

The following is an account of the various skins, furs, and pelts imported into the United Kingdom in 1866:—

	Number	Value
		£
Bear	9,770	14,305
Beaver	191,913	85,491
Coney	841,264	6,075
Deer, undressed	24,418	2,640
dressed	11,579	2,375
Ermine	342,230	28,106
Fisher	5,919	9,028
Fitch	46,541	6,161
Fox, silver	1,584	6,738
Other sorts	108,974	55,136
Goat, undressed	911,080	115,163
dressed	1,895,709	224,923
Kid, undressed	27,016	1,852
dressed	266,885	25,118
Lamb, undressed	1,309,416	59,351
dressed	69,274	5,294
Lynx	40,949	17,044
Marten	111,417	110,452
Musquash	2,118,663	179,197
Nutria	47,706	6,417
Otter, common	18,089	12,250
sea	1,928	14,854
Racoon	408,203	49,047
Sable	3,979	7,350
Seal	515,671	93,719
Sheep, undressed	5,091,352	300,960
dressed	1,761,865	98,840
Squirrel or Calabar	474,474	7,907
Chinchilla	208,454	44,508
Kolinski	71,797	8,917
Wolf	5,886	2,794
Unenumerated furs	2,150,930	68,486

The total computed real value was 1,652,018*l*. In 1861 it was only 979,152*l*.

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The furs from our North American colonies are nearly all imported by the Hudson's Bay Company, by whom they are sold at public sales.

China is one of the best markets for furs. The Russo-American Fur Company were in the habit of carrying a considerable quantity of the furs taken by them in Kamtschatka and what was Russian America to Kiachta, where they were exchanged for tea and other Chinese products.

FUSTIAN (Ger. barchent; Dutch, fustein; Fr. futaine; Ital. fustagno, frustagno; Span. fustan; Rus. bumasea; Pol. barchan). A kind of cotton stuff, wealed or ribbed on one side. The manufacture of this fabric is traceable to the middle ages. 3,096,426 yards of fustians &c., plain and coloured, were exported in 1866, valued at 208,795*l.*

FUSTIC (Ger. gelbholz, fustick; Dutch, geelhout; Fr. bois jaune de Brésil; Ital. legno giallo de Brasilio; Sp. palo del Brasilamarillo). The wood of a species of mulberry (*Morus tinctoria*), growing in most parts of South America, in the United States, and the West India Islands. It is a large and handsome tree: and the timber, though, like most other dye-woods, brittle, or at least easily splintered, is hard and strong. It is very extensively used as an ingredient in the dyeing of yellow, and is largely imported for that purpose. Of 5,933 tons of fustic imported into Great Britain in 1866, 926 tons were brought from Mexico, 1,421 ditto from the British West Indies, 526 ditto from Cuba, 277 ditto from the United States, and 642 ditto from Brazil. Fustic from Cuba or the United States fetches full 30 per cent. more in the London market than that of Jamaica or Venezuela. In 1866 the price of the former varied from 7*l.* 18*s.* 1*d.* to 7*l.* 15*s.* 8*d.* per ton, while the latter varied from 5*l.* 9*s.* 10*d.* to 4*l.* 17*s.* 3*d.* per ton. The consumption amounts to about 6,000 tons a-year. The duty on fustic was abolished in 1845.

Zante, or *young* fustic, is really a species of sumach (*Rhus cotinus*, Linn.), and is quite distinct from the *Morus tinctoria*, or *old* fustic: the latter being a large American tree, while the former is a small European shrub. It grows in Italy and the south of France, but is principally exported from the Ionian Islands and Patras in the Morea. It imparts a beautiful bright yellow dye to cottons &c., which, when proper mordants are used, is very permanent. It is conveniently stowed amongst a cargo of dry goods, as it may be cut into pieces of any length without injury. Only a small quantity of this species of sumach is imported. Its price fluctuates considerably.

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GALACZ or GALATZ. A town of Moldavia, on the left bank of the Danube, between the confluence of the Sereth and Pruth with that river, lat. 45° 25′ N., long. 28° E. It is ill built and dirty, though in these respects it has latterly been much improved. Pop. supposed to amount to from 75,000 to 80,000. The trade of the town is chiefly carried on by Greek merchants; but, within the last few years, various English and other foreigners have formed establishments in it. Though at a considerable distance inland, Galacz is in the best position for becoming the port of the Danube. At present, however, it is little more than the port of Moldavia; Ibraila or Brahilow, about 12 miles farther inland, being the port of Wallachia. The commercial importance of these ports, and indeed of the Danube, dates only from the Treaty of Adrianople in 1829. Previously to that epoch the trade of the Principalities laboured under the most oppressive restrictions, and was principally carried on by land. But all articles of native produce may now be freely exported either by sea or land, on paying moderate duties; and the duties on imports are also, for the most part, comparatively moderate. The probability, indeed, seems to be that Galacz, 'the Alexandria,' as it has been called, 'of the Scythian Nile,' will at no very distant period become a first-rate emporium. The rescuing of Moldavia and Wallachia from Turkish misgovernment has been of signal advantage, and it is to be hoped that they may never again be subjected to its paralysing influence. The establishment of a regular intercourse by means of steam packets between Vienna and Galacz, and thence, by the Black Sea, with Constantinople and Trebizond, has already done a great deal, and will every day do more, to introduce a spirit of improvement into the vast and fertile, but long-neglected, countries traversed by the Danube in the lower part of its course. The capacities of this great river as a commercial highway are certainly unequalled by those of any other European stream, and their full development would be of immeasurable advantage, not merely to the countries on its banks, but to all commercial nations.

Exports and Imports.—Moldavia and Wallachia are very productive provinces, being fruitful both of corn and cattle. The high prices of corn in France, Italy, and England, in 1846 and 1847, gave an extraordinary stimulus to the export trade of Galacz and Ibraila. The exports of wheat from both ports in 1847 amounted to no fewer than 570,978 quarters, worth on board ship 875,603*l.*; the exports of Indian corn during the same year were 937,720 quarters, worth 1,172,150*l.*; and among the other exports were about 320,000 quarters of barley, and 42,000 cwt. of tallow, with a variety of inferior articles. The total value of the exports from the two ports during the above year amounted to the very large sum of 2,368,472*l.*, of which about two thirds were from Ibraila.

The quality of the wheat, which is partly hard and partly soft, was, a few years ago, very inferior, being generally damp, and having an earthy smell from its being kept in pits dug in the ground. Latterly, however, it has been much improved; and the finer samples now fetch, in Marseilles, Genoa, and Leghorn, within from 3 to 4 per cent. of the price of Odessa wheat. In 1852 we imported 86,140 quarters of Wallachian and Moldavian wheat, with no fewer than 626,714 do. Indian corn. In later years the quantity is considerably diminished. In 1866 the imports of wheat were 141,181 cwt., and of Indian corn 604,503 cwt. Both provinces fatten large herds of cattle, particularly Moldavia, which annually sends great numbers to the Austrian states. Tallow may be had in large quantities, its annual produce in Wallachia only being estimated at about 3,000,000 okes, or 8,500,000 lbs. Until within these few years the

tallow shipped at Galacz was burdened with a heavy export duty, which checked its sale, and consequently, also, its growth. This duty, after having been 3 per cent., was abolished in 1861, and was renewed on all exports and imports at 5 per cent. in 1864. The quality of the Danubian tallow is excellent. Among the other articles of export are wool, timber, hides and skins, lard, butter, bristles, bones, jerked beef, linseed, barilla, yellow-berries, coarse cheese &c. Timber of the finest quality may be had in any quantity; but as it can only be advantageously exported in large ships, which cannot when laden make their way over the bar, the trade in it has hitherto been confined within comparatively narrow limits. One, however, would be disposed to think that this difficulty might be obviated by sending down the timber in rafts, and loading outside the bar.

Notwithstanding the recent period at which the navigation of the Danube has been opened, and the barbarous state of the countries in the lower part of its course, the value of the exports from Galacz and Ibraila at present (1868) probably exceeds 1,800,000*l.* a-year, of which from 750,000*l.* to 800,000*l.* may be from the former. But, considerable as this is, it is nothing to what it certainly would be were civilisation to make any considerable progress in the countries traversed by the Danube after it leaves the Austrian dominions, and still more were the river to become, as it naturally is, the principal channel for the conveyance of products to and from Hungary and Transylvania.

The great articles of import are manufactured cotton goods, and cotton twist, principally from England, the demand for which is rapidly increasing; with sugar, coffee, and other colonial products; olives and olive oil, iron and steel, hardware &c.

Entrance to Galacz.—Of the three principal mouths of the river, the Soulina (middle) mouth, in lat. 45° 10′ 30″ N., long. 29° 41′ 20″ E., is the only one accessible by vessels of considerable burden. The depth of water on the bar, at its entrance, ½ mile from the shore, varies from 10 to 13 and 14 feet, according to the season of the year and the direction of the wind. When the latter blows from the E., it is opposed by the current of water flowing from the W., so that the bar is rapidly increased by the deposit thereon of the mud brought down by the river; and when, on the contrary, the current and the wind coincide, the mud is carried out into the sea, and the depth of water on the bar is progressively augmented. The assistance of a powerful dredging machine, or machine fitted to stir up the mud, or other deposit forming the bar during the prevalence of westerly winds, would be of great importance; and it is believed that with its agency the channel might be very materially deepened. Great complaints were made of the state of the navigation of the Danube during 1853. It appears to have been occasioned partly by difficulties arising out of the disputes between Russia and Turkey, and partly by the prevalence of easterly winds. But it would be easy, by erecting a light-house to mark the entrance to the river, and employing a dredging machine and steam tugs, to obviate the physical obstructions to the navigation. From the bar to Galacz and Ibraila there is nowhere less than 18 feet water, and in many places from 60 to 70 feet. Vessels of 300 tons lie close to the quays at Galacz. The shores at the mouth of the river being low, and bordered with reeds and shoals, vessels intending to enter the river generally make the small rocky islet of Phidonisi or Serpent Isle, in lat. 45° 15′ 15″ N., long. 30° 10′ 30″ E., whence the Soulina mouth bears W. by S., distant 23 miles. This island was famous in antiquity for its temple in honour of Achilles, to whom it was sacred. It was called *Leuce*, or the White Island, from the myriads of sea-fowl by which it was usually covered. There seems to be no good foundation for the modern notion of its being infested with serpents. It is singular, however, seeing that it is now annually passed by numbers of European ships, that it should not have been visited by any traveller. It may be expected to contain some remains of antiquity. (Clarke's *Travels in Russia, Turkey &c.* 8vo. ed. vol. ii. p. 394-401.)

According to Mr. Cunningham, the first objects seen, on nearing the shore, are the masts of vessels in the river, and the houses in the town of Soulina, which, however, are very low. Soulina, though only a port of transit, has become, since the navigation of the Danube has been opened, one of the principal shipping ports in the Black Sea. In 1866, 148 vessels, of 58,604 tons, entered the port. Hagemeister says that there is a wooden tower on the south shore at the entrance to the river; but though the contrary has been often affirmed, and its position given in Arrowsmith's map, there is certainly no lighthouse. Lighters are generally stationed without the bar, into which large ships discharge a part of their cargoes; and pilots may generally be obtained from them or other vessels. As the current is sometimes very strong and difficult to stem, a proper establishment of steam tugs at the mouth of the river would be a great advantage. An E. S. E. wind carries a vessel from Soulina to Galacz through all the different reaches of the river; but otherwise the navigation is difficult, and towing is in parts necessary.

Frost usually sets in on the Danube in December, and continues till March. Freights in the ports of the Danube are always from 20 to 25 per cent. higher than in Odessa: premiums of insurance, on the contrary, are not higher than at the latter, except on such vessels as, on account of their size, are obliged to discharge outside the bar.

Money, Weights, and Measures.—These are mostly the same as at CONSTANTINOPLE.

Accounts are kept in piastres and paras. 1 piastre = 40 paras.

Galacz.—Ducat blanc = 44 pia. Silver ruble = 15 pia. Spanish dollar = 19 pia. 32 paras. Turkish yermelik, old coinage = 19 pia. 32 paras; Turkish yermelik, new coinage = 17 pia. 15 paras. Austrian zwanzigers = 3 pia. 5 paras. It is to be observed that when exchanges are so high that it is requisite to remit in specie, any of these coins may go to a premium, according as it suits better than others for the remittance; and when there is want of bills to remit to Austria, the ducat blanc = 44 pia. 20 paras.

Ibraila has two rates of currency; the one for charges, which is the same as in Galacz, and the other for the purchase of merchandise, as follows:—Ducat blanc = 32 pia.; Spanish dollar = 14½ pia.; Turkish yermelik, old coinage = 14½ pia.; Turkish yermelik, new coinage = 12 pia. 28 paras; zwanziger = 2 pia. 12 paras. *Note.*—The same as in Galacz, any of these coins may go to a premium.

Galacz and Ibraila.—All duties are paid in both places, in the course of the Treasury, as follows:—Ducat blanc = 31½ pia.; silver ruble = 10½ pia.; Spanish dollar = 14 pia.; Turkish yermelik, old = 14 pia.; zwanziger = 2¼ pia.

The ducat blanc weighs 1 Turkish drachm.

Exchanges.—Bills can generally be sold on the

following places, and the rates in 1865 were as noted:—

Rates of Exchange.

	Galacz Pias. Par.	
Berlin and Leipsic	14 14	= 1 thaler
London	96 20	= 1*l.*
Marseilles	3 31	= 1 franc
Genoa	3 30	= 1 lira
Amsterdam	8 2	= 1 florin
Hamburg	7 7	= 1 marc banco
Vienna	8 6	= 1 florin

The Galacz piastre has 40 paras.

Weights.—Galacz and Ibraila. 400 drachms = 1 oke. 44 okes = 1 cantar.

Measures.—Galacz and Ibraila. 20 banniza = 1 kilo. The kilo of Galacz to that of Ibraila is as 143 to 232, or 2 Ibraila kilos = 3 Galacz nearly.

Correspondence of Weights and Measures of Galacz with those of Foreign Places.

39½ okes	=	1 cwt. English
78 „	=	100 kilogrammes
44 „	=	100 fund of Vienna
12½ „	=	1 pud of Russia
100 kilos of Galacz	=	143 imperial qrs.
100 „	=	435 hectolitres
100 „	=	425 stajo of Venice
100 „	=	600 sacks of Leghorn
100 „	=	230 chetwerts of Odessa
160 okes linseed	=	1 imperial qr.
55 „	=	1 hectolitre
115 „	=	1 chetwert
1 kilo of Brahilow	=	2¼ imperial qrs.

Note.—These measures generally measure out somewhat less.

Charges on Shipping &c. in Galacz and Ibraila.

Port Charges.—In Galacz anchorage is 30 pia., and a guardian for 5 days' observation 5 pia. per day. In Ibraila anchorage is 17½ pia., and guardian for 5 days' observation 5 pia. per day.

Quarantine.—Vessels generally remain in quarantine during their stay, as little or no advantage is gained by taking pratique.

Vessels wishing to take pratique may obtain it in 14 to 21 days, according to the state of health in Turkey, by taking a Health Office guard on board; or the captain alone may take pratique, the same as any passenger, by going into the lazzaret. When the health of the people is good in Constantinople and along the Danube, quarantine lasts only seven days.

The following quantities of grain were shipped during 1864 from Galacz and Ibraila:—

Articles	Galacz	Ibraila
	kilos	kilos
Wheat	449,100	335,500
Maize	428,000	219,500
Rye	59,500	11,000
Barley	37,300	186,500
Linseed	2,900	1,400
Flour	2,400	7,500
Beans	2,470	3,700
Total	982,170	795,100

At 100 Galacz kilos = 143 qrs., 1,404,503 qrs. At 100 Ibraila kilos = 232 qrs., 1,882,912 qrs. Total 3,287,415 qrs. Besides, 8,100 kilos of millet and 8,400 kilos of rape seed were exported from Ibraila.

There is a continuous increase in the production of petroleum, lumber, wool, and rocksalt from these ports.

Annexed is the estimate given by Mr. Malmros, the United States consul at Galacz, of the value of the articles produced in this district:—

Tallow	per occa	5½	Galacz piastres
Petroleum	per wadra (12 qrs.)	12	„
Wool, Wallachian	per occa	7¼	„
Moldavian	by 100 occa	46 to 56	silver rubles
Cheese	per occa	5	Galacz piastres
Tobacco	„	5	„
Cocoons	„	25	„
Hides	per pair	110	„
Wine	per wadra	12	„
Sheep	each	35	„
100 boards 8 ft. long, 8 in. wide, 1 in. thick		138	„
100 boards 10 ft. long, 10 in. wide, 1½ in. thick		368	„
100 boards 26 ft. long, 10 in. wide, 2 in. thick		552	„

Freights at Galacz.—These vary very much. In June 1864 they were as low as 7*s.* 6*d.* to 8*s.* per quarter from Galacz and Ibraila to England, and from 5*s.* 6*d.* to 6*s.* from Soulina. In the course of the year they rose to 10*s.* 6*d.* from Galacz and Ibraila, and to 8*s.* 3*d.* from Soulina. In general freights may be taken to be 8*s.* 6*d.* per quarter from Galacz to England, 50 florins per last from Galacz to Holland. 450 francs per charge from Galacz to Marseilles.

Duties.—An ad valorem duty of 5 per cent. is levied on all articles, except provisions, imported into, or exported from, the Principalities of Moldavia and Wallachia. Government reserves to itself the power of prohibiting the exportation of any article, but it has to give a month's previous notice of any such prohibition.

Galacz is a free port; that is, a port at which all commodities may be landed, warehoused, re-exported, and consumed in the town, free of duty. Quarantine regulations are strictly enforced, unless performed previously to entering the river.

Ismail and Reni, ports of the Russian province of Bessarabia, are situated on the Danube, and are both, but especially Ismail, a good deal nearer its mouth than Galacz; but they are much less considerable in point of commercial importance. Having little importation, their trade is confined almost entirely to the exportation of corn, and even in this respect they are very inferior to Galacz and Ibraila. They are subject to the Russian duties and regulations.

We have gleaned these particulars from a variety of works, but principally from the valuable *Report* by Mr. Cunningham, printed at Galacz in 1841; the work of Hagemeister *On the Commerce of the Black Sea*, Eng. trans. pp. 83–95 &c.; Purday's *Sailing Directions to the Black Sea*, p. 193 &c.: M. Malmros' *Report for* 1865; and Mr. Vice-Consul Dupuis' *Report on the Trade of Soulina and Toultcha for* 1866.

Pro formâ Invoice of Wheat purchased in Galacz, and put free on board.

		pias.	par.	pias.	par.
Kilos 1,000 wheat at 150 piastres ₩ kilo				150,000	0
Kilos 30 loss on sifting.					
Kilos 970 shipped					
Charges					
Duty on kilos 970, @ piastres 4.—D 31½ = 44		5,419	69		
Town duty, @ paras 10 ₩ kilo		242	50		
Measuring on purchasing, @ paras 6 ₩ kilo		150	0		
Porterage receiving, @ paras 20 ₩ kilo		500	0		
Sifting, @ paras 20 ₩ kilo		500	0		
Cartage in warehouse according to distance, paras 30 ₩ kilo on kilos 970		727	50		
Measuring shipping on kilos 970 @ paras 12		291	0		
Porterage on shipping kilos 970 @ paras 20		485	0		
Cartage on shipping, paras 30		727	50		
Warehouse, ½ per cent.		750	0		
Brokerage, ½ per cent.		750	0		
Scandaglio box for measure		20	0		
Attendance of warehouseman		90	0		
Postage and petty expenses		30	0		
				10,974	19
				160,974	19
Commission, 3 per cent.				4,829	22
Bill brokerage, 1 per cent.				165	96
			pias.	165,969	37

When the grain is shipped direct from the warehouse of the seller, without being transported to the warehouse of the buyer, then the charges will be less by the cartage and porterage passed for that purpose.

When the season is advanced and the streets in bad order, the charges of embarking will be something more.

We may avail ourselves of this opportunity to state that there has been an equal, or even greater, increase in the exports from Bulgaria, independently of those that come down the

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Danube to Ibraila. About 1837 the entire exports of wheat from Varna and the other Bulgarian ports between the Gulf of Bourghas and Kustengi did not certainly exceed 200,000 quarters, whereas in 1847 they amounted to 896,000 quarters. And it is necessary to bear in mind that this is exclusive of the exports, which are very considerable, from Toultcha, a port of Bulgaria, on the Danube, about 40 miles W. of the entrance to the Soulina mouth. Those of Kustengi in 1864 were 502,298 qrs. of wheat and other corn.

Number and Tonnage of Vessels of various Nations Cleared from the Mouth of the Danube, including those loaded in the Harbour of Soulina, in the Year 1863.

Nationality	Vessels	Tons
Austrian, Sailing	211	58,974
Merchant steamers	14	2,500
Steam packets	129	55,066
Danish	1	87
Ecuadorian	1	631
French and Jerusalem, Sailing vessels	30	5,197
Steam packets	43	11,346
British, Sailing vessels	216	57,665
Merchant steamers	31	16,068
Greek	1,075	140,350
Hamburg	1	207
Hanoverian	19	2,559
Dutch	30	4,152
Ionian	172	21,361
Italian	368	81,237
Mecklenburg	11	3,059
Moldo-Wallachian	67	7,912
Norwegian	15	3,631
Oldenburg	5	782
Peruvian	1	414
Prussian	17	3,932
Russian, Sailing vessels	90	12,097
Merchant steamers	1	16
Steam packets	36	4,001
Samos	22	2,467
Servian	3	316
Swedish	2	311
Turkish	486	41,962
American, United States	4	904
Total	3,099	519,332

In 1864 the vessels were 3,330, the tonnage 555,457.

Quantities of the Principal Articles Exported from Moldo-Wallachia in 1863.

Articles		Quantities
Animals:		
Buffaloes	number	1,686
Calves	,,	1,165
Cows	,,	6,356
Goats	,,	8,567
Horses and colts	,,	5,227
Lambs	,,	18,106
Sheep	,,	206,826
Swine	,,	86,847
Bristles	cwt.	1,176
Cheese	,,	6,356
Cocoons of silkworms	lbs.	20,981
Corn:		
Barley and oats	qrs.	563,642
Beans	cwt.	68,116
Maize	qrs.	1,117,240
Millet	,,	34,550
Rye	,,	117,113
Wheat	,,	1,628,940
Fish	cwt.	17,771
Hides	number	101,413
Leeches	lbs.	267
Mats	number	139,569
Prunes, dried	cwt.	1,279
Raki and spirits of wine	gallons	532,020
Rapeseed	cwt.	136,579
Skins:		
Fox	number	672
Goat	,,	86,580
Lambs	,,	355,564
Marten	,,	3,190
Pig	,,	6,351
Sheep	,,	136,285
Tallow	cwt.	22,777
Timber (declared value)	value	£36,595
Tobacco	cwt.	7,117
Vinegar	gallons	10,183
Wine	,,	274,910
Wool, unwashed	cwt.	49,829
washed	,,	23,614

The port of Varna is situated on the W. coast of the Black Sea, at the bottom of a rather small bay, about 8 miles N.W. of Cape Galata, the latter being in lat. 43° 10′ N., long. 27° 58½′ E. Its importance has much increased since its connection by railway with Rustchuk on the Danube. The ordinary anchorage is to the S.E. of the town, in 7 or 8 fathoms, bottom sand and oaze. It is open to all winds between E. and S.S.E. Vessels load and unload by means of lighters, it being dangerous to approach within less than ¼ mile of the shore.

Between Varna and Soulina is the port of Kustengi, which, now that the railway connecting the Danube and the Black Sea via Tchernavodo has been opened, will most probably withdraw much of the trade of Galacz.

Both hard and soft wheat are shipped from Varna, the value of the former being from 30 to 40 per cent. greater than that of the latter. A duty is charged on wheat when exported; and being a fixed duty of about 2*s.* 8*d.* per quarter, it is high when prices are low, and low when they are high.

Mouths of the Danube.—There is a great discrepancy in the statements of ancient authors as to the number of channels by which the Danube poured its waters into the Euxine. (Cellarii *Notitia Orbis Antiqui*, lib. ii. c. 8.) A similar discrepancy exists at this moment; some authorities affirming that it has 4, others 5, and others 6 or 7 mouths. But, as stated above, there are only 3 of any considerable magnitude, viz. the Kilia mouth on the north, and successively the Soulina mouth, and the Edrillis mouth. But, besides these, there are other channels of inferior importance, of which two, *at least*, are still more to the south than the Edrillis mouth. In antiquity the most southerly channel was the deepest, and best suited for the purposes of navigation, and was thence called *Sacrum*. (Cellarius *ut suprà*.) It is not, however, to be wondered at, that, in the course of so many ages, very great changes should have taken place in the channels of the river. It seems probable that the *Ostium Sacrum*, or southern channel of the ancients, may have run between *Carsum*, now Hirchova, and the lake *Halmyris*, now Rassein, which communicates with the Euxine at Kara Kerman, formerly *Istropolis*, and at a point still more to the south. At any rate, there certainly was a channel in the route now pointed out (D'Anville, *Abrégé de la Géographie Ancienne*, tom. i. p. 307); and as it is a good deal more to the south than the Edrillis mouth, with which the *Ostium Sacrum* has been commonly identified, it would seem to have the best claim to the distinction of being synonymous with the latter. This channel is, in fact, still partially open, and it is stated that the Austrian Government has seriously entertained a project for making it navigable. There can be no doubt that if this could be effected, it would be of much importance to the trade with Hungary and the countries on the upper part of the river, by materially shortening the river navigation, and facilitating the transit of ships and goods to and from the Black Sea; but the marshy nature of the ground is said to oppose formidable obstacles to the construction of a canal.

Navigation of the Danube.—Steam navigation was first established on the Danube in 1830, since which the undertaking has gone on prospering—so much so, that the communication between Vienna and Constantinople (partly by steamer and partly by railway) is now well maintained. The Austrian Steam Company, which was the first in the field, have extended their scheme by starting vessels between Vienna and Linz, and a Bavarian Company commenced in 1838 running vessels between Ratisbon and Linz.

Steam boats ply on the Danube as long as the river is free from ice (usually from March or April

to November): Vienna to Pesth, daily; Pesth to Bascasch, once a week; thence to Rustchuk; reaching Galacz on the fourth day from Pesth, or proceeding by railway to Varna. Constantinople may be reached in about the same time.

The journey from Vienna to Constantinople, including stoppages, is performed in less than 5 days. The fare is now (1868) first place, 156 florins (about 15*l.*); second place, 111 florins.

The navigation of the Danube by steamers is unfortunately interrupted for about 50 miles, between Drencova and Gladova, by rocks and rapids, the lowest and most considerable of which is a sort of cataract, called the 'Irongate,' about 3 miles below the Hungarian frontier. It is worthy of remark that the most illustrious of the Roman emperors, Trajan, alive to all the advantages to be derived from the easy navigation of the Danube, had with equal industry and sagacity formed a road, or towing-path, along the river's edge, for facilitating the operation of towing, of which the remains are still extant, with an inscription commemorative of the completion of the works. It has been proposed to overcome the difficulties in the way of the navigation by renovating the old Roman road, and deepening the channel contiguous to it. But it rarely happens that attempts to improve the navigation in the bed of a river, under anything like similar circumstances, are even tolerably successful. The better way, undoubtedly, would be, were it practicable, to construct a lateral canal, or rather a canal from the mouth of the Bereska to Palanka, which would not only avoid the rapids, but also shorten the navigation by getting rid of the bend of the river by Orsova. But the difficulties in the way of such an undertaking, from the nature of the ground, are said to be insuperable; and it is, therefore, probable that the distance of 50 miles along the rapids will continue, if not always, at least for some considerable time, *à portage*. The inconvenience, however, of this break in the navigation has been diminished, as far as possible, by the construction of an admirable carriage road, at great expense, by the Hungarian Diet, from Moldova to Orsova. In the extent of excavations in the rock, and terraces of masonry, upon which it is carried, it is not inferior as a specimen of engineering to the finest roads over the Alps. Several steamers have been transported down these rapids at the season of floods; small barges pass them at all times; and little boats, laden with wax and wool, are towed up by men and oxen. The passengers and goods conveyed by the steamers are transferred from Moldova in row-boats to Gladova, below the Irongate, where they embark on another steamer. (*Geog. Dict.*, art. 'Danube.')

Railways.—A *railroad* is completed from Brunn, the capital of Moravia, to Vienna; another railroad diverges from the Danube at Linz, north to Budweis in Bohemia, where it reaches the banks of the Muldau, and through it communicates with the Elbe; but, as already explained, the railway communication now connecting the Danube and the Black Sea will probably transfer the major portion of the trade of Galacz to Kustengi.

Junction of the Danube and the Rhine.—The long-projected canal to unite the Danube and Rhine, the favourite scheme of Charlemagne, having been undertaken by the Bavarian Government, was completed and opened in 1846. It extends from Bamberg, by Erlangen and Nuremberg, to Neumark, joining the Danube at Kellheim, a few miles above Ratisbon. The distance between the Maine near Bamberg, and the Danube, is about 112 miles; but the actual extent of canal is less, the communication being in part effected by the Regnitz, a tributary of the Maine, and the Altmuhl, a tributary of the Danube. There is now, consequently, an internal communication by water throughout all the vast country stretching from the shores of the Netherlands to the Black Sea; so that produce shipped at Rotterdam or at Galacz may be conveyed from the one to the other in the same vessel.

GALANGAL (Ger. galgant; Dutch and Fr. galanga; Russ. kalgan; Lat. galanga; Arab. kusttulk; Chinese, liang kiang). The root of the *Maranta galanga*, brought from China (where it grows in Shansi, Fuhkien, and Kancha) and the East Indies, in pieces about 1 inch long, and hardly ½ an inch thick. A larger root of the same kind (*Greater Galangal*), an inch or more in thickness, is inferior. It has an aromatic smell, not very grateful; and an unpleasant, bitterish, extremely hot, biting taste. It is used in medicine and cookery, especially curries. Worth about 16*s.* 6*d.* per picul. It should be chosen full and plump, of a bright colour, very firm and sound: 12 cwt. are allowed to a ton. (Lewis's *Mat. Med.*; Milburn's *Orient. Com.*)

GALBANUM (Fr. galbanum; Ger. mutterharz; Ital. galbano; Lat. galbanum; Arab. barzud). A species of gum resin obtained from an unknown plant imported from Africa, especially the Cape of Good Hope, and from Syria and Persia. It is brought to this country from the Levant and India in cases or chests containing from 100 to 300 lbs. each. Galbanum usually appears in the form of masses composed of irregular whitish, reddish, or yellowish tears about the size of a pea, more or less translucent, and generally mixed with pieces of stalk, seeds, or other foreign matters. It is purified by straining.

According to Ludewig, a gum resin described as *Persian galbanum* is received in Russia by the way of Astracan or Orenburg, and is the kind used in that country. It comes enclosed in skins, and is in masses of a reddish brown colour with whitish streaks. It has a strong, disagreeable odour, and an acrid, bitter taste.

Galbanum is used in medicine. (*British Pharmacopœia of the Medical Council*, 1867; Wood and Bache, *United States Dispensatory.*)

GALLIPOLI. A sea-port town of South Italy (Naples), prov. Lecce, on the east shore of the Gulf of Taranto, on a rocky islet at the west extremity of a narrow peninsula, to which it is joined by a bridge; lat. 40° 3′ N., long. 17° 58′ E. It is fortified, has a castle, and is well built. Pop. 9,208 in 1861. It is the principal port of the Mediterranean for the shipment of olive oil, and has, in consequence, a considerable trade.

It is indebted for this distinction, partly to its being situated in a country where oil is produced in the greatest abundance, but more, perhaps, to the circumstance of the cisterns, cut in the limestone rock on which the town is built, being peculiarly well fitted for the preservation of the oil. They do not differ much in appearance from a common water tank. They are usually under the houses of the inhabitants, and arched over, with the exception of a circular hole, into which the oil is poured, and through which it is again drawn up. It will keep in these cisterns for an indefinite period, and is materially improved, not only in clearness, but also in flavour. When the oil is to be shipped, it is drawn off from the cisterns into *uteri* or skins, which are carried on men's backs to the shore, where the casks, being filled, are conveyed in lighters to the ships. [Olive Oil.] Of 23,690 tuns olive oil imported into the United Kingdom in 1866, 13,952 tuns

were from Naples and Sicily, and principally from this port.

Gallipoli has no harbour, but a bay or roadstead N.E. of the town. The latter has from 10 to 12 fathoms water; but it shoals towards shore, and vessels of considerable burden should not come within less than a musket shot of the land. Those that come nearest to the shore moor with their heads to the N.W. with 2 cables out a-head and 2 a-stern in from 16 to 20 feet water. The only danger in entering or leaving the roads is a blind rock at their entrance, about 500 yards N.N.E. from the fort. It has only about from 5 to 7 feet water; and as it is not marked by any buoy, pilots should be employed by foreigners. A tunny fishery is carried on inside the bay, but the nets are easily avoided. Winds from the N. and N.W. throw in a heavy sea.

About 1½ mile W. from the town is the low, flat island of St. Andrea. It is said in Norie's *Sailing Directions for the Mediterranean*, that there is a lighthouse on this island; but, though a lighthouse on it would be of great service to ships making the port, and though it be laid down in some of the charts of this sea, the truth is that none such really exists, nor is there even a tower on the island! There are some lesser islands between St. Andrea and the mainland. There is deep water between the former and the nearest islands, but not between the latter and the town. A dangerous shoal lies about ¼ mile S. of St. Andrea.

Moneys, Weights, and Measures.—Those of Naples, excepting the measure of oil, which in loading is measured in vats of 11 salme, 1 stajo, and 28 pignatti of Gallipoli. The salmas of Naples and Gallipoli are the same, each weighing 165¼ rottoli of clear oil. The difference is in the subdivision: viz.—

1 Salma of Naples	=	16 Staja, or 320 Pignatti.
1 Salma of Gallipoli	=	10 Staja, or 320 ditto.
1 Stajo of Naples	=	20 Pignatti.
1 Stajo of Gallipoli	=	32 Pignatti.
7½ Staja of Gallipoli	=	1 Imp. tun.

The quarantine regulations are the same as those of Naples; but as Gallipoli has no lazaretto, vessels laden with susceptible goods proceed to Brindisi to discharge and perform quarantine, Brindisi having the only lazaretto in the province of Terra di Otranto.

General Remarks.—Masters of vessels loading oil at Gallipoli are obliged to attend at the measurement of the oil, and inspect its quality. They receive for their attendance from the shipper, free of all charges on board, 2 staja, or 2 per cent. (Gallipoli measure), of oil for every 100 salme their vessel loads.

Bills of Lading for a cargo of oil are merely signed by the master with his name, *without any sort of clause.* He, consequently, affirms for the quantity and quality of the oil and casks. All bills of lading are made out in Italian.

In shipments for St. Petersburg, the number, tare, and gross and nett weight of each cask are endorsed on the bill of lading, which is signed by the master and shipper on both sides.

Besides the bills of lading, the master signs receipts in quadruplicate, specifying that a sufficient quantity of wood has been supplied to the stowers for the stowage of his cargo, and that he has received a certain number of empty casks for the purpose of transferring the oil to them, should any leakage take place during the voyage.

Another receipt is signed by the master stating that he has received the custom-house cockets, proving the duty to have been paid on his cargo. The cockets are of service should the vessel put into any other Italian port.

The *Port Charges*, of a public nature, are fixed by the tariff for the kingdom. But there are several port charges of a private nature, such as pilotage, mooring, unmooring, discharging of ballast, and watermen's or interpreter's attendance. These are only paid by foreign vessels, for the Neapolitan traders require no pilot, and having numerous crews, they moor and unmoor their own vessels, and discharge their ballast; and speaking the language of the place, do not require an interpreter, and merely have a person to assist them in getting their clearances from the different offices, whom they pay by private arrangements.

The charges for British vessels are—

	ducats	grs.
Pilotage, entering	4	50
,, clearing	5	50
Mooring and unmooring	16	0
Interpreter's attendance	18	0
Discharging of ballast, for every ton	0	25

N.B.—Vessels of all sizes pay the same charges.

Supplies and Prices of Provisions.—Gallipoli is not a favourable place for obtaining supplies of fresh provisions, and is without any salt provisions, except salted cod, herrings, pilchards, and anchovies.

	grs.		
Bread (rather bad)	4 to	5	per rottolo
Beef (not always to be had)	18	26	,,
Pork (not to be had in summer)	15	18	,,
Lamb and kid	10	12	,,
Fowls	20	30	each
Eggs	12	18	per dozen
Cheese	20	34	per rottolo
Coffee	48	60	,,
Tea (very bad, and sold by apothecaries)	no price		
Sugar (crushed)	36	48	,,
Butter (not to be had).			
Wine (good and strong)	2	6	per caraffa
Biscuit	6	9	per rottolo

Biscuit must be ordered, and is *inferior*. Vessels generally provide this article at Naples, where it is good and cheap.

Vegetables are not abundant at all seasons.

Water. The supply for shipping is copious and excellent, and is conveniently put on board. (*Geographical Dictionary*, art. 'Gallipoli,' with the authorities there referred to; and valuable *private information*.)

GALLON. A measure of capacity, both for dry and liquid articles, containing 4 quarts. By 5 Geo. IV. c. 74, 'the Imperial gallon shall be the standard measure of capacity, and shall contain 10 lbs. avoirdupois weight of distilled water, weighed in air at the temperature of 62° of Fahrenheit's thermometer, the barometer being at 30 inches, or 277·274 cubic inches; and all other measures of capacity to be used, as well for wine, beer, ale, spirits, and all sorts of liquids, as for dry goods, not measured by heaped measure, shall be derived, computed, and ascertained from such gallon; and all measures shall be taken in parts, or multiples, or certain proportions, of the said Imperial standard gallon.' The old English gallon, wine measure, contained 231 cubic inches; and the old English gallon, ale measure, contained 282 cubic inches. Hence the Imperial gallon is about ¼ larger than the old wine gallon, and about $\frac{1}{20}$ less than the old ale gallon. By the 6 Geo. IV. c. 58 s. 6 it is enacted that from and after January 6, 1826, whenever any gallon measure is mentioned in any Act of Parliament relative to the excise, it shall be taken and deemed to be a gallon Imperial standard measure. [WEIGHTS AND MEASURES.]

GALLS or GALL-NUTS (Fr. galles, noix de galle; Ger. gallapfel, gallus; Ital. galle, galluze; Lat. galæ; Arab. afis; Hind. majouphal; Pers. mazu). Excrescences produced by the attacks of a small insect, which deposits its eggs in the tender shoots of a species of oak (*Quercus infectoria*, Linn.) abundant in Asia Minor, Syria, Persia &c. Galls are inodorous, and have a nauseously

bitter and intensely astringent taste. They are nearly spherical, and vary in magnitude from the size of a pea to that of a hazel nut. When good, they are of a black or deep olive colour; their surface is tubercular; they are heavy, brittle, and break with a flinty fracture. They are known in commerce by the names of *white*, *green*, and *blue*. The white galls are those which have not been gathered till after the insect has eaten its way out of the nidus and made its escape. They are not so heavy as the others, are of a lighter colour, and do not fetch so high a price. The green and blue galls are gathered before the insect has escaped; they are heavier and darker than the former, and are said to afford about one third more of colouring matter.

Galls are of great importance in the arts, being very extensively used in dyeing, and in the manufacture of ink, of which they form one of the principal ingredients. They are the most powerful of all the vegetable astringents, and are frequently used with great effect in medicine.

The ancients reckoned the gall-nuts of Syria superior to every other, and they still retain their pre-eminence. They are principally exported from Aleppo, Tripoli, Smyrna, and Said: those brought from the first come chiefly from Mosul, on the western bank of the Tigris, about ten days' journey from Aleppo. The real Mosul galls are unquestionably the best of any; but all that are gathered in the surrounding country are sold under this name. Those from Caramania are of a very inferior quality. The galls met with in India are carried thither from Persia by Arabian merchants.

It is not unusual to dye the whitish gall-nuts blue, in order to increase their value. The fraud is, however, detected by the deeper blue tinge that is thus imparted to them, and by their being perforated and lighter than the genuine blue galls.

In 1866, 17,549 cwt. of galls were imported into the United Kingdom. Of these, 7,016 cwt. came from China and Japan; but the quality of this Eastern produce was low, the average value of the article as derived from these sources being 3*l.* 2*s.* 6*d.* per cwt. After these came the produce of Turkey, the average value of which was 6*l.* 9*s.* 10*d.* per cwt. Bombay galls were worth 5*l.* 14*s.* 8*d.* The price of galls appears to have risen very considerably of late years. In a former edition of this work it was stated that they were worth from 2*l.* 10*s.* to 3*l.* 4*s.* per cwt.: now, with the exception of the Chinese galls, the price hardly falls below 5*l.* 10*s.* (*British Pharmacopœia &c.* 1867.)

GALVESTON. The principal sea-port of Texas, the most southerly of the United States, at the N.E. end of the long, low, narrow island of the same name, on the north shore of the Gulf of Mexico, and on the channel forming the entrance to the bay of Galveston, an extensive inlet of the sea between the N. side of the island and the mainland; lat. 29° 16′ 37″ N., long. 94° 49′ 41″ W. In 1860, before the civil war, the population of Galveston was about 10,000, but has greatly increased since its close, and has been estimated at 20,000 in 1867; that of Texas, having been 604,215 in 1860, is estimated by Mr. Acting-Consul Barnes at from 1,000,000 to 1,200,000 in 1867.

The bar outside Galveston harbour and bay, between the N.E. end of the island and Point Bolivar on the mainland, has not more than 13½ feet water at the highest springs, and but 10 feet at ebb: hence the smaller class of vessels, or those under 200 or 250 tons, are most suitable for the trade of the port, as well as for that of almost all the other ports on the N. and E. sides of the Gulf, the deficiency of water being all but universal. In 1866 the entrance to the harbour was seriously impeded by the dangerous accumulation of sand on the inner bar; but a Board of Survey having been appointed by the Government, this defect no doubt has been remedied as far as possible. Though the land be low, the houses of Galveston may be seen from the masthead at a distance of several miles. Vessels drawing 8 feet water and upwards should, however, not approach the bar nearer than 6 fathoms without heaving to and making the signal for a pilot, which is promptly attended to. Vessels drawing less than 8 feet water may approach the bar till the water shoals to 4 fathoms before heaving to. Vessels making the port in the night should invariably anchor in 5 or 6 fathoms; and the holding ground being excellent, those who are well found in anchors and cables have nothing to fear. Pilot boats are constantly on the look out, and ships should on no account attempt crossing the bar till they have got a pilot on board. In the harbour there is from 18 to 30 feet water. The bay, which stretches about 35 miles from N. to S., and from 12 to 18 miles from E. to W., has not generally more than 9 feet water, and is intersected by a bar: this bar has increased of late years, so as to be dangerous to vessels drawing more than 9½ feet of water, except during a high flood tide. (Kennedy's *Texas*, i. 29.) Several very considerable rivers have their embouchures in the bay, so that the town has a considerable command of internal navigation.

The great articles of export from Galveston, and, indeed, from Texas, are cotton, provisions, cattle and other stock, hides and skins, furs, bullion from Mexico &c. The articles of importation consist principally of cotton and other manufactured goods, hardware, agricultural implements and machinery, powder and shot, salt, coal &c.

This trade has, however, greatly increased of late years. The exports to foreign countries in 1866 amounted to 2,002,429*l.* in value, nearly the whole of this being cotton, while the exports coastwise amounted to 2,759,893*l.*, of which the chief article was cotton, and the next in importance wool.

The following was the average price of sundry articles between Jan. 1, 1866 and Jan. 1, 1867:—

		£	s.	d.
India bagging	per yard	0	1	0½
Butter	per lb.	0	1	8
Cheese	,,	0	0	10
Coffee, Rio, fair	,,	0	0	10½
Corn, Indian, white	per 56 lbs.	0	4	1
Cotton, middling	per lb.	0	1	1½
Flour, extra	,,	0	0	5½
Hides, dry	,,	0	0	4
Pork, mess	per 200 lb. barrel	5	4	11½
Potatoes	per barrel	0	14	3½
Rice, Carolina	per lb.	0	0	5
Salt, Liverpool, coarse	per sack	0	7	3
Sugar, Texan	per lb.	0	0	5

Between September 1, 1865, and September 1, 1866, 150,000 hides, at an average 22 lbs. each, 25,630 bales of wool averaging 500 lbs. each, and 20,800 horned cattle were exported from the Texan ports.

Moneys, Weights, and Measures same as those of the United States. [New York.]

Shipping.—In 1866 there were 92 vessels, of 23,229 tons, engaged in the foreign, and 1,283 vessels, of 447,795 tons, engaged in the coasting, trade of Galveston.

Charges on Shipping in the Ports of Texas.

Tonnage Duty.—All sailing vessels entering any port of the State from any foreign port or place are chargeable with a tonnage duty of 60 cents per ton, and steam boats with 30 cents, according to registered tonnage.

Entrance.—Any ship or vessel of less than 100 tons burden pays 1½ dol.; of 100 and upwards, 2½ dols.

Clearance.—For every clearance of vessels of the above-mentioned burden, the same fees respectively:—

	dols.	cents.
Port entry	2	0
Permit to land goods	0	20
Bond taken officially	0	40
Permit to land goods for exportation, that may be entitled to debenture or official certificate	0	40
Bill of health	0	20
For every document (registers excepted) required by any merchant, owner, or master of any ship or vessel not before enumerated	0	20

Rates of Pilotage at Galveston.—On all vessels drawing less than 8 ft. water, 2 dols. 50 cts. per ft. On all vessels drawing 8 ft. and over, 3 dols. per ft.

Any pilot that may be detained waiting on any vessel bound for sea, or any vessel that may be prevented from entering the port by contrary winds or otherwise, shall be entitled to receive 3 dols. per day for each day he may be detained after the first 24 hours.

Any pilot taking charge of a vessel in distress from loss of anchors, spars, or rudder, shall receive such extra compensation as in the opinion of the collector of customs the circumstances of the case may require; the same to be awarded by the collector after hearing the parties.

Any pilot speaking a vessel outside the bar, inward bound, or any vessel inside the bar, outward bound, and offering his services, shall be entitled to full pilotage, whether those services be accepted or not.

Any pilot speaking a vessel, inward bound, inside the bar, shall, if his services be accepted, be entitled to half pilotage; but if his services be not accepted, he shall not be entitled to any pilotage.

Any vessel, after waiting outside the bar for four hours with a signal for a pilot flying, may enter port free of all pilotage charges.

Any pilot boarding a vessel 15 miles from shore shall be entitled to 25 per cent. more than the regular rates for off-shore pilotage.

Consignees are, in all cases, liable for the pilotage of vessels consigned to them, and no vessel is permitted to go to sea until all pilotage has been paid.

Pilotage Regulations at Galveston.—The collector of customs at Galveston is authorised to appoint as many pilots as may be necessary for the shipping, with power of suspension and dismissal, requiring bond with good security in the sum of 10,000 dols. for the faithful performance of duties; without which appointment it is not lawful for any person to exercise the calling of a pilot.

Each branch pilot may appoint two deputies, for whose acts he is responsible: these appointments are subject to the approval of the collector.

Any pilot or deputy taking charge of a vessel while in a state of inebriety forfeits his appointment. Any pilot wilfully or negligently losing any vessel is to be dismissed, and is, with his sureties, liable to the party injured for all damages sustained by reason of his misconduct.

Any branch or deputy pilot, who fails to board with promptitude a vessel in need of his services, is, for the first offence, subject to the penalty of suspension for three months, and for the second to forfeiture of his appointment; and any pilot who for any cause whatever forfeits his branch, or appointment, is ever afterwards held incapable of filling any office of the kind.

The tariff in force in Texas is, of course, that of the United States, and the rules and regulations observed in regard to the importation and exportation of goods in other parts of the Union are observed here.

Probable Progress of Texas.—In a former edition we stated that our anticipations of the future progress of this newly-formed State are not so sanguine as those that seem to be commonly entertained. The country, no doubt, is, speaking generally, highly productive, well watered, and well situated for commerce; but the climate, especially in the lower and more fertile districts, is too hot and relaxing, and the land too fruitful, to permit or require vigorous cultivation by free labourers. Had the importation of slaves into Texas been permitted, its progress might, and most probably would, have been as rapid as that of the other southern States of the American Union; but their importation being prohibited, if the prohibition be really enforced, its progress will, we apprehend, be comparatively slow. It is a contradiction and an absurdity to suppose that free settlers in such a country should exhibit any considerable portion of the energy and industry they would exhibit if they had to cultivate a less fertile soil, or were placed under a severer climate. Mexico and the Northern United States may both be referred to in illustration of this principle: industry is, in the former, at the lowest possible ebb (*Geographical Dictionary*, art. 'Mexico'), though it is needless to add that the incentives to labour are there quite as great as in Texas.

Present State of Texas.—It should, however, be mentioned that Mr. Acting Consul Barnes speaks favourably of the prospects of Texas. The soil is, in so vast a country, of very varied character, and available for various agricultural products, as well as for the breeding of stock. The cotton region is one third of its area, and the soil is admirably suited for this staple, producing at the rate of a bale (500 lbs.) the acre. The crop of 1866 was 200,000 bales, the average crop before the war having been 300,000 bales. The wheat district is about 27,000 square miles. The produce in 1866 was 7,000,000 bushels against 50,000 in 1850. When certain railroads in course of construction are finished, the produce of this region will be available for exportation. The harvest in Texas too is so early, that wheat may be ground into flour by the beginning of June. Immigrants are pouring into the State, and every effort is being made to induce them to settle.

The cotton and woollen factories are said, on the same authority, to turn out about 11,000 yards per day.

GAMBIR or GAMBIER. A Malay name for the extract obtained from the leaves of *Uncaria Gambir*, a plant found in the islands of the East Indian Archipelago. The chief value of this substance is its use in tanning. [CATECHU.] The imports of gambier in 1866 were 12,845 tons, valued at 311,783*l.*

GAMBOGE (Fr. gomme gutte; Ger. gummigutt; Ital. gomma gutta; Span. gutta gamba; Lat. gummi guttæ, cambogia; Arab. ossararewund; Siamese and Cambojan, rong). A concrete vegetable juice, or gum resin, obtained from *Garcinia Morella*. (*British Pharmacopœia*, 1867.) The gamboge of commerce is derived from Siam and Cochin China. The juice is procured in Siam by breaking off the leaves and shoots of the tree from which the juice issues in drops. These are collected, and when a requisite consistence has been attained the substance is rolled into cylinders. Sometimes it is poured into the hollow joints of bamboos; and as the resin solidifies in a cylindrical form, it becomes hollow in the centre by contraction. The name was taken originally from the province of Cambodia. When pure, the resin is completely soluble in ether and water. Specific gravity 1·221. It is often adulterated, and especially with farinaceous substances. Its chief use is as a pigment, but it is also employed in medicine as an energetic cathartic. 26 cwts. of gamboge were imported into the United Kingdom in 1866, the computed value of which was 635*l.*, i.e. upwards of 24*l.* per cwt.

GARNET, GARNETS (Fr. grenats; Ger. granaten, granatstein; Ital. granati; Lat. granati.

Russ. granatnoi kamen; Span. granadas). There are several varieties of this gem, of which those used in jewellery are the carbuncle, the cinnamon stone, the almandine, and the pyrope or Bohemian garnet. The chemical composition of the garnet is silica and alumina, with protoxide of iron, the latter in considerable quantity.

The term carbuncle is applied to garnets when they are cut en cabochon, i.e. not in facets, but with a flat or hollow base, and a smooth convex top.

The Syrian or Oriental garnet (so called from Syrian, the capital of Pegu) is brought from India, Pegu, Ceylon, and Brazil. The pyrope is found in Bohemia and Saxony. Good carbuncles, large, free from spots, and pure, are worth as much as 20*l.* each. Bohemian garnets are worth much more in Austria than elsewhere, a necklace of beads about the size of peas selling for 60*l.* (Emanuel *On Diamonds*, &c. 2nd edition.)

GAS COMPANIES. The term usually applied to designate the companies or associations established in most large towns for lighting the streets and houses with gas.

Every one must have remarked that most species of coal, when ignited, give out large quantities of gas, which burns with much brilliancy, yielding a great quantity of light as well as of heat. Dr. Clayton seems to have been the first who attempted, about 1736, to apply this gas to the purposes of artificial illumination; but his experiments were upon a very small scale, and no further attention was paid to the subject till more than half a century afterwards. At length, however, Mr. Murdoch, of Soho, instituted a series of judicious experiments on the extraction of gas from coal; and, by his ingenuity and sagacity, succeeded in establishing one of the most capital improvements ever made in the arts. Mr. Murdoch found that the gas might be collected in reservoirs, purified, conveyed by pipes to a great distance from the furnace where it was generated; and that it affords, by its slow combustion, when allowed to escape through small orifices, a beautiful and steady light. This great discovery, which places Mr. Murdoch in the first rank among the benefactors of mankind, was first brought into practice at Redruth, in Cornwall. In 1802 it was applied to light Mr. Murdoch's manufactory at Soho; in 1805 it was adopted by Messrs. Philips and Lee, of Manchester, in the lighting of their great cotton mill; and is now employed in the lighting of the streets, theatres, and other public buildings, factories &c. of *all* the considerable and most of the small towns of the empire, and also in most considerable towns of the continent and America, Australia &c.

Gas light is indebted, for its rapid diffusion, not more to its peculiar softness, clearness, and unvarying intensity, than to its comparative cheapness. According to Dr. Thomson (*Encyc. Brit.*, art. 'Gas Lights'), if we value the quantity of light given by 1 lb. of tallow in candles at 1*s.*, an equal quantity of light from coal gas will not cost more than 2¾*d.*, being less than a *fourth part* of the cost of the former.

Oil and other substances have been used in furnishing gas for the purpose of illumination, but none of them has answered so well as coal. Most of the oil gas establishments have been abandoned.

The construction of gas works on a large scale, and the carrying of pipes through the streets and into houses &c., are very expensive, and require a large outlay of capital. Hence most of the gas lights in the different towns are supplied by joint-stock companies. Many of them have turned out to be very profitable concerns.

The subjoined table contains a statement of the most important particulars connected with the principal gas companies, obtained under Parliamentary authority in 1866. It shows the rates per 1,000 cubical feet charged for gas by the principal gas companies in the United Kingdom in 1865, with the amount of their capital at that date, the rate per cent. of dividend payable on the capital, and the price of coal per ton used by the companies. (Extracted from *Parl. Paper* No. 486, Sess. 1866.)

Names of Companies	Rates per 1,000 Cubic Feet at which the Gas is supplied at the latest Date	Price of Coal per Ton at the latest Date	Amount of paid-up Capital at the latest Date	Rate per Cent. of last Dividend
London.	*s. d.* *s. d.*	*s. d.*	£ *s. d.*	
Chartered	4 6 and 6 0	17 7½ including Boghead and Cannel	780,000 0 0	10 per cent. and 1½ for arrears
City of London	4*s.* 6*d.* common, and 6*s.* cannel	15 4½	380,000 0 0	10*l.* on 280,000*l.*, and 4*l.* on 100,000*l.*
Commercial	4*s.* 5*d.* until March 31, 1865, and then reduced to 4*s.*	17 3	450,000 0 0 Paid up capital, 437,190 0 0	10 per cent.
Equitable	6*s.* and 5*s.* 6*d.* cannel, 4*s.* 6*d.* and 4*s.* common	14 9½ Newcastle; 27 3½ Cannel; 48 4 Boghead	300,000 0 0	,,
Great Central	4*s.* 6*d.*	16 9½	200,000*l.* shares; 66,000*l.* debentures	,,
Imperial	4*s.* 6*d.* maximum, to June 30; and from June 30, 4*s.*	16 0½	1,300,000*l.* shares; 403,000*l.* debentures	,,
Independent	To Lady-day, 4*s.*; to Michaelmas, 3*s.* 9*d.*; and since Michaelmas, 3*s.* 4*d.*	16 5	255,000 0 0	10 per cent. on original shares; 7½ per cent. on new shares
London	4*s.* 6*d.* and 5*s.* common, 6*s.* cannel	32 10	562,585 0 0	6*l.* on 197,372*l.*, 5*l.* on 11,702*l.*, and 10*l.* on 349,050*l.*
Phœnix	Town, 4*s.*; country, 4*s.* 3*d.*	15 3	Fixed Capital £540,000 / 54,000 / 144,000; Bonds 114,836; Total £852,836	10 per cent. per ann. / 7½ ,, ,, / 5 ,, ,, / 5 ,, ,,
Ratcliff	4*s.* 6*d.*	15 8½	100,000 0 0 Exclusive of the borrowed money	10*l.*, and 1*l.* 15*s.* 5*d.* arrears
South Metropolitan	3*s.* 8*d.* to Midsummer, then 3*s.* 4*d.*	15 4	200,000 0 0	10 per cent.
Surrey	4*s.* 6*d.*	15 3	100,000 0 0	10 per cent., and 2 per cent. for back dividends
United General	4*s.* 9*d.*	17 2	450,000 0 0	4½ per cent.
England and Wales.				
Accrington	—	14 0	115,811 13 3	6½ per cent.

Table as to Gas Companies—continued.

Names of Companies	Rates per 1,000 Cubic Feet at which the Gas is supplied at the latest Date	Price of Coal per Ton at the latest Date	Amount of paid-up Capital at the latest Date	Rate per Cent. of last Dividend
		s. d.	*£ s. d.*	
ENGLAND AND WALES—continued.				
Ashton	4*s.* small consumers; 3*s.* 2*d.* large consumers	11 9 including carriage	60,000 0 0	10 per cent. upon old capital, but only about 5 per cent. on new capital
Birkenhead	5*s.* in Birkenhead and Claughton; 5*s.* 6*d.* in other places	15 6	133,313 10 4	No dividends are paid; price reduced when profits admit
Birmingham	2*s.* 6*d.*, 2*s.* 9*d.*, and 3*s.*, with 5 per cent.	11 10	Share capital £248,400 Loan „ 40,950 Total £289,350	9 per cent. on old capital, 7½ on new capital, and 4 and 4½ per cent. on loan capital
Blackburn	3*s.* 9*d.* to 4*s.*	14 0 Wigan canned only	Original and A shares, 90,000*l.*; B shares, 41,664*l.*	A shares, 10 per cent.; B shares, 7½ per cent.
Bolton	3*s.* 6*d.* in the borough; 3*s.* 6*d.* to 5*s.* out of the borough	14 6 Cannel	187,687 10 0	10 per cent. on old shares, and 6½ per cent. on new
Bradford	3*s.* 4*d.* to 2*s.* 8*d.*; from July 1, 3*s.* to 2*s.* 5*d.*	9 10½	65,000 0 0	10 per cent.
Brighton and Hove	To June, 1864, 5*s.*	16 7	100,000 0 0	„
Bristol	3*s.* 6*d.*	8 6	200,000 0 0	9½ per cent.
Burnley Corporation	3*s.* 6*d.*, the maximum price fixed by the Act	9 6	51,326 0 0	2,800*l.* annual nett profit
Cambridge	4*s.* 6*d.*	13 8½	35,000 0 0	10 per cent.
Canterbury	4*s.* 3*d.*	17 3	22,500 0 0	6 per cent. per annum
Cardiff	3*s.* 3*d.* to 2*s.* 9*d.*	9 6 Coal; 24 0 Cannel	61,549 2 5	20,000*l.* at 10 per cent.; remainder at 8 per cent.
Carlisle	3*s.*	10 1	Value of works, July 1, 1865, 27,000*l.*; debt, July 1, 1865, 15,698*l.*	—
Cheltenham	Cheltenham: 3*s.* 9·6-10*d.*, 3*s.* 6·3-4*d.*, 3*s.* 3·9-10*d.* Out parishes: 4*s.* 9*d.*, 4*s.* 3·3 10*d.*	14 17-10	25,000 0 0 35,000 0 0	10 per cent. 7½ per cent. new
Devonport	3*s.* 9*d.*	16 6 Newcastle; 28 0 Cannel	52,000 0 0	9 per cent. on 35,000*l.* and 5 per cent. on the remainder.
Exeter	4*s.*	17 9	64,600 0 0	8*l.* 16*s.* per cent.
Hartlepool	4*s.* 9*d.*, with discount of 10 per cent. to large consumers	7 9	98,523 0 0	6½ per cent.
Leeds	3*s.* 9*d.*	9 6½	207,605 0 0	6 per cent.
New	3*s.* 9*d.*, maximum, subject to discount on prompt payments as per scale annexed	9 2 June 30 9 7 December 31	201,952 0 0 209,961 0 0	4½ to 10 per cent.
Leicester	3*s.* 1*d.* to 3*s.* 6*d.*	Various prices	110,000 0 0	1*l.* 3*s.* per share on each 15*l.* share of old capital, and 7½ per cent. on new
Liverpool United	3*s.*	Various	754,908 0 0	10 per cent.
Macclesfield	3*s.* 3*d.*, 3*s.* 6*d.*, 3*s.* 9*d.*, and 4*s.*	10 6 Coal 19 0 Cannel	50,000 0 0	4½ per cent.
Newcastle-upon-Tyne and Gateshead	3*s.* 4*d.*	6 4	200,000 0 0	10 per cent. on 160,000*l.* and 5½ per cent. on 40,000*l.*
Northampton	4*s.* 2*d.*	13 3½	58,661 0 0	7*l.* 3*s.* 4*d.*
Nottingham	3*s.* to 2*s.* 9*d.*	11 3	34,500*l.* in loans, subject to interest	5½ per cent.
Plymouth and Stonehouse	2*s.* 9*d.*	16 3	57,500 0 0	10 per cent. on 25,000*l.* and 7½ per cent. on 32,500*l.*
Preston	4*s.* 3½*d.* to 3*s.* 4½*d.*, and reduced to 3*s.* 2*d.* to 3*s.* 4*d.*	About 12 0	150,000 0 0	10 per cent.
Sheffield United	3*s.* 6*d.* and 3*s.*	8 8	338,761 0 0	10 per cent.
Southampton	4*s.* 6*d.*	15 8	100,130 0 0	7½ per cent.
Stalybridge	3*s.* to 4*s.*	18 4	64,000 0 0	10 per cent. on 20,000*l.*, and 8 per cent. on remainder of fixed capital
Sunderland	3*s.* 6*d.* to 3*s.*	7 0	113,600 0 0	8½ per cent.
Wolverhampton	2*s.* 9*d.* and 3*s.*	10 6 to 17 0	85,616 0 0	10 per cent.
York United	3*s.* 6*d.*	9 2	78,000 0 0	„
SCOTLAND.				
Dundee	4*s.* 8*d.*	21 0	65,143 6 1	2*l.* per share
Edinburgh	4*s.* 4*d.* to 3*s.* 7½*d.*	18 8	150,000 0 0	10*l.* per cent.
Edinburgh and Leith	4*s.* 7*d.* to 3*s.* 9*d.*	16 10½	108,000 0 0	8 per cent.
Glasgow, City and Suburban	4*s.* 2*d.*	13 0	200,000 0 0	10 per cent. on old and 7½ per cent. on new stock
Glasgow	4*s.* 2*d.*	14 6½	190,000 0 0	10 per cent. on 150,000*l.*, and 7½ per cent. on 40,000*l.*
IRELAND.				
Belfast	3*s.* to 3*s.* 9*d.*	15 2	126,270 0 0	10*l.* per cent. on old capital, and 7*l.* per cent. on new

GELATINE. The name Gelatine is used to include gluten, derived from the skin, tendons, and bones of adult animals, and choridin, which is obtained from the cartilages and bones of young animals. Gelatine is used in various degrees of purity, for alimentary purposes, and in the arts. The manufacture of gelatine is all but universal, though the best and purest is stated to come from France. It is used in photography and confectionery, and for sizing paper.

Isinglass, glue, and size are various forms of gelatine. [ISINGLASS.] The imports of gelatine in 1866 were 186 cwt., worth 781*l.*; and the exports 27 cwt., of the value of 113*l.*

GENEVA (Dutch, genever; Fr. genièvre; Ger. gaud, genever; Ital. acqua di ginepro; Lat. juniperi aqua; Span. agua de enebro). A spirit obtained by distillation from grain, rectified with the addition of juniper berries. The latter give to the spirit that peculiar flavour by which it is distinguished, and are also said to render it diuretic. Geneva is a corruption of *genièvre*, the French term for the juniper berry.

By far the best geneva is made in Holland, where its manufacture is carried on to a very great extent. The distilleries of Schiedam have long been famous, and are at present in a very prosperous condition. Schiedam geneva is made solely of spirit obtained from rye and barley, flavoured with juniper berries. It becomes milder, and acquires, as it gets old, an oily flavour disliked by the Hollanders: hence nearly the whole of the 'Schiedam' is exported, and principally to the East Indies. The entire annual produce of the distillery in Holland has been estimated at 2,000,000 ankers, or 20,500,000 wine gallons, of which about two-thirds are exported. (Cloet, *Description Géographique des Pays Bas*, p. 32.)

In nothing, perhaps, has the destructive effect of heavy taxation been so strongly exhibited as in the trade of geneva. It appears from the *Parl. Paper* No. 248, Sess. 1826, that during the ten years ending with 1786, when the duty on geneva was about 10*s.* per wine gallon, the average annual consumption in Great Britain amounted to about 80,362 gallons. But in 1786 Mr. Pitt reduced the duties to 5*s.* per gallon; and the effect of this wise and politic measure was such, that in the next decennial period the average imports for home consumption amounted to 444,891 gallons. From 1796 to 1806 the duties fluctuated from 7*s.* 6*d.* to 14*s.*; but as the taste for geneva had been formed, and as the duties on other spirits had been increased in about the same proportion, the consumption went on increasing, having been, at an average of the 10 years, as high as 724,351 gallons a-year. This was the maximum of consumption. Mr. Vansittart soon after began his inauspicious career, and immediately raised the duty from 14*s.* to 20*s.* 8*d.*, the consequence of this increase being, that in the 10 years ending with 1816 the average consumption amounted to only 272,898 gallons. Since then the duties continued stationary down to 1846 at 22*s.* 10*d.* the Imperial gallon on an article which might have been bought in bond for 3*s.* 6*d.* or 4*s.* 6*d.* The duties on rum and British spirits having been afterwards materially reduced, the consumption of geneva went on progressively diminishing, till it amounted, as appears from the subjoined official statement, in 1845, to no more than 13,913 gallons; being only *one fifty-third* part of what it amounted to during the 10 years ending with 1806. The estimated value in bond for all the geneva imported in 1865 was 1*s.* 8½*d.* per gallon.

To make any lengthened commentary on such statements would be useless. Our policy, if we may apply this term to so revolting a display of short-sighted rapacity, had no other effect than to lessen the public revenue and enjoyment of the people, to injure our trade with Holland, and to foster and promote the ruinous and destructive practice of smuggling. The exorbitant duties on geneva, brandy, and tobacco led to the formation of the coast guard and the preventive water guard, costing together for many years about 360,000*l.* per annum; and yet, notwithstanding this outlay, and notwithstanding the innumerable penalties and punishments to which he is exposed, the trade of the smuggler was not put down, but continued, on the contrary, in a peculiarly flourishing condition.

At length, in 1846, Sir Robert Peel did for geneva what he did for brandy, that is, he reduced the duty from 22*s.* 10*d.* to 15*s.* per gallon. In 1860 a uniform customs duty of 10*s.* 5*d.* was laid on Foreign spirits, so as to equal in amount the excise duty on British spirits: this wise measure has had the best effect, as will be seen from the subjoined table.

The regulations as to the importation &c. of geneva are similar to those affecting BRANDY.

An Account of the Number of Gallons (Imperial Measure) of Geneva Entered for Home Consumption in Great Britain and Ireland, the Rates of Duty on the same, and the entire Nett Produce of the Duty, in certain Years since 1826.

Year	Quantities retained for Home Consumption			Nett Produce of Duty			Rates of Duty per Imperial Gallon					
	Britain	Ireland	United Kingdom	Britain	Ireland	United Kingdom	Great Britain			Ireland		
	imp. gal.	imp. gal.	imp. gal.	£	£	£	£	s.	d.	£	s.	d.
1826	67,079	2,081	69,160	75,553	2,337	77,890	1	2	6	1	2	6
1830	29,006	1,793	30,799	32,650	2,018	34,668		—			—	
1835	18,026	1,622	19,648	20,330	1,826	22,156		—			—	
1841	14,203	1,218	15,421	16,348	1,391	17,739		1	2 10		1	2 10
1846	37,398	2,495	39,893	28,463	1,930	30,393	to March 18	1	2 10		1	2 10
							from March 18	0	15 0		0	15 0
1847	26,191	2,506	28,800	19,652	1,955	21,607		0	15 0		0	15 0
1850	25,524	2,713	28,237	19,145	2,035	21,180			—			—
1856	—	—	27,312	—	—	29,496			—			—
1865	—	—	117,465	—	—	61,178	July 17, 1860	0	10 5		0	10 5

GENOA. A maritime city of Italy, once the capital of the famous republic of that name, now of a province of the kingdom of Italy, at the bottom of the extensive gulf to which it gives its name; the light-house being in lat. 44° 24′ 18″ N., long. 8° 54′ 24″ E. Population, in 1862, 127,986. Genoa is one of the finest cities of Europe. In general the streets are inconveniently narrow; but some of the principal ones are moderately wide, and consist almost entirely of public buildings, and private palaces erected during the period of her prosperity. Being built on a rising ground, in the form of an amphitheatre, the appearance of the town from the sea is most magnificent, and justifies the epithet given to her of *la Superba*.

Port.—The harbour is semicircular, the diameter being about 1,000 fathoms. It is artificial, being formed by 2 gigantic moles having opposite directions. That on the east side, called the old mole (*molo vecchio*), projects from the centre of the city W. by S. It is about 260 fathoms in length, and has a battery near its middle. The new mole (*molo nuovo*), on the opposite side of the port, adjoins the southern extremity of the suburb of St. Pietro d'Arena, projecting about 210 fathoms from the shore in an E.S.E. direction. The heads of the moles bear from each other N.E. by E., and S.W.

by W., the distance between them, forming the entrance to the harbour, being about 350 fathoms. The light-house is without the port, on the west side, near the extremity of a point of land, and contiguous to the bottom of the new mole. It is a lofty square tower; and as it stands on a high rock, and is painted white, it is visible in clear weather at a great distance. There is also a harbour-light, formerly at the extremity of the new mole; but as this mole has been lengthened 80 feet, the harbour-light will no doubt be moved farther out, otherwise the danger to vessels entering at night would be great. There is no difficulty in entering the harbour; the ground is clean, and there is plenty of water, particularly on the side next the new mole: care, however, must be taken, in coming from the west, to give the light-house point a good offing. Moderate sized merchantmen commonly anchor inside the old mole contiguous to the *porto franco*, or bonded warehouses, having a hawser made fast to the mole, and an anchor ahead. Men of war and the largest class of merchantmen may anchor inside the new mole, but they must not come too near the shore. Ships sometimes anchor without the harbour in from 10 to 25 fathoms, the light-house bearing N. ½ W.; distant 2 or 3 miles. The S.W. winds occasion a heavy swell, but the bottom is clay, and holds well. Within the town are 2 rather shallow basins designed for galleys and small trading vessels. There is also an arsenal.

Money.—Accounts were formerly kept at Genoa in lire of 20 soldi, each soldo containing 12 denari, and money was divided into *banco* and *fuori di banco*. But since January 1, 1827, the ancient method of reckoning has ceased, and accounts are now kept in lire Italiane, divided into cents. The weight and fineness of the new coins are precisely the same as those of France; so that the par of exchange = 25·20 lire per 1*l.* if estimated in silver at 5*s.* 2*d.* per ounce, and 25·54 if estimated in silver at 5*s.* per ounce: 6 old lire di banco are equal to 5 new lire very nearly. (*Manuel de* Nelkenbrecher.) The Monetary Convention of December 23, 1865, concluded between France, Belgium, Switzerland, and Italy will no doubt affect the mercantile accounts of Italy in process of time.

Weights and Measures.—Those formerly in use in Genoa are described in the previous editions of this work. In 1847 the French system of weights and measures was introduced, the only difference being the substitution of Italian for French names. Thus, the *chilogramma* (kilogramme) = 2·2 lbs. avoirdupois (50¾ chilogrammas being very nearly equal to 112 lbs. avoirdupois); the *libbra* (livre), or pound = ½ chilogramma = 1·1 lb. avoirdupois; the *quintale centinajo*, or hundredweight = 220 lbs. avoirdupois; and the *ettolitro* (hectolitre) liquid measure = 22 imperial gallons; ditto dry measure = 2¾ imperial bushels; the *metro* (metre) = 39·37 inches &c. A barrel of oil = 59½ chilogrammas = 14½ imperial gallons. All tares of usage were abolished at the same time that the French metrical system was introduced.

The *Bank of Genoa*, or of St. George, was one of the most ancient and celebrated banks of circulation and deposit in Europe. Until 1746, when the bank was pillaged by the Austrians, it was customary to make all bills of exchange drawn upon Genoa payable in *banco*; but since then they have generally been made payable in money *fuori di banco*. In 1800, when the French were besieged in Genoa by the Austrians, they took the treasure of the bank to pay their troops. The establishment has never recovered from this blow; some warehouses and a part of the town's revenue were assigned to it, but they yield a very poor dividend. It is no longer used as a place of deposit for money.

In 1844 a new bank was established in Genoa, which being united in 1855 to a bank that had been established at Turin in 1847, has the title of National Bank (*Banca Nazionale*). Its capital amounts to 32,000,000 lire, in shares of 1,000 lire each. It is authorised to issue notes of the value of 1,000, 500, 250, 100, 40, 25, 10, and 5 lire. The amount of its notes in circulation and debts payable on demand were down to 1866 limited to 3 times the amount of the coin in its coffers. But the crisis of that year led unfortunately to the introduction of an inconvertible paper currency. The bank discounts mercantile paper, and transacts all kinds of ordinary banking business. It has branches at Turin and other places.

Account of the Quantities and Computed Values of the Principal Articles the Produce of Sardinia (including the Island) Imported into the United Kingdom in 1865–66.

Articles		Quantities		Computed Real Value	
		1865	1866	1865	1866
				£	£
Bark, for tanners' or dyers' use	cwt.	24,581	26,033	10,263	10,739
Bones of animals and fish (except whalefins)	tons	2,672	2,672	14,996	13,275
Cheese	cwt.	51	181	179	717
Copper ore	tons	1,614	980	17,271	9,662
Coral, in fragments	lbs.	2,000	2,684	604	872
Corn: Wheat	cwt.	3,20,795		1	10,135
Cream of tartar	,,	140	331	600	1,448
Gunstocks in the rough, of wood	,,	1,842	3,804	4,175	8,622
Hemp	,,	1,083	4,848	2,001	9,784
Hides, not tanned	,,	711	—	1,286	—
Lard	,,	267	3,044	914	10,116
Lead, ore	tons	4,154	6,540	45,336	73,908
Leather manufactures	value	—	—	655	—
Madder root	tons	—	18	—	27
Oil, Olive	tuns	482	500	24,663	16,409
Chemical, essential, and perfumed	lbs.	5,109	13,034	1,276	6,815
Oil-seed cake	tons	691	1,052	5,433	8,287
Paper and pasteboard	cwt.	24	132	91	247
Rags and other materials for making paper	tons	23	13	521	290
Rice, not in the husk	cwt.	3,889	8,531	3,587	7,625
Seeds, Clover	,,	2,610	2,489	2,522	8,400
Grass	,,	1,033	409	3,034	550
Stone: marble in rough blocks or slabs	tons	2,675	1,822	20,063	13,666
Vermicelli and maccaroni	cwt.	4,604	5,358	12,258	15,986
Walnut wood	tons	1,798	2,004	18,292	18,509
All other articles	value	—	—	25,720	73,676
Total		—	—	222,515	319,795

Trade &c.—Genoa is the entrepôt of a large extent of country; and her commerce, though inferior to what it once was, is very considerable, and has latterly been increasing. She is a free port; that is, a port where goods may be warehoused and exported free of duty. The exports consist partly of the raw products of the adjacent country, such as olive oil (an article of great value and importance), rice, vermicelli, hemp, rags, argol &c.; partly of the products of her manufacturing industry, such as silks, damasks, and velvets (for the production of which she has long been famous), thrown silk, paper, soap, works in marble, alabaster, coral &c.; the printed cottons of Switzerland, and the other products of that country and of the western parts of Lombardy, intended for the south of Europe and the Levant; and partly of the various foreign products brought by sea and placed in *porto franco*. The imports principally consist of cotton, cotton stuffs and yarn, iron and hardware, linens and woollens, machinery, copper, coals &c. from England; cotton wool, mostly from Egypt; corn from the Black Sea, Sicily, and Barbary; sugar, spices, coffee, cochineal, and indigo; hides; naval stores from the Baltic; codfish, wool, tobacco, lead (principally from Spain), wax &c. Corn, barilla, Gallipoli oil, cotton, valonia, sponge, galls, and other products of the countries adjoining the Black Sea,

Sicily, the Levant &c. may in general be had here, though not in so great abundance as at Leghorn. The abolition of the various duties and custom-house fees formerly charged on the transit of goods through Genoa and the Sardinian territories has had a very beneficial influence on the trade of this port, particularly as regards the importation of raw cotton for Switzerland and Milan, as well as of the different descriptions of colonial produce.

Account of the Quantities and Declared Values of the Principal Articles the Produce and Manufacture of the United Kingdom Exported to Sardinia (including the Island) in 1865-66.

Articles		Quantities		Declared Real Value	
		1865	1866	1865	1866
				£	£
Apparel and haberdashery	value	—	—	16,212	12,595
Arms and ammunition	,,	—	—	7,681	81,115
Coals, cinders, and culm	tons	292,485	319,305	151,479	169,418
Copper, wrought and unwrought	cwt.	27,138	24,513	138,825	117,568
Cotton yarn	lbs.	1,527,022	2,887,150	137,432	277,201
Cottons, entered by the yard	yards	7,261,379	13,321,110	191,188	349,302
at value	value	—	—	4,004	5,841
Drugs and chemical products	,,	—	—	9,379	7,185
Earthenware and porcelain	,,	—	—	8,593	6,705
Hardwares and cutlery, unenumerated	cwt.	2,830	2,734	15,724	13,906
Iron, wrought and unwrought	tons	28,277	32,092	250,819	253,901
Leather, wrought and unwrought	value	—	—	2,754	20,722
Linen yarn	lbs.	1,221,078	975,734	85,812	72,551
Linens, entered by the yard	yards	1,216,778	654,921	30,910	29,210
at value	value	—	—	181	199
Machinery: Steam-engines	,,	—	—	112,885	17,576
All other sorts	,,	—	—	29,709	32,650
Oil, seed	gallons	175,980	126,747	23,978	19,913
Silk manufactures	value	—	—	2,710	2,930
Soap	cwt.	2,075	2,166	5,850	2,954
Telegraphic wire	value	—	—	5,167	6,025
Tin plates	,,	—	—	21,572	29,047
Woollen and worsted yarn	lbs.	28,815	30,109	4,530	3,913
Woollens, entered by the yard	yards	2,699,826	5,147,888	159,597	197,105
at value	value	—	—	1,881	1,913
All other articles	,,	—	—	144,533	270,247
Total	—	—	—	1,590,991	1,912,978

Account of the Shipping that Entered the Port of Genoa in 1865 *and* 1866.

	Entered			
	1865		1866	
	Vessels	Tons	Vessels	Tons
Foreign	2,970	734,983	3,034	749,033
Coasting	6,093	502,987	5,189	443,580

Of British ships there entered Genoa in

1865	293 of 160,290 tons
1866	366 of 187,511 ,,

In 1866, 544 'Sardinian' vessels, of 176,985 tons burden, entered ports in the United Kingdom with cargoes, besides 128, of 46,694 tons, in ballast; while 621 vessels of 214,596 tons cleared with cargoes from Great Britain to the same region, in addition to 8 vessels of 3,126 tons in ballast. (Mr. Consul Brown's *Report* of 1867; &c.)

GENTIAN (Ger. enzian; Fr. gentiane; Ital. genziana; Span. jenciana; Russ. enzian; Lat. gentiana). The roots of certain Alpine plants, growing in Switzerland and Austria, the Apennines, the Pyrenees, and in North America. 96 tons were imported in 1866, valued at 1,643*l.*, or 17*l.* per ton.

Gentian, as found in commerce, is in pieces of various dimensions and shape, usually several inches in length, sometimes in longitudinal slices, sometimes of the root, cut transversely, often twisted, much wrinkled, or marked with close transverse rings, brown externally, yellow within, tough and spongy texture. The odour is feeble, but peculiar. The taste at first sweetish, afterwards very bitter, without being nauseous. Gentian is used in medicine, and as a stomachic, when infused in wine or spirits. In the Tyrol, a spirit is obtained by fermentation from an infusion of the root. (*British Pharmacopœia of Medical Council*, 1867; Wood and Bache, *United States Dispensatory*.)

GEROPIGA or JERUPIGA. A factitious liquor imported from Portugal, and used in the adulteration of wine.

A pipe (about 105 gall.) of this compound is said by Mr. Consul Johnston to contain about 35 gals. brandy at 25 degs. over proof, the other constituents being colouring and sweetening matters and unfermented grape juice. But the proportion of spirits and the description of the other ingredients which enter into its composition, and which are sometimes of a very noxious character, vary very widely in different samples. Generally, however, geropiga may be said to be strong, sweet, and high coloured. Besides being mixed with port, sherry, and other wines, it is substituted in various beverages, especially in the United States, for spirits and sugar. Mr. Forrester, in *A Word or Two on Port Wine*, states that either treacle or brown sugar is used in making geropiga.

This villanous compound is allowed to be imported at the same duty as wine, provided the proof spirits in it do not exceed 33 per cent. of its quantity. It is also permitted to be mixed in the bonded warehouses in the docks with wine in the same proportions relatively to its strength as brandy; that is, when it is only half the strength of the latter, double the quantity may be used, and so on.

This license has been much, and, as we think, justly objected to. There can of course be no check, and perhaps no good objection, to the compounding of wines in Portugal. But it may be supposed that the facilities for adulteration in the shops of the dealers are here quite enough, without legitimating the practice in the docks. It is difficult, indeed, to see what purpose can be served by this indulgence, unless it be to excuse and facilitate the commission of fraud.

Geropiga being confounded in Portugal with brandy, and here with wine, the quantity exported from the former and imported into the latter is not easily ascertained. (For a curious discussion on the adulteration of Port wines, the reader is referred to Mr. Secretary Lytton's *Report* of July 6, 1867, and to Mr. Consul Crawfurd's remarks thereon in No. 4 *Commercial Reports* of 1868.)

GHEE. [BUTTER.]

GIBRALTAR. A famous fortress, in the possession of Great Britain, near the southernmost extremity of Spain, and contiguous to the narrow-

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est part of the strait, to which it gives its name, joining the Atlantic and Mediterranean, lat. 36° 6′ 30″ N., long. 5° 21′ 12″ W.

It is situated on the west side of a rocky mountain or promontory, the *Mons Calpe* of the ancients, projecting into the sea, in a southerly direction, about 3 miles, being from ½ to ¾ of a mile in width. The southernmost extremity of the rock is called Europa Point. Its northern side, fronting the isthmus which connects it with Spain, is almost perpendicular, and wholly inaccessible; the east and south sides are so rugged and precipitous as to render any attack upon them, even if they were not fortified, next to impossible; so that it is only on the west side, fronting the bay, where the rock declines to the sea and the town is built, that it can be attacked with the least chance of success. Here, however, the strength of the fortifications, and the magnitude of the batteries, are such, that the fortress seems to be impregnable, even though attacked by an enemy having the command of the sea. It was taken by the English in 1704, but the fortifications were then very inferior to what they are at present. Towards the end of the American war it was attacked by a most formidable armament fitted out jointly by Spain and France; but the strength of the place and the bravery of the garrison defeated all the efforts of the combined powers. Population in 1860, 16,643, exclusive of the troops, which usually amount, in time of peace, to about 3,000.

The bay of Gibraltar is spacious; and being protected from all the more dangerous winds, affords a convenient station for ships. Two moles have been constructed at a vast expense, for the protection of the shipping. The old mole projects from the north end of the town, N. W. by N., 1,100 feet into the sea: the new mole is 1½ mile more to the south, extending outwards about 700 feet: it has an elbow formed by the shore, and in winter large vessels anchor inside; the farthest out in from 5 to 6 fathoms. The accompanying plan gives a better idea of the position of Gibraltar, as well as of the Straits, than could be derived from any description. It is taken from Captain Smyth's beautiful chart of the Mediterranean.

Trade, Political Importance &c.—Gibraltar is of considerable consequence as a commercial station. Being a free port, subject to no duties and few restrictions, she is a convenient entrepôt for the English and other foreign goods destined for the supply, principally through illegitimate channels, of the contiguous Spanish provinces. Its importance in this respect increased rapidly during the 10 years ending with 1840; so much so, that while the declared value of the various articles of British produce and manufacture exported to Gibraltar in 1833 amounted to only 385,460*l.*, they amounted to 1,053,367*l.* in 1841. In 1863 the value of the imports of Gibraltar was 2,622,495*l.*, of which 1,700,041*l.* worth came from the United Kingdom and the British colonies. The total value of exports from the United Kingdom to Gibraltar in 1866 was 1,219,742*l.*

Gibraltar is also of immense importance to this country in a military and naval point of view, being, in fact, the key of the Mediterranean, and affording a convenient and secure station for the outfit, refreshment, repair, and accommodation of our ships of war and merchantmen. The revenue collected in the town amounted to 35,695*l.* in 1865, the expenditure to 33,810*l.*, but generally the revenue is in excess of the civil expenditure. The expense annually incurred in Great Britain on account of the garrison, in time of peace, amounts to about 200,000*l.*—a small sum compared with the important political and commercial advantages it is the means of securing.

Money.—The effective or hard dollar = 4*s.* 4*d.*; the current dollar being estimated at ⅘ hard dollars = 2*s.* 10½*d.* Reals and quartos of both hard and current dollars are the same, being, the former = 4½*d.*, and the latter = 1 1/12*d.*

Accounts are kept in current dollars (pesos), divided into 8 reals of 16 quartos each; 12 reals currency make a cob or hard dollar, by which goods are bought and sold; and 8 of these reals are considered equal to 5 Spanish reals vellon.

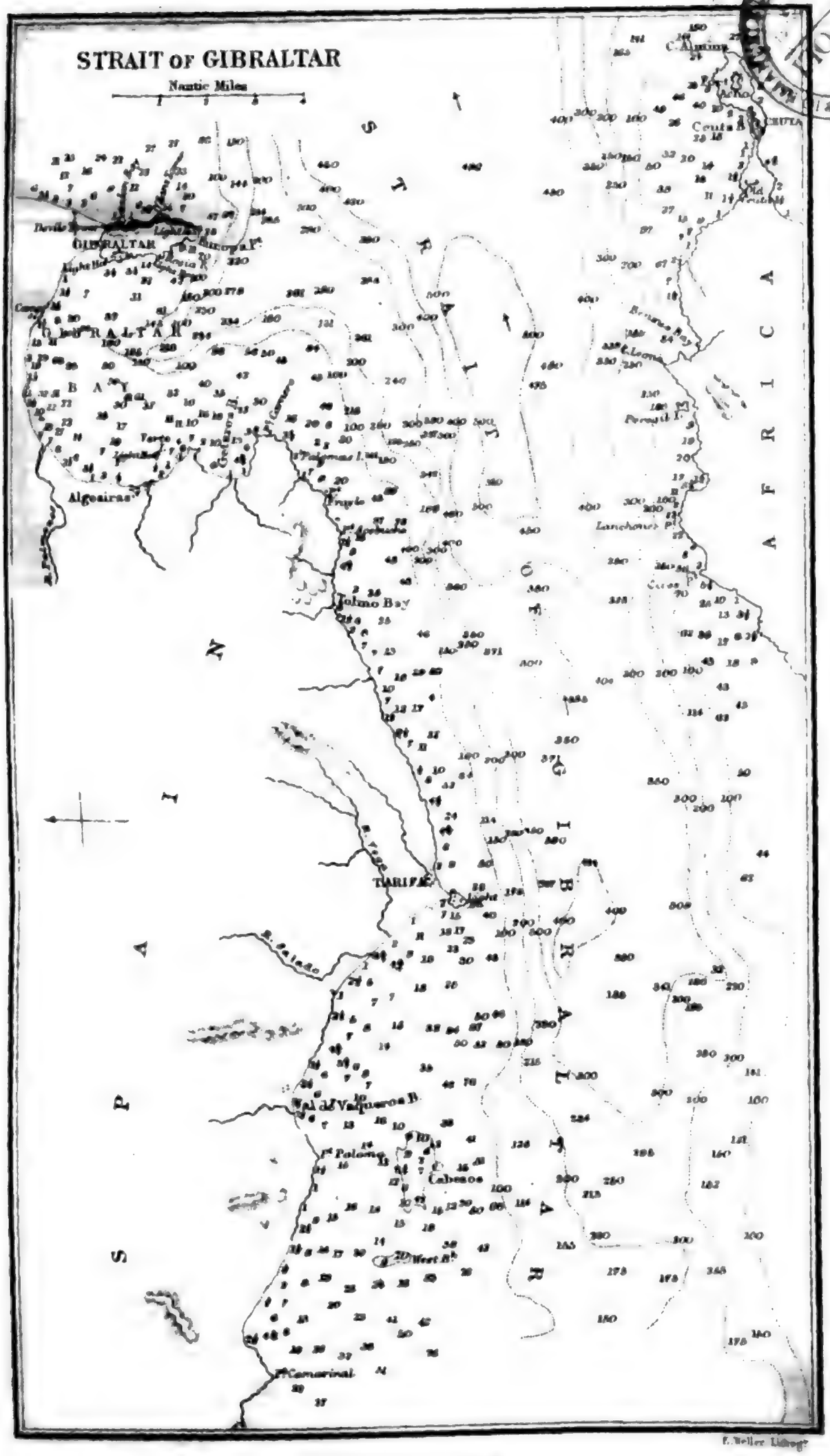
Gibraltar draws on London in effective dollars of 12 reals, and London on Gibraltar in current dollars of 8 reals.

The exchange of Gibraltar on Cadiz, and other cities of Spain, is in hard dollars, at a percentage, which varies considerably, and mostly in favour of Gibraltar.

Weights and Measures are those of England, excepting the arroba = 25 lbs. English: grain is sold by the fanega, 5 of which make 1 Winchester quarter; wine is sold by the gallon, 100 of which are equal to 109·4 English wine gallons. [TARIFFS, COLONIAL.]

Account of the Quantities and Declared Values of the Principal Articles the Produce and Manufactures of the United Kingdom Exported to Gibraltar from 1863–1866.

Articles		Quantities				Declared Real Value			
		1863	1864	1865	1866	1863	1864	1865	1866
						£	£	£	£
Apparel and haberdashery	value	—	—	—	—	51,708	90,038	59,268	66,609
Beer and ale	barrels	7,519	11,556	10,463	9,206	21,559	33,539	33,601	32,701
Butter	cwts.	3,733	3,486	3,058	2,690	18,110	17,026	15,641	13,746
Coals, cinders, and culm	tons	89,775	89,171	91,647	75,221	42,868	48,321	50,070	41,303
Copper, wrought and unwrought	cwts.	725	281	535	325	3,606	1,613	2,587	2,908
Cotton yarn	lbs.	45,599	17,588	139,350	80,017	4,328	2,173	10,149	6,809
Cottons, entered by the yard	yards	19,291,219	15,561,506	19,405,774	19,998,560	477,610	414,599	457,588	497,771
at value	value	—	—	—	—	36,361	39,106	27,588	26,943
Earthenwares and porcelain	,,	—	—	—	—	5,265	4,298	5,457	5,756
Hardware and cutlery, unenumerated	cwts.	7,046	5,911	6,200	5,402	31,881	28,068	20,733	22,211
Iron, wrought and unwrought	tons	3,405	2,651	2,155	1,975	37,509	31,038	25,312	23,804
Linen yarn	lbs.	2,851,587	3,014,655	2,360,661	2,195,318	149,630	178,413	121,102	135,353
Linens entered by the yard	yards	1,123,523	957,590	1,298,299	724,516	48,519	45,345	48,149	39,519
at value	value	—	—	—	—	421	681	591	900
Silk manufactures	,,	—	—	—	—	22,865	16,406	13,858	8,842
Sugar, refined	cwts.	9,748	4,396	9,315	6,512	17,609	7,599	13,460	9,727
Tin plates	value	—	—	—	—	5,459	4,901	3,613	1,297
Woollen and worsted yarn	lbs.	29,266	12,690	5,911	2,317	4,513	1,707	698	412
Woollens entered by the yard (including those formerly entered by the piece)	yards	2,523,869	2,120,383	1,587,437	1,686,416	145,488	126,588	106,313	101,268
entered at value	value	—	—	—	—	17,096	9,410	6,074	4,228
All other articles	,,	—	—	—	—	128,019	103,468	98,934	94,909
Total		—	—	—	—	1,267,900	1,106,166	1,120,847	1,131,693


STRAIT OF GIBRALTAR
Nautic Miles
GIBRALTAR
Europa P.t
Algeciras
Tolmo Bay
TARIFA
Cabezos
West B.k
Camarinal
Ceuta
C. Almina
Punta Leona
Punta Paloma
Punta Carnero
Punta Cires
Punta Lanchones
Punta Perejil I.
Punta Paloma I.
Punta Tarifa
Punta Malabata
Punta Cabrita
Punta Europa
Punta Carnero
Punta Almina
Punta Leona
Punta Paloma

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Port Dues.—An Order in Council, June 5, 1858, altered the port dues payable on vessels arriving at Gibraltar, which are now levied according to the subjoined schedule:—

			Spanish dollars
For every vessel from	1 to 20 tons inclusive		2 0 0
21	50	,,	3 0 0
51	100	,,	4 0 0
101	150	,,	6 0 0
151	200	,,	7 0 0
201	250	,,	8 0 0
251	300	,,	9 0 0
301	400	,,	10 0 0
401	500	,,	11 0 0
501	600	,,	12 0 0
601	800	,,	15 0 0
801 and upwards			14 0 0
(N.B.—The engine room of steamers is not included in the tonnage.)			
And in addition to each of the foregoing rates, a further duty, when the ship or vessel is liable to quarantine, of			2 0 0
For every day's attendance by a health guard when embarked			1 0 0
For every visit by a health guard to a vessel in quarantine			0 6 0
For every day's attendance by a health guard in superintending the discharge of a vessel in quarantine			2 0 0
For every bill of health			1 0 0
For every endorsement on a bill of health			1 0 0

GILD or GUILD. A company of merchants or manufacturers, whence the halls of such companies are denominated Gild or Guild Halls.

GILL. A measure of capacity. [Weights and Measures.]

GIN. English geneva, or gin, is made of spirit obtained from oats, barley, or malt, rectified or redistilled, with the addition of juniper berries, oil of turpentine &c. All spirits manufactured in England, and most of the Scotch and Irish spirits imported into England, are subjected to the process of rectification. English gin is said to be one of the most wholesome spirits. [Spirits.]

GINGELLY OIL. [Oil.]

GINGER (Ger. ingwer; Dutch, gember; Fr. gingembre; Ital. zenzero; Span. jenjibre, agengibre; Russ. inbir; Lat. zingiber; Pers. zungebeel; Arab. zingebeel). The roots of a plant (*Amomum Zingiber*), Nat. Order *Scitamineæ* or *Zingiberaceæ*, a native of the East Indies and China, but which was early carried to and succeeds very well in the West Indies. After the roots are dug, the best are selected, scraped, washed, and dried in the sun with great care. This is called *white ginger*; while the inferior roots, which are scalded in boiling water before being dried, are denominated *black ginger*. Preserved ginger is made by scalding the green roots, or the roots taken up when they are young and full of sap, till they are tender; then peeling them in cold water, and putting them into a thin syrup, from which they are shifted into the jars in which they come to us, and a rich syrup poured over them. Dried ginger has a pungent, aromatic odour, and a hot, biting taste. It is imported in bags, each containing about a cwt. The white brings the highest price, being more pungent and better flavoured. The external characters of goodness in both sorts of dried ginger are, soundness, or the being free from worm holes, heaviness, and firmness; the pieces that are small, light, and soft, or very friable and fibrous, should be rejected. The best preserved ginger is nearly translucent: it should be chosen of a bright yellow colour, rejecting that which is dark-coloured, fibrous, or stringy. (*British Pharmacopœia*, 1867.)

The consumption of ginger did not formerly exceed 10,000 cwts. a-year. This was most probably owing to the too high duties with which it was burdened down to 1842. These were reduced in 1842 to 10*s.* 6*d.* on foreign, and 5*s.* 3*d.* on colonial ginger. In 1859 the duties were entirely repealed.

Of 41,127 cwts. of raw ginger imported into Great Britain in the year 1866, the largest amount was the produce of the West India Islands. The quality of this produce was high, its value being 3*l.* 8*s.* per cwt., while that of Bengal and Pegu was 1*l.* 8*s.* Considerable quantities were also imported from Sierra Leone, though here again the quality was inferior, and the price 1*l.* 19*s.* The highest priced ginger was that of Bombay, Madras, and Ceylon, the average value of which was 3*l.* 15*s.* per cwt. In the same year 184,550 lbs. of preserved ginger were entered for home consumption, most of which came from China. Preserved ginger bears a duty of 1*d.* per lb. The best and highest priced is West Indian.

GINSENG (Dutch, ginseng, ginsem; Fr. ginseng; Ger. kraftwerzel, ginseng; Ital. ginseng; Span. jinseng; Chinese, yansam; Tart. orhota). The root of a small plant (*Panax quinquefolium*, Linn., Nat. Order *Araliaceæ*) growing in China, Tartary, and several parts of North America. The latter is what we generally see in England, and is an article of trade to China, which is its only market. Large quantities were formerly exported from this country, but it is now carried direct to China by the Americans. It is sometimes exported crude, and sometimes cured or clarified. It has been discovered in the Himalaya mountains, and small quantities have been thence sent to Canton; but the speculation has not succeeded. It is only within the present century that it began to be sent from America to China. Previously the Chinese drew their supplies from the wilds of Tartary, and the root brought an exorbitant price. The medicinal virtues of ginseng, once credited in England (it is quoted at an enormous price in Smollett's *Humphrey Clinker*), are wholly imaginary. Crude ginseng sells in the Canton market at from 60 to 70 dols. per picul, and prepared at from 70 to 80 dols. In 1852 there were sent from the United States to China 158,455 lbs. ginseng, valued at 102,073 dols. (*Papers laid before Congress*, January 1, 1853.)

GLASS (Ger. and Dutch, glas; Fr. vitre, verre; Ital. vetro; Span. vidrio; Russ. steklo; Lat. vitrum). A transparent, brittle, factitious body. It is formed by mixing together some sort of siliceous earth, as fine sand, or pounded flint, with an alkali, such as soda, potash, or pearlash, and subjecting them to a strong heat. By this means they are melted into a transparent, soft, tenacious mass, that may, when hot, be formed into thin plates, bent and shaped in every possible way. When cool, it becomes brittle, and is denominated glass. Litharge, minium, borax, the black oxide of manganese &c. are sometimes used in the manufacture of glass, according to the purposes to which it is to be applied.

Specifically, glass is a salt of silica, composed of this material and an alkali, as soda, potass, or lime. In order to facilitate the fusion of these materials, a flux is added to some kinds of glass, this flux being generally lead.

The chief kinds of glass are crown and sheet glass (the former being blown in the form of a disk, the latter in that of a cylinder); broad or spread glass, now nearly disused; flint glass, plate glass, and bottle glass. Of these, flint glass only contains lead, to the amount of 33 per cent. of the material. The soft glass manufactured for optical instruments is made with the greatest care, large lenses of this substance being exceedingly costly.

1. *Historical Notices with respect to Glass.*—The manufacture of glass is one of the very highest beauty and utility. It is most probable that we are indebted for this wonderful art, as we are for the gift of letters, to the Phœnicians. According to Pliny (*Hist. Nat.* lib. xxxvi. c. 26), glass had been made for many ages, of sand found near the mouth of the small river Belus in Phœnicia. The legend, as told by him, is, that the crew

of a merchant ship laden with nitre (fossil alkali) having used some pieces of it to support the kettles placed on the fires they had made on the sand, were surprised to see pieces formed of a translucent substance, or glass. This was a sufficient hint for the manufacture. Ingenuity (*astuta et ingeniosa solertia*) was immediately at work, to improve the process thus happily suggested. Hence the magnetical stone came to be added, from an idea that it contained not only iron, but glass. They also used clear pebbles, shells, and fossil sand. Indian glass is said to be formed of native crystal, and is on that account noted as superior to every other. But if this be a correct description of the glass of India in the age of Pliny, it has fallen off very much; Indian glass being now about the very worst that is made. At present, the Hindoos manufacture it of fragments of broken glass, quartz sand, and impure soda—an article found native in many parts of India, particularly in the south. The furnaces are so bad that they cannot melt our common bottle glass. (Hamilton's *Mysore*, vol. iii. p. 370.) The glass of China is much better than that of India, though still very inferior to that of Europe. Phœnician glass, according to Pliny, was prepared with light dry wood, to which copper and nitre were added, the last being principally brought from Ophir. It was occasionally tinged with different colours. Sometimes it was brought to the desired shape by being blown, sometimes by being ground on a lathe, and sometimes it was embossed like silver. Sidon, he adds, was famous for this manufacture. It was there that mirrors were first invented. In Pliny's time, glass was made in Italy, of fine sand from the shore between Cumæ and the Lucrine bay.

Glass was manufactured at Rome into various articles of convenience and ornament. Pliny mentions that Nero gave 6,000 sesterces (50,000*l.* according to the ordinary method of reckoning) for 2 glass cups, each having 2 handles. These, however, must have been of an immense size and of exquisite workmanship; for glass was then in common use for drinking vessels, and was used even in the form of bottles in which to keep wine. (Mart. *Epig.* lib. ii. 22, 40, and lib. iv. 86.)

There is no authentic evidence of glass being used in windows previously to the third or fourth century; and then, and for long after, it was used only in churches and other public buildings. In this country, even so late as the latter part of the 16th century, glass was very rarely met with. In a survey of Alnwick Castle, made in 1573, it is stated: 'And, because throwe extreme winds, the glasse of the windowes of this and other my lord's castles and houses here in the country dooth decay and waste, yt were good the whole leights of everie windowe, at the departure of his lordshippe from lyinge at any of his said castels and houses, and dowring the time of his lordship's absence, or others lyinge in them, were taken doune and lade up in safety: And at sooche time as ather his lordshippe or anie other sholde lye at any of the said places, the same might then be set uppe of newe, with smale charges, whereas now the decaye thereof shall be verie costlie and chargeable to be repayred.' (*North. Housh. Book*, xvii.) Sir F. M. Eden thinks it probable that glass windows were not introduced into farmhouses in England much before the reign of James I. They are mentioned in a lease in 1615, in a parish in Suffolk. In Scotland, however, as late as 1661, the windows of ordinary country houses were not glazed, and only the upper parts of even those in the king's palaces had glass; the lower ones having two wooden shutters, to open at pleasure, and admit the fresh air. From a passage in Harrison's *Description of England*, it may be inferred that glass was introduced into country houses in the reign of Henry VIII. He says: 'Of old time' (meaning, probably, the beginning of the century) 'our countrie houses instead of glasse did use much lattise, and that made either of wicker or fine rifts of oke in checkerwise. I read also that some of the better sort, in and before the time of the Saxons, did make panels of horne instead of glasse, and fix them in wooden calmes (casements); but as horne in windowes is now (1584) quite laid downe in everie place, so our lattises are also growne into disuse, because glasse is come to be so plentiful, and within verie little so good, cheape, if not better than the other.' Glass is now introduced into the windows of every cottage of Great Britain; and in this cold, damp climate it ought rather to be considered as a necessary of life than as the most elegant and useful of conveniences. What Dr. Johnson has said as to glass deserves to be quoted: 'By some fortuitous liquefaction was mankind taught to produce a body at once in a high degree solid and transparent, which might admit the light of the sun, and exclude the violence of the wind; which might extend the sight of the philosopher to new ranges of existence, and charm him at one time with the unbounded extent of the material creation, and at another with the endless subordination of animal life; and, what is of yet more importance, might supply the decays of nature, and succour old age with subsidiary sight. Thus was the first artificer in glass employed, though without his own knowledge or expectation. He was facilitating and prolonging the enjoyment of light, enlarging the avenue of science, and conferring the highest and most lasting pleasures; he was enabling the student to contemplate nature, and the beauty to behold herself.' (*Rambler*, No. 9.)

Venice, for a long time, excelled all Europe in the manufacture of glass, but was subsequently rivalled by France. The manufacture was early introduced into England; but it was not carried on to any extent previously to the sixteenth century. The first plates for looking-glasses and coach windows were made in 1673, at Lambeth, by Venetian artists under the protection of the Duke of Buckingham. The British Plate Company was incorporated in 1773, when it erected its extensive works at Ravenhead, near St. Helen's, in Lancashire. The manufacture was at first conducted by workmen from France, whence we had previously brought all our plate glass. But that which is now made at Ravenhead, at Liverpool, and London, is equal or superior to any imported from the Continent.

The manufacture of Bohemian *sheet* glass was introduced into England in 1832, but was not firmly established till 1838, owing to the numerous difficulties which attended the process. At first foreign workmen alone were employed, but English artisans have now been trained to the work.

It is difficult to form any precise estimate of the value of the glass annually produced in Great Britain. But the workpeople employed in the different departments of the manufacture amounted in 1861 to 16,288.

Former Duties on Glass.—Considering the vast importance of glass, and the various necessary, convenient, and ornamental purposes to which it is applied, it might have been supposed that it would be exempted from all taxation; and that, at all events, if the public exigencies made its taxation indispensable, the duties on it would be kept within reasonable limits, and imposed in the way least likely to be injurious. These apparently obvious considerations were all but wholly lost

sight of in the taxing of glass in this country; the duties on it having been carried to a most exorbitant extent, and imposed in the most oppressive manner. After successive augmentations, the duties were raised in 1813 to the amount of 98*s.* per cwt. on flint and plate glass! And the consequence was, that despite the increase of wealth and population in the interim, the consumption of both these sorts of glass was less than it had been in 1794, when the duty was only 32*s.* 2¼*d.* per cwt. The progress of the manufacture and of the duties since 1813 is exhibited in the subjoined tables, the influence of the various modifications of the latter on production being too obvious to require being pointed out.

We do not know whether it was possible materially to vary the mode in which the duties were assessed without opening a still wider door to fraud than that which existed; but they not only augmented the price of a most indispensable article by their entire amount, but they farther augmented it, and that in no inconsiderable degree, by fettering the operations of the manufacturers, and preventing them from making experiments and improvements, and introducing new processes. In this respect the duties were especially injurious. Nor can any one acquainted with the facts entertain any doubt that the Commissioners of Excise Enquiry were fully justified in expressing their conviction that '*no tax can combine more objections, or be more at variance with all sound principles of taxation, than this duty on glass.*'

Had it been impossible otherwise to get rid of the duties, they might have been advantageously commuted for an increase of the house duty. The greater cheapness of glass would have more than compensated to most householders for the increase of the house tax, at the same time that the manufacture would have been increased and improved.

But any commutation of this sort was rendered unnecessary. The imposition of the income tax having supplied Sir Robert Peel with the means of effecting those great financial reforms which will ever distinguish his administration, the glass duties were repealed from April 5, 1845. The beneficial influence of this liberal and most judicious measure is obvious in the improved quality, the increased cheapness, and greater variety of descriptions of glass in the market; and there can be no doubt that its advantages will become still more and more obvious from the facilities it gives for the introduction of improvements, and consequently for ameliorating the fabric as well as reducing the cost of one of the most useful and admirable of the products of art and industry.

A most remarkable fall in price has been effected in the article. Previous to the repeal of the duty, a crate of good crown glass was worth about 12*l.*; in 1865 it had fallen to 2*l.* 8*s.*; while ordinary sheet glass, worth 1*s.* 2*d.* per foot in 1844, can now (1868) be got for 2*d.*

The annexed tables show the state of the manufacture previously to the abolition of the duty:—

I.—*Prices of Plate Glass in Great Britain from* 1760 *to* 1865.

Where Made	Date	Prices at which Sold by Trade Tariff per Superficial Foot									
		12 by 12 inches	24 by 16 inches	36 by 24 inches	48 by 30 inches	60 by 42 inches	60 by 48 inches	96 by 60 inches	120 by 72 inches	144 by 75 inches	144 by 76 inches
		per foot *s. d.*	per foot *s. d.*	per foot *s. d.*	per foot *s. d.*	per foot *s. d.*	per foot *s. d.*	per foot *s. d.*	per foot *s. d.*	per foot *s. d.*	per foot *s. d.*
England	1760	5 2	6 2	12 8	40 9	81 0	None made in England larger than 60 by 42				
	1819	13 1	15 10	16 5	about 24	about 28	about 30	about 60	about 160	—	—
	1827	6 8	9 9	10 9	13 2	18 10	19 1	26 2	39 4	—	—
	1836	7 0	9 0	9 0	10 0	13 2	14 0	20 0	24 5	27 4	27 7
	1845 (duty paid)	7 0	9 0	9 0	10 0	13 2	14 0	20 0	24 5	27 4	27 7
	1847 (duty free)	5 4	5 1	6 10	8 4	11 10	12 10	19 5	24 5	27 7	35 6
	1865	1 7 to 2 1	2 2 to 2 8	2 4 to 2 11	2 9 to 3 4	3 0 to 3 7	3 0 to 3 7	3 1 to 4 3	3 5 to 5 0	4 0 to 6 6	4 0 to 6 6
France	1865	2 0 to 2 6	2 5 to 3 0	2 7 to 3 4	2 11 to 3 9	3 2 to 4 4	3 2 to 4 4	3 6 to 5 0	3 10 to 6 0	4 6 to 8 0	4 6 to 8 0
Belgium	1865	The Belgian rates are somewhat lower than the French, and a shade higher than the English									
Russia	1865	2 1	—	4 5	—	—	—	9 1	17 2	—	—

II.—*Account exhibiting the Quantities of the different Descriptions of Glass Manufactured during each of the* 3 *Years ending with* 1842, *with the Quantities Exported, the Rates and Produce of the Duties &c.* (Obtained from the Excise.)

Description of Glass	Year	Quantity manufactured	Quantity exported	Rate of Duty	Gross Amount of Duty	Drawback on Glass exported	Nett Amount of Duty (Excise) after deducting drawback and other legal allowances
					£	£	£
Flint glass	1840	cwts. 101,889	cwts. 19,913	To May 15, 1840, 18*s.* 8*d.* per cwt.; since, 18*s.* 8*d.* per cwt. and 5 per cent.	101,929	21,199	79,430
	1841	97,524	20,516		95,565	22,605	72,960
	1842	83,653	13,596		81,973	15,098	66,873
Plate glass	1840	sq. feet 53,623	sq. feet 52,879	To May 15, 1840, 3*l.* per cwt.; since, 3*l.* per cwt. and 5 per cent.	104,117	7,412	96,705
	1841	27,639	121,113		87,061	17,483	69,578
	1842	21,528	68,318		67,812	9,866	57,946
Crown glass	1840	cwts. 129,978	cwts. 15,518	To May 15, 1840, 3*l.* 13*s.* 6*d.* per cwt.; since, 3*l.* 13*s.* 6*d.* per cwt. and 5 per cent.	492,962	75,530	417,497
	1841	116,595	19,118		451,054	92,670	357,357
	1842	97,495	12,369		376,205	60,891	313,323
German sheet glass	1840	16,549	8,219		63,986	33,604	30,382
	1841	20,855	8,781		80,473	36,876	43,597
	1842	25,500	7,701		98,397	32,348	66,049
Broad sheet glass	1840	9,051	1¼	To May 15, 1840, 1*l.* 10*s.* per cwt. To August 15, 1840, 1*l.* 10*s.* per cwt. and 5 per cent.; since 3*l.* 13*s.* 6*d.* per cwt. and 5 per cent.	13,915	2	13,913
	1841	—	—				
	1842	—	—				
Common bottle glass	1840	525,574	292,887	To May 15, 1840, 7*s.* per cwt.; since, 7*s.* per cwt. and 5 per cent.	189,843	103,926	85,957
	1841	501,177	310,937		184,174	114,109	70,065
	1842	390,192	225,633		143,496	82,915	60,581
Total nett revenue collected during the 3 years ending with 1842							£1,902,585
Annual average nett revenue of the 3 years ending with 1842							£634,195

III.—*A Return of the Rates of Duty on Glass in* 1813, *with the Quantities of each Kind of Glass retained for Home Use, and the aggregate Nett Revenue, in each Year from* 1813 *to* 1842, *both included, noting the Periods when any Alteration of the Duty took place, and the Amount of such Alterations.*

Rate of Duty in 1813 per cwt.	Flint 98*s.*	Plate 98*s.*	Crown 73*s.* 6*d.*	German Sheet 73*s.* 6*d.*	Broad 30*s.*	Common Bottle 8*s.* 2*d.*	Total	Period and Amount of Alteration of Duty	Aggregate Nett Revenue
Year	Quantities of Glass retained for Home Use								
	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	..	£
1813	23,370	9,398	81,441	..	6,994	47,350	171,553	..	500,650
1814	24,227	6,778	84,251	..	8,698	140,252	264,176	..	530,791
1815	24,911	419	77,485	..	8,452	129,461	240,728	..	473,780
1816	20,011	..	56,151	..	6,140	160,221	242,523	..	553,188
1817	22,117	1,739	76,561	..	8,374	123,881	232,692	..	461,819
1818	26,978	6,591	88,893	..	8,319	201,795	332,376	..	584,399
1819	28,809	6,173	90,726	..	8,267	238,463	372,738	From July 5, 1819, the duty on plate glass reduced from 4*l.* 18*s.* to 3*l.* per cwt.	806,176
1820	24,715	8,735	74,183	..	7,782	171,495	286,940	..	500,595
1821	21,927	9,718	86,384	..	8,035	177,117	303,181	..	521,075
1822	21,100	9,566	95,510	..	8,353	154,492	289,317	..	559,079
1823	21,829	11,607	101,392	..	9,172	198,186	342,186	..	607,374
1824	24,954	13,543	123,843	..	9,295	238,729	410,364	..	728,344
1825	34,184	15,031	140,298	..	8,347	251,932	449,843	From July 5, 1825, the duty of 4*l.* 18*s.* on flint glass repealed, and a new duty of 12*l.* 10*s.* for every 1,000 lbs. of fluxed materials for flint glass imposed.	772,303
1826	47,090	12,527	115,731	..	8,113	282,512	465,973	..	740,220
1827	46,688	14,209	114,381	..	7,611	239,794	422,683	..	699,725
1828	54,256	17,096	121,158	..	6,970	254,787	454,266	From July 5, 1828, the duty on common bottle glass reduced in Great Britain from 8*s.* 2*d.* to 7*s.* per cwt., and the duty on every description of glass assimilated throughout the United Kingdom.	752,097
1829	50,869	13,923	92,252	..	6,861	218,901	382,811	..	609,406
1830	49,385	12,677	80,926	..	4,845	180,945	328,746	..	542,461
1831	49,608	14,373	88,658	..	5,918	150,580	299,104	..	531,718
1832	51,586	11,551	86,007	179	5,304	158,719	313,349	From October 10, 1832, the duty on fluxed materials for flint glass reduced from 12*l.* 10*s.* per 1,000 lbs., to 20*s.* for every 100 lbs.	558,423
1833	54,818	13,893	105,134	..	6,306	164,000	344,151	..	615,781
1834	52,890	16,306	106,369	..	6,766	194,143	376,494	..	661,591
1835	43,956	16,941	111,651	4,248	5,947	201,613	384,256	From October 10, 1835, the duty on fluxed materials for flint glass reduced from 20*s.* to 6*s.* 8*d.* per 100 lbs.	640,119
1836	56,866	19,993	117,041	..	7,639	219,145	420,674	..	663,162
1837	78,121	21,640	101,509	707	7,190	247,146	456,413	..	698,993
1838	81,504	23,992	113,756	2,262	6,375	243,046	471,225	..	667,998
1839	82,309	26,465	113,310	5,170	8,511	251,801	488,606	..	691,467
1840	82,186	31,200	111,316	7,914	9,049	232,434	473,799	From May 15, 1840, the duty on every description of glass increased 5 per cent.; and from August 15, 1840, the duty on broad glass increased from 1*l.* 10*s.* to 3*l.* 13*s.* 6*d.* per cwt.	734,343
1841	70,444	22,088	93,033	11,898	..	190,257	391,120	..	
1842	68,098	18,596	81,715	17,117	..	161,557	346,863	..	

In 1819 the make, which under a high rate of duty was 3,000 feet per week, sold at 20*s.* to 25*s.* per foot, has in 1865, duty free, increased to 140,000 feet, sold at 2*s.* and upwards per foot—thus showing that a reduction in price of 90 per cent. (or say 20*s.* to 2*s.*) has opened the door to an increased production amounting to nearly 5,000 per cent.

Stained or Painted Glass.—The art of enamelling or staining glass was no doubt known to the ancients. Its application, however, to window lights commenced in the middle ages. The windows of St. Denis were filled with coloured glass in the twelfth century, and the art of making figures and heraldic devices in this material was general in the fourteenth century. Many specimens of this medieval art exist, as for instance the windows in York Minster. The revival of this art is an event of the last few years; for the *painted* glass of the last century, though often spirited in design, does not produce the effect of the leaded window, in which the several parts vary in solidity as well as colour.

Stained glass is extensively manufactured in Birmingham, and is largely employed in places of worship, in public buildings, and even in private houses.

Exports and Imports of Glass.—In the year 1866, 47,671 square feet of rough plate glass were exported; 557,161 square feet of polished plate glass, chiefly to the United States; 91,446 square feet of looking glass, chiefly to Australia; 59,171 cwts. of window and German sheet glass; 474 cwts. of coloured glass; 747,130 cwts. of common bottles, the largest customer being Australia; 20,436 cwts. of ornamented flint glass; 73,836 cwts. of plain flint bottles; 1,667 cwts. of beads; 1,130 cwts. of chandeliers. The declared value of all these articles of British manufacture was 806,427*l.*, to which aggregate common glass bottles contribute 378,395*l.*

In the same year 272,892 cwts. of sheet and other window glass, 31,576 cwts. of cut and coloured glass, 28,972 cwts. of plain flint glass including bottles, 34,667 cwts. of plate glass, and 2,211 cwts. of silvered glass, besides 16,800 cwts. of common bottles, and 19,103 cwts. of unenumerated manufactured glass, were imported. The declared value of these imports was 713,202*l.*, the principal supply coming from Belgium. There is of course an enormous importation of wine bottles—a quantity which is likely to increase greatly since the duties on wine in wood and bottle have been equalised.

Mr. Chance gives the following statistics in

relation to those firms which manufacture a large proportion of the glass produced in the kingdom:—

Wages, yearly	£120,000
Coal consumed	165,000 tons
Sand ,,	10,000 ,,
Alkali ,,	4,500 ,,
Chalk or limestone consumed	3,500 ,,
Glass produced	17,000 ,,
Workmen employed	2,500

The following is an abstract of the exports of glass for the 12 years ending with 1867:—

Year	Flint	Window	Boule
	cwts.	cwts.	cwts.
1856	59,559	28,500	526,815
1857	61,292	32,026	577,209
1858	56,644	26,008	542,457
1859	59,102	27,697	621,112
1860	79,544	35,408	629,511
1861	78,204	35,732	546,216
1862	89,177	49,522	540,558
1863	95,699	63,243	614,561
1864	110,176	58,573	574,630
1865	98,073	51,179	617,427
1866	94,272	50,171	747,130
1867	100,907	65,463	705,132

It will thus be seen, that though the exports are liable to frequent fluctuations in quantity, the first two items have very considerably increased, and that the last is almost stationary. In the years which precede this table, however, a considerable increase took place in the exports of common bottle glass. On the other hand, the imports of foreign glass were sixfold in 1865 more than those of 1856.

GLOVES (Ger. handschuhe; Fr. gants; Ital. guanti; Span. guantes; Russ. rukawizii, pertschatki, golizii). Well-known articles of dress used for covering the hands, usually made of leather, but frequently also of cotton, wool, silk &c. The leather used in the manufacture of gloves is not, properly speaking, tanned, but prepared by a peculiar process that renders it soft and pliable. Some sorts of leather gloves admit of being washed, and others not. Woodstock and Worcester, but particularly the former, are celebrated for the manufacture of leather gloves of a superior quality, in which a great number of women and girls, as well as men, are employed. Besides Worcester and Woodstock, London, Yeovil, Ludlow, and Leominster are the principal seats of the leather glove manufacture. It is, however, impossible to obtain any trustworthy accounts of the numbers produced. Gloves are sometimes sewed by machinery; but this is done only to improve the work by rendering the stitches more correctly equidistant, as it is not cheaper than manual labour. Limerick used to be famous for the manufacture of a sort of ladies' gloves, called chicken gloves. Large quantities of cotton gloves are made at Nottingham and Leicester.

Influence of Repeal of Prohibition of Importation.—The importation of leather gloves and mitts was formerly prohibited, under the severest penalties. This prohibition had the effect, by preventing all competition and emulation with the foreigner, of checking improvement, and of rendering British gloves at once inferior in quality and high in price. This system was, however, permitted to continue till 1825, when the prohibition was repealed, and gloves were allowed to be imported on payment of duties which, though high, were not prohibitory. This measure was vehemently opposed, and many predictions were made of the total ruin of the manufacture; but in this, as in most other instances, experience has shown that the trade had not been materially benefited by the prohibition. The wholesome competition to which the manufacturers now felt themselves for the first time exposed, made them exert all their energies; and it is admitted on all hands that there was a more rapid improvement in the manufacture during the dozen years after the trade was opened than in the previous half century. Since the repeal of the import duties our importation of foreign leather gloves has greatly increased, being nearly four times as great as that returned fifteen years ago. In 1866, as will appear from the annexed statement, we imported 10,619,220 pairs of leather gloves, the average value per pair being 2*s.* 3*d.* The import is chiefly from France, that of other countries being comparatively unimportant. On the other hand 680,664 pairs of leather gloves of British make were exported, the average value being somewhat less than that of the imported articles.

Leather Gloves Imported into and Exported from the United Kingdom in 1866.

Imports	Pairs	Value
		£
From Denmark	58,200	6,548
Belgium	466,068	52,431
France	10,036,092	1,129,061
other parts	58,860	6,625
Total	10,619,220	1,194,665

Exports	Pairs	Value
		£
To Egypt	96,125	10,555
United States:		
N. Atlantic Ports	200,140	24,159
S. Atlantic Ports	9,428	900
New Granada	12,036	1,682
Australia	127,963	16,091
Canada	55,291	5,491
Nova Scotia	24,700	2,793
other countries	56,271	5,575
Total	680,664	67,046

Of cotton gloves we exported 315,180 pairs in 1866, chiefly to the United States.

The French glove manufacture, one of the most important branches of industry in that country, includes 224 different sizes of gloves. The chief seats are Paris, Grenoble, Milhau, Niort, Vendôme, Chaumont, Lunéville, and St. Jullien. The best are made in Paris.

English makers have not successfully competed with France, and even Germany is now beginning to send us large quantities of leather gloves. In the articles of cotton and Lisle gloves Germany sends three-fourths of those now (1868) sold in England, and for export has nearly the whole custom of the United States (formerly buying this class of glove in Nottingham and Leicester).

Free trade has enabled us to buy and sell foreign merchandise here, but at the same time has almost extinguished a great part of this industry with us.

Mr. Mundella, of Nottingham, attributes much of this to the fact that in Saxony and Prussia the operatives are so much better educated, and also very sober and industrious.

GOLD (Ger. gold; Dutch, goud; Dan. and Swed. guld; Fr. or; Ital. and Span. oro; Port. oiro, ouro; Russ. soloto; Pol. zloto; Lat. aurum; Arab. tibr and zeheb; Sans. swarna; Malay, mās), the most precious of all the metals, seems to have been known from the earliest antiquity. It is of an orange-red or reddish-yellow colour, and has no perceptible taste or smell. Its lustre is considerable, yielding only to that of platinum, steel, silver, and mercury. It is rather softer than silver. Its specific gravity is 19·3. No other substance is equal to it in ductility and malleability. It may be beaten out into leaves so thin, that 1 grain of gold will cover 56¾ square inches. These leaves are only $\frac{1}{282000}$ inch thick. But the gold leaf with which silver wire is covered has only $\frac{1}{1}$ of that thickness. An ounce of gold upon silver

is capable of being extended more than 1,300 miles in length. Its tenacity is considerable, though in this respect it yields to iron, copper, platinum, and silver. From the experiments of Seckingen, it appears that a gold wire 0·078 inch in diameter is capable of supporting a weight of 150·07 lbs. avoirdupois without breaking. It melts at 32° of Wedgwood's pyrometer. When melted, it assumes a bright bluish green colour. It expands in the act of fusion, and consequently contracts while becoming solid more than most metals, a circumstance which renders it less proper for casting in moulds. (Thomson's *Chemistry*.)

A considerable quantity of leaf gold is imported into Great Britain. In 1865 upwards of 12,000,000 leaves were thus imported, valued at 27,500*l*.

For the quantities of gold produced, and the places where it is produced, see PRECIOUS METALS.

GOMUTI or EJOO. A species of palm (*Arenga saccharifera*), growing abundantly in Singapore and Penang, and in the Indian Archipelago.

A valuable fibrous product is obtained from this palm, resembling *black horse-hair*: it is found between the trunk and branches, at the insertion of the latter, in a matted form, interspersed with long, hard, woody twigs of the same colour. When freed from the latter, it is manufactured by the natives into cordage. Its fibres are stronger and more durable, but less pliant, than those of the cocoa nut, or coir [COIR], and are, therefore, fitter for cables and standing rigging, but less fit for running rigging. The native shipping of the Eastern islands of all kinds are chiefly equipped with cordage of the gomuti, and the largest European shipping in the Indies use cables of it. It undergoes no preparation but that of spinning and twisting; no material similar to our tar and pitch, indispensable to the preservation of hempen cordage, being necessary with a substance that, in a remarkable degree, possesses the quality of resisting alternations of heat and moisture. The gomuti of Amboyna and the other Spice Islands is the best. That of Java has a coarse, ligneous fibre. Gomuti is generally sold in twisted shreds or yarns, often as low as 1 dollar per picul, and seldom more than 2. Were European ingenuity applied to the improvement of this material, there seems little doubt that it might be rendered more extensively useful. (Crawfurd's *East. Archip.* vol. iii. p. 425; Balfour's *Cyclopædia of Southern India.*)

GOOD HOPE, CAPE OF. [CAPE TOWN.]

GOTTENBURG, or, more properly, GOTHABORG, on the south-west coast of Sweden, at the head of a fiord near the Kattegat, which receives the river Götha, lat. 57° 42′ 4″ N., long. 11° 57′ 45″ E. Population in 1863, 41,585. Vessels do not come close to the city, but lie in the river or harbour at a short distance from the shore, goods being conveyed from and to them by lighters that navigate the canals by which the lower part of the town is intersected. The depth of water in the port is 17 feet, and there is no tide, bar, or shallow. A vessel entering the Götha must take a pilot on board, whose duty it is to meet her ½ league west of Wingo Beacon. After Stockholm, Gottenburg has the most extensive commerce of any town in Sweden. Iron and steel, the former excellent, but the latter inferior to that made in England, form the principal articles of export. They are brought from the rich mines of Wermeland, distant about 200 miles; being conveyed partly by the Lake Wener, partly by the Tröllhætta Canal [CANALS], and partly by the river Götha. The exports of iron in 1847 amounted in all to 27,447 tons. The original cost of iron is supposed to be increased about 5 per cent. by the expense of its conveyance to Gottenburg; and the shipping charges, inclusive of the export duty, are about 10 per cent. additional. The next great article of export is timber, particularly deals, which are also furnished by Wermeland. The opening of the Götha Canal, by which Gottenburg communicates with a large portion of the interior of Sweden, has exercised a powerful and beneficial influence over her commerce. The Railway between Stockholm and Gottenburg, now (1868) complete, will still farther promote the prosperity of the latter. She carries on an extensive trade with England, and English is generally understood. Steamers run once a-week between Gottenburg and Hull, and between London and Gottenburg once a fortnight, for 8 months of the year; but in winter the intercourse with England is kept up by the tedious route of Lübeck and Hamburg.

Herring Fishery.—Gottenburg used, at no distant period, to be one of the principal seats of the herring fishery. In 1804 the export was 79,512 barrels. In 1808 and 1809 fish were very scarce; and in 1812 they entirely disappeared, and have not hitherto returned: so that Gottenburg, instead of exporting, at present imports considerable supplies of herrings.

The following is an account of the vessels which arrived at and left Gottenburg in the five years ending with 1866. Sweden has an extensive carrying trade:—

Year	Arrivals					
	British		Foreign		Total	
	Ships	Tons	Ships	Tons	Ships	Tons
1862	266	63,819	1,719	200,485	1,985	264,334
1863	267	70,953	1,870	229,217	2,137	300,170
1864	248	69,207	1,740	255,872	1,988	325,079
1865	254	72,028	1,616	259,560	1,870	331,588
1866	281	99,590	1,736	288,003	2,017	387,593
	Departures					
1862	255	61,578	1,566	196,700	1,821	258,278
1863	272	71,087	1,573	220,484	1,845	291,571
1864	247	69,113	1,478	236,452	1,725	305,565
1865	261	73,659	1,463	256,455	1,724	330,114
1866	281	99,590	1,534	282,888	1,815	382,478

The principal imports into Gottenburg were coffee, cotton, herrings, sugar &c. Its exports are iron, timber, deals, and oats; more than one half of the deals and nearly all the oats going to Great Britain.

1 centner or 100 Swedish lbs. = 93 lbs. avoirdupois.
1 tunn = 4 bushels.
12 $\frac{8}{10}$ cubic feet = 5 bushels.

The following is an approximate estimate of the total value of the imports into Gottenburg for the five years 1862 to 1866, viz.:—

Year	In British Ships	In Foreign Ships	Total Value
	£	£	£
1862	445,000	1,065,000	1,510,000
1863	479,000	1,161,000	1,640,000
1864	512,000	1,088,000	1,600,000
1865	765,600	1,524,400	2,290,000
1866	809,500	1,481,500	2,291,000

In 1864 the merchant marine was 124 vessels, of 11,223 aylastes burden.

Approximate Estimate of the Exports from Gottenburg for the Five Years 1862 *to* 1866.

Year	In British Ships	In Foreign Ships	Total Value
	£	£	£
1862	343,800	833,200	1,177,000
1863	435,850	851,150	1,285,000
1864	447,700	883,300	1,331,000
1865	457,500	849,500	1,307,000
1866	589,500	976,000	1,565,500

Comparative Statement of the Quantities of the Principal Articles of Import for the same Period, viz.:

Articles	1862	1863	1864	1865	1866
Coal - - - tons	93,100	82,100	93,100	100,560	101,700
Coffee - - - lbs.	7,157,600	6,351,662	4,339,600	10,403,762	6,135,185
Cotton - - - ,,	2,127,070	1,655,227	2,988,973	6,753,215	9,535,983
Yarn - - - ,,	428,618	375,268	426,563	918,518	1,220,787
Hides - - - ,,	2,416,030	2,948,290	3,331,668	2,467,518	2,819,042
Sugar, raw - - - ,,	18,229,670	15,974,946	15,833,012	20,690,937	17,447,959
Tobacco - - - ,,	1,209,040	1,016,347	2,126,721	1,729,944	2,128,114

Iron.—The total shipments of iron from Gottenburg during the undermentioned five years have been as follows, viz.:—

	Tons
1862 - - -	41,550
1863 - - -	44,560
1864 - - -	48,130
1865 - - -	58,120
1866 - - -	53,350

Of this iron, the greatest part was exported to the United Kingdom and the United States.

Wood.—Exclusive of other sorts, the exports of plank, deals, and battens from Gottenburg in 1866 were to the following countries, viz.:—

	Cubic ft.
To England and British Colonies - -	6,963,790
France - - -	2,712,960
Belgium - - -	266,580
Spain - - -	121,970
Holland - - -	95,270
Other countries - -	133,960
Total - -	10,343,930

Custom-house Regulations and Port Charges.—On arriving in port, no person is allowed to board or to leave a vessel till she be in custody of the officers, who, having inspected the manifest and papers, send them to the Custom-house. An officer is appointed to superintend the unloading and also the loading. The public charges of all sorts on a Swedish ship and on a foreign ship not privileged, each of 300 tons burden, unloading and loading mixed cargoes at Gottenburg, would be, on the former, 24*l.* 5*s.* 7*d.*; on the latter, 49*l.* 5*s.* 7*d.* On a privileged foreign ship the charges are the same as on a Swedish ship.

Warehousing System.—Goods may be bonded for any length of time, on paying ½ per cent. ad valorem for the first 2 years, and ½ per cent. annually thereafter.

Commission, Credit &c.—The usual rate of commission is 2 per cent. Goods are commonly sold on credit: raw sugar at 9 months, with 3 months' interest to the seller; other goods at 3, 4, and 6 months.

Banking &c.—There are no public or private banking establishments at Gottenburg for the issue of notes; but the national bank has two offices here, which advance limited sums of money at 5 per cent. on the security of goods, and in discount of bills. Some of the English insurance companies have agents here, who do a good deal of business.

Sea Stores, Water &c.—These may be had here of excellent quality and cheap: beef 1½*d.* per lb., best rye bread 2½*d.* per lb., and butter 6*d.* per lb.

Money, Weights, Measures &c. same as at STOCKHOLM.

(In compiling this article, we have made use of Coxe's *Travels in the North of Europe*, vol. iv. pp. 267-275; Mr. Consul Engstrom's *Report*, 1867; &c.)

GRACE, DAYS OF. [EXCHANGE.]

GRAPES (Ger. trauben; Fr. raisins; Ital. grappoli, grappi; Span. ubas, racimos; Lat. uvæ). A well-known fruit, produced from the vine.

In consequence of the great facilities afforded to mercantile communication between countries by railways and steam navigation, the import of fresh fruit, especially grapes, has greatly increased. In 1866, 64,152 bushels of grapes were imported into the United Kingdom, chiefly from Spain and Portugal. The highest priced were those of Spain, valued on an average at 22*s.* 5*d.* per bushel. There is no duty on fresh grapes.

The grapes grown in Great Britain in the open air are much smaller, and by no means so luscious as those of foreign countries; but those raised in hothouses are quite equal, if not superior, to the latter. Grapes are imported not only in their natural state, but dried and preserved, in which latter state they are denominated RAISINS.

GRINDSTONES. Flat circular stones of different diameters and thickness, mounted on spindles or axles, and made to revolve with different degrees of velocity, employed to polish steel articles, to give an edge to cutting instruments &c. Grindstones not in constant use are commonly turned by winch handles; but at Sheffield and other places where polished articles and cutlery are extensively manufactured, large numbers of grindstones, being mounted in buildings appropriated to that purpose, called grind or blade mills, are turned by straps, acting on their axles, the moving power being either water or steam. The stone best suited to form grindstones is what is called a sharp-grit; it being chosen finer or coarser grained according to the purposes for which they are destined. The principal grindstone quarry in England is at Gateshead Fell, in the county of Durham, where they are produced in vast numbers, not only for home use, but for exportation to all parts of the world. But those principally in use at Sheffield are mostly quarried at Wickersley, in Yorkshire.

They are classed in eight different sizes called *foots*, according to their dimensions, as in the following table:—

Denominations	Diameter	Thickness	No. in a Chaldron
	in.	in.	
1 foot	10	2	36
2 foots	14	2¼	27
3 foots	20	4	18
4 foots	28	4	9
5 foots	35	5	5
6 foots	42	6	3
7 foots	50	6	1¼
8 foots	56	8	1

A grindstone foot is 8 inches: the size is found by adding the diameter and thickness together. Thus, a stone 56 inches diameter by 8 thick, making together 64 inches, is an 8-foot stone, of 8 inches each foot.

Besides the above sizes, grindstones are made, when ordered, of any intermediate dimensions: many are made much larger than any of the above sizes; some as large as 76 inches diameter, and 14 or 15 inches thick, which are a great weight, a cubic foot weighing 1 cwt. 1 qr. 14 lbs. (Rees's *Cyclopædia*; Bailey's *Survey of Durham*, p. 43.)

Grinding is an unhealthy and dangerous employment. For some purposes the stones are made to revolve with an extreme degree of velocity, which makes them occasionally fly in pieces. But the greatest annoyance to which the grinder is exposed is from his inhaling the minute particles of stone, and of iron and steel, that are always flying about, particularly in the process termed dry grinding. Contrivances have been suggested for obviating this serious inconvenience;

but whether it be owing to their unsuitableness, or to the carelessness of the workmen, none of them has succeeded in practice. (*Treatise on Iron and Steel*, Lardner's *Cyclopædia*, p. 293.)

GUAIACUM or LIGNUM VITÆ (Fr. gayac, bois saint; Ger. pockholn; Ital. guajaco; Lat. guaiacum, lignum vitæ; Span. guayaco). The wood of a tree, a native of Jamaica, Hayti, and the warmer parts of America.

It is a dark-looking evergreen, growing to from 40 to 50 feet in height, and from 14 to 18 inches in diameter. The bark is hard, smooth, and brittle: the wood is externally yellowish, and internally of a blackish brown colour. Lignum vitæ is the weightiest timber with which we are acquainted, its specific gravity being 1·333. It is exceedingly hard, and difficult to work. It can hardly be split, but breaks into pieces like a stone, or crystallised metal. It is full of a resinous juice (*guaiac*), which prevents oil or water from working into it, and renders it proof against decay. Its weight and hardness make it the very best timber for stampers and mallets; and it is admirably adapted for the sheaves or pulleys of blocks, and for friction rollers or castors. It is extensively used by turners.

The *guaiac*, or gum, spontaneously exudes from the tree, and concretes in very pure tears. It is imported in casks or mats; the former containing from 1 to 4 cwt., the latter generally less than 1 cwt. each. Its colour differs considerably, being partly brownish, partly reddish, and partly greenish; and it always becomes green when left exposed to the light in the open air. It has a certain degree of transparency, and breaks with a vitreous fracture. When pounded, it emits a pleasant, balsamic smell, but has scarcely any taste, although when swallowed it excites a burning sensation in the throat. When heated, it melts, diffusing at the same time a pretty strong fragrant odour. Its specific gravity is 1·229. (*Veget. Sub., Lib. of Entert. Knowledge*; Thomson's *Chemistry*; &c.)

GUANO or HUANO (the Peruvian term for manure). A substance used as a manure, found on certain small islands off the coast of Peru and Bolivia, and on parts of the shore of the mainland. It is friable, and easily reduced to powder; its colour varies from a dull red to a dirty white, and it has a strong smell, and a fat, unctuous feel. At an average it may weigh from 50 to 60 lbs. per bushel. Humboldt was either the first, or one of the first, by whom this important substance was brought to Europe; but it was described at a much earlier date by Ulloa (*Voyage au Perou*, i. 481), and has been used as a manure by the Peruvians from the age of the Incas downwards. Very different opinions have been entertained as to its nature and origin, but there is no longer any doubt that, as Ulloa stated, it consists of the excrements of the sea-birds which are found in prodigious swarms all along the Peruvian and Bolivian shores. The localities where the deposit is principally met with being within a rainless region, it is accumulated with a rapidity of which we have no idea. Guano is of very different qualities: some authorities give the preference to the whitish varieties, which are believed to be more recent, while others prefer the red. According to Klaproth, a quantity of guano represented by 100 contained—urate of ammonia 16 parts, phosphate of lime 10 do., oxalate of lime 12¾ do., silica 4 do., common salt ½ do., sand 28 do., and water, organic and combustible matter, 28¾ do.; but its composition is found to differ very materially. The best is that which contains the greatest proportion of ammonia.

There can, however, be no doubt that guano is a most efficient manure, and that about 2 to 2½ cwt. per acre of average guano mixed with about two-thirds the usual quantity of farm-yard manure (which is required to keep the soil loose) will produce, when applied to land that is well drained, nearly double the ordinary quantity of potatoes. In turnip husbandry, splendid crops are produced by the agency of guano only; but in this case from 4 to 5 cwt. per acre should be applied. It has also a powerful influence in improving crops of corn and the pasture following such crops. The effect of guano is very materially increased by its being covered up to some considerable depth as soon as it is laid on the soil; and top-dressing is certainly the most wasteful way in which it can be applied. (*Private information.*) It is, in fact, the most valuable of manures; and under such circumstances it becomes of importance to learn the probable supply of the deposit, and the price at which it may be imported and sold in Europe.

Unfortunately, our information on both these points is less complete than might be desired. After it commenced to be largely exported to this and other foreign countries, an apprehension began to gain ground in Peru that the deposits would in no very long time be wholly exhausted; and as this would occasion the ruin of those estates along the coast of Peru, and the department of Arequipa, in which guano is extensively used as a manure, Government has been called upon to avert this catastrophe by prohibiting its export. We are, nevertheless, well convinced that this apprehension is in great measure unfounded. At present (1868) guano is principally obtained from the Chincha Islands, opposite to Pisco, in Lower Peru, in about lat. 13° 25′ S., and long. 76° 30′ W., and the Lobos Islands, opposite to Lambayeque, in Upper Peru, lat. 5° to 7° S., and long. 81° W. But in addition to the deposits in these islands, very large quantities are found at Pavellon de Pica, Iquique, and other points along the coast of Upper and Lower Peru. As might be anticipated, the estimates of the guano accumulated in these deposits differ very widely; but on the whole, we have no difficulty in coming to the conclusion that the estimates contained in the paper on this subject published at Lima in 1852 are the most to be depended on (translated and published in papers on Guano, pp. 51–76, laid before Parliament in 1852): and they give the following results, viz.:—The coast deposits 7,921,407 tons, those of the Chincha Islands 18,250,000 do., and those of the Lobos Islands 853,086 do., making in all 27,024,493 tons. And supposing that under a liberal system the exports were to amount to 400,000 or 500,000 tons a-year, here is a supply that would last in the one case for nearly 70, and in the other for more than 50 years. But it is stated in the paper referred to, that the coast deposits are greatly underrated in the above estimate; and that were the shores and the adjacent rocks and islands properly explored, from 6° to 23° S. lat., many more deposits would certainly be met with; and hence we may conclude that for practical purposes the supply of guano may be said to be all but inexhaustible.

The islands where the guano is found being uninhabited except by those employed in its shipment, it would, but for the interference of Government, cost nothing save the expense of putting it on board and the freight home. But the Governments of Peru and Bolivia were either so little aware of the value of the article, and of their duty to their constituents, or so corrupt, that they sold in 1839 to private parties (Messrs.

Quiros, Allier, and Co. of Lima), for a mere trifle (40,000 dollars), the sole right to ship guano for the term of nine years; so that these parties had it in their power to exact any price they pleased for the article! This contract was, however, too ruinous to be allowed to continue, and was cancelled by the Peruvian Government in 1841, on the ground of enormous public lesion, and of ignorance of the value of the privilege that had been conceded. For some time after this the trade was comparatively free, and large quantities of guano were imported in 1844 and 1845. But the monopoly system has been again revived. Messrs. Gibbs and Sons, of London, who act as agents for the Peruvian Government, are now the sole importers of guano. They sell it at the same fixed wholesale price, whether freights be high or low. For a while this price was 9*l.* 5*s.* per ton, minus 2½ per cent. dis.; but it was subsequently raised to 13*l.* per ton; and since June 1858 has been fixed at 12*l.* per ton, both here and in the United States. But these prices are quite excessive, and furnish one of the most glaring instances of the abuse of monopoly to be found in the history of commerce. Being a gratuitous product, the necessary cost of guano is that of its shipment and freight to the destined port. The first of these items is estimated at from 12*s.* to 20*s.* per ton; and taking it at 20*s.*, and adding thereto 3*l.* 10*s.* or 4*l.* 10*s.* per ton for the freight to England, its price here should not exceed 5*l.* or 6*l.* per ton. We should not, however, object to the Peruvian Government laying a reasonable duty of 20*s.*, or even a high duty of 30*s.* per ton on guano when exported; and with such a duty it might be advantageously imported and sold at 6*l.* 10*s.* or 7*l.* 10*s.* per ton. Under a free system of this sort the imports would be vastly increased. When return cargoes could not be obtained from the W. coast of America, or when freights were low, the importation of guano would furnish ample employment for shipping; and the comparatively low price at which it would then be sold would, by extending its use, contribute as much to the benefit of agriculture as of shipping. But under the present artificial plan, if the agents be tempted, as is sometimes the case, by the lowness of freight, to import an unusually large quantity, they are not permitted to realise a profit by selling it at a reduced rate, so that it becomes a dead weight on their hands, and proportionally lessens the imports in subsequent years.

The Peruvian Government would, we believe, gain by throwing the trade in guano open under an export duty like that suggested above; and we do not know that anything could be devised that would be more likely to prove advantageous to our agriculture and shipping than the carrying out of such a plan. Perhaps the best way to effect an arrangement of this sort would be to purchase one or more of the Guano Islands from the Peruvian Government; and if the latter should perversely decline to agree to such sale, or to modify the present monopoly system, the question of her right to appropriate such valuable deposits, and to deprive others of any equitable participation in their advantages, may, perhaps, force itself on the public attention. Should such be the case, it will probably be found that the claim of the Peruvians to the exclusive possession of the Guano Islands is of a very questionable kind, and that in grasping at all, they may not improbably lose all.

Lobos de Afuera is fully 50 miles from the nearest point of the mainland; and it seems rather too much for a Government like that of Peru, without anything worthy of the name either of a mercantile or a warlike fleet, to pretend to hinder others from carrying away the dung of wild birds from an unoccupied rock at so great a distance from its territories.

Guano is very apt to be adulterated. So long, however, as the present system lasts, it is quite plain that genuine Peruvian guano cannot be sold by retail in limited quantities for less than 12*l.* 15*s.* or 13*l.* per ton.

Lately the demand for *Peruvian guano* has rather declined; the higher class of *manufactured* manures being not only cheaper, but better for cereals, grasses, and root crops.

No guano has ever been imported at all equal to that from Peru; and unless it come from a rainless region, it is worth comparatively little; for otherwise the ammoniacal salts, which are its most valuable portion, are either partially or wholly washed away by the rains.

Guano is found in the caves frequented by swallows, pigeons, bats &c. in Java, Sumatra, and other places in the Eastern Archipelago; and not being exposed to the rain, it may probably be of good quality. We subjoin an

Account of the Quantities of Guano Imported into and Exported from the United Kingdom in each of the 10 *Years ending with* 1867.

	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867
	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons
Imports - -	353,541	84,172	141,435	178,121	141,636	233,071	131,338	237,393	135,097	192,308
Exports - -	19,652	23,381	29,159	12,043	16,624	7,075	9,184	9,342	7,197	5,156

Of 135,097 tons imported in 1866, 109,142 tons were from Peru, and 6,156 from Australia. The imports from countries other than Peru sold at comparatively low prices, that of Chili being the best. The imports in 1867 amounted to 192,308 tons, valued at 2,109,506*l.*

The reader will perhaps be surprised to learn that large supplies of guano have of late years been imported into Spain; the value of the total import in 1863 being 31,611,975 reales, and the duty thereon 375,892 reales. It is principally employed in manuring the *huertas*, or low rich grounds of Murcia and Valencia. Hitherto it has been mostly sent at second-hand from England; but recently the Peruvians have begun to export it on their own account to Alicant, Valencia &c., and have established agents in these towns for its sale. In 1863, 39,514,969 kilogrammes were thus imported, amounting to nearly 40,000 tons.

By an arrangement between France and Peru of December 2, 1866, their arrangement of January 15, 1854, has been modified. Peruvian guano is now admitted into France under all flags free of duty, and the price of the article in France and its colonies is fixed at 300 francs per ton of 1,000 kilogrammes. By the new arrangement (in force for five years), if the sale price of guano in European markets shall be increased or diminished, the price of 300 francs per ton fixed by France shall be proportionately raised or lowered.

GUAYAQUIL. A city and port of Ecuador, or Equator, on the western coast of South America,

lat. 2° 11′ 21″ S., long. 79° 43′ W. Population estimated at 25,000. The town is situated on the banks of the river of the same name, about 6 or 7 leagues from the Isla Verde, or 9 leagues from the Isla Puña, in the Gulf of Guayaquil, opposite to the mouth of the river. Ships bound for Guayaquil generally call at the Isla Puña, where expert pilots may be had, who carry them up to the town by night or by day, according to the state of the tides. In 1864, 203 vessels, of 51,724 tons, entered the port with cargoes valued at 582,900*l.*; while 203, of 53,047 tons, cleared, having cargoes valued at 656,277*l.* The town is old; but as the houses are of wood, and it has frequently suffered from fires, much of it is comparatively modern, and has a good appearance. There is a dry dock on the south bank of the river, where several ships of a superior construction have been built. The major portion of the merchandise imported now (1868) comes in the British steamers viâ Panama.

The district in which Guayaquil is situated has for a long period formed a part of the republic of Ecuador. Like the other South American states, it has been subjected to perpetually recurring revolutions, but Guayaquil has, notwithstanding, continued to enjoy a considerable commerce.

Account of the Quantities and Values of our Imports of the Principal Articles of Produce of Ecuador in the Years 1863–66.

Articles	Quantities				Computed Real Value			
	1863	1864	1865	1866	1863	1864	1865	1866
					£	£	£	£
Bark, Peruvian - - cwts.	347	101	536	273	1,920	615	3,669	2,263
Caoutchouc - - ,,	195	91	237	3,261	1,568	594	1,668	35,326
Cocoa - - - lbs.	1,539,315	497,093	498,599	1,263,252	39,854	17,580	17,291	40,106
Cotton, raw - - cwts.	278	117	58	719	2,674	1,466	639	5,652
Hats of straw - - lbs.	181	150	2,318	1,686	453	375	6,954	5,058
Indigo - - - cwts.	..	67	..	..	..	1,704	..	..
Nuts Corozo, or vegetable ivory ,,	..	..	..	12,234	..	..	..	11,559
Orchal - - - ,,	5,607	1,071	2,459	2,581	9,000	1,714	3,935	4,873
Sugar, unrefined - - ,,	5,814	..	..	..	3,957	..	..	..
Tobacco, unmanufactured - lbs.	91,879	30,701	65,282	224,374	9,030	2,537	4,978	14,589
All other articles - - value	..	..	..	..	252	380	1,387	1,165
Total - - - value	..	..	..	..	68,608	26,965	40,715	120,589

Statement showing the Value of the Imports into and Exports from Guayaquil in the 5 *Years ending with* 1867.

Years	Exports	Imports *
	£	£
1863	630,151	328,016
1864	656,277	582,900
1865	679,747	635,000
1866	669,120	430,000
1867	560,069	434,860

* Estimated.

Its principal article of export is cocoa, of which large quantities are shipped; and next to it are straw hats, bark, india-rubber, cotton, orchella weed, hides &c. The principal articles of import are British manufactured cottons, woollens, and hardware, silks, wine, flour &c. (Mr. Vice-Consul Smith's *Report* of Feb. 1868; and *Parl. Papers.*)

GUERNSEY. For the peculiar regulations to be observed in trading with Guernsey, Jersey &c., see IMPORTATION AND EXPORTATION.

GUMS, RESINS, GUM-RESINS. In Commerce, the term gum is not only applied to gums properly so called, but also to resins and gum-resins. But though these substances have many properties in common, they are yet sufficiently distinct.

I. *Gum* is a thick, transparent fluid that issues spontaneously from certain species of plants, particularly such as produce stone fruit, as plum and cherry trees. It is very adhesive, and gradually hardens by exposure to the atmosphere. It is usually obtained in small pieces, like tears, moderately hard and somewhat brittle while cold; so that it can be reduced by pounding to a fine powder. When pure, it is colourless; but it has commonly a yellowish tinge; it is *not* destitute of lustre; it has no smell; its taste is insipid; its specific gravity varies from 1·3161 to 1·4317; it readily dissolves in water, but is insoluble in alcohol. Gum is extensively used in the arts, particularly in calico printing, to give consistence to the colours, and to hinder them from spreading. It is also used in painting, in the manufacture of ink, in medicine, confectionary &c.

The commercial importance of gum has to some extent declined, consequent on the use of dextrine or artificial gum. Hence, notwithstanding the increase of those manufactures in which stiffening is needed, the imports of gum have been nearly stationary.

GUM ARABIC (Fr. gomme arabique; Ital. gomma arabica; Ger. arabische gummi; Arab. samagh arabee). The produce of various kinds of Acacia (Nat. Order *Leguminosæ*). The gum exudes spontaneously, and hardens by exposure. It is said that the largest quantities are obtained from sickly trees, and in hot seasons. The best gum is that obtained from the *Acacia vera* and *Acacia Arabica*—trees which grow abundantly on the African coast, as well as in Arabia, and in parts of the interior. It is also common in Hindostan, where the substance is used as food. The best gum is white, or nearly so, and dissolves wholly in water, forming the substance called mucilage.

This gum is very adhesive, and the heat of the sun causes it to dry up in globules of from ½ to 2 inches in diameter. It is of a pale yellowish hue, inodorous, tasteless, and dissolves freely in the mouth; it is moderately hard and brittle, full of minute cracks, and thus a great portion of it during a long land carriage in bags, on the way to Egypt, is reduced to powder, and it generally loses 5 per cent. on its gross weight.

Wet and cold are unfavourable to gum.

In 1848 the British Government induced the Pacha to abandon the monopoly of gum, established by Mehemet Ali, and competition soon increased the export from 15,000 to 50,000 cantars. Consequent on this, and the adoption of other cheaper substances as substitutes for gum arabic, the prices of late years have been about 12*s.* per cantar at L'Obeice, the capital of Kordofan, and from 25*s.* to 30*s.* in Cairo.

Carriage on camels across the Desert viâ Dongola to Wadi Halfa, and thence on the Nile to Cairo, costs 10*s.* per cantar; and allowing 1*s.* for packing and 1*s.* for waste, the nett profit thereon when delivered at Cairo, according to the state of demand and supply, will vary from 1*s.* to 6*s.* per cantar.

Gum Senegal is the produce of another species of acacia, called in Egypt 'Tullach' or 'Tulch.' It is found in many parts of Africa and Asia. In the Egyptian dependencies, the Tullach grows abundantly *East* of the Nile, in the provinces of Sennaar and Taka.

The entire produce of this species of gum, which may be estimated at 30,000 cantars of 100 lbs., is sent in bags manufactured from bark, viâ the Nile and the Red Sea, to Cairo, where it is bought for the European markets at an average price of 18*s.* per cantar. When pure, gum senegal is of a dark reddish colour, opaque, and is found adhering to the branches of the trees, from which it exudes in hard globules, from ½ an inch to 3 inches in diameter.

Gum senegal, as will be inferred from its value, is much inferior in quality to gum arabic.

Gum senegal is imported from the west coast of Africa, especially from two kinds of acacia, called in the native language *verech* and *nebuel*. This substance is imported, chiefly by the French, in large masses, and generally of a darker colour than true gum arabic. There is generally a slight bitterness in this kind of gum. Its chief use is in the arts, and it is frequently substituted for gum arabic.

Gum of quality inferior to the above is imported from India, Australia, and the Cape; but all these kinds, although it appears always obtained from various species of acacia, contain a certain principle, called bassorin, which does not dissolve fully in water, or form a homogeneous solution.

At an average of the 3 years ending with 1842, the gum arabic entered for consumption amounted to 18,176 cwts. a-year. Previously to 1832, the duty on gum arabic from a British possession was 6*s.* per cwt., and from other parts 12*s.*; but the duty on it and all other gums was then fixed at 6*s.* per cwt. without regard to origin. In 1842 it was further reduced to 1*s.* per cwt., and was finally repealed in 1845. Of 50,112 cwts. of gum arabic imported in 1866, Egypt supplied 35,425 cwts., 4,939 from 'Austrian territories,' and the remainder in small quantities from several localities. That from Turkey bore the highest price, that of Australia the lowest.

In 1866, 3,039 cwts. of gum senegal were imported, the value being a little above 5*l.* per cwt., while the best gum arabic was worth 7*l.* 9*s.* 2*d.*

An Account of Imports in 1866 *of such of the Principal Gums as are known in Commerce.*

Gums	Cwts.	Gums	Cwts.
Animi - -	5,036	Dragon's blood -	743
Benzoin - -	1,913	Euphorbium -	29
Copal - -	12,941	Gedda - -	2,008
Arabic - -	50,112	Lac, seed - -	17
Kowrie - -	41,428	Lac, stick - -	2,460
Lac dye - -	10,315	Sandarach -	2,939
Shellac - -	48,451	Senegal - -	3,039
Mastic - -	1,698	Tragacanth -	898
Damar - -	2,140	Unenumerated -	7,297

Large quantities of these are re-exported, to the value in 1866 of 874,783*l.*

II. *Resins*, for the most part, exude spontaneously from trees, though they are often obtained by artificial wounds, and are not uncommonly, at first, combined with volatile oil, from which they are separated by distillation. They are solid substances, naturally brittle; have a certain degree of transparency, and a colour most commonly inclining to yellow. Their taste is more or less acrid, and not unlike that of volatile oils; but they have no smell, unless they happen to contain some foreign body. They are all heavier than water, their specific gravity varying from 1·0182 to 1·1862. They differ from gums in being insoluble in water, whether cold or hot; while they are, with a few exceptions, soluble in alcohol, especially when assisted by heat. When heated, they melt; and if the heat be increased, they take fire, burning with a strong yellow flame, and emitting a vast quantity of smoke. Common *resin* furnishes a very perfect example of a resin, and it is from this substance that the whole genus have derived their name. Rosin is, indeed, frequently denominated resin. The principal resins are Animi, Copal, Elemi, Labdanum, Lac, Mastic, Rosin, Sandarach, Tacamahac, &c. (Thomson's *Chemistry*.)

III. *Gum-resins*, a class of vegetable substances consisting of gum and resin. They differ from resins in this—that they never exude spontaneously from the plant, being obtained either by bruising the parts containing them, and expressing the juice, which is always in a state of emulsion, generally white, but sometimes of a different colour, or by making incisions in the plant, from which the juice flows. The juice, being exposed to the action of the sun, is condensed and inspissated till it forms the gum-resin of commerce. Gum-resins are usually opaque, or, at least, their transparency is inferior to that of resins. They are always solid, and most commonly brittle, and have sometimes a fatty appearance. When heated, they do not melt as resins do, neither are they so combustible. Heat, however, commonly softens them, and causes them to swell. They burn with a flame. They have almost always a strong smell, which, in several instances, is alliaceous. Their taste, also, is often acrid, and always much stronger than that of resins. They are usually heavier than resins. They are partially soluble in water, but the solution is always opaque, and usually milky. Alcohol partially dissolves them, the solution being transparent.

The most common gum-resins are Aloes, Ammonia, Euphorbium, Galbanum, Gamboge, Myrrh, Olibanum, Sagapenum, Scammony, &c. (Loudon's *Ency. of Agriculture*; Thomson's *Chemistry*; *British Pharmacopœia*, 1867.)

GUNNY (Hind. tāt; Ben. gūni). A strong, coarse sackcloth manufactured in Bengal for making into bags, sacks, and packing generally, answering at once the two purposes for which canvas and *bast* are used in Europe. The material from which this article is manufactured is the fibre of two plants of the genus Corchorus; viz. *Corchorus olitorius* and *Corchorus capsularis* (Bengali, *pat*); both, but particularly the first, extensively cultivated throughout Lower Bengal. Besides a large domestic consumption of gunny, the whole rice, paddy, wheat, pulses, sugar, and saltpetre of the country, as well as the pepper, coffee, and other foreign produce exported from Calcutta, are packed in bags or sacks made of this article. There is also a large exportation of manufactured bags, each commonly capable of containing 2 maunds, or about 160 lbs. weight, to other parts of India, North America, Singapore, Pegu &c.

Each gunny bag weighs on an average 2 lbs. Pieces of gunny cloth are usually 30 yards long, and weigh about 6 lbs. each. (*Annual of Scientific Discovery*, 1862.)

In 1866, gunnies and gunny bags valued at 102,858*l.* were exported from British India. Of these, by far the largest amount was exported from the presidency of Bengal. [Jute.]

GUNPOWDER (Ger. pulver, schiesspulver; Dutch, buskruid; Dan. krudt, pulver; Swed. krut; Fr. poudre; Ital. polvere; Span. and Port. polvora; Russ. poroch; Pol. proch; Lat. pulvis pyrius). This well-known inflammable powder

is composed of nitre, sulphur, and charcoal, reduced to powder, and mixed intimately with each other. The proportions of the ingredients vary very considerably; but good gunpowder may be composed of the following: viz. 76 parts of nitre, 15 of charcoal, and 10 of sulphur. These ingredients are first reduced to a fine powder separately, then mixed intimately, and formed into a thick paste with water. After this has dried a little, it is placed upon a kind of sieve full of holes, through which it is forced. By this process it is divided into grains, the size of which depends upon the size of the holes through which they have been squeezed. The powder, when dry, is put into barrels, which are made to turn round on their axis. By this motion the grains of gunpowder rub against each other, their asperities are worn off, and their surfaces are made smooth. The powder is then said to be glazed. (Thomson's *Chemistry*.)

Dr. Thomson has the following remarks with respect to the introduction of gunpowder into warlike operations: 'The discoverer of this compound, and the person who first thought of applying it to the purposes of war, are unknown. It is certain, however, that it was used in the fourteenth century. From certain archives quoted by Wiegleb, it appears that cannons were employed in Germany before the year 1372. No traces of it can be found in any European author previously to the thirteenth century, but it seems to have been known to the Chinese long before that period. There is reason to believe that cannons were used in the battle of Cressy, which was fought in 1346. They seem even to have been used three years earlier, at the siege of Algesiras; but before this time they must have been known in Germany, as there is a piece of ordnance at Amberg, on which is inscribed the year 1303. Roger Bacon, who died in 1292, knew the properties of gunpowder; but it does not follow that he was acquainted with its application to fire-arms.' (Thomson's *Chemistry*.) The proportions of the several constituents of gunpowder vary considerably in different countries. For further particulars as to the introduction of CANNON, see that article.

The manufacture, keeping, carriage, and sale of gunpowder are regulated by several statutes. By the Gunpowder Act of 1860, 23 & 24 Vict. c. 139 (amended by 24 & 25 Vict. c. 130, and 25 & 26 Vict. c. 98), it is enacted that no person shall use mills or other engines for making gunpowder, or manufacturing the same in any way, except in mills and other places lawfully used at the time of passing the Act, or in places licensed by justices of the peace in manner therein mentioned, under pain of forfeiting the gunpowder and 2*s.* a lb. It is further enacted that no more than 50 lbs. of sporting and Government powder, or materials to be made into gunpowder, or 60 lbs. of any inferior powder, shall be made at any one time under a single pair of mill-stones, or rollers or runners, on pain of forfeiting all above such quantities of 50 or 60 lbs., and 2*s.* for every lb.; nor shall more than 50 cwts. be dried in any one stove or place at any one time, under forfeiture of all above that quantity and 2*s.* for every lb. thereof. Powder mills erected on Crown lands are exempted from the above regulations so far as relates to the making of fine fowling powder.

No dealer is to keep more than 200 lbs. of powder, nor any person not a dealer more than 50 lbs., in the cities of London or Westminster, or within 3 miles of either of them, or within any other city, borough, or market town, or 1 mile thereof, or within 2 miles of the queen's palaces or magazines, or ½ mile of any parish church, on pain of forfeiture, and 2*s.* per lb.; except in licensed mills, or to the amount of 300 lbs. for the use of collieries, within 200 yards of them.

Not more than 30 barrels are to be carried by any land carriage, unless in a van specially constructed, and then 40 lbs.; or unless such carriage form part of a railway train, and then 80 lbs.; nor more than 500 barrels by water, unless going by sea or coastwise: each barrel not to contain more than 100 lbs.

All vessels, unless belonging to the Navy, coming into the Thames, are to put on shore, at or below Blackwall, all the gunpowder they have on board exceeding 25 lbs. Vessels outward bound are not to receive on board more than 25 lbs. of gunpowder previously to their arrival at Blackwall. The Conservators of the river Thames have authority to appoint searchers to inspect ships and search for gunpowder. All the gunpowder found above 25 lbs., and the barrels containing it, and 2*s.* for every lb. above that quantity, are forfeited. Any person obstructing an officer searching for concealed gunpowder is liable to a penalty of 10*l.* The places of deposit for gunpowder are regulated by the 54 Geo. III. c. 159.

The importation of gunpowder, arms &c. may at any time be prohibited by proclamation or by order in council (16 & 17 Vict. c. 107 s. 45).

Gunpowder is of considerable importance in a commercial point of view. This will be evident from the following

Account of the Gunpowder Exported in 1866, specifying the Countries to which it was sent, and the Quantity and Value of that sent to each.

Countries	Quantities	Value
	lbs.	£
Italy: Sardinian States	1,659,728	51,800
Naples and Sicily	103,000	3,600
Greece	656,081	14,751
Tunis	320,000	7,950
Western Africa (foreign)	2,856,519	82,949
Java	64,678	3,424
China (exclusive of Hong Kong)	919,182	23,733
Japan	100,750	2,371
Cuba	130,000	2,845
St. Thomas	95,552	3,203
New Granada	102,739	3,243
Chili	851,403	21,354
Brazil	1,265,583	40,104
Uruguay	154,850	4,612
Argentine Confederation	100,195	2,919
Channel Islands	107,318	2,303
Malta	532,823	12,701
Western Africa (British)	676,762	15,600
British Possessions in South Africa	219,806	8,673
Mauritius	131,800	3,561
British India: Bombay and Sinde	115,729	7,059
Bengal and Pegu	236,642	11,837
Singapore and the Straits Settlements	1,339,881	34,151
Ceylon	165,197	5,310
Hong Kong	959,069	19,755
Australia	2,630,424	68,590
British North America	579,120	15,400
British West India Islands and British Guiana	126,817	4,795
British Honduras	117,785	3,521
Other Countries	461,326	12,820
Total	17,609,296	465,073

GYPSUM or SULPHATE OF LIME is found in various parts of the Continent, in Derbyshire and Nottinghamshire, and in Nova Scotia, whence it is largely exported. When reduced to a powder, and formed into a paste with water, it is termed *plaster of Paris*, and is much used for forming casts &c. It is also used for laying floors, and has been advantageously employed as a manure.

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HABERDASHERY AND MILLINERY. Although in one sense closely allied, inasmuch as the haberdasher supplies the milliner with the simple materials to assist in making up her goods (the millinery trade being almost entirely in the hands of females, and wholly confined to making up ladies' caps and bonnets), there is at the present day (1868) no other affinity between these branches of trade. A haberdasher is a person who deals in all subsidiary articles required by the milliner, dress-maker, or tailor, such as pins, needles, buttons, tapes, threads, cottons, sewing silks &c.—in fact, in everything required by them to make up or put together all descriptions of clothing; and not to these branches of trade only, but the haberdasher of the present day keeps and sells similar indispensable articles required by upholsterers, blindmakers, shoemakers, staymakers, as well as innumerable other branches of trade and manufacture.

About 300 years ago (temp. Queen Elizabeth) an association appears to have existed between the *Mercers'* and Haberdashers' Companies of London; but this was discontinued about that time, the mercers confining themselves to the sale of silks and velvets, which were the chief articles of their trade, and 'they gradually resigned the sale of all less important wares. The haberdashers dealt in *hats, millinery*, small articles of jewellery, pins (a lucrative commodity), and a thousand other things which still belong to the trade.' (Knight's *London.*) It is certain that the haberdashery trade about 50 years ago was much more limited in extent than it is at the present time; but it must be remembered that the opening of the trade in 1826, which has been followed by a large stimulus being given to the production of fancy goods in Prussia, Germany, and France (which in England now classes under the designation of haberdashery, although not, strictly speaking, entitled to that appellation), has very largely promoted the branch of trade which now flourishes under that name.

Account of the Haberdashery and Millinery Exported from the United Kingdom in 1857 *and* 1866, *specifying the Countries to which they were sent and the Value of the Articles sent to each.*

	1857	1866
	£	£
Russia	6,067	—
Sweden	7,770	28,955
Norway	30,774	20,990
Hanse Towns	56,768	93,458
Holland	29,381	78,387
Belgium	21,838	16,413
France	26,176	104,474
Portugal, Azores, and Madeira	18,005	38,616
Spain and the Canaries	8,395	57,056
Turkey	19,732	119,901
Egypt	70,731	199,985
China (ex Hong Kong)	1,492	12,572
Cuba	17,379	35,256
St. Thomas	23,624	4,017
United States	1,428,409	1,121,389
New Granada	10,833	105,765
Brazil	57,765	51,819
Uruguay (Monte Video)	9,827	31,352
Buenos Ayres (Argentine Confederation)	41,765	71,897
Channel Islands	81,311	102,254
Gibraltar	11,013	56,482
Malta	10,624	20,571
British possessions in South Africa	171,047	238,432
British East Indies	137,719	166,653
Hong Kong	2,751	20,475
Australia	788,688	1,274,417
British North America	360,810	857,291
British West India Islands and British Guiana	150,239	178,886
Other Countries	117,011	279,795

There is doubtless a mistake in the number of haberdashers (including hosiers) returned in 1861 at 6,453 persons. That may apply to small dealers carrying on business as *haberdashers and hosiers*; but it is certain that the great bulk of the silk mercers and linen drapers are equally haberdashers, although not carrying on business under that designation.

Little faith, we fear, can be placed in the accuracy of the above customs return for 1857 and 1866 for *haberdashery and millinery exported.* It is well known that while on the one hand goods shipped to foreign countries, for the sake of saving trouble, are described by the general term *haberdashery*, on the other a large amount of goods shipped from Birmingham, Sheffield &c. are described as *hardware*, although consisting of pins, needles, buttons, hooks and eyes &c. as well as other metal articles which are comprised and ought to be described under the general head of haberdashery.

We are indebted for this article to R. Slater, Esq., of Fore Street.

HACKNEY CARRIAGES. Carriages stationed in the streets or other public places, and bound to carry such persons as require their services, for certain rates of hire according to the distances travelled. They have generally been licensed by authority, and subjected to certain regulations, intended to prevent strangers and others using them from fraud and imposition. It may be doubted, however, whether these regulations have had any good effect; and whether the public would not be as well accommodated, at least in all large towns, by throwing the business open, and trusting to competition to rectify abuses. As respects London, nothing can be said in favour of its hackney coach establishment, which is, in truth, a disgrace to the city. Speaking generally, the carriages are dirty, disagreeable vehicles, the horses worn out, and the drivers ill-clothed and uncivil; forming a striking contrast to the elegance and commodiousness of the private carriages, the excellence of the horses, and the neatness of the servants.

Hackney coaches were first established in London in 1625. They were then stationed not in the streets, but at the principal inns. In the reign of Charles II. their number was considerable. Commissioners for licensing and superintending hackney coaches were established by the Act 9 Anne c. 23; and successive Acts have been passed, specifying the number of coaches that might be licensed, the duties payable to Government, and the conditions under which licenses were to be granted. But we cannot say that these Acts reflect any credit on their authors; and the last (16 & 17 Vict. c. 33) is, perhaps, the most objectionable of any. To say that all hackney carriages shall charge alike, without regard to their style or fitting up, is to offer a premium on inferiority. If this were their object, these Acts have been eminently successful; but in every other respect they have been complete failures, and the sooner they are repealed the better. Immense numbers of cabriolets are annually licensed in the metropolis.

Hackney Carriage Regulations, Fares &c. for Metropolitan Police District and City of London. —Fares for hackney carriages are according to

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distance or time, at the option of the hirer, expressed at the commencement of the hiring; if not otherwise expressed, the fare to be paid according to distance. (16 & 17 Vict. c. 33, schedule A.)

No driver is compellable to hire his carriage for a fare according to time, at any time after 8 in the evening, and before 6 in the morning.

Agreement with driver to pay more than legal fare not binding, and sum paid beyond the fare may be recovered. (1 & 2 Wm. IV. c. 22 s. 43.)

Driver not to charge more than the sum agreed on for driving a distance, although such distance be exceeded by the driver. (Sec. 44.)

If proprietor or driver agree beforehand to take for any job any sum less than the proper fare; penalty for exacting or demanding more than the sum agreed on, 40*s.* (Sec. 45.)

Driver may demand a reasonable sum as a deposit, from persons hiring and requiring him to wait, over and above the fare to which driver is entitled for driving thither. Penalty 40*s.* if driver refuse to wait, or go away before expiration of time for which deposit shall be sufficient compensation; or if driver shall refuse to account for such deposit. (Sec. 47.)

Hirer refusing to pay the fare, or for any damage and compensation for loss of time, may be committed to prison. (Sec. 41.)

The number of persons to be carried by any hackney carriage shall be distinctly marked on such carriage, as the Commissioner of Police shall direct; and the driver shall, if required by the hirer, carry by such carriage the number of persons marked thereon, or any less number. (16 & 17 Vict. c. 33 s. 9.)

When carriage is drawn by 2 horses, ¼ above the fares hereinafter mentioned is to be paid. (Schedule A.)

Two children under 10 to be counted as 1 adult, whether the hiring be by distance or time.

Fares by Distance, within a radius of 4 miles from Charing Cross.—If hired when standing on a stand, for any distance not exceeding 1 mile, 1*s.* (30 & 31 Vict. c. 134 s. 26.)

Above the number of 3 persons carried, 6*d.* extra for each person.

And for any distance exceeding 1 mile, for every mile, and for any part of a mile not completed, at the rate of 6*d.*

Above the number of 2 persons carried, 6*d.* extra for each person for the whole hiring.

When not standing on a stand, for each mile and for any part of a mile not completed, at the rate of 6*d.* (16 & 17 Vict. c. 127 s. 13, and c. 33.)

Above the number of 2 persons carried, 6*d.* extra for each person for the whole hiring.

One shilling for every mile, or part of a mile, beyond 4 miles (radius) from Charing Cross, if carriage discharged beyond such 4 miles.

No driver shall demand or receive any sum by way of back fare for the return of the carriage from the place at which discharged. (16 & 17 Vict. c. 33 s. 4.)

When the driver, to be paid according to distance, shall be required by the hirer to stop for 15 minutes, or for any longer time, the driver may demand and receive a further sum (above the fare calculated according to distance) of 6*d.* for every 15 minutes completed that he shall have been so stopped. (Sec. 4.)

Fares by Time.—One hour, or part of an hour, 2*s.* (Schedule A.)

For every 15 minutes, or less, beyond 1 hour, 6*d.* (Cap. 127 s. 15.)

Each person above 2, the whole hiring, 6*d.* extra. (Sec. 14.)

No driver shall demand or receive any sum by way of back fare for the return of the carriage from the place at which discharged. (Sec. 4.)

If the driver is required to drive more than 4 miles an hour, for every mile or part of a mile above 4 miles, 6*d.* extra. (Cap. 33 s. 7.)

Luggage.—A reasonable quantity of luggage is to be carried in or upon the carriage without any additional charge, except as provided in next paragraph. (Cap. 33 s. 10.)

When more than 2 persons are carried inside any hackney carriage, with more luggage than can be carried inside the carriage, a sum of 2*d.* for every package carried outside the carriage is to be paid. (Schedule A.)

General Regulations, Misconduct &c.—Hackney carriage standing in the street, unless actually hired, to be deemed plying for hire; and the driver obliged to go with any person desirous of hiring such carriage: and on hearing complaint, driver must produce evidence of having been actually hired at the time. (1 & 2 Wm. IV. c. 22 s. 35.)

The driver is to drive at not less than 6 miles an hour, unless in cases of unavoidable delay, or when required by the hirer to drive slower. (16 & 17 Vict. c. 33 s. 17.)

The driver shall (unless he have a reasonable excuse, to be allowed by the justice) drive to any place within the Metropolitan police district, or City of London, to which he may be required by the hirer, not exceeding 6 miles from the place where hired. (Sec. 17.)

The driver shall (unless he have a reasonable excuse, as above) drive for any time not exceeding 1 hour from the time when hired. (Sec. 17.)

The proprietor of every hackney carriage shall keep distinctly painted or marked both on the inside and outside of such carriage, as the Commissioner of Police shall direct, a table of fares, which may be legally demanded; and the driver shall have with him at all times, when plying for hire, a book of fares, in such form as shall be directed by the Commissioner, and produce the same when required for the information of any person hiring or intending to hire such carriage. (Sec. 5.)

In cases of disputes as to the fare according to distance, any table or book signed by the Commissioner of Police shall, on proof of such signature, be conclusive evidence of all the distances therein stated to have been measured by his authority. (Sec. 6.)

In case of any dispute between the hirer and driver of a hackney carriage, the hirer may require the driver to drive to the nearest Metropolitan police court or justice room, when the complaint may be determined by the sitting magistrate without summons; or if no police court or justice room be open at the time, then to the nearest police station, where the complaint shall be entered, and tried by the magistrate at his next sitting. (Sec. 18.)

Every driver of a hackney carriage shall, when hired, deliver to the hirer a card, on which shall be printed the number of the Stamp Office plate on such carriage, or such other words or figures as the Commissioner of Police may direct. (Sec. 8.)

Penalty of 40*s.*, or 1 month's imprisonment, for each offence against any of the above provisions. (Secs. 17, 19.)

All property left in any hackney carriage shall be deposited by the driver at the nearest police station within 24 hours, if not sooner claimed by the owner; such property to be returned to the person who shall prove to the Commissioner of Police that the same belonged to him, on payment of all expenses incurred, and of such reasonable sum to the driver as the Commissioner shall award. (Sec. 11.)

Driver not wearing his metal ticket conspicuously on his breast at all times during his employment, or refusing to produce such ticket for inspection, or refusing to permit any person to note the writing thereon, or wearing ticket with writing not distinctly legible, to forfeit 40*s.* (6 & 7 Vict. c. 86 s. 17.)

Every person using or wearing a ticket without having a license in force relating to such ticket, or wearing a ticket resembling the tickets issued by the Commissioner of Police, to forfeit 5*l.*: such ticket may be seized by any constable or person employed for the purpose by the Commissioner of Police. (Sec. 18.)

Driver allowing another person to act as driver in his place, also any person acting as driver without consent of proprietor of the carriage, to forfeit 40*s.* (Sec. 27.)

Person acting unlawfully as driver may be taken into custody by a constable, and charged before a magistrate.

If driver of hackney carriage permit or suffer any person to ride or be carried in, upon, or about such carriage, without express consent of person hiring the same: penalty 20*s.* (1 & 2 Wm. IV. c. 22 s. 50.)

Driver guilty of wanton or furious driving, or causing hurt or damage by carelessness or wilful misbehaviour; or drunk during his employment, or making use of insulting or abusive language or gesture, or any misbehaviour, to forfeit 3*l.*, or to be imprisoned for 2 months with or without hard labour, at discretion of justice; and in case of such hurt or damage, justice may order compensation, not exceeding 10*l.*, to be paid by the proprietor, and recovered by him from the driver, by whose default such sum shall have been paid. (Sec. 28.)

If driver of hackney carriage shall stand or ply for hire, or suffer same to stand across any street, or common passage, or alley; or shall feed the horses in any street, road, or common passage, save only with corn out of a bag, or with hay which he shall hold or deliver with his hand; or if driver shall refuse to give way, if he conveniently can, to any other carriage, or shall obstruct or hinder the driver of any other hackney carriage in taking up or setting down any person; or shall wrongfully, in a forcible or clandestine manner, take away the fare from any other proprietor or driver: penalty 20*s.* (Sec. 51.)

Every driver of a hackney carriage who shall ply for hire elsewhere than at some standing or place appointed for that purpose, or who by loitering or by any wilful misbehaviour shall cause any obstruction in or upon any public street, road, or place, shall for every such offence forfeit the sum of 20*s.* (6 & 7 Vict. c. 86 s. 33.)

Driver of hackney carriage leaving it unattended in any street or road, or at any place of public resort, whether hired or not: penalty 40*s.*; and constable &c. may drive such carriage to a place of safety. (1 & 2 Wm. IV. c. 22 s. 55.)

HAIR, Human (Ger. haare, menschen-haar; Dutch, hair; Fr. cheveux; Ital. capelli umani; Span. cabellos; Lat. capilli). 'Human hair makes a very considerable article in commerce, especially since the mode of perruques (and chignons) has obtained. Hair of the growth of the northern countries, as England &c., is valued much beyond that of the more southern ones, as Italy, Spain, the southern parts of France &c. Good hair is well fed, and neither too coarse nor too slender; the bigness rendering it less susceptible of the artificial curl, and disposing it rather to frizzle; and the smallness making its curl of too short duration. Its length should be about 25 inches; the more it falls short of this the less value it bears.' (*Ency. Brit.*)

In 1866, 18,500 lbs. of human hair were imported into the United Kingdom, at an average value of 8*s.* per lb.

Hair of Beasts (Ger. haare, huhaare; Dutch, hair; Fr. poil; Ital. and Span. pelo; Lat. pelles). The hair of horses is extensively used in the manufacture of chairs, sofas, saddles &c.; while the hair or wool of beavers, hares, rabbits &c. is much employed in the manufacture of hats &c. [Wool.] In 1866 we imported 336,892 lbs. of camel's hair, worth 10,500*l.*; and we exported 475,926 yards of hair cloth, worth 43,427*l.*

HAIR-POWDER (Ger. puder; Fr. poudre à poudrer; Ital. polvere di cipri; Span. polvos de peluca) is used as an ornament for the hair, and generally made from starch pulverised, and sometimes perfumed. A tax of 1*l.* 3*s.* 6*d.* a-year is laid upon all persons who wear hair-powder. Different statutes prohibit the mixing of hair-powder with starch or alabaster, and hair-powder makers are prohibited having alabaster in their custody.

HAKODADI or HAKODATE, the most northerly of the Japanese treaty ports, is situated in the island of Yeso, lat. 41° 47′ 8″ N., long. 140° 45′ 34″ E. It is an excellent harbour, having good anchorage in black mud, in about 5 to 6 fathoms water, and had been frequented by whalers before the opening of the Japanese islands to European and American commerce in 1858. The population is reckoned at about 10,000. The chief exports are hides and deer horns, biche de mer and tow, the last worth from 12*l.* to 14*l.* per ton. Sir R. Alcock does not speak very highly of the capacities of Hakodadi.

In 1866, 51 vessels arrived at Hakodadi, of which 20 were British; and 51 cleared, of which 22 were British. The duties and port charges paid the same year were 3,542*l.* The chief exports were seaweed, silk, and fish; the imports, cottons, woollens, and sugar. (Consul Gower's *Report for* 1866.)

Value of Exports from and Imports into Hakodadi in 1865 *and* 1866.

	Exports £	Imports £
1865	107,756	31,261
1866	121,644	7,213

HALIFAX. The capital of Nova Scotia, on the south-east coast of that province, lat. 44° 36′ N., long. 63° 28′ W. It is situated on a peninsula on the west side of Chebucto Bay, and has one of the finest harbours in America. Population in 1861, 25,026. The town is irregularly built, and most of the houses are of wood. The Government-house is one of the most splendid edifices in North America. Halifax was founded in 1749. Nova Scotia now forms one of the provinces of the Confederacy or Dominion of Canada.

Port.—The best mark in sailing for Halifax is Sambro light-house, on a small island off the cape of the same name, on the west side of the entrance to the harbour, in lat. 44° 30′, long. 63° 32′. The light, which is fixed, is 210 feet above the level of the sea; and a detachment of artillery, with two 24-pounders, is upon duty at the light-house, firing at regular intervals during the continuance of the dense fogs with which this part of the coast is very much infested. (Coulier, *Tables des principales Positions Géographiques*, p. 78.) The course into the harbour for large ships after passing Sambro light is between the main land on the west and Macnab's Island on the east. On a spit projecting from the latter a light-house has recently been constructed; and when this is seen, ships may run in without fear. The harbour is defended by several strong *forts*. Ships usually anchor abreast of the town, where the harbour is rather more

than 1 mile in width. After gradually narrowing to about ¼ that width, it suddenly expands into a noble sheet of water, called Bedford Basin, completely land-locked, with deep water throughout, and capable of accommodating the whole navy of Great Britain. The harbour is accessible at all times, and is rarely impeded by ice. There is an extensive royal dockyard at Halifax, which during war is an important naval station, being particularly well calculated for the shelter, repair, and outfit of the fleets cruising on the American coast and in the West Indies. Mr. M'Gregor has severely, and we believe justly, censured the project for the removal of the dockyard from Halifax to Bermuda.

Trade &c. of Halifax and Nova Scotia.—Halifax is the seat of a considerable fishery; but the British colonists seem to be, for what reason it is not easy to say, less enterprising and successful fishers than the New Englanders. The principal trade of the town and province is with the West Indies, Great Britain, and the United States. To the former they export dried and pickled fish, lumber, coals, cattle, flour, butter, oats, potatoes &c. They export the same articles to the southern ports of the United States, and gypsum to the eastern ports of New England. To Great Britain they send timber, deals; whale, cod, and seal oil; furs &c. The principal exports of timber are from Pictou on the St. Lawrence. The imports consist principally of colonial produce from the West Indies; all sorts of manufactured goods from Great Britain; and of flour, lumber &c. from the United States, principally for exportation to the West Indies.

In 1826 a company was formed for making a canal across the country from Halifax to the basin of Minas, which unites with the bottom of the Bay of Fundy. The navigation is formed, for the most part, by Shubenacadie lake and river. The Legislature gave 15,000*l.* to this undertaking. The excavated part of the canal is 60 feet wide at top, 36 feet at bottom, and admits vessels drawing 8 feet water. It seems very questionable whether this canal will be profitable to the shareholders, but it is of very considerable service to the trade of Halifax. The extent of the Nova Scotia Railway in working order in 1865 was 93 miles.

There are 2 private banking companies at Halifax. Accounts are kept in pounds, shillings, and pence, the same as in England, and the weights and measures are also the same.

About 120 large square-rigged vessels, and about the same number of large schooners, with several smaller craft, belong to Halifax.

The steam ships conveying the mails to British North America ply between this port and Boston in the United States and Liverpool. At present (Sept. 1868) five steamship companies send steamers from the latter, so that 2 start each Tuesday and Wednesday, and 1 each Thursday, Friday, and Saturday; the ports of destination being New York and Boston, Halifax, Quebec, and Montreal. The fare to Halifax or Boston from Liverpool, including provisions and steward's fee (but excluding wines and liquors), is from 18*l.* to 26*l.* first class. On arriving at Halifax, passengers are conveyed across the Peninsula to Pictou, whence they are carried by steamers to Quebec and Montreal. A steam intercourse is also kept up in summer with Boston. In 1865 the value of the total imports into Nova Scotia was 14,381,662 dollars, or 2,876,332*l.*, of which 11,530,495 dollars represent the import traffic of Halifax. [COLONIES; TARIFFS, COLONIAL; &c.]

During 1865, 6,854 ships, if the aggregate burden of 929,929 tons, entered the ports of the colony (principally Halifax) from all countries, 149 of which were from the United Kingdom.

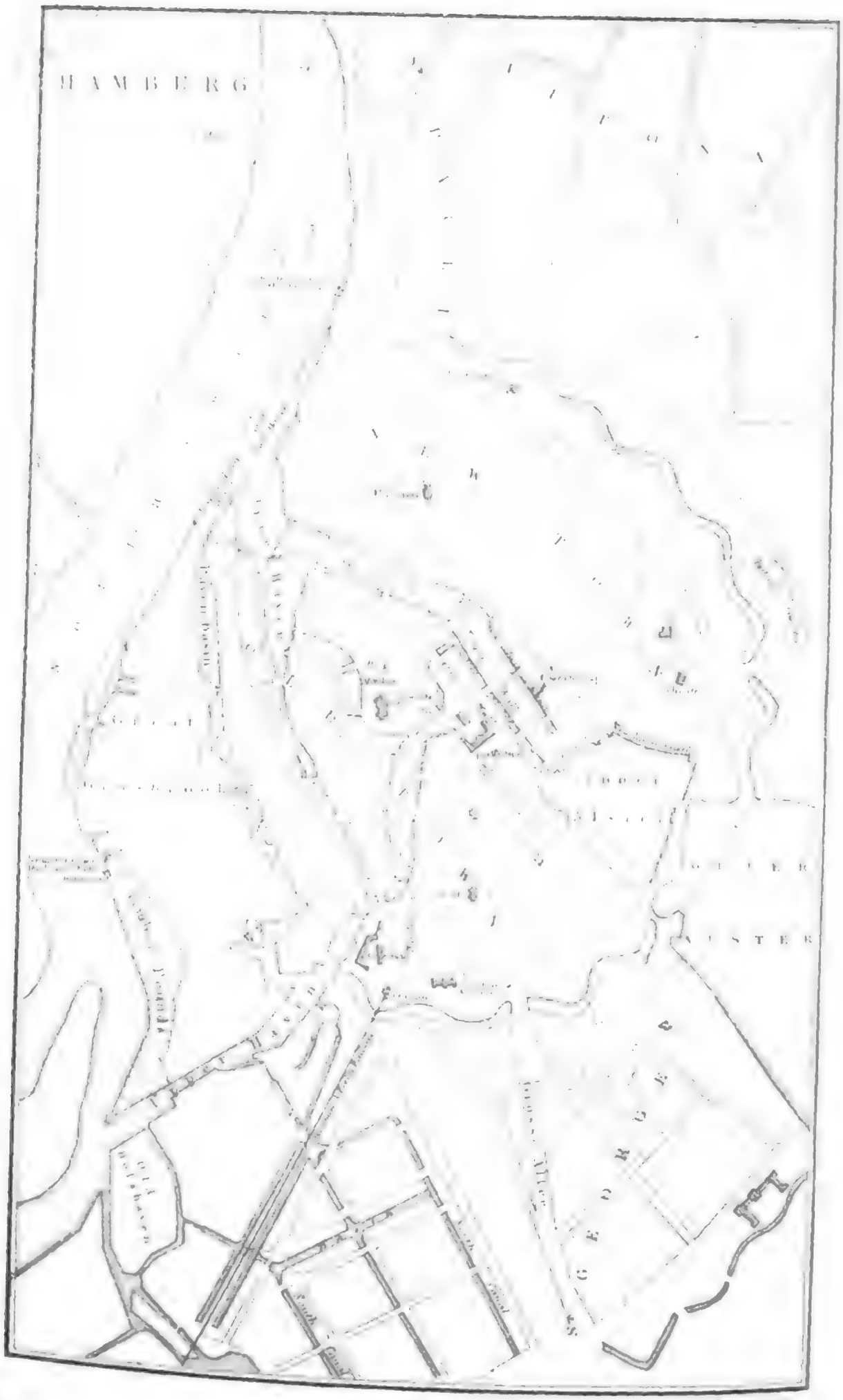
Account of the Quantities and Values of the Principal Articles Exported from the United Kingdom to Nova Scotia, and principally to Halifax, in the Years 1865 *and* 1866.

Articles		Quantities		Value	
		1865	1866	1865	1866
				£	£
Apparel and haberdashery	value	—	—	252,325	254,322
Copper, wrought and unwrought	cwts.	4,121	4,251	16,980	17,560
Cordage and twine	,,	16,483	17,116	34,269	40,987
Cotton yarn	lbs.	151,830	172,366	11,502	11,826
Cottons, entered by the yard	yards	4,834,908	6,111,504	133,199	164,956
at value	value	—	—	16,700	18,329
Drugs and chemical products	,,	—	—	7,320	14,584
Earthenware and porcelain	,,	—	—	13,607	16,183
Fishing tackle	,,	—	—	19,643	32,635
Glass manufactures	,,	—	—	8,254	10,454
Hardwares and cutlery, unenumerated	cwts.	6,981	7,250	35,176	44,508
Hats of all sorts	doz.	7,533	10,612	10,882	12,986
Iron, wrought and unwrought	tons	9,397	17,178	94,500	155,508
Leather, wrought and unwrought	value	—	—	20,170	31,279
Linens, entered by the yard	yards	982,631	1,021,118	48,681	48,708
Machinery and mill work	value	—	—	9,361	11,768
Oil, seed	gallons	68,009	70,133	9,654	11,765
Painters' colours (not otherwise described)	value	—	—	10,614	13,483
Paper of all sorts (including paper hangings)	cwts.	3,448	5,673	9,885	15,058
Salt	tons	23,077	23,106	7,284	11,970
Silk manufactures	value	—	—	8,994	18,992
Soap	cwts.	2,279	2,894	2,767	4,005
Woollens, entered by the yard	yards	2,451,254	2,400,926	173,065	176,598
at value	value	—	—	9,699	9,610
All other articles	,,	—	—	99,715	141,317
Total		—	—	1,064,283	1,291,217

Total Value of Nova Scotian Imports and Exports (including Bullion and Specie) from and to each Country in the Years ended September 30, 1863, 1864, *and* 1865.

Countries	Imports			Exports		
	1863	1864	1865	1863	1864	1865
	£	£	£	£	£	£
United Kingdom	775,139	1,081,568	1,263,198	64,068	66,105	152,948
British Possessions: West Indian	57,256	88,155	133,441	342,871	370,806	393,292
North American	243,321	287,815	518,553	370,929	341,563	340,211
United States	771,553	860,605	865,171	373,954	489,554	725,899
Other Countries	193,906	253,748	295,968	157,475	157,775	153,729
Total	2,040,276	2,581,929	2,876,332	1,309,298	1,451,563	1,766,139

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Account of the Quantities and Value (in Sterling) of the Principal Articles Imported into the United Kingdom from Nova Scotia, and principally from Halifax, in 1865 and 1866.

Principal and other Articles		Quantities		Value	
		1865	1866	1865	1866
				£	£
Cotton, raw	cwts.	21	5,276	235	40,035
Fish	,,	12,957	3,174	11,796	6,215
Oil, train or blubber	tuns	93	39	5,012	1,997
Skins and furs:					
Fox	no.	2,102	3,919	1,064	1,812
Marten	,,	383	550	211	405
Otter	,,	291	505	435	330
Seal	,,	3,652	7,568	581	1,209
Other sorts	value	—	—	2,725	9,239
Sugar, unrefined	cwts.	1	—	2	—
Wood and timber:					
Not sawn or split	loads	4,931	3,288	18,219	11,303
Deals, battens &c., sawn or split	,,	21,851	22,725	63,895	63,904
Lathwood	,,	572	381	781	519
All other articles	value	—	—	3,312	8,184
Total		—	—	108,698	144,880

HAMBURG. One of the Hanse Towns, but since July 1, 1867, joined to the States of the North German Confederation, on the north bank of the river Elbe, about 70 miles from its mouth, lat. 53° 32′ 51″ N., long. 9° 58′ 37″ E. Population on Dec. 3, 1867, including the suburbs of St. George and St. Paul, but excluding the territory attached to the city, 223,763. Hamburg is the greatest commercial city of Germany, and, perhaps, of the Continent. She owes this distinction principally to her situation. The Elbe, which may be navigated by lighters as far as Melnik, in Bohemia, renders her the entrepôt of a vast extent of country. Advantage, too, has been taken of natural facilities that extend still farther her internal navigation; a water communication having been established, by means of the Spree and of artificial cuts and sluices, between the Elbe and the Oder, and between the latter and the Vistula; so that a considerable part of the produce of Silesia destined for foreign markets, and some even of that of Poland, are conveyed to Hamburg. [Canals.] There is also a communication by means of the Steknitz Canal with the Trave, and consequently with Lübeck and the Baltic. But the great lines of railway which now unite Hamburg with Berlin, Leipsic, Lübeck, Kiel, Rendsburg, and all the interior of Germany, have vastly extended her connections, and are probably of even more importance than her command of river and canal navigation. Vessels drawing 14 feet water come up to the town at all times, and vessels drawing 18 feet may come safely up with the spring tides. The largest vessels sometimes load from and unload into lighters at Cuxhaven, Glückstadt, and Bremerhaven. The trade of Hamburg embraces every article that Germany either sells to or buys from foreigners. The imports consist principally of cotton wool, stuffs, and yarn; wool, woollen, and worsted goods; coffee, sugar, silk and silk goods; tobacco, hides, iron, and hardware, machinery, indigo, wine, brandy, rum, dyewoods, tea, pepper &c.; very large quantities of coal are imported from the United Kingdom. Being brought from many different places, there is a great variety of quality in the grain found at Hamburg, but a large proportion of the wheat is inferior. Some of the barley is very good, and fit for malting. The oats are feed of various qualities. With the exception of coal, the exports consist of the same articles as the imports, Hamburg not being a centre of consumption, but of distribution. In addition to colonial produce, British manufactured goods and grain of all sorts, they include wool, clover, seed, bark, spelter, cattle, butter, salted provisions, rags, wooden clocks and toys, linens, and all sorts of German manufactured goods, Rhenish wines &c. Most sorts of Baltic articles, such as grain, flax, iron, pitch and tar, wax &c., may generally be bought as cheap at Hamburg, allowing for difference of freight, as in the ports whence they were originally brought. The total annual value of the import and export trade of the port (including that of Altona, the merchants of which conduct their business on the Hamburg exchange) carried on by sea may be estimated at 50,000,000*l.* sterling, or upwards; and as the largest portion by far of this immense trade is in our hands, it will be necessary that we should be a little fuller than ordinary in our details in regard to this great emporium.

Hamburg was visited by a most destructive fire in May 1842; but, notwithstanding the heavy losses that were in consequence incurred, and the paralysis it occasioned in trade and industry, the shock was less severe than might have been anticipated. The system of mutual insurance having been generally adopted, the proprietors of houses and other property were subjected to a tax, to defray the interest of a loan of 34,000,000 marcs banco raised to indemnify the sufferers, and to enable them to rebuild their houses. All traces of the devastation have thus long ago disappeared; and here, as in most other places exposed to a similar calamity, it has led to a great improvement of the town, which is now better built and more commodiously laid out than formerly. On January 1, 1866, the public debt of Hamburg was 4,023,980*l.*: the revenue and expenditure, chiefly derived from customs, excise, and stamps, averaged about 660,000*l.* for the three years 1862–4.

Navigation of the Elbe, Pilotage &c.—The mouth of the Elbe is encumbered with sand-banks. The channel leading to Cuxhaven is bounded on the north by the Vogel Sands and North Grounds, and on the south by the Schaarhorn Sands and Neuwerk Island. On the latter there are 2 lighthouses and 2 beacons, and on the Schaarhorn is another beacon. The lighthouses on Neuwerk Island are about 700 yards apart; the most southerly, which is also the most elevated, being in lat. 53° 54′ 57″ N., long. 8° 29′ 40″ E. It is 128 feet high, being twice the height of the other. The channel is, in some places, hardly ¾ of a mile wide. The outer red buoy in the middle of the channel at its mouth bears from Heligoland S.E. by S., distant nearly 20 miles. But the best mark in entering the Elbe is the floating light, or signal ship, moored 2 miles N.W. by N. of the red buoy, in 11 fathoms at low water. This vessel never leaves her station unless compelled by ice in winter. By night she exhibits a lantern light, 38 feet above deck, and in foggy weather rings a bell every quarter of an hour. A second signal ship is stationed 5½ miles S.E. by E. from the first, at the westernmost point of a sand-bank dividing the fair way of the river. She is rigged like a galliot, to distinguish her by day from the first signal ship; and during night she exhibits *two* lights, one 18 feet above the other. The distance from the outer red buoy to Cuxhaven is about 16 miles; thence to Glückstadt the course is east, 28 miles; from the latter to Stade the course is south-easterly, 9 miles; and then easterly to Hamburg, 18 miles. The channel throughout is marked with black and white buoys, which are numbered and specified in the charts. The black ones are to be left, in passing up the river, on the starboard or right-hand side, and the white on the larboard side.

All vessels coming from sea into the Elbe, which measure above 60 commerce lasts at 6,000 lbs.

each, must pay pilotage whether they require a pilot or no; and however well the signals, lights, beacons, and buoys may be arranged, the services of an experienced pilot are very necessary, especially in the case of fogs or stormy weather. To assist in getting vessels supplied with this indispensable functionary, a schooner was directed, in 1855, to cruise between Heligoland and the mouth of the river, to be in readiness to supply ships with pilots and instructions; and this plan having been found to answer extremely well, a second schooner has since been employed for the same purpose. Previously to this arrangement vessels had to heave-to by the pilot-galliot, moored near the river's mouth; and when, owing to the state of the tide or the weather, they could not do this, they had to sail to Cuxhaven and there get a pilot. But the schooners being extremely good sea-boats, and always on the look out, their employment has greatly reduced the inconveniences that formerly attended the shipping of pilots.

The Charges on account of Pilotage vary, of course, with the vessel's draught of water, the distance she has been piloted, and sometimes also with the nature of the cargo. They are in all cases very moderate. The charge for towage is fixed per agreement.

Down to a late period there were no docks or quays at Hamburg, but they are now in course of construction. At present there is a quay about 3,000 feet long, intended chiefly for sea-going steamers, in the course of erection; and when completed, there is no doubt that further works of the same kind on the Grasbrok will be commenced without delay. Vessels moored in the river outside of piles driven into the ground a short distance from shore; and in this situation they were not exposed to any danger unless the piles gave way, which rarely happens. There was a sort of inner harbour formed by an arm of the Elbe which runs into the city, where small craft discharged their cargoes. Larger vessels loaded and unloaded from their moorings by means of lighters. These carry the goods from and to the warehouses which front the various small arms and channels of the river, and the canals carried from it into different parts of the city. The charges on account of lighterage are extremely moderate. But, whatever inconveniences may have attached to this state of things, either have been, or are on the eve of being, materially abated by the formation of a new harbour, in which ships will lie alongside the quays, and their loading and unloading be greatly facilitated.

Elbe Duties.—The Stade duties on the Elbe, against which we protested in former editions of this work, have been abolished since July 1, 1861, and the various duties levied on the upper part of the river have been simplified and reduced since July 1, 1863. At present all vessels, whether going up or down the river, have to pay toll only at the custom-house of Wittenberg, where they have to stop, at any rate, on account of customs revision. The Elbe duties are levied there in three different classes, namely, in the first (normal class) at the rate of 16 silver pfennig (360 = 1 thaler courant, or 30 thaler stand.) per toll-centner of 100 lbs. metrical weight; in the second at the rate of 8 silver pfennig; and in the third at the rate of 2 silver pfennig. Below Wittenberg the traffic on the river is entirely free. Now that Prussia stands in the place of Hanover and Denmark in regard to these tolls, it is believed (says Mr. Consul-General Ward in his *Reports* of February 1867, and May 15, 1868) that a modification, if not an entire abolition of them will soon be effected.

Money and Banks.—Money is generally reckoned in Hamburg in marcs, of 16*s.*, each of 12 pfennigs; and is of 2 sorts, *banco* and *current*. The former consists of the sums inscribed in the books of the Bank opposite to the names of those who have deposited specie or bullion in the Bank, or got it transferred to them at the rate of 27½ marcs banco to the Cologne marc of fine silver. The value of the marc banco, taking silver at 5*s.* per oz., is consequently 1*s.* 5½*d.*, which makes the par of exchange 13 marcs 10½ schill. banco for 1*l.* sterling. There is always a considerable agio in favour of banco.

The state currency was regulated by a law of the year 1856, according to which the Prussian thaler (60 to 1 kilogramme of fine silver) became the legal coin. But the monetary unit is formed by the marc current, 2½ of which are equal to the Prussian thaler. Hamburg for a long time has only issued small coin sufficient to supply the local demand.

1 marc of fine silver (fixed value)	=	27 marcs 12 schill. banco
1 marc of fine gold	=	430 marcs banco
100 Hamburg marcs banco	=	7*l.* 8*s.* 2*d.* sterling
100 „ „ courant	=	5*l.* 17*s.* 8*d.* „
100 Prussian dollars	=	14*l.* 14*s.* 2*d.* „

The weight for gold or silver will be the metrical pound from July 1, 1868.

In addition to the *Giro*, or deposit bank of Hamburg, which was founded so far back as 1619 [BANKS], two joint-stock banks were established here in 1856. One of these, the North German Bank, has a capital of 20,000,000 m. banco = 1,500,000*l.*, which has been wholly paid up. The capital of the other, or Union Bank, is nominally the same as that of the latter, but only 4,000,000 m. banco, or 300,000*l.*, of it has been paid up. They discount bills, make advances on goods, and transact all sorts of banking business.

Measures and Weights.—A new regulation of these was effected by an Act passed on July 9, 1858.

There were before in Hamburg 3 different sorts of *pound weights*:—

1. The bank or silver weight (formerly the Cologne, weight).
2. The commercial weight.
3. The apothecary weight.

One pound bank, or silver weight = 2 marcs; 1 marc (Cologne) is 233·85489 grains, or 4865·57 Dutch As. = 100 marcs = 62·6554 English troy pounds.

The old relation between the commercial weight and bank weight, by which the commercial pound was equal to $33\frac{5}{32}$ oz. bank weight, has been confirmed by the Act of 1843.

1 centner = 112 pounds; 1 pound = 32 oz.; 1 oz. = 4 drachms; 1 drachm = 4 pfennigs.

100 commercial lbs.	=	106·838 English lbs. avoirdupois.
100 „	„	48·4609 kilogrammes.
100 „	„	86·5356 lbs. Vienna.
100 „	„	96·9219 lbs. German Customs Union.

1 'schiffpfund,' in commerce = 2½ centners, or 20 'liespfund' of 14 lbs. each, or 280 lbs.

1 'schiffpfund' by land carriage has 20 'liespfund,' each of 16 pfund; is, therefore = 320 lbs.

A pipe of oil is 820 lbs.; 1 barrel of butter (small willow and hoops) is taken at 224 lbs., but with common hoops at 280 lbs. nett.

But the inconveniences of such a system are too obvious to require being pointed out; and to obviate them, provision was made in a treaty concluded in 1856, by the Governments of Hamburg, Hanover, Brunswick, Bremen &c. for the introduction of a uniform and simpler system of weights. These, which have since been brought into use, are 3·1759 per cent. heavier than the old ones; and

their introduction, besides its other effects, has, of course, reduced the various duties charged by weight in this city, and the other countries referred to, in the proportion now stated.

The English equivalents of the Hamburg measures and weights will be found in the subjoined table.

Measures.

Hamburg.	*British.*
100 feet in length	= 94·021 feet in length
square	= 68·400 feet square
cubic	= 83·115 feet cubic
100 ells (of cloth)	= 62·681 yards
100 barrels (fass) of corn	= 18·901 imperial quarters
100 quarterns (viertel) of liquid	= 159·470 imperial gallons
1 commercial last of 6,000 lbs.	= 3 tons burden
1 old ship last of 4,000 lbs.	= 2 tons burden
1 corn last	= 11¼ imperial quarters
1 coal last of 12 tons	= 2 tons avoirdupois

Weights.

100 new lbs. or 1 centner	= 110·232 avoirdupois
100 marcs bank weight	= 62·6554 lbs. troy

Long Measure.—The Hamburg foot, divided into 12 inches, of 8 parts each = 0·28657 metres = 127·036 Parisian lines = 11·289 Eng. inches. Hence—

100	Hamburg	feet	= 94·021 English feet
100	,,	,,	28·657 French metres
100	,,	,,	91·307 Prussian or Rhenish feet
100	,,	,,	90·664 Vienna feet

The Hamburg ell (short ell) = 2 Hamburg feet. 05·7314 metres = 254·072 Paris lines. 100 Hamburg ells = 62·681 Eng. yards.

The Brabant elle (or long ell) most commonly used in Hamburg in measurement of piece goods = 27·585 Eng. inches.

Liquid Measure.—1 fuder = 6 aums, 1½ aum = 4 ankers or 5 eimers; 1 anker = 5 viertels; 1 viertel = 2 stübchens; 1 stübchen = 2 kannens; 1 kannen = 2 quarters of Oessel; 1 eimer = 4 viertels; 1 hogshead = 1½ aums, or 6 ankers, or 30 viertels, each of 8 quartiers or bottles.

The stübchen contains 266 Hamburg cubic inches = 3·62 litres.

100	Hamburg	viertels	= 159·39 English imperial gallons.
100	,,	,,	724·18 French litres.
100	,,	,,	638·45 Prussian quarters.
100	,,	,,	511·88 Vienna maass.

The full beer barrel contains 48 stübchens, or 192 quartiers; the small barrel only 32 stübchens, or 128 quartiers.

The vinegar barrel contains 30 stübchens, or 120 quartiers.

The whale and fish oil barrel contains 32 stübchens, or 128 quartiers; 2 whale oil barrels = 1 quarteel.

Grain Measure.—Corn is now (1867) sold by weight, and the last is supposed to contain in

	lbs. avoir.		lbs. avoir.
Wheat	5,400	Malt	3,000
Rye	5,100	Peas	5,000
Barley	4,900	Beans	5,520
Oats	3,600		

In practice, 1 Hamburg last is taken at 11 imperial quarters, 31 hectolitres, 57 Prussian scheffels, 25 Danish barrels, and 16½ Russian chetwerts.

The coal barrel contains (when the 1,453 Hamburg cubic inches of head or heaped measure is added) 16,438 cubic inches.

The Hamburg ship last, or last of commerce, really weighs 6,000 pounds, or 3 tons (not 4,000 pounds, as is generally stated).

Exports.—The exports of grain from Hamburg depend in part on the harvests in the countries traversed by the Elbe, but more, perhaps, on the wants of this country. In our customs accounts, the imports of corn &c. from the Hanseatic Towns are given in the aggregate, but those from Hamburg amount to full ⅘ or ⅚ of the whole.

The once important trade in German linens to Spain and her former American possessions has of late years greatly fallen off. This is a consequence of the competition of England, who, by means of her superior machinery, is able not only to spin, but to produce cloth cheaper than any other country. On the other hand, however, the import of linen yarns from England is being progressively augmented.

Lastage and Custom House Charges.—British and other foreign vessels pay the same as Hamburg vessels. For clearing in and clearing out, no separate charges are made; visiting the port is considered as *one* voyage, and the charges on vessels are paid as follows:—

For vessels arrived seaward with cargoes according to measurement, for every commerce-last of 6,000 lbs. 8*s.* courant (40*s.* = 1 thaler courant).

It is difficult to determine the exact ratio of a last to a ton, but it may be taken at about 3 or 2⅔ to 1. But in Hamburg all vessels are measured by the harbour-master; and it is upon his report that the lastage is calculated.

The following deductions are allowed:—

1. Only ½ the duty is paid for vessels arrived seaward, the cargoes of which consist exclusively of cement, cement stone, tiles, guano, herrings, bricks, salt, slates, stones, or other articles taken in as ballast.

2. Entirely free from duty are all vessels arrived seaward, the cargoes of which consist exclusively of coal and cinders, in case they leave in ballast, as well as all vessels arriving in ballast, if they also leave in ballast.

There are no duties upon the river navigation.

For all vessels laden with coals, wood, or turf, no lastage is paid, provided they do not take return cargoes.

Half Lastage.—Vessels arriving in ballast and departing with a cargo pay ½ the above lastage, according to their destination.

N.B.—Exclusive of the above dues, which are all remarkably moderate, vessels coming to the port of Hamburg are obliged to pay certain dues to Hanover, called Stade or Brunshausen dues. (See *post.*)

Duties.—The import and export duty was before the year 1824 1½ per cent. (courant for banco, or 1½ on 125) on goods imported and exported by sea, and ½ per cent. (courant for banco) for such as were received and transported by land or river conveyance; but for some years these duties have been greatly reduced, and are now only ½ per cent. on imports. The greater part of the imports are, however, entirely free even of these low duties, as is evident from the following statements:—

All export duties are abolished. (December 31, 1856.)

According to the latest customs regulations, of December 31, 1862, the articles passing duty free are:—

1. Wool, raw cotton, silk, flax, yarn and manufactured girths of flax, hemp, rags, old ropes, used linen cloth, and empty bags.

2. Corn, potatoes, and rape seed.

3. Unmanufactured copper and brass, copper ore, rough spelter and old zinc, nickel and nickel ore, cobalt and cobalt ore, bell metal, and old metal vessels &c. for smelting.

4. Bullion and coin, unworked gold and silver, waste derived from the precious metals, gold dust, silver ore and ore containing silver, precious stones not set, pearls, and jewels.

5. Printed books, music, maps &c.

6. Oil cakes, bark, bones, offal of various kinds, guano, and blood manure.

7. Coals, cinders, turf, timber, staves, and wood for burning, chalk and lime stone, slates, cement and cement stone.

8. Live animals, with the exception of oysters

and leeches, game and poultry, fresh fruit, and various agricultural productions.

9. Passenger luggage, dowries and heritages; but in part under certain conditions and restrictions.

Goods in Transit.—The rate of customs duty upon foreign goods imported into Hamburg (with the exception of certain duty-free articles) continues at ½ per cent. currency on banco *ad valorem*; but a modification of the former regulations touching the declaration of goods *in transitu* has lately been made, according to which not only Hamburg citizens, but foreigners, are enabled to declare goods *in transitu* upon payment of a fee of 25 marcs courant on the transaction, and depositing or giving security to the Government for 1,000 marcs banco.

The levy of duties in Hamburg is conducted in the simplest manner, and on the most liberal footing. No vexatious forms check the free intercourse or the free course of trade; the entry for duty is merely a declaration of the current value at the time; transitu articles remaining in warehouse for exportation require a mere declaration to that effect by a burgher or citizen.

In levying duties, no advantage is claimed by Hamburg for vessels bearing her own flag; goods by all vessels, from whatever quarter of the world, paying the same duties. Though she now carries the Federal flag, she, like the other Hanse Towns, remains a free port outside the Customs frontier until she signifies a wish to be admitted to it. But for this privilege she is obliged to pay an annual sum, called an aversum, equivalent to the customs duties that would otherwise have been levied within its territory. It amounted to 710,160 dollars, or 106,530*l.*

The low rates of duty in Hamburg is a proof of her anxious desire to encourage trade with all nations; and the more so when we consider the great expense she is put to in keeping up buoys along the Lower Elbe, and other necessary charges for navigating that river; expenses which considerably exceed the total sum received for duties. The total amount of customs duties received in 1867 at Hamburg was 578,175 marcs courant, or 2½ per mille *ad valorem*.

Custom House Regulations.—On a vessel's arrival at Hamburg the broker reports her to the Custom House, gives his guarantee for payment of the duties, delivers her papers, and the vessel is allowed to unload. On clearing, a manifest of the outward cargo, together with the consul's certificate of the regularity of the ship's papers, must be produced at the Custom House by the broker, who obtains in return a clearance certificate, authorising the vessel to go to sea.

Credit, Brokerage &c.—Almost all goods are sold for ready money, with an allowance of 1 per cent. for discount. Sometimes, but not frequently, sales are made at 2 or 3 months' credit, and in such cases a higher price is obtained than for cash.

Brokers are positively forbidden to act as merchants or factors. They are licensed, and must conform to the established regulations.

Brokerage is paid wholly by the seller, and amounts to—

'Five sixths per cent. on cotton, cotton-twist, cocoa, cochineal, copper, hides, indigo, manufactured goods, nankeens, sugar, and tea.

'One per cent. on annotto, camphire, cinnamon, cardamoms,* cassia,* cloves,* drugs not denominated,* deer skins, dyewoods,* ginger,* jalap,* mace,* nutmegs,* pepper, pimento, potashes, Peruvian bark, quercitron bark, rice,* saltpetre, sarsaparilla,* shellac,* tamarinds,* tobacco in leaves* and tobacco stems,* of the growth of the United States of America, whale oil,* vanelloes.*

'N.B.—Tobacco stems* of all other origin, cigars, and other manufactured tobacco, pay 2 per cent.; all other leaf and roll tobacco* 1½ per cent.

'1½ per cent. on wine, brandy, rum, and arrack, if sold in parcels amounting to 3,000 marcs banco and upwards.

'2 per cent. on ditto, for sales of and under 3,000 marcs banco.

'In auction the selling broker is entitled to 1½ per cent. and the purchasing broker to 2 per cent., without regard to the amount.'

All articles marked (*) pay the brokerage before mentioned, if the quantity sold amounts to 600 marcs banco, or higher; for smaller lots of less than 600 marcs banco, and down to 150 marcs banco, the brokerage is paid, with the addition of ½, and under 150 marcs banco the double is allowed. All other merchandise pays 1½ per cent. at least for sales not exceeding 150 marcs banco.

It is, however, to be observed, that all augmentations, in proportion to the amount sold, are understood to be applicable to sales by private contract only, and not to those by auction; and even not to such private sales where a broker has made the purchase of a larger quantity of goods above the said amount of 600 marcs banco, and has afterwards divided it into smaller lots.

Conditions of Sale. Imports.—Coffee is sold per pound in schill. banco; discount, 1 per cent.; good weight is ½ per cent. Tare is as follows: viz. on casks, real weight; on bags of 130 lbs. or less, 2 lbs.; above 130 lbs. and not above 180 lbs., 3 lbs.; above 180 lbs. and not exceeding 200 lbs., 4 lbs. On Mocha bales of about 300 lbs., 14 lbs.; if 600 lbs., 50 lbs. On Bourbon single bales, 2 lbs.; on double, 4 lbs.

Cotton is sold per lb. in schill. banco; discount, 1 per cent.; good weight, 1 per cent.; tare on bales, West Indian and North American, 4 per cent.; on square bales, 6 per cent.; on Bombay and Surat bales, 8 per cent.; on Bourbon bales and Manilla serons, 6 per cent.; on Caraccas and Guiana small serons, 10 per cent.

East India piece goods are sold per piece, in marcs banco; discount, 1 per cent.

Flour is sold per 100 lbs. in marcs currency, uncertain agio; discount, 1 per cent.; good weight, 4 per cent.; tare, 20 lbs. per barrel.

Fustic is sold per 100 lbs. in marcs currency; agio, 20 per cent.; discount, 1 per cent.; good weight, 1 per cent.: and frequently an allowance in weight is made, if the wood is not very solid.

Indigo is sold per lb.; discount, 1 per cent.; good weight, ½ per cent.; tare, if in serons upwards of 120 lbs., 22 lbs.; in ½ serons less than 120 lbs., 20 lbs.; in chests, real tare.

Logwood is sold like fustic.

Pepper is sold per lb. in schill. banco; discount, 1 per cent.; good weight, ½ per cent.; tare, if in single bales of 300 lbs., 3 lbs.; in double bales, 6 lbs.

Quercitron bark is sold per 100 lbs. in marcs currency; agio, 20 per cent.; discount, 2 per cent.; good weight, 1 per cent. To determine the tare, the American tare is reduced to Hamburg weight.

Rice is sold per 100 lbs. in marcs banco; discount, 1 per cent.; good weight, 1 per cent.; tare, real; and super tare for tierces, 4 lbs.; for ½ tierces, 2 lbs.

Rum is sold per 30 quarts in rix doll. currency, agio uncertain.

Sugar, raw and clayed, is sold per lb. in banco groats; discount, 1 per cent., and sometimes 1½ per

cent.; Brazil or Havannah chest, good weight, ¾ per cent.; real tare; super-tare, 10 lbs. for Brazil, and 5 lbs. for Havannah sugar, per chest. Muscovados in casks, good weight, 1 per cent.; tare, if the casks weigh upwards of 1,000 lbs., 18 per cent.; if less, 20 per cent. Clayed sugars, good weight, 1 per cent.; tare, 16 per cent. East India sugars, in bags, good weight, ¾ per cent.; tare for white, 4 to 5 lbs.; for brown, 6 to 7 lbs.

Tea, per lb. in schill.: discount, 1 per cent.; good weight, ½ per cent. Tare of bohea, in chests of 400 lbs., 70 lbs.; of 150 to 180 lbs., 45 lbs. All black tea, 28 lbs. tare; green, 24 lbs.

Tobacco.—Leaf tobacco is sold per lb. in schill. banco, agio uncertain; discount, 1½ per cent.; good weight, 1 per cent.; tare per cask, 80 lbs. Brazil leaf in serons; tare, 5 per cent. In rolls; canister, in baskets of about 100 lbs.; good weight, 1 lb. per basket; tare, 14 lbs. if the basket is packed up in linen, and 12 lbs. if without linen. Porto Rico rolls, good weight, 1 per cent.; no tare, as the rolls are weighed by themselves. Brazil rolls, in serons of 400 to 600 lbs., are sold per lb., in schillings banco; good weight, ¾ per cent.; tare, 8 lbs. per seron. Tobacco stems per 100 lbs.: agio, uncertain; discount, 1½ per cent.; good weight, 1 per cent.; tare, if in casks, real weight; if packed up with cords, 2 to 4 per cent. according to the thickness of the rope. With tobacco in rolls, only the number of packages containing roll tobacco, and the nett weight, without mentioning the number of rolls, should appear in the bill of lading.

Glass (window) is sold per chest, in marcs; other glass ware per piece, doz., or 100, in schillings or marcs currency, with uncertain agio; discount, 1 per cent.

Hares' wool is sold per 2 lbs. in marcs; discount, 1 per cent.

Hare skins (German, grey) are sold per 100 pieces, in rixdoll. banco; Russian, grey, per 104 pieces, in rixdoll. banco; white, in marcs currency, agio uncertain; discount, 1 per cent.

Iron is sold per 100 lbs.; discount, 1 per cent.

Copper is sold per 100 lbs. in schill. banco; discount, 1 per cent.

The exchange business done at Hamburg is very great; for, besides the business of the place, most of the merchants in the inland towns have their bills negotiated there.

The usual charge for commission is, on sales 2 per cent., and 1 per cent. for *del credere*, if such guarantee be required: on purchases, 2 per cent. Under particular agreements, the rates sometimes vary considerably from the above.

Citizenship.—Foreigners cannot establish themselves as merchants, or carry on any business in their own names, at Hamburg, without becoming burghers; and to be manufacturers, they must also enter the guild or corporation peculiar to the trade they mean to follow. But, to become a burgher, a foreigner has only to comply with certain forms and pay certain fees, which do not, in all, exceed 10*l*. He then becomes, in the eye of the law, a Hamburg subject, and enjoys all the rights and privileges of a native.

Insurance &c.—All sorts of insurances are effected at Hamburg. A municipal regulation compels the insurance of all houses within the city, the rate varying according to the number of fires and the amount of loss. Marine insurance is principally effected by joint-stock companies, of which there are several: their competition has reduced the premiums to the lowest level, and the business is not understood to be profitable. The high duties on policies of insurance in this country have led to the insuring of a good many English ships at Hamburg. The value of the property assured at Hamburg against sea risks in 1866 was 668,558,300 marcs banco, of which 543,898,900 were insured by companies, and 124,659,400 by private insurers. Life insurance is not prosecuted in Germany to any considerable extent; but some of the English companies have agents here, who are said not to be very scrupulous.

Bankruptcy.—Considering the vast number of merchants and tradespeople at Hamburg, bankruptcy is not, in general, of frequent occurrence.

Much of the business transacted at Hamburg being on commission and for account of houses abroad, the failure of foreign merchants is a prevalent source of bankruptcy. Another source of bankruptcy is losses on goods imported or exported on speculation, and occasionally losses in the funds, in which a good deal of gambling goes on here. Expensive living is not nearly so prevalent a source of bankruptcy here as in London and other places.

The law of Hamburg makes three classes of bankrupts—the unfortunate, the careless, and the fraudulent. The first class consists of those whose books show that misfortune alone has occasioned the bankruptcy; that the party has all along lived within his probable income, and can account to his assignees completely for all his losses. Whoever is adjudged by the court to belong to this class (which contains but few in number) is considered entirely free from his debts, and is not subject to be called upon hereafter. The second and most numerous class contains those termed 'careless' bankrupts. These are persons who have entered into speculations exceeding their means, who have gone on for a considerable time after they found their affairs in arrear, who have lived beyond their income, have not kept their books in good order, and so forth. They are liable to be confined in prison for a period of 3 or 6 months; and provided they have not paid a dividend of 40 per cent., may be called upon for payment of their debt after 5 years from their discharge. If a claim be made by any creditor after this lapse of time, the bankrupt is obliged to pay whatever sum he is able for the benefit of his creditors. He must swear that he cannot pay anything, or not above a certain sum, without depriving himself and his family of necessaries. Every 5 years the claim may be repeated. All careless bankrupts are disabled from holding offices of honour. The third class contains the 'fraudulent' bankrupts, who are liable to be imprisoned, according to the extent of their frauds, for a limited period, or even for life, besides being rendered incapable of holding any office whatever. Should a bankrupt abscond, he is called upon by public advertisement to appear by a certain day, in default of which he is adjudged a fraudulent bankrupt, and his name is posted up on a black board on the Exchange.

I. Shipping and Navigation.

The obstructions and dangers that attach to the navigation of the Elbe have long been a subject of anxious consideration to the Senate and people of Hamburg. Hitherto, however, but little has been done to effect any material improvement; and the difficulties to be overcome are so very great, and the expense that would have to be incurred so very heavy, that it is not, perhaps, very likely that anything on a great scale will be speedily attempted. A plan for deepening the channel of the river and forming a new harbour at Cuxhaven, to be accomplished at an estimated expense of 640,000*l*., was proposed by Mr. Rendell, C.E., in 1854; but the death of that gentleman, and the

all but universal belief that the expense would really exceed twice or three times the estimated sum, have hitherto prevented any steps being taken in the matter. No doubt it is one of vital importance not merely to Hamburg, but to all Germany, and, in some measure, to the commercial world. In his *Reports* of February 1867 and May 15,1868, Mr. Consul-General Ward holds out hope that the evils so long complained of will soon be corrected through the instrumentality of the Rivers Commission.

The Quarantine Regulations that were formerly enforced at Hamburg were not a little oppressive, but we are glad to have to state that they were repealed in 1856, and that a new and comparatively liberal code has been enacted in their stead. The latter directs that no vessels save those from the Black Sea, Turkey, and certain specified portions of the Mediterranean, or from ports declared by the Senate to be suspected, are to be subjected to quarantine at Cuxhaven; and these, except under very suspicious circumstances, are to be immediately set free. The old charges have also been abolished, and those adopted in their stead are extremely moderate.

The following information is extracted from Consul-General Ward's very instructive *Reports* for 1866 and 1867:—

The number of sea-going ships, whether sailing vessels or steamers, which arrived at the port of Hamburg, from all parts of the world, in the year 1866, was 5,185; their total burden 590,007 commercial lasts; and the total number of their crews 61,194 men; while in 1867, 5,055 ships arrived, of a total burden of 636,037 commercial lasts, and with crews in all 63,858 men. In the five previous years the number of arrivals was:—

Year	Ships Arrived	Burden in Commercial Lasts of 3 Tons	No. of Crews
1861	5,219	441,075	51,440
1862	5,083	433,274	51,245
1863	5,543	481,216	55,125
1864	5,012	465,909	50,616
1865	5,186	543,735	56,468
Average of the five years	5,205	473,041	53,068

The number of ships of every description which sailed from the port in the year 1866 was 5,210, of which 3,254 were laden, and 1,956 in ballast; and their total burden was 592,250 commercial lasts; while in 1867 the departures were 5,071 ships of 637,583 commercial lasts burden, and with 63,862 men for crews.

II. Trade and Commerce.

Imports in 1866.—The extent of the import trade in 1866 cannot yet be ascertained from official authority. Judging from the amount of Customs revenue levied upon imports at the rate of ¼ per cent. ad valorem (except such imports as are duty free), the total imports would be rather less in 1866 than in the previous year, the Customs having yielded 771,657 marcs courant in 1865, and 740,691 marcs courant (46,200*l.* sterling) in 1866. On the other hand, the excise duties on articles of consumption yielded 141,190 marcs courant more in 1866 than in the previous year; and it would be premature to infer from the slight falling off of the Customs duties a general diminution of the trade of the port.

Account of the Quantities and Values of the Principal Articles of Domestic Produce Exported from the United Kingdom to the Hanse Towns (about 4-5ths being for Hamburg) in each of the 3 Years ending with 1866.

Articles		Quantities			Declared Real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Alkali, soda	cwts.	148,253	181,851	130,161	54,614	79,405	55,634
Apparel and haberdashery	value	..	..	..	157,092	144,908	112,569
Brass manufactures	cwts.	2,470	3,429	4,587	14,082	17,712	23,578
Cement	,,	304,510	250,941	294,226	40,526	33,228	38,334
Coals, cinders, and culm	tons	576,590	604,760	611,315	239,529	260,586	291,268
Copper, wrought and unwrought	cwts.	23,303	33,184	23,217	108,554	166,038	102,660
Cotton yarn	lbs.	15,921,297	22,346,867	25,913,759	1,891,212	2,581,891	2,939,416
Cottons, entered by the yard	yards	27,939,897	55,611,733	59,595,083	895,307	1,368,668	1,539,998
at value	value	..	..	..	43,790	59,854	60,790
Drugs and chemical products	,,	..	..	..	55,289	73,099	77,773
Earthenware and porcelain	,,	..	..	..	64,303	64,323	56,932
Fish, herrings	barrels	23,634	19,219	27,497	20,693	26,790	38,567
Hardware and cutlery, unenumerated	cwts.	44,341	47,708	54,113	321,081	360,560	183,458
Horses	no.	915	989	692	81,269	64,667	40,681
Iron, wrought and unwrought	tons	66,586	72,146	54,041	448,029	494,049	394,459
Lead and shot	,,	465	539	518	10,165	11,466	11,997
Leather, wrought and unwrought	value	..	..	..	50,766	49,177	48,230
Linen yarn	lbs.	8,880,875	6,830,144	5,968,007	782,735	567,602	512,891
Linens, entered by the yard	yards	8,496,486	10,010,791	8,609,549	414,645	429,264	328,521
at value	value	..	..	..	174,599	174,475	133,545
Machinery: steam engines	,,	..	..	..	58,488	68,245	70,890
all other sorts	,,	..	..	..	261,630	286,227	162,397
Molasses	cwts.	7,816	7,427	15,046	6,771	6,661	13,779
Oil, seed	gals.	1,190,199	2,001,560	1,082,090	172,313	270,916	164,224
Painters' colours (not otherwise described)	value	..	..	..	17,534	24,975	18,632
Paper of all sorts (including paper hangings)	cwts.	3,483	4,271	4,270	11,138	12,612	12,183
Silk, yarn	lbs.	79,756	120,614	58,757	47,567	79,508	47,469
thrown	,,	55,897	32,700	11,851	60,701	37,317	17,253
manufactures	value	..	..	..	161,100	181,651	111,506
Skins, British and Foreign	,,	..	..	..	69,549	55,735	65,770
Tin plates	,,	..	..	..	28,201	22,446	20,649
Wool, sheep and lambs'	lbs.	1,775,202	2,306,643	1,887,696	176,958	239,439	197,031
Woollen and worsted yarn	,,	18,993,905	19,143,908	15,856,448	2,986,333	3,158,676	2,658,455
Woollens, entered by the yard	yards	35,991,725	34,448,445	28,405,103	2,962,539	3,044,295	2,610,209
at value	value	..	..	..	36,384	40,978	28,109
All other articles	,,	..	..	..	583,960	544,573	835,098
Total	..	..	..	..	13,418,826	15,116,458	13,555,288

Imports in 1865, 1866, and 1867.—Adverting to the general trade of the year 1865, for which the official statistics have been published, it appears that the imports into Hamburg were greater in quantity than those of any former years on record, but that their value was rather less than that of the imports in the previous year, owing to the fluctuations in price of many heavy articles. The following is the official statement:—

	Weight	Value	Duties
	Centners	Marcs banco	Marcs banco
By sea -	25,360,388	401,106,350	277,567
By land or river -	21,838,566	370,562,530	195,985
Total -	47,198,954	771,668,880	473,552

In the subjoined table, the goods are arranged according to the parts of the world from which they were imported in 1865:—

	Quantity	Value
	Centners	Marcs banco
By sea, viz.:—		
From Transatlantic countries -	3,633,414	69,827,570
Europe and the Levant -	18,124,879	280,870,460
By land, viz.:—		
From and through Altona -	3,602,093	50,408,320
„ the interior, by land carriage or river -	21,838,566	370,562,530
Total - -	47,198,954	771,668,880

The following are Summaries of the Imports in 1866 *and* 1867.

	1866			1867		
	Weight	Value	Duties	Weight	Value	Duties
	Centners	Marcs banco	Marcs banco	Centners	Marcs banco	Marcs banco
By sea -	22,984,005	387,871,600	245,527	26,142,573	446,020,340	274,795
By land or river -	24,285,927	391,216,410	185,589	24,494,514	373,295,680	186,330
Total -	47,269,932	779,088,010	431,116	50,637,087	819,316,060	461,125

Account of the Foreign and Colonial Produce and Manufactures Exported from the United Kingdom to the Hanse Towns (about 4-5ths being for Hamburg) in each of the 3 *Years ending with* 1866.

Principal and other Articles		Quantities			Computed Real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Bacon	cwts.	4	30	675	8	91	1,983
Beads of glass	lbs.	205,240	220,600	117,408	10,690	11,718	6,569
Butter	cwts.	889	1,014	1,708	4,764	5,142	9,201
Camphor, refined and unrefined	„	3,393	786	1,327	16,436	4,255	8,018
Caoutchouc	„	4,214	4,552	9,328	29,814	33,857	94,135
Cardamoms	lbs.	67,551	58,888	45,050	13,180	13,617	10,340
Cochineal	cwts.	3,749	3,972	4,036	66,045	72,430	77,267
Cocoa	lbs.	565,466	671,061	771,209	14,725	19,572	25,709
Coffee	„	4,758,537	6,276,975	8,265,679	153,376	203,008	268,563
Copper, unwrought and part wrought	cwts.	7,100	6,280	9,380	32,989	27,102	36,600
Cotton, raw	„	512,781	714,640	868,749	4,671,135	4,858,292	4,939,116
yarn	lbs.	55,762	66,640	72,937	1,346	12,580	1,824
Currants	cwts.	13,469	7,853	9,966	14,558	6,708	9,925
Feathers, ostrich	lbs.	4,918	1,796	2,674	19,691	5,110	4,934
Galls	cwts.	558	2,145	1,087	5,256	14,003	5,345
Ginger	„	8,272	8,884	5,350	23,559	17,943	13,617
Guano	tons	1,260	2,597	145	13,976	28,246	1,508
Gum shellac	cwts.	9,275	7,888	9,577	56,784	33,446	37,030
Hats, of straw	lbs.	100	80	335	290	275	1,316
Hemp, dressed and undressed	cwts.	18,380	14,681	20,797	23,901	14,677	20,816
Hides, not tanned	„	47,900	64,426	38,397	173,414	236,543	122,208
tanned, tawed &c.	lbs.	105,085	236,275	37,172	5,021	12,417	1,758
Hops	cwts.	369	610	11	5,173	5,366	73
Indigo	„	10,869	12,018	9,420	318,821	362,092	260,049
Nicaragua wood	tons	20	785	—	238	10,068	—
Oil, Cocoa-nut	cwts.	59,211	31,588	32,634	112,904	68,520	76,146
Chemical, essential and perfumed	lbs.	28,858	32,854	32,097	14,214	18,952	16,443
Palm	cwts.	13,340	16,635	7,145	26,159	30,230	14,781
Pepper	lbs.	1,257,561	616,971	1,036,192	15,339	8,290	15,110
Quicksilver	„	58,417	134,082	359,811	4,124	13,827	25,816
Resins	cwts.	11,611	7,498	21,344	16,981	12,202	30,218
Rhubarb	lbs.	18,965	58,655	50,717	4,741	16,105	24,926
Rice, not in the husk	cwts.	97,160	137,651	7,989	55,060	94,621	5,425
Seeds, clover	„	7,103	9,716	347	20,143	38,791	1,115
mustard	qrs.	—	—	38	—	—	217
Silk, raw	lbs.	23,530	35,070	39,110	26,378	46,173	51,983
thrown	„	3,300	800	—	5,555	1,690	—
Silver, ore	tons	—	113	56	—	17,566	1,109
Skins, bear	no.	18,831	5,851	5,404	29,737	9,183	6,827
beaver	„	105,522	52,551	90,150	42,209	22,341	39,065
fisher	„	3,100	5,031	4,241	4,443	8,201	6,472
fox	„	52,653	49,567	50,745	64,919	76,567	87,216
goat	„	641,482	303,055	434,690	57,182	40,151	50,256
marten	„	17,012	15,900	10,847	10,916	12,047	8,135
musquash	„	1,312,616	1,473,955	767,937	45,121	58,316	43,197
otter	„	16,146	10,397	3,879	11,951	8,976	3,035
racoon	„	412,113	455,964	212,191	52,047	39,964	25,419
sheep	„	318,534	293,357	51,376	13,974	12,908	5,352
unenumerated, being furs	„	123,570	148,059	94,729	20,747	21,665	18,218
Spirits: rum - proof gallons		170,325	237,754	260,801	15,123	21,680	23,061
sweetened and perfumed - gallons		18,912	10,368	7,986	16,912	10,368	7,986
Sugar, unrefined	cwts.	70,993	82,601	67,075	88,169	85,698	61,568
molasses	„	29,430	15,483	27,907	19,607	9,139	16,644
Tallow	„	213	2,172	1,913	437	4,996	4,352
Tea	lbs.	2,403,609	1,616,437	2,054,243	182,775	134,702	164,772
Teeth, elephants'	cwts.	1,340	1,716	1,893	42,607	54,439	70,728
Tobacco, unmanufactured	lbs.	3,668,145	2,450,671	3,008,816	148,094	89,623	113,531
manufactured and cigars	„	258,790	152,853	357,016	23,176	16,115	20,059
Wine	gallons	106,935	87,822	99,596	35,540	25,733	31,811
Wool, sheep and lambs'	lbs.	1,410,382	3,564,887	3,656,409	111,857	407,774	279,047
All other articles	value	—	—	—	323,508	337,224	295,617
Total		—	—	—	7,350,682	7,867,747	7,560,761
Total of British and Foreign produce		—	—	—	20,769,508	22,984,405	21,116,949

On January 1, 1866, there belonged to Hamburg 507 ships, of the aggregate burden of 242,511 tons; and on January 1, 1868, 487 sea-going ships of 81,403 commercial lasts belonged to the port.

Hamburg is an important port of emigration to the United States. Thus there embarked in

Year	Emigrants	Year	Emigrants
1861 -	14,599	1864 -	25,005
1862 -	29,077	1867 -	28,214
1863 -	34,681		

Of the numbers emigrating in 1864, more than half were natives of Prussia, Mecklenburg, and Schleswig Holstein.

Commercial Crises of 1857 *and* 1866.—The crisis of 1857 was more severely felt here than anywhere else, either in Europe or America. The system of overtrading, which had been gaining ground at Hamburg for a considerable time, was greatly extended in 1854 and 1855, but more especially in 1856 and the earlier portion of 1857. In these years all sorts of bills were readily negotiated; so that people without any, or with but little capital, became

Account of the Quantities and Values of the Principal Articles Imported into the United Kingdom from the Hanse Towns (about 4-5ths being from Hamburg) in each of the 3 Years ending with 1866.

Articles		Quantities			Computed Real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Animals: oxen and bulls	no.	20,658	31,458	48,168	339,093	592,516	926,109
cows and calves	,,	6,014	16,176	13,253	79,636	236,864	237,712
sheep and lambs	,,	189,459	299,055	287,296	328,069	401,119	560,900
swine and hogs	,,	15,281	41,206	19,394	34,383	112,701	59,929
Arms: swords, bayonets, cannons, muskets &c.	value	..	..	..	21,597	14,979	5,885
Bacon	cwts.	144,189	242,648	178,460	410,696	819,707	590,922
Beads and bugles of glass	lbs.	201,611	274,699	418,459	16,799	22,745	35,077
Beef, salted	cwts.	7,974	6,731	4,256	14,471	14,858	10,588
fresh	,,	8,806	8,679	9,957	24,696	24,303	28,113
Bones of animals and fish (except whalefins)	tons	3,189	2,766	3,151	18,257	15,789	15,462
Books	cwts.	1,967	2,246	2,501	26,563	32,027	36,144
Bran and pollard	,,	130,152	107,799	61,067	32,540	26,950	15,844
Bristles	lbs.	207,274	288,561	289,302	26,772	47,310	37,882
Butter	cwts.	134,798	123,952	113,334	781,391	734,585	624,667
Buttons and studs	value	..	..	..	17,400	16,789	49,571
Caoutchouc, manufactures of	lbs.	162,791	398,286	398,839	12,836	27,164	37,764
Cheese	cwts.	13,626	9,917	7,582	55,379	37,842	24,638
Chinaware, porcelain, and earthenware	,,	8,647	8,111	8,186	36,185	40,745	42,100
Cobalt, ore	tons	457	285	107	22,939	15,674	6,497
Corn: wheat	cwts.	491,407	466,069	878,912	220,756	220,716	307,502
barley	,,	212,126	392,645	717,571	69,973	149,116	334,840
oats	,,	30,791	78,283	123,795	10,099	27,471	53,158
peas and beans	,,	107,291	191,776	209,204	41,618	80,658	95,910
other kinds of corn and grain	,,	(Not computed)	1,420	6,525	117	316	2,092
wheatmeal and flour	,,	330,770	247,796	347,012	209,121	159,032	276,093
Cotton, raw	,,	5,988	4,222	32,107	79,347	40,032	220,317
manufactures	value	..	..	..	116,106	102,221	120,432
Feathers for beds	cwts.	5,695	5,327	6,062	31,034	44,747	55,534
Flax, dressed	,,	2,011	2,181	1,544	6,790	8,218	5,176
rough or undressed	,,	2,353	1,127	2,491	6,278	2,836	7,444
tow or codilla of	,,	17,557	17,474	6,912	40,632	41,287	18,005
Fruit, raw, unenumerated	value	..	..	..	25,980	17,355	9,673
Glass: flint, cut, and uncut	cwts.	17,186	13,705	16,586	74,945	90,350	93,517
Hair: cow, ox, bull, or elk	,,	14,995	12,676	9,978	73,859	62,153	48,908
Hair or wool, goats', manufactures of	value	..	..	..	8,514	19,589	34,970
Hams	cwts.	6,410	9,373	13,112	19,089	29,348	40,346
Hides, not tanned	,,	31,930	36,581	40,815	91,578	95,033	98,547
Hops	,,	14,932	19,075	23,581	87,343	107,173	158,927
Horns, horntips, and pieces of horn	tons	239	240	159	5,700	5,755	5,173
Lard	cwts.	5,753	21,948	37,781	13,490	84,950	142,715
Musical instruments	value	..	..	..	48,459	50,017	47,872
Oil, seed	tuns	2,977	2,063	701	130,177	100,919	31,152
Oil-seed cake	tons	7,475	4,252	12,191	44,449	28,217	76,019
Paper and pasteboard	cwts.	10,726	7,861	13,212	23,858	17,833	30,188
Plumbago	tons	2,201	2,013	1,706	23,010	20,130	26,060
Pork, salted	cwts.	48,916	72,612	69,280	113,823	168,556	192,735
fresh	,,	9,300	11,523	11,356	30,460	37,739	37,192
Potash, muriate of *	,,	..	49,412	103,959	..	20,856	45,217
prussiate of	lbs.	786,061	658,180	60,757	36,028	31,450	3,560
Prints and drawings	value	..	..	..	13,280	16,643	18,366
Rags, and other materials, for making paper	tons	3,121	2,825	2,909	61,444	60,685	62,100
Rice, not in the husk	cwts.	11,362	51,131	35,169	16,501	87,664	56,527
Roots	,,	158	6,794	35,279	238	8,241	19,317
Seeds, clover	,,	60,318	34,198	42,349	163,922	132,921	131,793
rape	qrs.	12,584	6,816	17,566	37,016	22,242	47,024
tares	,,	12,508	31,168	6,167	20,755	72,913	9,010
Silk, raw	lbs.	22,114	40,596	1,961	50,419	67,789	3,512
Skins and furs of all sorts	value	..	..	..	102,549	107,719	140,139
Spelter or zinc	tons	21,281	12,339	9,705	479,574	272,962	212,544
Spirits, unenumerated, not sweetened	gals.	774,985	980,470	787,300	52,642	60,820	55,021
sweetened or mixed	,,	113,026	27,666	5,878	113,024	27,666	5,876
Sugar, unrefined	cwts.	52,519	109,029	257,184	46,826	128,679	284,535
Tobacco, unmanufactured	lbs.	1,249,916	1,748,017	2,420,734	51,629	72,984	78,407
Toys	value	..	..	..	102,164	94,887	94,870
Ultramarine	cwts.	7,982	8,583	8,072	31,975	37,957	31,547
Wine	gals.	368,182	424,953	397,890	36,814	42,497	37,860
Wool, sheep and lambs'	lbs.	9,015,651	6,804,586	10,249,582	815,580	642,732	996,442
Woollen rags torn up to be used as wool	,,	5,925,218	7,347,200	7,642,992	130,270	153,911	137,474
Woollen manufactures	value	..	..	..	262,548	315,439	447,715
Yarn, worsted, dyed or coloured, and fit for embroidery or other fancy purposes	lbs.	135,963	198,503	258,123	42,892	51,390	70,984
Yarn, woollen and worsted, for weaving	,,	1,273,596	891,581	1,697,316	286,583	185,446	381,896
All other articles	value	..	..	..	1,033,624	1,066,258	1,284,009
Total		..	..	..	7,923,039	8,857,709	10,576,831

* Not distinguished in the entries prior to the year 1865.

possessed of funds, and were enabled to enter into all sorts of undertakings. The result was such as uniformly follows on the like occasions. It appears from returns that are believed to be nearly accurate, that the bill liabilities of the Hamburg merchants, which amounted in 1853 to 133,173,000 marcs banco (nearly 10,000,000*l.*), had increased in January 1857 to 278,268,000 marcs banco (18,620,000*l.*), and that in the middle of Nov., on the eve of the crisis, they amounted to 281,302,500 marcs banco (21,097,688*l.*)! And this increase of bills was necessarily accompanied by a great increase in the price of most sorts of produce; which, however, was said to be occasioned by the influx of Australian and Californian gold! But the process of inflation cannot be indefinitely carried on; and the fall of some London houses, connected with the Hamburg and Swedish trade, led to the immediate bursting of the bubble. Overweening confidence gave way to the most unreasonable apprehensions. The Government of the city made every effort to support the credit of some of the suspected houses, and even applied for and obtained from the Austrian Government a loan of 15,000,000 marcs banco to assist them in their object. But nothing could support that which had no real foundation. The mushroom firms that had overtraded to the greatest extent were the first to fall; and in their fall they shook, and in some cases destroyed, the credit even of those houses that had managed their concerns with the greatest prudence. In all about 220 houses suspended payments in the course of about two months. Of these, about 50 were subsequently declared bankrupts; but the others having made private arrangements with their creditors, under the sanction of a law passed for the purpose, the losses they sustained are not known. It is almost needless to add that the rate of discount, which had risen to an enormous height, and the

prices of commodities, immediately fell back to their ordinary level.

But severe as the crisis of 1857 was at the moment, its effect has been most salutary. It has put an end, at least for a while, to the wild speculation and overtrading that are inconsistent with all sound commercial pursuits; and it is to be hoped that the Government and people of the town will exert themselves to prevent a revival of so ruinous a system, by subjecting those whose bankruptcies may be traced to recklessness, either in overtrading or in expenditure, to the severest penalties.

The effects of the English financial crisis of 1866 were felt on the German exchanges throughout 1867, especially as the monetary condition during the latter half of 1867 was not satisfactory.

We have derived the materials for this article from various sources, but principally from the communications of eminent merchants, and the able and elaborate *Reports* of her Majesty's late and present consul at Hamburg.

It will be useful as well as interesting to record the leading articles in which the trade of Hamburg has increased during the last 20 or 25 years, as well as those of which the importation has fallen off within the same period. These particulars will be found in the following comparative table:—

Articles Imported		Average of Years 1841 to 1845	Year 1865
Coffee	centners	618,014	983,059
Tea	"	11,165	25,233
Sugar, raw	"	624,519	447,265
refined	"	177,418	78,351
Molasses	"	37,617	100,067
Rice	"	103,338	264,032
Spices	"	49,082	90,813
Tobacco	"	156,011	264,005
Cigars	bundles of 1,000	46,085	111,050
Southern fruits	centners	91,562	115,075
Wines and spirits	quarts	2,546,949	5,985,181
Corn, grain, and pulse, average 1851–55	centners	2,426,148	3,155,809
Hops	"	4,843	26,058
Flour and breadstuffs, average 1851–55	"	113,255	389,832
Dye stuffs	"	136,221	368,918
Herrings	casks	87,013	109,291
Butter, cheese, and lard, average of 1851–55	centners	190,687	232,279
Salt	lasts	1,549	9,451
Drugs and chemical productions	centners	50,899	161,547
Metals and ores, including iron rails	"	561,141	1,868,908
Coals and coke	lasts	66,197	303,893
Hides and leather	centners	127,243	255,348
Calf, sheep, and goat skins	pieces	746,328	2,600,793
Hair, bristles &c.	centners	3,971	17,764
Train oil	stekkans 36 lbs	180,276	282,787
Tallow	centners	4,894	8,175
Pitch and tar	barrels	12,914	34,403
Oils, palm, cocoa-nut &c.	centners	141,090	227,852
Oil seeds and oil cakes, average of 1851–55	"	212,558	326,157
Wool, cotton, and spinning materials	"	571,523	709,691
Yarns, cotton, woollen, and linen &c., average of 1851–55	"	526,442	579,508
Manufactures of cotton, woollen, linen &c.	value in mcs. banco	75,387,334	121,108,710
Leather, indiarubber wares, average of 1851–55	"	2,513,508	4,867,980
Furniture	"	134,012	234,430
Printed books, pictures &c.	"	1,786,952	2,989,230
Paper &c.	"	1,215,678	2,141,660
Glass, porcelain, and pottery	"	5,067,912	7,127,750
Iron wares, coarse, average of 1851–55	centners	88,352	163,559
Iron wares, fine	value in mcs. banco	4,305,834	4,988,910

The principal trade between the United Kingdom and Hamburg is carried on through Hull, a regular communication being maintained between them by lines of steamers that sail twice a week or oftener. She is connected in the same way with London, Liverpool, Newcastle, Leith, and Dundee. Her trade with New York and other American ports, which is partly carried on by steamers and partly by sailing ships, is also very extensive. The same may be said of her trade with Havre and the principal continental ports. She has, further, some trade with India, China, and the Eastern Archipelago. [ZOLLVEREIN.]

HAMS. [BACON AND HAMS.]

HANKOW. This is the most important among the river ports in China opened by the Treaty of Tientsing. The Chinese reckon it among the five chief commercial cities of the empire. It commands the most extensive river communication in the world. Its latitude is 30° 32′ 51″ N., longitude 114° 19′ 55″ E. Its distance from Shanghai is 582 geographical miles. It is nearly in the centre of China, at the junction of the Han and Yangtze. It was first visited by Lord Elgin on November 7, 1858. In 1861 a site for a British settlement was selected, with 800 yards frontage to the river, by 400 to 500 yards in depth.

Hankow, with two other cities in its immediate neighbourhood, is estimated to contain 1,000,000 inhabitants, of which 600,000 belong to Hankow itself. The depth of the river at the mouth of the Han, according to the *Chinese Pilot*, is 11 fathoms in December, and much more in July. In the summer of 1866 the river was 50 feet above its depth in the previous winter.

The export trade of Hankow consists chiefly in tea, silk, wood, oil, tobacco, and vegetable tallow, and amounted in value to 13,452,844 taels in 1864, 12,685,231 taels in 1865. Of this amount more than half is represented by tea. Much of this tea has been transhipped at Shanghai, but some has been loaded at Hankow for London direct.

Exports of Tea from Hankow.

Year	Total	To England direct
	lbs.	lbs.
1864	39,730,305	6,407,077
1865	35,886,144	10,512,973
1866	36,466,190	10,912,330

The imports are chiefly cotton piece goods, woollens, silks, opium, copper cash, and sugar. They amounted in 1864 and 1865 to 10,862,216 and 11,007,300 taels respectively. The importance of Hankow as a market for cottons and woollens is rapidly increasing, especially for the latter. The importation of copper cash is required for the teas in the interior.

The navigation of the Yangtze is difficult and somewhat dangerous. So many losses occurred in 1866, that the rates of insurance on sailing vessels rose to an almost prohibitive amount, i. e. from 1 to 2½ per cent. The regulations for conducting British trade on the Yangtze river are given in Williams's *Chinese Commercial Guide*.

The trade with Hankow, according to Messrs. Mayers, Dennys, and King (*Treaty Ports of China and Japan*), is seriously hindered by the practice of affording long credits to the native buyers of imports. (Consul Medhurst's *Report*, 1866, dated April 18, 1867.)

Three foreign banks have agencies at Hankow.

HANSEATIC LEAGUE. An association of the principal cities in the north of Germany, Prussia &c. for the better carrying on of commerce, and for their mutual safety and defence. This confederacy, so celebrated in the early history of modern Europe, contributed in no ordinary degree to introduce the blessings of civilisation and good government into the North. The extension and protection of commerce was, however, its main object; and hence a short account of it may not be deemed misplaced in a work of this description.

Origin and Progress of the Hanseatic League.—Hamburg, founded by Charlemagne in the ninth, and Lübeck, founded about the middle of the twelfth century, were the earliest members of the League. The distance between them not

being very considerable, and being alike interested in the repression of those disorders to which most parts of Europe, and particularly the coast of the Baltic, were a prey in the twelfth, thirteenth, and fourteenth centuries, they early formed an intimate political union, partly in the view of maintaining a safe intercourse by land with each other, and partly for the protection of navigation from the attacks of the pirates, with which every sea was at that time infested. There is no very distinct evidence as to the period when this alliance was consummated: some ascribe its origin to the year 1169, others to the year 1200, and others to the year 1241. But the most probable opinion seems to be that it would grow up by slow degrees, and be perfected according as the advantage derivable from it became more obvious. Such was the origin of the Hanseatic League, so called from the old Teutonic word *hansa*, signifying an association or confederacy.

Adam of Bremen, who flourished in the eleventh century, is the earliest writer who has given any information with respect to the commerce of the countries lying round the Baltic; and from the errors into which he has fallen in describing the northern and eastern shores of that sea, it is evident they had been very little frequented, and not at all known, in his time. But from the beginning of the twelfth century the progress of commerce and navigation in the North was exceedingly rapid. The countries which stretch along the bottom of the Baltic, from Holstein to Russia, and which had been occupied by barbarous tribes of Sclavonic origin, were then subjugated by the kings of Denmark, the dukes of Saxony, and other princes. The greater part of the inhabitants being exterminated, their place was filled by German colonists, who founded the towns of Stralsund, Rostock, Wismar &c. Prussia and Poland were afterwards subjugated by the Christian princes and the Knights of the Teutonic Order. So that, in a comparatively short period, the foundations of civilisation and the arts were laid in countries whose barbarism had ever remained impervious to the Roman power.

The cities that were established along the coast of the Baltic, and even in the interior of the countries bordering upon it, eagerly joined the Hanseatic confederation. They were indebted to the merchants of Lübeck for supplies of the commodities produced in more civilised countries, and they looked up to them for protection against the barbarians by whom they were surrounded. The progress of the League was in consequence singularly rapid. Previously to the end of the thirteenth century it embraced every considerable city in all those vast countries extending from Livonia to Holland, and was a match for the most powerful monarchs.

The Hanseatic confederacy was at its highest degree of power and splendour during the fourteenth and fifteenth centuries. It then comprised from 60 to 80 cities, which were distributed into 4 classes or circles. Lübeck was at the head of the first circle, and had under it Hamburg, Bremen, Rostock, Wismar &c. Cologne was at the head of the second circle, with 29 towns under it. Brunswick was at the head of the third circle, consisting of 13 towns. Dantzic was at the head of the fourth circle, having under it 8 towns in its vicinity, besides several that were more remote. The supreme authority of the League was vested in the deputies of the different towns assembled in congress. In it they discussed all their measures; decided upon the sum that each city should contribute to the common fund, and upon the questions that arose between the confederacy and other powers, as well as those that frequently arose between the different members of the confederacy. The place for the meeting of congress was not fixed, but it was most frequently held at Lübeck, which was considered as the capital of the League, and there its archives were kept. Sometimes, however, congresses were held at Hamburg, Cologne, and other towns. They met once every 3 years, or oftener if occasion required. The letters of convocation specified the principal subjects which would most probably be brought under discussion. Any one might be chosen for a deputy; and the congress consisted not of merchants only, but also of clergymen, lawyers, artists &c. When the deliberations were concluded, the decrees were formally communicated to the magistrates of the cities at the head of each circle, by whom they were subsequently communicated to those below them, and the most vigorous measures were adopted for carrying them into effect. One of the burgomasters of Lübeck presided at the meetings of congress; and during the recess the magistrates of that city had the sole, or at all events the principal, direction of the affairs of the League.

Besides the towns already mentioned, there were others that were denominated confederated cities, or allies. The latter neither contributed to the common fund of the League, nor sent deputies to congress; even the members were not all on the same footing in respect to privileges: and the internal commotions by which it was frequently agitated, partly originating in this cause and partly in the discordant interests and conflicting pretensions of the different cities, materially impaired the power of the confederacy. But in despite of these disadvantages, the League succeeded for a lengthened period, not only in controlling its own refractory members, but in making itself respected and dreaded by others. It produced able generals and admirals, skilful politicians, and some of the most enterprising, successful, and wealthy merchants of modern times.

As the power of the confederated cities was increased and consolidated, they became more ambitious. Instead of limiting their efforts to the mere advancement of commerce and their own protection, they endeavoured to acquire the monopoly of the trade of the North, and to exercise the same sort of dominion over the Baltic that the Venetians exercised over the Adriatic. For this purpose they succeeded in obtaining, partly in return for loans of money and partly by force, various privileges and immunities from the Northern sovereigns, which secured to them almost the whole foreign commerce of Scandinavia, Denmark, Prussia, Poland, Russia &c. They exclusively carried on the herring fishery of the Sound, at the same time that they endeavoured to obstruct and hinder the navigation of foreign vessels in the Baltic. It should, however, be observed that the immunities they enjoyed were mostly indispensable to the security of their commerce, in consequence of the barbarism that then prevailed; and notwithstanding their attempts at monopoly, there cannot be the shadow of a doubt that the progress of civilisation in the North was prodigiously accelerated by the influence and ascendancy of the Hanseatic cities. They repressed piracy by sea and robbery by land, which must have broken out again had their power been overthrown before civilisation was fully established; they accustomed the inhabitants to the principles, and set before them the example, of good government and subordination; they introduced amongst them conveniences and enjoyments unknown by their ancestors or despised by them, and inspired

them with a taste for literature and science; they did for the people round the Baltic, what the Phœnicians had done in remoter ages for those round the Mediterranean, and deserve, equally with them, to be placed in the first rank amongst the benefactors of mankind.

'In order,' as has been justly observed, 'to accomplish their purpose of rendering the Baltic a large field for the prosecution of commercial and industrious pursuits, it was necessary to instruct men, still barbarous, in the rudiments of industry, and to familiarise them in the principles of civilisation. These great principles were laid by the confederation, and at the close of the fifteenth century the Baltic and the neighbouring seas had, by its means, become frequented routes of communication between the North and the South. The people of the former were enabled to follow the progress of the latter in knowledge and industry. The forests of Sweden, Poland &c. gave place to corn, hemp, and flax; the mines were wrought, and in return the produce and manufactures of the South were imported. Towns and villages were erected in Scandinavia, where huts only were before seen; the skins of the bear and the wolf were exchanged for woollens, linens, and silks; learning was introduced; and printing was hardly invented before it was practised in Denmark, Sweden &c.' (Catteau, *Tableau de la Mer Baltique*, tom. ii. p. 175.)

The kings of Denmark, Sweden, and Norway were frequently engaged in hostilities with the Hanse Towns. They regarded, and, it must be admitted, not without pretty good reason, the privileges acquired by the League, in their kingdoms, as so many usurpations. But their efforts to abolish these privileges served, for more than two centuries, only to augment and extend them.

'On the part of the League there were union, subordination, and money; whereas the half-savage Scandinavian monarchies were full of divisions, factions, and troubles; revolution was immediately followed by revolution, and feudal anarchy was at its height. There was another circumstance, not less important, in favour of the Hanseatic cities. The popular governments established amongst them possessed the respect and confidence of the inhabitants, and were able to direct the public energies for the good of the state. The astonishing prosperity of the confederated cities was not wholly the effect of commerce. To the undisciplined armies of the princes of the North—armies composed of vassals without attachment to their lords—the cities opposed, besides the inferior nobles, whose services they liberally rewarded, citizens accustomed to danger, and resolved to defend their liberties and property. Their military operations were combined and directed by a council composed of men of tried talents and experience, devoted to their country, responsible to their fellow-citizens, and enjoying their confidence. It was chiefly, however, on their marine forces that the cities depended. They employed their ships indifferently in war or commerce, so that their naval armaments were fitted out at comparatively small expense. Exclusive, too, of these favourable circumstances, the fortifications of the principal cities were looked upon as impregnable; and as their commerce supplied them abundantly with all sorts of provisions, it need not excite our astonishment that Lübeck alone was able to carry on wars with the surrounding monarchs, and to terminate them with honour and advantage; and still less that the League should long have enjoyed a decided preponderance in the North.' (*L'Art de vérifier les Dates*, 3me partie, tom. viii. p. 204.)

As already explained, the extirpation of piracy was one of the objects which had originally led to the formation of the League, and which it never ceased to prosecute. Owing, however, to the barbarism then so universally prevalent, and the countenance openly given by many princes and nobles to those engaged in this infamous profession, it was not possible wholly to root it out. But the vigorous efforts of the League to abate the nuisance, though not entirely successful, served to render the navigation of the North Sea and the Baltic comparatively secure, and were of signal advantage to commerce. Nor was this the only mode in which the power of the confederacy was directly employed to promote the common interests of mankind. Their exertions to protect shipwrecked mariners from the atrocities to which they had been subject, and to procure the restitution of shipwrecked property to its legitimate owners, though, most probably, like their exertions to repress piracy, a consequence of selfish considerations, were in no ordinary degree meritorious, and contributed not less to the advancement of civilisation than to the security of navigation.

A series of resolutions were unanimously agreed to by the merchants frequenting the port of Wisby, one of the principal emporiums of the League, in 1287, providing for the restoration of shipwrecked property to its original owners, and threatening to eject from the *consodalitate mercatorum* any city that did not act conformably to the regulations laid down.

Factories belonging to the League.—In order to facilitate and extend their commercial transactions, the League established various factories in foreign countries, the principal of which were at Novogorod in Russia, London, Bruges in the Netherlands, and Bergen in Norway.

Novogorod, situated at the confluence of the Volkof with the Imler Lake, was, for a lengthened period, the most renowned emporium in the north-eastern parts of Europe. In the beginning of the eleventh century the inhabitants obtained considerable privileges which laid the foundation of their liberty and prosperity. Their sovereigns were at first subordinate to the grand dukes or czars of Russia; but as the city and the contiguous territory increased in population and wealth, they gradually usurped an almost absolute independency. The power of these sovereigns over their subjects seems, at the same time, to have been exceedingly limited; and, in effect, Novogorod ought rather to be considered as a republic under the jurisdiction of an elective magistrate than as a state subject to a regular line of hereditary monarchs possessed of extensive prerogatives. During the 12th, 13th, and 14th centuries, Novogorod formed the grand entrepôt between the countries to the east of Poland and the Hanseatic cities. Its fairs were frequented by an immense concourse of people from all the surrounding countries, as well as by numbers of merchants from the Hanse Towns, who engrossed the greater part of its foreign commerce, and who furnished its markets with the manufactures and products of distant countries. Novogorod is said to have contained, during its most flourishing period, towards the middle of the 15th century, upwards of 400,000 souls. This, however, is most probably an exaggeration. But its dominions were then very extensive; and its wealth and power seemed so great and well established, and the city itself so impregnable, as to give rise to a proverb, Who can resist the Gods and great Novogorod? 'Quis

contra Deos et magnam Novogordiam?' (Coxe's *Travels in the North of Europe*, vol. ii. p. 80.)

But its power and prosperity were far from being so firmly established as its eulogists, and those who had only visited its fairs, appear to have supposed. In the latter part of the 15th century, Ivan Vassilievitch, czar of Russia, having secured his dominions against the inroads of the Tartars, and extended his empire by the conquest of some of the neighbouring principalities, asserted his right to the principality of Novogorod, and supported his pretensions by a formidable army. Had the inhabitants been animated by the spirit of unanimity and patriotism, they might have defied his efforts; but their dissensions facilitated their conquest, and rendered them an easy prey. Having entered the city at the head of his troops, Ivan received from the citizens the charter of their liberties, which they either wanted courage or inclination to defend, and carried off an enormous bell to Moscow, that has been long regarded with a sort of superstitious veneration as the palladium of the city. But notwithstanding the despotism to which Novogorod was subject during the reigns of Ivan and his successors, it continued for a considerable period to be the largest as well as most commercial city in the Russian empire. The famous Richard Chancellour, who passed through Novogorod in 1554, in his way from the court of the czar, says, that 'next unto Moscow, the city of Novogorod is reputed the chiefest of Russia; for although it be in majestie inferior to it, yet in greatness it goeth beyond it. It is the chiefest and greatest mart town of all Muscovy; and albeit the emperor's seat is not there, but at Moscow, yet the commodiousness of the river falling into the Gulf of Finland, whereby it is well frequented by merchants, makes it more famous than Moscow itself.'

But the scourge of the destroyer soon after fell on this celebrated city. Ivan IV., having discovered, in 1570, a correspondence between some of the principal citizens and the King of Poland relative to a surrender of the city into his hands, punished them in the most inhuman manner. The slaughter by which the bloodthirsty barbarian sought to satisfy his revenge was alike extensive and indiscriminating. The crime of a few citizens was made a pretext for the massacre of 25,000 or 30,000. Novogorod never recovered from this dreadful blow. It still, however, continued to be a place of considerable trade, until the foundation of Petersburg, which immediately became the seat of that commerce which formerly had centred at Novogorod. The degradation of this ill-fated city is now complete. It is at present an inconsiderable place, with a population of about 8,000 or 9,000, and is remarkable only for its history and antiquities.

The merchants of the Hanse Towns, or Hansards, as they were then commonly termed, were established in London at a very early period, and their factory here was of considerable magnitude and importance. They enjoyed various privileges and immunities; they were permitted to govern themselves by their own laws and regulations; the custody of one of the gates of the city (Bishopsgate) was committed to their care; and the duties on various sorts of imported commodities were considerably reduced in their favour. These privileges necessarily excited the ill-will and animosity of the English merchants. The Hansards were every now and then accused of acting with bad faith; of introducing commodities as their own that were really the produce of others, in order to enable them to evade the duties with which they ought to have been charged; of capriciously extending the list of towns belonging to the association; and obstructing the commerce of the English in the Baltic. Efforts were continually making to bring these disputes to a termination; but as they really grew out of the privileges granted to and claimed by the Hansards, this was found to be impossible. The latter were exposed to many indignities; and their factory, which was situated in Thames Street, was not unfrequently attacked. The League exerted themselves vigorously in defence of their privileges; and having declared war against England, they succeeded in excluding our vessels from the Baltic, and acted with such energy that Edward IV. was glad to come to an accommodation with them, on terms which were anything but honourable to the English. In the treaty for this purpose, negotiated in 1474, the privileges of the merchants of the Hanse Towns were renewed, and the king assigned to them, in absolute property, a large space of ground, with the buildings upon it, in Thames Street, denominated the Steel Yard, whence the Hanse merchants have been commonly denominated the Association of the Steel Yard; the property of their establishments at Boston and Lynn was also secured to them; the king engaged to allow no stranger to participate in their privileges; one of the articles bore that the Hanse merchants should be no longer subject to the Judges of the English Admiralty Court, but that a particular tribunal should be formed for the easy and speedy settlement of all disputes that might arise between them and the English; and it was further agreed that the particular privileges awarded to the Hanse merchants should be published, as often as the latter judged proper, in all the sea-port towns of England, and such Englishmen as infringed upon them should be punished. In return for these concessions, the English acquired the liberty of freely trading in the Baltic, and especially in the port of Dantzic and in Prussia. In 1498, all direct commerce with the Netherlands being suspended, the trade fell into the hands of the Hanse merchants, whose commerce was in consequence very greatly extended. But, according as the spirit of commercial enterprise awakened in the nation, and as the benefits resulting from the prosecution of foreign trade came to be better known, the privileges of the Hanse merchants became more and more obnoxious. They were in consequence considerably modified in the reigns of Henry VII. and Henry VIII., and were at length wholly abolished in 1597. (Anderson's *Hist. Com.* anno 1474 &c.)

The different individuals belonging to the factory in London, as well as those belonging to the other factories of the League, lived together at a common table, and were enjoined to observe the strictest celibacy. The direction of the factory in London was intrusted to an alderman, 2 assessors, and 9 councillors. The latter were sent by the cities forming the different classes into which the League was divided. The business of these functionaries was to devise means for extending and securing the privileges and commerce of the association; to watch over the operations of the merchants; and to adjust any disputes that might arise amongst the members of the confederacy, or between them and the English. The League endeavoured at all times to promote, as much as possible, the employment of their own ships. In pursuance of this object, they went so far in 1447 as to forbid the importation of English merchandise into the confederated cities except by their own vessels. But a regulation of this sort could not be carried into full effect, and was enforced or modified according as circumstances were favourable or ad-

verse to the pretensions of the League. Its very existence was, however, an insult to the English nation; and the irritation produced by the occasional attempts to act upon it contributed materially to the subversion of the privileges the Hanseatic merchants had acquired amongst us.

By means of their factory at Bergen, and of the privileges which had been either granted to or usurped by them, the League enjoyed for a lengthened period the monopoly of the commerce of Norway.

But the principal factory of the League was at Bruges in the Netherlands. Bruges became, at a very early period, one of the first commercial cities of Europe, and the centre of the most extensive trade carried on to the north of Italy. The art of navigation in the thirteenth and fourteenth centuries was so imperfect, that a voyage from Italy to the Baltic and back again could not be performed in a single season; and hence, for the sake of their mutual convenience, the Italian and Hanseatic merchants determined on establishing a magazine or storehouse of their respective products in some intermediate situation. Bruges was fixed upon for this purpose; a distinction which it seems to have owed as much to the freedom enjoyed by the inhabitants, and the liberality of the Government of the Low Countries, as to the convenience of its situation. In consequence of this preference, Bruges speedily rose to the very highest rank among commercial cities, and became a place of vast wealth. It was at once a staple for English wool, for the woollen and linen manufactures of the Netherlands, for the timber, hemp and flax, pitch and tar, tallow, corn, fish, ashes &c. of the North; and for the spices and Indian commodities, as well as their domestic manufactures imported by the Italian merchants. The fairs of Bruges were the best frequented of any in Europe. Ludovico Guicciardini mentions, in his *Description of the Low Countries*, that in the year 1318 no fewer than 5 Venetian galleases, vessels of very considerable burden, arrived at Bruges in order to dispose of their cargoes at the fair. The Hanseatic merchants were the principal purchasers of Indian commodities: they disposed of them in the ports of the Baltic, or carried them up the great rivers into the heart of Germany. The vivifying effects of this commerce were every where felt; the regular intercourse opened between the nations in the north and south of Europe made them sensible of their mutual wants, and gave a wonderful stimulus to the spirit of industry. This was particularly the case with regard to the Netherlands. Manufactures of wool and flax had been established in that country as early as the age of Charlemagne; and the resort of foreigners to their markets, and the great additional vent that was thus opened for their manufactures, made them be carried on with a vigour and success that had been hitherto unknown. These circumstances, combined with the free spirit of their institutions and the moderation of the government, so greatly promoted every elegant and useful art, that the Netherlands early became the most civilised, best cultivated, richest, and most populous country of Europe.

Decline of the Hanseatic League.—From the middle of the fifteenth century the power of the confederacy, though still very formidable, began to decline. This was not owing to any misconduct on the part of its leaders, but to the progress of the improvement which it had done so much to promote. The superiority enjoyed by the League resulted as much from the anarchy, confusion, and barbarism that prevailed throughout the kingdoms of the North, as from the good government and order that distinguished the towns. But a distinction of this sort could not be permanent. The civilisation which had been at first confined to the cities, gradually spread from them, as from so many centres, over the contiguous country. Feudal anarchy was every where superseded by a system of subordination; arts and industry were diffused and cultivated; and the authority of Government was at length firmly established. This change not only rendered the princes over whom the League had so frequently triumphed superior to it in power, but the inhabitants of the countries amongst which the confederated cities were scattered, having learned to entertain a just sense of the advantages derivable from commerce and navigation, could not brook the superiority of the association, or bear to see its members in possession of immunities of which they were deprived; and in addition to these circumstances, which must speedily have occasioned the dissolution of the League, the interests of the different cities of which it consisted became daily more and more opposed to each other. Lübeck, Hamburg, Bremen, and the towns in their vicinity, were latterly the only ones that had any interest in its maintenance. The cities in Zealand and Holland joined it, chiefly because they would otherwise have been excluded from the commerce of the Baltic; and those of Prussia, Poland, and Russia did the same, because, had they not belonged to it, they would have been shut out from all intercourse with strangers. When, however, the Zealanders and Hollanders became sufficiently powerful at sea to be able to vindicate their right to the free navigation of the Baltic by force of arms, they immediately seceded from the League; and no sooner had the ships of the Dutch, the English &c. begun to trade directly with the Polish and Prussian Hanse towns than these nations also embraced the first opportunity of withdrawing from it. The fall of this great confederacy was really, therefore, a consequence of the improved state of society, and of the development of the commercial spirit in the different nations of Europe. It was most serviceable so long as those for whom its merchants acted as factors and carriers were too barbarous, too much occupied with other matters, or destitute of the necessary capital and skill, to act in these capacities for themselves. When they were in a situation to do this, the functions of the Hanseatic merchants ceased as a matter of course; their confederacy fell to pieces; and at the middle of the 17th century the cities of Lübeck, Hamburg, and Bremen were all that continued to acknowledge the authority of the League. To this day they preserve the shadow of its power; having been acknowledged in the act for the establishment of the Germanic Confederation, signed at Vienna June 8, 1815, as free Hanseatic cities. But their enforced embodiment since 1866 in the North German Confederation, and association with the other Germanic States in the Zollverein, will cause even this shadow to lessen very rapidly. (From an article in No. 18 of the *Foreign Quarterly Review*, contributed by the author of this work. See also Mallet, *La Ligue Hanséatique*; Schlözer's *Verfall und Untergang der Hansa*; Lappenberg's *Urkundliche Geschichte des Hansischen Stahlhofes zu London*; and *Report* for 1867 of Mr. Consul-General Ward of Hamburg.)

HARBOUR, HAVEN, or PORT. A piece of water communicating with the sea, or with a navigable river or lake, having depth sufficient to float ships of considerable burden, where there is convenient anchorage, and where ships may lie,

load, and unload, screened from the winds, and without the reach of the tide.

Qualities of a good Harbour.—There is every variety in the form and quality of harbours. They are either natural or artificial; but, however formed, a good harbour should have sufficient depth of water to admit the largest ships at all times of the tide; it should be easy of access, without having too wide an entrance; the bottom should be clean and good; and ships should be able to lie close alongside quays or piers, that the expense and inconvenience of loading and unloading by means of lighters may be avoided. Ships lying in a harbour that is land-locked, and surrounded by high grounds or buildings, are at once without the reach of storms, tides, and currents, and may in most cases be easily protected from hostile attacks. Bar harbours are those that have bars or banks at their entrances, and do not, therefore, admit of the ingress or egress of large ships except at high water. These are most commonly river harbours; the sand and mud brought down by the stream, and driven back by the waves, naturally forming a bar or bank at their mouths.

Best British Harbours.—Good harbours are of essential importance to a maritime nation, and immense sums have been expended in all countries ambitious of naval or commercial greatness in their improvement and formation. Portsmouth, Milford Haven, and the Cove of Cork are the finest harbours in the British islands, being surpassed by very few, if any, in the world. Of these, Portsmouth is entitled to the pre-eminence. This admirable harbour is about as wide at its mouth as the Thames at Westminster Bridge, expanding within into a noble basin, almost sufficient to contain the whole navy of Great Britain. Its entrance is unobstructed by any bar or shallow; and it has, throughout, water adequate to float the largest men of war at the lowest tides. The anchorage ground is excellent, and it is entirely free from sunken rocks, sand-banks, or any similar obstructions. The western side of the harbour is formed by the island of Portsea; and on its south-western extremity, at the entrance to the harbour, are situated the town of Portsmouth, and its large and important suburb Portsea. Here are docks and other establishments for the building, repair, and outfit of ships of war, constructed upon a very large scale, and furnished with every convenience. The fortifications protecting this great naval dépôt are superior, both as respects strength and extent, to any other in the kingdom. 'Thus,' to use the words of Dr. Campbell, 'it appears that Portsmouth derives from nature all the prerogatives the most fertile wits and most intelligent judges could devise or desire; and that these have been well seconded by art, without consideration of expense, which, in national improvements, is little to be regarded. Add to all this the striking excellence of its situation, which is such as if Providence had expressly determined it for that use to which we see it applied—the bridling the power of France, and if I may so speak, the peculiar residence of Neptune.' (*Survey of Great Britain*, vol. i. p. 370.)

Portsmouth harbour has the additional and important advantage of opening into the celebrated road of Spithead, between the Hampshire coast and the Isle of Wight, forming a safe and convenient retreat for the largest fleets.

Milford Haven deeply indents the southern part of Pembrokeshire. It is of great extent, and has many subordinate bays, creeks, and roads. The water is deep, and the anchorage ground excellent; and being completely land-locked, ships lie as safely as if they were in dock.

Cork harbour has a striking resemblance to that of Portsmouth, but is of larger extent: it has, like it, a narrow entrance, leading into a capacious basin, affording a secure asylum for any number of ships.

Plymouth, which, after Portsmouth, is the principal naval dépôt of England, has an admirable double harbour. The roadstead in Plymouth Sound has within the present century been much improved by the construction, at a vast expense, of a stupendous breakwater, more than 1,700 yards in length. This artificial bulwark protects the ships lying inside from the effects of the heavy swell thrown into the Sound by southerly and south-easterly winds.

London stands at the head of the river ports of Great Britain. Considering the shortness of the course of the Thames, there is, probably, no river that is navigable for large ships to so great a distance from sea, or whose mouth is less obstructed by banks. London is mainly indebted for her unrivalled magnitude to her favourable situation on this noble river, which not only gives her all the advantages of an excellent port, accessible at all times to the largest ships, but renders her the emporium of the extensive, rich, and populous country comprised in the basin of the Thames.

The Mersey, now the first commercial river in the empire, is more incommoded by banks than the Thames, and is in all respects inferior, as a channel of navigation, to the latter. Still it gives to Liverpool very great advantages; and the channels being well buoyed and marked, the largest ships have little difficulty in reaching the port. The principal channels are laid down in the map of Liverpool and its environs attached to the article Docks in this work.

Bristol and Hull are both river ports. Owing to the extraordinary rise of the tide in the Bristol Channel, the former is accessible to the largest ships. The Humber is a good deal impeded by banks, but it also is navigable as far as Hull by large vessels. The Tyne admits vessels of very considerable burden as far as Newcastle. Sunderland, at the mouth of the Wear, is the principal ship-building port in the United Kingdom, and has, after Liverpool and London, the greatest amount of shipping.

The shallowness of the Clyde from Greenock up to Glasgow has been a serious drawback upon the commercial progress of the latter. Large sums have been expended in attempts to contract the course and to deepen the bed of the river; and they have been so far successful that ships drawing 19 and even 20 feet have come up to the city at high water. In 1852, 47 vessels drawing 17 feet water, and 18 drawing 18 feet, arrived at Glasgow, which is one of the principal commercial ports in the empire. Now (1868) vessels drawing 19 feet water can reach the Broomielaw, and those drawing 17 feet are considered regular traders.

Generally speaking, the harbours on the east coasts, both of Great Britain and Ireland, are, with the exception of the Thames, very inferior to those on their south and west coasts. Several harbours on the shores of Sussex, Kent, Lincoln &c., that once admitted large ships, are now completely choked up by sand. Great sums have been expended upon the ports of Yarmouth, Boston, Sunderland, Leith, Dundee, Aberdeen &c. Dublin harbour being naturally bad, and obstructed by a bar, a new harbour has been formed, at a great expense, at Kingstown, without the bar, in deep water.

The construction of piers and harbours in Great Britain and Ireland has been much facilitated by the provisions of the Piers and Harbours Act, 24 & 25 Vict. c. 45, by which the promotion of these shipping conveniences is permitted to private enterprise under certain conditions, analogous to those which are imposed on railway works. The rates to be levied on the use of such piers and harbours are certified or permitted by the Board of Trade, who are also the authority to whom remonstrance is to be addressed in case shipowners or others object to the tolls as unfair, exorbitant, or capricious. The rates in question must be advertised in some district newspaper in two consecutive weeks during the months of October and November, and once at least during each of these weeks. The Act contains many clauses saving existing rights, and several local and supplementary Acts have been passed since the date of the general legislation on the subject.

For an account of the shipping belonging to the different ports of Great Britain and Ireland, the reader is referred to the article SHIPS in this work. The charges on account of docks, pilotage &c. are specified under these articles.

Foreign Harbours and Ports.—The reader will find the principal foreign commercial harbours described in this work at considerable length under their respective titles. The principal French ports for the accommodation of men of war are Brest, Toulon, and Cherbourg. The last has been very greatly improved by the construction of a gigantic breakwater, and the excavation of immense basins. Besides Cadiz, the principal ports for the Spanish navy are Ferrol and Carthagena. Cronstadt is the principal rendezvous of the Russian navy, Landscrona of that of Sweden, and the Helder of that of Holland.

Law of England as to Harbours.—The anchorage &c. of ships was regulated by several statutes; but most of these regulations have been repealed, modified, or re-enacted by the 54 Geo. III. c. 159, and by the General Pier and Harbour Act 1861, and Amendment Act. These, again, have been altered by 25 & 26 Vict. c. 69, which substitutes the Board of Trade generally for the Admiralty in the administration of piers and harbours.

This Act (54 Geo. III. c. 159) authorises the Admiralty to provide for the moorings of his Majesty's ships, and prohibits any private ship from fastening thereto. It further authorises the Admiralty to prohibit the *breaming* of any ship or vessel at any place or places on shore they may think fit, and to point out the places where private ships shall deposit the gunpowder they may have on board exceeding 5 lbs. (Sec. 6.) It prohibits the use of any fire on board any ship or vessel that is being breamed in any port, harbour, or haven, between the hours of 11 in the evening and 5 in the morning, from October 1 to March 31, inclusive; and between the hours of 11 in the evening and 4 in the morning from April 1 to September 30, inclusive; and it prohibits the melting or boiling of any pitch, tar, tallow &c. within 250 yards of any of his Majesty's ships or of his Majesty's dock-yards. By another section, the keeping of guns shotted, and the firing of the same in any port, are prohibited under a penalty of 5*s.* for every gun kept shotted, and 10*s.* for every gun discharged. (Sec. 8.) The sweeping or creeping for anchors &c. within the distance of 150 yards of any of his Majesty's ships of war, or of his Majesty's moorings, is prohibited under a penalty of 10*l.* for every offence. (Sec. 10.) The loading and unloading of ballast are also regulated by this statute; but for the provisions with respect to it see BALLAST.

HARDWARE (Ger. kurze waaren; Dutch, yzerkramery; Dan. isenkramvarer; Swed. järnkram; Fr. clinquaillerie, quincaillerie; Ital. chincaglio; Span. quinquilleria; Port. quincalharia; Russ. mjelotzchnue towarii) includes every kind of goods manufactured from metals, comprising iron, brass, steel, and copper articles of all descriptions. Birmingham and Sheffield are the principal seats of the British hardware manufactures; and from these, immense quantities of knives, razors, scissars, gilt and plated ware, fire-arms &c. are supplied, as well for exportation to most parts of the world as for home consumption.

The hardware manufacture is one of the most important carried on in Great Britain; and from the abundance of iron, tin, and copper ores in this country, is, provided the supply of coal be continuous and abundant, likely to remain an important object of British industry. The late Mr. Stevenson, in his elaborate and excellent article on the statistics of England, in the *Edinburgh Encyclopædia*, published in 1815, estimated the value of all the articles made of iron at 10,000,000*l.*, and the persons employed in the trade at 200,000. Mr. Stevenson estimated the value of all the articles made of brass and copper at 3,000,000*l.*, and the persons employed at 50,000; and he further estimated the value of steel, plated, and hardware articles, including toys, at 4,000,000*l.*, and the persons employed at 70,000. So that, assuming these estimates to be nearly correct, the total value of the goods produced from different sorts of metals in England and Wales in 1815 must have amounted to the sum of 17,000,000*l.*, and the persons employed to 320,000.

There is reason to believe that this estimate, in so far at least as respects the value of the manufacture, was at the time decidedly too high, but at this moment it is most probably within the mark. There has been a very extraordinary augmentation of the quantity of bar and pig iron produced within the last 50 years; and the rapid increase of Birmingham and Sheffield, as well as of the smaller seats of the hardware manufacture, shows that it has been increased in a corresponding proportion. We have been assured, by those well acquainted with most departments of the trade, that if to the iron and other hardware manufactures of England be added those of Scotland, their total aggregate value cannot now (1868) be reckoned at less than 30,000,000*l.* a-year, affording *direct* employment, in the various departments of the trade, for at least 350,000 persons.

Fall of Prices.—Owing partly to the reduced cost of iron, but incomparably more to improvements in manufacturing, a very extraordinary fall has taken place in the price of most hardware articles during the last 30 or 40 years. In some articles the fall exceeds 80 per cent.; and there are but few in which it does not exceed 30 per cent. In consequence, the poorest individuals are now able to supply themselves with an infinite variety of commodious and useful articles, which, at the beginning of this century, were either wholly unknown or were too dear to be purchased by any but the richer classes; and those who reflect on the importance of the prevalence of habits of cleanliness and neatness will readily agree with us in thinking that the substitution of the convenient and beautiful hardware and earthenware household articles that are now every where to be met with, for the wooden and horn articles

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used by our ancestors, has been in no ordinary degree advantageous. But it is not in this respect only that the cheapness and improvement of hardware are essential. Many of the most powerful and indispensable tools and instruments used by the labourer come under this description, and every one is aware how important it is that they should be at once cheap and efficient.

Account of the Real Values of the Various Descriptions of Iron, Brass and Copper, Hardware and Cutlery &c., the Produce and Manufactures of the United Kingdom, Exported during each of the 5 Years ending with 1866.

Principal Articles	1862	1863	1864	1865	1866
	£	£	£	£	£
Iron: Old and broken, for re-manufacture	98,464	57,729	13,818	12,587	69,794
Pig and puddled	1,205,611	1,287,968	1,412,552	1,599,491	1,542,143
Bar (except railroad), angle, bolt, and rod	2,290,964	2,568,034	2,564,049	2,199,837	2,348,695
Railroad, of all sorts	2,817,877	3,228,501	3,505,986	3,590,563	4,183,198
Castings and articles of cast iron	574,142	740,310	670,111	792,581	707,292
Wire and manufactures of wire	314,895	409,139	416,615	471,185	463,336
Hoops, sheets, and boiler plates	1,518,917	1,720,881	1,726,672	1,601,964	1,784,216
Wrought, of other kinds	1,937,317	2,154,734	2,257,406	2,456,302	2,658,114
Steel, ingots, bars, and sheets	848,953	935,517	890,795	782,129	1,124,917
Brass of all sorts	204,784	241,295	234,013	232,309	225,148
Copper, unwrought:					
Ingots, cakes, or slabs	497,915	1,188,713	586,147	496,148	558,051
Wrought or partly wrought:					
Sheets, nails, bars, rods &c.	1,140,278	1,773,628	2,110,376	1,480,430	1,174,732
Mixed or yellow metal	812,158	953,457	801,761	816,610	771,936
Of other sorts	234,391	59,797	167,256	136,992	87,846
Hardwares and cutlery of all sorts	3,310,312	3,833,149	4,115,707	4,326,741	4,366,300
Tin, unwrought	477,213	515,877	482,147	408,570	382,981
Plates	1,212,665	1,309,677	1,263,246	1,481,098	1,496,192
Plated wares	104,382	118,546	114,980	112,452	111,095
Total	19,358,198	23,159,671	23,124,417	23,052,739	24,396,681

For further particulars on the character and extent of the hardware manufacture, see the excellent series of essays in the *Birmingham and Midland Hardware District.*

HARPOONER. The man who throws the harpoon in fishing for whales. By 35 Geo. III. c. 92 s. 34, no harpooner, line manager, or boat steerer, belonging to any ship or vessel fitted out for the Greenland or Southern whale fisheries, shall be impressed from the said service, but shall be privileged from being impressed so long as he shall belong to, and be employed on board, any ship or vessel whatever in the fisheries aforesaid.

This privilege has lost its significance, as impressment is practically obsolete.

HATS (Ger. hüte; Dutch, hoeden; Fr. chapeaux; Ital. cappelli; Span. sombreros; Russ. schlopü). Coverings for the head in very general use in Great Britain and many other countries, and known to every body. They are made of very various forms and sorts of material. They may, however, be divided into two great classes, viz. those felted or made of fur, wool, silk &c., and those made of straw; the former being principally worn by men, and the latter by women.

1. Hats (Felted, Fur, Silk &c.). We possess little information as to the importance of hats, as a distinct branch of manufacture, anterior to the reign of Elizabeth.

Felted hats are stated to have been worn by the Saxons, but the earliest notice we find of '*bearer*' hats is in an inventory of the effects of Sir John Falstoffe in 1459. Philip Stubos, in his *Anatomie of Abuses*, published in 1585, mentions, amongst *other varieties*, 'bever hats of 20, 30, and 40 shillings price being fetched from beyond the seas.' In subsequent reigns, and particularly during the Commonwealth, the manufacture of both beaver and felted hats must have arrived at some importance; and not only the quality, but the shape of the hat, began to possess an influence in denoting the religious or political bias of the wearer—a characteristic of this article of dress which obtains even at the present day. An interesting account of hats as worn at different periods of our history is given in the *Archæologia*, and the details of the manufacture, as it is now carried on, are given in a work called *Days in the Factories* (by Mr. George Dodd), published in 1843.

Charles VII. of France wore a hat on his public entry into Rouen in 1449, which is believed to have been among the first manufactured in his kingdom. (*Encyclopédie*, art. 'Chapeaux.')

The following details with respect to the species of hats manufactured, their value &c., furnished by a high practical authority, present a view of the trade as it existed in 1843:—

1. *Stuff Hats.*—This term is applied by the trade only to the best description of hats, or to those brought to the highest perfection in London. Since the introduction of 'waterproofing,' it is found unnecessary to use so valuable a material as beaver in the foundation or frame-work of the best hats. Instead of it, fine seasoned backs of English coney wool, red Vigonia wool, Dutch carroted coney wool, and a small quantity of fine Saxony lambs' wool, are employed with equal advantage.

The covering, i.e. the 'napping,' of the best qualities is a mixture of *cheek* beaver with white and brown stage beaver, or seasoned beaver, commonly called *wooms*. Inferior stuffs are napped with mixtures of stage beaver, nutria, hares' wool, and musquash.

Of late years hats have been much reduced in weight. This is principally owing to the new method of 'waterproofing,' which is effected in the bodies of the hats prior to their being napped. The elastic properties of the gums employed for this purpose, when dissolved in pure spirits of wine, give a body to the stuffs which allows a good deal of their weight to be dispensed with.

Not 20 years previous to 1843, 96 ounces of stuff were worked up into 1 dozen ordinary sized hats for gentlemen. In 1843 from 33 to 34 ounces only were required to complete the same quantity. We may remark that the heavy duty on English spirits of wine was very injurious to the manufacture, as it caused the employment of inferior dissolvents, as naphtha and gas spirit, which injure the gums.

The manufacture of the best hats employed in London nearly 1,000 makers and finishers, besides giving employment to nearly 3,000 men in Gloucestershire and Derbyshire, in body-making and rufling. The gross returns amounted in 1843 to about 640,000*l.*

2. *Plated Hats.*—Next to fine hats are those designated 'plated,' so called from the *plate*, or napping, being of a distinct and superior nature to the foundation or body. The latter is generally formed of Kent, Spanish, or Shropshire wool; while the former consists of a mixture of fine beaver, hares' wool, musquash, nutria, and English back wool. From the cheapness of coal and the purity of the water in Lancashire, Cheshire, and Staffordshire, the whole of the plating trade is engrossed by them. The men employed in the 3 counties, including apprentices, do not exceed 3,000. The total returns amounted in 1843 to about 1,080,000*l.*, inclusive of bonnets and children's fancy beaver hats.

3. *Felt Hats* and *Cordies* are the coarsest species, being made wholly of Kent, Shropshire, and Italian wools. Cordies are distinguished by a fine covering of camel or goat hair. A very large trade was at one time carried on in these articles; but since the introduction of caps, and the manufacture of inferior plates, the returns have sunk from 1,000,000*l.* to scarcely 150,000*l.* in 1843! Atherstone, Rugeley, Bristol, and Newcastle-under-Line are the principal places where they are manufactured.

4. *Silk Hats*, made from silk, plush, or shag, manufactured in Coventry, Banbury, and Spitalfields, formed in 1843 a very important branch of the hat trade. Many thousand dozen were exported to Italy, Gibraltar, the Cape, Sydney, and Van Diemen's Land. Little progress was made in this article for the first quarter of a century after its invention, in consequence of the hard appearance which the cane and willow framework necessarily gave the hats; but now that beaver hat bodies have been used, as well as those of lawn and muslin, this difficulty has been overcome, and silk hats have as soft an outline, and as great a variety of shapes, as beaver hats. London alone produced nearly 150,000 dozen silk hats annually; and the quantity manufactured in Manchester, Liverpool, Birmingham, and Glasgow was estimated in 1843 at upwards of 100,000 dozen more, making a total of above 250,000 dozen. The workmen were distinct from beaver hatters; and owing to the competition of labourers, the trade advanced in a greater ratio. This branch gave employment to about 3,000 men.

In 1843 *silk hats* of a low quality were more extensively worn; and public taste set strongly in favour of a new and showy kind of silk hat, made on the French plan, and of a material imported from France at a duty of 30 per cent. This change, which reduced the consumption of both *stuff* and *plated* hats, probably arose, so far as regards the lower sorts of silk hats, from motives of economy, induced by the state of the country, and in the higher qualities chiefly from the influence of fashion. But though there was no reason to conclude that this change would be permanent, it depressed the trade, especially in the finer branches.

Machinery is extensively used in the preparation of the materials for the manufacture, but has hitherto been found inapplicable to the manufacture itself, which, in some processes, requires a certain amount of mental discretion. Particular districts are celebrated for particular branches of the trade, chiefly from special reasons respecting fuel, water, or lowness of wages; but the increased competition has of late had a tendency to concentrate the trade in a few localities rather than to disperse it, although it is still rather widely distributed. Hitherto the trade has not been exposed to foreign competition in the home market, but it has been of late years seriously affected in the Brazilian and West Indian markets.

Few beaver or ruffed hats meet the English manufacturer in the markets referred to, but chiefly hats of silk or felted hares' wool, of styles not adapted to our taste, though suited to that of Europe and South America.

English hats, though to a limited extent and in an unfinished state, have been exported to the Continent. The hats chiefly exported to our colonies are silk, plated, and stuff hats, generally of a light description. Wool felts, which before the Emancipation Act were largely exported, have materially decreased, the article termed 'negro felts' being almost extinct.

This trade employs a great amount of labour, having been supposed to furnish, in 1843, employment to not less than 30,000 persons. In the Lancashire district, the first and second manufacturing processes were chiefly carried on in the houses of the workmen. The labour of women and children was very largely employed in the trade generally, but less in the actual manufacture than in the preparation of the material: the proportions may be, in both departments, men 50 per cent., women 25 per cent., and children 25 per cent.; and their earnings, on a yearly average, were, men 25*s.*, women 7*s.*, and boys 5*s.* per week. The depression in the finer branches of the manufacture has doubtless affected the earnings of the workmen engaged in them, as a less amount of skill and labour is required in the production of low silk hats than beavers, and the increased quantity produced in the lower descriptions has not furnished an amount of employment equivalent to the decrease in the higher branch. Combinations on the part of the workmen have occasionally arisen, sometimes from questions affecting wages and disputes arising out of the existence of trades' unions, but not to any considerable extent from attempts to introduce machinery.

No data exist on which to form any certain estimate of the value of the different branches of the manufacture or of its aggregate amount; but it is estimated, on good grounds, that on *plated* goods, the cost of the raw material varies from 25 to 40 per cent., the labour and manufacturing expenses from 75 to 60 per cent.; on stuff hats, materials 40 to 50 per cent., labour &c. 60 to 50 per cent.; silk hats, materials 50 per cent., labour &c. 50 per cent. The proportions in value are estimated as follows, viz.:—Plated hats, 1,200,000*l.*; stuff do., 800,000*l.*; silk do., 900,000*l.*; wool felts, 100,000*l.*; making, in 1843, in all 3,000,000*l.*

The duty on hats, which was formerly 10*s.* 6*d.* each, was reduced in 1842 to 2*s.* 6*d.* on fur and wool hats, and to 3*s.* 6*d.* on silk. In 1836, 53,894 dozen hats were exported, of the real or declared value of 148,282*l.*; but in 1841 the exports only amounted to 22,522 dozen, of the value of 81,583*l.* The falling off has been principally in the exports to the West Indies and Brazil.

Hat Manufacture and Trade in 1866.—A very extraordinary change has taken place in the state of the hat trade since 1843. This will be evident from the following details, which have been supplied to us by the highest practical authorities:—

Stuff Hats.—For this branch of the manufacture there is now a very limited demand. It employs not more than 20 men, and these very irregularly.

Silk Hats.—In this branch there are not so many hats manufactured as in 1859, but the greatest change which has taken place is the removal of a large portion of the trade from the provinces to London. The number now employed in silk hat making in the metropolis may be about 1,800 men and 1,000 females, whilst in the provinces they do not exceed 800 men and 500

women. The quantity manufactured is estimated to amount to about 450,000 dozens annually, of the value of about 1,800,000*l.* The wages of the men in London are said to be from 3*l.* to 4*l* per week, and in the country from 2*l.* to 3*l.* per week.

Plated Hats and Cordies.—This branch is now said to be wholly extinct.

Felt Hats.—It is in this branch that the greatest alteration has taken place. Since 1859 machinery has been introduced, and hats of this class can now be produced with an improved appearance at less cost. Throughout the country, and particularly in the provinces, felt hats have superseded the use of cloth caps, and the latter trade is in consequence much depressed. The manufacture is confined to the provinces, and gives employment to about 3,500 men and boys, and 2,000 women and girls, the former earning from 20*s.* to 40*s.* and the latter from 8*s.* to 14*s.* per week. The quantity manufactured may be about 700,000 dozens, of the value of about 1,000,000*l.* per annum.

It is seen above that in 1843 the yearly value of the hat manufacture was estimated at about 3,000,000*l.*, employing in its different departments about 30,000 persons throughout the United Kingdom; and though the most expensive description of hats has been superseded, the trade has been much extended; the reduction which has taken place in prices has led to a great increase in the quantities consumed and exported. The exports, which in 1866 (ex. straw hats) amounted to 148,094 dozen, worth 32,336*l.*, were chiefly to our colonies in Australia, North America, and the West Indies: on the other hand, we imported, chiefly from France, 208,689 felt hats, worth 62,611*l.*

Labour, profit, and interest on capital form perhaps ¾ of the yearly returns. Machinery is used to a greater extent, though the manufacture is almost entirely conducted by manual labour. Wages vary from 8*s.* to 16*s.* weekly for women, and from 25*s.* to 30*s.* for men.

Straw Hats.—It is most probable that the idea of *plaiting straws* was first suggested by the making of baskets of osiers and willow, alluded to by Virgil, in his Pastorals, as one of the pursuits of the agricultural population of Italy. We are ignorant of the period when the manufacture of straw plait first became of importance in that country; but it appears from Coryat's *Crudities*, published in 1611, that 'the most delicate strawen hats' were worn by both men and women in many places of Piedmont, 'many of them having at least an hundred seames.' It is evident, therefore, that the art of straw plaiting must have arrived at great perfection upwards of two centuries since; but it does not appear to have been followed in England for more than 70 or 80 years previous to 1868, as it is within the remembrance of some of the old inhabitants of the straw districts, now alive, that the wives and daughters of the farmers used to plait straw for making their own bonnets, before straw-plaiting became established as a manufacture. In fact, the custom among the women of England of wearing bonnets is comparatively modern: it is scarcely 100 years since *hoods and pinners* were generally worn, and it was only the ladies of quality who wore small hats. (Malcolm's *Manners and Customs.*)

In the edition of this work published in 1844 we stated that during the ten years ending with 1843 the manufacture of British straw hats and bonnets had increased perhaps ¾, and of straw plait about ½, compared with the former decennial period. In our edition of 1859 it was confidently affirmed, on the authority of persons conversant with the trade, that it had increased not less than threefold. It was estimated in 1843 that every score (20 yards) of plait consumed a pound of straw; that every plaiter made 15 yards per diem; that in Hertford, Bedford, and Bucks, the principal seats of the trade, there were at an average 10,000 scores brought to market every day, to make which 13,300 women and children were employed. In Essex and Suffolk the daily produce was estimated at 2,000 scores, to make which 3,000 persons were employed, and about 4,000 persons more must have been employed in converting those quantities into bonnets. Including other places where the manufacture was carried on in England, it was supposed there were in all, in 1833, about 30,000 persons engaged in it, while in 1843 there could not be less than from 40,000 to 50,000 persons, including 1,500 sewers in London. In 1859, such had been the improvement as well as the increase of the manufacture, that the average production of each straw-plaiter was estimated at 20 yards per diem from the same weight of straw in Hertfordshire, Bedfordshire, and Bucks, and that the plaiting produced must exceed 25,000 scores, giving employment to an equal number of women and children. During some periods of the year, when out-door work was scarce, men and boys were found amongst the producers. In Essex and Suffolk the produce had been more stationary: perhaps 3,000 persons were employed, producing about 2,500 to 2,700 scores daily. The *range* of the earnings of plaiters continued about the same (from 3*d.* to 3*s.* 6*d.* per score, or from 1*s.* 6*d.* to 10*s.* per week), but the *average* was higher than in the former period, children earning 2*s.*, and grown persons 5*s.* The sewers in country districts earned from 6*s.* to 15*s.* and averaged about 10*s.*, while the same class in London received from 6*s.* to 40*s.* and averaged about 11*s.* or 12*s.* Taking into account the various new kinds of plaiting and trimmings introduced from Switzerland, it was computed that the number employed in making straw and fancy hats and bonnets amounted to 160,000 or 180,000, including the London sewers. The annual value of the trade in all its branches was roughly estimated at between 3,000,000*l.* and 4,000,000*l.* sterling, the greater portion forming the wages of labour.

The improvement and extension of the trade were ascribed to various causes. For some previous years the practice had arisen of *blueing* instead of *bleaching* the straw, and this was attended with the most beneficial results. Formerly much anxiety was occasioned lest the straw used for plaiting should become discoloured, and be otherwise affected by the weather before harvest; but this anxiety was now wholly removed by the process of dyeing, while the plaiters secured more constant employment. *Brown* was at first introduced, and subsequently *grey*, both of which are now in demand to a great extent both by men and women. Down to 1852 the production of men's and boys' hats made of *Brazilian grass* was an improving branch of the trade, but it has since sensibly declined, owing to the preference shown for straw hats. Indeed, so fashionable and common have straw hats become, particularly since dyed straw has been introduced, that they have interfered greatly with the silk hat trade, besides superseding the Brazilian grass hats. During 1858, so rapidly did the fashion spread amongst the male portion of the population (except in London), that it was described as almost universal. Another most important cause of improvement in the trade was the reduction which had then taken place in the duty on importation of foreign hats

and plait. Instead of 5*s.* 6*d.* per hat, and 8*s.* 6*d.* per lb. for plait, the duty was reduced to 2*s.* 6*d.* per lb. on hats, and 2*s.* per lb. on plait, and a great impetus was, in consequence, given to the trade both in plaiting and hats, boys' and children's hats being admitted, which formerly, owing to the high duty, were virtually prohibited. These duties have since been abolished. The importation of hats from Leghorn has, however, almost ceased. Tuscan plait has become so reduced in price, that it is no longer necessary to import the straw used for making the plait. Indeed, notwithstanding the diminution in price, Tuscan plait itself is no longer prized as it was a few years since, and the consumption has much declined compared with former years.

Since our last account of this trade was written, the varieties of patterns in straw-plaiting have considerably increased, which with the use of horse-hair (plaited by machinery), woven into light fancy trimmings, gives a distinctive feature to the trade compared with any previous epoch. The use of horse-hair braid has never been superseded since its introduction, about 26 years ago; it has rather gradually increased. In 1858 cotton braid (in imitation of crinoline and chip plaiting) had been very extensively used by itself, and in combination with straw plait, adding another new feature to the trade. Other woven trimmings of Swiss manufacture have also been introduced in imitation of pillow lace or blond, worked with horse-hair, and afterwards embroidered with straw, beads &c.

Luton was long the chief seat of the manufacture. There is a tradition that the unfortunate Mary Queen of Scotland, when travelling through the duchy of Lorraine, invited some of the straw-plaiters there to introduce the art into Scotland. It was not, however, very successful; and it is said that shortly after the accession of James VI. to the throne of England, he encouraged them to remove to Luton, where the trade has since maintained itself. In 1843 there were nearly 100 dealers connected with the manufacture in its different branches established in that town. Straw-plaiting in Orkney has entirely ceased.

At this time (1866) some material changes have taken place in the manufacture. In the Bedfordshire District (Beds, Herts, and Bucks), the increasing demand for straw hats, which for a long series of years had been a cottage employment, has led to the opening of factories and workrooms in various parts of the country, in which the plait is sewn up into hats &c., and where many who were formerly plaiters are now employed as sewers. The importation of straw plait from Switzerland, Belgium, and Saxony has very largely increased (mostly of the single straw or split make). These are chiefly worked up at Luton, and an advance has taken place in wages of perhaps about 7 per cent. Men's and boys' palm-leaf, or Brazilian hats, are now almost superseded by the introduction of a much cheaper article, called the 'Swiss hat.' A material improvement both in manufacture and finish, particularly in men's hats, has taken place during the last two years, giving employment to greater numbers of people. Machines for blocking or pressing by steam and hydraulic power have been introduced, and found to be a great improvement upon the old system of manual labour, a superior and uniform finish being obtained by these processes. The Commercial Treaty with France has also opened new markets for our production, while the shipments to Australia and New Zealand are very large, giving employment to great numbers of the country makers.

In 1866 the imports of straw and other plaiting were 318,652 lbs., valued at 154,508*l.*, besides 718 cwt. of straw or grass for plaiting, worth 5,744*l.* Again, the exports of straw hats and bonnets were 116,382 dozen, valued at 167,264*l.*: on the other hand we imported 300,008 lbs. of straw hats or bonnets, chiefly French, of the value of 1,179,580*l.*

Italian Manufacture.—In 1865 the Tuscan plait and hat trade was considered in a prosperous condition. Plaits of different kinds were in good demand for the several continental and New York markets, and hats of different kinds were freely ordered for some continental markets. The return of peace and revival of trade in the United States of America caused a great improvement in the demand for plait. Neither the abolition of duties in England, nor the almost abolition of them in France, seems to have caused any material extension of business in these goods, as Tuscan straw hats and bonnets enter into consumption more as an article of fashion than of necessity, and are ruled by the prevailing taste of the moment, without so much regard to price. The abolition of duties, however, permits the introduction of much cheaper goods, which must lead to a gradually increasing business. The price of Tuscan straws has continued to vary during late years, according to the success of the crops. The price per English lb. (1865) ready for plaiting ranged from 1*s.* 6*d.* to 2*s.* 4*d.* For some years Tuscan straw has ceased to be sent to the English market, particularly since the abolition of duties on manufactured goods. Signor Mariotti, in his pamphlet on the Tuscan Straw Manufacture in 1858, referred to the introduction of men's hats made in imitation of the Panama hats, but the demand was short-lived. The manufacture of hats and plaits in Tuscany has improved during the last seven years, principally in the dressing and shaping them. Machinery of a new construction has been introduced, which has led to larger quantities being finished off than could be done solely by hand. In plaits, delicate colours and some improved designs have been secured to the manufacture. The annual value of the straw trade in Tuscany in 1865 amounted to about 800,000*l.* sterling, but a large per centage of this increase is to be attributed to a considerable advance in the cost price of goods. Since the revolution of 1859, which consolidated the States of Italy, there has been a pretty fair consumption of Tuscan straw goods in various parts of the kingdom, while on the other hand there was a considerable falling off of trade with North America during the civil war in that country. Men's hats at 2*d.* and 8*d.* each have ceased to be made in Tuscany since the American civil war, as they were almost exclusively sent to the United States; but hats at these prices, made in the mountainous district of Bologna, have, since the return of peace, been shipped to America. The straw for these hats is taken from the wheat fields. There are no statistics published in regard to the labouring population of Tuscany, but we, on good authority, think there must be between 70,000 and 80,000 hands employed in the straw industry in one way and another. A portion of this number is not constantly employed in the manufacture. Wages fluctuate considerably in the making of plaits, hats, and trimmings, according to the demands of trade. In 1865 wages, mostly of women and children, were at a high point: plait makers earning from 4*d.* to 1*s.* 6*d.* per day, hat makers from 6*d.* to 1*s.* 8*d.* (the average of the latter may be about 10*d.*), and trimming makers from 6*d.* to 1*s.* per day. Men and boys are, however, employed in assorting straw by machinery, and otherwise preparing it for the

manufacture. They earn from 9*d.* to 1*s.* 8*d.* per diem; they are also employed in bleaching, pressing, and finishing hats; their earnings are from 10*d.* to 2*s.* 6*d.* per day; the bulk from 1*s.* 6*d.* to 2*s.*, and for overtime (which often lasts 5 or 6 months) they receive one-third extra. Since 1859 the fashion for women and girls to wear hats in preference to bonnets has been constantly extending, and has conferred an immense advantage on the Tuscan straw industry, both as regards plaits and hats; and owing to the general demand in Europe, America, and Australia, prices have continued to advance since 1862. Tuscan plaits had almost ceased to be used for bonnets, a preference having set in for other kinds of plaits of lighter texture. The demand for hats and plaits for men's and boys' wear is more restricted and precarious. The total value of plaits and hats exported from Tuscany since 1855 (say for nine years) may probably amount to from 3,500,000*l.* to 4,000,000*l.* sterling, but the export of raw straw since that date has ceased. These exports are estimated to be made from Italy: the inland trade in these goods will no doubt amount to about 1,000,000*l.* more.

It is stated in Signor Mariotti's pamphlet, that as far back as 1341 the art of straw plaiting was known in Tuscany; certain kinds of foreign straws were then also imported; in 1737 there was a duty levied upon them, which, however, was repealed by Leopold I. It is shown by a tomb-stone existing in the church of St. Miniato, at Signa, that Domenico Michelacci, a native of Bologna, carrying on business there in the commencement of the eighteenth century, was the first to establish with England the export trade in Leghorn hats. In 1718 this same man raised the first fine straw used in Tuscany. In 1757 and the following year an annual export business in hats commenced, and reached from 15,000*l.* to 25,000*l.* sterling. The first hats for ladies (afterwards so largely imported into England) were made only in 1813, of the number of 40 rows. In 1818 the hands employed were estimated at from 50,000 to 60,000, earning from 1*s.* to 1*s.* 9*d.* per day. In 1822 the exportation to America began; and although an increase of hands was the result, the earnings rose from 1*s.* 4*d.* to 5*s.* per day. In 1826–7 the trade in ladies' Leghorn hats reached its climax, and soon after that the Tuscan plait in 11 straws was introduced.

Swiss and other Manufactures.—The *Swiss* straw trade has greatly developed itself during the last 30 years: the returns in some of the most favourable seasons cannot have been less than from 200,000*l.* to 300,000*l.* Wohlen (in the Canton d'Argovie) is the central seat for *loom* and all kinds of fancy trimmings; but within the last 10 years white horse-hair braid (of which the largest manufactory is at Kriens, near Lucerne) has been in great demand. In the Fribourg Canton there is also an interesting straw trade carried on, the principal districts being *Bulle* and *Chatel St. Denis*; but being a similar kind of straw to the Belgian and English, the importations into this country are trifling, although a large amount of business is done with Paris and America.

Chip hats and plaiting are also produced at Modena, or rather Carpi, in its vicinity. Though commonly called *paille de riz*, it is simply the wood of the willow cut into strips for the purpose of being plaited, and is of a most beautiful white. These 'chip flats' are chiefly sent to Paris, where they are dressed in a peculiar manner, and shipped to all parts of the world. Some are shipped to England in their natural state, to be stripped and sewn into white bonnets, and some also are dyed black and other colours. The *art*, it is said, was first introduced by Signor Corston in 1805, and has been of great advantage to the small locality where it is carried on; but the returns, it is believed, cannot exceed from 15,000*l.* to 30,000*l.* per annum.

Panama hats have also been imported into England. They are made of a species of bleached grass grown in Central America, nearly quite white, of great tenacity, and very serviceable. They make a capital summer wear for men and boys. Those imported have, however, been mostly re-exported for Australia and the Continent. We subjoin—

An Account of the Weight and Value of the Straw Hats and Plaiting Imported in 1866, *specifying the Countries whence they came, and the Quantities and Values of those brought from each.*

	Quantities	Value
Hats or bonnets of straw:	lbs.	£
From Hamburg - -	1,778	3,556
France - -	283,175	1,132,700
Tuscany - -	2,305	6,915
St. Thomas - -	1,340	4,690
United States - -	1,104	3,510
New Granada - -	2,811	8,433
Ecuador - -	1,686	5,058
Other parts - -	5,909	14,718
Total -	300,108	1,179,580

	Quantities	Value
Plaiting, straw:	lbs.	£
From France -	201,351	102,567
Other parts -	6,472	6,315
Total -	220,823	108,882
Other kinds:		
From Hamburg -	15,661	1,029
France -	80,757	43,496
Other parts -	1,908	1,101
Total -	97,829	45,626

French Manufacture.—The chief seats of the French manufacture of hats are Paris, Lyons, Bordeaux, Tarascon, Aix, and Nimes, and the exports of these articles are said to fully equal the half of all that are made. The value of the felt hats exported from France in the year 1864 exceeded 10,000,000 francs. These goods were sent principally to the United Kingdom, Brazil, and the Argentine Confederation. The average price of French felt hats was 6*s.* in 1866, in which year 189,888 French hats were imported into the United Kingdom. A few were imported from Belgium and Germany.

The importation of straw hats and bonnets from France has enormously increased of late years. In 1857 only 24,953 lbs. of these articles were imported from that country, and 134,789 lbs. of straw plaiting. The value of these imports in 1866 was nearly 1,133,000*l.* sterling. As no duty is now levied on straw hats and plaiting, it is not possible to determine how much of the imports are retained for home consumption.

(We are indebted for this article on Hats chiefly to Mr. Robert Slater, of Fore Street, London.)

HAVANNAH or HAVANA. On the north coast of the noble island of Cuba, of which it is the capital, the Morro castle being, according to Humboldt, in lat. 23° 8′ 15″ N., long. 82° 22′ 45″ W. The population of the city and suburbs was estimated in 1861 at 201,500. In 1827 the resident population amounted to 94,023; viz. 46,621 whites, 8,215 free coloured, 15,347 free blacks, 1,010 coloured slaves, and 22,830 black slaves. The port of Havannah is the finest in the West Indies, or perhaps in the world. The entrance is narrow, but the water is deep, without bar or obstruction of any sort, and within it expands into a magnificent bay, capable of accommo-

dating 1,000 large ships; vessels of the greatest draught of water coming close to the quays. The city lies along the entrance to, and on the west side of, the bay. The suburb Regla is on the opposite side. The Morro and Punta castles, the former on the east, and the latter on the west side of the entrance of the harbour, are strongly fortified, as is the entire city; the citadel is also a place of great strength; and fortifications have been erected on such of the neighbouring heights as command the city or port. The arsenal and dock-yard lie towards the western angle of the bay, to the south of the city. In the city the streets are narrow, inconvenient, and filthy; but in the suburbs, now as extensive as the city, they are wider and better laid out. Latterly, too, the police and cleanliness of all parts of the town have been materially improved.

From its position, which commands both inlets to the Gulf of Mexico, its great strength, and excellent harbour, Havannah is, in a political point of view, by far the most important maritime station in the West Indies. As a commercial city it also ranks in the first class; being in this respect second to none in the New World, New York only excepted. For a lengthened period Havannah engrossed almost the whole foreign trade of Cuba; but since the relaxation of the old colonial system, various ports, such, for instance, as Matanzas, which were hardly known at the beginning of this century, have become places of great commercial importance. The rapid extension of the commerce of Havannah is, therefore, entirely to be ascribed to the freedom it now enjoys, and to the great increase of wealth and population in the city, and generally throughout the island.

The advance of Cuba during the present century has been very great; though not more, perhaps, than might have been expected from its natural advantages, at least since its ports were freely opened to foreigners in 1809. It is at once the largest and the best situated of the West India islands. It is about 605 miles in length; but its breadth from north to south nowhere exceeds 117 miles, and is in many places much less. Its total area, exclusive of that of the numerous keys and islands attached to it, is about 33,000 square miles. The climate is, generally speaking, delightful; the refreshing sea breezes preventing the heat from becoming excessive, and fitting it for the growth of a vast variety of products. Hurricanes, which are so destructive in Jamaica and the Caribbee Islands, are here comparatively rare; and, when they do occur, far less violent. The soil is of very various qualities: there is a considerable extent of swampy marshes and rocks unfit for any sort of cultivation; but there is much soil that is very superior, and capable of affording the most luxuriant crops of sugar, coffee, maize &c. The ancient policy of restricting trade to 2 or 3 ports caused all the population to congregate in their vicinity, neglecting the rest of the island, and allowing some of the finest land and best situations for planting to remain unoccupied; but since a different and more liberal policy has been followed, population has begun to extend itself over all the most fertile districts, wherever they are to be met with. Still, however, only a very small proportion of the best land of the island is under cultivation, and its products and population might be doubled or trebled with the utmost facility. The first regular census of Cuba was taken in 1775, when the whole resident population amounted to 169,370 souls. Since this period the increase down to 1861 has been as follows:—

Year	Whites	Free coloured	Slaves	Total
1775	96,419	30,615	44,336	169,370
1827	311,051	106,494	286,942	704,487
1841	418,291	152,838	436,495	1,007,624
1853	510,965	176,437	550,193	1,009,069
1857	549,676	174,810	374,519	1,107,991
1861	793,484	232,193	370,553	1,396,550

The rapid increase of the slave population down to 1841 is principally to be ascribed to the continued importation of slaves from Africa. In some years, after the peace of 1815, as many as 40,000 blacks are believed to have been imported into Cuba in a single year. Spain had indeed agreed by treaty in 1820 to abolish the trade; but this agreement was little better than a dead letter; and it is only since 1835, when a more efficient treaty with Spain was entered into, that the trade suffered any considerable diminution.

But though it were to be wished, as well for the interests of the island as of humanity, that the farther importation of slaves should be put a stop to, we are not of the number of those who think that it would be good policy rashly to agitate the question of the emancipation of slaves in Cuba. Their treatment in that island, as in all the other colonies of Spain, has always been singularly humane; and the results of their emancipation in Hayti and the British islands have not been such as to offer much inducement to the authorities in Cuba to take up this difficult question. It may, no doubt, be forced on their consideration; and the emancipation of so many slaves in their immediate vicinity will materially increase the difficulty of maintaining the existing order of things. Under these circumstances good policy would seem to suggest that timely provision should be made for the gradual bringing about of that emancipation which is, perhaps, inevitable, coupling it, if that be practicable, with some scheme for insuring the supply of some sort of compulsory labour.

Whatever opinion may be formed of slavery in the abstract, we believe it would not be difficult to show that it has contributed in no ordinary degree to the rapid advancement of Cuba. Industry will always be proportioned to the strength of the motives by which it is occasioned; and in countries like Cuba, of great natural fertility and under a tropical sun, where a half or more of the articles indispensable in Europe would be useless, it were absurd to imagine that the inhabitants, supposing them to be free, should exhibit the persevering industry of free labourers in the temperate zone. The *dolce far niente* is in such countries the *summum bonum*; and we believe it will be found that the extensive cultivation of sugar and of most other commercial products within the tropics depends on the maintenance of slavery, or of compulsory labour of one kind or other. The people of England may be but little affected, at least directly, by these considerations, and may, therefore, on the principle of *fiat justitia, ruat cœlum*, think themselves warranted in using their influence to enforce the abolition of slavery wherever it exists. But to Cubans and Brazilians, and a host of others, this question is of the last importance. Were the slaves emancipated, not in law merely, but practically and in fact, the probability is that neither Cuba nor Brazil would, in a dozen years, export a single cwt. of sugar. Why should they do so any more than Hayti? The blacks, were they really emancipated, would be able to support themselves in that state in which they wish to live, without engaging in anything like the severe labour of sugar planting; and under such circumstances it would be a contradiction to suppose they should engage in it.

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But it might be difficult, perhaps, to show what good consequences would result from such a change. It is at all events clear that the commerce of the world and the comforts of all civilised nations would be seriously impaired; and it is by no means clear that the condition of the blacks would be sensibly, or at all, improved.

Besides slaves, the planters employ free labourers, of an Indian mixed breed, who work for moderate wages. Though the want of labourers has been severely felt since the slave trade was condemned, the importation of Chinese coolies has supplied this want to some extent. The yearly wages and keep of the Chinese field labourer are stated to be 236 dols., while those of the free negro are 300 dols., and those of the slave 210 dols. These, however, are little engaged in the fields, but in other branches of labour, and particularly in bringing sugar from the interior to the shipping ports.

The articles principally exported from Cuba are, sugar of the finest quality, coffee, copper ore, tobacco, bees' wax, honey, molasses &c. Of these, the first is decidedly the most important. The following statements show the astonishing increase that has taken place in the exportation of this staple article:—

Account of the Exportation of Sugar from Havannah at various Periods from 1786 *to* 1867.

			lbs.
From 1786—1790	-	68,150 boxes at 400 lbs.	= 27,260,000
1801—1810	-	177,998 ,,	= 71,199,200
1811—1820	-	207,696 ,,	= 83,078,400
1821—1825	-	250,384 ,,	= 100,153,600
In 1830	-	292,752 ,,	= 117,092,800
1840	-	440,144 ,,	= 176,057,600
1845	-	267,595 ,,	= 107,038,000
1850	-	746,405 ,,	= 298,562,000
1855	-	965,677 ,,	= 386,270,800
1856	-	872,592 ,,	= 349,036,800
1864	-	1,120,633 ,,	= 448,253,200 *
1867	-	1,158,290 ,,	= 463,316,000 †

* besides 16,801 hogsheads.
† besides 19,084 hogsheads.

But the Havannah has long ceased to be, as it formerly was, the only port in the island for the exportation of sugar. The exports from Matanzas now usually amount to about a third part of those from the Havannah; and there is also a considerable export from Cardenas, Trinidad, St. Jago de Cuba, Cienfuegos, and other ports. In 1867 the entire exports from the island were reckoned at 1,449,162 boxes and 413,487 hhds., of which 1,158,290 boxes and 19,084 hhds. were shipped from the Havannah. Now if we add to the official export from Cuba, equal to 530,669 tons, as we may safely do, 10 per cent. for the quantities exported without entry or payment of duty, the real export may be estimated at 583,736 tons. The consumption of the island may amount to 25,000 tons; making the total production 608,736 tons. And vast as this quantity is, it might be indefinitely increased, could supplies of labour be easily procured; but it is doubtful, supposing slavery were put down, whether it would be maintained at its present level. Havannah, Guines, Matanzas, Cardenas, and all the fine sugar-growing country between them, are linked together by different lines of railway, and there are several other lines in the island.

Account of the Sugar Exported from Cuba in each of the 5 *Years ending with* 1858, *and in* 1866 *and* 1867.

Year	Boxes	Tons	Hhds.	Tons	Total Tons
1854	1,238,959	235,402	180,034	116,722	352,124
1855	1,301,322	247,745	209,732	128,890	376,635
1856	1,114,543	211,763	237,765	146,822	358,585
1857	1,014,541	194,602	258,267	156,398	351,000
1858	1,184,825	225,116	243,739	150,510	375,635
1866	1,451,975	—	435,937	—	545,636
1867	1,449,162	—	413,487	—	530,669

The total producings of the sugar plantations of Cuba shipped in 1867 were sent from the following ports:—

	Boxes	Hhds.	Molasses hhds.
Havannah - -	1,158,290	19,084	23,665
Matanzas - -	242,103	60,332	91,145
Cardenas - -	37,490	44,565	74,198
Sagua - -	573	79,357	30,295
Remedios - -	264	42,149	14,577
Nuevitas - -	—	13,169	8,185
St Jago - -	836	41,519	366
Trinidad - -	6,010	38,940	13,779
Cienfuegos - -	3,576	74,334	37,866
Total - -	1,449,162	413,487	297,605

In 1867 the average price of clayed sugar Nos. 12 to 15 was 7¾ reals or 1*l.* 2*s.* sterling per cwt. free on board without freight; brown and yellow, Nos. 12 to 20, 7 to 11½ reals; and white, 8½ to 14 reals.

Next to sugar, coffee was formerly the most valuable vegetable production of Cuba. Its cultivation increased for a while with unprecedented rapidity. In 1800 there were but 80 plantations in the island; in 1817 there were 779; and in 1827 there were no fewer than 2,067, of at least 40,000 trees each! In 1804 the exportation from Havannah was 1,250,000 lbs.; in 1809 it amounted to 8,000,000 lbs.; from 1815 to 1820 it averaged annually 18,186,200 lbs.; and in 1827 it amounted to 35,837,175 lbs.! The exports from the other ports increased with equal rapidity: they amounted in 1827 to 14,202,406 lbs.; making the total exportation for that year 50,039,581 lbs. But the destruction of the coffee plantations in the western part of Cuba by the hurricane of 1846, and the low prices of coffee, or rather, perhaps, the greater attention paid to the culture of sugar, not only checked the further increase of the coffee plantations, but caused many of them to be abandoned. The exports of coffee from Cuba in 1854 amounted to 12,787,300 lbs. In 1864, 1,305,360 lbs. were exported from Havannah; while in 1867 only 344,848 lbs. were shipped.

Quantities of the Principal Articles Exported from the Port of Havannah, distinguishing the Principal Countries to which Exported, in the Year 1864.

Articles	Countries to which Exported		Quantities
Sugar -	Total - -	boxes	1,116,022
		hogsheads	17,658
	United States -	boxes	112,046
		hogsheads	7,156
	Great Britain -	boxes	504,055
		hogsheads	10,250
	France - -	boxes	209,055
	Spain - -	boxes	226,620
		hogsheads	60
	Other Ports of Europe	boxes	67,248
		hogsheads	192
Molasses -	Total - -	hogsheads	14,972
	United States -	,,	13,371
Tobacco -	Total - -	lbs.	7,041,770
	Spain - -	,,	2,917,168
	United States -	,,	1,983,697
	Hanse Towns -	,,	1,140,778
Cigars -	Total - -	millions	163,478
	France - -	,,	67,375
	United Kingdom -	,,	42,459
	United States -	,,	26,417
Coffee -	Total - -	lbs.	1,479,550
	Mexico, South America &c.	,,	1,000,818
	Spain - -	,,	328,775
Wax -	Total - -	,,	1,195,400
	Mexico, South America &c.	,,	707,425
	Spain - -	,,	469,875
Honey -	Total - -	tierces	2,070
	Hanse Towns -	,,	896
	Belgium - -	,,	431
	United States -	,,	245
	Spain - -	,,	211
Rum -	Total -	pipes	9,725
	Spain - -	,,	7,143
	Mexico, South America &c.	,,	2,088

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Tobacco differs much in quality, but the cigars of Cuba are esteemed the finest in the world. [TOBACCO.] Formerly the culture and sale of this important plant were monopolised by Government; but since 1821 this monopoly has been wholly relinquished, there being no longer any restrictions either on the growth or sale of the article. The cultivator pays a duty, which, however, is to a great extent evaded, of 1 per cent. ad valorem upon his crop. In consequence of the freedom thus given to the business, the culture and exportation of tobacco are both rapidly extending. In 1867 there were exported from Havannah alone 7,716,802 lbs. of tobacco, and 199,027 millions of cigars. Molasses, rum (tafia), wax, and honey are also largely produced, and form important articles of trade.

Quantities of the Principal Articles Exported from Havannah in 1867.

Sugar	boxes	1,158,290	Coffee	cwts.	5,079
	hhds.	19,084	Honey	tierces	1,326
Tobacco	lbs.	7,716,802	Rum	puncheons	10,218
Cigars	millions	199,027	Wax	cwts.	5,747

Quantities of the Principal Articles Imported into the Port of Havannah, distinguishing the Principal Countries whence Imported, in each Year from 1860 to 1864.

Articles	Countries		1860	1861	1862	1863	1864
Cod fish	Total	quint.	87,151	83,153	42,486	72,054	77,082
	British Possessions	,,	40,476	42,091	32,316	28,149	32,150
	United States	,,	5,189	4,792	4,774	5,252	7,468
	Europe	,,	36,469	36,269	5,396	34,448	37,155
Flour	Total	barrels	196,803	247,971	201,108	211,453	231,695
	Spain	,,	194,024	247,931	201,108	210,453	230,117
	United States	,,	2,779	40	—	1,180	1,578
Rice	Total	quint.	377,932	362,902	426,208	295,749	425,098
	Carolina	,,	98,534	47,349	6675	—	—
	Spain	,,	60,097	53,858	94,393	57,905	105,224
	East Indies	,,	219,601	261,615	331,115	238,266	319,874
Jerked beef	South America	,,	421,355	226,802	301,177	278,891	290,268
Lard	United States	,,	99,569	162,364	171,501	115,342	129,361
Wine	Spain	pipes	51,659	49,718	44,047	48,979	64,095
Boards	North America	1,000 ft.	28,575	15,747	10,451	8,152	11,185
Box shooks	United States and North America	,,	476,246	468,246	454,005	568,075	569,080
Hogshead shooks		,,	52,250	47,450	48,540	62,640	42,552
Casks	England and America	tons	91,291	158,872	178,679	115,799	148,884
Olive oil	Spain	tuns	369,538	479,240	475,292	300,222	327,172
Cod oil	United States	quint.	680	5,791	2,858	21,243	25,699
Whale oil			3,515	2,167	2,500	5,055	2,103

Number and Tonnage of Vessels, of each Nation, Entered and Cleared at the Port of Havannah in each of the Years 1863, 1864, and 1865.

Nationality of Vessels	Entered						Cleared					
	1863		1864		1865		1863		1864		1865	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
Russian	20	4,123	24	10,557	29	12,656	20	4,123	22	9,713	27	11,692
Swedish	23	9,083	25	8,376	15	6,260	—	—	23	7,721	14	5,435
Norwegian	41	12,125	29	6,899	54	11,527	—	—	25	6,096	30	9,601
Danish	17	3,880	13	2,835	11	3,118	—	—	11	2,558	13	3,268
Prussian	13	3,343	10	3,051	13	4,111	13	3,925	9	2,151	12	4,056
Dutch	27	5,442	27	5,692	25	4,696	—	—	20	3,839	24	4,923
Hanseatic	26	8,894	12	4,326	15	5,262	—	—	9	3,277	13	4,359
Belgian	6	2,336	6	1,551	3	1,147	—	—	3	685	3	1,147
British	554	120,841	601	133,757	577	131,482	564	120,841	543	134,130	544	16,957
French	64	22,287	75	27,388	51	20,544	—	—	67	24,542	48	19,146
Austrian	—	—	2	1,085	3	1,033	—	—	1	616	3	1,053
Italian	—	—	15	5,749	7	4,035	—	—	13	5,016	7	4,033
Spanish	636	159,819	670	161,645	544	83,190	—	—	562	138,748	264	62,689
Portuguese	—	—	9	3,858	3	2,126	—	—	4	2,397	2	1,978
United States	467	177,210	264	59,531	174	52,740	—	—	236	54,130	100	24,914
Confederate			16	1,092			—	—	8	1,934		
Mexican	—	—	11	1,096	13	2,313	—	—	8	660	12	1,974
Other countries	—	—	—	—	6	2,051	—	—	—	—	6	2,051
Total	1,899	529,361	1,908	482,346	1,473	378,699	—	—	1,564	415,894	1,119	351,374

The number of vessels which entered Havannah from foreign ports in 1867 was 1,816, of 693,912 tons, including steamers, of which 355, of 156,768 tons, were British. Freights to Cowes or Queenstown from 30*s.* to 50*s.*

Communication with the United States is kept up almost daily by American steamers from Boston, New York, Baltimore, Philadelphia, and New Orleans. The Spanish mail steamers run regularly twice, and the British and French lines once, a month between Havannah and Europe.

The copper mines near Santiago and in other parts of the island, after having been abandoned for nearly a century, have been reopened, and are now worked, principally by Englishmen, though their produce has fallen off considerably. The ore is one of the most valuable products of the island. It is mostly sent to England to be smelted. Of 94,660 tons copper ore imported into this country in 1866, 11,254 tons were from Cuba.

The imports into Cuba consist chiefly of corn, flour, and grain of all sorts, with provisions, principally from the United States, cotton goods from the latter and England; wines from Spain and France; linens from the Hanse Towns and England; hardware and metals, coals and rice, from England; silks from France and Spain; gold and silver from Mexico; spices, fruits, dye-stuffs, lumber, haberdashery &c.

The admission of slave grown sugar to our markets has considerably promoted our trade with Cuba. The United States, however, engross the largest share of the trade of the island—a consequence in part of their proximity, but more of their supplying her with large quantities of flour, provisions, lumber &c., and of their being principally indebted to her for their imports of sugar.

Moneys.—One dollar = 8 reals plate = 20 reals vellon. 1 doubloon = 17 dollars. The merchants reckon 444 dols. = 100*l.* or 1 dol. = 4*s.* 6*d.* very nearly. There is an export duty of 1¼ per cent. on gold, and 2½ per cent. on silver.

Banks.—In 1867 there were, besides a Savings Bank and a Private Bank, 6 regular Banking Esta-

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Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture Exported to Cuba and Porto Rico in 1864, 1865, *and* 1866, *about ¾ being for Cuba.*

Articles		Quantities			Declared Real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Apparel and haberdashery	value	..	..	..	76,795	60,085	79,510
Arms and ammunition:							
Firearms (small)	no.	11,913	1,011	195	20,768	2,395	156
Gunpowder	lbs.	664,272	119,900	150,000	18,458	3,073	2,843
All other kinds	value	..	..	..	4,929	2,587	328
Beer and ale	barrels	10,121	9,868	9,156	42,506	42,789	38,941
Coals, cinders, and culm	tons	255,672	210,711	250,791	131,014	120,612	121,152
Copper, wrought and unwrought	cwts.	6,349	6,759	5,759	29,529	33,525	25,915
Cottons, entered by the yard	yards	43,441,250	22,784,761	21,449,944	982,834	516,737	490,345
at value	value	..	..	..	72,492	56,854	75,427
Earthenware and porcelain	,,	..	..	..	68,163	53,787	59,233
Glass manufactures	,,	..	..	..	19,855	16,778	16,625
Hardwares and cutlery, unenumerated	cwts.	35,882	28,670	32,686	120,501	94,540	119,296
Iron, wrought and unwrought	tons	18,002	19,290	18,983	226,094	220,415	227,431
Linens, entered by the yard	yards	20,518,828	17,137,791	17,120,473	792,449	617,356	659,061
at value	value	..	..	..	10,130	3,650	4,000
Machinery: Steam engines	,,	..	..	..	49,381	59,850	63,350
All other sorts	,,	..	..	..	76,850	96,81a	103,193
Painters' colours (not otherwise described)	,,	..	..	..	15,082	12,639	13,403
Silk manufactures	,,	..	..	..	21,179	12,413	9,934
Tin plates	,,	..	..	..	12,501	11,455	5,455
Woollens, entered by the yard	yards	1,414,330	811,790	1,064,382	110,493	63,881	71,905
at value	value	..	..	..	9,991	5,068	6,481
All other articles	,,	..	..	..	100,541	81,854	89,576
Total		..	..	..	3,002,985	2,193,677	2,210,975

Account of the Quantities and Values of the Principal Articles Imported from Cuba and Porto Rico into the United Kingdom in 1864, 1865, *and* 1866, *about ¾ being from Cuba.*

Articles		Quantities			Computed Real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Asphaltum or bitumen Judaicum	tons	..	..	..	..	..	..
Cedar wood	,,	1,416	1,995	3,181	16,355	23,632	36,290
Coffee	lbs.	35,664	363,013	821,051	912	11,608	15,940
Copper ore	tons	11,540	14,721	11,254	165,823	153,276	121,963
regulus	,,	591	1,099	649	25,816	40,279	23,526
Cotton, raw	cwts.	45,724	138,458	8,820	379,036	1,127,114	40,496
Fustic	tons	506	906	527	3,949	7,134	4,101
Spirits: Rum	gallons	61,286	527,096	573,726	4,806	25,145	42,957
Sugar, unrefined	cwts.	3,340,014	2,481,277	1,939,959	4,567,860	2,781,934	1,902,693
Refined, and candy	,,	61,545	5,324	1,273	104,302	7,631	1,803
Cane juice	,,	10,113	10,058	814	10,655	6,540	539
Molasses	,,	291,925	451,973	576,561	195,157	273,986	250,431
Tobacco, unmanufactured	lbs.	829,560	611,158	189,497	129,640	90,123	27,758
Manufactured, and cigars	,,	635,701	652,925	633,466	390,004	391,292	371,420
Wood and timber: Mahogany	tons	7,496	5,742	8,652	76,919	64,152	91,756
Other woods, for shipbuilding	loads	261	37	6	1,736	466	30
All other articles	value	..	..	..	34,085	59,475	21,333
Total value		..	..	..	6,505,755	5,063,839	2,961,338

blishments in Havannah. Only one, however, the Spanish Bank, is authorised to issue notes, the lowest being for 25 dollars (about 5*l.*), and the highest for 1,000 dollars, or about 200*l.*

Weights and Measures.—One quintal = 100 lbs., or 4 arrobas of 25 lbs.; 100 lbs. Spanish = 101¼ lbs. English, or 46 kilogrammes. 108 varas = 100 yards; 140 varas = 100 French ells or aunes; 81 varas = 100 Brabant ells; 108 varas = 160 Hamburg ells. 1 fanega = 3 bushels nearly, or 100 lbs. Spanish. An arroba of wine or spirits = 4·1 English wine gallons nearly. A hogshead of sugar = 1,300 lbs.; a bag of coffee = 150 lbs.; a hogshead of molasses = 110 gallons; a pipe of tafia or rum = 120 gallons; and a bale of tobacco = 100 lbs.

The usual Commission charged by merchants on the sale of goods is 5 per cent., with a del credere of 2½ per cent. if the sales are on credit and guaranteed, and a further commission of 2½ per cent. for the returns, whether in bills or produce. On purchases the commission is 2½ per cent., and a further 2½ per cent. if drawn for in bills of exchange. For procuring freight 5 per cent. is charged, and 2½ for insuring the amount. For advances of money the rate is 5 per cent. when no other commission is chargeable. Bill business is done at various rates, from 1 to 2½ per cent., according to its magnitude. These are the rates of the foreign houses; those of the Spanish and Creole merchants are generally higher. There is no obstacle whatever to the establishment of foreigners as merchants in the island. The law says that those who are naturalised in Spain may freely carry on trade with the same rights and obligations as the natives of the kingdom, and that those who have not been naturalised, or have a legal domicile, may still carry on trade under the regulations stipulated in the treaties in force between the respective Governments; and in default of such conventional regulations, the same privileges are to be conceded as those enjoyed by Spaniards carrying on trade in the country of which such foreigners are natives. In practice this last condition is not much attended to, as foreigners are allowed to establish themselves as merchants without any enquiry as to the rights and privileges enjoyed by Spaniards in the country they come from. As to manufacturers and mechanics, the only difficulty that can arise regards their religion. On entering the island every stranger is required to find security in the following terms:—'I am responsible and become security in every case for the person and conduct of A B, arrived from C in the ship D, binding myself to present him if called on by the Government, and to conduct him at my expense to any place that may be designated.' This security is easily obtained, and, in fact, encouragement is given to mechanics, and white people of all classes, to settle in the island. After landing it is only necessary to apply for a letter of domicile, and to present a certificate that the applicant is of a respectable character, and professes the Roman Catholic religion. Free negroes, however, by a royal order of March 12, 1837, are prohibited

from landing under any pretence whatever; and so rigorously is this order enforced, that such persons, though acting as seamen, are, on their arrival, taken out of the vessel in which they have come, and are kept in custody until her departure, when they are compelled to proceed again on board and leave the island. The business of a broker is exercised under license, and no foreigner is eligible to the office unless naturalised in the form prescribed by law. In every commercial town a certain number only is allowed, corresponding with the population and trade of the place. In the great cities, the business of merchant is often combined with that of planter; and sometimes, also, the importing merchant keeps a shop or store, where he sells his goods by retail. The foreign merchants are generally regarded as transient visitors; and though as a class they are not considered wealthy, they are almost all in the full enjoyment of credit. The mercantile capital, as well as the proprietary wealth of the island, may be said to be concentrated in the hands of the Creoles. When the emigrants from the Peninsula make fortunes in the island, they seldom think of returning to Europe.

Customs Duties in 1848, 1850, and 1867.—The tariff of Cuba, like that of Spain, is exceedingly complex, being divided into a great many classes, and embracing a vast number of articles, many of which are of very trifling importance. All, or almost all, the articles of import are valued in the tariff of 1848 at certain fixed rates, upon which the duties are charged at so much per cent. Hence, when the fixed or tariff prices exceed the real prices of the goods, the duties are proportionally increased, and conversely when the tariff prices are under the real prices. The duties vary from

33⅓ to 27½ per cent. on goods by foreign vessels from foreign ports.
25⅓ to 19½ per cent. on foreign goods by Spanish vessels.
17⅓ to 14⅓ per cent. on Spanish produce from Spain by foreign ships.
7½ per cent. on Spanish produce by Spanish vessels, and only
5½ per cent. if rice. A balance duty of 1 per cent. is added to all but the 7½ per cent. and 5½ per cent. duties.

The principal exception to the above rule is in the case of flour, which pays a fixed duty of

2·00 dols.	per barrel	per Spanish ship	from Spain
6·75	"	" Foreign ship	
8·58	"	" Spanish ship	from other ports
9·59	"	" Foreign ship	

Had Spain been able to supply Cuba with flour as cheaply as other countries, this high discriminating duty in favour of Spanish flour would have been of comparatively little importance. But such is not the case. Cuba derives $\frac{9}{10}$ of her supply of flour from the United States, principally from New Orleans: so that the discriminating duty is the most oppressive and impolitic that can be imagined. We are surprised it is submitted to. Ploughs, furnace-mouths, grate-bars, crown-wheels, shafts, rollers, sugar-bowls, skimmers, steam-engines, and other such articles for sugar estates; also mares, stallions, and asses, are exempted from duty.

Special concessions have also been made in favour of the Gas Company &c., which pays only 7½ per cent. on imports.

We subjoin a note of the duties on the principal articles of export, according to the tariff of 1848.

Articles	Denomination	Foreign Ships	Spanish Ships
	per	cents	cents
Cigars	Mille.	50	50
Cocoa	Arrob.	18	10 to 8
Coffee	Qtl.	20	12
Copper ore	..	9	9
Hides in the hair	One.	11	5 to 6
Honey	Hhd.	1·37	76 to 57
Molasses	do.	Free	Free
Rum	Pipe	..	..
Sugar	Box	37	27·5
Tobacco	Qtl.	1·50	·75
Wax, white	Arr.	33	18 to 14
yellow	..	22	12 to 9

But a new or supplementary tariff, issued in 1850, provides as follows, viz.:—

Art. 1 augments the duties upon all articles of foreign importation at 1½ per cent.

Art. 2 increases ½ the impost upon national imports.

Art. 3 increases the export duty upon each box of sugar 50 cents, which makes now 87½ cents per box.

Art. 4 increases 25 cents upon each quintal of leaf tobacco imported.

Art. 5 increases 25 cents upon every 1,000 cigars, making 75 cents per 1,000 export duty.

Art. 6. Spanish flour to pay ½ additional to the duty now paid.

Art. 7. This extraordinary exaction will continue in force 2 years.

Goods in deposit, withdrawn for consumption, will be subject to the same duties, at and after the period above designated.

For the better comprehension of dealers, and to facilitate the tax upon national commerce, the impost will be 1 per cent. direct upon the custom dues, as equivalent to the ½ addition, and upon Spanish flour 25 per cent. per bbl.

The usual 1 per cent. upon the total of the custom duties is still retained.

A revised tariff for Cuba came into operation on July 1, 1867; but it is so deficient, that the Custom-house officials cannot themselves understand it. Disputes are constantly arising as to the classification of goods, and the commission appointed to settle these matters has already been obliged to issue a supplement, which exceeds in length the original tariff, and does not remedy the evils complained of. Perhaps the Spanish Revolution still (October 1868) in progress may lead to improved tariffs both at home and in her colonies. A revised scale of navigation and port dues, for shipping entering and clearing at any of the ports of Cuba, came into operation on July 1, 1867. The charges are as follow:—

	Foreign		Spanish	
	esc.	mils.	esc.	mils.
1. Ships entering laden, and clearing with cargo, per ton discharged	4	700	2	700
2. Ships entering laden, and clearing in ballast, per ton measurement	4	600	2	600
3. Ships entering in ballast, and clearing laden, per ton burden		0	2	0
4. Ships entering with cargo of coals, for each ton	1	0	1	0
Ships laden with coal alone, but in less proportion to their measurement, for every ton not occupied	3	0	1	240
Ships laden with coal and other merchandise, for every ton occupied by coals	2	700	1	460
For every other ton	4	700	2	700
5. Laden with medicinal honey, per ton burden	1	0	0	740
6. Entering and clearing with native produce only:				
for every ton of cargo	4	0	2	0
for each ton empty	0	100	0	100
7. Entering and clearing in ballast, per ton burden	0	100	0	100
8. Steamers making periodical voyages to the Island, not exporting more than ⅓ tons of cargo, and carrying correspondence	0	100	0	100
9. Such steamers carrying more than ⅓ tons of cargo, for every ton	3	900	1	250
11. Spanish postal steamers		—	1	250
12. Steamers arriving, and not coming under the heads 8, 9, and 10, will be charged according to the port they come from, and flag they carry, excluding tonnage occupied by coals and machinery.				

Customs Regulations.—Every ship-master is bound to have on his arrival, ready for delivery to the boarding officers of the revenue, a manifest, containing a detailed statement of his cargo and ship stores, and in the act of handing it over has to write thereon an oath that he has no other cargo

on board, and the hour when he delivers it, taking care that it be countersigned by the boarding officers. Within 12 hours, which begin to count from the moment he delivers such manifest until 7 o'clock in the evening, and again from 6 o'clock in the morning until the moment the said 12 hours elapse, he can make any alteration by *presenting a separate note* in which he specifies the errors he may have committed in the manifest. After the expiration of these 12 hours no alteration will be permitted. *Goods not manifested* will be confiscated without remedy; and if their value should not exceed 1,000 dols., the master of the vessel will be liable to pay a penalty of double the amount of such non-manifested goods; if they exceed that sum, and belong to the master or come consigned to him, his vessel, freight, and other emoluments will be forfeited to the revenue. *Goods over manifested* will pay duties as if they were on board. *Goods not manifested, but claimed in time by a consignee*, will be delivered up to the latter, but the master in this case will be subject to a fine equal in amount to that of such goods. *Gold and silver* not manifested by either master or consignee are liable to a duty of 4 per cent. *Goods falling short* of the quantity manifested, when landed, and not being included in any invoice of consignee, will render the master liable to a penalty of 200 dols. for each package so falling short. *Every master* must present himself, within 24 hours after his arrival, at the Custom House, in order to swear to his mainfest, in neglect of which he is liable to a fine of 1,000 dols. *Every consignee* is obliged to present a detailed note of goods within 48 hours after the arrival of a vessel; if not, such goods are liable to 2 per cent. extra duty: the same is the case if such notes do not contain a statement of the number of pieces, contents, quantity, weight, and measure. Every vessel is required to bring a bill of health certified by the Spanish consul at the port of her departure, or that nearest to it, otherwise they are placed in quarantine.

If the vessel arrive and sail in ballast, or without breaking bulk, she avoids the health visit, Morro light, tonnage, and mud engine dues. If she bring cargo, the translation of manifest is more, according to its length, wharfage dues are incurred for the time of discharge, and the tide-waiters charge 5½ dols. for each day. Vessels taking entire cargoes of molasses pay no tonnage duty.

(In compiling this article, we have consulted Humboldt's *Essai Politique sur l'Ile de Cuba*, Paris, 1827; and the Supplement (*Tableau Statistique*) thereto, Paris, 1831; *Geographical Dictionary*, arts. 'Cuba' and 'Havannah;' the *Balanza Mercantil* for various years; *private communications* from Cuba; Acting Consul-General Crawford's *Report* of December 31, 1867; and other *Papers laid before Parliament*.)

HAVRE or HAVRE DE GRACE. A commercial and strongly fortified seaport town of France, on the English Channel, near the mouth of the Seine, on its northern bank, lat. 49° 29′ 14″ N., long. 0° 6′ 38″ E. Population, in 1861, 82,009, to which may be added 5,000 or 6,000 more for the crews of the shipping constantly in the port. It was a saying of Napoleon that 'Paris, Rouen, Le Havre, ne forment qu'une seule ville, dont la Seine est la grande rue.' Havre being, in fact, the sea-port of Paris, most of the colonial and foreign products destined for its consumption are imported thither. Nearly double the quantity of goods, estimated by weight, is annually imported at Marseilles; but the total value of the imports at Havre amounts very nearly to that of those at the former port. The principal imports are cotton, coal, sugar, coffee, linen thread and linen goods, rice, indigo, tobacco, hides, dyewoods, spices, drugs, timber, iron, tin, dried fish &c.: grain and flour are sometimes imported and sometimes exported. The principal exports are silks, woollen and cotton stuffs, lace, gloves, and shoes, trinkets, perfumery, champagne and other wines, brandy, glass, furniture, books &c.

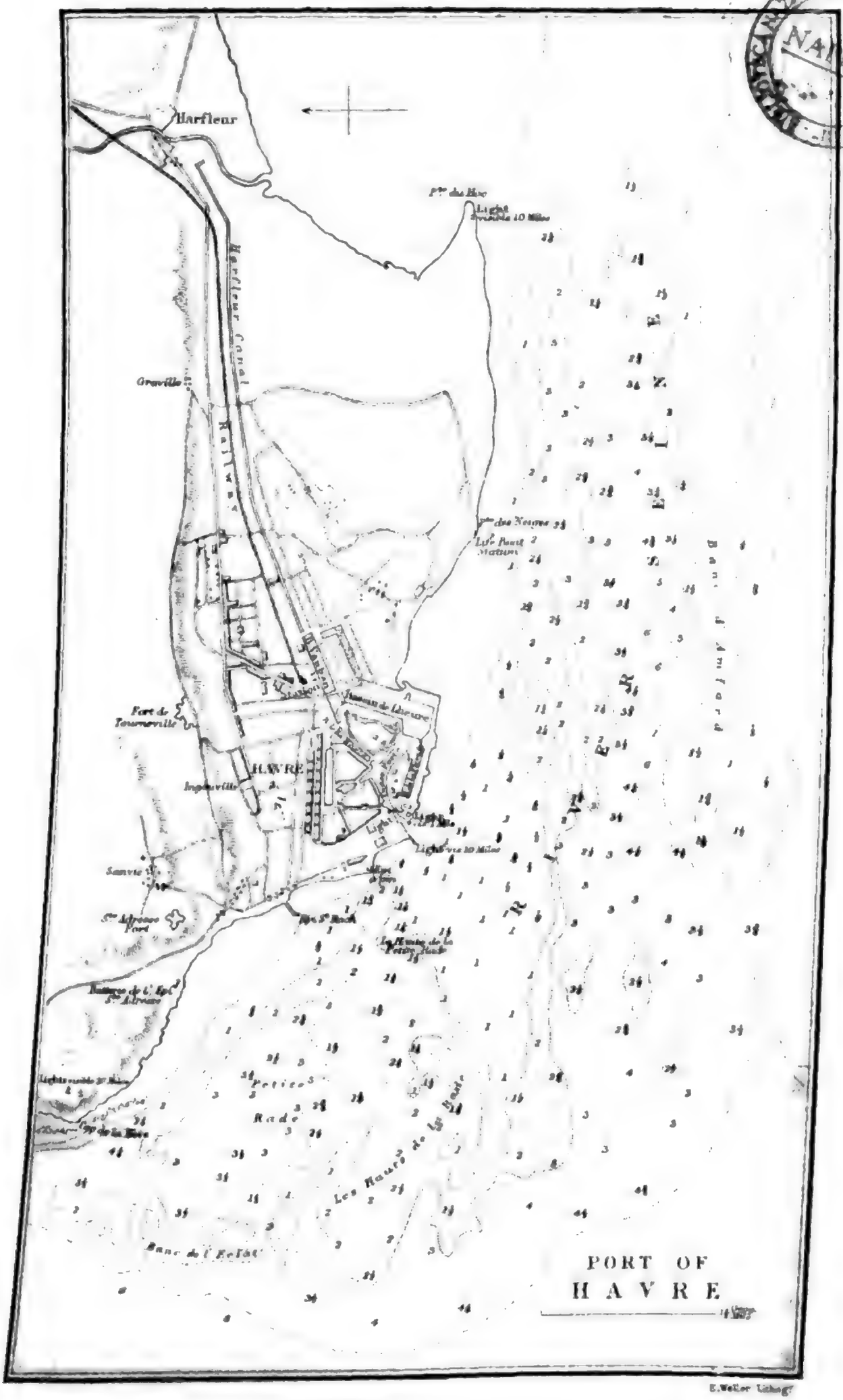
It is to the north of France what Marseilles is to the south, to which it is second in the number of its mercantile marine. Besides the navigation of the Seine, Havre is connected with Paris by lines of railway, and is visited frequently by vessels from Southampton, London, and Liverpool, as well as those from the north-eastern countries of Europe.

The harbour has the same peculiarity which characterises that of Southampton. The tide, when it reaches the full, keeps up for three or four hours with little change. The lowest tides rise about 20 ft. 4 in., the highest ordinary 24 ft., while the equinoctial springs reach 27 ft. The prevailing winds are south-west and north-west. The harbour will take in ships drawing 24 ft. or less at all tides. A new harbour is being constructed with two vast curvilinear jetties, and containing an area of about 3,700 acres. This harbour will take all vessels in by night and day, and at low tides, which do not draw more than 24 ft. of water. This artificial harbour would, it is computed, contain the whole of the French naval forces.

The port of Havre comprises an outer harbour, where only the various passenger steamers are allowed to lie, and seven docks communicating with the former by tidal gates. The depth of water in the outer harbour is 30 ft. 10 in. in spring, and 25 ft. 4 in. in neap tides. The various tidal gates vary both in width and depth of water, the largest, the Transatlantic, having a uniform width of about 99 ft., with a depth of 34 ft. 9 in. at spring, and 29 ft. 3 in. at neap tides; and the smallest (Notre Dame) 32 ft. wide at top, and 9 ft. 9 in. at the bottom, with a depth of 21 ft. 9 inches at spring, and 16 ft. 3 in. at neap tides. The ground formerly occupied by the citadel is being converted into two floating docks with a careening and three graving docks, and a berth to receive the large Transatlantic steamers arriving too late after high water to enter their own dock.

Lights and Signals.—There are two lighthouses on the Hève, separated by an interval of about 100 ft., and raised about 65½ ft. from the surface. The light is visible for 20 geographical miles when the night is clear. Another light is fixed on the northern jetty, and another at the verge of the southern jetty, of an orange colour, besides a lamp on the quay of the outer harbour. The lighthouse of Fatonville is built on the left bank of the Seine, and completes the arrangement. This lighthouse is about 96 ft. above the surface, and about 380 ft. above the level of the sea. It is a fixed white light, raised every three minutes by red flashes, before and after which there is a short interval of darkness. There are steam tugs in the harbour, which may be summoned by hoisting a flag on the bowsprit. The gates of the basins are opened an hour and a half before, and for the same period after high tide.

Havre has two roadsteads. The great or outer road is about a league from the port, and rather more than ½ league W.S.W. from Cape la Hève; the little or inner road is about ½ league


Harfleur
Harfleur Canal
Railway
Graville
Pte des Heus
Light Vessel 10 Miles
Pte des Nieules
Light Vessel Mattaro
Jetty
Jetty
Fort de Tourneville
HAVRE
Ingouville
Light House
Light Vessel 10 Miles
Sanvic
Ste Adresse Fort
Ste Adresse
Petite Rade
Rade
Les Hauts de la Rade
Banc de l'Eclat
PORT OF
HAVRE

from the port, and about ¼ mile S.S.E. from Cape la Hève. They are separated by the sand-bank called L'Eclat, between which and the bank called *Les Hautes de la Rade* is the north-west passage to the port. The Hoc, or southern passage, lies between the last-mentioned bank and that of Amfard. In the great road there is from 6 to 7½ fathoms water at ebb, and in the little from 3 to 3½. Large ships always lie in the former.

The Chamber of Commerce of Havre have published the following information and instructions for the use of vessels frequenting the port:—

'Five buoys have been moored in the shallows Ruvun, under the designation of the Banc de l'Eclat, and Hautes de la Rade.

'These buoys are similar in form, but of different colours, viz.: the first to the northward is white; the second, white with a black top; the third is black; the fourth is black with a white top; the fifth is red.

'Vessels must always come to anchor at a distance of at least five cables' length outside the line of these buoys, which they may not pass without danger before one hour and a half prior to high water, or four hours after ebb; and they must at all times pass at a distance of five cables' length from the black as well as from the red buoy, both of which are moored on the shallowest parts of these banks. Nevertheless ships may at all hours of the tide frequent the north-western passage, comprised between Cape la Hève and the two northernmost buoys.

'All vessels using the north-western passage, and bound into the inner roadstead (Petit Rade), must steer for the white buoy, the farthest north, and after leaving it a little distance on the starboard hand should then stand towards the second white buoy, taking care never to come so close to the shore as altogether to lose sight of the lantern of the northernmost lighthouse on Cape la Hève. When the light of the north-western pier-head bears by compass S.E., and the lighthouses on the Hève bear by compass N.N.E., the ship may be brought to an anchor.

'Besides the five buoys herein described, one of lesser dimensions has been moored on the shallows of the inner roadstead, at about five cables' length W.N.W. of the north-west pier-head. Vessels of light draught of water coming to an anchor in that part of the road should give this buoy an offing of at least one cable's length.'

Most part of the goods imported into Havre are destined for the internal consumption of France. The coasting trade has increased very largely of late years, as is proved by the great increase of French wines, soaps, and other produce imported at Paris from Havre, instead of being sent to the capital by land. The coasting vessels transfer their cargoes partly to steamers and partly to large barges, called *chalands*, which are towed by steam tugs as far as Rouen, and thence by horses to Paris. The foreign trade of the port is also very extensive. Lines of sailing packets are established between Havre and New York, New Orleans &c. A regular intercourse by means of steam packets is kept up with London, Southampton, and other ports.

There belonged to the port, on December 31, 1864, 368 merchant vessels, of the aggregate burden of 114,045 tons.

The Moneys, Weights, and Measures of Havre are the same as those of the rest of France. [BORDEAUX; COINS; and WEIGHTS AND MEASURES.]

The following is a statement of the number, tonnage, and crews of the vessels that entered and cleared at Havre in 1867:—

	No.	Tons	Crews
French vessels entered	918	322,030	17,301
cleared	793	287,964	15,736
British vessels entered	1,287	402,134	21,825
cleared	1,278	397,582	21,641
All other foreign vessels entered	599	207,535	9,312
cleared	661	258,959	8,792
Coasting vessels entered	2,948	241,928	17,974
cleared	3,134	277,829	19,175

Harbour Rules.—1. It is forbidden to have fire, or lighted candle, or to smoke, on board ships in the harbour.

Bitter complaints are made against this rule. All cooking has to be done on shore, and small sailing vessels, arriving saturated with water, and with the clothes of the crew wet, have no place to dry in. The consequence is that the men quit their vessels, and betake themselves to low drinking shops, to the great demoralisation of the crews, and the profit of a vile set of crimps. (Mr. Consul Bernal's *Report.*)

2. Vessels coming into and lying in the docks must have the lower and top yards topped up, jibbooms and martingales rigged in, and anchors taken in. The wharf alongside the vessel must be swept every evening.

3. No gunpowder (whatever may be the quantity) is allowed to remain on board, and must be deposited in the gunpowder warehouse.

4. All foreign sailors found away from their ships after 10 o'clock at night from April 1 to October 1, and after 9 o'clock from October 1 to April 1, shall be conveyed to prison and fined. Sailors are forbidden to wear sheathing knives ashore.

5. The manifest of the cargo, signed by the captain, must be exhibited to and signed by the custom-house officers before being taken ashore. The vessel must be reported at the custom-house within 24 hours after arrival.

6. Tobacco, snuff, cigars loose or in boxes, belonging to the captain, officers, and mariners, to be declared as exactly as possible. All the tobacco, snuff, and cigars, declared or not declared, to be exhibited to the custom-house officers when they come and make the visit on board. After such exhibition, if any quantity of tobacco and cigars be found on board, it shall be seized, the captain shall be condemned to pay a fine which may be as high as 500 francs, and the ship shall be confiscated.

The following table shows the average rates of freight during 1866:—

Place	Steamers	Sailing Vessels
	Frs. per cent.	Frs.
London	20 and 15	11 per ton.
Liverpool	20 to 25 „ 15	13 „
Hamburg	62 „ 25	45 „
Rotterdam	10 to 25 „ 15	„
Martinique and Guadeloupe	„	20 to 25 and 10 per cent.
Réunion and Mauritius	„	35 to 40 do (cubic mètre).
Hayti	„	40 to 45 per ton.
New York	50 to 125 and 10	10 to 25 „
Brazil	„	45 & 10 per ct. (cubic mètre).
Buenos Ayres	„	45 „ „
Pacific	„	52 „ „

Port Charges.—Charges on a British Vessel from England or an English Possession.

Pilotage in	28 fr. for the 1st hundred tons 25 fr. for the 2nd hundred tons 23 fr. for the 3rd hundred tons, and above 1¼ per cent. for the head pilot
Boats of help in	21 fr. outside the banks 12 fr. outside the ports 9 fr. in the harbour
	fr. c.
Weighing anchors	2 50 per each cwt.
Weighing chains	0 50 „
	and ½ more if there be no buoy rope
Haulers	0 50 per man, besides 1 fr. 50 c. for the hawsers

Port Charges—continued.

	f. c.	
Bridges	5 60 for each bridge	
Ballast unshipped	0 64 per half mètre	
Ballast shipped	1 14 per half mètre for sand	
	1 95 per half mètre for clean ballast	
Board of Health	2 50 for a vessel of 50 tons measurement and under	From Europe
	5 0 for a vessel of 51 tons measurement and above	From Europe
	10 0 for a vessel from other countries	

Tonnage dues are abolished

Local dues authorised on January 1, 1856, to liquidate the loan of 6,000,000 francs raised by the town for the improvement of the harbour and the docks.

	f. c.
	0 80 from British possessions in Europe with coal per ton
	1 10 with other cargoes
	0 75 from other ports in ballast and going away laden
	1 25 from other ports with cargo
Protest before the court	9 5
Affirmation before the court	5 50
Gunpowder shipped and unshipped	8 0
Brokerage in	0 50 per ton of goods landed
Brokerage out	0 25 per ton of goods shipped
Brokerage on ballast	0 12 per ton of goods measurement

The following table (No. I.), extracted from Consul Brand's *Report* of 1867, exhibits the tonnage of Havre in the years 1865-66 :—

		1865			1866		
		Vessels	Tons	Crew	Vessels	Tons	Crew
French	arrived	803	249,131	14,726	839	294,135	15,906
	cleared	787	228,934	14,166	782	272,187	15,025
British	arrived	1,024	287,700	14,859	1,175	378,940	18,935
	cleared	1,094	287,944	14,859	1,184	380,715	19,006
All other Foreign	arrived	519	116,001	6,309	573	172,111	12,690
	cleared	435	99,396	5,159	511	135,611	7,791
Coasting	arrived	3,272	255,837	20,516	3,129	249,230	19,846
	cleared	3,313	271,345	21,213	3,227	274,918	20,349

The following tables give a summary of the foreign trade of France :—

II.—*Real Value of the Principal Articles Imported into and Entered for Home Consumption in France in each of the Years* 1862, 1863, *and* 1864.

Articles	Imports			Entered for Home Consumption		
	1862	1863	1864	1862	1863	1864
	francs	francs	francs	francs	francs	francs
Cotton, raw	149,700,000	205,500,000	397,800,000	126,200,000	261,800,000	344,600,000
Silk and floss silk	329,900,000	352,500,000	[illegible]	256,000,000	292,200,000	[illegible]
Wool, raw	192,700,000	221,600,000	[illegible]	150,700,000	238,800,000	214,500,000
Manufactures of silk	111,000,000	155,200,000	174,000,000	4,400,000	4,600,000	7,200,000
Timber, common	119,200,000	134,000,000	[illegible]	117,800,000	133,000,000	132,400,000
Coal and coke	100,000,000	105,000,000	121,200,000	102,200,000	100,000,000	115,200,000
Coffee	127,900,000	151,500,000	111,000,000	76,000,000	79,800,000	85,400,000
Hides and skins, raw	82,000,000	117,400,000	102,800,000	69,500,000	111,000,000	102,800,000
Manufactures of wool	91,000,000	105,000,000	92,600,000	41,000,000	33,400,000	32,000,000
Manufactures of cotton	62,100,000	70,000,000	82,700,000	14,500,000	8,700,000	9,500,000
Animals : oxen, bulls, and cows	70,200,000	77,200,000	78,500,000	70,000,000	77,100,000	77,500,000
Seed, oleaginous	52,900,000	48,400,000	[illegible]	49,500,000	40,000,000	59,400,000
Sugar, foreign	77,500,000	63,200,000	71,000,000	63,200,000	66,000,000	73,300,000
Grain	199,600,000	164,200,000	69,[illegible]	127,000,000	55,000,000	43,[illegible]
Flax	76,000,000	90,700,000	85,[illegible]	37,800,000	30,600,000	53,[illegible]
Copper	36,800,000	41,500,000	51,[illegible]	34,800,000	39,900,000	46,[illegible]
Sugar, French colonial	70,400,000	74,700,000	41,[illegible]	65,700,000	78,800,000	35,[illegible]
Grains and other manures	10,700,000	27,100,000	[illegible]	17,[illegible]	24,500,000	[illegible]
Cinders and ashes	34,[illegible]	36,[illegible]	[illegible]	31,600,000	36,[illegible]	[illegible]
Iron and steel	47,[illegible]	50,[illegible]	[illegible]	25,[illegible]	6,[illegible]	[illegible]
Oil, olive	38,000,000	31,300,000	[illegible]	19,500,000	24,500,000	[illegible]
Tallow and lard	59,100,000	44,[illegible]	[illegible]	38,500,000	42,500,000	[illegible]
Clocks	23,[illegible]	25,[illegible]	[illegible]	3,[illegible]	4,[illegible]	[illegible]
Manufactures of linen, &c.	19,[illegible]	19,[illegible]	[illegible]	13,[illegible]	13,[illegible]	14,500,000
Oils, all kinds	25,[illegible]	25,[illegible]	[illegible]	22,[illegible]	25,[illegible]	25,100,000
Cheese and butter	18,[illegible]	19,[illegible]	[illegible]	13,[illegible]	14,[illegible]	15,[illegible]
Tobacco, leaf	21,[illegible]	28,[illegible]	[illegible]	16,[illegible]	19,[illegible]	20,[illegible]
Fish	13,[illegible]	13,[illegible]	[illegible]	13,[illegible]	13,[illegible]	14,[illegible]
Seed, for sowing	15,[illegible]	16,[illegible]	[illegible]	15,[illegible]	16,[illegible]	14,[illegible]
Indigo	20,[illegible]	25,[illegible]	[illegible]	25,[illegible]	21,[illegible]	18,[illegible]
Mats, straw &c.	11,[illegible]	20,[illegible]	[illegible]	6,[illegible]	9,[illegible]	13,[illegible]
Yarn, linen and hempen	8,[illegible]	13,[illegible]	[illegible]	5,[illegible]	7,[illegible]	9,[illegible]
Arachis (earth nut) &c.	17,[illegible]	23,[illegible]	[illegible]	18,[illegible]	19,[illegible]	18,[illegible]

III.—*Real Value of the Principal Articles Exported from France, distinguishing French Merchandise, in each of the Years* 1862–64.

Articles	Exports			French Merchandise		
	1862	1863	1864	1862	1863	1864
	francs	francs	francs	francs	francs	francs
Apparel, all kinds, made up	103,100,000	96,800,000	124,[illegible]	94,700,000	82,300,000	110,400,000
Cheese and butter	39,400,000	44,400,000	55,100,000	32,400,000	36,400,000	46,800,000
Chemical products	58,300,000	55,100,000	59,400,000	54,400,000	49,300,000	54,400,000
Coffee	30,900,000	32,400,000	37,600,000	—	—	—
Cotton, raw	65,300,000	94,700,000	109,700,000	41,300,000	52,200,000	57,200,000
Earthenware and glass	26,300,000	29,900,000	34,100,000	25,000,000	28,400,000	32,400,000
Grain	93,700,000	93,600,000	98,200,000	41,800,000	48,500,000	56,800,000
Haberdashery, fancy goods &c.	146,500,000	165,600,000	204,100,000	140,600,000	159,700,000	194,800,000
Jewellery, gold, without stones	67,300,000	66,800,000	72,600,000	18,800,000	17,800,000	19,300,000
Machinery	32,100,000	35,600,000	50,400,000	8,500,000	7,500,000	9,500,000
Manufactures : cotton	119,200,000	152,900,000	185,700,000	63,500,000	88,200,000	93,700,000
linen	20,600,000	26,000,000	33,700,000	14,700,000	19,000,000	21,500,000
silk	467,600,000	491,000,000	551,700,000	363,500,000	370,300,000	408,200,000
wool	300,100,000	333,300,000	471,800,000	221,700,000	293,000,000	355,900,000
Paper, all kinds	35,900,000	39,600,000	42,200,000	34,000,000	37,900,000	39,800,000
Silk	149,400,000	147,900,000	146,600,000	49,800,000	96,800,000	101,900,000
Skins : manufactured	68,400,000	85,300,000	94,400,000	65,800,000	78,500,000	89,900,000
tanned, curried &c.	45,200,000	60,900,000	71,600,000	34,900,000	51,900,000	61,600,000
Spirits, all sorts	59,300,000	68,900,000	77,400,000	46,500,000	63,300,000	72,100,000
Sugar, refined	51,700,000	78,600,000	76,000,000	50,600,000	76,600,000	74,400,000
Timber, common	26,900,000	34,000,000	33,900,000	28,400,000	33,300,000	33,200,000
Wares and tools, metal	104,700,000	122,100,000	123,300,000	41,900,000	45,700,000	45,100,000
Wine	211,900,000	231,800,000	236,500,000	210,000,000	229,700,000	234,500,000
Wool	47,700,000	61,900,000	65,400,000	45,100,000	48,200,000	51,100,000
Yarn, linen	9,400,000	22,600,000	20,500,000	3,100,000	16,600,000	21,200,000

Trade between France and England.

Nothing can more strikingly illustrate the mischievous influence of commercial restrictions than the history of the trade between Great Britain and France. Here we have two countries of vast wealth and population, near neighbours, and each possessing many important articles that the other wants, and yet the intercourse between them since 1689 has generally been inconsiderable. At a distant period this was not the case. Previously to the accession of William III. the importation of wine only from France amounted to about 13,500 tuns a-year, our imports of brandy and other articles being proportionally large. But Louis XIV. having espoused the cause of the exiled family of Stuart, the British Government, not recollecting that the blow they aimed at the French would also smite their own subjects, imposed in 1693 a *discriminating* duty of 8*l.* per tun on French wine, and in 1697 raised it to no less than 33*l.* per tun! It is probable that this excess of duty would have been repealed as soon as the peculiar circumstances in which it originated had disappeared, had not the stipulations in the famous commercial treaty with Portugal, negotiated by Mr. Methuen in 1703, given it permanence. According to this treaty, we bound ourselves for the future to charge 33⅓ per cent. higher duties on the wines of France imported into England than on those of Portugal; the Portuguese, by way of compensation, binding themselves to admit our woollens into their markets in preference to those of other countries at a fixed and invariable rate of duty.

Though very generally regarded at the time as the highest effort of diplomatic skill and address, the Methuen treaty was, undoubtedly, founded on the narrowest and most contracted views of national interest; and it in consequence proved in no common degree injurious to both parties, but especially to England. By binding ourselves to receive Portuguese wines for *two-thirds* of the duty payable on those of France, we in effect gave the Portuguese growers a monopoly of the British market; at the same time that we excluded one of the principal equivalents the French had to offer for our commodities, and provoked them to retaliate. This, indeed, was no difficult task. Unhappily, they were but too ready to embark in that course of vindictive policy of which we set them the example; so that, prohibitions on the one side being immediately followed by counter-prohibitions on the other, the trade between the two countries was nearly annihilated! The indirect were still more injurious than the direct consequences of this wretched policy. It inspired both parties with feelings of jealousy and dislike, and kept them in the frowning attitude of mutual defiance. Each envied the other's prosperity; and being disposed to take fire at even fancied encroachments, the most frivolous pretexts were sufficient to engage them in contests that have filled the whole world with bloodshed and confusion. But had things been left to their natural course—had an unfettered commercial intercourse been allowed to grow up between the two countries—the one would have formed so near, so vast, and so profitable a market for the produce of the other, that they could not have remained long at war without occasioning the most extensively ruinous distress—distress which no Government would be willing to inflict on its subjects, and to which, though the Government were willing, it is most probable no people would be disposed to submit. A free trade between England and France would give these two great nations *one common interest*. It would occasion not only a vast increase of the industry, and of the comforts and enjoyments, of the people of both countries, but would be the best attainable security against future hostilities. 'We know,' said Mr. Hyde Villiers, in his speech of June 15, 1830, 'that British enterprise will fetch the extremest points on earth in the business of exchange; but here are the shores of France nearer to England than those of Ireland itself—nay, Bordeaux is commercially nearer to London than it is to Paris; and, but for the lamentable perversion of the gifts and dispositions of nature, and of the ingenuity of man, the highways of commerce between these countries—the seas which surround Great Britain and Ireland, and wash the shores of France—should literally swarm with vessels, engaged, not only in the interchange of material products, but in diffusing knowledge and stimulating improvement; in creating everywhere new neighbourhoods; in consolidating international dependence; in short, in drawing daily more close the bonds of international peace and confidence, and thus advancing, while they also served to confirm and secure, the peace, the civilisation, and the happiness of Europe.' This was one of the last public appearances made by Mr. Villiers. He died in December 1832, at the early age of 31. His death was a national loss. Few have entered upon public life with better dispositions, more enlarged and comprehensive views, or a more sincere desire to promote the happiness of their species.

The commercial treaty which Mr. Pitt negotiated with France in 1786 was the first attempt to introduce a better system into the trade between the two countries; and it is one of the few treaties of this description that have been bottomed on fair and liberal principles. But the revolution in France, and the lengthened and bloody wars by which it was followed, totally suppressed that mutually beneficial intercourse which had begun to grow up under Mr. Pitt's treaty, and revived and embittered all the old hostile feelings and prejudices inherited by both parties. Since the peace of 1815 the animosities and prejudices in question have, however, been much mitigated. The abolition of the discriminating duty on French wine in 1831 had a considerable influence in bringing about this improved state of things, at least in a commercial point of view; and since then we have given a still greater extension to the same enlightened policy by reducing the oppressive duty formerly laid on brandy, and the high duties on silks and other articles of French produce. It should also be borne in mind that France has profited largely by the repeal of our corn laws. Her exports of wheat and flour to our markets have been much greater than any one anticipated, and have conduced greatly to the advantage of the agriculturists of Normandy, and generally of the north-west departments of France.

There was, in consequence, a very great extension of the trade between the two countries; though it was still trifling compared to what it would have been, had it been allowed to attain to its full development. But the French showed little inclination to reciprocate the liberal policy of which we had set them an example. On the contrary, their policy, if so we may call it, was in some respects more anti-commercial than ever. In 1836, for example, the French Government having considerably reduced the high duties that were then imposed on foreign linens and linen yarn, the imports of both articles rapidly increased, and a powerful stimulus was given to the trade of France. But, as might have been expected, the linen manufacturers and spinners, whose monopoly had been

IV.—*Account of the Quantities and Declared Values of the Principal and other Articles of the Produce and Manufactures of the United Kingdom Exported from the United Kingdom to France in each of the 4 Years ending with* 1866.

Articles		Quantities				Declared Real Value			
		1863	1864	1865	1866	1863	1864	1865	1866
						£	£	£	£
Alkali, soda	cwts.	170,337	170,260	153,707	96,985	61,800	65,878	61,037	45,611
Apparel and haberdashery	value	..	..	..	..	182,044	125,026	162,644	157,504
Caoutchouc, manufactures of	,,	..	..	..	..	91,580	126,116	134,159	128,392
Cement	cwts.	460,484	896,391	546,212	460,632	54,257	99,319	62,745	55,516
Coals, cinders, and culm	tons	1,306,255	1,447,494	1,589,707	1,931,236	543,758	623,139	778,148	905,453
Copper, wrought and unwrought	cwts.	187,413	71,036	74,676	94,797	836,588	348,913	334,242	432,561
Corn: Wheat	qr.	139,260	38,031	13,793	214,554	78,978	20,371	8,590	129,864
Wheat flour	,,	3,873	14	45	..	2,815	12	37	—
Cotton yarn	lbs.	959,988	854,636	1,561,086	4,083,919	178,467	168,010	286,170	555,904
Cottons, entered by the yard	yards	17,654,091	19,657,677	21,507,914	36,343,572	452,128	520,646	599,348	1,294,800
at value	value	..	..	..	..	103,991	118,142	133,875	204,074
Drugs and chemical products	,,	..	..	..	..	101,221	100,126	98,734	107,760
Earthenware and porcelain	,,	..	..	..	..	51,701	53,937	52,503	..
Hardwares and cutlery, unenumerated	cwts.	16,539	16,852	19,985	30,698	137,666	108,364	119,312	156,490
Horses	no.	2,178	2,010	1,806	1,182	77,197	55,543	55,519	34,754
Iron, wrought and unwrought	tons	184,130	142,356	151,444	136,665	835,643	630,787	637,469	603,828
Lead and shot	,,	799	3,335	4,626	2,150	16,686	70,476	94,424	43,490
Linen yarn	lbs.	1,545,605	988,558	2,941,336	2,734,207	174,452	129,273	311,607	254,606
Linens, entered by the yard	yards	3,176,539	3,607,920	3,328,704	5,037,477	180,982	205,830	191,701	272,705
at value	value	..	..	..	..	10,949	8,232	11,096	10,254
Machinery: Steam engines	,,	..	..	..	..	17,966	8,80	18,959	50,121
All other sorts	,,	..	..	..	..	345,866	365,479	350,051	427,964
Naphtha, paraffine oil, petroleum &c.	gallons	770,043	579,904	321,106	722,255	109,851	81,515	44,178	71,233
Oil, seed	,,	970,560	1,811,795	2,721,795	1,155,894	162,342	261,088	377,638	173,625
Painters' colours (not otherwise described)	value	..	..	..	..	30,099	38,602	35,780	35,099
Plate, plated ware, jewellery, and watches	,,	..	..	..	..	14,544	10,501	8,891	11,471
Saltpetre	cwts.	375	939	1,203	111	741	970	1,576	150
Silk, Yarn	lbs.	263,644	298,101	215,797	213,236	159,506	182,560	125,210	114,300
Thrown	,,	142,250	117,653	65,745	36,017	183,300	155,170	109,675	56,508
Manufactures	value	..	..	..	..	121,664	191,134	162,786	94,161
Spirits, British and Irish	gallons	406,909	714,685	55,056	10,702	57,802	80,096	4, 59	1,335
Telegraphic wire &c.	value	..	..	..	..	1,404	13,787	148	26,367
Tin, unwrought	cwts.	26,057	26,735	21,112	27,716	147,759	145,419	106,358	190,825
Tin plates	value	..	..	..	..	59,326	59,411	65,127	40,691
Wool, sheep and lambs'	lbs.	4,436,017	3,344,816	3,219,001	6,186,758	348,773	218,300	314,446	542,368
Woollen and worsted yarn	,,	1,845,480	1,773,539	1,914,346	1,983,646	369,129	340,640	423,151	397,547
Woollens, entered by the yard	yards	21,282,134	18,666,468	20,864,052	31,196,864	1,591,201	1,289,954	1,615,792	2,727,077
at value	value	..	..	..	..	27,584	29,607	40,032	58,817
All other articles	,,	..	..	..	..	971,305	1,068,696	1,167,545	1,353,928
Total value	..	..	..	..	..	8,673,309	8,187,361	9,082,895	11,700,140

interfered with, felt aggrieved by this new state of things; and instead of endeavouring to withstand the competition of their foreign rivals by improving their fabrics and cheapening their processes, they found it more convenient to appeal to popular prejudice, and to represent themselves as sacrificed, through a false policy, to the cupidity of foreigners, who, to insure their ruin, sold their products at less than they cost! And this contradictory nonsense induced the Government to retrace its steps; to re-impose the high duties on foreign linens and yarns; and, consequently, to increase the price of a necessary, and to check or prevent the production and exportation of the articles which had been sent abroad in payment of the linens.

The same *felo de se* policy prevailed in regard to the trade in cottons and most other things. But the restrictions on the importation of iron may, notwithstanding the reductions made from their amount in 1853, be regarded as the triumph of the protective system in France. Everybody knows that a cheap and abundant supply of iron is indispensable to anything like successful agriculture or manufactures; and everybody knew, none better than the Emperor of the French, that owing to the scarcity and bad quality of coal in France, and the necessity of using wood in the smelting of minerals, she had no facilities for the production of iron, which consequently cost a very large sum. Under these circumstances it might have been expected that the French would have opened their ports to the iron of all countries, and that if they did not encourage its importation by a bounty, they would have, at all events, taken especial care not to check it by a duty. But no: they were so enamoured of bad and dear ploughs, and of bad and dear implements and machinery of all sorts, that they imposed all but prohibitory duties on foreign iron. Under Napoleon I. duties of 44 fr. and 110 fr. per ton were laid respectively on bar and sheet-iron; and these, though justly objectionable for their too great magnitude compared with its price, were afterwards raised till they amounted, under Napoleon III., to 200 fr. (8*l.*) and 440 fr. (17*l.* 12*s.*) per ton! But these monstrous duties were reduced, as already stated, in 1853, to about a half. They were still, however, a great deal too high: in fact, they ought not to have existed at all. And this forced scarcity and high price of the most important industrial agent paralysed agriculture and all the more important arts, and brought them almost to a stand. And for what was this immense sacrifice incurred?—to gratify the rapacity of a handful of forest proprietors, who contended that they would suffer were foreign iron admitted duty free, or at a moderate duty! The French did not kill the goose for the sake of the eggs, but for the offal she had picked up.

It would be a libel on an intelligent people to suppose that such a system could be permanent. The beneficial influence of our reductions of the duties on French wines and brandy &c. and the growing popularity of free trade principles eventually led to the Treaty of 1860. 'This Treaty may indeed be said to have gone to the opposite extreme, for it stipulated for the entire exemption of many important French products from our customs' duties, even when these were entirely unobjectionable. But however erroneous in a financial point of view, this conduct of ours, combined with the reduction of the duties on many British articles imported into France, has given a powerful stimulus to the trade between the two countries.' (*Principles of Political Economy*, ed. 1864, p. 108.) For the text of the Treaty, see TREATIES, COMMERCIAL.

The fruits of this Treaty will be best seen by comparing the trade between France and Great Britain in 1863–66 with that of 1854–7.

In addition to the portion of Western Europe

V.—*Account of the Quantities and Declared Values of the Principal Articles the Produce and Manufacture of the United Kingdom Exported to France in each of the 4 Years ending with* 1857.

Articles		Quantities				Declared Value			
		1854	1855	1856	1857	1854	1855	1856	1857
						£	£	£	£
Apothecary wares, drugs &c.	value	—	—	—	—	16,183	10,607	7,742	10,881
Apparel, slops and haberdashery	,,	—	—	—	—	34,771	48,236	64,304	50,848
Beef and pork	barrels	6,294	1,429	3,158	373	26,068	4,917	13,767	1,419
Caoutchouc, manufactures of	value	—	—	—	—	22,144	11,632	12,565	8,432
Coals, cinders and culm	tons	814,837	936,180	1,158,313	1,279,135	336,198	414,457	524,167	574,426
Copper, wrought and unwrought	cwts.	49,288	74,848	79,826	100,327	238,159	427,443	440,570	591,940
Corn, wheat	qrs.	17,156	84,450	63,762	72,482	37,165	231,062	220,690	200,080
flour	cwts.	16,407	40,289	13,990	1,456	16,419	52,753	15,155	1,966
Cottons, entered by the yard	yards	5,087,565	7,049,674	9,529,495	17,432,579	112,504	135,120	151,960	251,474
at value	value	—	—	—	—	39,196	35,398	33,565	34,008
Cotton yarn	lbs.	126,048	174,008	125,306	432,382	23,639	34,152	21,796	30,312
Flax, dressed and undressed	cwts.	11,608	33,546	3,920	6,064	26,625	75,805	8,920	14,288
Hardwares and cutlery	,,	7,216	15,146	12,016	14,106	78,918	104,370	95,856	113,791
Horses	no.	2,116	2,993	1,127	755	106,330	136,215	56,085	49,966
Iron, wrought and unwrought, including unwrought steel	tons	42,874	147,473	173,251	133,659	261,648	902,602	1,193,578	792,049
Lead and shot	,,	1,438	4,362	960	374	32,149	94,571	22,216	8,881
Linens, entered by the yard	yards	1,211,832	1,487,238	1,238,949	1,131,827	61,054	81,594	71,801	71,081
Linen yarn	lbs.	291,963	295,501	361,568	490,004	48,127	49,861	70,989	86,110
Machinery, steam engines	value	—	—	—	—	47,855	32,494	18,612	52,081
all other sorts	,,	—	—	—	—	101,650	104,954	158,249	216,061
Oil, linseed	gallons	25,917	1,123,283	987,027	648,747	3,656	173,674	188,519	102,919
Plate, plated ware, jewellery and watches	value	—	—	—	—	10,636	24,756	7,415	19,207
Silk manufactures	,,	—	—	—	—	351,401	297,145	824,506	770,278
Spirits	gallons	42,652	3,068,766	3,155,580	2,622,491	9,195	660,750	698,393	586,574
Tin, unwrought	cwts.	6,848	6,848	9,481	11,784	37,999	37,999	58,647	76,116
Wool, sheep and lambs'	lbs.	9,509,731	12,773,816	12,031,295	11,313,553	520,995	747,442	778,331	823,780
Woollens, entered by the piece	pieces	25,128	77,742	28,257	36,849	55,462	300,882	56,665	68,836
yard	yards	1,156,999	1,034,305	1,289,961	2,457,090	55,477	49,450	62,198	122,855
at value	value	—	—	—	—	2,937	10,035	7,146	5,683
Woollen yarn	lbs.	404,544	438,816	1,224,048	1,168,608	101,541	105,923	171,300	210,764
Total value of the above and of all other articles		—	—	—	—	3,175,290	6,012,655	6,432,650	6,213,558

VI.—*Account of the Quantities and Declared Values of the Principal and other Articles of Foreign and Colonial Produce Exported from the United Kingdom to France in each of the 4 Years ending with* 1866.

Articles		Quantities				Value			
		1863	1864	1865	1866	1863	1864	1865	1866
						£	£	£	£
Bacon	cwts.	54,648	9,124	4	546	78,329	19,464	12	1,604
Bark, Peruvian	,,	3,419	3,226	3,307	2,531	14,833	20,196	22,294	20,079
Beads of glass (excluding bugles)	lbs.	228,967	863,590	897,315	536,446	17,128	29,352	31,732	29,057
Camphor, renned and unrefined	cwts.	5,202	7,420	4,265	2,937	35,005	38,687	20,668	20,231
Caoutchouc	,,	8,147	8,816	6,125	7,640	63,346	62,373	45,529	77,108
Cochineal	,,	2,594	1,508	2,341	3,156	41,828	26,366	42,694	60,201
Cocoa	lbs.	397,698	344,106	407,917	1,695,432	10,317	8,969	11,781	46,514
Coffee	,,	13,393,3.6	9,727,388	15,843,410	19,699,118	482,467	322,669	522,995	638,296
Copper, unwrought and part wrought	cwts.	57,767	95,840	117,520	197,680	271,718	461,691	843,136	776,073
Corn: Wheat	qrs.	48,920	4,128	7	12,116	23,983	1,901	3	6,814
Wheat flour	cwts.	3,207	1,709	96	1,151	5,940	1,128	64	880
Cotton, raw	,,	561,126	561,045	773,487	931,114	5,317,543	5,240,122	5,199,894	4,780,747
Feathers, Ostrich, black and white	lbs.	5,959	4,760	3,073	6,568	13,229	17,301	11,116	4,588
Flax, dressed and undressed	cwts.	9,634	12,547	17,685	16,514	26,004	33,416	49,500	46,954
Galls	,,	953	1,339	1,160	4,173	4,550	7,766	7,574	20,517
Gambier and cutch	tons	80	745	721	731	1,945	18,682	17,507	21,360
Gum lac: Shell lac	cwts.	4,565	5,512	5,883	5,501	33,411	35,691	23,929	21,270
Gum, mastic	,,	36	2	1,172	—	1,029	62	36,747	—
Hair, manufactures of, Goats' wool	value	—	—	—	—	91,503	49,299	109,115	80,431
Hams	cwts.	12,207	7,336	432	69	80,772	46,200	1,106	203
Hemp, dressed and undressed	,,	162,491	247,030	379,895	361,228	210,966	292,069	338,788	337,642
Hides, not tanned	,,	29,775	33,651	14,242	32,805	86,428	101,051	42,801	84,793
Horns, Buffalo, Deer, and other sorts	tons	786	520	743	718	18,380	13,754	20,973	24,801
Indigo	cwts.	2,671	5,363	4,922	8,080	75,033	158,245	148,296	237,982
Nuts for expressing oil therefrom	tons	113	1,146	1,198	282	1,898	20,513	15,107	3,625
Oil, Cocoa-nut	cwts.	11,997	17,782	11,561	16,090	26,545	33,934	25,402	37,581
palm	,,	18,948	14,025	15,818	19,621	55,812	23,698	28,791	39,188
train or blubber and spermaceti	tuns	162	205	218	311	10,645	10,161	12,421	19,837
Orchal	cwts.	5,930	5,737	1,169	10,600	9,361	8,725	2,490	18,163
Petroleum, refined and unrefined	tuns	2,511	823	1,049	1,110	47,376	10,924	26,478	23,204
Quicksilver	lbs.	413,117	325,865	359,572	393,731	37,459	34,163	37,080	36,094
Rhubarb	,,	17,657	14,953	23,879	45,085	2,575	3,758	8,950	22,462
Rice, not in the husk	cwts.	331,319	111,091	51,916	147,678	201,571	62,993	33,796	100,298
Seeds: Clover	,,	35,565	243	273	272	93,249	797	921	934
Flax and linseed	qrs.	15,243	25,044	14,353	3,012	46,504	68,599	39,890	8,769
Poppy	,,	15,483	11,865	23,575	41,409	38,184	31,214	69,781	114,368
Sesamum	,,	24,699	2,918	1,040	7,755	78,419	8,045	3,510	29,082
for expressing oil therefrom	,,	21,442	48,715	25,185	27,172	68,329	123,613	67,085	78,346
Rape	,,	45,114	48,357	61,541	89,896	133,650	128,347	187,966	247,398
Silk, tracks and husks	cwts.	825	536	980	12,023	9,240	7,056	22,670	209,901
raw	lbs.	3,231,490	3,163,645	2,481,190	1,455,020	3,285,345	3,545,219	3,267,295	1,931,327
thrown	,,	196,298	303,764	278,146	55,324	510,305	511,336	587,593	114,981
Silk manufactures: Broadstuffs and ribbons	lbs.	9,377	9,747	8,854	4,722	23,841	21,810	22,647	12,283
China crape shawls, plain and embroidered	,,	4,217	8,000	5,744	18,975	19,800	15,129	11,670	34,639
Skins, goat	No.	556,000	450,743	329,478	377,259	63,724	43,878	40,636	45,195
Spirits: Rum	Proof gallons	60,953	40,150	44,841	70,309	4,811	3,565	4,352	6,168
Sweetened and perfumed	gallons	712	18,284	35,470	19,619	712	18,284	35,470	19,619
Sponge	lbs.	151,671	111,709	99,893	205,564	14,671	8,869	8,366	16,435
Sugar, unrefined	cwts.	147,232	38,819	9,191	330	174,471	53,564	11,504	351
Tallow	,,	2,832	341	537	3,158	5,947	699	1,235	7,189
Tea	lbs.	201,095	175,268	219,370	257,125	15,945	13,327	18,511	20,624
Teeth, Elephants'	cwts.	2,532	2,555	2,412	2,562	64,752	81,874	77,472	95,910
Tin, unwrought	,,	14,098	19,099	11,426	11,661	84,588	96,848	53,131	46,933
Tobacco, unmanufactured	lbs.	259,867	172,502	1,560,542	576,156	11,369	7,115	55,275	14,115
Tortoise shell and Turtle shell	,,	7,411	10,448	13,331	30,905	4,628	6,448	9,734	19,584
Whalefins	tons	39	13	7	7	18,733	5,025	3,031	3,172
Wine	gallons	164,101	153,597	176,196	147,461	55,224	51,635	51,101	47,304
Wood, staves	loads	205	486	1,133	2,627	1,596	4,548	10,895	27,255
Wool, Sheep and Lambs'	lbs.	31,536,357	38,134,271	50,129,175	47,343,346	2,190,434	3,053,178	3,663,194	3,651,171
Zinc, crude and rolled	tons	751	375	1,559	331	14,855	9,190	41,308	7,140
All other articles	value	—	—	—	—	482,041	530,186	483,575	490,757
Total		—	—	—	—	14,621,257	15,638,031	16,292,977	14,897,289
Total of British and Foreign produce		—	—	—	—	23,294,566	23,825,392	25,355,078	26,597,429

VII.—*Account of the Quantities and Computed Values of the Principal Articles Imported from France into the United Kingdom in each of the 4 Years ending with 1857.*

Principal Articles		Quantities				Computed Values			
		1854	1855	1856	1857	1854	1855	1856	1857
						£	£	£	£
Animals, living: oxen and bulls	no.	3,561	2,182	1,487	1,909	42,732	37,094	26,023	35,794
cows and calves	"	2,709	1,158	793	647	25,796	12,176	5,106	5,915
horses	"	2,297	744	936	703	50,424	18,600	23,400	17,575
Apples, raw	bushels	204,909	93,949	216,220	159,191	40,982	23,513	53,077	40,442
Asphaltum or bitumen judaicum	tons	1,975	1,165	2,573	2,543	49,385	20,515	29,848	38,908
Books	cwts.	1,823	1,767	2,226	2,492	20,419	19,793	24,935	27,911
Butter	"	45,656	22,809	32,384	26,290	191,755	86,661	137,620	104,673
Caoutchouc, manufactures of	lbs.	168,752	102,535	352,434	269,137	29,532	28,444	52,865	23,550
China ware, porcelain, and earthenware	cwts.	3,092	3,289	3,928	3,458	31,312	33,488	39,573	34,679
Clocks	no.	49,756	51,726	82,196	100,393	65,351	62,365	79,750	83,198
Corn: wheat	qrs.	143,078	26,159	10,007	37,178	515,081	99,733	35,025	98,058
barley	"	1,810	1,914	2,679	6,231	2,398	3,221	4,421	11,671
maize, or Indian corn	"	1,464	25,775	27,658	31,480	2,929	59,279	41,252	56,365
other kinds	"	13,729	29,558	960	2,330	32,055	67,643	1,992	4,661
wheatmeal and flour	cwts.	219,783	88,196	69,841	327,115	243,593	108,010	83,809	351,942
Cotton, raw	"	1,315	35,966	11,587	18,810	3,598	111,378	37,222	67,588
Cream of tartar	"	16,339	4,220	6,451	2,693	91,358	22,155	34,728	10,919
Eggs	cubic ft.	165,088	455,745	513,771	563,999	195,258	206,979	244,041	281,999
Embroidery and needlework: Silk net, figured with the needle	lbs.	3,370	1,491	1,731	2,456	15,166	6,711	7,788	11,053
Curtains, embroidered on muslin or net	"	91,777	52,607	50,233	57,156	47,349	28,304	25,117	28,578
Unenumerated	value	—	—	—	—	56,652	25,477	46,803	33,959
Flowers, artificial	cubic ft.	26,122	21,697	32,886	34,152	78,366	74,091	98,659	103,356
Garancine	cwts.	8,996	12,796	6,625	17,863	62,972	86,776	46,375	132,112
Glass, plate	lbs.	314,302	418,583	424,752	368,978	19,286	16,969	21,213	18,449
flint, cut and not cut (except bottles)	"	441,761	396,119	405,853	348,212	9,809	8,217	9,760	8,541
Hats or bonnets of straw	"	37,599	14,693	19,554	21,653	112,197	41,098	58,662	74,809
Hides, not tanned	cwts.	502	6,052	9,646	17,738	1,021	13,907	29,541	64,551
tanned, tawed, curried, or in any way dressed	lbs.	1,116,562	665,557	975,915	1,856,438	105,811	58,804	109,328	215,150
Leather manufactures: Gloves	pairs	3,744,729	3,551,125	3,939,593	4,130,568	240,435	223,232	296,471	345,968
Boots, shoes, and goloshes	"	174,131	125,566	180,514	187,137	32,417	24,231	40,803	47,350
Boot fronts	"	559,061	531,076	668,143	552,477	52,014	56,919	88,353	78,765
Linen manufactures: Cambrics and French lawns	sq. yds.	136,340	151,825	138,132	134,589	25,857	27,829	33,656	23,508
Madder	cwts.	68,154	71,627	66,422	62,444	161,102	161,161	167,968	168,709
Madder root	"	31,853	18,233	6,416	28,502	71,108	36,088	14,324	71,105
Oil, rapeseed	tuns	383	2,197	1,530	5,299	18,226	132,028	78,743	186,598
Oil seed cake	tons	11,361	19,315	13,767	13,150	102,150	195,092	119,598	108,164
Paper hangings	lbs.	153,927	274,336	302,102	306,743	39,630	13,717	15,105	15,337
Platting of straw, chip, and other materials	"	176,926	125,425	145,220	144,598	171,766	120,737	137,830	136,416
Pork, salted	cwts.	13,682	8,851	20,051	14,991	55,950	23,855	53,656	40,075
Prints and drawings	lbs.	57,215	59,560	52,077	48,011	14,304	14,965	13,020	12,003
Seeds: clover	cwts.	70,954	43,737	57,405	20,012	185,446	216,706	221,958	71,543
grass	"	22,425	19,481	22,702	37,447	23,264	58,443	68,106	112,341
trefoil	"	16,123	17,108	28,793	14,348	17,755	29,159	50,289	19,770
Silk, raw	lbs.	148,195	139,020	157,159	345,665	159,310	158,192	256,053	618,991
waste, knubs, and husks	cwts.	4,153	3,502	6,338	7,031	18,703	18,491	109,479	130,481
thrown	lbs.	558,415	12,195	331,018	289,800	686,020	411,056	587,611	605,381
Silk manufactures: stuffs and ribbons	"	555,041	504,855	538,708	428,600	1,393,808	1,249,830	1,376,119	1,065,618
Silk plush for making hats	"	144,015	14,287	170,519	118,142	86,409	87,172	102,312	70,885
Skins, kid, dressed	no.	657,994	645,582	418,984	363,427	65,940	96,507	73,322	60,788
Spirits: brandy	gallons	2,891,340	1,881,590	2,500,190	2,796,037	1,204,717	911,305	1,270,950	1,303,647
Sugar, unrefined	cwts.	4,699	30,328	65,214	137,015	5,174	538,194	98,858	168,996
refined, and candy	"	15,201	22,921	29,723	9,712	92,041	42,195	49,043	20,923
Tallow	"	31,682	2,327	5,162	31,781	99,799	6,773	8,432	89,100
Watches	no.	109,339	91,140	88,249	87,214	271,824	209,450	212,986	205,803
Wine	gallons	1,004,589	535,949	711,912	796,760	618,497	397,119	556,054	528,695
Woollen manufactures: Carpets and rugs	sq. yds.	2,313	2,806	7,487	5,059	925	1,123	2,995	1,224
Shawls, scarfs, and handkerchiefs	lbs.	57,376	25,914	26,416	12,802	15,709	8,178	6,013	4,299
Unenumerated	value	—	—	—	—	458,584	477,446	618,147	599,727
Total value of the above and of all other articles	—	—	—	—	—	10,447,774	9,146,418	10,386,522	11,965,107

which is included in the French empire, France possesses the colony of Algeria, the island of Corsica, French Guiana, a few islands in the Gulf of Mexico and the Indian Ocean, a strip of land on the coast of Cochin China, and one or two unimportant settlements in British India.

The customs' duties and salt tax of France produced in 1862, 7,468,815*l.*; in 1863, 7,819,769*l.*; in 1864, 6,474,671*l.* The largest sum was contributed by sugar, which reached on an average to nearly one half the total sum received; next coffee, then coal, and textile fabrics: these last two pay nearly the same amount to the revenue.

The following shows the extent of the French mercantile marine:—

Years	Sailing Vessels		Steam Vessels		Total	
	no.	tons	no.	tons	no.	tons
1862	14,794	903,590	338	78,381	15,132	982,971
1863	14,746	900,272	346	84,963	15,092	985,235
1864	14,820	900,635	364	97,884	15,184	998,519

The number of these ships trading with Great Britain and its European possessions is larger than that trading with any other country; but there is also a considerable trade between France and Italy, Turkey, Egypt, and British India.

The French fisheries are chiefly those for cod. The chief rendezvous of these fisheries is Dunkirk. [FISHERIES.]

Of French ports, Marseilles has by far the largest commercial marine. [MARSEILLES.] The tonnage entering the ports of Dunkirk, Boulogne, Dieppe, Calais, Bordeaux, Nantes, Nice, and Cette does not vary considerably. [BORDEAUX; NANTES.]

The following are accounts of the real value of imports and exports:—

Years	Merchandise Imported		Specie Imported	
	Value		Value	
	francs	£	francs	£
1862	2,499,000,000	116,000,000	576,000,000	23,000,000
1863	3,236,000,000	129,400,000	598,000,000	23,900,000
1864	3,407,000,000	136,300,000	815,000,000	32,600,000
	Merchandise Exported		Specie Exported	
1862	3,049,000,000	122,000,000	495,000,000	19,800,000
1863	3,516,000,000	141,000,000	653,000,000	26,100,000
1864	3,921,000,000	156,800,000	732,000,000	29,300,000

VIII.—Account of the Quantities and Computed Values of the Principal and other Articles Imported from France into the United Kingdom in each of the 4 Years ending with 1866.

Articles		Quantities				Computed Real Value			
		1863	1864	1865	1866	1863	1864	1865	1866
						£	£	£	£
Animals, living: Oxen and bulls	number	2,370	2,760	14,646	37,914	38,632	43,931	271,967	710,723
Cows and calves	"	1,121	1,387	3,[illegible]	8,737	15,[illegible]99	16,914	35,129	62,[illegible]93
Horses	"	33[illegible]	202	239	290	19,680	8,747	10,558	12,467
Swine and hogs	"	606	23,820	38,197	17,288	1,328	51,439	103,569	58,581
Sheep and lambs	"	440	1,105	32,135	47,616	831	2,368	78,104	110,382
Asphaltum or bitumen judaicum	tons	3,116	693	1,335	922	31,160	6,93[illegible]	13,350	10,186
Books	cwts.	2,479	2,59[illegible]	2,978	3,233	41,516	43,695	45,263	38,615
Bronze, manufactures of, or of metal bronzed or lacquered	value	..	..	..	..	87,729	72,033	55,166	46,235
Butter	cwts.	135,098	163,020	353,115	452,196	611,216	834,793	1,867,085	2,276,493
Buttons and studs	value	..	..	..	..	51,732	44,495	27,821	33,996
China ware, porcelain, and earthenware	cwts.	9,679	9,345	8,389	8,701	106,649	100,567	90,152	101,734
Clocks	number	106,636	88,566	64,763	80,177	188,909	184,521	159,472	190,321
Corks, ready-made	lbs.	1,144,146	1,074,860	1,756,602	1,917,277	61,075	58,222	84,319	10,850
Corn: Wheat	cwt.	147,181	587,109	2,[illegible]42,875	3,175,130	73,747	270,217	1,029,633	1,789,428
Barley	"	1,750,728	600,[illegible]5[illegible]	1,[illegible]28,991	1,261,456	755,480	209,885	580,884	599,299
Oats	"	267,751	49,110	20,909	9,751	90,113	16,180	26,311	4,093
Peas and beans	"	219,863	201,915	900,128	197,191	81,[illegible]99	80,133	85,319	90,564
Maize, or Indian corn	"	42,999	163,179	71,935	464,161	15,774	54,217	27,[illegible]01	149,040
Other kinds of corn and grain	"	Not computed	20,166	48,318	250,445	30,621	6,793	18,309	84,032
Wheatmeal and flour	"	1,567,938	1,815,851	3,014,825	5,640,326	1,061,055	1,234,033	2,074,216	2,703,326
Cotton, raw	"	13,037	47,[illegible]69	21,471	68,[illegible]52	160,108	628,339	280,740	501,178
Cotton yarn and cotton yarn waste	lbs.	905,728	1,[illegible]75,[illegible]20	1,696,048	2,518,[illegible]35	29,189	51,665	41,157	41,989
Cotton manufactures	value	..	..	..	..	353,602	411,188	377,647	589,216
Cream of Tartar	cwts.	11,852	14,599	17,798	23,760	66,398	79,494	89,282	106,632
Eggs	gr. 100	1,872,[illegible]53	2,393,521	2,795,899	3,359,[illegible]02	563,334	713,570	850,959	1,010,978
Embroidery and needlework	value	..	..	..	..	34,877	19,067	25,997	36,018
Fish	cwts.	25,671	21,209	29,848	52,511	118,380	88,663	90,801	199,054
Flax	"	48,454	35,193	16,410	18,325	183,536	136,646	62,883	68,640
Flowers, artificial	value	..	..	..	..	302,156	302,464	295,274	291,269
Fruit: Apples, raw	bushels	501,197	266,6[illegible]	196,411	140,817	79,012	55,885	53,[illegible]83	26,190
Raw, of all other sorts	value	..	..	..	..	103,765	137,903	88,[illegible]62	108,947
Furniture and cabinet ware of wood	"	..	..	..	..	50,547	73,761	84,[illegible]6	47,389
Garancine	cwts.	20,231	24,626	19,028	56,332	140,161	172,382	133,196	236,666
Glass, plate	"	12,[illegible]84	19,492	20,[illegible]49	22,225	63,641	95,024	96,[illegible]85	105,449
Flint, cut and uncut	"	11,[illegible]06	11,[illegible]99	11,130	9,351	30,125	32,806	32,361	31,178
Hair, cow, ox, bull, or elk	"	18,[illegible]10	2[illegible],882	21,289	25,665	88,097	126,212	101,[illegible]08	124,588
Hats or bonnets of straw	lbs.	55,487	49,225	148,239	283,175	88,719	147,669	518,837	1,132,700
of felt	no.	115,135	110,609	98,[illegible]78	189,888	34,651	33,183	29,664	56,967
Hemp, viz. jute yarn	lbs.	1,011,864	1,[illegible]65,317	1,905,184	2,004,[illegible]77	23,832	38,159	45,[illegible]83	44,504
Hides, not tanned	cwts.	25,516	16,581	18,191	28,976	53,549	38,600	60,988	71,993
Tanned, tawed, curried, or dressed	lbs.	1,869,346	2,037,928	2,237,654	3,151,647	177,660	184,321	224,614	320,512
Hops	cwts.	16,699	10,109	14,041	17,[illegible]05	76,061	56,380	86,891	121,206
Iron and steel, wrought or manufactured	value	..	..	..	..	66,004	46,702	57,069	91,738
Jute. *See* Hemp.									
Lace, of all kinds	"	..	..	..	..	57,685	80,162	79,292	78,012
Leather manufactures: Gloves	pairs	7,838,988	9,671,970	8,781,588	10,038,092	819,224	1,047,738	930,339	1,129,061
Boots, shoes, and goloshes	"	333,236	163,[illegible]72	171,[illegible]92	219,[illegible]60	92,985	37,461	43,[illegible]25	41,467
Boot fronts	"	470,421	149,316	46,236	61,224	59,195	17,326	5,931	9,239
Linen manufactures	value	..	..	..	..	29,195	33,311	28,686	62,143
Madder	cwts.	63,511	67,591	73,823	98,731	144,747	143,630	173,350	234,488
Madder root	"	9,089	6,790	6,166	6,335	19,315	14,418	13,512	13,457
Musical instruments	value	..	..	..	..	150,680	153,064	162,311	164,743
Oil, olive	tuns	369	688	377	289	20,322	38,815	29,135	15,870
Rapeseed	"	3,670	2,579	3,[illegible]46	5,[illegible]18	159,939	109,678	185,071	242,360
Oil of turpentine	cwts.	85,191	95,[illegible]31	104,[illegible]15	67,592	320,177	330,520	264,274	137,177
Oil seed cake	tons	20,694	21,684	35,035	36,807	149,948	153,335	251,092	253,825
Opera glasses	value	..	..	..	..	11,120	16,176	14,859	27,822
Paper hangings	cwts.	4,230	5,183	4,749	5,414	19,866	21,767	20,116	22,864
of other sorts (including pasteboard)	"	29,806	31,128	23,732	34,271	67,699	70,576	45,[illegible]18	71,794
Plaiting of straw, chip, and other materials	lbs.	180,381	155,141	213,[illegible]13	231,608	113,118	92,518	126,602	146,063
Pork, salted or fresh	cwts.	1,[illegible]30	21,311	26,[illegible]76	19,680	3,647	27,110	21,625	55,576
Potatoes	"	1,037,034	566,316	629,783	563,066	176,970	91,625	114,[illegible]08	121,536
Prints and drawings	value	..	..	..	..	15,[illegible]24	10,556	11,155	12,484
Quinine, sulphate of	ounces	244,458	188,996	312,[illegible]24	153,528	76,277	55,968	84,361	36,660
Rags and other materials for making paper	tons	2,377	2,836	1,767	2,922	47,064	52,779	33,737	57,619
Rhubarb	lbs.	301	19,036	30,090	211,332	76	3,940	18,258	139,597
Rosin	cwts.	355,953	336,[illegible]94	427,3[illegible]	206,546	406,477	833,399	428,511	124,007
Seeds: Clover	"	37,747	80,665	121,[illegible]32	103,[illegible]41	94,752	220,196	414,[illegible]52	334,951
Grass	"	49,375	62,680	68,[illegible]63	64,[illegible]02	61,250	74,128	85,039	80,021
Trefoil	"	19,144	21,017	42,102	13,847	20,329	27,479	55,[illegible]60	21,712
Seeds of other sorts	value	..	..	..	..	57,804	44,649	68,570	75,127
Silk, raw	lbs.	1,411,[illegible]52	829,913	2,109,784	1,703,141	1,788,053	1,187,619	3,050,007	2,494,869
Waste, knubs, and husks	cwts.	19,342	14,114	17,[illegible]79	9,845	[illegible]16,631	184,473	403,[illegible]30	181,435
Thrown	lbs.	49,707	63,389	53,369	48,469	79,157	106,939	113,135	100,898
Manufactures: Stuffs and ribbons	"	1,865,013	2,043,[illegible]04	2,405,331	2,726,665	4,501,487	4,948,583	5,835,734	6,787,628
Plush for making hats	"	97,595	95,280	94,470	57,586	136,631	133,392	132,258	80,621
Unenumerated	value	..	..	..	..	576,501	898,837	813,764	656,409
Skins, kid, tanned or tawed	number	236,942	325,785	292,911	267,032	20,332	28,507	25,634	22,491
Spirits: Brandy	gallons	2,911,159	4,792,579	3,064,532	5,554,771	1,095,585	1,490,531	816,422	1,401,013
Sugar, unrefined	cwts.	204,862	179,952	666,793	551,047	202,131	249,710	798,529	620,858
Refined, and candy	"	105,691	261,951	218,[illegible]19	167,598	173,243	455,757	380,609	259,235
Watches	number	159,125	131,698	141,098	165,625	250,123	228,217	249,662	241,341
Wine	gallons	2,186,706	2,[illegible]43,233	2,915,387	3,668,812	697,742	792,859	865,747	1,456,060
Wool, goats', or hair	lbs.	899,972	138,066	88,665	64,909	154,301	18,601	13,150	10,963
Sheep and lambs'	"	2,873,985	4,252,641	1,462,599	3,099,178	251,477	399,425	132,288	309,526
Woollen rags	tons	2,766	2,197	2,261	2,571	82,137	64,043	59,590	86,145
torn up to be used as wool	lbs.	394,012	411,264	481,216	359,968	7,511	9,196	9,891	6,233
Woollen manufactures	value	..	..	..	..	1,357,909	1,210,305	1,189,701	1,151,092
Yarn, cable	lbs.	7,154,467	3,042,882	289,184	142,[illegible]60	119,[illegible]24	51,107	4,378	2,087
Linen	"	5,413,014	1,475,570	883,091	1,204,968	109,078	109,680	62,937	82,799
See also Cotton and Hemp.									
All other articles	value	..	..	..	..	2,289,004	2,530,676	2,505,850	2,780,204
Total value		..	..	..	..	4,025,717	25,640,733	31,625,251	37,016,784

Of these imports, the largest items are cotton, silk, wool, timber, and coffee. Of exports, silk and woollen goods constitute by far the largest item, then wine, then haberdashery, and fancy goods. Many articles, however, though of less aggregate value, represent a great increase of trade, as for instance clothing, leather, refined sugar, and various agricultural products. It is possible that

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at no distant date the beet-root sugars of France and Germany will compete successfully with the cane sugars of the tropics.

In the distribution of these imports and exports, the commercial relations of France and Great Britain are the most important. In 1864 one-fifth of the imports were obtained from, and one-third of the exports transmitted to, the United Kingdom. Belgium, Switzerland, the Zollverein, and Italy follow in order according to the magnitude of their imports into France. Italy, Switzerland, Spain, and the Zollverein take exports in order. In all these cases the exports and imports severally exceed 250,000,000 francs, i.e. in round numbers 10,000,000*l.* sterling. The commerce of France is only second to that of England, its total exports and imports in 1864 amounting to 348,517,641*l.*, while those of the United Kingdom in the same year amounted to 487,571,786*l.*

Weights and Measures.—The French system, which has been extended into Belgium, Switzerland, and Italy, is called metrical because founded on the mètre, a measure of length equal to the estimated ten millionth part of the terrestrial meridian from the North Pole to the Equator. [Weights and Measures.]

It is possible that the system which prevailed before 1795 may still linger in remote parts of France, but the metrical system in all its combinations and subdivisions was made the only legal measure during the reign of Louis-Philippe, and it is believed that at the present time the older system is all but extinct.

The par of exchange between Great Britain and France is 1*l.* = 25·30 francs. (For full particulars as to rates of exchange between France and other countries, and as to processes by which the reduction of exchanges can be effected, see Tate's *Modern Cambist*.)

The French laws and regulations respecting bills of exchange are rather stricter than those which prevail in the United Kingdom. There are no days of grace allowed either as part of the term or as claimable in delay of legal proceedings. If a bill be not duly accepted or paid, protest of default must be made within twenty-four hours of presentation. If the acceptor becomes bankrupt, protest may be made, and legal proceedings commenced against drawer and endorsers before the term expires during which the bill has to run. The holder of a bill, payable at or after sight, drawn by any foreign place on France or the reverse, must present the bill for payment or acceptance within specified periods after the date of the bill (these periods, called *délais*, varying with the distance) under penalty of losing all claim upon endorser or drawer, *if it can be proved that the bill would have been honoured at presentation*. Usance 30 days.

In the year 1864, 13,025 kilomètres (upwards of 8,000 miles) of railway were worked in France, the average receipts being 42,380 francs, or near 1,700*l.* per kilomètre, or about 2,610*l.* per mile.

The completion of railroads, and other improved means of intercourse, have, no doubt, contributed to develop the resources of the country and her great powers of production. Nothing, indeed, but the adoption of a reasonable law of succession, and of a thoroughly liberal commercial system, is wanted to elevate France to a very high, if not to the highest, place among manufacturing and commercial nations; and considering the way in which her energies have been weighed down by oppressive duties and restrictions, her recent industrial progress is quite marvellous.

HAWKERS AND PEDLARS. It is not very easy to distinguish between hawkers and pedlars. Both are a sort of itinerant retail dealers, who carry about their wares from place to place; but the former are supposed to carry on business on a larger scale than the latter. They are subject to the same regulations.

Regulations as to Hawkers and Pedlars.—The Legislature has always looked with suspicion upon itinerant dealers, and has attempted, by obliging them to take out licenses and placing them under a sort of *surveillance*, to lessen their numbers, and to hinder them from engaging in dishonest practices. But the resident dealer has so many advantages on his side, that these precautions seem to be in a great measure superfluous. It should also be recollected that before shops were generally established in villages and remote districts, hawkers and pedlars rendered material services to country people; and even now the competition which they excite is certainly advantageous.

By the 50 Geo. III. c. 41 (which placed the management of hawkers' license duties under the Commissioners of Hackney Coaches), hawkers and pedlars paid an annual license duty of 4*l.*; and if they travelled with a horse, ass, or other beast, bearing or drawing burden, they were subject to an additional duty of 4*l.* for each beast so employed. The granting of licenses, and management of the duties, were, by 1 & 2 Wm. IV. c. 22, placed under the control of the Commissioners of Stamps. By the 24 & 25 Vict. c. 21 the duties were reduced; and by the 27 & 28 Vict. c. 18 excise duties were substituted, and fixed at 2*l.* per annum each for pedlars on foot, and 4*l.* for those with a horse or other beast drawing burden. By 25 & 26 Vict. c. 22 and 29, and 30 Vict. c. 64, half-yearly licenses are sanctioned.

Hawkers and pedlars, unless householders or residents in the place, are not allowed to sell by auction to the highest bidder: penalty 50*l.*—half to the informer, the other half to the Crown. But nothing in the Act extends to hinder any person from selling, or exposing to sale, any sort of goods in any public market or fair; or to hinder a hawker or pedlar from selling in a hired room where he is not a resident, provided such sale is not by auction.

Every hawker, before he is licensed, must produce a certificate of good character and reputation, signed by the clergyman and two reputable inhabitants of the place where he usually resides.

Every hawker must have inscribed, in Roman capitals, on the most conspicuous part of every pack, box, trunk, case, cart, or other vehicle, in which he shall carry his wares, and on every room and shop in which he shall trade, and likewise on every hand-bill which he shall distribute, the words 'Licensed Hawker.' Penalty in default, 10*l.* Unlicensed persons wrongfully using this designation forfeit 10*l.*

Hawkers dealing in smuggled goods, or in goods fraudulently or dishonestly procured, are punishable by forfeiture of license, and incapacity to obtain one in future, besides being liable to all the other penalties, forfeitures &c. applicable to such illegal dealing.

By statute 6 Geo. IV. c. 80 it is enacted that any person or persons hawking, selling, or exposing to sale any spirits on the streets, highways &c., or in any boat or other vessel on the water, or in any place other than those allowed in this Act, shall forfeit such spirits and 100*l.* for every such offence. Any person may detain a hawker of spirits, and give notice to a peace officer to carry the offender before a justice.

Hawkers trading without license are liable to a penalty of 10*l.* So also if they refuse to show their license on the demand of any person to whom they

offer goods for sale, or on the demand of any justice, mayor, constable or other peace officer, or any officer of the customs or excise. By 5 Geo. IV. c. 83 hawkers trading without a license are punishable as vagrants.

To forge or counterfeit a hawker's license incurs a penalty of 300*l.* To lend or hire a hawker's license subjects lender and borrower to 40*l.* each, and the license becomes forfeited. But the servant of a licensed hawker may travel with the license of his master.

Hawkers trading without a license are liable to be seized and detained by any person who may give notice to a constable, in order to their being carried before a justice of peace. Constables refusing to assist in the execution of the Act are liable to a penalty of 10*l.*

Nothing in the Act extends to prohibit persons from selling fish, fruit, or victuals; nor to hinder the maker of any home manufacture from exposing his goods to sale in any market or fair; in every city, borough, town corporate, and market town: nor any tinker, cooper, glazier, plumber, harness-mender, or other person from going about and carrying the materials necessary to their business.

A *single* act of selling, as a parcel of handkerchiefs to a particular person, is not sufficient to constitute a hawker within the meaning of the statutes. (Rex *v.* Little, B. 613.)

By the 52 Geo. III. c. 108 no person, being a trader in any goods, wares, or manufactures of Great Britain, and selling the same by *wholesale*, shall be deemed a hawker; and all such persons, or their agents, selling by *wholesale* only, shall go from house to house, to any of their customers who sell again by wholesale or retail, without being subject to any of the penalties contained in any Act touching hawkers, pedlars, and petty chapmen.

No person committed under these Acts for non-payment of penalties can be detained in custody for a longer period than 3 months.

Hawkers exposing their goods to sale in a market-town must do it in the market-place.

Persons hawking tea without a license are liable to a penalty under 50 Geo. III. c. 41; and even though they had a license, they would be liable to a penalty for selling tea in an unentered place. (Chitty's edition of Burn's *Justice*, vol. ii. p. 1113.)

The hawking of tobacco or snuff is prohibited by the 3 & 4 Vict. c. 18 s. 12.

Any person duly licensed to trade as a hawker and pedlar may set up any lawful trade in any place where he is resident, though he have not served any apprenticeship to the same; and if prosecuted, he may plead the general issue and have double costs. (Chitty's edition of Burn's *Justice*, vol. ii. pp. 1102–1124.)

The hawkers' and pedlars' duty produced in 1867–8, 44,746*l.* gross revenue, paid by 17,779 persons: the charges of collection are, however, heavy.

HAY (Ger. hew; Dutch, hovi; Fr. foin; Ital. fieno; Span. heno; Lat. fœnum). Any kind of grass, cut and dried for the food of cattle. The business of hay-making is said to be better understood in Middlesex than in any other part of the kingdom. The great object is to preserve the green colour of the grass as much as possible, and to have it juicy, fresh, and free from all sorts of mustiness.

The sale of hay within the bills of mortality, and 30 miles of the cities of London and Westminster, is regulated by the Act 36 Geo. III. c. 88; 4 & 5 Wm. IV. c. 21; and 19 & 20 Vict. c. 114. The first enacts that all hay shall be sold by the load of 36 trusses, each truss weighing 56 lbs., except new hay, which is to weigh 60 lbs. till September 4, and afterwards 56 lbs. only; so that till September 4 a load of hay weighs exactly 1 ton, but thereafter only 18 cwt. The clerk of the market is bound to keep a regular book for the inspection of the public, specifying the names of the seller, the buyer, the salesman, and the price of each load. Salesmen and factors are prohibited from dealing on their own account.

At the instance of the Veterinary Department of the Council Office, an order in council was issued during the cattle plague, forbidding the landing of hay from Holland without a license. Such licenses are still (1868) called for.

There are 3 public markets in the metropolis for the sale of hay and straw—Whitechapel, Smithfield, and the Haymarket in the vicinity of the Regent's Park. The latter used formerly to be held in the street called the Haymarket.

Straw is sold by the load of 36 trusses, of 36 lbs. each, making in all 11 cwts. 64 lbs.

It is affirmed, we know not with what foundation, that considerable frauds are perpetrated in the sale of hay and straw.

HEMP (Ger. hanf; Dutch, hennip, kennip; Dan. hamp; Swed. hampa; Fr. chanvre; Ital. canape; Span. canamo; Russ. konapli, konopel; Pol. konope). A valuable plant (the *Cannabis sativa* of Linnæus), supposed to be a native of India, but long since naturalised and extensively cultivated in Italy and many countries of Europe, particularly Russia and Poland, where it forms an article of primary commercial importance. It is also cultivated in different parts of America, though not in such quantities as to supersede its importation. It is stronger and coarser in the fibre than flax; but its uses, culture, and management are pretty much the same. When grown for seed, it is a very exhausting crop; but when pulled green, it is considered as a cleaner of the ground. In this country its cultivation is not deemed profitable; so that, notwithstanding the encouragement it has received from Government, and the excellent quality of English hemp, it is but little grown, except in some few districts of Suffolk and Lincolnshire. The quantity raised in Ireland is also inconsiderable. (Loudon's *Encyclopedia of Agriculture.*)

Exceedingly good *huckaback* is made from hemp, for towels and common table cloths. Low-priced hempen cloths are a general wear for husbandmen, servants, and labouring manufacturers; the better sorts for working farmers and tradesmen in the country; and the finer ones, $\frac{7}{8}$ wide, are preferred by some gentlemen for strength and warmth. They possess this advantage over Irish and other linens—that their colour improves in wearing, while that of linen deteriorates. But the great consumption of hemp is in the manufacture of sailcloth and cordage, for which purposes it is peculiarly fitted by the strength of its fibre. English hemp, when properly prepared, is said to be stronger than that of every other country, Russia not excepted, and would, therefore, make the best cordage. It is, however, but little used in that way, or in the making of sailcloth; being principally made into cloth for the uses already stated.

Hemp has been cultivated in Bengal from the remotest antiquity, but not, as in Europe, for the purpose of being manufactured into cloth and cordage. In the Hindoo economy it serves as a substitute for malt; a favourite intoxicating liquor, called banga, being produced from it! This also is the use to which it is applied in Egypt. (Milburn's *Oriental Commerce*; &c.)

The price of hemp fluctuated very much during

the war. In consequence of difficulties in the way of its importation, it stood at a very high level from 1808 to 1814. This was the principal circumstance that originally brought iron cables into use, and the extent to which they are now introduced has contributed materially to diminish the consumption and importation of hemp. (Tooke *On High and Low Prices*, 2nd edition, p. 345.)

We borrow the following particulars, with respect to the hemp trade of Petersburg, from the work of Mr. Borrisow on the commerce of that city:—

Hemp forms a very important article of export from St. Petersburg, and deserves particular notice. It is assorted, according to its quality, into *clean hemp*, or firsts; *out-shot hemp*, or seconds; *half-clean hemp*, or thirds; and *hemp codilla*.

Of the first 3 sorts there are annually exported about 2,000,000 poods, the greatest part in English and American bottoms. It is brought to Petersburg, from the interior beyond Moscow, by water; and its quality depends very much on the country in which it is produced. That brought from Karatshev is the best; next to this, that produced in Belev; hemp from Gshatsk is considered inferior to the latter.

As soon as the hemp is brought down in the spring, or in the course of the summer, it is selected and made up in bundles; both operations being performed by sworn selectors (*brackers*) and binders appointed by Government for this purpose; and it is a well-known fact that this is done with great impartiality and exactness.

A bundle of clean hemp weighs from 55 to 65 poods; ditto out-shot, 48 to 55 ditto; ditto half-clean, 40 to 45 ditto. (1 pood = 36 lbs. avoirdupois.)

Binding of hemp is paid for at the rate of 2 roubles 50 copecks for *clean*, 2 roubles for *out-shot*, and 1 rouble 60 copecks for *half-clean*, per bundle; ½ is paid by the seller, and the other ½ by the purchaser, and is charged accordingly by their agents.

The expense of selecting hemp is 50 copecks per bercovitz (or 10 poods), and is the same for every sort. To every bundle of assorted hemp is attached a ticket with the names of the selector, binder, and owner, and the date and year. Every bundle has also affixed to it a piece of lead, stamped on one side with the name of the selector, and on the other with the sort of hemp, and the time when it was selected. The external marks of good hemp are, its being of an equal green colour and free from spills; but its good quality is proved by the strength of the fibre, which should be fine, thin, and long. The first sort should be quite clean and free from spills; the *out-shot* is less so; and the *half-clean* contains a still greater portion of spills, and is moreover of mixed qualities and colours.

As a perfect knowledge of the qualities of hemp and flax can only be acquired by experience and attention, agents usually employ men constantly occupied in this business, by which means they are sure of getting goods of the best quality, and have the best chance of giving satisfaction to their principals; because, although the hemp is selected by sworn selectors, yet, owing to the quantity of business and the speed with which it must be executed &c., there are often great differences in the same sorts. The charges are in this way somewhat increased; but this is trifling in comparison of the advantage gained. The part separated or picked out in cleaning hemp is called *hemp-codilla*: it is generally made up in small bundles of 1 pood, which are again, when shipped, bound together in large bundles, each consisting of about 30 small ones.

Particular care must be taken to ship hemp and flax in fine dry weather: if it get wet, it heats, and is totally spoiled. For this reason every vessel taking in hemp or flax is furnished with mats to prevent its getting damp. Hemp, being light and bulky, is, when stowed, forced into the hold by means of winches, which renders the operation of loading rather slow.

It may be taken as a general rule that the prices of hemp are highest in the months of May, June, July, and the early part of August; the demand for this article being then greatest, and the exportation to North America being principally effected at this season. Again, the prices of hemp are lowest in the month of September; the reason of which is, that the less opulent hemp-merchants return at the end of this month to their own country in order to make new purchases for the ensuing year, and, rather than be detained, sell the remainder of their stock some roubles below the market price. This causes a general decline; although an unusual demand for the article happening at the same time, or political events or rumours, occasionally produce a contrary effect. Two large warehouses called *ambares* are built in Petersburg for the special purpose of housing hemp, where the greatest order is observed.

HEMP, ITALIAN.—Hemp from Italy is said to be the finest, strongest, and most durable in existence. It is of very white colour—so white that it has been mistaken for East India sunn fibre, but when tanned it is the best material for fishing purposes. At Chatham the nets of various qualities of hemp gave a superiority of one-fourth to Italian hemp over Russian. There is more difficulty in manufacturing this hemp than in other kinds, but the product is so excellent as to compensate for the increased cost. (*Journal Soc. Arts*, December 1860.)

In 1866, 11,621 cwts. of dressed, and 149,562 cwts. of rough hemp, and 11,658 cwts. of tow or codilla of hemp, were imported into England from Italy, and both kinds of goods fetched a higher price than Russian produce.

Account of the Quantities and Values of Hemp, Jute, and Jute Yarn Imported into the United Kingdom in the Four Years 1863–66.

Year	Hemp		Jute, Raw		Jute Yarn	
	Quantities	Value	Quantities	Value	Quantities	Value
	cwts.	£	cwts.	£	lbs.	£
1863	1,039,862	1,915,745	1,225,033	1,505,996	1,011,864	23,832
1864	1,023,763	1,768,702	2,024,377	2,192,479	1,265,317	58,159
1865	1,065,795	1,744,482	2,109,942	1,774,092	1,958,934	49,759
1866	1,001,098	1,720,321	1,623,903	1,456,241	2,005,461	44,904

From 50 to 75 per cent. of the imports of hemp are of Russian origin. Of the total quantity of hemp (2,737,578 poods, worth 8,049,146 silver roubles) exported from Russia in 1863, 1,462,580 poods, valued at 4,387,588 silver roubles, were sent to Great Britain. The second source of supply after Russia is Italy, and particularly Venetia.

Sixty poods of hemp and 40 poods of codilla

make a last at Petersburg; 63 poods make an English ton.

Riga hemp fetches a higher price than that of Petersburg. It is divided into 3 sorts: viz. rein, rhine or clean, out-shot, and pass or half-clean. The following are the prices of hemp &c., as quoted in the London markets:—

		£	s.	£	s.
Hemp, St. Petersburg clean	per ton	36	0 to	34	5
Outshot	"	0	0	0	0
Half-clean	"	36	0	0	0
Riga, Rhine	"	40	0	0	0
Manilla	"	43	0	[illegible]	0
East Indian, Sunn	"	22	0	27	0
Jute	"	14	0	23	10
Coir yarn	"	25	0	72	0
Junk	"	20	0	25	0
Fibre	"	18	0	29	0
Flax, Riga	"	53	0	59	0
St. Petersburg, 12 head	"	43	0	52	0
9 head	"	32	0	34	0
Egyptian	"	55	0	60	0

We subjoin a statement of the various charges on the exportation of hemp from Petersburg, and on its importation into this country:—

Clean Hemp.—1 bundle=63 poods=1 ton.

	rou.	cop.
Duty 3 rou. 60 cop. per bercovitz	22	68
Additional duty, 10 per cent.	2	27
Quarantine duty, 1 per cent.	0	22
	25	17
Custom-house charges, 4 per cent.	1	1
Receiving, weighing, and shipping, 3½ rou. per bundle	3	75
Bracking, 90 cop. per bercovitz	5	15
Binding, 40 cop. per ditto	2	52
Lighterage and attendance to Cronstadt, 8 rou. per bundle	8	0
Retending, 2½ rou. per bundle, ¼ charged	1	12
Brokerage, 60 cop. per ton	0	60
	45	32

Brokerage, ½ per cent.
Commission and extra charges, 3 per cent.
Stamps on drafts, ¼ per cent. } ½ per cent.
Brokerage, ¼ per cent. }

Charges of Importation per Ton, taking the price at 40l. per Ton.

		£	s.	d.
Insurance, say 1l., and policy		0	10	6
Freight, 5l. 6d. per ton		2	12	6
Customs and Russia dues		4	13	8
Landing charges		0	10	0
Sound dues		0	5	0
Discount, 3½ per cent.		1	10	0
Brokerage		0	4	0
	per ton	£10	5	8

In the above calculation no allowance is made for damage, which, if care be taken to select a good vessel and an early season, does not amount to much. The estimates are nearly the lowest rates of charge. The insurance, indeed, is sometimes as low as 12s. 6d. per cent., and policy. That, however, is only in the very earliest part of the season: it rises to 5l. per cent. in the autumn.

Out-shot Hemp.—1 bundle=63 poods=1 ton.

	rou.	cop.
Fixed charges	46	11

Other charges same.

Half clean Hemp.—1½ bundles=63 poods=1 ton.

	rou.	cop.
Fixed charges	48	71

Other charges same.

HEMP, MANILLA. — The leaves of several kinds of plantain (*Musa*) yield a strong fibre, susceptible of various economical uses, and of great importance in tropical countries. Of these, one of the most valuable is the *Musa textilis*, known by the local name of Abacà, a shrub or herbaceous plant which grows abundantly in the islands of the Indian Archipelago, from the Equator to about the 20th degree of north latitude. The inhabitants of the Philippine Islands are said to pay their tribute, and supply themselves with every necessary of life, from the sale of Abacà or Manilla hemp. In 1864, 516,745 piculs, or about 620,000 cwts., valued at 2,673,745 dols. (about 544,100*l.*), were exported from these islands.

The Manilla hemp is procured from both wild and cultivated trees, the former being considered private property. The plant is cut down when about a year and a half old, just before it flowers, the strength of the fibre being said to be inferior after fructification of the plant. The fibre is in fact the petioles of the leaves. The outer fibres are hardest and strongest, are called *bandala* by the natives, and are used for cordage. The inner layer of fine fibres is called *lupis*, which are used for delicate fabrics. According to many authorities, Manilla rope is superior in strength and endurance to that constructed from hemp. The fruit of the *Musa textilis*, unlike that of other kinds of plantain, has no economical value. The fibre is of great and increasing importance.

HEMP-SEED (Fr. chenevis, chenevi; Ger. hanfsaat; Ital. cannapuccia; Lat. semen cannabinum; Russ. konopljanoe semja). The seed of hemp. The best hemp-seed is that which is brightest, and will not break when rubbed. It is used either as seed, or for crushing for oil, or as food for fowls. Previously to 1832 it was loaded with a duty of 2*l.* per quarter, which was then reduced to 1*s.* per ditto, and in 1845 was wholly repealed.

In 1866 we imported 11,083 quarters of hemp-seed, of which Holland supplied 5,696 quarters. It was valued at 40*s.* per quarter. Our exports during the same year amounted to only 47 quarters.

HERRINGS AND HERRING FISHERY. The herring (*Clupea harengus* of Linnæus) is a fish too well known to require any description. It is everywhere in high esteem, both when fresh and when salted.

'Herrings are found from the highest northern latitudes yet known, as low as the northern coasts of France. They are met with in vast shoals on the coast of America as low as Carolina. In Chesapeake Bay is an annual inundation of those fish, which cover the shore in such quantities as to become a nuisance. We find them again in the seas of Kamtschatka, and probably they reach Japan. The great winter rendezvous of the herring is within the Arctic Circle: there they continue for many months, in order to recruit themselves after the fatigue of spawning; the seas within that space swarming with insect food in a far greater degree than those of our warmer latitudes. This mighty army begins to put itself in motion in spring. They begin to appear off the Shetland Isles in April and May. These are only the forerunners of the grand shoal, which comes in June; and their appearance is marked by certain signs, such as the numbers of birds, like gannets and others, which follow to prey on them; but when the main body approaches, its breadth and depth are such as to alter the appearance of the very ocean. It is divided into distinct columns of 5 or 6 miles in length, and 3 or 4 in breadth; and they drive the water before them, with a kind of rippling. Sometimes they sink for the space of 10 or 15 minutes, and then rise again to the surface; and in fine weather reflect a variety of splendid colours, like a field of the most precious gems.

'The first check this army meets in its march southward is from the Shetland Isles, which divide it into two parts: one wing takes to the east, the other to the western shores of Great Britain, and fill every bay and creek with their numbers: the former proceed towards Yarmouth, the great and ancient mart of herrings; they then pass through the British Channel, and after that in a manner disappear. Those which take towards the west, after offering themselves to the Hebrides, where the great stationary fishery is, proceed to the north of Ireland, where they

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meet with a second interruption, and are obliged to make a second division; the one takes to the western side, and is scarcely perceived, being soon lost in the immensity of the Atlantic; but the other, that passes into the Irish Sea, rejoices and feeds the inhabitants of most of the coasts that border on it. These brigades, as we may call them, which are thus separated from the greater columns, are often capricious in their motions, and do not show an invariable attachment to their haunts.

'This instinct of migration was given to the herrings that they might deposit their spawn in warmer seas, that would mature and vivify it more assuredly than those of the frozen zone. It is not from defect of food that they set themselves in motion; for they come to us full of fat, and on their return are almost universally observed to be lean and miserable. What their food is near the Pole, we are not yet informed; but in our seas they feed much on the *Oniscus marinus*, a crustaceous insect, and sometimes on their own fry.

'They are full of roe in the end of June, and continue in perfection till the beginning of winter, when they deposit their spawn. The young herrings begin to approach the shores in July and August, and are then from ½ an inch to 2 inches long. Though we have no particular authority for it, yet, as very few young herrings are found in our seas during winter, it seems most certain that they must return to their parental haunts beneath the ice. Some of the old herrings continue on our coast the whole year.' (Pennant's *British Zoology*.)

The herring was unknown to the ancients, being rarely, if ever, found within the Mediterranean. The Dutch are said to have engaged in the fishery in 1164. The invention of pickling or salting herrings is ascribed to one Beukels, or Beukelson, of Biervliet, near Sluys, who died in 1397. The Emperor Charles V. visited his grave, and ordered a magnificent tomb to be erected to his memory. Since this early period the Dutch have uniformly maintained their ascendancy in the herring fishery; but, owing to the Reformation and the relaxed observance of Lent in Catholic countries, the demand for herrings upon the Continent is now far less than in the fourteenth and fifteenth centuries.

Herrings, Dutch.—In 1863 the number of vessels engaged in the fishery was 86; the exportation 35,089 tons, of which 21,000 were sent to Germany, 5,000 to Belgium, 3,891 to Hanover, Bremen &c., 709 to Sweden and Norway, and 2,219 to the United States. But of this amount 16,699 tons were imported chiefly from Great Britain. The fresh herring trade secured 38,500,000 fish, the average price being 18*s.* 4*d.* per 1,000. (*Annales du Commerce Extérieur.*)

Herrings, Norwegian.—The Acting Consul-General at Christiania, in his *Report for* 1866 *on Fisheries*, stated that the Norwegian herring fishery, though engaging less capital, employs more hands than the cod fishery; the population actually engaged being estimated at 60,000. He gives the average annual export of spring herrings at 600,000, and of summer herrings at 200,000 barrels; Russia, Sweden, and Prussia being the chief consumers. In Norway the telegraph is most usefully employed to give notice to the fishermen of the movements of the shoals.

Importance of the Herring Fishery. Progress of it in Great Britain.—There is, perhaps, no branch of industry the importance of which has been so much over-rated as that of the herring fishery. For more than two centuries, company after company has been formed for its prosecution, fishing villages have been built, piers constructed, boards and regulations established, and vast sums expended in bounties; and yet the fishery never got into a healthy state till it was left to its own resources. The false estimates that have been long current with respect to the extent and value of the Dutch herring fishery contributed more, perhaps, than any thing else to the formation of exaggerated notions of the importance of this business. That the Hollanders prosecuted it to a greater extent, and with far greater success, than any other people, is, indeed, most true. There is not, however, the shadow of a ground for believing that they ever employed, as has often been stated, about 450,000 individuals in the fishery and the employments immediately subservient to it. We question whether they ever employed so many as 50,000. At the time when the Dutch carried on the fishery to the greatest extent, the entire population of the Seven United Provinces did not certainly exceed 2,400,000; and deducting a half for women, and from a half to two-thirds of the remaining 1,200,000 for boys and old men, it would follow, according to the statement in question, that every able-bodied man in Holland must have been engaged in the herring fishery! It is astonishing how such ridiculously exaggerated accounts ever obtained any circulation, and still more so that they should have been referred to and quoted without, apparently, any doubt being ever entertained of their authenticity, down to our own times! They seem to have been first set forth in a treatise ascribed to Sir Walter Raleigh; and, what is singular, they were admitted by De Witt into his excellent work, *The True Interest of Holland*. They have been implicitly adopted by Sir John Barrow in the article 'Fisheries' in the *Encyclopædia Britannica*. Had they been sifted ever so little, their falsehood would have been obvious, and we should have saved many hundreds of thousands of pounds that have been thrown away in attempting to rival that which never existed.

It would be impossible, within the limits to which this article must be confined, to give any detailed account of the various attempts that have been made at different periods to encourage and bolster up the herring fishery. In 1749, in pursuance of a recommendation in his Majesty's speech at the opening of Parliament, and of a report of a committee of the House of Commons, 500,000*l.* was subscribed for carrying on the fisheries under a corporation called 'The Society of the Free British Fishery.' The Prince of Wales was chosen governor of the Society, which was patronised by men of the first rank and fortune in the state. But this Society did not trust entirely to its own efforts for success. The duties were remitted upon the salt used in the fisheries; and besides this reasonable encouragement, a high tonnage bounty was granted upon every buss fitted out for the deep sea fishery. In consequence, many vessels were sent out, as Adam Smith has truly stated, not to catch herrings, but to *catch the bounty*; and to such an extent was this abuse carried, that in 1759, when the tonnage bounty was 50*s.*, the almost incredible sum of 15*9l.* 7*s.* 6*d.* was paid as bounty *upon every barrel of merchantable herrings that was produced.* (*Wealth of Nations*, p. 231.) Despite this encouragement, such were the waste and mismanagement of the Company's affairs that it was speedily destroyed. Smith says that in 1794 hardly a vestige remained of its having ever been in existence.

But notwithstanding this ill success, a new

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company was formed, for nearly the same objects, in 1786, of which George III. was patron. It has had nearly the same fate. 'For a season or two, busses were fitted out by the Society; but if every herring caught had carried a ducat in his mouth, the expense of its capture would scarcely have been repaid. The bubble ended by the Society for Fishing in the Deep Sea becoming a kind of building society, for purchasing ground in situations where curers and fishermen find it convenient to settle, and selling or letting it in small lots to them, at such advance of price as yields something better than fishing profits.' (See an excellent article on the *Herring Fishery* in the 11th Number of the *Quarterly Journal of Agriculture*.)

In 1808 a fresh attempt was made for the improvement and extension of the fishery. The Act 48 Geo. III. established a distinct set of commissioners for the superintendence of all matters connected with the fishery, and authorised them to appoint a sufficient number of fishery officers, to be stationed at the different ports, whose duty is to see that the various regulations with respect to the gutting, packing &c. of the herrings, and the branding of the barrels, are duly carried into effect. In 1809 a bounty of 3*l.* per ton was granted on all vessels employed in the deep sea herring fishery, of above 60 tons burden, but payable only on 100 tons; and in 1820 a bounty of 20*s.* per ton, which, under certain specified circumstances, might be increased to 50*s.*, was granted on all vessels of from 15 to 60 tons fitted out for the shore herring fishery; and, exclusively of these bounties on the tonnage, a bounty of 2*s.* per barrel was allowed on all herrings cured gutted during the 6 years ending April 5, 1815, and a bounty of 2*s.* 8*d.* per barrel on their exportation, whether cured gutted or ungutted. During the 11 years ending April 5, 1826, the bounty on herrings cured gutted was 4*s.* per barrel.

It is stated in the article already referred to, that the cost of a barrel of cured herrings is about 16*s.*, one half going to the fisherman for the green fish, the other half to the curer for barrel, salt, and labour. The bounty of 4*s.* per barrel was, therefore, equal to *half* the value of the herrings as sold by the fisherman, and to *one-fourth* of their value as sold by the curer! In consequence of this forced system, the fishery was rapidly increased. The following statement, extracted from the *Reports of the Commissioners of the Fishery Board*, shows the progress the fishery has made since 1809:—

Account of the Total Quantity of White Herrings Cured, Branded, and Exported, in so far as the same have been brought under the cognisance of the Officers of the Fishery, during the undermentioned Years, ending till 1844 *on April* 5; *since then till* 1852, *on January* 5; *and thereafter on December* 31; *distinguishing each Year, and the Herrings cured Gutted, from those cured Ungutted.*

Year	Total Quantity of Herrings Cured			Total Quantity of Herrings Branded	Total Quantity of Herrings Exported
	Gutted	Ungutted	Total		
	barrels	barrels	barrels	barrels	barrels
1811	65,430	26,393	91,823	78,648	78,513
1815	105,774	51,765	157,539	87,776	141,764
1820	347,196	55,301	382,497	268,760	245,130
1825	303,597	44,268	347,865	27,851	272,056
1830	280,933	45,027	325,960	218,118	181,634
1832	313,114	49,947	363,060	157,859	211,134
1833	356,634	65,179	416,813	168,999	226,814
1834	390,677	68,135	458,812	178,990	274,665
1835	211,944	60,074	271,017	85,159	158,805
1836	309,234	88,180	397,414	124,347	273,065
1837	290,169	107,660	397,829	114,192	189,265
1838	389,460	105,374	494,834	141,552	251,158
1839	382,220	175,350	558,570	165,699	320,200
1840	400,579	158,365	558,944	152,931	252,222
1841	431,187	126,118	557,305	134,189	256,157
1842	489,608	177,824	667,433	186,977	284,750
1843	448,990	181,129	630,119	102,717	291,305
1844	477,566	191,803	669,369	182,988	313,446
1846	411,271	121,375	532,646	144,473	247,193
1847	414,315	192,552	606,868	156,278	253,744
1848	377,389	189,734	567,124	115,309	246,181
1849	394,967	251,841	646,808	153,944	249,991
1850	507,284	263,472	770,756	213,246	340,806
1851	378,187	164,872	543,059	172,924	266,998
1852	417,353	176,797	594,151	201,636	291,944
1853	560,567	217,670	778,237	248,156	343,529
1854	458,379	177,982	636,362	211,844	361,696
1855	582,715	183,988	766,703	280,884	442,294
1856	466,429	143,459	609,888	262,291	347,611
1857	465,273	115,821	580,815	218,992	361,169
1858	470,265	166,740	636,124	253,574	360,987
1859	381,959	110,428	491,187	158,676	272,979
1860	496,415	184,773	681,188	231,913	377,603
1861	519,173	149,653	668,826	265,317	390,313
1862	656,048	174,456	830,504	346,112	494,910
1863	507,225	147,593	654,818	277,580	407,264
1864	476,781	164,868	641,649	217,372	384,507
1865	470,359	151,263	621,623	206,785	390,201
1866	497,814	160,576	658,390	249,940	380,666

On looking at this table, it is seen that the fishery made no progress under the new system till 1815, when the bounty was raised to 4*s.* This is a sufficient proof of the factitious and unnatural state of the business. Its extension, under the circumstances in question, instead of affording any proof of its being in a really flourishing condition, was distinctly the reverse. Individuals without capital, but who obtained loans sufficient to enable them to acquire boats, barrels, salt &c. on the credit of the bounty, entered in vast numbers into the trade. The market was most commonly glutted with fish, and yet the temptation held out by the bounty caused it to be still further overloaded. Great injury was consequently done to those fish curers who possessed capital; and even the *fishermen* were injured by the system. 'Most of the boats employed in the fishery never touch the water but during 6 weeks, from the middle or end of July to the middle of September. They are owned and sailed, not by regular fishermen following that vocation only, but by tradesmen, small farmers, farm-servants, and other landsmen, who may have sufficient skill to manage a boat at that season, but who do not follow the sea except for the 6 weeks of the herring fishery, when they go upon a kind of gambling speculation,

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of earning a twelvemonth's income by 6 weeks' work.' (*Quarterly Journal*, No. 11, p. 653.)

It has been often said, in vindication of the bounty system, that by extending the fishery it extended an important nursery for seamen; but the preceding statement shows that such has not been its effect. On the contrary, it has tended to depress the condition of the genuine fisherman by bringing a host of interlopers *into* the field; and it has also been prejudicial to the little farmers and tradesmen by withdrawing their attention from their peculiar business, that they may embark in what has hitherto been little less than a sort of lottery adventure.

These consequences and the increasing amount of the sum paid for bounties at length induced the Government to adopt a different system. By an Act passed in 1825, the bounty of 2*s.* 8*d.* on exported herrings was made to cease in 1826, and 1*s.* was annually deducted from the bounty of 4*s.* per barrel paid on gutted herrings, till it ceased in 1830. And the foregoing table shows conclusively that those who contended that the best way to promote the fishery was to let it alone, were in the right; the quantity of herrings cured and the quantity exported having been both nearly doubled since the cessation of the bounties. The fishery is now for the first time placed on a secure foundation; the supply is proportioned to the real demand; while the genuine fishermen, and those curers who have capital of their own, are no longer injured by the competition of landsmen and others allured to the business by factitious encouragement and trading on capital furnished by Government.

The repeal of the salt laws, and of the duty on salt, which preceded the repeal of the bounty, was of signal service to the fishery. It is true that salt used in the fisheries was exempted from the duty; but in order to prevent the revenue from being defrauded, so many regulations were enacted, and the difficulties and penalties to which the fishermen were in consequence subjected were so very great, that some of them chose rather to pay the duty upon the salt they made use of than to undertake compliance with the regulations.

It is to be regretted that when Government repealed the bounty, it did not also abolish the 'Fishery Board,' and the officers and regulations it had appointed and enacted. So long as the bounty existed, it was quite proper that those who claimed it should be subjected to such regulations as Government chose to enforce; but since it has been repealed, we see no reason why the fishery should not be made perfectly free, and every one allowed to prepare his herrings as he thinks best. It is said, indeed, that were there no inspection of the fish, frauds of all sorts would be practised; that the barrels would be ill made, and of a deficient size; that the fish would not be properly packed; that the bottom and middle of the barrels would be filled with bad ones, and a few good ones only placed at the top; that there would not be a sufficiency of pickle &c. But it is obvious that the reasons alleged in vindication of the official inspection kept up in the herring fishery might be alleged in vindication of a similar inspection in almost every other branch of industry. It is, in point of fact, utterly useless. It is an attempt, on the part of Government, to do that for their subjects which they can do better for themselves. Supposing the official inspection were put an end to, the merchants and others who buy herrings of the curers would themselves inspect the barrels; and while any attempt at fraud by the curers would thus be effectually obviated, they would be left at liberty to prepare their herrings in any way that they pleased, without being compelled, as at present, to follow only one system, or to prepare fish in the same way for the tables of the poor as for those of the rich. So far, indeed, is it from being true that the inspection system tends to put down trickery, that there is much reason to think that its effect is directly the reverse. The *surveillance* exercised by the officers is anything but strict; and the official *brand* is often affixed to barrels which, were it not for the undeserved confidence that is too frequently placed in it by the unwary, would lie on the curer's hands. It is rather a security against the detection of fraud than against its existence.

The grand object of the herring fishery 'Board' has been to enforce such a system of curing as would bring British herrings to a level with those of the Dutch. In this, however, they have completely failed; Dutch herrings generally fetching double the price of British herrings in every market of Europe. Neither is this to be wondered at. The consumers of Dutch herrings are the inhabitants of the Netherlands and of the German towns, who use them rather as a luxury than as an article of food, and who do not grudge the price that is necessary to have them in the finest order. The consumers of British herrings, on the other hand, are the poor of Ireland and Scotland. Cheapness is the prime requisite in the estimation of such persons; and nothing can be more entirely absurd than that a public Board should endeavour to force the fish curers to adopt such a system in the preparation of herrings as must infallibly raise their price beyond the means of those by whom they are bought. Why should not the taste of the consumers be consulted as much in this as in anything else? It would not be more ridiculous to attempt to have all cheese made of the same richness and flavour as Stilton than it is to attempt to bring up all herrings to the standard of the Dutch.

We do, therefore, hope that an end may be put to this system, and that our legislators and patriots will cease to torment themselves with schemes for the improvement of the fisheries. The very best thing they can do for them is to let them alone. It is not a business that requires any sort of adventitious encouragement. Every obstacle to the easy introduction of fish into London and other places should certainly be removed, but all direct interference with the fishery is sure to be in the last degree pernicious.

The commissioners appointed in 1863 to enquire into the deep-sea fisheries of Great Britain—Lord Hobart, and Messrs. Caird and Huxley—in the course of their exceedingly valuable and elaborate *Report*, concur in the view given in the text as to the inexpediency of continuing the present branding system. Most English curers are decidedly adverse to it; and though the foreign merchants are divided in opinion, the more intelligent are against the practice. As the *Report* very conclusively says, p. 78, 'The maintainers of the system say that if the British Government will not go on inspecting and guaranteeing the herrings, the Königsberg and Stettin merchants will get some one else to do it for them. And why not? What has the English Government to do with protecting herring merchants against the chicanery of their correspondents in the interior, when it allows merchants of every other description to take their own risks?' About half the barrels cured are branded.

Numerous Acts have been passed with a view to regulating the British white herring fishery, from 48 Geo. III. c. 110 onwards.

This fishery is regulated chiefly by the provisions of 23 & 24 Vict. c. 92.

The close time of the Scotch fisheries is from January 1 to August 31 between Ardnamurchan on the north and the Mull of Galloway westwards, altered by 28 & 29 Vict. c. 22 to February 1 and May 31, or between Ardnamurchan on the south, and Cape Wrath on the north, between January 1 and May 20, under the penalties of forfeiture and fine not exceeding 20*l.* The commissioners are intrusted with powers to manage and protect fisheries, and may prohibit trawl, beam, and drag nets. These orders were approved by the Treasury, and published. Fishing boats, sails, buoys, and principal floats must be marked and numbered; names of owners must be painted on boats in letters 2 inches long. The Fishery Board, in their *Report* of June 1, 1867, advocate the removal of the prohibitions against the use of the seine, or herring trawl net.

Of the 404,801 barrels of herrings exported from the United Kingdom in 1866, 176,731 went to Prussia, 58,256 to Hanover, 26,099 to Denmark, 15,024 to Tuscany. The exportation of herrings to the West Indies, which had of late years rapidly declined, in consequence, no doubt, of the emancipation of the slaves, has now wholly ceased.

The 24 & 25 Vict. c. 72 has the following sections, viz.:—

Sec. 1. Imposing penalties for selling herrings or herring fry during the close time 5*l.* to 20*l.*, with forfeiture of nets, boats, and other instruments.

Sec. 3. Imposing penalties on defacing marks or numbers on boats, sails, &c., 2*l.* to 10*l.*

Sec. 5. Permitting sprat fishing within a certain part of the Firth of Forth.

Sec. 6. Declaring the import of 23 & 24 Vict. c. 92 s. 13 to apply to all nets other than usual drift nets, having meshes of the legal size of one inch from knot to knot.

Sec. 7. Empowering constables to exercise the functions created under this Act, when acting by authority of the sheriff. Penalties on resistance, fine not exceeding 50*l.*, or imprisonment not exceeding 60 days.

HIDES (Ger. haütte; Dutch, huiden; Fr. peaux; Ital. cuoja; Span. pellejos, pieles; Russ. koshi) signify generally the skins of beasts; but the term is more particularly applied to those of large cattle, such as bullocks, cows, horses &c. Hides are raw or green—that is, in the state in which they are taken off the carcase, or dressed with salt, alum, and saltpetre, to prevent them from putrefying; or they are cured or tanned. The hides of South America are in the highest repute, and vast quantities of them are annually imported. The customs duty formerly imposed on hides when imported was repealed by Sir Robert Peel in 1845, and, as was to be expected, the imports have since been very largely increased. The subjoined table shows the sources whence hides are principally brought, and the supplies furnished by each:—

Account of the Various Descriptions of Hides Imported into the United Kingdom in 1866, *specifying the Countries whence they were Imported, the Quantities brought from each, and their Values.*

	Hides not Tanned, Curried, or Dressed			Hides Tanned or in some way Dressed			
	Wet	Dry	Value	Unvarnished	Varnished	Tanned	Value
	cwts.	cwts.	£	lbs.	lbs.	lbs.	£
Russia	..	16,216	72,436	132,089	..	52,092	18,119
Prussia	..	5,593	23,710	..	..	32,871	1,574
Denmark	21,987	..	37,721	..	..	..	..
Hanover	..	..	..	..	..	18,592	868
Hanse Towns	3,180	..	5,441	..	..	51,886	2,186
Hamburg	29,755	7,784	80,508	160,782	25,010	290,877	30,222
Holland	24,464	5,263	66,083	535,706	347,424	662,904	110,757
Belgium	25,741	2,616	56,502	21,335	..	15,308	2,703
France	20,522	8,084	71,983	2,699,152	268,786	186,169	340,242
United States	..	1,409	3,944	..	..	875,891	29,016
Central America	6,294	..	15,420	..	..	..	..
British North America	..	..	..	..	..	291,535	10,057
Brazil	125,927	9,225	338,868	..	..	..	..
Chili	9,716	1,544	48,414	..	..	..	..
Uruguay	259,900	..	587,639	..	..	..	..
Peru	6,109	8,188	42,576	..	..	..	..
Argentine Confederation	110,197	1,816	296,022	..	..	..	..
British Possessions in South Africa	12,244	1,913	27,577	..	..	..	..
India	..	158,077	613,911	..	..	457,103	22,447
Straits Settlements	..	11,206	34,407	..	..	..	..
Australia	117,110	2,151	225,123	23,578	..	2,175,828	84,475
Other parts	22,682	10,097	74,324	51,449	12,842	27,394	7,062
Total	785,909	270,016	2,811,057	3,435,799	653,262	4,473,253	645,951

N.B.—The importation of infected or diseased hides, skins, hoofs, horns &c. may be prohibited by Order in Council.

Dry hides imported from the north-east of Europe bear the highest price, while the best wet hides are imported from South America and Australia. In 1866 the average price of the former per cwt. was 4*l.* 9*s.*, of the latter 2*l.* 3*s.* The best dressed leather is that from France, averaging 1*s.* 8*d.*, 6*s.* 5*d.*, and 1*s.* per lb. under each of the heads of the foregoing table. Russia tanned leather was worth in the same year 2*s.* 7*d.* per lb.

For the eight years ending with 1866 the imports of hides and leather from the 'British West Indies' have become unimportant, while those from Australia and British India have greatly increased both in quantity and significance. There is but little variation in the annual imports of raw hides from year to year, though the quantity of leather imported into the United Kingdom has considerably increased within the period referred to above.

In 1866 we exported 671,077 hides, mostly foreign, of the value of 722,890*l.*; and in 1867 we imported 975,168, valued at 3,104,246*l.*

HOGSHEAD. A measure of capacity, containing 52½ imperial gallons. A hogshead is equal to ½ a pipe. [WEIGHTS AND MEASURES]

HOLIDAYS are understood to be those days, exclusive of Sundays, on which no regular public business is transacted at particular public offices. They are either fixed or variable. The *variable holidays* are, Ash Wednesday, Good Friday, Easter Monday and Tuesday, Holy Thursday, Whit Monday and Tuesday.

No holidays are kept by the Bank of England, the Customs, and the Inland Revenue Department, except Christmas Day, Good Friday, the Queen's birthday, and such days as may be appointed by proclamation for the purpose of a general fast, or by warrant of the authorities.

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HONEY (Dutch, honig, honing; Fr. miel; Ger. honig; Ital. mele; Lat. mel; Russ. med; Span. miel). A vegetable juice collected by bees.

'Its flavour varies according to the nature of the flowers from which it is collected. Thus, the honeys of Minorca, Narbonne, and England are known by their flavours; and the honey prepared in different parts even of the same country differs. It is separated from the comb by dripping and by expression: the first method affords the purest sort; the second separates a less pure honey; and a still inferior kind is obtained by heating the comb before it is pressed. When obtained from young hives, which have not swarmed, it is denominated *virgin honey*. When recently separated from the honey-comb, it is a viscid translucent liquid of a brownish-yellow colour, which gradually becomes partially crystalline and opaque. It has a peculiar heavy odour and a very sweet taste. It is sometimes adulterated with flour, which is detected by mixing it with tepid water: the honey dissolves, while the flour remains nearly unaltered.' (Thomson's *Dispensatory*; *British Pharmacopœia*, 1867.)

In 1866 we imported 13,521 cwt. of honey, and exported 1,920 cwt.

HONG-KONG. The British Colony of Hong-Kong is situated on an island at the mouth of the Canton river [CANTON], in lat. 22° 16′ 27″ N., and long. 114° 10′ 48″ E., 9 miles long by about 5 where broadest, the whole surface scarcely occupying 18 square miles. It was ceded by the Chinese to the British in 1841. This island was then distinguished from myriads of others on the same coast by its excellent harbour alone, and was looked upon chiefly as a naval and military station. Within a quarter of a century, however, its growth has been so rapid that its population was on December 31, 1866, according to the Registrar-General's Return, 115,000, exclusive of the military and naval forces.

The city of Victoria faces the anchorage, and the cession in 1860 by the Chinese of a part of the mainland on the opposite shore, called the Peninsula of Kowloong, places both sides of the harbour under British jurisdiction.

The prosperity of Hong-Kong is the result of its establishment as a free port at the gates of China, and the consequent concentration of merchandise there, and the influx of a large population, nine-tenths of which are natives. This vast multitude finds employment in connection with shipping, the European mercantile establishments, and petty trade. Neither agriculture nor manufactures are carried on in Hong-Kong, the surface of the island being almost exclusively mountainous. Some fifteen years elapsed from the time of its cession before the colony became self-supporting. For its administration see COLONIES, &c.

Exclusive of taxes levied for police and municipal purposes, its resources are chiefly derived from crown lands and licenses on various trades. The following is a synopsis of the revenue of Hong-Kong for 1865:—

	£
Land revenue	45,443
Rents, exclusive of land	10,034
Licenses	24,357
Taxes, police and lighting rates	57,024
Postage	24,419
Fines and fees of courts	4,561
Fees of office	4,996
Sundry receipts	16,883
Total	175,717

The expenditure for the same period amounted to 195,376*l*. The ordinary revenue of the colony for 1866 is stated by the Governor at 160,000*l*. (*Despatch* of October 29, 1867.)

The trade of Hong-Kong is exclusively one of transhipment, the merchandise of Europe being distributed from this convenient centre to the ports of China and Japan, for which also it forms the head quarters for banking. In 1866 no fewer than 3,783 British and foreign vessels entered and cleared from the port, representing 2,015,747 tons: of these, 1,727 vessels were British, of 1,047,447 tons. No account of the native craft frequenting the port was taken till 1866, when in the first half of the year it was ascertained that 26,856 native vessels, equal to 648,825 tons, arrived and cleared from Hong-Kong. Doubling these figures, an approximate estimate for the whole year will be 53,712 native vessels, of 1,297,650 tons.

In 1866 there belonged to the port of Victoria 74 sailing vessels of 24,789 tons, besides 20 steamers of 6,208 tons.

The number of foreign vessels trading regularly from Hong-Kong is considerable, but the annual aggregate is swollen by the number of small vessels under the Hanseatic and other Continental flags, which make short coasting voyages. These monopolise in a great measure the carrying trade of pulse and bean cake from the northern to the southern ports of China, and the transport of camphor and other products of Formosa. The rapid development of steam-traffic tends to interfere with the larger sailing vessels, though at certain seasons considerable employment is found for the latter in the transport of rice from Indian and Burmese ports to Hong-Kong. The emigration of Chinese to California employs a respectable amount of tonnage. Two great and competing steam-lines connect Hong-Kong with Europe, viz., the Peninsular and Oriental Company, and the Compagnie des Messageries Impériales. Daily steamers connect Hong-Kong with Canton.

No port charges of any description are levied upon European vessels. A copy of the harbour regulations is presented to the master of every merchant vessel on her entering the port.

Hong-Kong possesses the undermentioned dock accommodation, viz.:—

Dock No. 1.

Built of granite:

Length	330 feet
Breadth	80 ,,
Depth of water at spring tides	18½ ,,
neap tides	16 ,,

New Dock No. 2.

Built of granite:

Length	400 feet
Breadth	90 ,,
Depth of water at spring tides	21½ ,,
neap tides	21½ ,,

and others are in progress. Ships of the largest draught of water can enter the harbour with perfect safety.

Banks.—Agencies of from 8 to 12 English or Indian Banks are established here, and a branch of the French Comptoir d'Escompte, besides a local bank having a special Colonial charter. Almost all these, and especially the last, have an extensive circulation. Branches are established by the majority at Shanghai and other ports in China and Japan.

Money.—Until of late, the foreign dollar and the Chinese copper cash have been the sole currency of Hong-Kong; but by Order in Council of January 9, 1863, the establishment of a mint was authorised for the coinage of dollars and copper pieces representing $\frac{1}{100}$ and $\frac{1}{1000}$ dollar.

The coins of smaller denominations struck in England have been current in Hong-Kong since 1863, but the mint in the colony was not opened for the coinage of dollars till May 1866. At present (1866) the Mexican dollar is almost the sole circulating medium.

The method of conducting business at Hong-

Kong is precisely similar to that described under the head of CANTON.

It would appear from the Statistical Abstract that the value of the imports into the United Kingdom from Hong-Kong has fallen from 2,881,929*l.* in 1864, to 183,373*l.* in 1867. Annexed are statements exhibiting the extent of the direct trade between this dependency and the mother country during the three years ending with 1866.

Account showing the Quantities and Values of the Imports into the United Kingdom from Hong-Kong in 1864–66.

Articles		Quantities			Computed Real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Camphor	cwts.	18,399	5,445	4,035	90,074	25,902	24,184
Cassia lignea	lbs.	755,467	736,999	97,923	29,160	28,575	4,225
China or porcelain ware and earthenware	cwts.	125	623	497	2,018	6,838	5,749
Cotton, raw	,,	309,412	110,193	19,568	2,570,600	552,059	89,450
Oil, chemical, essential, or perfumed:							
Cassia	lbs.	29,832	25,234	13,571	13,201	9,840	5,129
Other sorts	,,	75,376	16,477	38,943	16,105	4,809	7,258
Seeds: Aniseed	cwts.	1,808	344	958	6,229	1,978	2,095
Silk, raebs or husks, and waste silk	,,	95	690	172	1,064	17,245	3,744
Raw	lbs.	10,873	6,667	16,564	11,596	8,934	19,966
Sugar, unrefined	cwts.	4,272	1	17	5,571	1	21
Tea	lbs.	1,316,654	923,577	1,033,679	98,537	70,094	83,593
Tin	cwts.	..	599	1,606	..	2,805	6,123
All other articles	value	..	..	..	37,814	55,158	26,856
Total value		..	..	..	2,881,929	773,068	283,373

Account showing the Quantities and Values of the Exports from the United Kingdom to Hong-Kong in 1864–66.

Articles		Quantities			Declared Real Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Apparel and haberdashery	value	..	..	..	17,913	18,085	31,094
Arms and ammunition	,,	..	..	..	15,824	23,295	75,388
Beer and ale	barrels	8,879	8,853	11,977	23,873	31,390	38,346
Coals, cinders, and culm	tons	66,236	44,738	53,456	35,102	23,021	31,060
Copper, wrought and unwrought	cwts.	9,578	15,119	12,243	42,760	58,916	50,974
Cotton yarn	lbs.	1,793,564	860,988	4,503,450	219,901	61,652	405,544
Cottons, entered by the yard	yards	22,618,569	37,293,330	46,440,754	605,145	818,306	1,095,730
at value	value	..	..	..	972	7,813	5,334
Earthenware and porcelain	,,	..	..	..	3,914	3,768	5,835
Glass manufactures	,,	..	..	..	13,129	9,124	11,605
Hardware and cutlery, unenumerated	cwts.	2,665	2,571	1,516	12,259	12,864	10,650
Iron, wrought and unwrought	tons	4,994	6,086	5,821	63,813	63,878	64,243
Lead and shot	,,	4,203	991	2,129	92,964	20,824	53,118
Linens, entered by the yard	yards	597,657	708,360	1,382,119	23,234	36,569	59,855
Paper, of all sorts (including paper hangings)	cwts.	649	918	1,014	3,729	4,983	5,386
Tin plates	value	..	..	..	29,309	5,352	2,945
Woollens, entered by the yard	yards	3,112,664	2,327,830	3,134,616	280,994	224,510	274,766
at value	value	..	..	..	4,135	1,046	4,112
All other articles	,,	..	..	..	131,197	103,509	161,502
Total value		..	..	..	1,518,867	1,548,698	2,387,017

HOPS (Ger. hopfen; Dutch, hoppe; Fr. houblon; Ital. luppoli, bruscandoli; Span. oblon; Russ. chmel; Lat. humulus lupulus). The hop is a perennial rooted plant, of which there are several varieties. It has an annual twining stem, which, when supported on poles or trees, will reach the height of from 12 to 20 feet or more. It is a native of Britain, and most parts of Europe.

When the hop was first used for preserving and improving beer, or cultivated for that purpose, is not known [ALE]; but its culture was introduced into this country from Flanders in the reign of Henry VIII. Hops are first mentioned in the Statute Book in 1552, in an Act 5 & 6 Edward VI. c. 5; and it would appear from an Act passed in 1603 (1 Jas. I. c. 18) that hops were at that time extensively cultivated in England. Walter Blithe, in his *Improver Improved*, published in 1649 (3rd ed. 1653, p. 240), has a chapter upon improvement by plantations of hops, in which there is this striking passage. He observes that 'hops were then grown to be a national commodity; but that it was not many years since the famous city of London petitioned the Parliament of England against two nuisances; and these were, Newcastle coals, in regard to their stench &c., and hops, in regard they would *spoyl the taste of drink*, and endanger the people: and had the Parliament been no wiser than they, we had been in a measure pined, and in a great measure starved; which is just answerable to the principles of those men who cry down all devices, or ingenious discoveries, as projects, and thereby stifle and choak improvement.'

After the hops have been picked and dried, the brightest and finest are put into pockets or fine bagging, and the brown into coarse or heavy bagging. The former are chiefly used in the brewing of fine ales, and the latter by the porter brewers. A *pocket* of hops, if they be good in quality, well cured and tight trodden, will weigh about 1½ cwt.; and a *bag* of hops will, under the same conditions, weigh about 2½ cwt. If the weight of either exceeds or falls much short of this medium, there is reason to suspect that the hops are of an inferior quality, or have been badly manufactured. The brighter the colour of hops, the greater is the estimation in which they are held. Farnham hops are reckoned best. The expense of forming hop plantations is very great, amounting in some instances to from 70*l.* to 100*l.* an acre; and the produce is very uncertain, the crop being frequently insufficient to defray the expenses of cultivation.

In 1861 the hop duty was reduced from 2*d.* per lb., and 5 per cent, to 1½*d.* In the year 1863 the duty was wholly repealed.

The following is a statement of the imports of foreign hops for the ten years ending with 1866:—

Years	cwts.	Years	cwts.
1857	18,711	1862	133,791
1858	13,000	1863	147,251
1859	2,750	1864	99,656
1860	68,018	1865	82,489
1861	149,176	1866	88,687

The price varied considerably: for instance, they were sold at 2*l.* 5*s.* per cwt. in 1859, and at 10*l.* 14*s.* 2*d.* in 1860. Generally they are worth

about 5*l.* 5*s.* The chief supply of foreign hops is from Belgium, Hamburg, and France.

A planter or grower knowingly putting hops of different qualities or values into the same bag or package forfeits 20*l.*; and any person mixing with hops any drug, or other thing, to change or alter the colour or scent, shall forfeit 5*l.* per cwt. on all the hops so changed or altered. The malicious cutting or destroying of hop plantations may be punished by transportation beyond seas for life, or any term not less than 7 years, or by imprisonment and hard labour in a common gaol for any term not exceeding 7 years. (Loudon's *Ency. of Agriculture*; Stevenson's *Surrey*; Burn's *Justice*; &c.)

The duty on hops of the growth of Great Britain produced, in 1862, 215,806*l.* The land under hops in England amounted in 1867 to 64,273 acres, of which there were in Kent 40,762, in Sussex 9,989, in Hereford 5,335, in Hampshire 2,992, &c.

In 1866 we exported 22,864 cwt. British, and 13,224 cwt. of foreign hops, chiefly to the United States and Australia.

HORN (Dutch, hoorn; Fr. corne; Ger. horn; Lat. cornu). A substance too well known to require any description. Horns are of very considerable importance in the arts, being applied to a great variety of useful purposes. They are very extensively used in the manufacture of handles for knives, and in that of spoons, combs, lanterns, snuff-horns &c. When divided into thin plates, horns are tolerably transparent, and were formerly used instead of glass in windows. Glue is sometimes made out of the refuse of horn. We annually import considerable quantities. In 1866 the imports of foreign horn amounted to 3,761 tons, and the exports to 1,050 tons.

HORSE (Ger. pferd; Dutch, paard; Dan. hest; Swed. hast; Fr. cheval; Ital. cavallo; Span. caballo; Russ. loschad; Pol. kon; Lat. equus; Gr. ἵππος). A domestic quadruped of the highest utility, being by far the most valuable acquisition made by man among the lower animals.

There is a great variety of horses in Britain; the frequent introduction of foreign breeds, and their judicious mixture, having greatly improved the native stocks. Our race horses are the fleetest in the world; our carriage and cavalry horses as amongst the handsomest and most active of those employed for these purposes; and our heavy draught horses are the most powerful, beautiful, and docile of any of the large breeds.

Number and Value of Horses in Great Britain.—The number of horses used in Great Britain for different purposes is very great, although less so, perhaps, than has been generally supposed. Mr. Middleton (*Survey of Middlesex*, 2nd ed. p. 639) estimated the total number of horses in England and Wales employed in husbandry at 1,200,000, and those employed for other purposes at 600,000. Dr. Colquhoun, contrary to his usual practice, reduces this estimate to 1,500,000 for Great Britain; and in this instance we are inclined to think his guess is pretty near the mark. In 1814, when the horses employed in husbandry were taxed, the numbers of the various descriptions of horses in England and Wales which paid duty amounted to 1,204,307; but this account did not include stage-coach, mail-coach, and hackney-coach horses, nor did it include those used in posting. Poor persons keeping only one horse were also exempted from the duty, as were all horses employed in the regular regiments of cavalry and artillery, and in the volunteer cavalry. In Mr. Middleton's estimate, already referred to, he estimated the number of post-chaise, mail, stage, and hackney-coach horses at 100,000; and from the enquiries we have made, we are satisfied that if we estimate the number of such horses in Great Britain at the like sum, we shall be decidedly beyond the mark.

On the whole, therefore, it may be fairly estimated that there are in Great Britain from 1,300,000 to 1,400,000 horses employed for various purposes of pleasure and utility. They may probably be worth at an average from 10*l.* to 12*l.*, making their total value from 13,000,000*l.* to 16,800,000*l.* sterling, exclusive of the young horses.

The duties begin to be charged as soon as horses are used for drawing or riding, and not previously.

An Account of the Number of Horses in Great Britain Charged with Assessed Duties in each of the Years ended April 5, 1858 and 1866, and the Amount of Duty.

	1858		1866	
	Number of Horses	Amount of Duty	Number of Horses	Amount of Duty
		£ s. d.		£ s. d.
Horses exceeding 13 hands, used for riding and drawing carriages, chargeable with duty	159,126	167,082 6 0	188,763	198,201 5 0
Ditto, used by farmers, clergymen, surgeons &c.	129,634	64,057 17 0	137,362	72,115 1 0
Ditto, exceeding 13 hands, used in trade	172,194	90,396 12 0	221,768	116,428 4 0
Ditto, not exceeding 13 hands	61,056	29,716 16 9	83,178	37,590 0 0
Total	525,000	355,253 11 9	631,071	424,334 8 0

The duty on race horses was transferred from the assessed taxes to the excise by 19 & 20 Vict. c. 82.

Exemptions.—Besides the above account of the horses charged with duty, an account is published of the numbers exempted from the duty. This account is not, however, to be relied on; inasmuch as very many of those whose horses are not liable to the duties never think of making any returns. By not attending to this circumstance, we inadvertently, in a former edition of this work, under-rated the number of horses engaged in certain departments of industry.

Influence of Railroads on Horses.—The statements now made show the dependence that ought to have been placed on the estimates that were put forth by some of the promoters of railroads and steam carriages. These gentlemen were pleased to tell us that by superseding the employment of horses in public conveyances, and in the regular carriage of goods, the full adoption of their projects would in the end enable 1,000,000 horses to be dispensed with; and that, as each horse consumed as much food as 8 men, subsistence for 8,000,000 human beings would be provided! To dwell upon the absurdity of such a statement would be worse than useless; nor should we have thought of noticing it, but that it found its way into a report of a committee of the House of Commons. It is sufficient to observe that the stage and mail coaches, and public waggons, vans &c. that have been superseded by steam carriages are not supposed to have disengaged more than from 130,000 to 140,000 horses; and the notion that 1 horse consumes as much as 8 men, at least if we suppose the men to be

reasonably well fed, is too ridiculous to deserve notice.

The duties at present (1868) imposed on horses are respectively the excise of 3*l.* 17*s.* on race horses, and assessed taxes of 1*l.* 1*s.* and 10*s.* 6*d.* on other horses. The rules for discriminating between the horses liable to the duty of 21*s.* and those liable to the smaller duty of 10*s.* 6*d.* are embodied in the Act 16 & 17 Vict. c. 90. It also contains a lengthened statement of the exemptions from the duty. The latter comprise all horses kept bonâ fide for husbandry purposes; but such horses may be ridden, free of duty, to and from any place to which a burden shall have been carried or brought back, or to procure medical assistance. Cavalry horses in her Majesty's service are also exempted from duty, as are the horses kept by field officers, adjutants, and surgeons serving in militia regiments.

Brood mares, while kept for the sole purpose of breeding, are exempted from all duty.

The facility with which horses may be stolen has led to the enactment of several regulations with respect to their sale &c. The property of a horse cannot be conveyed away without the express consent of the owner. Hence a bonâ fide purchaser gains no property in a horse that has been stolen unless it be bought in a *fair* or an *open* market. It is directed that the keeper of every fair or market shall appoint a certain open place for the sale of horses, and one or more persons to take toll there, and keep the place from 10 in the forenoon till sunset. The owner's property in the horse stolen is not altered by sale in a legal fair unless it be openly ridden, led, walked, or kept standing for *one hour at least, and has been registered*, for which the buyer is to pay 1*d.* Sellers of horses in fairs or markets must be known to the toll-takers, or to some other creditable person known to them, who declares his knowledge of them, and enters the same in a book kept by the toll-taker for the purpose. Without these formalities the sale is void. The owner of a horse stolen may, notwithstanding its legal sale, redeem it on payment or tender of the price any time within 6 months of the time of the theft. (Burn's *Justice of the Peace*, Chitty's ed., vol. iii. p. 264.)

In 1866 we imported 1,646 horses, of the value of 36,518*l.*; and exported 4,069, valued at 167,384*l.* In 1864, 12,945 horses were brought into the Metropolitan Cattle Market; in 1865, 13,724; and in 1866, 14,947.

In order to obviate the facility afforded by means of slaughtering houses for the disposal of stolen horses, it was enacted in 1786 (26 Geo. III. c. 71) that all persons keeping places for slaughtering horses, geldings, sheep, hogs, or other cattle not killed for butcher's meat shall obtain a license from the quarter sessions, first producing from the minister and churchwardens, or from the minister and two substantial householders, a certificate of their fitness to be entrusted with the management and carrying on of such business. Persons slaughtering horses or cattle without license are guilty of felony, and may be whipped and imprisoned, or transported. Persons licensed are bound to affix over the door or gate of the place where their business is carried on, in legible characters, the words '*Licensed for Slaughtering Horses, pursuant to an Act passed in the 26th Year of his Majesty King George III.*' The parishioners entitled to meet in vestry are authorised to choose annually, or oftener, inspectors, whose duty it is to take an account and description &c. of every living horse &c. that may be brought to such slaughtering houses to be killed, and of every dead horse that may be brought to be flayed. Persons bringing cattle are to be asked an account of themselves, and if it be not deemed satisfactory, they may be carried before a justice. This Act does not extend to curriers, fellmongers, tanners, or persons killing aged or distempered cattle for the purpose of using or curing their hides in their respective businesses; but these, or any other persons who shall knowingly or wilfully kill any sound or useful horse &c., shall for every such offence forfeit not more than 20*l.*, and not less than 10*l.* This Act has been amended by 7 & 8 Vict. c. 87, 12 & 13 Vict. c. 92 s. 7, and 25 & 26 Vict. c. 102.

The stealing of horses and other cattle was formerly a capital crime, punishable by death; but now stealing a horse, or wilfully killing him with intent to steal the carcase or skin, is to be punished, at the discretion of the court, by penal servitude for any term not exceeding 14 years, nor less than 3 years, or by imprisonment for any term not exceeding 2 years; 24 & 25 Vict. c. 96 ss. 10 & 11.

French Trade in Horses.—The horses of France are not, speaking generally, nearly so handsome, fleet, or powerful as those of England. Latterly, however, the French have been making great efforts to improve the breed of horses, and have, in this view, been making large importations from England and other countries. At an average of the 5 years ending with 1827, the excess of horses imported into France above those exported amounted to about 13,000 a-year. (*Bulletin des Sciences Géographiques*, tom. xix. p. 5.) The imports from England have, in some late years, amounted to nearly 2,000 horses. In 1866 they were 1,182.

By 29 Vict. c. 36 the licenses to let horses for hire are altered thus:—

	£
1 horse or 1 carriage	5
Not exceeding 3 horses or 2 carriages	10
4 " 3 "	15
5 " 4 "	20
6 " 5 "	25

but beyond these numbers the rates are not altered.

HORSE DEALERS. Persons whose business it is to buy and sell horses.

Every person carrying on the business of a horse dealer is required to keep a book, in which he shall enter an account of the number of horses kept by him for sale and for use, specifying the duties to which the same are respectively liable. This book is to be open at all reasonable times to the inspection of the officers, and a true copy of the same is to be delivered quarterly to the assessor or assessors of the parish in which the party resides. Penalty for non-compliance 50*l.* (43 Geo. III. c. 161.) Horse dealers are assessed, if they carry on their business in the metropolis, 27*l.* 10*s.*; and if elsewhere 13*l.* 15*s.*

In the year ended April 5, 1866 there were in the metropolis 59 horse-dealers, in England 968, in Scotland 102, making a total of 1,129.

HUNDRED WEIGHT. A weight of 112 lbs. avoirdupois, generally written cwt.

I

ICE. The sale of ice and snow preserved in the caverns of Vesuvius and on the more elevated parts of Ætna has long been a considerable branch of trade in Naples, Catania, and the adjoining towns; but it was reserved for the Americans to carry the trade in ice to an extent which could not previously have been anticipated. The extreme heat of the summer in the Central and Southern States occasions a natural demand for ice, which the extreme cold of the winter in the New England States gives the means of supplying. The fresh water lakes adjoining Boston and other large towns being deeply frozen in winter, large ice-houses are filled with the ice taken from them, which is retailed in summer at a low price.

This practice had not, however, been long established when it occurred to some ingenious speculators to attempt to realise a profit by shipping ice to the southern parts of the Union and the West Indies; and the speculation having succeeded, the trade was subsequently extended to the Spanish Main and South America, and more recently to Europe, India, and China! The business has, in fact, become of the first importance; numerous companies and a very large amount of tonnage being now engaged in the ice trade from Boston. And owing to the greater skill and economy with which the business is at present conducted, the ice which used to cost 6 cents per lb. in New Orleans and the Havannah, may now be had for 1 cent; and there has been a like fall in its price in India and other more distant places. An immense warehouse has been constructed at Calcutta for the reception of the ice brought by the ships, whence it is supplied in the quantities required for the public accommodation. This singular fabric has triple walls, five distinct roofs, encloses about three-fourths of an acre, and is fitted to hold upwards of 30,000 tons of ice! Our readers do not require to be told that in some years London has been a considerable market for American ice. This, however, is only a casual occurrence, depending principally on the circumstance of an unusually hot summer having followed an unusually mild winter, which, on the one hand, occasions a large demand for ice, while, on the other, it lessens or annihilates the home supply. And the same may be said generally in regard to the demand of other European countries. The ice shipped from America is principally obtained from Fresh Pond, Spy Pond, and Wenham Lake, in an elevated position, about 18 miles from Boston, to which it is conveyed by railway; but it is also obtained from various other ponds and lakes. It is kept stored up in large warehouses adjoining the lakes till it is required for shipment. The holds of the ships used for the conveyance of ice have a space between the planking of the ship and the ice boxed in and usually filled with sawdust or some other substance regarded as a non-conductor of heat. Formerly the ice was packed with straw and hay, in boxes of thin lumber made air-tight; but this mode of packing is now comparatively little used. The ice is beautifully transparent and free from air-cells, and is usually cut into blocks about a foot thick. In 1854 no fewer than 156,540 tons were shipped from Boston, and about 20,000 tons from New York; but in 1866 the total exports from Boston had fallen to 124,751 tons, while in 1865 they reached 131,275 tons. The home consumption of New York has been estimated at from 260,000 to 270,000 tons! [BOSTON.]

Owing to the mildness of our winters we have sometimes little or no frost, and when it is most severe, ice in this country rarely exceeds 2 or 4 inches in thickness, and is usually, also, a good deal stained with impurities. In 1866, 63,071 tons of ice were imported into the United Kingdom, of which 62,374 came from Norway.

IMPORTATION AND EXPORTATION. The bringing of commodities from and sending them to other countries. A very large portion of the revenue of Great Britain being derived from customs duties, or from duties on commodities imported from abroad, and drawbacks being given on a few articles exported (at present, 1868, on refined sugar and tobacco only), the business of importation and exportation is subjected to various regulations which must be carefully observed by those who would avoid incurring penalties, and subjecting their property to confiscation. The regulations referred to are embodied chiefly in the Customs Consolidation Act, 16 & 17 Vict. c. 107, which came into operation on August 20, 185[illegible] We subjoin an abstract of such portions of this and subsequent statutes (18 & 19 Vict. c. 96, 23 & 24 Vict. c. 22, 25 & 26 Vict. c. 63, 30 & 31 Vict. c. 82) as relate to importation, exportation &c.

CUSTOMS CONSOLIDATION ACT OF 1853, THE 16 & 17 VICT. C. 107.

The first 8 clauses of the Act relate *to the appointment of Officers of Customs*, and need not be here referred to.

Clauses 9 to 14 relate *to the appointment of Ports, Quays, Warehouses, Sufferance Wharfs, Landing and Boarding Stations.*

Clauses 15 to 17 relate *to the Licensing of Agents for the transacting of business relating to the Entry and Clearance of Ships, Goods, and Baggage, and of Lightermen for the Carriage of Goods to and from importing and exporting ships.*

Clauses 18 to 28 relate *to the Collection, Management, and Custody of Duties of Customs, and the Payment of Drawbacks and Allowances.*

AS TO DISPUTES AND CONTROVERSIES BETWEEN THE IMPORTER OF GOODS AND THE OFFICERS OF CUSTOMS AS TO THE DUTY DUE ON SUCH GOODS.

In case of Dispute, Importer to deposit the Duty demanded.—If any dispute shall arise as to the proper rate of duty payable in respect of any goods imported into the United Kingdom, and admissible for home consumption, the importer or consignee, or his agent, shall deposit in the hands of the collector of the customs at the port of importation the amount of duty demanded by such collector; and such deposit shall be deemed and taken to be the proper duty payable in respect of such goods unless an action or suit shall be brought or commenced by the importer of such goods within 3 months from the time of making such deposit, in one of her Majesty's courts of law at Westminster, Dublin, or Edinburgh, against

such collector, for the purpose of ascertaining whether any and what amount of duty is due and payable upon such goods; and, upon payment of such deposit, and passing a proper entry for such goods, by the importer, consignee, or agent, such collector shall thereupon cause the said goods to be delivered in virtue of such entry. (Sec. 29.)

Deposits to be carried to Consolidated Fund.—Where such deposit shall have been made as aforesaid, the same shall be paid by the said collector to the Receiver-General of Customs, to be by him carried to the Consolidated Fund of the United Kingdom; and in case no action shall be brought within the time hereinbefore limited for that purpose, such deposit shall be retained and applied to the use of her Majesty, in the same manner as if the same had been originally paid and received as the duty due and payable on such goods; and in case such action shall be so brought, and it shall thereupon be determined by due course of law that the duty so demanded and deposited was not the proper duty due and payable upon such goods, but that a less duty was payable thereon, then the difference between the sum so deposited and the duty so found to be due, or the whole sum so deposited, as the case may require, shall forthwith be returned to such importer, with interest thereon after the rate of 5 per cent. per annum for the period during which the sums so paid or returned shall have been so deposited; and such payment shall be accepted by such importer in satisfaction of all claims in respect of the importation of such goods and the duty payable thereon, and of all or any damages and expenses incident thereto, except costs of suit, as next hereinafter provided; that is to say, provided always that the party to such action or suit in whose favour a verdict shall be given shall be entitled to his costs of suit as between party and party against the other party to such action or suit—such costs to be taxed by the proper officer of the court in which such action shall be brought in the usual way; and if such verdict shall be given against the plaintiff in such action or suit, the costs so taxed as aforesaid shall be recoverable and recovered against the plaintiff in the same manner as damages and costs in an ordinary action or suit in such court are recoverable by law: but if such verdict shall be given against the collector as defendant in such suit, the costs so taxed as aforesaid shall be paid by the Commissioners of Customs out of any moneys arising from the duties of customs. (Sec. 30.)

As to Complaints and Disputes between Merchants and others and the Officers of Customs, the public Investigation thereof, and Enquiries touching Matters relating to the Customs, and the Conduct of Officers or others concerned therein.

Disputes and Enquiries in London.—If in the port of London any dispute arise between any masters or owners of ships, merchants, importers, consignees, shippers, or exporters of goods, or their agents, and any officer of customs, with reference to the seizure or detention of any ship or goods, or to any apparently accidental omission, inadvertence, or non-compliance with the laws or regulations relating to the customs, it shall be lawful for the Commissioners to dispose of or determine such dispute in such manner as they may deem just. (Sec. 31.) N.B.—The licensed agents mentioned in the Act have ceased to exist.

Power to remit or mitigate Penalties.—If upon consideration of the facts and circumstances out of which such dispute shall have arisen, the Commissioners of Customs shall be of opinion that any penalty or forfeiture has been incurred by any such master, owner, merchant, importer, consignee, shipper, exporter, or agent, the said Commissioners may, in case they shall be of opinion that the penalty ought to be remitted, remit and forego the same accordingly, or in case they shall be of opinion that a mitigated penalty should be imposed and enforced, mitigate any such penalty or forfeiture to such amount as they may deem a sufficient satisfaction for the breach of law or regulation complained of. (Sec. 32.)

Appeal to open Court.—In case any such master, owner, merchant, importer, shipper, exporter, or agent shall feel himself aggrieved by the determination of the Commissioners of Customs in any of the cases aforesaid, or have any ground of complaint against any officer of Customs in respect of anything done or omitted to be done by such officer in or about the execution of his duty, the party so feeling himself aggrieved shall, upon an application in writing to the Commissioners of Customs, which application shall state the substance of his complaint, or the reasons of his dissatisfaction with such determination, be entitled to have the facts and circumstances of such complaint or determination enquired into by one of the said Commissioners, in the manner following. (Sec. 33.)

Commissioner to conduct public Enquiry.—Upon receipt of such application as aforesaid the Commissioners of Customs shall depute one of such Commissioners to enquire into the subject matter of such application, for which purpose a suitable apartment shall be provided, to which the parties complaining and the parties complained against, and their agents and witnesses, and all other persons interested or desirous of attending, shall have free access; and the Commissioner so deputed shall receive the statement of the complainant or his agent or attorney, and hear any reasons which he or they may advance in support of his complaint, and the said Commissioner shall take or cause to be taken any evidence on oath which the said complainant may offer and adduce in support of his complaint, and write down or cause to be written down and report the substance of such evidence in a narrative form, and his opinion thereon and on the arguments, if any, adduced on the hearing of the case, for the information of the said Commissioners; and in like manner the Commissioner so deputed as aforesaid shall take and write down or cause to be taken down and written, and report for the information of the said Commissioners of Customs, any evidence which may be offered in support of such determination of the Commissioners, or in case of a complaint against an officer such exculpatory evidence as the officer complained against may offer or adduce; and the course of proceeding with respect to the taking of such evidence and the conduct of such enquiry shall be in as close conformity as the nature of such enquiry will admit with the practices adopted before justices on enquiries had before such justices. (Sec. 34.)

Commissioners to prosecute or decide.—The Commissioners of Customs, upon the evidence so reported to them, shall either determine to prosecute, if they deem it a proper case for prosecution, or decide the case upon such evidence, and make their order thereon accordingly, which order shall be communicated by a Commissioner in open court either on the same day or a future day to be appointed at the hearing for that purpose; and every order of the Commissioners of Customs, made upon consideration of the facts, circumstances, and evidence so reported by the Commis-

sioner by whom such enquiry shall have been holden, shall, in case any penalty or mitigated penalty or forfeiture shall be adjudged by such order to be paid or enforced, be of equal force, validity, and effect as any conviction for penalties which any justice or justices is or are now empowered by law to make; and upon the production of any such order of any two or more of the Commissioners of Customs to any justice or justices of the peace, it shall be lawful for such justice or justices to enforce such order, in the same manner and by the like authority as such justice or justices is or was now empowered to enforce orders under the Act 11 & 12 Vict. c. 43, unless the party against whom such order have been made shall, within 1 week after the same shall have been communicated as aforesaid, give notice in writing to the Commissioners of Customs or to their solicitor that he refuses to abide by such order, in which case the Commissioners of Customs may direct such proceedings thereon as they may see fit, or the party against whom such order has been made shall have the same remedy by action in any court having jurisdiction, including the 'Court of Requests of the City of London and the Liberties thereof,' as if no such hearing or order had been made: provided always that if any such master, owner, importer, shipper, exporter, or agent (not wishing to resort to such appeal as hereinbefore provided) be desirous of stating his case personally to one of the Commissioners of Customs, he shall be at liberty to do so on attending at the Custom-house during the sitting of the board on applying for that purpose. (Sec. 35.)

Power to keep Order.—The Commissioners of Customs deputed to enquire as aforesaid shall have and exercise, while engaged in the conduct of such enquiry, and to as full an extent as the same is now exercised by any justice or justices in Sessions, all necessary powers and authority to enforce order and propriety of conduct. (Sec. 36.)

Disputes and Enquiries at Outports.—If at any of the outports any dispute shall arise between any master or owners of ships, merchants, importers, consignees, shippers, or exporters of goods, or their agent or agents, and any officer of Customs, with reference to the class of cases hereinbefore enumerated as arising or occurring in the port of London, the like enquiry shall be holden, the like course of proceeding adopted, the like mode of taking evidence pursued, the like accommodation for the parties concerned provided, the like authorities for maintaining order given, and, as nearly as may be, the like matters in every respect done, as herein provided for enquiry into and conduct of similar proceedings in the port of London, save and except that the duty prescribed to be performed by one of the Commissioners of Customs deputed for that purpose shall be performed at such outports by the collector or comptroller or other officer of Customs deputed for that purpose. (Sec. 37.)

Enquiries and Examinations may be conducted by Commissioners, Surveyors-General &c.—In any of the foregoing cases, or whenever it shall be necessary for the Commissioners of Customs or their officers to institute any enquiry to ascertain the truth or facts with respect to any complaint or matter relating to any business under their management or control or incident thereto, or the conduct of officers or persons employed therein, such enquiries shall and may be made or conducted by the Commissioners for the time being or any one or more of them, or by any Surveyor-General, Inspector-General, Collector, or Comptroller, or other officer of the Customs, or by such person or persons as the Commissioners of Customs shall direct and appoint for that purpose; and when upon any such enquiry proof on oath shall be required by the person so conducting the same, such person shall and may administer such oath to any person attending before him as aforesaid; and if any person so examined as a witness before such person shall be convicted of giving false evidence on his examination on oath before the person conducting such enquiry, every such person so convicted shall be deemed guilty of perjury, and shall be liable to the pains and penalties thereof. (Sec. 38.)

Power to summon Witnesses.—Upon any such enquiry or examination it shall be lawful for the Commissioners of Customs, or any one or more of them, or for any such Surveyor-General, Inspector-General, Collector, Comptroller, or other officer of the Customs, or person so authorised or directed by the Commissioners of Customs to conduct such enquiry or examination, to summon any person required as a witness to appear before the said Commissioners, Inspector-General, Collector, Comptroller, Surveyor-General, or other officer or person authorised to conduct such enquiry or examination, as the case may be, to attend on the hearing thereof at the time and place to be specified in such summons, to give evidence upon oath of the truth of any facts appertaining to such enquiry, or any other matter touching or relating thereto; and every person so summoned, having his reasonable expenses for such attendance, if required, tendered to him at the time of service of such summons, who shall neglect or refuse to appear according to the exigency thereof, or who, having so appeared, shall refuse to take the oath, or shall refuse to give evidence, or to answer according to the best of his knowledge and belief any question when thereunto required, shall for every such default or offence forfeit the sum of 20*l.* (Sec. 39.)

Regulations for Conduct of Enquiries.—The Commissioners of Customs shall from time to time make such rules and orders for the proper conduct of such enquiries as aforesaid as may be expedient, and as in their judgment shall be necessary or proper; and such rules and orders shall be observed on the conduct of such enquiries until annulled or varied by the authority of the said Commissioners. (Sec. 40.)

As to the Importation, or Prohibition, Entry, Examination, Landing, and Warehousing of Goods.

Importation and Prohibition.—It shall be lawful to import into the United Kingdom any goods which are not, by this or any law in force at the time of importation thereof, prohibited to be so imported, and to warehouse under the laws in force for the warehousing of goods, except as hereinafter provided, in warehouses duly approved for the warehousing of goods without payment of duty on the first entry thereof, any goods subject to duties or customs the importation and warehousing whereof are not prohibited by any law in force at the time of such importation: provided always that the duties on the following goods, and on such other goods as the Commissioners of the Treasury may from time to time direct, shall be paid on the first importation thereof, and such goods shall not be warehoused either for home consumption or exportation; viz., corn, grain, meal, and flour. (Sec. 41.) N.B.—The duty on wood goods has been since repealed.

Time of Importation of Goods and Time of Arrival of Ships defined.—If, upon the first levying or repealing of any duty, or the first permitting or prohibiting of any importation, or at any other

time, or for any of the purposes of this or any Act relating to the customs, it shall become necessary to determine the precise time at which an importation of any goods shall be deemed to have had effect, such time shall be deemed to be the time at which the ship importing such goods had actually come within the limits of the port at which such ship shall in due course be reported and such goods be discharged; and if any question arise upon the arrival of any ship in respect of any charge or allowance upon such ship, exclusive of cargo, the time of such arrival shall be deemed to be the time at which the report of such ship has been or ought to have been made. (Sec. 42.)

Importation Direct.—No goods shall be deemed to be imported from any particular place unless they be imported direct from such place, and shall have been there laden on board the importing ship, either as the first shipment of such goods, or after the same shall have been actually landed at such place. (Sec. 43.)

Prohibitions and Restrictions.—If any goods enumerated or described in the following table of prohibitions and restrictions as 'goods absolutely prohibited to be imported' shall be imported or brought into the United Kingdom, or if any goods enumerated or described in such table as 'goods prohibited to be imported except in transit,' and 'subject to such regulations and restrictions as the Commissioners of the Treasury may direct, and duly reported as goods in transit accordingly,' shall be imported into the United Kingdom, except in transit, in accordance with such regulations and restrictions, and so reported as aforesaid, or if any goods enumerated or described in such table as 'goods subject to certain restrictions on importation' shall be imported or brought into the United Kingdom contrary to the prohibitions or restrictions contained in such table in respect thereof, then and in every such case such goods shall be forfeited, and shall be destroyed or otherwise disposed of as the Commissioners of Customs may direct. (Sec. 44.)

A Table of Prohibitions and Restrictions Inwards.

Goods absolutely prohibited to be imported.

Books wherein the copyright shall be first subsisting, first composed or written or printed in the United Kingdom, and printed or reprinted in any other country, as to which the proprietor of such copyright or his agent shall have given to the Commissioners of Customs a notice that such copyright subsists, such notice also stating when such copyright will expire.

Coin, viz.—false money or counterfeit sterling.

Coin, silver, of the realm, or any money purporting to be such, not being of the established standard in weight or fineness.

Extracts, essences, or other concentrations of coffee, chicory, tea, or tobacco, or any admixture of the same.

Indecent or obscene prints, paintings, books, cards, lithographic or other engravings, or any other indecent or obscene articles.

Snuff work.

Tobacco stalks stripped from the leaf, whether manufactured or not.

Tobacco stalk flour.

Articles of foreign manufacture and any packages of such articles bearing any names, brands, or marks being or purporting to be the names, brands, or marks of manufacturers resident in the United Kingdom.

Clocks and watches of any metal impressed with any mark or stamp, appearing to be or to represent any legal British assay, mark, or stamp, or purporting by any mark or appearance to be of the manufacture of the United Kingdom.

Goods prohibited to be imported, except subject to the Restrictions on Importation herein contained.

Infected cattle, sheep, or other animals, and hides, skins, horns, hoofs, or any other part of cattle or other animals, which her Majesty may, by order in council, prohibit in order to prevent any contagious distemper.

Silk, manufactures of silk, being the manufactures of Europe, unless into the ports of London, Liverpool, Hull, Southampton, Leith, or Dublin, or ports appointed by the Commissioners of Customs, or into the ports of Dover or Folkestone direct from Calais or Boulogne, and unless in ships of 50 tons burden or upwards.

Spirits (not being perfumed or medicinal spirits), unless in ships of 50 tons burden at least, and in casks or other vessels capable of containing liquids, each of such casks or other vessels being of the size or content of 20 gallons at the least, and duly reported, or in glass bottles or stone bottles packed in cases, each of which shall contain not less than 2 gallons of spirits, and being really part of the cargo of the importing ship, and duly reported.

Tobacco, cigars, and snuff, unless in whole and complete packages, containing not less than 80 lbs. nett of such tobacco, cigars, and snuff. (18 & 19 Vict. c. 96 s. 2.)

Tobacco, snuff, cigars, cigarillos, or cigarettes of any kind, or from any country or place whatever, unless in ships of not less than 120 tons burden, and imported into such ports only as are or may be approved of by the Commissioners of Customs.

Arms &c. may be prohibited.—The importation of arms, ammunition, gunpowder, or any other goods may be prohibited by proclamation or order in council. (16 & 17 Vict. c. 107 s. 45.)

Printed Lists of prohibited Books to be exposed at Custom Houses.—The Commissioners of Customs shall cause to be made, and to be publicly exposed at the several ports in the United Kingdom and in her Majesty's possessions abroad, printed lists of all books wherein the copyright shall be subsisting, and as to which the proprietor of such copyright, or his agent, shall have given notice in writing to the said Commissioners that such copyright exists, stating in such notice when such copyright expires. (Sec. 46.)

Ship to come quickly to Place of unlading, and bring-to at the Stations for boarding Officers.—If any ship coming into the United Kingdom or into the Channel Islands shall not come as quickly up to the proper place of mooring or unlading as the nature of the port will admit, without touching at any other place, and in proceeding to such proper place shall not bring-to at the stations appointed by the Commissioners of Customs for the boarding of ships by the officers of the Customs, or if after arrival at such place such ship shall remove from such place, except directly to some other proper place of mooring or unlading, and with the knowledge of the proper officer of the Customs, or if the master of any ship on board of which any officer is stationed neglect or refuse to provide every such officer sufficient room under the deck in some part of the forecastle or steerage for his bed or hammock, the master of such vessel shall forfeit the sum of 20*l.* (Sec. 47.)

Officers to board Ships &c.—The proper officers of the Customs may board any ship arriving at

any port in the United Kingdom or the Channel Islands, and freely stay on board until all the goods laden therein shall be duly delivered from the same, and shall have free access to every part of the ship, with power to fasten down hatchways or entrances to the hold, and to mark any goods before landing, and to lock up, seal, mark, or otherwise secure any goods on board such ship; and if any place or any box or chest be locked, and the keys be withheld, such officers, if they be of a degree superior to that of tidewaiter, may open any such place, box, or chest in the best manner in their power; and if they be tidewaiters, or only of that degree, they shall send for their superior officer, who may open or cause to be opened any such place, box, or chest in the best manner in his power; and if any goods be found concealed on board any such ship, they shall be forfeited; and if the officers shall place any lock, mark, or seal upon any goods on board, and such lock, mark, or seal be wilfully opened, altered, or broken before due delivery of such goods, or if any of such goods be secretly conveyed away, or the hatchways or entrances to the hold, after having been fastened down by the officer, be opened, the master of such ship shall forfeit the sum of 100*l.*; and if the proper officer of the Customs shall place any lock, mark, or seal upon any stores on board any ship or vessel arriving in the United Kingdom, and such lock, mark, or seal be wilfully opened, altered, or broken, or if any such stores be secretly conveyed away, either while the ship remains in the port at which she shall have so arrived or before she shall have arrived at any other port in the United Kingdom to which she may then be about to proceed, the master of such ship shall forfeit the sum of 20*l.* (Sec. 41.)

Time and Place of landing Goods Inwards.—No goods, except diamonds, bullion, lobsters, and fresh fish of British taking and imported in British ships, which may be landed without report or entry, shall be unshipped from any ship arriving from parts beyond the seas, or be landed or put on shore, on Sundays or holidays, nor shall they be so unshipped, landed, or put on shore on any other days, except between the hours of 8 o'clock in the morning and 4 o'clock in the afternoon from March 1 until November 1, and between the hours of 9 o'clock in the morning and 4 o'clock in the afternoon from November 1 until March 1, or during such other hours as may be appointed by the Commissioners of Customs; nor shall any goods be unshipped or landed unless in the presence or with the authority of the proper officer of the customs, nor shall they be so landed except at some legal quay, wharf, or other place duly appointed for the landing of goods, nor shall any such goods, after having been unshipped, or put into any boat or craft to be landed, be transhipped or removed into any other boat or craft previously to their being landed without the permission of the proper officer of the Customs; and if any such goods shall be unshipped, landed, transhipped, or removed contrary hereto, the same shall be forfeited; and if any goods shall be unshipped or removed from any importing ship for the purpose of being landed after due entry thereof, such goods shall be forthwith removed to and landed at the wharf, quay, or other place at which the same are intended to be landed; and if such goods are not so removed and landed, the same shall be forfeited, together with the barge, lighter, boat, or other vessel employed in removing the same. (Sec. 49.)

As to the Report of the Cargo of Merchant Ships, and of Ships in Commission bringing Merchandise from Parts beyond the Seas.

Master to report within Twenty-four Hours after Arrival.—The master of every ship, whether laden or in ballast, shall within twenty-four hours after arrival from parts beyond the seas at any port in the United Kingdom, and before bulk be broken, make due report of such ship in the form following or to the same effect, and containing the several particulars indicated or required thereby; and if the cargo of such ship shall have been laden at several places, shall state the names of those places in column 1, in the order of time in which the same were laden opposite to the particulars of the goods so laden. (Sec. 50.)

Port of

REPORT.

Ship's Name	Tonnage	British or Foreign: if British, Port of Registry; if Foreign, Country to which she belongs	Number of Crew		Name of Master, and whether a British or Foreign Subject	Port or Place from whence arrived
			British Seamen	Foreign Seamen		
Here state the Particulars according to the above Headings.						
			Total.			

CARGO.

1	2	3	4	5	6	7
Name or Names of Places where laden in order of Time	Marks	Nos.	Packages and Descriptions of Goods, Particulars of Goods stowed loose, and General Denomination of Contents of each Package of Tobacco, Cigars, or Snuff intended to be imported at this Port	Name of Consignee	Particulars of Packages and Goods (if any) for any other Port in the United Kingdom	Goods (if any) to be transhipped or to remain on board for Exportation
Here state the Particulars according to the above Headings; or if in Ballast, state 'in Ballast only.'						

STORES.

Surplus Stores remaining on board, viz. {

Number of alien Passengers (if any) -
Pilots' Names - - -
At what Station Ship lying -
Agent's Name and Address -

I declare that the entry above written is a just report of my ship and of her lading, and that the particulars therein inserted are true to the best of my knowledge, and that I have not broken bulk or delivered any goods out of my said ship since her departure from the last foreign place of loading (*except, if so, at* *stating where.*)

(Signed)

Master.

Signed and declared this day of

In presence of

(Countersigned)

Collr. or Contr.

On Failure, Master to forfeit 100*l.*—If such master shall wilfully fail to make such report according to the particulars here set forth, so far as the same are applicable to such ship, cargo, and voyage, or if the particulars or any of them contained in such report be false, such master shall forfeit the sum of 100*l.* (Sec. 51.)

Commissioned Ships, British or Foreign, having Goods on Board &c.—The captain, master, purser, or other person having the charge of any ship (having commission from her Majesty, or from any foreign state) having on board any goods laden in parts beyond the seas, shall on arrival at any port in the United Kingdom, and before any part of such goods be taken out of such ship, or when called upon so to do by any officer of the customs, deliver an account in writing under his hand to the best of his knowledge of the quality and quantity of every package or parcel of such goods, and of the marks and numbers thereon, and of the names of the respective shippers and consignees of the same, and shall make and subscribe a declaration at the foot of such account declaring to the truth thereof, and shall also truly answer to the collector or comptroller such questions concerning such goods as shall be required of him, and on failure thereof such captain, master, purser, or other person shall forfeit the sum of 100*l.*; and all such ships shall be liable to such searches as merchant ships are liable to, and the officers of the customs may freely enter and go on board all such ships, and bring from thence on shore into the Queen's warehouse any goods found on board any such ship as aforesaid, subject nevertheless to such regulations in respect of ships of war belonging to her Majesty as shall from time to time be directed in that respect by the Commissioners of her Majesty's Treasury. (Sec. 52.)

Master to deliver Bills of Lading and answer Questions.—The master of every ship arriving from parts beyond the seas shall at the time of making such report deliver to the collector or comptroller, if required, the *bill of lading*, or a copy thereof, for every part of the cargo laden on board, and shall answer all such questions relating to the ship, cargo, crew, and voyage as shall be put to him by such collector or comptroller; and in case of failure or refusal to answer such questions or answer truly, or to produce any such bill of lading or copy, or if any such bill of lading or copy shall be false, or if any bill of lading be uttered or produced by any master, and the goods expressed therein shall not have been bonâ fide shipped on board such ship, or if any bill of lading uttered or produced by any master shall not have been signed by him, or any such copy shall not have been received or made by him, previously to his leaving the place where the goods expressed in such bill of lading or copy were shipped, or if after the arrival of any ship within four leagues of the coast of the United Kingdom bulk shall be broken, or any alteration made in the stowage of the cargo of such ship so as to facilitate the unlading of any part of such cargo, or if any part be staved, destroyed, or thrown overboard, or any package be opened, unless accounted for to the satisfaction of the Commissioners of Customs, in every such case such master shall forfeit the sum of 100*l.* (Sec. 53.)

Packages reported 'Contents unknown' may be opened and examined.—If the contents of any package intended for exportation in the same ship shall be reported by the master as being unknown to him, the officers of the Customs may open and examine such package on board, or bring the same to the Queen's warehouse for that purpose, and if there be found in such package any goods which are prohibited to be imported, such goods shall be forfeited, unless the Commissioners of Customs shall permit them to be exported. (Sec. 54.)

As to the Entry of Dutiable Goods to be delivered for Home Consumption on the landing thereof from the importing Ship.

Entry for Home Consumption.—The importer of any goods liable to duties of customs and intended to be delivered for home use on the landing thereof from the importing ship, or his agent, shall, before unshipment thereof, make perfect entry of such goods by delivering to the collector or comptroller a bill of entry thereof in the form following or to the same effect, and containing the several particulars indicated in or required thereby. And the particulars in such entry shall correspond with the particulars given of the same goods and packages in the report of the ship, and in any certificate of origin or other document, where any such is required, by which the importation or entry of such goods is authorised, or upon which the importer is entitled to any benefit by the distinction thereof, or otherwise; and whenever the value of any goods is required to be stated in the entry, the importer or his agent shall subscribe a declaration of the truth of such value in the form set forth at the foot of such entry. (Sec. 55.)

Payment of Duties.—The importer or his agent shall immediately upon the entry of any goods entered by him to be delivered for home use pay down any duties which may be payable upon the goods mentioned in such bill of entry, if in London, to the Receiver-General, and if at any of the outports to the collector or other person authorised by the Commissioners of Customs to receive the same; and such bill of entry, when signed by the collector or other such person, shall be transmitted to the landing waiter, and be his warrant for the landing and delivery of such goods. (Sec. 56.) By 25 & 26 Vict. c. 63 s. 67, certain powers are also conferred upon the ship-owner to enter and

ENTRY.

Port of (*Name of Port of Importation*).
Whether Prime or Post, and if Post, Date of Prime Entry
Importer's Name

Wharf, Dock, or Station	Ship's Name	Whether British or Foreign Ship; if Foreign, the Country	Master's Name	Port or Place from whence imported
Here state the Particulars according to the above Headings.				

Marks	Numbers	Number of Packages, Quantities, and Descriptions of Goods as charged in Table of Duties	If charged at Value, Value to be stated in Words at Length
Here state the Particulars according to the above Headings.			

£ s. d.

Total amount of duty payable on this entry . . .

Dated this day of 18 (Signed)

Importer or Agent.

I (*name of importer or agent*), of (*place of abode*), do hereby declare that I am (*the importer, or agent duly authorised by the importer*) of the goods contained in this bill of entry, and that I enter the same goods, therein stated as goods charged at value, at the sum of (*money in words at length*).

Witness my hand the day of 18 (Signed)

Importer or Agent.

land goods in default of entry by owner of goods, subject to certain conditions.

Detention of Goods for Under Value.—The abolition of ad valorem duties renders obsolete sec. 57 of 16 & 17 Vict. c. 107.

As to the Entry of Goods intended to be warehoused without Payment of Duty on First Entry thereof.

Entry for the Warehouse.—The importer of any goods intended to be warehoused without payment of duty on the first entry thereof, or his agent, shall deliver to the collector or comptroller a bill of entry of such goods in the same manner and form and containing the same particulars as are before required on the entry of goods to be delivered for home use on the landing thereof as far as the same shall be applicable, and the name and description of the warehouse in which such goods are intended to be warehoused, and the name of the person in whose name they are to be warehoused; and such bill of entry, when signed by the collector or comptroller, shall be transmitted to the proper officer of customs, and be the warrant for the due warehousing of such goods. (Sec. 58.)

Goods entered for Warehouse may upon further Entry be delivered for Home Use or Exportation.—If after any goods shall have been duly entered and landed to be warehoused, though not actually deposited in the warehouse, the importer shall further duly enter the same, or any part thereof, for home use or for exportation, the same may be delivered and taken for home use or exportation, as the case may be. (Sec. 59.)

As to the Entry of Goods free of Duty.

Particulars of Entry.—The importer of any goods not subject to duties or customs, or his agent, shall deliver to the collector or comptroller a bill of entry of such goods in the same manner and form and containing the same particulars as before required on the entry of dutiable goods, so far as the same is applicable, which entry, so far as regards the goods, shall be a transcript of the report, and shall therein describe such goods according to the terms upon which such goods are free of duty, and the value of such goods as shall have been previously chargeable with duty at value; and such bill of entry, when signed by the collector or comptroller, shall be transmitted to the proper officer, and be his warrant for the delivery of the goods mentioned therein; and the importer, owner, or consignee of such goods, or his agent, shall, within 14 days after the entry and landing thereof, deliver to the collector, comptroller, or other proper officer of customs a full and true account of the goods so landed; provided that at Liverpool, and with the sanction of the Commissioners of Customs at any other port where the docks, quays, and wharfs shall in like manner be wholly or principally under the control and management of one and the same corporate body, the owner, master, or consignee of the importing ship, or his agent, shall sign and leave with the collector of customs, within 14 days next after the final discharge of such goods, a full and accurate list thereof, stating the quantities and distinguishing the weight and contents by measurement of such goods, if any, comprised therein, as shall be chargeable by weight or by measurement for the freight payable thereon, and the names of the consignees (according to the bills of lading), or the names of the persons actually paying the freight for the same; and on failure to leave such list, such owner, master, consignee, or agent shall forfeit the sum of 20*l.* (Sec. 60.)

As to the Entry of Goods landed for Examination by Bill of Sight and perfecting Entry thereof.

Entry by Bill of Sight when Goods not known.—The importer of any goods or his agent, if unable for want of full information to make a perfect entry of such goods, on making and subscribing a declaration to that effect before the collector or comptroller, may make an entry by bill of sight for the packages or parcels of such goods in the form following, or to the same effect, and containing the several particulars indicated or required thereby. (Sec. 61.)

BILL OF SIGHT.

Port of [*Name of Port of Importation*].
Importer [*Name of Importer*].

Wharf, Dock, or Station	Ship's Name	Whether British or Foreign; if Foreign, the Country	Master's Name	Port or Place from whence imported	Name of Importer or of his Agent
Here state the Particulars according to the above Headings.					

Marks	Numbers	Number of Packages, with the best Description of the Goods the Importer is able to give
Here state the Particulars according to the above Headings.		

I , the importer (*or* agent to the importer) of the goods above-mentioned, do hereby declare that I have not (*if importer*), or that to the best of my knowledge he has not (*if agent*), received sufficient invoice, bill of lading, or other advice from whence the quality, quantity, or value of the goods above-mentioned can be ascertained. Dated this day of 18

(Signed) _____ *Importer or his Agent.*

(Signed) _____ *Collector.* § 61.

Warrant for Landing.—Such entry being delivered to the collector or comptroller, and signed by him, shall be the warrant for provisionally landing such goods to be examined by such importer in the presence of the proper officers; and the importer shall within 3 days, or such further time as may be allowed by the Commissioners of Customs, after the landing thereof, and before the same shall be delivered, make full and perfect entry thereof by endorsing upon such bill of sight such particulars of such goods as are before required on making perfect entry of goods, whether for payment of duty, or for warehousing, or for delivery free of duty, as the case may be; and to such indorsement he shall affix the date thereof, together with his signature and place of abode; and such indorsement, when signed by the collector or comptroller, shall be taken as the perfect entry for such goods. (Sec. 62.)

Goods entered by Bill of Sight not to be delivered unless Duty is paid or deposited.—Where an entry for the landing and examination of goods for delivery on payment of duty shall be made by bill of sight, such goods shall not be delivered until perfect entry thereof have been made and the duties due thereon paid, unless the importer or his agent shall have deposited with the proper officer of the customs a sum of money sufficient in amount to cover the duties payable thereon; and if the sum deposited on a bill of sight shall not be equal in amount to the duties payable upon all the goods contained in any single package landed or examined thereby, no part shall be delivered until a perfect entry or entries is or are made, and the duties paid or deposited for the whole of the goods contained in such package. (Sec. 63.)

Goods to be taken to Queen's Warehouse in default of perfect Entry within Three Days &c.—If full and perfect entry of any goods landed by bill of sight as aforesaid be not made within three days, or such further time as may be allowed by the Commissioners of Customs, after the landing thereof, such goods shall be taken to the Queen's warehouse by the officers of the customs; and if the importer shall not within 1 month after such landing make perfect entry or entries of such goods, and pay the duties thereon or on such parts as can be entered for home use, together with the charges of removal and of warehouse rent, such goods shall be sold for the payment of such duties and charges (*or* for exportation if they be such as cannot be entered for home use, or shall not be worth the duties), and the overplus, if any, after payment of such duties and charges, or the charges if sold for exportation, shall be paid to the importer or proprietor thereof: provided always, that when entry be at any time made as and for a full and perfect entry for any goods provisionally landed by bill of sight or deposited in the Queen's warehouse as aforesaid, if such entry shall not be made in manner herein required for the due landing of the goods, the same shall be deemed to be goods landed without entry, and shall be forfeited. (Sec. 64.)

As to the Entry of Goods re-imported into the United Kingdom as Foreign or by Bill of Store.

Re-importation of British Goods.—All British goods brought back into the United Kingdom, being of such a kind and description as, if foreign, would be liable to any duty of customs on importation, shall be deemed to be foreign, and liable to the same duties, rules, regulations, and restrictions as foreign goods of the like kind or description; but if the same shall be brought back within 5 years from the time of the exportation thereof, and it shall be proved to the satisfaction of the Commissioners of Customs that they are British goods returned, the same may be entered by bill of store containing such particulars and in such manner and form as the said commissioners may direct: provided always, that all corn, grain, meal, and flour brought into the United Kingdom shall be deemed and taken to be foreign goods, and all goods brought into the United Kingdom for which any drawback of excise or customs shall have been received on exportation shall be deemed and treated as foreign unless admitted to entry by special permission of the Commissioners of Customs, and on repayment of such drawback. And all foreign goods on re-importation into the United Kingdom, whether they shall have paid duty on their first importation or not, shall be liable to the same

duties, rules, regulations, and restrictions as if then imported for the first time. Provided also that if any British goods brought into the United Kingdom bear the brand or mark of any British manufacturer, the same shall be admitted to entry as such without a bill of store, if the proprietor of such brand or mark, or his legal representative, shall give his consent in writing to the delivery thereof. (30 & 31 Vict. c. 82 s. 6.)

As to Entries of Goods in any of the foregoing Cases.

The Commissioners of Customs may permit entries of goods in such form and manner, and on such conditions, as they may direct to meet the exigencies of any case. (18 & 19 Vict. c. 96 s. 5.)

Bill of Entry to be in duplicate.—Upon the entry of any goods, the importer, his agent, or consignee of the ship, as the case may be, shall deliver 2 or more duplicates of the bill of entry thereof, as the case may require, in which duplicates all sums and numbers may be expressed in figures; and the number of duplicates shall be such as the collector or comptroller may require. (16 & 17 Vict. c. 107 s. 66.)

Importer or Agent failing to comply with Regulations to forfeit 20l.—Every importer, agent, or other person entering any goods who shall wilfully fail to comply with the foregoing regulations, so far as they are respectively applicable to the goods so entered by him, shall forfeit and pay the sum of 20*l.* (Sec. 67.)

No Entry valid unless Goods properly described therein.—No entry or warrant for the landing of any goods shall be deemed valid unless the goods shall be properly described in such entry by the denominations and with the characters and circumstances according to which such goods are charged with duty or may be imported, either to be used in the United Kingdom, or to be warehoused for exportation only. (Sec. 68.)

Goods concealed in Packages or delivered without Entry forfeited.—If any package or parcel shall have been landed by or in pursuance of any entry, and any goods or other things shall be found in such package or parcel concealed in any way or packed to deceive the officers, such package or parcel and all the contents thereof shall be forfeited; and if any goods be taken or delivered out of any ship or out of any warehouse, not having been duly entered, the same shall be forfeited: provided always, that no entry shall be required in respect of the baggage of passengers, which may be examined, landed, and delivered under such regulations as the Commissioners of Customs may direct; but if any prohibited or uncustomed goods shall be found concealed therein either before or after landing, the same shall be forfeited, together with the other contents of the package containing the same. (Sec. 69.)

Surplus Stores not excessive may be entered for private Use or Warehouse.—The proper officer may permit any surplus stores, not being merchandise, nor by him deemed excessive, to be entered for private use under and subject to the same duties, rules, and regulations as the like sort of goods would be subject to on importation as merchandise, or permit the master, owner, purser, or other officer of any ship, or any passenger of such ship, to whom any surplus stores belong, to enter and warehouse such surplus stores for future use as ship's stores, although the same could not be legally imported by way of merchandise. (Sec. 70.)

Entry of Goods by Agents without License or by unauthorised Persons not permitted.—If at any port where persons acting as agents for transacting any business relating to the clearance of any ship or goods or baggage shall be required to be licensed, any person not so licensed, or not being the duly appointed clerk to any person so licensed, shall act as such agent or clerk, or if any person, whether so licensed or appointed or not, shall make or cause to be made entry of any goods without being duly authorised for that purpose by the proprietor or consignee of such goods, every such person shall for every such offence forfeit the sum of 20*l.*; but no such penalty shall extend to any person acting under the direction of the several dock companies, or to any person otherwise authorised by law to pass entries, nor to any merchant, importer, or consignee of any goods, acting himself in respect thereof, or any clerk or servant exclusively employed by him or by any such persons in copartnership. (Sec. 71.)

Agent to produce Authority if required.—Whenever any person shall make application to any officer of the customs to transact any business on behalf of any other person, such officer may require of the person so applying to produce a written authority from the person on whose behalf such application shall be made, and in default of the production of such authority refuse to transact such business. (Sec. 72.)

Officers may take Samples.—The officers of customs may on the entry of any goods, or at any time afterwards, take samples of such goods for examination, or for ascertaining the duties payable on such goods, or for such other purpose as the Commissioners of Customs may deem necessary, and such samples shall be disposed of and accounted for in such manner as the Commissioners of Customs may direct. (Sec. 73.)

As to the Time within which Goods shall be entered and landed after the Arrival of the importing Ship.

Goods not entered within 14 Days may be conveyed to Queen's Warehouse.—If the importer of any goods shall not, within 14 days (exclusive of Sundays and holidays) after the arrival of the ship importing the same, make perfect entry or entry by bill of sight of such goods, or if, having made such entry, he shall not land such goods within such 14 days, or within such further period as the Commissioners of Customs shall direct, the officers of the customs may convey such goods to the Queen's warehouse: and whenever the cargo of any ship shall have been discharged within such 14 days, with the exception only of a small quantity of goods, the officers of the customs may forthwith convey such remaining goods to the Queen's warehouse; and also at any time after the arrival of such ship may convey any small packages or parcels of goods therein to the Queen's warehouse, there to remain for due entry during the remainder of such 14 days; and if the duties due upon any goods so conveyed to the Queen's warehouse shall not be paid within 3 months afterwards, or within such further period as the said Commissioners may direct, together with all charges of removal and warehouse rent, such goods may be sold, and the produce thereof applied, first to the payment of freight and charges, next of duties, and the overplus, if any, shall be paid to the proprietor of the goods on his application for the same; but if such goods or any of them shall be of a perishable nature, the Commissioners of Customs may forthwith direct sale thereof, and apply the

proceeds in like manner: provided always, that for this purpose, if the importing ship and goods be liable to the performance of quarantine, the time for entry and landing of such goods shall be computed from the time at which such ship and goods shall have been released from quarantine: provided always, that if 48 hours or any earlier period after the report of any ship is specified in the bills of lading for the discharge of her cargo or any part thereof, and the importer, owner, or consignee of such goods or his agent shall neglect to enter and land the same within such 48 hours at any port or place approved by the Commissioners of Customs, the master or owner of such ship may immediately, on the expiration of such 48 hours, enter and land such goods. (Sec. 74.)

If Goods remain on board importing Ship beyond 14 Days, such Ship may be detained for Expenses.—Whenever any goods shall remain on board any importing ship beyond the period of 14 days after the arrival of such ship, or beyond such further period as the Commissioners of Customs may allow, such ship shall be detained by the proper officer of customs until all expenses of watching or guarding such goods beyond such 14 days, or such further time, if any allowed as aforesaid, not exceeding 5*s.* per diem, and of removing the goods, or any of them, to the Queen's warehouse, in case the officers shall so remove them, be paid. (Sec. 75.)

As to Goods upon which any Abatement for Damage on the Voyage or by Wreck may be claimed.

Abatement of Duty on Damaged Goods.—No claim for any abatement of duty in respect of any goods imported into the United Kingdom shall be allowed on account of damage unless such claim shall be made on the first examination thereof, and in such form and manner as the Commissioners of Customs shall direct, nor unless it shall be proved to the satisfaction of the Commissioners of Customs or their officers that such damage was sustained after such goods had been shipped in the importing ship and before the landing thereof in the United Kingdom: and all goods derelict, jetsam, flotsam, and wreck brought or coming into the United Kingdom, and all droits of Admiralty sold in the United Kingdom, shall at all times be subject to the same duties as goods of the like kind on importation into the same part of the United Kingdom are subject to, unless it shall be shown to the satisfaction of the Commissioners of Customs that such goods are the growth, produce, or manufacture of any country or place by virtue whereof the same may be entitled to be admitted at less than the foreign duty, or duty free, or that the same, if liable to duty, are entitled to an abatement in respect of such damage; and the damage sustained by such goods, whether so imported or derelict, jetsam, flotsam, or wreck as aforesaid, shall be assessed by the officers of the customs, if competent thereto; but if not, or if the Commissioners of Customs or the collector or comptroller of the port into which the same shall be imported or brought as aforesaid shall entertain any doubt as to the amount of such damage, they may call upon two indifferent merchants to examine the goods and certify to what extent in their judgment the same are lessened in value by such damage, whereupon the officers of the customs may make an abatement not exceeding ¼ of the duty originally chargeable thereon; but no allowance shall be made for damage on spirits, corn grain, meal and flour, sugar, cocoa, tea, coffee, pepper, tobacco, currants, raisins, wine, and figs. (Sec. 76.)

As to the Production of Certificates of Origin in respect of Goods claiming any Benefit thereby on Importation.

Goods from Possessions Abroad.—No goods shall be entered as being of or from any British possessions abroad (if any benefit attach to such distinction) except the territories subject to the Government of the presidencies of Bengal, Madras, and Bombay respectively, unless the master of the ship importing the same shall have delivered to the collector or comptroller a certificate, under the hand of the proper officer of the place where such goods were taken on board, of the due clearance of such ship from thence, containing an account of such goods. (Sec. 77.)

Treasury may require Certificates of Production.—The Commissioners of the Treasury may by order under their hands declare that a certificate of production shall be required upon the exportation of any goods from any British possession abroad or other place, or upon the importation of such goods into the United Kingdom, and frame such regulations respecting such certificates and goods as they may think fit; and if any goods in respect of which such certificates are required be imported without such certificate, they shall be deemed to be foreign goods and liable to any duty attaching to them as such; and such orders of the Treasury shall be published in the London and Dublin Gazettes 3 times at least within 3 months from the date thereof respectively. (Sec. 78.)

Certificate of Sugar from Limits of East India Company's Charter.—Before any sugar shall be entered as being the produce of any British possession within the limits of the East India Company's charter, the master of the ship importing the same shall, so long as any benefit attach to such distinction, deliver to the collector or comptroller a certificate under the hand and seal of the proper officer at the place where such sugar was taken on board, testifying that a declaration in writing, the contents of which he believed to be true, had been made and signed before him by the shipper of such sugar, that the same was really and bonâ fide the produce of the British possession. (Sec. 80.)

East India Sugar warehoused at the Cape of Good Hope.—If any sugar, the produce of any British possession within the limits of the East India Company's charter, so long as any benefit attaches to such distinction, shall have been imported into the Cape of Good Hope from the place of its production, accompanied by such a certificate of origin as would be sufficient for its admission into the United Kingdom at the rate of duty payable upon such sugar if imported direct from the place of its production, and shall have been warehoused at the Cape of Good Hope under the regulations there in force for the warehousing of goods, and shall have been exported from such warehouse, accompanied by a certificate from the proper officer of customs at the Cape of Good Hope, setting forth the particulars of the importation, and of the warehousing and of the exportation of the same, and also setting forth the substance of the certificate of origin before mentioned, and if, on the arrival in the United Kingdom of the ship importing such sugar, the master of such ship shall deliver to the collector or comptroller at the port of importation such certificate from the officer of the customs at the Cape of Good Hope, such sugar shall be admitted at such port of importation in the United Kingdom at

the same rate of duty as would be payable if the same had been imported direct from the place of its production. (Sec. 81.)

Goods of Guernsey, Jersey &c.—Any goods of the growth of the Channel Islands, and any goods manufactured in the said islands from materials of their growth, or from materials not subject to duty in the United Kingdom, or from materials upon which the duty has been paid in the United Kingdom, and upon which no drawback has subsequently been granted, may be imported into the United Kingdom from the said islands respectively without payment of any duty, and such goods shall not be deemed to be included in any charge of duties imposed by any Act on the importation of goods generally from parts beyond the seas: but any goods shall be charged with any proportion of such duties as shall fairly countervail any duties of excise payable on the like goods the produce or manufacture of the part of the United Kingdom into which they shall be imported, or payable upon any of the materials from which such goods are manufactured; and all goods manufactured in any of the said islands from any other materials than the materials aforesaid shall be declared and taken to be foreign goods. (Sec. 82.)

Master to deliver Certificate of Produce.—Before any goods shall be entered as being the produce of the said islands (if any benefit attach to such distinction), the master of the ship importing the same shall deliver to the collector or comptroller of customs a certificate from the governor, lieutenant-governor, or commander-in-chief of the island from whence such goods were imported, that proof had been made in manner required by law that such goods were of the produce of such island, stating the quantity and quality of the goods, and the number and denomination of the packages containing the same. (Sec. 83.)

As to the Unshipping, Landing, Examination, Warehousing, and Custody of Goods.

Goods to be unshipped, carried, landed, weighed &c. and deposited at the Expense of the Importer.—The unshipping, carrying, and landing of all goods, and bringing them to the proper place for examination, and weighing, putting them into the scales, opening, unpacking, repacking, bulking, sorting, lotting, marking, and numbering, where such operations respectively are necessary or permitted, and removing to and placing them in the proper place of deposit until duly delivered, shall be performed by or at the expense of the importer; and the importer or person entering any timber or wood to be charged with duty by measurement shall, at his expense, pile, sort, frame, or otherwise place the same in such manner as the Commissioners of Customs may deem necessary to enable the officers to measure and take the account thereof; and in all cases when the same is measured in bulk, the measurement shall be taken to the full extent of the pile, and no allowance shall be made by the officers on account of any interstices; but battens, boards, deals, and planks exceeding 21 feet in length may be measured by the piece, and the account thereof taken separately. (Sec. 85.)

Goods removed or carried into the Warehouse without Authority forfeited.—If any goods shall be removed from any ship, quay, wharf, or other place previous to the examination thereof by the proper officer of customs, unless under the care or authority of such officer, or if any goods entered to be warehoused, or to be re-warehoused, shall be carried into the warehouse unless with the authority or under the care of the proper officer of customs, and in such manner, by such persons, within such time, and by such roads or ways as such officer shall direct, such goods shall be forfeited. (Sec. 86.)

Officer of Customs to take Account of Goods for Warehouse.—Upon the entry and landing of any goods to be warehoused, or within such period as the Commissioners of Customs shall direct with respect to the same or any of them, the officer of customs shall take a particular account of such goods at the quay or wharf at which they shall be so landed, or in the warehouse, if they be goods of which the account is permitted to be taken in the warehouse, and shall cause to be marked on each package of which such account shall be taken the contents thereof, and shall enter in a book prepared for that purpose, containing the name of the import ship, and of the person in whose name they are entered, the marks, numbers, and contents of each such package, the description of the goods, and the warehouse or place in the warehouse in which the same shall be deposited; and when the same shall have been so deposited with the authority of such officer, he shall certify that the entry and warehousing of such goods are complete, and such goods shall from that time be considered goods warehoused; and if any such goods shall be delivered, withheld, or removed from the proper place of examination before the same shall have been duly examined and certified by such officer, such goods shall be deemed to be goods not duly entered or warehoused, and shall be forfeited. (Sec. 87.)

Goods to be entered and Duties paid according to Landing Account.—The account of the goods so taken as aforesaid shall be the account upon which the duties payable upon such goods shall be ascertained when the same shall ultimately come to be delivered upon due entry for that purpose, and the same shall be entered and the full duties thereon be paid according to the quantity taken in such account, without any abatement for any deficiency, except as hereinafter provided (Sec. 88), and the quantity of the goods should be specified on which duty is chargeable by delivery.

Warehoused Goods to be deposited in original Packages, or those of which Account is taken.—All goods warehoused shall be deposited in the packages in which the same shall have been imported, except as to such goods as are permitted to be skipped on the quay, or bulked, sorted, lotted, packed, or repacked in the warehouse after the landing thereof, in which case they shall be deposited in the packages in which the same shall be when the account thereof is taken by the proper officer; and if such goods are not so deposited, or if any alteration shall afterwards be made in the goods so deposited, or in the packing thereof in the warehouse, or if the same shall be removed from the room in the warehouse in which the same are deposited, without the presence or sanction of the proper officers, except for delivery under the proper warrant, order, or authority for that purpose, they shall be forfeited. (Sec. 89.)

Commissioners to direct what Goods may be bulked, sorted, packed &c.—The Commissioners of Customs may direct what goods may be skipped on the quay, or bulked, sorted, lotted, packed, or repacked, and determine in respect of what goods the account may be taken in any warehouse approved by them for that purpose, and within what time after the landing thereof, and on such conditions as they may deem necessary. (Sec. 90.)

Warehousekeeper neglecting to stow Goods properly to forfeit 5l.—If the occupier of any ware-

house shall neglect to stow the goods warehoused therein so that easy access may be had to every package and parcel thereof, he shall for every such neglect forfeit the sum of 5*l*. (Sec. 91.)

Warehousekeeper neglecting to produce Goods deposited, to forfeit 5l.—If the occupier of any warehouse shall not produce to any officer of customs on his request any goods deposited in such warehouse which shall not have been duly cleared and delivered therefrom, such occupier shall for every such neglect forfeit the sum of 5*l*. in respect of every package or parcel not so produced, besides the duties due thereon. (Sec. 92.)

Goods not duly warehoused, or fraudulently concealed, or removed, forfeited.—If any goods entered to be warehoused shall not be duly warehoused in pursuance of such entry, or being duly warehoused shall be fraudulently concealed in or removed from the warehouse, or abstracted from any package, or transferred from one package to another or otherwise, for the purpose of illegal removal or concealment, they shall be forfeited. (Sec. 93.)

Importer or Proprietor of warehoused Goods clandestinely gaining Access thereto to forfeit 100l.—If the importer or proprietor of any goods warehoused, or any person in his employ, shall clandestinely open the warehouse, or, except in the presence of the proper officer of customs acting in the execution of his duty, gain access to the goods, such importer or proprietor shall for every such offence forfeit the sum of 100*l*. (Sec. 94.)

Duty on Goods taken out of Warehouse without Entry to be paid by Warehousekeeper &c.—If any goods shall be taken out of any warehouse without due entry of the same with the proper officer of customs, the occupier of such warehouse shall forthwith pay the duties due upon such goods; and every person so taking out any goods without payment of duty, or who shall aid, assist, or be concerned therein, and every person who shall wilfully destroy or embezzle any goods duly warehoused, shall be deemed guilty of a misdemeanor, and shall, upon conviction, suffer the punishment by law inflicted in cases of misdemeanor; but if such person shall be an officer of customs or excise not acting in the due execution of his duty, and shall be prosecuted to conviction by the importer, consignee, or proprietor of such goods, no duty shall be payable for or in respect of such goods, and the damage occasioned by such waste, spoil, or embezzlement shall, with the sanction of the Commissioners of the Treasury, be repaid or made good to such importer, consignee, or proprietor by the Commissioners of Customs. (Sec. 95.)

If Goods be damaged by Fire, Importer not entitled to Compensation.—No compensation shall be made by the Commissioners of Customs to any importer, proprietor, or consignee of any goods by reason of any damage occasioned thereto in the warehouse by fire or other inevitable accident. (Sec. 96.)

Commissioners may remit Duties on warehoused Goods lost or destroyed.—If any goods warehoused or entered to be warehoused, or entered to be delivered from the warehouse, shall be lost or destroyed by unavoidable accident, either on shipboard or in landing, or in receiving into the warehouse, or in the warehouse, the Commissioners of Customs may remit or return the duties due thereon. (Sec. 97.)

As to the Removal of Warehoused Goods.

Goods may be removed from one Port to another.—Any goods warehoused at any port in the United Kingdom may be removed by sea or by inland carriage to any other port in which the like kind of goods may be warehoused on importation, to be rewarehoused at such other port, and again as often as may be required at any other such port, to be there rewarehoused, or with the permission of the proper officer of customs from any warehouse in any port to any other warehouse in the same port, under such regulations and with such security as the Commissioners of Customs may direct, on the delivery to the proper officer, by the person requiring such removal, of a request note, stating the particulars of the goods required to be removed, the name of the port, or of the warehouse, if in the same port, to which the same are intended to be removed, and with such other information and in such manner and form as the Commissioners of Customs or the proper officer may direct or require. (Sec. 98.)

Officers at Port of Removal to transmit Account of Goods to Officers at Port of Destination.—On the delivery of any goods for removal, an account, containing the particulars thereof, shall be transmitted by the proper officers of the port of removal to the proper officers of the port or place of destination, and the person requiring the removal thereof shall enter into bond, with one sufficient surety, in a sum equal at least to the duty chargeable on such goods, for the due arrival and rewarehousing thereof at the port or place of destination within such time as the Commissioners of Customs may direct, such bond to be taken by the collector, comptroller, or other proper officer, either of the port or place of removal, or the port or place of destination, as shall best suit the residence or convenience of the parties interested in such removal; and if such bond shall have been given at the intended port or place of destination, a certificate thereof, under the hand of the collector or comptroller, or other proper officer of such port, shall at the time of the entering of such goods be produced to the collector, comptroller, or other proper officer of the port of removal; and such bond shall not be discharged unless such goods shall have been produced to the proper officer, and duly rewarehoused at the port of destination, within the time allowed for such removal, or shall have been otherwise accounted for to the satisfaction of the Commissioners of Customs, nor until the full duties due upon any deficiency of such goods not so accounted for shall have been paid; but any remover may enter into general bond, with such sureties, in such amount, and under such conditions, as the Commissioners of Customs may approve, for the removal from time to time of any goods from one warehouse to another, and for the due arrival and re-warehousing of the same at the place of destination within such time or times as the said Commissioners may direct. (Sec. 99.)

Goods, on Arrival at Port of Destination, to be subject to same Regulations as Goods on first Importation.—Upon the arrival of such goods at the port or place of destination, the same shall be entered and warehoused in the same manner, and under and subject to the same laws, rules, and regulations, so far as the same are or can be made applicable, as are required on the entry and warehousing of goods on the first importation thereof. (Sec. 100.)

On Arrival of Goods at Port of Destination, they may be entered for Exportation or for Home Use, on Payment of Duties.—If upon the arrival of goods so removed as aforesaid at the port of destination the parties shall be desirous forthwith to export the same, or to pay duty thereon for home use, without actually lodging the same in the warehouse for which they have been entered and examined to be re-warehoused, the officers of customs

at such port may, after all the formalities of entering and examining such goods for re-warehousing have been duly performed, permit the same to be entered and shipped for exportation, or to be entered and delivered for home use, upon payment of the duties due thereon, as if such goods had been actually lodged in such warehouse; and all goods so exported, or for which the duties have been so paid, shall be deemed to have been duly cleared from the warehouse. (Sec. 101.)

Warehoused Goods, if not cleared for Home Use or Exportation within 5 Years, must be re-warehoused.—All warehoused goods shall be cleared either for home use or exportation at the expiration of 5 years from the day on which the same were so warehoused, or within such further period and in such cases as the Commissioners of the Treasury shall direct, unless the owner or proprietor of such goods shall be desirous of re-warehousing the same, in which case the same shall be examined by the proper officers, and the duties due upon any deficiency or difference between the quantity ascertained on landing and the quantity found to exist on such examination, together with the necessary expense attendant thereon, shall, subject to such allowances as are by law permitted in respect thereof, be paid down, and the quantity so found shall be re-warehoused in the name of the then owner or proprietor thereof in the same manner as on first importation. (Sec. 103.)

Goods in Warehouse not cleared or re-warehoused, or Duties paid on Deficiencies, after 5 Years to be sold.—If any warehoused goods shall not be duly cleared, exported, or re-warehoused, and the duties ascertained to be due on the deficiencies as aforesaid shall not be paid down at the expiration of 5 years from the previous entry and warehousing thereof, or within such further period as shall be directed as aforesaid, the same, if worth the duty due thereon, shall, after 1 month's notice to the warehousekeeper, with all convenient speed be sold either for home use or exportation, with or without the consent of the warehousekeeper, and the proceeds thereof shall be applied to the payment of the duties, warehouse rent, and charges, and the surplus, if any, shall be paid to the owner or proprietor of such goods, if known: but if such owner or proprietor cannot be found, such surplus shall be carried to the Crown's account, to abide the claim of such owner or proprietor on his appearing and making good his claim thereto; and if such goods shall not be worth the duty, then the same, after such 1 month's notice as aforesaid, may be exported or destroyed, with or without the concurrence of the owner thereof, or the proprietor of the warehouse in which the same were so warehoused, as the Commissioners of Customs shall see fit; and the duties due upon any deficiency thereof not allowed by law shall be forthwith paid by the proprietor of the warehouse. (Sec. 104.)

Goods in Warehouse may be sorted, repacked &c.—With the sanction of the Commissioners of Customs, and after such notice given by the respective importers or proprietors, and at such times and under such regulations and restrictions as the Commissioners of Customs shall from time to time require and direct, it shall be lawful in the warehouse to sort, separate, pack, and repack any goods, and to make such alterations therein as may be necessary for the preservation, sale, shipment, or disposal thereof; provided that such goods be repacked in the packages in which they were imported, or in such other packages as the Commissioners shall permit (not being less in any case, if the goods be to be exported or to be removed to another warehouse, than is required by law on the importation of such goods); and also to draw off any wine or any spirits into reputed quart or pint bottles for exportation only; and to draw off and mix brandy with any wine, not exceeding the proportion of 10 gallons of brandy to 100 gallons of wine; and also to fill up any casks of wine or spirits from any other casks of the same respectively secured in the same warehouse; and also to rack off any wine from the lees, and mix any wines of the same sort, erasing from the cask all import brands, unless the whole of the wine so mixed be of the same brand; and also to take such samples of goods as may be allowed by the Commissioners of Customs, with or without entry, and with or without payment of duty, except as the same may eventually become payable as on a deficiency of the original quantity; and the duty on the surplus, if any, of such goods as may be delivered for home use shall be immediately paid, and such surplus shall thereupon be delivered for home use accordingly; and after such goods have been so separated and repacked in proper or approved packages, the Commissioners of Customs may, at the request of the importer or proprietor of such goods, cause or permit any refuse, damage, or surplus goods occasioned by such separation or repacking, or, at the like request, any goods which may not be worth the duty, to be destroyed, and may remit the duty payable thereon. (Sec. 105.)

Foreign Import or Duty-paid Packages only to be used in repacking.—No foreign packages or materials whatsoever shall be used in the repacking of any goods in the warehouse, except such as shall have been used in the importation of warehoused goods, unless the full duties thereon shall have been first paid. (Sec. 106.)

Goods in Warehouse may be taken out, under certain Regulations.—The Commissioners of Customs may permit any goods to be taken out of the warehouse without payment of duty, for such purpose or such period as to them may appear expedient, and in such quantities, and under such regulations and restrictions, and with such security by bond for the due return thereof or the payment of the duties due thereon, as they may direct or require. (Sec. 107.)

As to the Entry of Warehoused Goods for Home Consumption and Exportation, and the Delivery thereof.

Entry for Exportation.—No warehoused goods shall be taken or delivered from the warehouse except upon due entry, and under the care of the proper officers, for exportation, or upon due entry and payment of the full duties payable thereon for home use, except goods delivered into the charge of the searchers to be shipped as stores, in such quantities as the collector or comptroller shall allow, subject to the directions of the Commissioners of Customs, and under such regulations as they may see fit to make. (Sec. 109.)

Persons entering warehoused Goods for Home Use to deliver Bill of Entry, and pay down Duties.—Upon the entry of any goods to be cleared from the warehouse for home use, the person entering such goods shall deliver a bill of entry, and duplicates thereof, in like manner and form, containing the same particulars as are before required on the entry of goods to be delivered for home use on the landing thereof, as far as the same may be applicable, and shall at the same time pay down to the proper officer of customs the full duties payable thereon, not being less in amount than according to the account of the quantity taken by the landing waiter or other proper officer on the first entry and landing thereof, except as to the

following goods; viz., tobacco, wine, spirits, figs, currants, raisins, and sugar, the duties whereon, when cleared from the warehouse for home use, shall be charged upon the quantity of such goods ascertained by weight, measure, or strength at the time of actual delivery thereof, unless there is reasonable ground to suppose that any portion of the deficiency or difference between the weight, measure, or strength ascertained on landing and first examination of any such last-mentioned goods and that ascertained at the time of actual delivery has been caused by illegal or improper means, in which case the proper officer of customs shall make such allowance only for loss as he may consider fairly to have arisen from natural evaporation or other legitimate cause. (Sec. 110.)

Value of Goods to be estimated by Officers at the Market Price.—When any deficiency occurs in goods chargeable to pay duty according to the value thereof, the value thereof shall be estimated as nearly as conveniently may be by the officers of customs according to the market price of the like sort of goods. (Sec. 111.)

Deficiencies in Goods entered for Exportation not to be charged with Duty unless fraudulent.—No duty shall be charged in respect of any deficiency in goods entered and cleared from the warehouse for exportation unless the officers of customs have reasonable ground to suppose that such deficiency or any part thereof has arisen from illegal abstraction. (Sec. 112.)

As to the Exportation and Entry of Goods, and the Clearance of Ships from the United Kingdom to Parts beyond Seas.

Warehoused Goods not to be exported in Ships of less than 50 Tons Burden, except to Guernsey or Jersey.—No person shall export any warehoused goods, nor enter any such goods for exportation from the United Kingdom to parts beyond the seas, in any ship of less burden than 50 tons, except to the islands of Guernsey and Jersey in ships not being of less than 40 tons burden, regularly trading to those islands. (Sec. 117.)

Master to deliver Certificate of Clearance of last Voyage, and to make Entry Outwards.—The master of every ship in which any goods are to be exported from the United Kingdom to parts beyond seas, or his agent, shall, before any goods be taken on board, deliver to the collector or comptroller a certificate from the proper officer of the due clearance inwards or coastwise of such ship of her last voyage, and shall also deliver therewith an entry outwards of such ship, verified by his signature, in the following form or to the same effect, and containing the several particulars indicated or required thereby:—

ENTRY OUTWARDS.

Port of (*Name of Port of Exportation*):

Ship's Name		Tonnage	Master's Name	Port of Destination
If British, Name of Port of her Registry	If Foreign, Name of Country to which she belongs			

Lying at (*Name of Station or Place in Port*)

(Signed)_____ Master or Agent.

Date of Entry

If Ship shall have commenced her lading in any other Port, Name of such Port

and if such ship shall have commenced her lading at some other port, the master shall deliver to the searcher the clearance of such goods from such other port; and if any goods be taken on board any ship at any port before she shall have been entered outwards at such port (unless a *stiffening order*, when necessary, shall be issued by the proper officer to lade any heavy goods for exportation on board such ship), the master shall forfeit the sum of 100*l.* (Sec. 118.)

Goods not to be shipped except on proper Days and Places, nor until Entry and Clearance.—No goods shall be shipped, put off, or water-borne to be shipped for exportation, from any port or place in the United Kingdom, except on days not being Sundays or holidays, nor from any place except some legal quay, wharf, or other place duly appointed for such purpose, nor without the presence or authority of the proper officer of customs, nor before due entry outwards of such ship, and due entry of such goods, nor before such goods shall have been duly cleared for shipment; and it shall be lawful for the searcher to open all packages, and fully to examine all goods shipped or brought for shipment at any place in the United Kingdom. (Sec. 119.)

As to the Entry and Clearance of Goods for Exportation.

On Entry Outwards, Bond for due shipping and landing shall be given.—Before any warehoused goods, British-wrought plate, goods subject to duties of customs, or entitled to any drawback of customs, on exportation, or exportable only under particular rules, regulations, or restrictions, shall be permitted to be exported, the exporter or his agent shall deliver to the collector or comptroller a bond note or account of such goods, and give security by bond in double the amount of duty payable by law upon the importation of such goods, with one sufficient surety, that such goods shall be duly shipped and exported, and shall be landed at the place for which they are entered outwards, or otherwise accounted for to the satisfaction of the Commissioners of Customs; and such bond note, when certified by the proper officer, shall be the export entry for such goods. (Sec. 120.)

Exporter to deliver Shipping Bill.—Before any such goods shall be shipped or water-borne to be shipped for exportation, the exporter or his agent shall deliver to the searcher or other proper officer a Shipping Bill of such goods in the form following or to that effect, and containing the particulars indicated therein or required thereby. (Sec. 121.)

Inland Revenue Drawback.—No drawback of excise shall be allowed upon any goods cleared for exportation, unless the person intending to claim such drawback shall have given due notice to the officer of excise, and shall have produced to the searcher, at the time of clearing such goods, a proper document under the hand of the officer of excise

Shipping Bill for { 1. Warehoused or Drawback Goods. 2. Foreign Goods not for Drawback. 3. Goods exported under some particular Rule, Regulation, or Restriction.

(*State as above described the Class to which the goods to be exported belong.*)

Ship's Name	Whether British or Foreign Ship; if Foreign, the Country	Master's Name	The Port or Place of Destination

Here state the Particulars according to the above Headings.

Marks	Numbers	Description of Packages	Quantity, Quality, and Description of Goods

Here state the Particulars according to the above Headings.

Total number of packages -

I claim drawback on { *Here state the quantity and description in words at length of any goods in respect of which drawback is claimed.*

Station of clearance.

Dated day of

(Signed) ——— Exporter or agent.

(Countersigned) ——— Searcher.

containing the description of such goods; and if such goods be found to correspond with the particulars of the goods contained in such document, and be duly shipped and exported, the searcher shall, if required, certify such shipment upon such document, and shall transmit the same to the officer of excise. (Sec. 122.)

Goods not entitled to Drawback if of less Value than claimed.—No drawback shall be allowed upon the exportation of any goods entered for drawback or as stores which shall be of less value than the amount of the drawback claimed; and all such goods so entered shall be forfeited, and the person who caused such goods to be entered shall forfeit the sum of 200*l.*, or treble the amount of drawback claimed in such case, at the election of the Commissioners of Customs. (Sec. 123.)

No Drawback on Tobacco not properly manufactured &c.—No drawback shall be allowed on any tobacco not wholly manufactured from tobacco on which the duty on importation shall have been paid, nor on any tobacco mixed with dirt, rubbish, or other substance; and every person who shall enter or ship, or cause to be entered or shipped, any tobacco contrary hereto, shall, over and above all other penalties which he may thereby incur, forfeit treble the amount of the drawback sought to be obtained, or 200*l.*, at the election of the Commissioners of Customs, and all such tobacco shall be forfeited. (Sec. 124.)

Shipping Bill for Free Goods &c. to be delivered to Searcher.—Before any goods in respect of which no bond is required shall be shipped or waterborne to be shipped for exportation, the exporter or his agent shall deliver to the searcher a shipping bill thereof, with such duplicates as may be required by him, in the following form or to that effect, and containing the several particulars indicated in or required thereby:—

SHIPPING BILL FOR BRITISH MANUFACTURES OR FOREIGN GOODS FREE OF DUTY.

Ship's Name	Whether British or Foreign Ship; if Foreign, the Country	Master's Name	Port or Place of Destination

Marks	Numbers	Description of Packages	Quantity, Quality, and Description of Goods	The Value of British Goods and of Foreign Goods formerly charged with Duty at Value (if any)
				£ s. d.
Total number of packages -			Total value -	

I declare the value of the British goods above described to be

Station of clearance

Dated this day of 18 .

(Signed) ——— Exporter or agent.

(Countersigned) ——— Searcher.

and such shipping bill shall be the entry for the goods contained therein; provided, that at Liverpool, and (with the sanction of the Commissioners of Customs) at any other port where the docks, quays, and wharfs are in like manner wholly or principally under the control and management of one and the same corporate body, the owner, charterer, consignee, broker, agent, or other person acting in the loading and clearance of the exporting ship shall also prepare a full and accurate list or manifest of all such goods from the bills of lading and freight list thereof, and shall sign and leave with the collector of the customs, within 14 days after such ship shall have cleared outwards, a

correct transcript of such last-mentioned list or manifest, distinguishing therein the names of the several shippers of such goods, according to the bills of lading; and on failure to prepare such list or manifest, and to sign and deliver such transcript as aforesaid, such owner, charterer, consignee, broker, or other person as aforesaid shall forfeit the sum of 20*l.* (Sec. 125.)

Shipping Bill signed by Searcher to be the Clearance for the Goods.—The shipping bill or bills, when filled up, and signed by the exporter or his agent, or the consignee of the ship, as the case may be, in such manner as the proper officer may require, and countersigned by the searcher, shall be the clearance for all the goods enumerated therein; and if any of such goods shall consist of tea, spirits, or tobacco, the exporter or his agent shall furnish to the searcher an account thereof, containing the number and description of the packages, and the respective quantities contained therein, which, when certified by the searcher, shall accompany the ship, and have the same force and effect as the cocket in use prior to the passing of this Act; and if the exporter or his agent shall require a similar certificate in respect of any other goods shipped for exportation, the searcher shall, on its being presented to him for that purpose, certify the same in like manner: provided always, that if any such certificate be required to be in any particular form for goods destined for the Zollverein or any other foreign state, or under the name of cocket, such certificate may be so prepared and denominated. (Sec. 126.)

Licensed Lighterman to carry Goods.—If any goods cleared for drawback or from the warehouse shall be carried or water-borne to be put on board any ship for exportation by any person not at the time duly licensed and authorised to act as a licensed lighterman, either in the port of London or any other port at which lightermen are required to be so licensed, or by any person not being in the employ of such lighterman at the time duly authorised to act as such, every such person shall for every such offence forfeit the sum of 20*l.* (Sec. 127.)

Warehoused Goods shipped for Exportation without Authority forfeited.—If any goods taken from the warehouse for removal or for exportation shall be removed or shipped except with the authority or under the care of the proper officer of customs, and in such manner, by such persons, within such time, and by such roads or ways as such officer shall permit or direct, such goods shall be forfeited. (Sec. 128.)

Duties may be remitted on Warehoused Goods lost or destroyed in Removal or Shipment.—If any goods duly entered for delivery from the warehouse for removal or exportation shall be lost or destroyed by unavoidable accident, either in the delivery from the warehouse or the shipping thereof, the Commissioners of Customs may remit the duties due thereon. (Sec. 129.)

As to the Issue of Debentures for and Payment of Drawback on Goods exported.

Issuing and passing Debenture.—For the purpose of computing and paying any drawback claimed and payable upon any goods duly entered, shipped, and exported, a debenture shall in due time after such entry be prepared by the collector or comptroller, certifying in the first instance the entry outwards of such goods; and so soon as the same shall have been duly exported, and a notice containing the particulars of the goods shall have been delivered by the exporter to the searcher, the shipment and exportation thereof shall be certified to the collector or comptroller upon such debenture by the searcher, and the debenture shall thereupon be computed and passed with all convenient despatch. (Sec. 130.)

Declaration as to Exportation and Right to Drawback.—The person entitled to any drawback on any goods duly exported, or his agent duly authorised by him for that purpose, shall make and subscribe a declaration upon the debenture that the goods mentioned therein have been actually exported, and have not been relanded, and are not intended to be relanded, in any part of the United Kingdom, and that such person at the time of entry and shipping was and continued to be entitled to the drawback thereon; and the name of such person shall be stated in the debenture, which shall then be delivered to such person or his agent; and the receipt of such person on the debenture, countersigned by the holder of such debenture, if the same shall have been transferred in the mean time, shall be the discharge for such drawback when paid. (Sec. 131.)

Payment within Two Years.—No debenture for any drawback allowed upon the exportation of any goods shall be paid after the expiration of 2 years from the date of the shipment of such goods (Sec. 132.)

Warehouse or Debenture Goods not exported &c., or relanded &c., without Entry, forfeited.—If any goods which have been cleared to be exported for any drawback shall not be duly exported to parts beyond the seas, or shall be unshipped or relanded in any part of the United Kingdom (such goods not being duly relanded or discharged as short-shipped under the care of the proper officers), or shall be carried to any of the Channel Islands (not having been duly entered, cleared, and shipped to be exported or carried directly to such islands), the same shall be forfeited, together with any ship, boat, or craft which may have been used in so unshipping, relanding, landing, or carrying such goods from the ship in which the same were shipped for exportation; the master of such ship, and any person by whom or by whose orders or means such goods shall have been so unshipped, relanded, landed, or carried, or who shall aid, assist, or be concerned therein, shall forfeit a sum equal to treble the value of such goods, or a penalty of 100*l.*, at the election of the Commissioners of Customs. (Sec. 133.)

Drawbacks of Duties on Wine allowed for Officers in the Navy.—A drawback of the whole of the duties of customs shall be allowed for wine intended for the consumption of officers of her Majesty's navy on board such of her Majesty's ships in actual service as they shall serve in, not exceeding the quantities of wine in any one year for the use of such officers hereinafter respectively mentioned, viz.—

	Galls.
For every Admiral - - - -	1,260
Vice-Admiral - - - -	1,050
Rear-Admiral - - - -	840
Captain of the 1st and 2nd rate - -	630
Captain of the 3rd, 4th, and 5th rate -	420
Captain of an inferior rate - -	210
Lieutenant and other Commanding Officer, and for Marine Officer, Master, Purser, and Surgeon - - - - -	105

unless such wine be taken from the warehouse without payment of duty under such regulations as the Commissioners of Customs may direct: Provided always, that in either case such wine be shipped at ports approved of by the said commissioners. (Sec. 134.)

Persons entering such Wine for Drawback to declare Name and Rank of Officer claiming the

same.—The person entering such wine, and claiming the drawback for the same, shall state in the entry and declare on the debenture the name of the officer for whose use such wine is intended, and of the ship in which he serves; and such wine shall be delivered into the charge of the officers of the customs at the port of shipment, to be shipped under their care; and the commanding officer for the time being of such ship, having certified upon the debenture the receipt of such wine into his charge, and the proper officer of the customs having certified to the shipment on the debenture, the same shall be computed and passed, and be delivered to the person entitled to receive the same. (Sec. 135.)

Officers leaving the Service &c., Wine permitted to be transferred to others.—If any such officer shall leave the service, or be removed to another ship, the officers of the customs may permit the transfer of any such wine from one officer to another, as part of his proportion, whether on board the same ship or another, or the transhipment from one ship to another for the same officer, or the relanding and warehousing for future re-shipment; and the officers of customs at any port may receive back the duties for any such wine, and deliver the same for home use; but if any of such wine be not laden on board the ship for which the same was intended, or be unladen from such ship without permission of the proper officers of customs, the same shall be forfeited. (Sec. 136.)

Pursers of Ships of War may Ship Tobacco for the Use of Crew free of Duty, on giving Bond.—The purser of any of her Majesty's ships of war in actual service may enter and ship, at any port approved by the Commissioners of Customs, in the proportions hereinafter mentioned, any tobacco there warehoused in his name, or transferred into his name for the use of the ship in which he shall serve, provided such purser shall deliver to the collector or comptroller of such port a certificate from the captain of such ship, stating the name of the purser, and the number of men belonging to the ship, and also give bond, with one sufficient surety, in treble the duties payable on the tobacco, that no part thereof shall be relanded without leave of the officers of customs. (Sec. 137.)

Purser removed from one Ship to another may tranship Tobacco, with Permission of Collector.—If any purser be removed from one ship to another, the collector or comptroller of any port may permit the transhipment of the remains of any such tobacco for the use of such other ship, upon due entry of such tobacco by such purser, setting forth the time when and the port at which such tobacco was first shipped; and if any such ship shall be paid off, the collector or comptroller of the port may permit the remains of any such tobacco to be landed, and to be entered by the purser of such ship, either for payment of duties, or to be warehoused for the term of 6 months, for the supply of some other such ship, in like manner as any tobacco may be warehoused and supplied at any such port, or for payment of all duties within such 6 months; and all tobacco warehoused for the purpose of so supplying ships of war shall be subject to the provisions of any Act in force relating to the warehousing of tobacco generally, as far as the same are applicable, and are not expressly altered by any of the provisions herein particularly made. (Sec. 183.)

Limiting the Quantity of Tobacco.—No greater quantity of such tobacco shall be allowed to any ship of war than 2 lbs. by the lunar month for each of the crew of such ship, nor shall any greater quantity be shipped at any one time than sufficient to serve the crew of such ship for 6 months after such rate of allowance; and the collector or comptroller of the port at or from which any such tobacco shall be supplied to any such ship, or landed from any such ship, or transferred from one such ship to another, shall transmit a particular account thereof to the Commissioners of Customs, in order that a general account may be kept of all the quantities supplied to and consumed on board each of such ships under the allowances before granted. (Sec. 139.)

As to the Shipping of Stores for the Use of Foreign-bound Vessels.

Victualling Bill for Stores.—The master of every ship of the burden of 50 tons or upwards, departing from any port in the United Kingdom upon a voyage to parts beyond the seas, the duration of which out and home shall not be less than 40 days, shall, upon due application made by him, and upon such terms and conditions as the Commissioners of Customs may direct, receive from the searcher an order for the shipment of such stores as may be required and allowed by the collector or comptroller for the use of such ship, with reference to the number of the crew and passengers on board, and the probable duration of the voyage on which she is about to depart: and all demands for such stores shall be made in such form and manner as such collector or comptroller shall require, and shall be signed by the master or owner of the vessel; and after such stores are duly shipped, the master or his agent shall make out an account of the stores so shipped, together with any other stores then already on board, and the same, when presented to the searcher, signed by him, and countersigned by the collector or comptroller, shall be the Victualling Bill; and no stores shall be shipped for the use of any ship, nor any articles taken on board any ship be deemed to be stores, except such as shall be borne upon such victualling bill. (Sec. 140.)

As to the Clearance of Ships Outwards.

If Inward Cargo reported for Exportation, Copy of Report thereof to be delivered to the Searcher.—If there be on board any ship any goods, being part of the inward cargo reported for exportation in the same ship, the master shall, before clearance outwards of such ship from any port in the United Kingdom, deliver to the searcher a copy of the report inwards of such goods, certified by the collector or comptroller; and if such copy be found to correspond with the goods so remaining on board, the searcher shall sign the same, to be filed with the certificates or cockets, if any, and victualling bill of the ship. (Sec. 141.)

Before Clearance Master to deliver Content.—Before any ship shall be cleared outwards from the United Kingdom with any goods shipped or intended to be shipped on board the same, the master shall deliver a *content* of such ship to the searcher, in the form or to the effect following, and containing the several particulars therein required, as far as the same can be known by him, and shall make and subscribe the declaration at the foot thereof, in the presence of the collector or comptroller, and shall answer such questions as shall be demanded of him concerning the ship, the cargo, and the intended voyage, by such collector or comptroller:—

CONTENT.

Port of

Ship's Name	Tonnage and Number of Guns		If British, Port of Registry; if Foreign, the Country	Number of Crew	Name of Master	Number of Passengers or Troops
	Tons.	Guns.				
Here state the Particulars according to the above Headings.						

Warehoused Goods	Drawback and restricted Goods	British Goods and Foreign Goods free of Duty, and Foreign Goods not for Drawback
If any, state Marks and Numbers of Packages.	*If any, state Description of Packages.*	*If any, state 'Sundry Packages containing,' either Class as the Case may be.*
If any goods shall have been reported inwards for Exportation in such Ship, they must be so stated.		

Cleared_____. Examined _____

(Signed)_____ Searcher.

Dated_____.

I do declare that the above Content is a true account of all goods shipped or intended to be shipped on board the above-named ship, and correct in all other particulars.

(Signed)_____ Master.

Signed and declared, this_____ day of _____ before me,

(Signed)_____ Collector or Comptroller.

and before clearance the certificates, if any, shall be delivered to the searcher, who shall compare the shipping bills with the content and certificates, if any, and file such certificates, copy of report inwards, if any, of goods reported for exportation in such ship, and the victualling bill, with a label attached and sealed thereto, in the form or to the effect following:—

(Seal.)
Number of Certificates (*Number in Figures*).
Ship (*Name of Ship*).
Master (*Name of Master*).
(*Date of Clearance.*)
(*Sig.*) _____ Searcher.
(*Sig.*) _____ Collector or Comptroller.

and such label, when filled up and signed by the searcher and the collector, shall, as to the goods comprised therein, be the clearance and authority for the departure of the ship. (Sec. 142.)

Goods on board to correspond with Content.—If any goods liable to duty on importation, or taken from the warehouse to be exported, or entitled to drawback on exportation, or exported under bond, which are enumerated in the content of any ship, shall not be duly shipped before the departure of such ship, or shall not be duly certified by the proper officer as short-shipped, such goods shall be forfeited; or if any such goods shall be taken on board such ship, not being enumerated in such content, the master of such ship shall forfeit the sum of 5*l.* in respect of every package of such goods; and if any goods duly shipped on board such ship shall be unshipped, or landed at any other place than that for which they shall have been cleared, unless otherwise accounted for to the satisfaction of the Commissioners of Customs, the master of such ship shall forfeit a sum equal to treble the value of the goods so landed. (30 & 31 Vict. c. 82 s. 12.)

Goods shipped contrary to Provisions forfeited.—If any goods shall be shipped, put off, or waterborne to be shipped, without being duly cleared, or otherwise contrary to the provisions of this Act, the same shall be liable to forfeiture. (16 & 17 Vict. c. 107 s. 144.)

Ships leaving in Ballast.—Before any ship shall depart in ballast from the United Kingdom for parts beyond the seas, not having any goods on board except stores from the warehouse borne upon the victualling bill of such ship, nor any goods reported inwards for exportation in such ship, the collector or comptroller shall clear such ship in ballast by notifying such clearance and the date thereof on the victualling bill, and deliver the same to the master of such ship as the clearance thereof; and the master of such ship shall answer to the collector or comptroller such questions touching her departure and destination as shall be demanded of him; and ships having only passengers with their baggage on board, and ships laden only with chalk or slate, shall be deemed to be in ballast; and if any such ship, whether laden or in ballast, shall depart without being so cleared, if she have any such stores on board, the master shall forfeit and pay the sum of 100*l.* (Sec. 146.)

As to the Boarding of Ships after Clearance Outwards.

Officers may board any Ship after Clearance.—Any officers of customs may go on board any ship after clearance outwards within the limits of any port in the United Kingdom, or within 4 leagues of the coast thereof, and may demand the ship's clearance; and if there be any goods on board in respect of which certificates are required, not contained in such certificates, or any stores not endorsed on the victualling bill, such goods or stores shall be forfeited; and if any goods contained in such certificates be not on board, the master shall forfeit the sum of 20*l.* for every package or parcel of goods contained in such certificates, and not on board. (Sec. 146.)

If Officers put Seals upon Stores, and such Seals be broken, Master to forfeit 20l.—If any officer of customs shall place any lock, mark, or seal upon any goods taken from the warehouse without payment of duty as stores on board any

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ship or vessel departing from any port in the United Kingdom, and such lock, mark, or seal be wilfully opened, altered, or broken, or if any such stores be secretly conveyed away, either while such ship or vessel remains at her first port of departure, or at any other port or place in the United Kingdom, or on her passage from one such port or place to another, before the final departure of such ship or vessel on her foreign voyage, the master shall forfeit the sum of 20*l.* (Sec. 147.)

Ships not bringing-to at Stations, Penalty 20*l.*—If any ship departing from any port in the United Kingdom shall not bring-to at such stations as shall be appointed by the Commissioners of Customs for the landing of officers from such ships, or for further examination previous to such departure, the master of such ship shall forfeit the sum of 20*l.* (Sec. 148.)

Time of Exportation and Departure defined.—The time at which any goods shall be shipped on board any export ship shall be deemed to be the time of exportation of such goods, and the time of the last clearance of any ship shall be deemed to be the time of departure of such ship. (Sec. 149.)

Goods Prohibited by Proclamation.—The following goods may, by proclamation or order in council, be prohibited either to be exported or carried coastwise: arms, ammunition, and gunpowder, military and naval stores, and any articles which her Majesty shall judge capable of being converted into or made useful in increasing the quantity of military or naval stores, provisions, or any sort of victual which may be used as food by man; and if any goods so prohibited shall be exported from the United Kingdom or carried coastwise, or be water-borne to be so exported or carried, they shall be forfeited. (Sec. 150.)

(Then follow the clauses in regard to the COASTING TRADE, COLONIAL TRADE, and SMUGGLING.)

The following provisions are contained in the Customs Tariff Amendment Act, 23 Vict. c. 22, as to importation and exportation:—

Sec. 16. There shall be charged, irrespective of any duties of customs or other rates or charges payable by law, upon the importation of all goods into Great Britain and Ireland, except corn, grain, and flour, and timber and wood goods, and goods in transit exported under bond, and goods imported for exportation in the same ship, provided they be so reported, the respective rates and charges following, that is to say:

	s.	*d.*
Goods in packages and parcels, per package or parcel or other unit of entry	0	1
Goods in bulk by weight or measure or number, for each unit of entry	0	1
Animals per head, or other unit of entry	0	1
And there shall be charged upon every customs bill of lading on the exportation of any goods from Great Britain and Ireland	1	6

Sec. 18. It shall be lawful for the Lords of the Treasury, or the Commissioners of Customs, to fix or adjust the number or quantity of goods which shall constitute the unit of entry chargeable with the rate of 1*d.*, having regard to the value of the goods, and from time to time to alter and vary the same as they may see fit, so that the said rate of 1*d.* shall exceed as little as may be in their judgment 5*s.* for every 100*l.* sterling upon the lowest ordinary value of the article to which such charge attaches.

By the 19th section the rates are to be paid by adhesive stamps. The penalty on importing free goods without giving true particulars is by Sec. 20 fixed at 40*s.* The bill of lading, which is defined in Sec. 21, is to be deemed the entry outwards of free goods, but must not include more than one consignment. Neglect in fulfilling all the conditions specified in this section involves a penalty of 5*l.* and treble stamp duty. 'Customs bills of lading' must be delivered within 24 hours after the final clearance, except under certain circumstances, of which notification must be given within 24 hours; but the specification of the goods contained must be delivered six days after such notice under a penalty of 40*s.*

Exporters shipping without Customs bill of lading are liable (sec. 25) to a penalty of 20*l.*

The master or owner of any ship in which goods are shipped for exportation must deliver a manifest duly attested by declaration. Penalty 20*l.*

Customs bills of lading &c. required to be used as evidence in courts of law are liable to fees of inspection—1*s.* for each inspection, and 2*s.* 6*d.* for each 1,080 words of a certified copy.

No customs bill of lading shall be valid without a stamp of the value of 1*s.* 6*d.*, nor any other bill of lading be valid without the stamp of 6*d.* thereon, already imposed by law. Penalty 40*s.*

The Commissioners of Customs, agreeably to the powers given them to that effect by the foregoing statute and others, have appointed the undermentioned places, within the several ports of the United Kingdom, at which vessels coming into or departing out of such ports shall bring-to, for the boarding or landing of customs' officers.

The following clause in the Act 16 & 17 Vict. c. 107 has reference to this matter:—If any ship coming into the United Kingdom or into the Channel Islands shall not come as quickly up to the proper place of mooring or unlading as the nature of the port will admit, without touching at any other place, and in proceeding to such proper place shall not bring-to at the stations appointed by the Commissioners of Customs for the boarding of ships by the officers of customs, or if after arrival at such place such ship shall remove from such place, except directly to some other proper place of mooring or unlading, and with the knowledge of the proper officer of the customs, or if the master of any ship on board of which any officer is stationed neglect or refuse to provide every such officer sufficient room under the deck in some part of the forecastle or steerage for his bed or hammock, the master of such vessel shall forfeit the sum of 20*l.* (Sec. 47.)

ENGLAND.

Ports.	*Stations for bringing-to.*
LONDON	Gravesend Reach, below the Custom-house.
ABERYSTWITH	On the bar, or a little above the junction of the rivers Rhydol and Ystwith.
Aberdovey	A little to the westward of the town, in the river Dovey.
ARUNDEL	The piles on the eastern side of the river, between the revenue watch-house and the Duke of Norfolk's Quay, in the harbour of Littlehampton.
Chichester	Cockbush Harbour.
BARNSTAPLE	Skern and watch-house, Appledore.
Ilfracombe	The harbour.
BEAUMARIS	Opposite the town, at Fryar's Road.
Amlwch	Within the harbour.
Conway	In the road-head opposite the town.
Holyhead	In the harbour.
BERWICK	At the entrance of the harbour, near the pier head.
BIDEFORD	Skern and watch-house, Appledore.
BOSTON	Hob Hole.
Spalding	Clayhole.
BRIDGEWATER	Between Hotestall Point, on the coast of the Bristol Channel, and Black Rock, about a mile within the mouth of the river Parrett.
Hartland	The entrance of the harbour.
BRIDPORT	The outer buoy, distant about 300 yards, abreast of the harbour.
BRISTOL	Pill and Kingsroad.
CARDIFF	Penrith Roads, a little to the eastward of the mouth of the river Taff.
CARDIGAN	At Pellcam, a little inside the bar or harbour's mouth.
CARLISLE	Fisher's Cross.
CARNARVON	In the bay off the town, opposite the Bell Tower, and at Abermenai.
Padstow	At the entrance of the harbour, by the Gimblet Rock.
Falmouth	In the harbour.
CHEPSTOW	At the entrance of the river Wye.
CHESTER	Dovpool, 6 miles from Hoylake.
COLCHESTER	Colne river, off Mersea Stone, Mersea Island.
COWES (EAST)	Roadstead of Cowes, extending from east to west about 2¼ miles.

Ports.	Stations for bringing-to.
DARTMOUTH	Between the mouth of the harbour and Sandquay Point.
Salcombe	At the mouth of the harbour and Snapes Point.
DEAL	In the Downs, in open roadstead.
DOVER	The outer harbour.
EXETER	At the Passage Way, Exmouth.
FALMOUTH	In the harbour, off Kiln Quay and watch-house.
Gweek	Durgan Roads, just at the entrance of the river Hel.
FAVERSHAM	Between the mouth of Faversham Creek and the Horse Sand in the East Swale.
Milton	At the mouth of Milton Creek in the Swale.
FLEETWOOD	In the harbour.
FOLKESTONE	In the harbour.
FOWEY	Near the Custom-house, not far from the entrance of the harbour.
GLOUCESTER	Sharpness Point and Slimeroad Bay in the Hamlet of Beachley.
GRIMSBY	At the outfall, near the entrance of the harbour.
GOOLE	Hull Roads.
HARTLEPOOL	Roadstead south of town.
HARWICH	In the harbour, between the Guard and Walton Ferry.
HULL	Hull Roads, between the east end of the citadel and the entrance to the Humber Dock to the westward.
IPSWICH	In the harbour, between the Guard and Walton Ferry.
ISLE OF MAN	
Douglas	In their respective bays.
Derby Haven	
Peel	
Ramsey	
LANCASTER	Glasson Dock, on the river Lune.
Ulverstone	Pile Cowdry, near the isle of Walnes.
LIVERPOOL	At the entrance of the respective docks.
LLANELLY	Entrance to the harbour.
LOWESTOFT	
Southwold	Opposite the jetty, near the entrance of the harbour.
LYME	The basin within the pier or cobb of Lyme Regis.
LYNN	Nottingham Point, intermediate space between Common Strath Quay, where the estuary narrows into a river, about 3 miles below the town, or as near as circumstances permit within the point.
MALDON	Barrow Hills, opposite Blackwater River, Maldon.
Leigh	Leigh Slade, or Leigh Swatch, which channel is formed by the spit of a sand called Marsh End, leading from the east end of Canvy Island, and nearly opposite to a windmill, called the Hamlet Mill, situate upon the Cliff, about ¼ mile to the westward of Southend, and about 2 miles from Leigh.
MARYPORT	The harbour.
MILFORD	In the haven, opposite the town of Milford.
NEWCASTLE	Opposite the watch-house, at the entrance of the River Tyne.
NEWHAVEN	In the stream, between the piers and the tide surveyor's watch-house.
NEWPORT (Wales)	At the watch-house, 1 mile from the Custom-house.
PADSTOW	Hawker's Cove, within the harbour.
PENZANCE	Gwavas Lake.
St. Michael's	St. Michael's Mount Roads.
PLYMOUTH	Within the line of the Breakwater, viz. the Sound, Catwater, and Hamoaze.
POOLE	At the entrance of the harbour, between South Deep, opposite Brownsea Castle, and the Essex buoy, opposite the castle stables.
PORTSMOUTH	Between Blockhouse Point and the north end of her Majesty's dockyard.
PRESTON	Lytham.
RAMSGATE	In the harbour.
Margate	In the harbour.
Sandwich	At the entrance of the harbour.
ROCHESTER	Sheerness.
RYE	The outer channel, and in Stag's Hole in the inner channel.
Hastings	In the open roadstead.
SCARBOROUGH	Entrance of the harbour, opposite the light-house, at the end of Vincent's Pier.
SHIELDS	Low lights, North Shields.
Blyth	Blythmouth, harbour of Blyth.
SOUNDRAM	Near the entrance of the harbour, in the western branch, opposite the customs watch-house and Kingston Wharf.
SOUTHAMPTON	Itchen buoy, or Bursledon buoy.
STOCKTON	Ninth buoy, or opposite Cleveland Port.
ST. IVES	In the bay, within ¼ mile of St. Ives pier.
Hayle	The same.
SUNDERLAND	At the entrance of the harbour, near the watch house on the South pier.
SWANSEA	In the harbour.
Neath	Briton Ferry, near the entrance of Neath River.
TEIGNMOUTH	At the Point.
TRURO	Falmouth Harbour.
WELLS	Between the entrance of the harbour and Wells Quay.
WEYMOUTH	Weymouth Roads.
WHITBY	The harbour.
WHITEHAVEN	In the harbour, between the tongue and bulwark.
WISBEACH	At the light-houses about 3 miles below the station at Sutton Wash.
WOODBRIDGE	Bawdsey Ferry, the entrance of the River Deben.
WORKINGTON	In their respective harbours.
Harrington	
YARMOUTH	Yarmouth Roads, between Nelson's Monument and the haven's mouth—on the Brush, a short distance within the haven's mouth, at the S.E. angle of the river.

Ports.	Stations for bringing-to.
SCOTLAND.	
ABERDEEN	That part of Aberdeen Bay which falls within a line beginning at the easternmost point of the Girdle Ness, and running north 1½ mile, to a point due east of the centre of the Broad Hill.
Newburgh	Within the River Ythan, opposite to the village Newburgh.
ARBROATH	The harbour.
AYR	South Quay at Ayr.
BANFF	The Legal Quays.
BORROWSTOUNNESS	The harbour.
Inverkeithing	The harbour.
CAMPBELTOWN	The harbour.
OBAN	Oban Bay, in the county of Argyle, lying within Fishing-house Point on the eastern side, and Currick Point on the western side of the said bay.
Tobermory	The bay of Tobermory, lying and being within Leiding Point to the south-east, Portmore Point to the north-west, and the Isle of Calve on the east of Tobermory, Isle of Mull, county of Argyle.
Ardrishaig and Lochgilphead	Lochgilphead Roads, at the east end of the Crinan Canal, lying and being within Ardrishaig Point, on the western side of Lochgilphead, and Kilmory Point, on the eastern side of the said loch.
DUMFRIES	The harbour.
Carcetherm	The Bay of Carse.
Annan	The mouth of the river.
Kirkcudbright	Either the bay or the harbour.
Barlochan	Anchencairn Bay or Baclany Bay.
Glencaple	The quay.
DUNDEE	Broughty Ferry.
GLASGOW	The Tail of the Bank within the port of Greenock.
GRANGEMOUTH	Entrance of the harbour.
GRANTON	The harbour.
GREENOCK	From Gravel Point to the eastward of the town of Greenock, in the county of Renfrew, to Kempock Point, being the western point of Gourock Bay, including therein Carraldyke Bay, Greenock Roads, the anchorage at the Tail of the Bank, and Gourock Bay.
Rothesay	Rothesay Bay, lying and being within Bovany Point, on the east of the town of Rothesay, in the Isle of Bute, county of Bute, and Ardmalish Point on the west of the said town.
INVERARY	The harbour.
IRVINE	The harbour.
KIRKALDY	Entrance of the harbour.
Burntisland	Burntisland Roads.
Dysart	Kirkaldy Bay.
Methil	Largo Bay.
Leven	
Largo	
KIRKWALL	The Bay or Kirkwall Roads, extending along the beach, in a north-east direction to Thief's Holm, and in a westerly direction to Quarterness Skerry, thence in a southerly direction to the Legal Quays.
Stromness	The bay called Cairston Roads.
LEITH	Between the martello tower and chain pier at Newhaven.
Fisherrow	In the harbour.
LERWICK	In the bay, opposite the Custom-house.
MONTROSE	Within the bar, at the entrance of the river South Esk, which is called the Still.
Arbroath	The harbour.
PERTH	Caroline Roads, 1½ mile to the eastward of the harbour of Dundee.
PETERHEAD	The bay.
PORT GLASGOW	The Tail of the Bank within the port of Greenock.
STORNOWAY	The harbour.
STRAWBANE	The harbour.
Port Patrick	The harbour.
WICK	Wick Bay, when abreast or within the headland called the Old Man of Wick.
WIGTOWN	Bay or Harbour of Wigtown.
Gatehead	Pivet Bay.
Creetown	Their respective harbours.
Garliestown	
Port William	
IRELAND.	
BALLINA	Inniscrone, Bay of Killala, outside the entrance to the Moy River.
BELFAST	Garmoyle Roads, in Belfast Lough.
COLERAINE	Port Rush Bay, outside the harbour.
CORK (COVE)	Between the Spit buoy and the town of Cove.
Kinsale	Upper Cove on the eastern side of the harbour.
Youghal	Within the entrance of the harbour, between Blackball Head to the eastward and Ferry Point.
DROGHEDA	North Crook, at the entrance of the Boyne.
DUBLIN	Pigeon-house, between the harbour lighthouse and the end of the North Wall.
DUNDALK	Soldiers' Point.
GALWAY	To the eastward, or under the shelter of Mutton Island.
LIMERICK	Tarbert.
LONDONDERRY	Culmore.
NEWRY	Warren Point Roads.
ROSS	Passage in the port of Waterford.
SKIBBEREEN	Baltimore and Castletownsend.
Berehaven	Harbour.
SLIGO	Oyster Island.
Ballyshannon	In the river, abreast of Ward Town house.
STRANGFORD	Ballyneury Bay or Audley's Town Bay.
WATERFORD	Passage.
WESTPORT	Inniagorth Harbour immediately within the Bar thereof and abreast of Inniagorth Harbour lighthouse
WEXFORD	South Bay, about 10 miles from Wexford.

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IMPORTS AND EXPORTS. The articles imported into and exported from a country.

We have explained [BALANCE OF TRADE] the mode in which the value of the imports and exports was formerly, and now is, determined by the Custom-house, and have shown the fallacy of the common notions as to the advantages of the exports exceeding the imports. The scale of prices according to which the official value of the imports and exports was determined (down to 1854) having been fixed so far back as 1698, the account was of no use as showing their true value, but it was of material importance as showing the fluctuations in their quantity. We were anxious, had the means existed, to have given accounts of the quantities of the various articles imported and exported at different periods during the last century, that the comparative increase or diminution of the trade in each might have been exhibited in one general view. Unluckily, no means exist for completing such an account. The Tables published by Sir Charles Whitworth, Mr. Macpherson, and others, specify only the aggregate official value of the imports from and exports to particular countries, without specifying the articles or their values of which such imports and exports consisted. And on applying at the Custom-house, we found that the fire in 1814 had destroyed the records; so that there were no means of compiling any complete account of the value of the articles imported or exported previously to that period. We have, however, given in the following tables as complete a view of the trade of Great Britain with all parts of the world, from 1760 down to 1866, both inclusive, as can be derived from existing materials; and the subsequent tables, and those dispersed through the work, give a view of that trade in detail, that is, in particular articles and with particular countries.

I.—*Trade of Great Britain with Foreign Countries since* 1760.

Year	Imports	Exports of British and Foreign and Colonial Produce	Year	Imports	Exports of British and Foreign and Colonial Produce
	Official Value	Official Value		Official Value	Official Value
	£	£		£	£
1760	10,683,598	15,741,176	1772	14,504,716	17,720,169
1761	10,291,541	16,038,913	1773	12,592,643	16,375,431
1762	9,579,160	14,543,536	1774	14,477,476	17,268,486
1763	12,568,927	15,578,943	1775	14,816,856	16,326,364
1764	11,250,680	17,446,306	1776	12,443,435	14,755,704
1765	11,811,144	15,763,868	1777	12,643,831	13,491,006
1766	12,656,765	15,188,669	1778	11,033,898	12,253,890
1767	13,097,153	15,080,001	1779	11,435,265	13,530,705
1768	13,116,281	16,690,132	1780	11,714,966	13,698,178
1769	13,134,091	15,001,282	1781	12,722,862	11,532,296
1770	13,430,298	15,996,572	1782	10,341,629	13,009,159
1771	14,208,325	19,018,481	1783	13,122,235	14,681,495

Year	Imports	Exports.—Official Value		
	Official Value	British Produce and Manufactures	Foreign and Colonial Produce	Total Exports
	£	£	£	£
1784	15,272,877	11,255,037	3,846,434	15,101,461
1785	16,279,419	11,081,811	5,035,358	16,117,169
1786	15,786,074	11,830,195	4,470,536	16,300,731
1787	17,801,025	12,053,900	4,815,689	16,869,589
1788	18,097,170	12,724,720	4,747,519	17,472,239
1789	17,821,103	13,779,506	5,561,043	19,340,549
1790	19,130,886	14,921,084	5,199,037	20,120,121
1791	19,669,783	16,810,019	5,921,977	22,731,996
1792	19,659,568	18,356,851	6,548,349	24,905,200
1793	19,255,117	13,892,269	6,496,560	20,388,829
1794	22,278,916	16,725,403	10,021,681	26,748,084
1795	22,736,889	16,338,215	10,785,126	27,123,339
1796	23,187,330	19,102,220	11,416,694	30,518,914
1797	21,013,937	16,903,103	12,013,907	28,917,010

During the first half of last century, and previously, woollen goods formed the principal article of native produce exported from Great Britain; and next to it were hardware and cutlery, leather manufactures, linen, tin and lead, copper and brass manufactures, coal, earthenware, provisions, slops &c. Corn formed a considerable article in the list of exports down to 1770; since which period the balance of the corn trade has been, with few exceptions, very decidedly on the side of importation. Cotton did not begin to be of any importance as an article of export till after 1770; but since then the extension and improvement of the cotton manufacture have been so great, that the value of the exports of cotton stuffs and yarn amounts to more than one-third of the value of the entire exports of British produce and manufactures. The export of woollen goods too has very considerably augmented, after being for a while comparatively stationary. The value of the exports of iron and other metallic products has also increased with extraordinary rapidity, and they are now (1866), next to cotton and woollen stuffs and yarn, the leading articles in the list of exports.

The principal articles of import during the last half century have consisted of sugar, tea, corn, timber, and naval stores, cotton wool, sheep's wool, woods and drugs for dyeing, wine and spirits, tobacco, silk, tallow, hides and skins, coffee, spices, bullion &c. Of the colonial and other foreign products imported into England, considerable quantities have always been re-exported.

Decline in the Real Value of the Exports.—The rapid increase in the official, compared with the slow increase in the real, value of the exports since 1815 has given rise to a great deal of irrelevant discussion. It has been looked upon as a proof that our commerce was becoming less prosperous, whereas in point of fact a precisely opposite conclusion should be drawn from it. We have already stated [BALANCE OF TRADE] that the rates according to which the official values of the exports were determined were fixed so far back as 1696, so that they have long ceased to be of importance as affording any criterion of their actual value. To remedy this defect, a plan was formed in 1798 for keeping an account of the real value of the exports as ascertained by the declarations of the exporters. Those who believe that our trade is getting into a bad condition contend that the great increase in the official value of the exports since 1815 shows that the *quantity* of the articles exported has been proportionally augmented, while the slow increase of their real value shows that we are selling this larger quantity of produce for a proportionally smaller price—a result which, they affirm, is most injurious. But the circumstance of a manufacturer or merchant selling a large or a small quantity of produce at the same price, affords no criterion by which to judge of the advantage or disadvantage of the sale; for if, in consequence of improvements in the arts or otherwise, a particular article may now be produced for half the expense that its production cost 50 or 60 years ago, it is obvious that double the quantity of it may be afforded for the same price without injury to the producers. Now this is the case with some of the most important articles exported from England. Cotton and cotton yarn form, as stated above, a third part or more of the entire value of the exports; but since 1815 there has been an extraordinary fall in their price, occasioned partly by the fall in the price of the raw material, and still more by the wonderful improvements that have been effected in all departments of the manufacture [COTTON, passim]; and a reduction, to a greater or less extent, proceeding from the like causes, has taken place in the price of other leading articles of export.

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II.—*Account of the Real or Declared Value of the various Articles of the Manufacture and Produce of the United Kingdom Exported to Foreign Countries during each of the 5 Years ending with 1866, specifying the Countries to which they were Exported, and the Value of those Annually Shipped for each; and showing also the Average Amount of Exports during the said 5 Years to each Country and to each of the 5 great Divisions of the Globe; and the Average Proportion Exported to each, supposing the whole Exports to be* 1,000.

Countries	1862	1863	1864	1865	1866	Average Annual Amount of Exports, 1862-66	Average Annual Proportion Exported to each Country, supposing the whole Exports to be 1,000
EUROPE	£	£	£	£	£	£	£
Russia	2,078,833	2,695,276	2,846,409	2,923,006	3,176,636	2,744,036	17·460
Sweden	605,014	606,987	731,291	805,207	823,488	733,614	4·667
Norway	506,959	556,979	772,097	677,007	854,348	673,278	4·284
Denmark	836,705	880,687	1,152,767	1,064,432	1,202,811	1,026,880	6·534
Prussia	2,045,079	1,917,248	1,334,360	1,695,320	1,805,499	1,759,299	11·193
Germany	10,741,266	11,625,913	11,338,284	13,809,564	13,967,193	12,296,644	78·209
Holland	6,046,761	6,381,696	6,884,937	8,137,763	8,998,713	7,376,774	46·915
Belgium	1,808,621	2,107,333	2,594,491	2,933,833	2,861,665	2,461,189	15·655
France	2,209,567	8,673,509	6,187,561	9,062,093	11,780,140	9,582,454	59·597
Portugal Proper	1,335,366	2,226,777	2,091,316	2,068,737	2,001,101	1,985,859	12·621
Azores	75,953	85,288	109,967	89,241	129,786	95,841	·609
Madeira	62,584	65,924	71,500	64,292	82,575	69,035	·439
Spain	2,892,461	3,508,566	3,484,378	3,127,446	2,985,899	2,713,374	17·468
Gibraltar	996,913	1,267,696	1,209,168	1,127,547	1,131,097	1,145,884	7·287
Italy	5,183,991	6,065,173	5,809,991	5,474,440	5,872,875	5,561,494	35·368
Austrian Territories	704,687	864,738	792,119	721,648	972,058	809,050	5·096
Malta	432,731	622,608	755,113	653,504	653,201	618,732	3·936
Ionian Islands	287,340	405,178	440,333	436,191	434,004	392,209	2·517
Greece	248,223	341,991	455,887	382,209	417,645	401,809	2·575
Turkey	3,636,309	5,572,450	6,137,380	5,840,068	6,540,605	5,607,362	35·679
Channel Islands	841,633	867,776	1,016,803	1,000,921	795,791	904,585	5·763
Total	50,780,906	57,579,806	60,271,989	63,732,383	66,099,941	59,697,005	379·850
ASIA							
Syria and Palestine	588,556	1,026,562	1,366,608	1,334,902	1,459,362	1,175,198	7·476
Arabia and Persia	60,718	46,206	85,095	62,167	91,079	61,053	·388
East Indies and Ceylon	16,261,016	22,564,944	21,939,650	20,387,269	23,079,265	20,846,229	132·671
China and Japan	3,179,917	4,017,405	5,353,993	6,763,911	8,999,566	5,662,958	36·035
Java and Sumatra	776,564	650,421	796,850	927,755	1,728,857	975,080	6·205
Philippine Islands	456,402	564,058	765,219	955,560	917,841	732,204	4·660
Total	21,313,805	28,899,599	30,775,913	30,431,785	36,304,010	29,445,022	187·358
AFRICA							
Egypt	2,407,340	4,611,219	6,052,564	6,693,020	7,698,172	5,318,063	33·842
Morocco	155,135	174,551	162,532	226,174	291,258	196,730	1·251
Western coast of Africa	1,445,151	1,129,843	1,008,178	1,242,465	1,315,378	1,247,803	7·939
Cape of Good Hope and Natal	1,941,265	1,543,285	2,271,816	1,761,990	1,599,924	1,763,256	11·220
Eastern coast of Africa	24,865	28,374	56,051	66,328	67,402	47,404	·302
St. Helena and Ascension	60,970	40,610	45,374	53,847	51,080	50,476	·321
Mauritius	519,868	511,813	655,850	597,394	599,385	576,864	3·671
Algeria	46,253	13,732	12,739	12,363	15,745	20,064	·127
Total	6,580,846	7,855,427	10,265,324	10,050,351	11,555,642	9,209,235	58·598
AMERICA							
British North American Colonies	3,991,010	4,815,482	5,466,691	4,767,727	6,824,960	5,166,574	33·001
West Indies	2,632,049	3,392,657	3,511,909	2,169,300	2,140,300	2,769,103	17·620
Guiana	515,668	511,049	828,996	776,668	760,534	686,183	4·366
Hayti	473,400	528,614	450,611	333,314	447,381	447,054	2·844
Foreign West Indies	2,649,015	2,939,581	3,899,160	2,987,875	3,179,244	3,127,169	19·898
United States of America	24,527,870	15,344,390	16,708,505	21,397,336	28,499,514	19,221,647	122·306
Mexico	737,822	1,675,572	1,809,753	1,490,895	1,293,213	1,401,751	9·456
Central America	166,376	140,609	221,794	158,142	158,264	164,037	1·043
Columbia	1,000,906	1,970,313	2,344,577	2,789,452	3,402,052	2,343,076	14·908
Brazil	3,735,781	5,961,261	6,219,960	5,654,920	7,924,733	5,365,791	34·142
States of La Plata and Uruguay	1,309,927	1,805,932	2,552,509	2,703,818	4,493,739	2,553,203	16·249
Chili	954,542	1,431,814	1,683,380	1,601,987	1,851,982	1,504,981	9·576
Peru	825,793	1,027,343	1,335,992	1,186,753	1,568,868	1,144,683	7·309
Falkland Islands	9,716	13,303	13,832	9,252	17,077	12,232	·076
Total	33,348,431	39,649,860	47,993,799	48,215,089	61,396,791	46,046,794	292·994
AUSTRALIA							
West and South Australia, Victoria, New South Wales, Queensland, Tasmania, and New Zealand	11,944,506	12,498,554	11,867,213	13,339,241	13,643,396	12,656,564	80·533
South Sea Islands	23,772	141,116	184,815	36,276	137,846	104,761	·667
Total	11,968,278	12,639,650	12,052,028	13,375,517	13,781,152	12,761,325	81·200
RECAPITULATION.							
Europe	50,780,906	57,579,806	60,271,989	63,732,383	66,099,941	59,697,005	379·850
Asia	21,313,805	28,899,599	30,775,913	30,431,785	36,304,010	29,445,022	187·358
Africa	6,580,846	7,855,427	10,265,324	10,050,351	11,555,642	9,209,238	58·598
America	33,348,431	39,649,860	47,993,799	48,215,089	61,396,791	46,046,794	292·994
Australia	11,968,278	12,639,650	12,052,028	13,375,517	13,781,152	12,761,325	81·200
Grand Total	123,992,264	146,622,342	160,449,053	165,855,125	188,917,536	157,159,384	1,000·000

A fall having also taken place in the prime cost, and consequently also in the price, of most of the principal articles of import, we obtain at this moment a much larger quantity of the produce of other countries in exchange for the articles we send abroad than at any former period. The fall has been particularly sensible in the great articles of cotton and sheep's wool, corn, sugar, indigo, pepper &c. The imports of all sorts of foreign merchandise have been increasing rapidly since 1815; and it is material to bear in mind that we had no gold coin in circulation at that epoch, and that besides the greater quantities of other articles, we have imported in the intervening period upwards of 100,000,000*l.* of gold and silver for currency only. The truth is, therefore, that instead of the decline in the real value of some of our exports having been in any degree prejudicial, it has been in all respects distinctly and completely the reverse. It has insured for our goods a decided superiority in every market, while, as the cost of the goods has fallen in an equal degree, their production continues to be equally advantageous. It appears, too, that a similar fall has

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III.—*An Account of the Value of the Imports into, and of the Exports from, the United Kingdom during each of the undermentioned Years from 1798 to 1857, both inclusive, calculated at the Official Rates of Valuation, and distinguishing the Amount of the Produce and Manufactures of the United Kingdom Exported from the Value of the Foreign and Colonial Merchandise Exported; exhibiting also the Real or Declared Value of the Produce and Manufactures of the United Kingdom annually Exported therefrom for the same Period and for 1867.*

Year	Value of Imports into the United Kingdom, at the Official Rates of Valuation	Value of Exports from the United Kingdom, at the Official Rates of Valuation			Value of Produce and Manufactures of United Kingdom Exported, according to the Real Value thereof.
		Produce and Manufactures of United Kingdom	Foreign and Colonial Merchandise	Total Exports	
	£	£	£	£	£
1798	27,957,880	19,672,503	13,019,273	33,591,776	35,148,632
1800	30,570,085	24,384,281	18,947,756	43,132,040	39,471,205
1805	37,334,090	22,997,371	7,615,120	30,720,491	37,234,396
1810	37,613,294	33,190,408	9,387,435	42,696,843	47,090,926
1815	31,822,053	41,212,092	15,708,455	57,420,457	49,653,245
1816	26,374,991	34,774,581	13,441,605	48,216,186	40,328,910
1817	29,930,092	39,253,467	10,960,271	49,592,738	40,349,235
1818	35,815,340	41,909,155	10,875,800	52,796,955	45,180,150
1819	29,681,510	32,983,689	9,879,236	42,862,925	34,257,251
1820	31,915,292	37,860,293	10,568,026	48,345,319	35,509,077
1821	29,769,142	40,194,681	10,602,090	50,796,771	35,823,127
1822	30,351,141	44,249,532	9,227,567	53,470,099	36,966,023
1823	35,798,453	43,826,697	8,603,915	52,430,512	35,357,041
1824	37,458,279	48,230,167	10,208,285	58,438,452	38,424,404
1825	44,298,803	47,156,680	9,169,192	56,325,872	38,870,945
1826	37,815,890	40,965,736	10,076,287	51,042,023	31,538,725
1827	44,908,173	52,221,934	9,830,921	62,052,855	37,191,335
1828	45,167,445	52,588,090	9,946,546	62,534,636	36,817,737
1829	43,955,286	56,217,962	10,220,165	66,438,127	35,847,623
1830	46,300,473	61,134,351	8,548,361	69,700,748	38,271,597
1831	49,797,898	60,686,351	10,745,196	71,431,800	37,164,372
1832	44,610,546	65,025,279	11,011,870	76,070,148	36,450,594
1833	45,944,476	69,087,357	9,833,755	79,821,110	39,667,348
1834	49,364,743	73,833,231	11,564,057	85,397,288	41,649,191
1835	49,029,334	78,560,059	12,797,724	91,357,783	47,374,270
1836	57,196,045	85,920,144	12,300,718	97,611,456	53,295,979
1837	54,762,265	79,144,201	11,253,497	85,779,598	43,980,245
1838	61,258,213	93,455,967	12,711,512	105,144,479	50,094,737
1839	66,048,121	97,394,666	12,795,990	110,180,656	53,253,180
1840	67,492,710	102,106,850	13,774,163	116,881,013	51,466,430
1841	64,444,208	100,179,513	14,725,373	116,902,887	51,631,023
1842	65,253,286	100,256,340	13,586,442	113,841,802	47,381,023
1843	70,714,942	117,876,459	13,956,258	131,832,947	54,279,709
1844	75,449,374	131,558,477	11,396,177	143,954,654	58,584,702
1845	85,297,508	134,598,584	16,479,518	150,877,802	60,111,082
1846	75,934,022	132,312,894	16,296,162	148,609,056	57,766,876
1847	90,921,866	126,131,022	20,040,979	146,172,008	58,842,577
1848	93,517,134	132,619,156	18,276,886	150,896,040	52,849,445
1849	105,874,607	164,539,506	25,561,890	190,101,394	63,696,193
1850	109,460,433	178,316,769	21,855,167	197,209,976	71,349,184
1851	110,670,125	190,658,314	23,732,705	214,391,017	74,448,722
1852	109,345,169	196,216,610	23,329,089	219,545,699	78,049,367
1853	123,099,313	214,347,452	27,753,457	242,100,909	98,953,741
1854	141,136,018	214,071,849	29,808,024	243,879,873	97,184,726
1855	117,984,681	225,920,702	31,491,701	258,114,653	95,688,085
1856	131,057,763	256,303,653	33,471,274	290,175,027	115,966,307
1857	136,915,849	255,396,713	30,797,818	286,194,531	124,066,307
*1867	—	—	—	—	131,167,363

N.B.—The account of the declared or real value of the exports was first taken in 1798, having been introduced by the Convoy Act of that year.
* The official or fictitious value is not now introduced into the accounts published by Government.

IV.—*Account of the Computed Real Values of the Principal Articles Imported into the United Kingdom in each of the 3 Years ending with 1867.*

Articles	1865	1866	1867
	£	£	£
Animals:			
Oxen, bulls, cows, and calves	4,401,482	4,099,941	3,034,310
Sheep and lambs	1,787,866	1,504,512	915,661
Bacon and hams	2,131,215	1,868,588	1,201,779
Beef	421,461	563,017	675,392
Bones, except whalefins	429,023	409,360	457,436
Brimstone	359,016	428,534	380,583
Bristles	328,317	352,223	359,192
Butter	5,945,884	5,902,455	5,854,271
Caoutchouc	630,538	728,416	686,327
Cheese	2,463,299	2,801,579	2,555,995
Clocks and watches	475,753	508,293	451,474
Cocoa	320,787	346,579	346,869
Coffee, from British Possessions	3,846,861	3,344,114	3,514,105
Foreign countries	753,026	740,885	848,655
Total of coffee	4,600,887	4,089,329	4,362,760
Copper ore and regulus unwrought and part wrought	2,699,064	2,440,756	1,801,135
	1,946,559	1,661,913	2,192,185
Corn, wheat	9,775,616	19,983,080	24,984,086
barley	3,521,663	5,745,944	3,832,515
oats	1,771,135	3,632,385	4,519,908
maize	2,734,396	4,536,903	5,534,734
Other kinds	791,249	1,321,069	1,774,954
Flour, of wheat	2,682,868	3,796,911	3,518,677
of other kinds	4,165	26,082	93,550
Total of corn	20,784,113	50,045,984	41,564,134
Cotton, raw	66,032,193	77,921,406	51,999,537
Dyeing or tanning stuffs:			
Cochineal, grandilla, and dust	455,668	804,918	809,916
Cutch and gambier	375,345	366,309	548,494
Garancine	234,297	309,812	454,711
Indigo	2,005,960	2,207,437	2,424,573
Madder	905,861	793,365	797,491
Madder root	298,093	415,703	367,350
Shumac	197,407	217,389	257,217
Valecia	240,160	353,277	321,961
Eggs	918,247	1,105,653	989,337
Fish, of foreign taking, exclusive of eels	475,130	548,365	451,238
Flax, dressed and undressed	5,369,719	4,468,643	4,180,043
Fruit, currants	809,911	793,972	909,578
raisins	510,350	512,302	563,208
oranges and lemons	805,627	889,238	744,534
Glass of all kinds (except bottles of green or common glass)	690,991	701,381	791,882
Guano	2,675,995	1,439,679	2,109,966
Gutta percha	160,565	75,109	94,954
Hair, goats' hair or wool manufactures of hair and of goats' wool	837,342	761,040	842,106
Hemp, undressed, except	219,696	179,500	127,093
Jute	1,599,633	1,610,656	1,537,026
Jute, undressed	1,774,992	1,476,944	1,414,321
Hides, tanned and untanned	3,023,447	3,260,876	3,104,246
Hops	459,157	567,760	1,096,941
Iron, in bars, unwrought	581,092	668,932	752,875
Lard	468,398	806,951	625,182
Lead, pig and sheet	670,694	734,110	816,505
Leather gloves	998,338	1,194,665	1,345,337
Oil, fish	746,058	899,156	901,253
Palm	1,150,409	1,606,797	1,568,704
Cocoa nut	411,960	496,969	398,745
Olive	1,684,852	1,353,514	1,244,256
seed	595,089	553,079	697,780
Turpentine	287,744	234,416	256,961
Oil seed cakes	858,782	1,038,356	942,706
Pork	576,948	570,145	551,871
Potatoes	161,907	179,529	397,146
Rags, and other materials for making paper	655,581	898,912	633,965
Rice	1,337,193	1,542,135	2,078,817
in the husk	15,510	40,152	56,080
Rosin	461,092	414,966	371,770
Saltpetre	581,574	353,651	198,857
Cubic nitre	663,807	555,089	607,356
Seeds, Clover	727,516	726,034	503,648
Flax and linseed	3,983,243	3,374,256	3,050,348

Computed Real Values of Principal Imports into the United Kingdom &c.—continued.

Articles	1865	1866	1867
	£	£	£
Seed, Rape - -	679,745	1,307,426	1,597,289
Silk, Raw - -	10,181,855	7,215,199	7,556,462
Thrown - -	127,165	138,333	459,967
Silk Manufactures:			
Of Europe, Broad stuffs	4,949,710	6,226,954	5,445,114
Ribbons -	2,310,473	2,206,405	2,610,987
Other manufactures - -	1,075,264	879,259	930,374
Total of silk manufactures of Europe -	8,335,447	9,312,618	8,984,475
Of India; viz. bandannas, corahs, choppas, Tussore cloths, romals and taffaties - -	65,586	47,094	56,036
Silver ore - -	382,391	275,599	169,587
Skins, sheep, undressed	222,813	320,560	303,510
Tanned, tawed, or dressed -	82,754	98,840	145,713
Lamb, undressed -	31,576	89,351	80,045
Tanned, tawed, or dressed -	3,812	5,294	9,004
Seal, in the hair, undressed - -	86,655	93,719	174,998
Goat, undressed -	99,096	113,163	78,009
Tanned, tawed, or dressed -	204,477	224,923	239,335
Spices, Cassia lignea -	43,481	12,346	23,579
Cinnamon -	90,507	82,707	73,092
Cloves - -	48,168	18,845	13,695
Nutmegs - -	42,021	31,788	23,417
Pepper - -	265,813	216,816	205,370
Spirits, Rum - -	674,667	691,415	692,366
Brandy - -	853,693	1,409,410	1,376,260
Other Foreign and Colonial spirits -	191,333	183,985	190,385
Sugar, refined and candy	1,272,691	1,424,923	1,317,966
Raw, of or from British Possessions -	3,639,174	5,983,561	5,081,387
Foreign Countries	8,663,450	4,811,451	6,420,574
Total of sugar, raw -	11,302,624	10,795,013	11,501,961
Molasses - -	496,163	879,555	250,740
Tallow - -	3,125,682	3,008,507	2,419,591
Tea - - -	10,014,462	11,208,815	10,067,815
Teeth, elephants', sea cow, sea horse, of sea morse - -	522,246	445,235	560,520
Timber and wood:			
Not sawn or split, of Foreign Countries	2,899,647	2,231,513	1,771,891
of British Possessions - -	2,041,382	1,939,758	1,651,345
Total of timber, not sawn or split - -	4,941,029	4,171,271	3,423,236
Sawn or split of Foreign Countries -	4,259,712	4,066,658	3,934,881
of British Possessions - -	2,300,219	2,220,865*	1,969,785
Total of timber, sawn or split - -	6,559,931	6,287,523	5,904,666
Teak - -	629,275	312,101	123,582
Staves - -	849,610	930,858	600,157
Mahogany - -	807,224	847,954	480,858
Tin in blocks, ingots, bars, or slabs -	529,803	444,478	481,344
Tobacco, manufactured, cigars and snuff -	517,341	558,685	539,370
Unmanufactured -	2,781,968	2,101,351	1,841,942
Wine - - -	3,914,196	4,733,175	4,855,251
Wool: Sheep and lambs' (including alpaca and llama wool) -	14,930,130	17,550,871	16,178,034
Woollen rags, torn up to be used as wool -	435,829	399,763	279,721
Woollen manufactures not made up -	1,704,758	1,899,625	2,299,917
Yeast, dried - -	252,228	234,426	242,516
All other articles -	25,874,860	29,755,511	28,847,916
Total -	271,072,285	295,290,274	275,219,853

V.—Account of the Quantities of the Principal Articles of Foreign and Colonial Merchandise Imported into the United Kingdom in 1862–6.

Articles		1862	1863	1864	1865	1866
Alkali, viz. salts, pearl and pot	- cwts.	161,113	176,334	176,327	143,779	104,073
of other sorts	- ,,	18,820	25,160	30,280	35,216	15,066
Animals, living: horses	- no.	1,978	1,441	1,357	1,332	1,046
oxen, bulls, cows and calves	- ,,	97,887	150,898	231,735	263,271	237,739
sheep and lambs	- ,,	299,472	430,788	496,245	914,170	790,880
Argol - - -	- cwts.	13,810	17,491	14,598	20,004	18,250
Arrowroot - -	- ,,	11,378	15,140	16,800	23,322	31,980
Bacon and hams: bacon	- ,,	1,135,453	1,651,681	896,430	621,854	578,472
hams	- ,,	210,211	226,132	172,760	91,492	57,510
Bark: for tanning or dyeing	- ,,	291,393	326,192	331,166	430,810	840,105
Peruvian - -	- ,,	17,833	25,569	20,383	15,510	13,797
Beads and bugles of glass	- lbs.	3,441,971	2,607,392	3,127,611	3,765,221	3,438,587
Beef, salted and fresh	- cwts.	189,761	288,569	346,821	244,131	232,948
Bones of all kinds (except whalefins)	- tons	67,230	77,194	68,870	74,308	80,316
Books - - -	- cwts.	7,171	6 924	8,089	8,826	8,789
Boracic acid - -	- ,,	36,042	50,021	19,667	20,627	28,450
Brimstone - -	- ,,	1,067,397	847,722	795,702	981,106	1,237,166
Bristles - - -	- lbs.	2,278,413	2,317,585	2,316,135	2,566,154	2,678,563
Butter - - -	- cwts.	1,037,371	980,708	1,054,617	1,083,717	1,165,081
Cable yarn of hemp &c. (except coir)	lbs.	11,840,261	15,544,077	14,412,310	11,092,747	13,085,619
Camphor - -	- cwts.	5,455	16,455	20,068	10,755	7,466
Candles, stearine - -	- ,,	15,100	34,885	48,892	41,243	67,030
Cape wax - -	- ,,	59,705	65,849	71,027	71,392	72,176
Caoutchouc - -	- lbs.	719,974	754,611	850,549	868,689	769,249
Manufactures of -	- lbs.	703,909	756,285	854,844	853,977	872,341
Cheese - - -	- cwts.	45,563	131,028	136,272	95,063	105,763
Chicory, raw or kiln-dried -	- ,,	19,341	19,180	20,277	18,705	18,234
China and porcelain ware -	- ,,	247,263	314,291	375,292	251,356	254,534
Clocks and watches { clocks	- no.	161,928	160,648	133,753	143,770	171,013
watches	- ,,					
Cochineal (including granilla and dust) - - -	- cwts.	24,391	27,689	24,252	26,910	32,751
Cocoa - - -	- lbs.	9,912,508	9,592,565	7,920,712	7,464,952	10,308,224
Coffee - - -	,,	91,081,853	117,354,217	109,277,382	137,997,451	127,041,810
Coir, coir rope, twine, strands and coir yarn - -	- cwts.	90,125	118,501	118,240	113,675	151,929
Copper, ore and regulus	- tons	117,138	109,099	93,304	122,248	129,547
unwrought, and part wrought, old copper, copper in plates for coin, coin, and copper sheets - - -	,,	13,739	12,788	25,437	22,858	21,679
Cork - - -	,,	4,993	4,823	5,212	6,103	6,241
Corks, ready made -	- lbs.	1,265,879	1,457,526	1,311,725	2,012,478	2,684,128
Corn: wheat - -	- cwts.	41,033,503	24,361,171	25,196,714	20,962,966	23,156,329
other kinds of corn and grain	,,	25,842,735	30,234,971	19,500,277	24,610,560	38,733,935
wheatmeal and flour	,,	7,207,112	5,218,976	4,512,591	5,904,471	4,977,280
other kinds of meal and flour	,,	17,935	14,812	7,176	11,202	80,841
Cotton: raw - -	,,	4,678,533	5,978,422	7,075,935	8,731,949	12,295,803
yarn - -	- lbs.	1,246,718	873,559	921,758	865,870	959,526
waste of	,,	377,606	1,696,555	3,117,774	2,139,588	3,210,764
manufactures of India and China -	pieces	327,862	217,577	55,391	65,770	83,997
of Europe &c.	value	£741,523	£927,400	£805,081	£726,402	£1,070,519
Cream-of-tartar - -	- cwts.	36,385	36,011	49,157	49,165	55,272
Dye woods. *See* Wood.						
Eggs - -	great hundreds	1,956,010	2,224,411	2,791,152	3,083,444	3,657,324
Embroidery and needlework	- value	£55,192	£67,653	£51,293	£58,085	£75,325
Feathers for beds -	- cwts.	7,172	7,351	5,786	13,493	12,470
ostrich -	- lbs.	23,112	28,500	42,853	37,811	42,506
Fish - - -	- cwts.	302,571	248,109	428,784	485,460	506,712
Flax, dressed or undressed -	,,	1,798,351	1,458,992	1,842,947	1,913,132	1,547,586
Flowers, artificial -	- value	£351,604	£308,222	£307,798	£299,427	£299,506
Fruit: almonds of all kinds	- cwts.	44,845	45,670	42,549	41,114	46,710

Quantities of Foreign and Colonial Merchandise Imported into the United Kingdom—continued.

Articles		1862	1863	1864	1865	1866
Fruit: apples, raw	bush.	1,156,584	1,262,807	802,671	515,732	893,527
currants	cwts.	873,529	920,442	764,492	937,231	733,482
figs	,,	95,414	59,437	82,200	77,977	95,721
nuts, small	bush.	229,213	279,425	204,264	250,755	222,575
oranges and lemons	,,	1,025,278	1,316,585	1,276,243	1,566,745	1,711,857
raisins	cwts.	278,760	421,796	327,051	364,106	339,916
raw, unenumerated	bush.	190,459	265,537	337,505	228,913	283,160
Furniture (household) of wood, and cabinet ware	value	£77,900	£84,656	£119,560	£128,915	£95,680
Furs. *See* Skins.						
Galls	cwts.	6,909	8,865	7,998	15,964	17,549
Glass of all kinds (except bottles of green or common glass)	,,	202,690	250,269	327,153	363,036	362,921
Grease	,,	26,358	38,543	20,266	21,526	26,868
Guano	tons	141,836	233,574	131,358	237,393	135,697
Gum: animi and copal	cwts.	11,662	12,108	11,080	11,502	15,977
Arabic	,,	57,230	70,903	49,542	46,032	50,112
laedye	,,	9,131	11,194	12,150	11,673	10,315
shellac	,,	34,510	35,138	40,071	46,362	48,451
Senegal	,,	7,127	3,007	3,588	4,546	3,039
of other sorts	,,	54,043	48,446	74,540	57,710	63,370
Gutta percha, raw	,,	18,284	21,655	35,636	19,077	15,134
Hair: cow, ox, bull, or elk	,,	30,325	45,281	63,771	53,773	45,663
goats' hair or wool	lbs.	4,047,870	3,434,705	4,737,580	5,402,613	4,391,662
horsehair	cwts.	17,478	15,834	17,743	21,078	20,878
manufactures of hair and of goats' wool	value	£307,454	£281,577	£244,243	£249,696	179,500
Hats of felt	no.	139,665	151,278	139,073	119,572	208,549
Hats and bonnets of straw	lbs.	41,009	55,198	61,322	161,844	300,008
Hemp, dressed or undressed	cwts.	984,325	1,059,862	1,023,765	1,065,705	1,001,098
jute, raw	,,	963,774	1,223,035	2,084,587	2,108,942	1,625,905
yarn (not distinguished previously to the year 1863)	lbs.	—	1,041,861	1,265,317	1,858,004	2,003,461
Hides, raw	cwts.	943,193	1,022,824	954,506	968,083	1,086,645
tanned, tawed, curried, or dressed	lbs.	5,512,636	5,202,110	6,145,754	7,331,854	8,566,614
Hops	cwts.	133,791	147,281	98,656	82,479	83,687
Horns	tons	3,225	4,436	3,254	3,678	3,761
Indigo	cwts.	69,549	85,393	76,214	66,504	74,256
Iron in bars, unwrought	tons	49,662	46,635	53,918	51,464	64,178
chromate of	,,	4,154	10,471	12,325	9,679	5,687
steel, unwrought	,,	5,050	4,016	7,619	6,777	4,451
Iron and steel, wrought or manufactured	cwts.	67,943	106,046	202,334	329,853	276,883
Isinglass	,,	1,991	2,320	2,748	2,764	2,975
Jewellery	value	£73,566	£71,181	£97,099	£87,981	£96,767
Jute. *See* Hemp.						
Lace	,,	£93,292	£108,833	£143,637	£167,706	£162,049
Lard	cwts.	550,090	530,512	217,275	186,898	228,439
Lead, pig and sheet	tons	23,693	28,804	30,616	34,905	36,946
Leather manufactures:						
boots, shoes, and boot fronts	pairs	944,016	913,395	869,940	373,812	392,268
gloves	,,	6,876,720	8,093,580	10,899,260	9,215,412	10,619,280
unenumerated	value	£20,493	£27,963	£30,818	£116,168	£87,641
Linen manufactures	,,	£140,784	£103,904	£140,836	£153,104	£197,050
yarn	lbs.	1,023,373	3,997,106	2,040,952	1,164,490	1,776,549
Liquorice juice and paste	cwts.	23,921	17,659	34,389	27,286	22,262
Madder and madder root (including munjeet)	,,	299,873	355,881	296,166	237,352	345,082
garancine	,,	38,311	37,271	42,714	33,571	49,150
Manganese ore	tons	21,004	34,991	31,299	46,478	48,700
Meat, salted or fresh, not otherwise described	cwts.	695	973	1,474	3,480	151,820
Mother of pearl shells	,,	25,442	20,322	19,405	27,262	24,022
Musical instruments	value	£190,906	£209,158	£224,249	£245,813	£253,636
Nitre, cubic	cwts.	794,318	539,558	670,448	1,020,383	966,358
Nuts and kernels, for expressing oil therefrom	tons	4,985	4,264	5,930	4,939	5,500
Oil: animal	cwts.	51,693	55,675	21,715	9,091	16,055
castor	,,	17,347	45,750	18,576	20,165	23,037
chemical, essential and perfumed	lbs.	468,242	360,461	403,989	400,416	543,160
cocoa nut	cwts.	170,495	320,180	373,218	190,228	110,046
olive	tuns	21,795	19,866	16,705	32,005	23,690
palm	cwts.	865,890	790,221	666,582	798,724	799,210
petroleum	tuns	22,159	35,347	21,077	14,046	30,866
seed, of all kinds	,,	11,201	12,698	11,770	13,811	12,436
train, spermaceti, and blubber (including cod liver oil)	,,	18,383	14,265	14,701	13,147	13,811
turpentine	cwts.	86,632	91,703	104,359	112,129	118,483
Oil seed cake	tons	101,156	88,566	105,570	109,962	129,013
Onions, raw	bush.	353,538	381,918	629,678	525,592	639,570
In salt and water (not distinguished previously to the year 1865)	gals.	—	—	—	11,598	880
Opium	lbs.	221,581	254,514	250,040	401,871	198,223
Orchal	cwts.	46,684	47,233	39,787	34,294	25,841
Paper and pasteboard:						
of all kinds, except paper hangings	,,	159,451	192,684	242,607	239,707	317,120
paper hangings	,,	4,210	5,177	6,979	5,644	6,692
Pearls	value	£89,305	£77,035	£56,286	£45,749	£51,816
Pitch and tar: pitch	cwts.	10,542	18,975	53,497	42,932	69,685
tar	lasts	17,874	21,096	18,096	12,781	18,191
Platting	lbs.	182,901	190,175	199,227	239,650	318,752
Plumbago	tons	4,079	4,791	6,218	4,836	4,966
Pork, salted and fresh	cwts.	227,756	170,751	229,016	223,419	205,282
Potatoes	,,	1,384,636	1,219,360	712,404	807,259	736,193
Poultry and game (including rabbits)	value	£95,774	£108,910	£131,179	£145,642	£174,971
Pyrites of iron or copper	tons	110,852	179,225	170,980	193,696	244,596
Quicksilver	lbs.	1,161,352	1,762,393	4,763,499	1,781,825	3,315,410
Rags and other materials for making paper	tons	23,942	43,582	67,819	71,156	84,949
woollen	,,	4,311	5,766	5,909	5,482	6,182
torn up, to be used as wool	lbs.	8,972	9,866	10,037	9,316	10,198
Rhubarb	lbs.	183,270	132,733	113,566	129,967	363,821
Rice, not in the husk	cwts.	3,919,189	3,070,292	3,187,850	1,936,816	2,265,911
Rosin	,,	339,011	385,588	353,294	439,427	503,818
Safflower	,,	17,380	7,248	11,028	6,511	9,544
Sago	,,	184,582	146,084	145,901	148,582	161,989
Saltpetre	,,	443,248	404,765	343,582	311,390	345,192
Seed: clover	,,	169,874	272,526	226,278	214,071	226,014
flax and linseed	qrs.	1,088,472	1,104,578	1,454,975	1,433,414	1,158,736
grass, unenumerated	cwts.	57,866	63,824	75,597	81,062	80,276
millet	,,	58,301	69,496	50,136	284,198	295,783
mustard	,,	25,808	32,123	19,011	37,811	37,478
poppy	qrs.	8,336	18,355	14,010	33,706	41,989

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Quantities of Foreign and Colonial Merchandise Imported into the United Kingdom—continued.

Articles		1862	1863	1864	1865	1866
Seed: rape	qrs.	189,307	313,577	235,578	206,111	474,667
tares	,,	33,439	29,631	31,199	47,387	15,911
cotton	tons	33,162	62,159	81,442	114,851	93,957
unenumerated, for expressing oil therefrom	qrs.	42,790	50,376	49,383	39,082	46,071
seed of other sorts	value	£267,166	£249,752	£190,795	£212,681	£205,619
Shumac	tons	13,819	12,807	12,292	13,063	13,688
Silk: raw and waste	lbs.	13,524,027	12,798,625	8,441,513	11,476,854	8,500,508
thrown	,,	62,227	59,393	73,180	60,130	66,850
Silk manufactures:						
Of Europe: silks entered by weight	,,	2,358,981	2,453,815	2,710,015	3,090,766	3,442,601
Of India: silks entered by the piece	pieces	224,416	185,987	95,851	89,323	66,410
All other silk goods, whencesoever imported	value	£460,296	£718,091	£1,069,409	£1,001,460	£837,780
Silver ore	tons	6,565	5,621	5,482	6,587	5,495
Skins and furs:						
Skins: sheep and lamb	no.	3,935,899	4,968,344	3,379,553	5,008,945	6,132,107
goat	,,	2,396,863	2,342,664	2,461,446	2,797,562	2,836,849
kid	,,	251,546	321,984	450,565	350,229	303,301
seal	,,	480,596	555,334	342,833	529,284	513,671
Furs: beaver	,,	134,468	142,159	131,028	157,881	191,913
fox	,,	69,282	78,532	72,594	73,941	110,558
marten	,,	123,089	130,985	146,883	156,855	147,417
racoon	,,	433,899	493,209	639,657	957,699	408,205
all other skins and furs	value	£243,528	£310,096	£261,517	£241,206	£406,334
Spelter or zinc	tons	23,709	34,572	31,281	30,685	29,239
Spices: cassia lignea	lbs.	880,141	1,086,985	895,936	1,177,909	349,449
cinnamon	,,	867,622	913,455	645,514	886,731	932,729
cloves	,,	838,811	3,815,210	1,324,446	3,339,184	1,213,467
ginger, raw	cwts.	18,968	29,743	34,745	54,100	41,127
mace	lbs.	81,689	48,649	55,175	63,563	110,789
nutmegs	,,	511,923	551,577	809,095	771,971	563,785
pepper	,,	18,113,975	16,810,167	18,536,795	18,343,592	14,612,161
pimento	cwts.	30,050	29,999	44,015	25,783	20,182
Spirits: brandy	gals.	2,575,855	3,132,193	4,907,771	3,122,576	3,621,928
Geneva	,,	140,652	193,648	213,687	214,047	231,333
rum	,,	7,765,099	7,191,738	5,499,872	6,498,598	7,685,181
unenumerated, not sweetened	,,	231,687	600,740	913,501	1,413,130	1,059,642
sweetened and perfumed, of all kinds	,,	43,140	64,611	199,311	81,250	62,395
Sponge	lbs.	544,882	474,748	540,172	694,128	895,369
Sugar: raw	cwts.	9,884,191	10,721,592	10,754,143	10,250,524	10,639,085
refined and candy	,,	324,462	297,589	915,663	819,577	660,384
cane juice and syrup	,,	47,419	14,417	18,719	34,112	21,797
molasses	,,	1,126,455	708,495	579,401	713,461	602,298
Tallow	,,	1,103,247	1,160,219	1,014,566	1,361,218	1,322,477
Tea	lbs.	114,787,361	156,906,516	124,359,243	121,271,220	139,610,044
Teeth, elephants', sea cow, sea horse, or sea morse	cwts.	11,605	9,290	11,497	10,268	11,982
Terra Japonica (gambier) and cutch	tons	11,092	12,812	14,406	15,708	15,278
Tin ore and regulus	,,	551	559	529	639	595
Tin, in blocks, ingots, bars, or slabs	cwts.	87,873	84,559	98,098	113,972	110,462
Tobacco: raw	lbs.	39,982,123	51,514,284	61,043,697	66,084,857	54,574,797
manufactured, cigars and snuff	,,	2,525,911	3,803,729	6,578,705	2,660,681	3,171,906
Toys	value	£122,362	£132,797	£161,378	£165,924	£196,651
Turmeric	tons	310	852	1,164	1,302	1,499
Turpentine	cwts.	12,722	27,345	52,969	41,428	72,146
Ultramarine	,,	19,931	23,734	23,010	27,512	29,866
Valonia	tons	29,720	35,511	22,673	19,302	29,396
Wax, bees'	cwts.	7,735	5,251	9,022	10,678	11,484
Whalefins	tons	207	123	120	114	180
Wine	gals.	11,980,676	14,185,195	13,451,594	14,269,762	16,321,029
Wood and timber:						
not sawn or split, including teak	loads	1,378,311	1,511,712	1,613,704	1,685,885	1,185,093
deals, battens &c. sawn or split	,,	1,563,026	1,902,908	1,986,080	2,136,493	2,188,975
staves	,,	51,599	58,587	62,786	67,611	89,790
firewood	,,	110,260	131,435	138,892	180,673	159,949
hoops	,,	5,089	6,043	7,190	6,159	10,795
lathwood	,,	66,631	63,796	86,913	104,992	81,091
of certain kinds used for shipbuilding; viz. greenheart, red and blue gum, &c.	,,	15,963	10,867	17,383	12,599	4,932
Dyewoods: barwood	tons	1,717	2,660	3,013	2,547	4,182
Brazilwood	,,	2,742	539	2,070	2,741	1,201
fustic	,,	7,016	6,703	7,458	11,460	5,953
logwood	,,	41,257	38,404	41,625	26,847	35,960
Nicaragua	,,	4,063	1,702	486	342	12
Hardwoods: boxwood	,,	3,365	3,962	6,088	6,109	4,166
cedar	,,	3,330	2,464	2,801	3,803	5,647
mahogany	,,	53,798	47,998	41,008	51,376	53,458
rosewood	,,	3,963	2,126	1,279	1,468	780
walnut wood	,,	3,210	5,932	5,861	5,589	5,086
Wool, sheep and lambs' (including alpaca and llama wool)	lbs.	171,945,472	177,377,664	206,473,045	212,206,747	239,568,589
goats' wool or hair. *See* Hair.						
Woollen manufactures	value	£1,574,231	£1,813,891	£1,849,550	£1,891,104	£2,036,671
Woollen and worsted yarn	lbs.	2,214,701	4,526,385	4,654,637	4,392,090	7,185,256
Yarn. *See* Cable, Coir, Hemp, and Jute.						
Yeast, dried	cwts.	102,802	104,233	115,504	115,068	114,084

VI.—*Account of the Real or Declared Value of the Principal Articles of the Produce and Manufacture of the United Kingdom, exported to Foreign Parts, in* 1865, 1866, *and* 1867.

Articles	1865	1866	1867	Articles	1865	1866	1867
	£	£	£		£	£	£
Agricultural implements	210,300	168,722	154,403	Cheese	111,102	164,972	127,874
Alkali—soda	1,125,916	1,613,207	1,611,608	Coals, cinders, and culm	4,427,177	5,107,805	5,400,353
Apparel and slops	2,639,012	2,871,508	2,207,633	Cordage and twine	414,213	413,729	317,691
Arms and ammunition:				Corn, Wheat	27,640	140,077	251,778
Fire arms (small)	424,860	349,847	495,006	Wheat flour	12,344	11,057	16,709
Gunpowder	457,078	465,073	514,205	Of other kinds	234,642	307,085	345,531
Of all other kinds	252,318	281,112	334,325	Cotton yarn	10,342,737	13,685,627	14,870,562
Bacon and hams	118,189	240,205	174,634	Cotton manufactures	46,923,384	60,927,419	55,975,130
Bags, empty	696,291	681,445	764,702	Drugs and chemical products, unenumerated	919,256	1,011,506	1,068,147
Beef and pork	39,774	51,685	21,196	Earthenware and porcelain	1,442,127	1,630,019	1,636,975
Beer and ale	2,060,976	2,057,553	1,909,544	Fish, herrings	500,233	575,176	721,329
Books, printed	511,388	601,882	613,235	Of other sorts	189,005	236,295	225,371
Butter	333,228	360,810	266,414	Furniture, cabinet and upholstery wares	289,587	240,196	200,425
Candles, stearine	110,519	122,467	182,792	Glass, flint	302,105	268,316	269,333
Carriages	382,787	336,409	259,011				
Cement	235,202	280,916	311,697				

Value of Exports of Produce and Manufactures of the United Kingdom—continued.

Articles	1865	1866	1867
	£	£	£
Glass, Window	60,857	77,494	82,158
Common bottles	310,245	378,595	351,340
Plate	71,587	83,712	97,512
Haberdashery and millinery	5,030,740	5,396,775	4,138,119
Hardwares and cutlery	4,326,741	4,366,700	3,933,734
Hats of all sorts	483,594	490,689	510,890
Horses	155,367	167,344	177,658
Leather, unwrought	409,249	438,170	428,268
Wrought, boots and shoes	1,462,105	998,888	950,794
of other sorts	240,299	340,922	258,541
Saddlery and harness	350,531	252,484	220,475
Linen yarn	2,535,321	2,374,152	2,453,684
Linen manufactures	9,156,990	9,576,245	7,473,106
Machinery:			
Steam engines	1,958,533	1,760,612	1,991,984
Of other sorts	3,264,100	2,998,479	2,968,928
Iron and steel	13,471,359	14,842,117	15,126,912
Metals:			
Copper, unwrought, ingots, cakes, or slabs	496,148	538,034	781,930
Wrought or partly wrought:			
Bars, rods, sheets, nails &c.	1,480,130	1,174,732	1,249,270
Mixed or yellow metal	816,640	771,936	971,803
Of other sorts	136,992	87,846	53,919
Brass, of all sorts	232,509	225,148	216,653
Lead, pig, sheet, pipe, and shot	581,684	661,596	623,170

Articles	1865	1866	1867
Metals:	£	£	£
Ore, red and white lead, and litharge	186,123	229,067	248,303
Tin, unwrought	499,570	342,981	385,241
Plates	1,151,098	1,896,192	2,065,260
Zinc, wrought and unwrought	94,659	130,819	138,183
Oil, seed	7,547,683	1,426,564	1,079,717
Painters' colours	475,051	556,510	569,969
Paper (other than hangings)	447,741	639,513	589,551
Pickles and sauces	328,381	468,150	359,938
Plate, plated ware, jewellery, and watches	412,820	414,595	416,661
Provisions, not otherwise described	308,052	386,826	349,098
Salt	274,631	364,455	451,177
Silk, thrown	477,590	582,608	574,667
Twist and yarn	288,468	216,912	179,178
Silk manufactures	1,404,341	1,518,066	1,028,702
Soap	184,279	241,102	238,732
Spirits, British	244,104	151,073	163,542
Stationery, other than paper	405,067	388,106	376,221
Sugar, refined	249,677	294,463	265,231
Telegraphic wire	148,679	312,284	209,688
Wool, sheep and lambs'	901,560	895,556	776,019
Woollen and worsted yarn	5,429,504	4,749,162	5,822,227
Woollen and worsted manufactures	20,104,750	21,796,217	20,134,080
Other articles	7,129,634	8,036,971	7,927,524
Total	185,835,723	188,917,536	181,183,971

VII.—*Account of the Computed Values of Produce Imported into the United Kingdom from Foreign Countries and British Possessions in each of the 3 Years ending with* 1867, *specifying the Amounts Imported from each.*

Countries	1865	1866	1867
Foreign:	£	£	£
Russia: Northern Ports	12,319,801	13,352,516	11,823,293
Southern Ports	5,033,896	6,272,164	10,463,633
Sweden and Norway	5,664,096	5,615,215	6,477,965
Denmark Proper, and Iceland from 1861	2,284,287	2,291,909	2,588,991
Danish West Indies	145,877	107,993	144,850
Prussia	6,126,405	6,866,731	7,383,619
Schleswig and Holstein, with Lauenburg from 1861	1,015,250	837,180	980,137
Hanover	243,094	311,557	559,434
Hanse Towns	8,837,784	10,576,831	9,424,998
Holland	12,413,404	11,768,913	10,823,585
Java and Sumatra	226	8,152	13,262
Belgium	7,334,845	7,906,867	7,533,207
France	31,625,251	37,010,751	33,710,660
Algeria	90,505	48,405	33,337
Possessions in India	45,653	45,255	22,779
Portugal	2,471,801	2,517,828	2,324,090
Azores and Madeira	378,453	400,601	375,647
Spain and Balearic Islands	4,769,277	5,353,133	6,088,389
Canary Islands	239,394	393,639	521,744
Fernando Po	28,648	34,237	41,251
Cuba and Porto Rico	5,063,859	2,961,338	4,267,681
Philippine Islands	1,253,998	1,196,557	760,211
Italy: Sardinia	222,515	319,795	309,267
Tuscany	650,140	615,886	473,222
Two Sicilies	1,688,198	2,273,103	1,607,295
Venetia	483,316	558,481	611,372
Adriatic Ports of Ancona and the Romagna	26,144	41,579	100,351
Papal Ports on the Mediterranean	23,921	6,491	8,162
Austrian Territories:			
Illyria, Croatia, and Dalmatia, including Venetia from 1851 to 1860	677,521	1,369,831	1,204,325
Greece	*1,071,645	*879,598	*1,246,683
Turkey	5,443,130	8,304,500	4,086,475
Wallachia and Moldavia	348,183	441,928	525,867
Syria and Palestine	74,742	137,908	150,841
Egypt	21,773,250	15,368,824	15,498,192
Morocco	412,889	566,052	241,392

Countries	1865	1866	1867
United States and California	£ 21,624,125	£ 46,854,218	£ 41,017,949
Mexico	5,216,924	513,478	515,168
Central America	641,245	860,445	804,047
Hayti and San Domingo	230,287	248,158	243,669
New Granada	1,566,973	1,519,864	983,511
Venezuela	221,331	212,036	85,945
Ecuador	40,715	140,889	107,424
Brazil	6,797,281	7,237,795	5,891,069
Uruguay (Monte Video)	1,249,211	1,540,250	1,232,228
Argentine Confederation	1,014,319	1,073,013	911,851
Chili	5,795,343	2,943,242	4,417,568
Peru	4,082,150	3,032,017	3,701,562
China	10,677,995	10,846,388	9,540,395
Japan	614,745	273,745	317,853
Western coast of Africa	1,318,350	1,422,937	1,477,743
Other countries	967,735	1,107,540	1,090,754
Total of Foreign Countries	198,231,488	223,084,552	214,466,719
British Possessions:			
Channel Islands	414,591	430,700	404,085
Gibraltar	149,799	102,017	67,780
Malta	83,993	115,634	81,471
North American Colonies	6,330,178	6,867,563	6,807,281
West India Islands and Guiana	7,129,594	6,375,794	5,877,494
British Honduras	244,556	239,795	180,610
Australia	10,873,113	11,423,208	12,890,260
British India	37,395,452	36,901,997	25,489,344
Singapore and the Straits Settlements	2,155,931	1,609,863	1,435,830
Ceylon	3,707,717	3,256,250	3,724,512
Hong Kong	773,068	297,275	183,373
Mauritius	1,216,299	1,230,218	889,812
Cape of Good Hope and Natal	2,145,485	2,719,323	2,741,285
Possessions on the River Gambia	50,852	42,613	36,033
Sierra Leone	76,231	82,617	72,063
Possessions on the Gold Coast	295,619	348,500	290,933
Other Possessions	68,599	57,291	109,066
Total of British Possessions	72,840,797	72,805,722	60,785,134
Total of Foreign Countries and British Possessions	271,072,285	295,890,274	275,249,853

* Including the Ionian Islands, ceded to Greece June 1, 1864.

been going on in other countries; so that while we send more goods to the foreigner, we get back more of his in return. Instead of being an evidence of decline, increased facilities of production and increased cheapness are the most characteristic and least equivocal marks of commercial prosperity.

Causes of the Magnitude of British Commerce.—The immediate cause of the rapid increase and vast magnitude of the commerce of Great Britain is doubtless to be found in the extraordinary improvement, and consequent extension, of our manufactures since 1770. The cotton manufacture may be said to have grown up during the intervening period. It must also be borne in mind that the effect of an improvement in the production of any article in considerable demand is not confined to that particular article, but extends itself to others. Those who produce it according to the old plan are undersold unless they adopt the same or similar improvements; and the improved article, by coming into competition with

others for which it may be substituted, infuses new energy into their producers, and impels every one to put forth all his powers, that he may either preserve his old or acquire new advantages. The cotton manufacture may be said to be the result of the stupendous inventions and discoveries of Hargreaves, Arkwright, Crompton, and a few others: but we should greatly underrate the importance of their inventions if we supposed that their influence was limited to this single department. They imparted a powerful stimulus to every branch of industry. Their success, and that of Watt and Wedgwood, gave that confidence to genius so essential in all great undertakings. After machines had been invented for spinning and weaving cottons whose fineness emulates the web of the gossamer, and steam-engines had been made 'to engrave seals, and to lift a ship like a bauble in the air,' every thing seemed possible—*nil arduum rision est.* And the unceasing efforts of new aspirants to wealth and distinction, and the intimate connection of the various arts and sciences, have extended and perpetuated the impulse given by the invention of the spinning-frame and the steam-engine.

The immense accumulation of capital that has taken place since the close of the American war has been at once a cause and a consequence of our increased trade and manufactures. Those who reflect on the advantages which an increase of capital confers on its possessors can have no difficulty in perceiving how it operates to extend trade. It enables them to buy cheaper, because they buy larger quantities of goods, and pay ready money; and, on the other hand, it gives them a decided superiority in foreign markets, where capital is scarce, and credit an object of primary importance with the native dealers. To the manufacturer an increase of capital is of equal importance by giving him the means of constructing his works in the best manner, and of carrying on the business on such a scale as to admit of the most proper distribution of whatever has to be done among different individuals. These effects have been strikingly evinced in the commercial history of Great Britain during the last half-century; and thus it is that capital, originally accumulated by means of trade, gives it, in its turn, nourishment, vigour, and enlarged growth.

The improvement that has taken place in the mode of living since the beginning of this century has been partly the effect, and partly the cause, of the improvement of manufactures and the extension of commerce. Had we been contented with the same accommodations as our ancestors, exertion and ingenuity would long since have been at an end, and routine have usurped the place of invention. Happily, however, the desires of man vary with the circumstances under which he is placed, extending with every extension of the means of gratifying them, till, in highly civilised countries, they become all but illimitable. This endless craving of the human mind, its inability to rest satisfied with previous acquisitions, combined with the constant increase of population, renders the demand for new inventions and discoveries as intense at one period as at another, and provides for the continued advancement of society. What is a luxury in one age, becomes a necessary in the next. The fact of Queen Elizabeth having worn a pair of silk stockings was reckoned deserving of notice by contemporary historians; while, in the earlier part of this century, no gentleman, how humble soever his circumstances, could go to dinner without them. The lower classes are continually pressing upon the middle, and these, again, upon the higher; so that invention is racked, as well to vary the modes of enjoyment, as to increase the amount of wealth. That this competition should be in all respects advantageous is not to be supposed. Emulation in show, though the most powerful incentive to industry, may be carried to excess, and has certainly been ruinous to many individuals, obliged sometimes, perhaps, by their situation, or seduced by example, to incur expenses beyond their means. But the abuse, even when most extended, as it probably is in England, is, after all, confined within comparatively narrow limits; while the beneficial influence resulting from the general diffusion of a taste for improved accommodations adds to the science, industry, wealth, and enjoyments of the whole community.

We are also inclined to think that the increase of taxation during the late war contributed to the improvement of manufactures and the extension of trade. The gradually increasing pressure of the public burdens stimulated the industrious portion of the community to make corresponding efforts to preserve their place in society, and produced a spirit of invention and economy that we should have in vain attempted to excite by any less powerful means. Had taxation been very oppressive, it would not have had this effect; but it was not so high as to produce either dejection or despair, though it was at the same time sufficiently heavy to render a considerable increase of exertion and parsimony necessary to prevent it from encroaching on the fortunes of individuals, or, at all events, from diminishing the rate at which they were previously accumulating. To the excitement afforded by the desire of rising in the world, the fear of falling superadded an additional and powerful stimulus; and the two together produced results that could not have been produced by the unassisted operation of either. No evidence has been or probably can be produced to show that the capital of the country would have been materially greater than it is, had the tranquillity of Europe been maintained uninterrupted from 1793 to the present moment.

We do not state these circumstances to extenuate the evils of war or of oppressive taxation, but merely to show the real influence of taxation on industry when gradually augmented and kept within reasonable bounds. Under such circumstances it has the same influence over a nation that an increase of his family or of his unavoidable expenses has over a private individual.

But after every fair allowance has been made for the influence of the causes above stated, and of others of a similar description, still it is abundantly certain that a liberal system of government, affording full scope for the expansion and cultivation of every mental and bodily power, and securing all the advantages of superior talent and address to their possessors, is the grand sine quâ non of commercial and manufacturing prosperity. Where oppression and tyranny prevail, the inhabitants, though surrounded by all the means of civilisation and wealth, are invariably poor and miserable. In respect of soil, climate, and situation, Spain is perhaps superior, or at all events but little inferior, to Great Britain; and yet, what a miserable contrast does the former present when compared with the latter! The despotism and intolerance of her rulers, and the want of good order and tranquillity, have almost extinguished every germ of improvement in the Peninsula, and sunk the inhabitants to the level of the Turks and Moors. It remains to be seen whether the revolution now (October 1868) in progress may not be a prelude to happier times for that country. Let us hope it may. Had a political system similar

to that of Spain been established in England, we should have been equally depressed. Our superiority in science, arts, and arms, though promoted by subsidiary means, is, at bottom, the result of *freedom* and *security*—freedom to engage in every employment, and to pursue our own interest in our own way, coupled with an intimate conviction, derived from the nature of our institutions and their opposition to everything like arbitrary power, that acquisitions, when made, may be securely enjoyed or disposed of. These form the grand sources of our wealth and power. There have only been two countries—Holland and the United States—which have in these respects been placed under nearly the same circumstances as England; and, notwithstanding they inhabit a morass defended only by artificial mounds from being deluged by the ocean, the Dutch have long been, and still continue to be, the most prosperous and opulent people of the Continent; while the Americans, whose situation is more favourable, are advancing in the career of improvement with a rapidity hitherto unknown. In Great Britain we have been exempted, for a lengthened period, from foreign aggression and intestine commotion; the pernicious influence of the feudal system has long been at an end; the same equal burdens have been laid on all classes; we have enjoyed the advantage of liberal institutions without any material alloy of popular licentiousness or violence; our intercourse with foreign nations, though subjected to various restraints, has been comparatively free; full scope has been given to the competition of the home producers; the highest offices have been open to deserving individuals; and, on the whole, the natural order of things has been less disturbed amongst us by artificial restraints than in most other countries. But without security, no degree of freedom would have been of material importance. Happily, however, every man has felt satisfied, not only of the temporary, but of the permanent tranquillity of the country, and of the stability of its institutions. The plans and combinations of capitalists have not been affected by misgivings as to what might take place in future. Moneyed fortunes have not been amassed in preference to others because they might be more easily sent abroad in periods of confusion and disorder; but all individuals have unhesitatingly engaged, whenever an opportunity offered, in undertakings of which a remote posterity was alone to reap the benefit. No one can look at the immense *sums* expended upon the permanent improvement of the land, on docks, warehouses, canals &c., or reflect for a moment on the settlements of property in the funds, and the extent of our system of life insurance, without being deeply impressed with the vast importance of that confidence which the public have placed in the security of property and the good faith of government. Had this confidence been imperfect, industry and invention would have been paralysed, and much of that capital which feeds and clothes the industrious classes would never have existed. The preservation of this security entire, both *in fact and in opinion*, is essential to the public welfare. If it be anywise impaired, the colossal fabric of our prosperity will crumble into dust; and the commerce of London, Liverpool, and Glasgow, like that of Tyre, Carthage, and Palmyra, will at no very remote period be famous only in history. (From the *Treatise on Commerce*, contributed by the author of this work to the Society for the Diffusion of Useful Knowledge.)

Supposed Danger to our Trade from Foreign Competition.—A great many statements have been circulated of late years respecting the rapid progress of manufactures in foreign countries, and many sinister auguries have at the same time been indulged in as to the decay of the manufactures and trade of this country. But though all branches of industry, and especially those dependent on foreign supply and demand, are necessarily exposed to vicissitudes which it is impossible to estimate à priori, or even to foresee, still we think there are no good grounds on which to anticipate that we are at all likely, within any reasonable period, to be outstripped by others in the career of industry. We have, it is true, something to fear from the spread of combinations and agitation at home; but, supposing domestic security and tranquillity to be preserved, we have little or nothing to fear from foreign competition. Our exports to France, Germany, and Italy have increased rapidly within the last 20 years; and but for restrictions, which, however, are ten times more injurious to themselves than to those with whom they deal, our exports to Spain and other parts of the Continent would have been vastly increased. But it is impossible that these restrictions should be maintained for any very lengthened period. Their days are numbered, and they cannot be many. In the present state of Europe, and with the intimate intercourse that subsists among its different states, we may safely affirm that monopoly, and its necessary consequences, scarcity and high prices, cannot have a very lengthened existence.

We have occasionally seen statements on which some stress has been laid in regard to the progress of the cotton and other manufactures in the United States and elsewhere; and we have no doubt that at some future period the Union will be a great manufacturing country. It has every means and every facility for eventually distinguishing itself in that career; but a result of this sort can only be slowly brought about, as population increases, and as the preponderating advantages now on the side of the ruder species of industry are diminished. And supposing it to have arrived at the destined goal, there are no grounds for supposing that the consequences will be injurious to us. On the contrary, there is every reason to think, seeing the rapid increase of population and wealth in most parts of the world, that there will be 'ample room and verge enough' for the fullest display of the manufacturing capacities of every people. But in the mean time, and for a long while to come, the Americans will export few cotton goods except those coarse fabrics the value of which chiefly consists of that of the raw material. It is, indeed, an absurdity to suppose that a country like the United States, where labour is comparatively scarce, and profits and wages comparatively high, should be able to come into anything like successful competition with a country like England in the production of any description of articles requiring either a good deal of skill or of labour in their manufacture.

Establishment of Free Trade.—In the later editions of this work we showed that though much had been done, much remained to be done to carry out to its full extent the liberal and enlightened system of commercial policy on which we had entered. We also endeavoured to show that the necessary changes might be made in our corn laws and other restrictive regulations without seriously imperilling the interests of agriculture, or of any other great department of industry. We confess, however, that we did not anticipate that the triumph of philosophy and sound sense over sophistry and selfishness was so

near at hand. But *novus saeclorum nascitur ordo.* The scarcity in Ireland in 1845–46, coupled with the disinterestedness, the patriotism, and the ability of Sir Robert Peel, made an end of the corn laws; and with them fell the whole system of protection in this country. A few shreds and patches of the fabric may be found here and there for a longer or a shorter period, but all men of sense saw that the idol had been thrown down without the smallest hope of its ever being again resuscitated, and that free commercial principles were everywhere destined to gain the ascendancy.

One thing only was wanted in 1846 to hasten the downfall of the whole system—the experimental and practical success of the new; and that has been afforded in the most ample manner. It would be difficult to exaggerate the advance that has been made in commerce and in most sorts of industry, and the improvement in the condition of society that has taken place since that period. A considerable portion of this advance is no doubt due to the discovery of the Californian and Australian gold-fields. But that was an incident which might have been turned to an equally good account by France, Spain, or any other country. And if it has been peculiarly advantageous to us and to the Americans, it is because our Transatlantic rivals and ourselves were in a situation to profit by it; because our free and untrammelled energies were ready to be directed towards any channel, how remote soever, which held out the promise of an adequate reward.

The moral influence of the new state of things is no less powerful and important than its economical influence. The extension of commerce will do more than anything else to diffuse the blessings of civilisation, to bind together the universal society of nations by sharpening, and at the same time gratifying, their mutual wants and desires, and to maintain undisturbed that tranquillity so indispensable to its full development.

IMPRESSMENT. The forcible taking away of seamen from their ordinary employment, and compelling them to serve, against their will, in her Majesty's ships.

Regulations as to Impressment.—This practice is not expressly sanctioned by any Act of Parliament; but it is so indirectly by the numerous statutes that have been passed, granting exemptions from it. According to Lord Mansfield, it is 'a power founded upon immemorial usage,' and is understood to make a part of the common law. All *seafaring* men are liable to impressment unless specially protected by custom or statute. Seamen executing particular services for Government not unfrequently get protections from the Admiralty, Navy Board &c. Some are exempted by *local* custom, and *ferrymen* are every where privileged from impressment. The statutory exemptions are numerous.

1. *Every ship in the coal trade* has the following persons protected, viz. 2 able seamen (such as the master shall nominate) for every ship of 100 tons; and 1 for every 50 tons for every ship of 100 tons and upwards; and any officer who presumes to impress any of the above shall forfeit to the master or owner of such vessel 10*l.* for every man so impressed; and such officer shall be incapable of holding any place, office, or employment in any of her Majesty's ships of war. (6 & 7 Wm. III. c. 18 s. 19.) In order that these men shall be thus protected, it is necessary for the master *to name them before they are impressed*: this is to be done by going before the mayor or other chief magistrate of the place, who is to give the master a certificate, in which are contained the names of the particular men whom he thus nominates; and this certificate will be their protection.

2. *No parish apprentice* shall be compelled or permitted to enter into the Royal Navy till he arrives at the age of 18 years. (2 & 3 Anne c. 6 s. 4.)

3. Persons *voluntarily* binding themselves apprentices to sea service shall not be impressed for 3 years from the date of their indentures; but no persons above 18 years of age shall have any exemption or protection from her Majesty's service if they have been at sea before they became apprentices. (2 & 3 Anne c. 6 s. 15; 4 Anne c. 19 s. 17; and 13 Geo. II. c. 17 s. 2.)

4. *Persons employed in the Fisheries.*—The Act 50 Geo. III. c. 108 grants the following exemptions from impressment, viz.:—

1. *Masters of fishing vessels* or boats, who, either themselves or their owners, have, or within 6 months before applying for a protection shall have had, 1 apprentice or more under 16 years of age, bound for 5 years, and employed in the business of fishing.

2. All such *apprentices*, not exceeding *eight* to every master or owner of any fishing vessel of 50 tons or upwards; not exceeding *seven* to every vessel or boat of 35 tons and under 50; not exceeding *six* to every vessel of 30 tons and under 35 tons; and not exceeding *four* to every vessel or boat under 30 tons burden during the time of their apprenticeship, and till the age of 20 years; they continuing, for the time, in the business of fishing only.

3. *One mariner*, besides the master and apprentices, to every fishing vessel of 10 tons or upwards, employed on the sea-coast, during his continuance in such service.

4. *Any landsman* above the age of 18, entering and employed on board such vessel, from 2 years from his first going to sea; and to the end of the voyage then engaged in, if he so long continue in such service.

An affidavit sworn before a justice of the peace, containing the tonnage of such fishing vessel or boat, the port or place to which she belongs, the name and description of the master, the age of every apprentice, the term for which he is bound, and the date of his indenture, and the name, age, and description of every such mariner and landsman respectively, and the time of such landsman's first going to sea, is to be transmitted to the Admiralty, who, upon finding the facts correctly stated, grant a separate protection to every individual. In case, however, '*of an actual invasion of these kingdoms or imminent danger thereof*,' such protected persons may be impressed; but except upon such an emergency, any officer or officers impressing such protected persons shall respectively forfeit 20*l.* to the party impressed if not an apprentice, or to his master if he be an apprentice. (Secs. 2, 3, 4.)

5. *General Exemptions.*—All persons 55 years of age and upwards, and under 18 years. Every person being a foreigner, who shall serve in any merchant ship, or other trading vessel, or privateer, belonging to a subject of the Crown of Great Britain; and all persons, of what age soever, who shall use the sea, shall be protected for 2 years, to be computed from the time of their first using it. (13 Geo. II. c. 17.)

6. *Harpooners*, line managers, or boat steerers, engaged in the Southern whale fishery, are also protected. (26 Geo. III. c. 50.)

7. *Mariners employed in the herring fishery* are exempted while actually employed. (48 Geo. III. c. 110.)

Policy of Impressment.—This practice, so subversive of every principle of justice, is vindicated on the alleged ground of its being absolutely necessary to the manning of the fleet; and if this allegation were really well founded, it would be quite sufficient for its justification. But it may be doubted whether such was ever really the case, and, at all events, it is no longer so.

I. The difficulty formerly experienced in manning the fleet at the breaking out of a war resulted from the sudden demand for a great number of sailors. This, however, has been more an artificial than a real difficulty, and was occasioned by the peace establishment being arranged on too low a scale. Had it been kept up at from a third to a half of the force usually required during war, and made to consist wholly, or almost wholly, of thorough-bred seamen, it would have been an easy matter, by taking on board the usual complement of landsmen and marines, to have put the fleet on a war footing without resorting to impressment, or injuring the merchant service by offering high bounties to the men that entered the navy. It was not necessity, but an ill-judged spirit of parsimony, and the adoption of an improper system, that made impressment necessary in bygone times. But the secure asylum afforded to such of our seamen as choose to resort to the ships of the United States must now, were there nothing else to be considered, make an end of impressment in time to come.

II. Apart from these considerations, the change which the introduction of steam has effected in navigation has made the adoption of a new system alike easy and indispensable. Thorough-bred seamen, or those expert alike in the handling of sails and the manœuvring of ships, are no longer necessary to anything like the same extent as formerly. Ships are now navigated from the engine-room, and a small part only of the crews need to be expert seamen. What are now mainly required in ships of war are crews thoroughly trained to the management of guns and the sword exercise; and these important qualifications may be attained in the highest perfection by those who can neither go aloft, nor distinguish one rope from another. All that they require are sea-legs, or such a degree of familiarity with the sea that they may be able to keep their footing, and perform their peculiar duties on board, without being annoyed by sickness or otherwise inconvenienced.

And hence the true plan is to keep the sailing ships on the peace establishment always fully manned with thorough-bred seamen, and to train a large proportion, if not the whole, of the army to the sea as well as to the land service. The marines are equally serviceable at sea and on shore, and why not add largely to their numbers? In this view large bodies of troops might be kept in garrisons or in barracks in seaport towns, who, being embarked occasionally in ships of war, instructed in the art of gunnery and the duty of marines, and accustomed to a seafaring life, would not fail to become a most valuable and efficient description of force.

It may be worth while, perhaps, to mention that a plan similar to that now referred to appears to have been adopted by Augustus and his successors at the great naval stations of Ravenna and Misenum. (Gibbon's *Decline and Fall*, cap. iv.) And, however this precedent may apply, there can be no doubt that the course suggested above may be followed with equal facility and advantage. Supposing we had a sea-going militia of 50,000 men—that is, 50,000 men having the use of sea-legs and familiar with the practice of gunnery on board ship, and with the ordinary parts of a seaman's duty—we should be able, by withdrawing a part, say a half, of the thorough-bred seamen employed in sailing ships, and distributing them among those impelled by steam, to send to sea the most powerful fleets at the shortest notice and with the least difficulty. The duty of a soldier should no longer be restricted to service on land—he should be a sort of amphibious animal, and be made to exhibit his courage and daring on sea or on shore as circumstances may require. If we adopt a system of this sort, we shall do the most which, perhaps, can be done to strengthen our means of defence, and to render our coasts secure against invasion.

For further details and statements in regard to this matter we beg to refer to the very able paper of W. S. Lindsay, Esq., formerly M.P. for Sunderland, *On the Manning of the Navy.* (Papers printed by Command, Sess. 1859.) The subject is discussed in it by one who is equally at home in all that respects its theory and practice.

The practice of impressment will probably be abandoned, should such occasions hereafter arise as would justify it on such public grounds as were heretofore alleged. The establishment, indeed, of the Naval Reserve, is in effect the surrender of the system.

INDEMNITY. Is where one person secures another from responsibility against any particular event: thus a policy of insurance is a contract of indemnity against any particular loss. Where one person also becomes bail for another, a bond of indemnity is frequently executed; and where a bond or bill of exchange has been lost or mislaid, the acceptor or obligee would not act prudently in paying it without being secured by a bond of indemnity.

INDIA-RUBBER. [Caoutchouc.]

INDIGO (Fr. indigo; Ger. indigo; Sansc. nili; Arab. neel; Malay, taroom). The drug which yields the beautiful blue dye known by that name. It is obtained by the maceration in water of certain tropical plants; but the indigo of commerce is almost entirely obtained from leguminous plants of the genus *Indigofera*; that cultivated in India being the *Indigofera tinctoria*, and that in America the *Indigofera anil*. The Indian plant has pinnate leaves and a slender ligneous stem; and when successfully cultivated, rises to the height of 3, 5, and even 6 feet.

It appears pretty certain that the culture of the indigo plant, and the preparation of the drug, have been practised in India from a very remote epoch. It has been questioned, indeed, whether the *indicum* mentioned by Pliny (*Hist. Nat.* lib. xxxv. c. 6) was indigo, but, as it would seem, without any good reason. Pliny states that it was brought from India; that when diluted it produced an admirable mixture of blue and purple colours ('in diluendo misturam purpuræ cæruleique mirabilem reddit'); and he gives tests by which the genuine drug might be discriminated with sufficient precision. It is true that Pliny is egregiously mistaken as to the mode in which the drug was produced; but there are many examples in modern as well as ancient times to prove that the possession of an article brought from a distance implies no accurate knowledge of its nature, or of the processes followed in its manufacture. Beckmann (*Hist. of Inventions*, vol. iv. art. 'Indigo') and Dr. Bancroft (*Permanent Colours*, vol. i. pp. 241–252) have each investigated this subject with great learning and sagacity, and agree in the conclusion that the *indicum* of Pliny was real

indigo, and not, as has been supposed, a drug prepared from the *isatis* or woad. At all events, there can be no question that indigo was imported into modern Europe, by way of Alexandria, previously to the discovery of the route to India by the Cape of Good Hope. When first introduced, it was customary to mix a little of it with woad to heighten and improve the colour of the latter; but by degrees the quantity of indigo was increased, and woad was at last entirely superseded. It is worth while, however, to remark that indigo did not make its way into general use without encountering much opposition. The *growers of woad* prevailed on several governments to prohibit the use of indigo! In Germany an Imperial edict was published in 1654, prohibiting the use of indigo, or '*devil's dye*,' and directing great care to be taken to prevent its clandestine importation, 'because,' says the edict, 'the trade in woad is lessened, dyed articles injured, and money carried out of the country!' The magistrates of Nuremberg went further, and compelled the dyers of that city to take an oath once a year not to use indigo, which practice was continued down to a late period. In 1598, upon an urgent representation of the States of Languedoc, at the solicitation of the woad growers, the use of indigo was prohibited in that province; and it was not till 1737 that the dyers of France were left at liberty to dye with such articles, and in such a way, as they pleased. (Beckmann, vol. iv. p. 142.) Let not those who may happen to throw their eyes over this paragraph smile at the ignorance of their ancestors. *Mutato nomine, de te fabula narratur.* How much opposition is made in most countries at this moment to the introduction of many important articles, for no better reasons than were alleged in the sixteenth century against the importation of indigo!

Indigo is produced in Bengal, and the other provinces subject to the presidency of that name, from the 20th to the 30th degree of north latitude; in the province of Tinnevelly, under the Madras government; in Java; in Luconia, the principal of the Philippine Islands; and in Guatemala, and the Caraccas, in Central America. Bengal is, however, the great mart for indigo, and the quantity produced in the other places is comparatively inconsiderable.

Raynal was of opinion that the culture of indigo had been introduced into America by the Spaniards, but this is undoubtedly an error. Several species of *indigofera* belong to the New World; and the Spaniards used it as a substitute for ink, very soon after the conquest. (Humboldt, *Essai Politique sur la Nouvelle Espagne*, tom. iii. p. 54, 2nd ed.)

For the first 20 years after the English became masters of Bengal, the culture and manufacture of indigo, now of such importance, were unknown as a branch of British industry, and the exports were but trifling. The European markets were at this period principally supplied from America. In 1783, however, the attention of the English began to be directed to this business; and though the processes pursued by them be nearly the same with those followed by the natives, their greater skill, intelligence, and capital give them immense advantages. In their hands, the growth and preparation of indigo became, and continued down almost to the period of the cotton famine, the most important employment, at least in a commercial point of view, except the cultivation and export of rice, which could be freely carried on in the country (the culture and preparation of opium forming a monopoly). The indigo made by the natives supplies the internal demand; but a portion of that which is raised by them, with all that is raised by Europeans, is exported.

In the Delta of the Ganges, where the best and largest quantity of indigo is produced, the plant lasts only for a single season, being destroyed by the periodical inundation; but in the dry central and western provinces, one or two *rattoon* crops are obtained; and owing to this circumstance, the latter are enabled to furnish a large supply of seed to the former.

During the 9 years which preceded the opening of the trade with India, in 1814, the annual average produce of indigo in Bengal for exportation was nearly 5,600,000 lbs.; but after the ports were opened, the indigo produced for exportation increased more than a half, the exports during the 16 years ending with 1829–30 being above 7,500,000 lbs. a-year. The following statement shows the rate of this increase, taking the average produce of each 4 years:—

Year	lbs.	Year	lbs.
1814 1815 1816 1817 -	7,010,000	1822 1823 1824 1825 -	8,000,000
1818 1819 1820 1821 -	6,000,000	1826 1827 1828 1829 -	9,000,000

In the years 1862-3 and 1863–4, the exports of indigo from India, and the destination of the supplies, were as follow:—

	1862-3		1863-4	
	Quantity	Value	Quantity	Value
	lbs.	£	lbs.	£
United Kingdom	8,537,133	1,627,083	6,933,958	1,346,646
America	134,064	26,949	169,034	33,502
Arabian and Persian Gulf	343,037	53,385	448,029	60,210
France	1,922,120	371,396	1,239,269	246,191
Germany	85,680	15,504	42,840	8,321
Suez	293,269	51,738	330,334	61,060
Other places	9,577	815	9,151	928
Total	11,324,980	2,126,870	9,172,615	1,756,158

The value of the exports in 1866 was 1,861,601*l.*

It deserves to be remarked, that since the opening of the trade, Indian capitalists have betaken themselves to the manufacture of indigo on the European method, and that at present a considerable part of the whole annual produce is prepared by them.

The culture of indigo is very precarious, not only in so far as respects the growth of the plant from year to year, but also as regards the quantity and quality of the drug which the same amount of plant will afford even in the same season. Thus the produce of 1825–26 was 41,000 chests, while that of 1826–27 was but 25,000 chests; and in 1842 the produce was only 79,000 maunds, while that of the following year was no less than 172,249 maunds! The price of indigo in India increased for a while in a far greater ratio than the quantity. In 1813–14 the real value of that exported from Calcutta was 1,461,000*l.*; but in 1827–28, although the quantity had increased but 20 per cent., the value rose to 2,920,000*l.*, or was about doubled. There was no corresponding rise in the price in Europe, but, on the contrary, a decline; and the circumstance is to be accounted for by the restraints that were then placed on the investment of capital in the production of colonial articles suited to the European market, the consequent difficulty of making remittances from India, and an unnatural flow of capital to the only great article of Indian produce and export that was supposed capable of bearing its application.

The consumption of indigo has not increased in this country during the 10 years ending with 1867.

This stationary demand, notwithstanding the fall in the price of the drug and the increase of population, is principally to be ascribed to the decreasing use of blue cloth, in the dyeing of which it is principally made use of. Its consumption in France is about as great as in Britain. Besides the exports to Great Britain, France, Germany, and the United States, a good deal of Bengal indigo is exported to the ports on the Persian Gulf, whence it finds its way to southern Russia. It is singular that it is not used by the Chinese, with whom blue is a favourite colour. We subjoin

An Account of the Imports and Exports of Indigo into and from the United Kingdom in each of the 7 Years ending with 1867.

	1861	1862	1863	1864	1865	1866	1867
Imports - cwt.	83,109	60,549	85,393	76,214	66,506	74,256	71,995
Exports - "	67,435	43,808	54,663	57,664	66,547	55,640	62,692
Remains for home consumption -	15,674	16,781	30,732	18,550	−41	18,616	9,303

Average for the seven years, 14,966 cwt., or 1,675,072 lbs. a-year.

Of 71,995 cwt. indigo imported into Great Britain in 1867, 53,961 cwt. were from India, 499 ditto from United States, 10,381 ditto from Central America, and 1,338 from New Granada. The duty to which it was formerly subject was repealed in 1845.

The indigo of Bengal is divided into two classes called, in commercial language, *Bengal* and *Oude*; the first being the produce of the southern provinces of Bengal and Bahar, and the last that of the northern provinces and of Benares. The first is, in point of quality, much superior to the other. This arose at one time, in a considerable degree, from the practice which prevailed in the northern provinces of the European planter purchasing the wet fecula from the ryot or native manufacturer, and completing the processes of curing and drying the drug. This is at present in a great measure discontinued; and the Oude indigo has, in consequence, considerably improved in quality. Its inferiority is probably more the result of soil and climate than of any difference in the skill with which the manufacture is conducted. The production of indigo in Bengal and Oude is supposed to have amounted at an average of the 10 years ending with 1851 to 121,900 maunds (of 82 lbs. each) a-year.

In addition to the indigo raised in Bengal, a considerable quantity is now raised in Madras; the value of the exports from the latter in the 5 years 1861–5 having amounted to an average of 281,000*l.* a-year. The indigo of Madras is not so good as that of Bengal, and brings a much less price. Indigo is also exported from Java, the Philippine Islands, Central America, and other places. In 1854 the exports from Batavia amounted to 1,077,848 lbs.; in 1863 they were 904,200 lbs. In 1864 the exports from Manilla were estimated at about 308,864 lbs. According to Humboldt, 1,800,000 lbs. indigo were exported from Guatemala in 1825; but if so, which is, perhaps, doubtful, its production must have fallen off greatly in the interval. In 1866 our imports of indigo from the whole of Central America, inc. Honduras, amounted to 6,040 cwts., or 672,480 lbs. Indigo is produced in some of the West India islands, but in small quantities.

Good indigo is known by its lightness or small specific gravity, indicating the absence of earthy impurities; by the mass not readily parting with its colouring matter when tested by drawing a streak with it over a white surface; but above all, by the purity of the colour itself. The first quality, estimated by this last test, is called, in commercial language, *fine blue*; then follow *fine purple, purple and violet, violet, strong copper*, and *ordinary copper*. These distinctions refer to the Bengal indigo only, the Oude being distinguished merely into *fine* and *ordinary*. The indigo of Madras, which is superior to that of Manilla, is about equal to ordinary Bengal indigo. The indigo of Java is superior to these.

For further information as to indigo, see Colebrooke's *Husbandry of Bengal*, p. 154; Milburn's *Orient. Com.*; Wilkinson's *Commerce of Bengal*; Wilson's *Review* of do.; evidence of Gillian Maclaine, Esq., before East India Committee, 1830-31; *Parl. Papers*, &c.

The fixed capital required in the manufacture of indigo consists of a few vats of common masonry for steeping the plant, and precipitating the colouring matter; a boiling and drying house, and a dwelling house for the planter. These, for a factory of ten pair of vats, capable of producing, at an average, 12,500 lbs. of indigo, worth on the spot about 2,500*l.*, will not cost above 1,500*l.* sterling. The buildings and machinery necessary to produce an equal value in sugar and rum would probably cost about 4,000*l.* This fact, therefore, without any reference to municipal regulations, affords a ready answer to the question which has been frequently put, why the British planters in India have seldom engaged in the manufacture of sugar.

INK (*Dutch*, ink, inkt; Fr. encre; Ger. dinte; Ital. *inchiostro*; Lat. atramentum; Russ. tachernilo; Span. tinta; Swed. blak).

'Every liquor or pigment used for writing or printing is distinguished by the name of ink. Common practice knows only black and red. Of black ink there are three principal kinds: 1. Indian ink; 2. Printers' ink; and 3. Writing ink. The Indian ink is used in China for writing with a brush, and for painting upon the soft flexible paper of Chinese manufacture. It is ascertained, as well from experiment as from information, that the cakes of this ink are made of lampblack and size or animal glue, with the addition of perfumes or other substances not essential to its quality as an ink. The fine soot from the flame of a lamp or candle received by holding a plate over it, mixed with clean size from shreds of parchment or glove-leather not dyed, will make an ink equal to that imported. Good printers' ink is a black paint, smooth, and uniform in its composition, of a firm black colour, and possesses a singular aptitude to adhere to paper thoroughly impregnated with moisture.

'Common ink for writing is made by adding an infusion or decoction of the nut-gall to sulphate of iron, dissolved in water. A very fine black precipitate is thrown down, the speedy subsidence of which is prevented by the addition of a proper quantity of gum Arabic. Lampblack is the common material to give the black colour, of which 2½ ounces are sufficient for 16 ounces of the varnish. Vermilion is a good red. They are ground together on a stone with a muller, in the same manner as oil paints. Among the amusing experiments of the art of chemistry, the exhibition of sympathetic inks holds a distinguished place. With these the writing is invisible until some reagent gives it opacity. These inks have been proposed as the instruments of secret correspondence: but they are of little use in this respect, because the properties change by a few days remaining on the paper; most of them have more or less of a tinge when thoroughly dry; and none of them resist the test of heating the paper till it

begins to be scorched.' (Nicholson's *Dictionary of Chemistry.*)

INKLE. A sort of broad linen tape, principally manufactured at Manchester and some other towns in Lancashire.

INSOLVENCY AND BANKRUPTCY. A bankrupt is, in a general sense, a person who is unable to pay his collective debts.

A creditor is a person who trusts another with his property, and who thereupon puts himself in a position which is, as contrasted with the debtor, naturally and comparatively defenceless. To sustain and protect him, the law, in all civilised communities, lends its power to constrain the debtor into the fulfilment of his contract.

The law takes cognisance of contracts in such a sense as to consider all persons who have incurred obligations of any kind as liable to the penalties which municipal regulations visit on insolvency, whether that insolvency be incapacity to pay, or unwillingness to fulfil contracts. What it strictly and primarily does, is to take away the control which the debtor would otherwise have over his own property. It vests the debtor's property either in a public officer who is empowered to seize it, and make compensation from it; or in official persons, who are entrusted with the duty of collecting and distributing it; or in the creditors themselves.

But it compels the creditor to prove his debt, partly in the interest of the debtor, who might otherwise become liable to false, fraudulent, or exaggerated claims, partly in the interest of other creditors, who, if the bankrupt's or debtor's estate is insufficient to fully satisfy all claims, might be deprived of their quota by fictitious or extravagant demands.

The atrocity of the early Roman law of bankruptcy has already been commented on.

The English general law was early modified in the case of traders. In the reign of Edward I. the trader was allowed to pledge his land, in particular forms, known as *statute merchant* and *statute staple*, and could be arrested if the pledge was insufficient to discharge the debt.

The first statute of bankruptcy is that of 34 Henry VIII. c. 4, and the principle of this early law was that of securing and dividing the bankrupt's assets.

The statute of Henry VIII. was materially altered by the Act of 13 Eliz. c. 7, which defines the persons who may be made bankrupts, and the provisions of this statute were further enlarged by 1 Jas. I. c. 15, and 21 Jas. I. c. 19.

By the statute of 10 Anne c. 15, when an attempt was made to distinguish between the honest but unfortunate bankrupt, and the dishonest and fraudulent debtor, and by 6 Geo. IV. c. 16, acts of bankruptcy were defined, persons liable to become bankrupt were distinguished, and the court administering this part of mercantile law was remodelled.

Down to 1831 the lord chancellor or lord keeper had the jurisdiction; but then an Act was passed constituting a chief judge, three other judges, six commissioners, and thirty official assignees. The chief judge and his colleagues formed a court of review, with a final appeal in a limited degree to the chancellor.

A Consolidation Act of 1849, repealing nearly all the then existing statutes, abolished the jurisdiction of the chancellor, and vested it in the Court of Bankruptcy. This Act also provided a system of voluntary arrangements or compositions, either with or without the intervention of the court.

Insolvency.—The Act of 1849, like other Acts preceding it in order of time, defined with exactness who were the persons liable to bankruptcy, and what were the precise acts which constituted bankruptcy.

There was a radical difference between the bankruptcy law and that of insolvents. The bankrupt, unless convicted of fraud, was secured not only from arrest, but in the possession of property acquired after his bankruptcy, while the insolvent was never discharged from his liability until every creditor had been discharged in full, though he was secured from arrest.

Legislation of 1861.—The Act of 1861 introduced several fundamental changes into the law of bankruptcy—changes which have, unfortunately but beyond all dispute, so favoured debtors as to give the most powerful stimulant to recklessness in trading, fraud, and dishonesty. The distinction between traders and non-traders is done away, and this perhaps is only reasonable; but all debtors are now enabled to obtain a complete discharge of debts and liabilities by giving up their property if they have any, and by going through the form of it if they have none.

The following is a brief account of the more important provisions of the Act, which is lengthy, containing 230 sections.

1. The jurisdiction of the Court of Bankruptcy includes that of the Court for the Relief of Insolvent Debtors.

3–7. Extension of the jurisdiction of county courts in matters of bankruptcy.

19–27. Supersede the functions of the Insolvent Debtors' Court.

37–44. Fees and stamps. These are simplified.

45–47. General orders. These are to be framed by the lord chancellor with two of the commissioners, and must be laid before Parliament.

69. Abolishes the distinction between traders and non-traders.

70–75. Acts of bankruptcy, and rules to be observed before adjudication.

76–85. Acts of bankruptcy by non-payment of judgment debtor summons.

86–107. Petitions for adjudication of bankruptcy and proceedings thereon. The first clause gives power to a debtor to petition an adjudication of bankruptcy against himself, without any previous declaration of insolvency. The 89th determines the amount of creditors' debts which shall justify a petition. The 97th defines the character of debts for the purpose of petition. The 98th and 99th describe the proceedings of a petitioner in formâ pauperis. The 100th decrees that gaolers shall make a return of prisoners for debt. The 101st, that the registrar shall inspect prisoners with a view to making prisoners for debt bankrupts, by order of adjudication. The 106th and 107th deal with the cases of lunatic debtors.

108–115. Proceedings after adjudication. The official assignee is to take possession of the bankrupt's assets. The creditors shall meet, give proof of debts, resolve (110) *if the major part in value agree*, to take no further proceedings in bankruptcy, and if on further notice a majority of *three-fourths in value accede*, shall be empowered to suspend the bankruptcy and administer the estate at their own discretion.

116–139. Choice of creditors' assignee, by majority in value of creditors, with the powers and duties of his office.

140–143. Proceedings at the last examination.

144–156. Proof of debts.

157–172. Proceedings in the discharge of the bankrupt.

173. The audit to be made as general orders shall direct, or in case special provision be made, in the manner provided.

174. Period at which dividends are to be declared.

175. The penalty of 20 per cent. per annum levied on all sums of more than 50*l.* retained by the creditors' assignee for the space of one week.

176–179. Other rules affecting the payment of dividends.

180–184. Form of discharging the creditors' assignee, and of continuing powers or rights which have not been exercised or have not occurred to the official assignee.

185–200. The *change from bankruptcy to arrangement.*—If three-fourths of the creditors in number and value resolve in a general meeting that the estate of the insolvent shall be wound up under a deed of arrangement, composition &c., the proceedings, on the fulfilment of certain formalities, may be stopped. If the court is satisfied with the terms under which the deed is formed, it may make a declaration of its complete execution, may direct it to be registered, may annul the bankruptcy, and may declare the deed *binding in all respects on such creditors as have refused to execute the arrangement.* The court reserves to itself powers to entertain applications as to the parties to the deed, to the bankrupt's estate and affairs; and to summon and examine the bankrupt.

221. Misdemeanors under the Act: the limit of imprisonment to be three years at most, unless the offence be provided against by any other law.

The misdemeanors in question are:—

1. If the bankrupt shall fail, without due cause, to surrender.

2. If he neglect to deliver up his property.

3. If after adjudication, or within 60 days before it, he removes, conceals, or embezzles any part of his property to the value of 10*l.* or upwards.

4. If in case any person proves to his knowledge a false debt under his bankruptcy, he does not disclose the fact to the assignees within a month of its coming under his knowledge.

5. If he wilfully and fraudulently makes omissions from his schedule.

6. If he conceals his books &c. with intent to defraud.

7. If he mutilates or falsifies them.

8. If he fraudulently makes away with or assigns property, knowing that he is unable to meet his aggregate engagements.

9. If he attempts to account for any of his property by fictitious losses or expenses in trade.

10. If being a trader, three months before adjudication he shall have obtained goods on credit with intent to defraud.

11. If being a trader, he shall three months before adjudication pawn, pledge, or dispose of goods obtained on credit and unpaid for, in any but a bonâ fide transaction.

The remaining clauses are comparatively unimportant.

The schedule G annexed to the Act contains a list of the Acts and parts of Acts which have been repealed by that of 1861.

This Act gives, it will be seen, great and increasing facilities to debtors in escaping from the consequence of their having incurred obligations which they cannot fulfil.

Few persons at the present time defend imprisonment for simple debt, and an element of dishonesty in the proceedings of the debtor would alone seem to call for this punishment. (For further remarks on this subject, see BANKRUPTCY.)

But though the abolition of imprisonment for debt to all practical purposes, and the identifica-

A Table of the various Kinds of Adjudication in Bankruptcy, of the Discharges, Gross Produce of Estates, Dividends, &c.

	1861				1865			
	London District Court	Country District Courts	County Courts	Total	London District Court	Country District Courts	County Courts	Total
Number of adjudications of bankruptcy	2,511	1,537	3,376	7,224	3,053	1,692	3,560	8,303
On petition of a creditor	185	334	56	595	292	399	78	769
On petition of a debtor	1,609	1,001	2,650	5,260	2,062	1,103	2,772	5,937
By registrars at the prisons	289	178	437	904	385	180	526	1,091
On petitions in formâ pauperis	292	3	233	456	304	8	191	503
On judgment debtor summons	8	1	—	9	6	2	—	8
Number of adjudications where the debts of the bankrupt exceeded 300*l.*	1,501	1,304	167	2,972	1,870	1,663	200	3,733
Number where the debts did not exceed 300*l.*	1,010	33	3,209	4,252	1,183	29	3,360	4,572
Discharges granted	1,574	1,118	2,643	5,335	2,234	1,160	3,682	6,076
Suspended	94	129	93	316	185	136	112	433
Refused	1	6	73	80	1	17	89	107
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Total amount of gross produce realised from the several bankrupts' estates	247,135 7 2	376,645 8 5	53,755 5 2	677,536 0 7	261,695 18 11	633,924 4 9	56,335 6 0	856,953 9 8
Total amount realised by creditors' assignees	178,528 0 3	164,163 17 6	7,610 10 7	350,302 8 4	213,877 17 3	303,142 19 1	8,466 3 0	526,486 19 4
Total amount realised by official assignees	68,607 6 11	212,481 10 9	46,144 14 7	327,233 12 3	48,818 1 8	330,781 5 8	50,869 3 0	330,468 10 4
Number of cases in which a dividend was made	328	630	628	1,586	331	675	630	1,639
In which there was no dividend	2,555	841	1,895	5,324	2,901	799	2,027	5,727
In which dividend was under 2*s.* 6*d.*	170	377	301	848	169	369	323	861
2*s.* 6*d.*, under 5*s.*	81	137	163	381	77	148	156	381
5*s.* „ 7*s.* 6*d.*	39	58	95	192	37	79	84	200
7*s.* „ 10*s.*	11	22	20	53	20	29	36	85
10*s.* „ 15*s.*	15	16	19	50	17	30	15	62
15*s.* „ 20*s.*	7	9	9	25	3	6	6	15
20*s.*	5	11	91	27	11	14	10	35

Number of Trust Deeds.

	1864			1865		
	Number of Deeds Registered	Amount of Stamp Duty	Gross Value of Estate and Effects	Number of Deeds Registered	Amount of Stamp Duty	Gross Value of Estate and Effects
		£ s.	£		£ s.	£
Deeds of Assignment	2,708	5,346 10	2,138,600	2,733	9,125 15	3,649,500
Composition	1,348	2,995 15	1,198,300	2,344	7,916 15	5,166,700
Inspectorship	48	1,162 15	465,100	127	5,548 5	2,219,500
Total	3,504	9,505 0	3,802,000	5,204	22,588 15	9,035,700

Revenue and Expenditure of the Court of Bankruptcy.

Receipts	1864	1865
	£ s. d.	£ s. d.
Commissioners of Inland Revenue, stamps	36,731 11 7	52,400 0 0
Dividends on stock	45,250 16 10	47,116 7 6
Official assignees, per-centage fees	956 4 2	1,624 1 8
Official assignees, surplus remuneration fees, after payment of clerks' salaries and office expenses	27,806 19 3	17,993 0 4
Messengers' surplus fees	17,261 14 6	13,665 15 6
Chief registrar, admission fees	66 16 6	70 10 0
Chief registrar, rent of premises underlet (Birmingham)	25 0 0	100 0 0
Broker	81 14 11	70 11 1
Fees received by clerks of Insolvent Debtors' Court	387 8 11	490 15 11
Paymaster-general, for salaries	2,272 0 4	1,407 0 4
Paymaster-general, for compensations and retiring annuities, two years	37,102 0 0	16,772 0 0
Transferred from 'The Purposes of the 26th Section Account'	8,426 19 6	—
Transferred by the provisional assignee from '118th Section Fund Account'	350 16 4	—
County Court, registrars' fees returned	25 14 11	20 10 0
Registrar of meetings	—	100 0 0
Repayment of costs of prosecution, *re* Davidson and Gordon	—	1,009 19 8
Patrick Johnson's 'Suspense Account'	—	3,638 1 2
Total	176,813 17 9	156,478 13 2

Payments	1864	1865
	£ s. d.	£ s. d.
Salaries	84,339 10 5	79,155 12 4
Compensation	14,796 5 11	13,364 3 5
Retiring annuities	12,169 17 9	16,604 0 6
Expenses.		
London courts and offices	2,190 14 0	3,277 6 8
District courts	3,260 9 0	3,748 5 9
Travelling expenses of commissioners, registrars, &c., of district courts	2,767 5 2	1,229 16 9
Alteration of courts and offices	3,260 6 4	582 6 1
Allowances	526 1 1	521 6 11
Sundries	738 19 8	—
Bank remuneration	1,591 17 1	1,546 13 2
Solicitors for pauper prisoners (London and country)	4,897 14 4	1,565 17 0
Costs of prosecutions	407 15 7	769 19 1
Fees to County Court Registrars	5,217 8 0	5,880 2 0
High bailiffs	613 15 4	—
Gaolers	423 14 4	86 11 0
Investigation of accounts of the official assignees and messengers	—	4,918 12 9
Expense of visiting gaols (two years)	1,172 19 10	127 9 10
Paymaster-general, compensations unclaimed for the years 1862–3, 1863–4	1,928 14 2	1,398 2 8
Fees returned	187 16 2	290 15 3
	140,894 2 2	126,066 1 2
Investment (in Consols to the credit of 'The Chief Registrar's Account')	25,000 0 0	30,000 0 0
Total	165,894 2 2	156,066 1 2

Money Received and Paid by the Court of Bankruptcy.

Receipts

	1864	1865	
	£ s. d.	£ s. d.	£ s. d.
General Account.			
By official assignees, creditors' assignees, &c., and 53,039*l.* 17*s.* for exchequer bills sold under various estates	587,052 2 2	—	742,346 12 3
By proceeds of sale of stock	—	—	18,025 0 0
Chief Registrar's Account.			
By receipts	165,385 18 3	—	156,478 13 2
Unclaimed Dividend Account.			
By official assignees	1,197 6 5	5,239 19 2	—
By transfer from the 'General Account'	—	34,285 4 0	—
			37,525
Purposes of the 26th Section Account.			
By interest on exchequer bills and stock	3,533 18 1	—	4,291 .
Provisional Assignees' Indemnity Fund Account.			
By receipts	1,593 18 7	—	—
Total	762,068 3 6	—	958,666 8 7

Payments

	1864		1865	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
General Account.				
To orders of commissioners (costs, expenses of realising assets, and 105,596*l.* 6*s.* 6*d.* laid out in exchequer bills under various estates)	166,355 11 0		321,638 17 1	
Dividends	533,664 14 8		434,952 12 10	
		700,020 5 8		756,591 9 11
Chief Registrar's Account.				
To payments	140,894 2 2		126,066 1 2	
To investments	25,000 0 0		30,000 0 0	
		165,894 2 2		156,066 1 2
Unclaimed Dividend Account.				
To payments	737 6 2		3,290 11 6	
To investments	10,000 0 0		35,000 0 0	
		10,737 6 2		38,290 11 6
Purposes of the 26th Section Account.				
To payments	—	335 15 8	—	69 7 6
Provisional Assignees' Indemnity Fund Account.				
To payments	—	463 13 10	—	441 11 4
Total	—	877,471 5 6	—	955,459 1 5

tion of all kinds of insolvency under the common name of bankruptcy, are manifest conveniences in the present law, it cannot, we fear, be doubted that the Legislature has given far too great facilities to debtors, especially under the system of deeds of assignment and inspection. This has

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Cash and Stock Balances on October 11, in each Year.

	1864			1865		
	Cash	Exchequer Bills	Stock	Cash	Exchequer Bills	Stock
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Bankruptcy fund account	—	—	1,332,402 5 2	—	—	1,332,402 5 2
General account	26,126 7 4	59,000 0 0	28,305 6 7	30,206 9 8	123,700 0 0	27,167 8 11
Chief registrar's account	22,778 6 2	—	180,715 19 2	21,190 18 2	—	214,004 13 3
Unclaimed dividend account	2,024 5 3	—	57,726 12 3	1,856 16 11	—	96,786 1 7
The purposes of the 26th section account	3,040 9 7	110,300 0 0	16,349 17 10	7,263 2 1	101,900 0 0	15,681 12 9
Provisional assignees' indemnity fund account	1,130 4 9	—	—	688 13 5	—	—

become so apparent that we cannot doubt that at an early period the law will undergo farther revision.

Bankruptcy in Scotland.—The legal process by which an insolvent is declared bankrupt in Scotland is called a *sequestration*, and is derived in its general outlines from the *cessio bonorum* of the civil code. The debtor may apply, by means of this process, for liberation from prison, and for protection against the arrest of his person. His liberation will depend upon his conduct, which, if marked by fraud, extravagance, or concealment of his propery, will disentitle him to relief. If his prayer is granted, his estate is handed over to a trustee, in order to be divided among his creditors. But this process does not free him from his liabilities. Further, the debtor may bring about a sequestration of his estates, and obtain liberation from prison, and protection from arrest, and ultimately a discharge of his debts. To sue out this sequestration he requires the concurrence of a creditor to the extent of 50*l.*, or of two whose united debts amount to 70*l.*, or of three to the extent of 100*l.* In the process of a sequestration there is no difficulty in obtaining personal protection until the first meeting of his creditors, unless some creditor makes out a primâ facie case of fraud against him. If he has been imprisoned, there is rather more difficulty in obtaining liberation. In any case protection from arrest or liberation from prison are refused in case of fraud or gross negligence. The sequestration may be annulled, and its advantages withheld from the debtor, within forty days after it is awarded; three months in case the debtor's creditors reside for the most part in England or Scotland, provided cause be shown.

The 'sequestration' of the Scotch law supplies three official powers: the trustee, who manages the estate, and is liable to the creditors in case of negligence or misconduct, being also entitled to adequate remuneration for the discharge of his office; three commissioners, who form a council to the trustee, and are elected from the creditors, and are with the trustee subject to the creditors; and the court, which may be the Court of Session or the Sheriffs' Court, as may be chosen.

The process of a sequestration may be interrupted by a deed of arrangement, which can be entered into by a majority (four-fifths in value) of the creditors who have vouched their debts. In the space of two months a deed is prepared, which, if it be signed by the above-named four-fifths in number and value, will be confirmed as binding on all the creditors.

Again, when the process of sequestration has been carried further, a composition may be offered. If nine-tenths of the creditors in number and value agree at the first meeting, it is proposed anew at a second meeting of creditors, when an equal number of those present must agree to the completion of it. If the offer of composition be made at the second meeting of creditors, four-fifths of the creditors may carry it. But in case any offer of composition be rejected by the creditors, the court will not entertain the first offer from the bankrupt unless nine-tenths of his creditors signify their assent in *writing*. Should the court be satisfied, it makes an order of discharge, and frees the insolvent of his debts. As the bankrupt gives a bond for the satisfaction of the composition, he is reinvested in his estates.

If the debtor does not obtain his discharge by means of a composition, and the sequestration is completed, he is entitled to petition the court for his discharge. To effect this he must obtain a certificate as to his conduct from the trustee. This certificate must be followed by the consent of the creditors to his petition. If the whole concur, he can immediately petition the court. If he delays for six months, he needs the assent of four-fifths only. At the expiration of twelve months two-thirds are sufficient, of eighteen months a bare majority, at two years no consent at all is required. The court has power to suspend, postpone, or refuse the discharge, or to annex any conditions to it which may be deemed expedient. Though the English Bankruptcy Bills (3) at present (1868) under consideration of Parliament may probably be abandoned, on account of the impending dissolution, it may be well to state that Lord Chancellor Cairns, their promoter, has in view the revival to some extent of the distinction between the trader and non-trader, and the separation of the business connected with bankruptcy from that of insolvency. On the other hand, the Commons' Committee, in their *Report* of March 21, 1865, favoured the assimilation of the English to the Scotch law of bankruptcy. [BANKRUPTCY.]

INSURANCE. A contract of indemnity, by which one party engages, for a stipulated sum, to insure another against a risk to which he is exposed. The party who takes upon him the risk is called the *Insurer*, *Assurer*, or *Underwriter*; and the party protected by the insurance is called the *Insured*, or *Assured*; the sum paid is called the *Premium*; and the instrument containing the contract is called the *Policy*.

I. INSURANCE (GENERAL PRINCIPLES OF).
II. INSURANCE (MARINE).
III. INSURANCE (FIRE).
IV. INSURANCE (LIFE).

I. INSURANCE (GENERAL PRINCIPLES OF).

It is the duty of Government to assist, by every means in its power, the efforts of individuals to protect their property. Losses do not always arise from accidental circumstances, but are frequently occasioned by the crimes and misconduct of individuals; and there are no means so effectual for their prevention, when they arise from this source, as the establishment of a vigilant system of police, and of such an administration of the law as may be calculated to afford those who are injured a ready and cheap method of obtaining every practicable redress, and, as far as possible, of insuring the punishment of culprits. But, in de-

spite of all that may be done by Government, and of the utmost vigilance on the part of individuals, property must always be exposed to a variety of casualties from fire, shipwreck, and other unforeseen disasters; and hence the importance of enquiring how such unavoidable losses, when they do occur, may be rendered least injurious.

The loss of a ship, or the conflagration of a cotton mill, is a calamity that would press heavily even on the richest individual. But were it distributed among several individuals, each would feel it proportionally less; and provided the number of those among whom it was distributed were very considerable, it would hardly occasion any sensible inconvenience to any one in particular. Hence the advantage of combining to lessen the injury arising from the accidental destruction of property; and it is the diffusion of the risk of loss over a wide surface, and its valuation, that forms the employment of those engaged in insurance.

Though it be impossible to trace the circumstances which occasion those events that are on that account termed accidental, they are, notwithstanding, found to obey certain laws. The number of births, marriages, and deaths; the proportions of male to female, and of legitimate to illegitimate births; the ships cast away; the houses burnt; and a vast variety of other apparently accidental events; are yet, when our experience embraces a sufficiently wide field, found to be nearly equal in equal periods of time; and it is easy, from observations made upon them, to estimate the sum which an individual should pay, either to guarantee his property from risk, or to secure a certain sum for his heirs at his death.

It must, however, be carefully observed that no confidence can be placed in such estimates unless they are deduced from a very wide induction. Suppose, for example, it happens that during the present year one house is accidentally burnt, in a town containing 1,000 houses; this would afford very little ground for presuming that the *average* probability of fire in that town was 1 to 1,000. For it might be found that not a single house had been burnt during the previous 10 years, or that 10 were burnt during each of these years. But supposing it were ascertained that, at an average of 10 years, 1 house had been annually burnt, the presumption that 1 to 1,000 was the real ratio of the probability of fire would be very much strengthened; and if it were found to obtain for 20 or 30 years together, it might be held, for all practical purposes at least, as indicating the precise degree of probability.

Besides its being necessary, in order to obtain the true measure of the probability of any event, that the series of events, of which it is one, should be observed for a rather lengthened period, it is necessary also that the events should be numerous, or of pretty frequent occurrence. Suppose it were found, by observing the births and deaths of 1,000,000 individuals taken indiscriminately from among the whole population, that the mean duration of human life was 40 years; we should have but very slender grounds for concluding that this ratio would hold in the case of the next 10, 20, or 50 individuals that are born. Such a number is so small as hardly to admit of the operation of what is called the *law of average*. When a large number of lives is taken, those that exceed the medium term are balanced by those that fall short of it; but when the number is small, there is comparatively little room for the principle of compensation, and the result cannot, therefore, be depended upon.

It is found, by the experience of all countries in which censuses of the population have been taken with considerable accuracy, that the number of male children born is to that of female children in the proportion nearly of 22 to 21. But unless the observations be made on a very large scale, this result will not be obtained. If we look at particular families, they sometimes consist wholly of boys, and sometimes wholly of girls; and it is not possible that the boys can be to the girls of a single family in the ratio of 22 to 21. But when, instead of confining our observations to particular families, or even parishes, we extend them so as to embrace a population of 500,000, these discrepancies disappear, and we find that there is invariably a small excess in the number of males born over the females.

The false inferences that have been drawn from the doctrine of chances have uniformly, almost, proceeded from generalising too rapidly, or from deducing a rate of probability from such a number of instances as do not give a fair average. But when the instances on which we found our conclusions are sufficiently numerous, it is seen that the most anomalous events, such as suicides, deaths by accidents, the number of letters put into the post-office without any address &c., form pretty regular series, and consequently admit of being estimated à priori.

The business of insurance is founded upon the principles thus briefly stated. Suppose it has been remarked that of *forty* ships, of the ordinary degree of seaworthiness, employed in a given trade, 1 is annually cast away; the probability of loss will plainly be equal to *one-fortieth*. And if an individual wish to insure a ship, or the cargo on board a ship, engaged in this trade, he ought to pay a *premium* equal to $\frac{1}{40}$ of the sum he insures, exclusive of such an additional sum as may be required to indemnify the insurer for his trouble, and to leave him a fair profit. If the premium exceed this sum, the insurer is overpaid; and if it fall below it, he is underpaid.

Insurances are effected sometimes by societies, and sometimes by individuals, the risk being in either case diffused amongst a number of persons. Companies formed for carrying on the business have generally a large subscribed capital, or such a number of proprietors as enables them to raise, without difficulty, whatever sums may at any time be required to make good losses. Societies of this sort do not limit their risks to small sums; that is, they do not often refuse to insure a large sum upon a ship, a house, a life &c. The magnitude of their capitals affords them the means of easily defraying a heavy loss; and their premiums being proportioned to their risks, their profit is, at an average, independent of such contingencies.

Individuals, it is plain, could not act in this way unless they were possessed of very large capitals; and besides, the taking of large risks would render the business so hazardous, that few would be disposed to engage in it. Instead, therefore, of insuring a large sum, as 20,000*l.*, upon a single ship, a private underwriter or insurer may not, probably, in ordinary cases, take a greater risk than 200*l.* or 500*l.*; so that, though his engagements may, when added together, amount to 20,000*l.*, they will be diffused over from 40 to 100 ships; and supposing 1 or 2 ships to be lost, the loss would not impair his capital, and would only lessen his profits. Hence it is, that while one transaction only may be required in getting a ship insured by a company, 10 or 20 separate transactions may be required in getting the same thing done at Lloyd's, or by private individuals. When conducted in this cautious manner, the business of

insurance is as safe a line of speculation as any in which individuals can engage.

To establish a policy of insurance on a fair foundation, or in such a way that the premiums paid by the insured shall exactly balance the risks incurred by the insurers, and the various necessary expenses to which they are put, including, of course, their profit, it is necessary, as previously remarked, that the experience of the risks should be pretty extensive. It is not, however, at all necessary that either party should enquire into the circumstances that lead to those events that are most commonly made the subject of insurance. Such a research would, indeed, be entirely fruitless; we are, and must necessarily continue to be, wholly ignorant of the causes of their occurrence.

It appears, from the accounts given by Mr. Scoresby, in his valuable work on the *Arctic Regions*, that of 586 ships which sailed from the various ports of Great Britain for the Northern whale fishery during the 4 years ending with 1817, 8 were lost (vol. ii. p. 131)—being at the rate of about 1 ship out of every 73 of those employed. Now, supposing this to be about the average loss, it follows that the premium required to insure against it should be 1*l.* 7*s.* 4*d.* per cent., exclusive, as already observed, of the expenses and profits of the insurer. Both the insurer and the insured would gain by entering into a transaction founded on this fair principle. When the operations of the insurer are extensive, and his risks spread over a considerable number of ships, his profit does not depend upon chance, but is as steady, and may be as fairly calculated upon, as that of a manufacturer or a merchant; while, on the other hand, the individuals who have insured their property have exempted it from any chance of loss, and placed it, as it were, in a state of absolute security.

It is easy, from the brief statement now made, to perceive the immense advantage resulting to navigation and commerce from the practice of marine insurance. Without the aid that it affords, comparatively few individuals would be found disposed to expose their property to the risk of long and hazardous voyages; but by its means insecurity is changed for security, and the capital of the merchant, whose ships are dispersed over every sea, and exposed to all the perils of the ocean, is as secure as that of the agriculturist. He can combine his measures and arrange his plans as if they could no longer be affected by accident. The chances of shipwreck, or of loss by unforeseen occurrences, enter not into his calculations. He has purchased an exemption from the effects of such casualties, and applies himself to the prosecution of his business with that confidence and energy which nothing but a feeling of security can inspire. 'Les chances de la navigation entravaient le commerce. Le système des assurances a paru; il a consulté les saisons; il a porté ses regards sur la mer; il a interrogé ce terrible élément; il en a jugé l'inconstance; il en a pressenti les orages; il a épié la politique; il a reconnu les ports et les côtes des deux mondes; il a tout soumis à des calculs savans, à des théories approximatives; et il a dit au commerçant habile, au navigateur intrépide: Certes, il y a des désastres sur lesquels l'humanité ne peut que gémir; mais quant à votre fortune, allez, franchissez les mers, déployez votre activité et votre industrie; je me charge de vos risques. Alors, Messieurs, s'il est permis de le dire, les quatre parties du monde se sont rapprochées.' (*Code de Commerce, Exposé des Motifs*, liv. ii.)

Besides insuring against the perils of the sea, and losses arising from accidents caused by the operation of natural causes, it is common to insure against enemies, pirates, thieves, and even the fraud, or, as it is technically termed, *barratry*, of the master. The risk arising from these sources of casualty being extremely fluctuating and various, it is not easy to estimate it with any considerable degree of accuracy; and nothing more than a rough average can, in most cases, be looked for. In time of war, the fluctuations in the rates of insurance are particularly great; and the intelligence that an enemy's squadron, or even a single privateer, is cruising in the course which the ships bound to or returning from any given port usually follow, causes an instantaneous rise in the premium. The appointment of convoys for the protection of trade during war necessarily tends, by lessening the chances of capture, to lessen the premium on insurance. Still, however, the risk in such periods is, in most cases, very considerable; and as it is liable to change very suddenly, great caution is required on the part of the underwriters.

Provision may also be made, by means of insurance, against loss by fire, and almost all the casualties to which property on land is subject.

But, notwithstanding what has now been stated, it must be admitted that the advantages derived from the practice of insuring against losses by sea and land are not altogether unmixed with evil. The security which it affords tends to relax that vigilant attention to the protection of property which the fear of its loss is sure otherwise to excite. This, however, is not its worst effect. The records of our courts, and the experience of all who are largely engaged in the business of insurance, too clearly prove that ships have been repeatedly sunk, and houses burned, in order to defraud the insurers. Despite the temptation to inattention and fraud which is thus afforded, there can be no doubt that, on the whole, the practice is, in a public as well as private point of view, decidedly beneficial. The frauds that are occasionally committed raise in some degree the rate of insurance: still it is exceedingly moderate; and it is most probable that the precautions adopted by the insurance offices for the prevention of fire, especially in great towns, where it is most destructive, outweigh the chances of increased conflagration arising from the greater tendency to carelessness and crime.

The business of life insurance has been carried to a far greater extent in Great Britain than in any other country, and has been productive of the most beneficial effects. Life insurances are of various kinds. Individuals without any very near connections, and possessing only a small fortune, are sometimes desirous, or are sometimes, from the necessity of their situation, obliged, annually to encroach on their capitals. But should the life of such persons be extended beyond the ordinary term of existence, they might be totally unprovided for in old age; and to secure themselves against this contingency, they pay to an insurance company the whole or a part of their capital, on condition of its guaranteeing them, as long as they live, a certain annuity, proportioned partly, of course, to the amount of the sum paid, and partly to their age when they buy the annuity.

But though sometimes serviceable to individuals, it may be questioned whether insurances of this sort are, in a public point of view, really advantageous. So far as their influence extends, its obvious tendency is to weaken the principle of accumulation; to stimulate individuals to consume their capitals during their own life, without

thinking or caring about the interest of their successors. Were such a practice to become general, it would be productive of the most extensively ruinous consequences. The interest which most men take in the welfare of their families and friends affords, indeed, a pretty strong security against its becoming injuriously prevalent. Yet there can be little doubt that this selfish practice may be strengthened by adventitious means; such, for example, as the opening of Government loans in the shape of life annuities, or in the still more objectionable form of tontines. But when no extrinsic stimulus of this sort is given to it, there do not seem to be any very good grounds for thinking that the sale of annuities by private individuals or associations can materially weaken the principle of accumulation.

Luckily, however, the species of insurance now referred to is but inconsiderable compared with that which has accumulation for its object. All professional persons, or those living on salaries or wages, such as lawyers, physicians, military and naval officers, clerks in public or private offices &c., whose incomes must, of course, terminate with their lives, and a host of others, who are either not possessed of capital or cannot dispose of their capital at pleasure, must naturally be desirous of providing, so far as they may be able, for the comfortable subsistence of their families in the event of their death. Take, for example, a physician or lawyer, without fortune, but making, perhaps, 1,000*l.* or 2,000*l.* a-year by his business; and suppose that he marries and has a family: if this individual attain to the average duration of human life, he may accumulate such a fortune as will provide for the adequate support of his family at his death. But who can presume to say that such will be the case?—that he will not be one of the many exceptions to the general rule? And suppose that he were hurried into an untimely grave, his family would necessarily be destitute. Now, it is against such calamitous contingencies that life insurance is intended chiefly to provide. An individual possessed of an income terminating at his death, agrees to pay a certain sum annually to an insurance office; and this office binds itself to pay to his family, at his death, a sum equivalent, under deduction of the expenses of management and the profits of the insurers, to what these annual contributions, accumulated at compound interest, would amount to, supposing the insured to reach the common and average term of human life. Though he were to die the day after the insurance has been effected, his family would be as amply provided for as it is likely they would be by his accumulations were his life of the ordinary duration. In all cases, indeed, in which those insured die before attaining to an average age, their gain is obvious; but even in those cases in which their lives are prolonged beyond the ordinary term, they are not losers—they then merely pay for a security which they must otherwise have been without. During the whole period, from the time when they effect their insurances down to the time when they arrive at the mean duration of human life, they are protected against the risk of dying without leaving their families sufficiently provided for; and the sum which they pay after having passed this mean term is nothing more than a fair compensation for the security they previously enjoyed. Of those who insure houses against fire, a very small proportion only have occasion to claim an indemnity for losses actually sustained; but the possession of a security against loss in the event of accident is a sufficient motive to induce every prudent individual to insure his property. The case of life insurance is in no respect different. When established on a proper footing, the extra sums which those pay whose lives exceed the estimated duration is but the value of the previous security.

In order so to adjust the terms of an insurance that the party insuring may neither pay too much nor too little, it is necessary that the probability of his life failing in each subsequent year should be determined with as much accuracy as possible.

To ascertain this probability, various observations have been made in different countries and periods, showing, out of a given number of persons born in a particular country or place, how many complete each subsequent year and how many die in it, till the whole be extinct. The result of such observations, when collected and arranged in a tabular form, are called Tables of Mortality; being entitled, of course, to more or less confidence according to the number and species of lives observed; the period when, and the care with which, the observations were made &c. But, supposing these tables to be formed with sufficient accuracy, the expectation of life at any age, or its mean duration after such age, may be readily learned from them; and hence, also, the value of an annuity, or an assurance on a life of any age. Thus, in the Table of Mortality for Carlisle, framed by Mr. Milne, of the Sun Life Office, and which is believed to represent the average law of mortality in England with very considerable accuracy, out of 10,000 persons born together, 4,000 complete their 56th year; and it further appears that the number of such persons who die in their 66th year is 124; so that the probability that a life now 56 years of age will terminate in the 10th year hence is $\frac{124}{4,000}$. But reckoning interest at 4 per cent., it appears [INTEREST AND ANNUITIES] that the present value of 100*l.* to be received 10 years hence is 67·556*l.*; consequently, if its receipt be made to depend upon the probability that a life now 56 years of age will fail in the 66th year, its present value will be reduced by that contingency to $\frac{124 \times 67{\cdot}556l.}{4,000} = 2{\cdot}094l.$, or 2*l.* 1*s.* 10½*d.* The present value of 100*l.* receivable upon the life of a party now 56 years of age terminating in the 57th or any subsequent year of his life, up to its extreme limit (which, according to the Carlisle Table, is the 105th year), being calculated in this way, the sum of the whole will be the present value of 100*l.* receivable whenever the life may fail, that is, of 100*l.* insured upon it, supposing no additions were made to it for the profits and expenses of the insurers.

More compendious processes are resorted to for calculating tables of insurances at all ages, but the above statement sufficiently illustrates the principle on which they all depend. In practice, a life insurance is seldom made by the payment of a single sum when it is effected, but almost always by the payment of an *annual premium* during its continuance, the first being paid down at the commencement of the insurance. (For the method of calculating these annual premiums, see *post*, INTEREST AND ANNUITIES.) If the Table of Mortality adopted by the insurers fairly represent the law of mortality prevailing among the insured, it follows that when a party insured does not attain to the average age according to the table, the insurers will either lose by him or realise less than their ordinary profit; and when, on the other hand, the life of an insured party is prolonged beyond the tabular average, the profits of the insurers are proportionally increased. But if their business be so extensive as to enable the

law of average fully to apply, what they lose by premature death will be balanced by the payments received from those whose lives are prolonged beyond the mean duration of life for the ages at which they were respectively insured: so that the profits of the society will be wholly independent of chance.

The relief from anxiety afforded by life insurance very frequently contributes to prolong the life of the insured, at the same time that it materially augments the comfort and well-being of those dependent on him. It has also an obvious tendency to strengthen habits of accumulation. An individual who has insured a sum on his life would forfeit all the advantages of the insurance were he not to continue regularly to make his annual payments. It is not, therefore, optional with him to save a sum from his ordinary expenditure adequate for this purpose—he is compelled, under a heavy penalty, to do so; and having thus been led to contract a habit of saving to a certain extent, it is most probable that the habit will acquire additional strength, and that he will either insure an additional sum or privately accumulate.

The practice of marine insurance, no doubt from the extraordinary hazard to which property at sea is exposed, seems to have long preceded insurances against fire and upon lives. We are ignorant of the precise period when it began to be introduced, but it appears most probable that it dates from the end of the fourteenth or the beginning of the fifteenth century. It has, however, been contended by Loccenius (*De Jure Maritimo*, lib. ii. c. 1), Puffendorff (*Droit de la Nature et des Gens*, lib. v. c. 9), and others, that the practice of marine insurance is of much higher antiquity, and that traces of it may be found in the history of the Punic wars. Livy mentions that during the second of these contests the contractors employed by the Romans to transport ammunition and provisions to Spain stipulated that Government should indemnify them against such losses as might be occasioned by the enemy or by tempests in the course of the voyage. ('Impetratum fuit, ut quæ navibus imponerentur ad exercitum Hispaniensem deferenda, ab hostium tempestatisque vi, publico periculo essent.' *Hist.* lib. xxiii. c. 49.) Malynes (*Lex Mercatoria*, 3rd edition, p. 105), founding on a passage in Suetonius, ascribes the first introduction of insurance to the emperor Claudius, who, in a period of scarcity at Rome, to encourage the importation of corn, took upon himself all the loss or damage it might sustain in the voyage thither by storms and tempests. ('Negotiatoribus certa lucra proposuit, suscepto in se damno, si cui quid per tempestates accidisset, et naves mercaturæ causâ fabricantibus magna commoda constituit.' c. 18.) It is curious to observe that this stipulation gave occasion to the commission of acts of fraud similar to those so frequent in modern times. Shipwrecks were pretended to have happened that never took place; old, shattered vessels, freighted with articles of little value, were purposely sunk, and the crew saved in boats; large sums being then demanded as a recompense for the loss. Some years after, the fraud was discovered, and some of the contractors were prosecuted and punished. (Lib. xxv. c. 3.) But none of these passages, nor a similar one in Cicero's letters (*Ad Fam.* lib. ii. c. 17), warrant the inferences that Loccenius, Malynes, and others have attempted to draw from them. Insurance is a contract between two parties; one of whom, on receiving a certain premium (*pretium periculi*), agrees to take upon himself the risk of any loss that may happen to the property of the other. In ancient no less than in modern times, every one must have been desirous to be exonerated from the chance of loss arising from the exposure of property to the perils of the sea. But though, in the cases referred to, the carriers were exempted from this chance, they were not exempted by a contract *propter aversionem periculi*, or by an insurance, but by their employers taking the risk upon themselves; and it is abundantly obvious that the object of the latter in doing this was not to profit, like an insurer, by dealing in risks, but to induce individuals the more readily to undertake the performance of an urgent public duty.

But with the exception of the instances now mentioned, nothing bearing the remotest resemblance to an insurance is to be met with till a comparatively recent period. If we might rely on a passage in one of the Flemish chroniclers, quoted by the learned M. Pardessus (see his excellent work, *Collection des Loix Maritimes*, tome i. p. 356), we should be warranted in concluding that insurances had been effected at Bruges so early as the end of the thirteenth century; for the chronicler states that in 1311 the Earl of Flanders consented, on a requisition from the inhabitants, to establish a chamber of insurance at Bruges. M. Pardessus is not, however, inclined to think that this statement should be regarded as decisive. It is evident, from the manner in which the subject is mentioned, that the chronicler was not a contemporary; and no trace can be found either in the archives of Bruges, or in any authentic publication, of anything like the circumstance alluded to. The earliest extant Flemish law as to insurance is dated in 1537, and none of the early maritime codes of the North so much as alludes to this interesting subject.

Beckmann seems to have thought that the practice of insurance originated in Italy in the latter part of the fifteenth or the early part of the sixteenth century. (*Hist. of Invent.* vol. i. art. 'Insurance.') But the learned Spanish antiquary, Don Antonio de Capmany, has given, in his very valuable publication on the history and commerce of Barcelona (*Memorias Historicas sobre la Marina &c. de Barcelona*, tomo ii. p. 383), an ordinance relative to insurance, issued by the magistrates of that city in 1435, whereas the earliest Italian law on the subject is nearly a century later, being dated in 1523. It is, however, exceedingly unlikely, had insurance been as early practised in Italy as in Catalonia, that the former should have been so much behind the latter in subjecting it to any fixed rules; and it is still more unlikely that the practice should have escaped, as is the case, all mention by any previous Italian writer. We therefore agree entirely in Capmany's opinion, that, until some authentic evidence to the contrary be produced, Barcelona should be regarded as the birthplace of this most useful and beautiful application of the doctrine of chances. (Tom. i. p. 237.)

A knowledge of the principles and practice of insurance was early brought into England. According to Malynes (*Lex Mercat.* p. 105), it was first practised amongst us by the Lombards, who were established in London from a very remote epoch. It is probable it was introduced some time about the beginning of the sixteenth century; for it is mentioned in the statute 43 Eliz. c. 12, in which its utility is very clearly set forth, that it had been an *immemorial usage* among merchants, both English and foreign, when they made any great adventure, to procure insurance to be made on the ships or goods adventured. From this it may reasonably be supposed that insurance had been in use in England for at least a century previous. It appears from the same statute that it had

originally been usual to refer all disputes that arose with respect to insurances to the decision of 'grave and discreet' merchants appointed by the Lord Mayor. But abuses having grown out of this practice, the statute authorised the Lord Chancellor to appoint a commission for the trial of insurance cases; and in the reign of Charles II. the powers of the commissioners were enlarged. But this court soon after fell into disuse; and, what is singular, no trace can now be discovered of any of its proceedings. (Marshall *On Insurance*, Prelim. Disc. p. 26.)

Few questions as to insurance seem to have come before the courts at Westminster till after the middle of last century. The decisions of Lord Mansfield may, indeed, be said to have fixed, and in a considerable degree formed, the law upon this subject. His judgments were not bottomed on narrow views, or on the municipal regulations of England, but on those great principles of public justice and convenience which had been sanctioned and approved by universal experience. His deep and extensive information was acquired by consulting the most intelligent merchants, and the works of distinguished foreign jurists; and by carefully studying the famous French Ordinance of 1681, the most admirably digested body of maritime law of which any country has ever had to boast. Hence the comprehensiveness and excellence of his decisions, and the respect they have justly commanded in all countries. (Emérigon's famous *Traité des Assurances*, tome ii. p. 67.) In his hands the law of insurance became, in a far greater degree than any other department of English law, a branch of that national or public law of which Cicero has said, 'Non erit alia lex Romæ, alia Athenis, alia nunc, alia posthac, sed et omnes gentes et omni tempore una lex et sempiterna, et immortalis continebit, unusque erit communis quasi magister et imperator omnium Deus.' (Fragm. lib. iii. *de Republicâ*.)

Insurance against fire and upon lives is of much later origin than insurance against the perils of the sea. The former, however, has been known and carried on amongst us, to some extent at least, for nearly a century and a half. The Amicable Society, for insurance upon lives, was established by charter of Queen Anne in 1706; the Royal Exchange and London Assurance Companies began to make insurances upon lives in the reign of George I.; and the Equitable Society was established in 1762. But the advantages of life insurance, and the principles on which the business should be conducted, were then very ill understood; and the practice can hardly be said to have obtained any firm footing amongst us till the Equitable Society, by adopting the judicious suggestions of Dr. Price, began its career of prosperity about 1775. Notwithstanding the example of England, life insurance has made comparatively little progress on the Continent. It was, indeed, expressly forbidden by the French Ordinance of 1681 (liv. iii. tit. 6, art. 10); by the regulations as to insurance issued at Amsterdam in 1612 (art. 24); and it is doubtful whether the practice be not inconsistent with the 334th art. of the *Code de Commerce*, though it be now extensively carried on in France. But we are inclined to think that the want of security, more than any positive regulations, has been the principal cause of the little progress of life insurance on the Continent. Of whatever disadvantages our large public debt may be productive, it is not to be doubted that the facilities it has afforded for making investments, and the punctuality with which the national engagements have been fulfilled, have been the principal causes of the extraordinary extent to which the business of life and even fire insurance has been carried in this country.

II. Insurance (Marine).

There are few persons who are not acquainted in some degree with fire and life insurances. The security which they afford to individuals and families is a luxury which nobody in tolerably comfortable circumstances is willing to be without. Hence the great increase, in our days, of companies professing to afford this security; and hence the knowledge, on the part of the public generally, of the nature and principles of the engagements into which these companies enter. But marine insurance is a subject which is of more immediate interest only to merchants, ship-owners, and underwriters; unless, indeed, we should refer to that small portion of the community who have occasion to transport themselves beyond seas with capital and effects for purposes of colonisation, or to fill some official situation. Hence the comparative indifference on the part of the public as to this subject. The general principles, however, of all insurance are the same; and in treating of marine insurance, it will be necessary to notice little beyond such topics as are peculiar to that branch of the business.

Individual Insurers or Underwriters.—The first circumstance that cannot fail to strike the general enquirer into the practice of marine insurance in this country is that, while all fire and life insurances are made at the risk of companies, a large proportion of marine insurances is made at the risk of individuals; that risk, however, being split up so as to include in the guaranteeship a large number of persons. [Underwriting.]

Prohibition of Companies.—Till 1824, all firms and companies, with the exception of the two chartered companies, the Royal Exchange and London, were prohibited by law from taking marine insurances. Towards the latter end of that year the prohibition was removed, and the business of marine insurance was placed on the same legal footing as other descriptions of business. While the restriction lasted, the two chartered companies did so little business that marine insurance might in fact be said to be wholly in the hands of individuals. These companies were so much higher in their premiums, and so much more exclusive in the risks they were willing to undertake, than their individual competitors, that merchants and ship-owners were obliged to resort to individual underwriters. And it was only when the repeal of this absurd restriction was proposed, that the companies showed, by defending it, that they set any value upon their privilege. The underwriters at Lloyd's joined them in this opposition; and pamphlets were written, and speeches made, to demonstrate how much merchants and ship-owners would suffer, were the law to allow them the free use of their discretion in insuring their property, and how much more conducive to their interests it was that they should deal with Lloyd's rather than companies.

Formation of Companies.—There are at present (1868) 20 marine insurance companies in London. These number among their proprietors or shareholders some of the most eminent merchants and ship-owners of the city of London, who have united for the double purpose of providing security for their property, and ascertaining whether the insurance business might not be

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made to yield a fair return to the capital employed in it. Several similar companies have also been formed since 1824 in different parts of the kingdom.

Mode of conducting Business.—We shall now give an account of the existing arrangements for conducting the business of marine insurance, as well by individuals as the companies in London.

Lloyd's.—The individual underwriters meet in subscription-rooms at Lloyd's, and under the name of underwriters are included the joint-stock companies. The joint affairs of the subscribers are managed by a committee chosen by the subscribers, the insurance companies being included in the list, as they in fact must depend upon the office entirely for their information. Agents (who are commonly styled Lloyd's agents) are appointed in all the principal ports of the world, who forward regularly to Lloyd's accounts of the departures from and arrivals at their ports, as well as of losses and other casualties; and, in general, all such information as may be supposed of importance towards guiding the judgments of the underwriters. These accounts are regularly filed, and are accessible to all the subscribers. The principal arrivals and losses are, besides, posted in two books, placed in two conspicuous parts of the room; and also in another book, which is placed in an adjoining room, for the use of the public at large.

The rooms are open from 10 o'clock in the morning till 5 o'clock in the afternoon, but the most considerable part of the business is transacted between 1 and 4. A slip showing the particulars of the insurance required is in the first place submitted to the underwriter, and is initialed by him in accepting the risk, and when the policy is presented for subscription he compares it with the slip which he has already initialed. Though the initial to the slip is not legally binding, no underwriter would refuse to recognise his liability if the loss occurred between the initialing of the slip and the signing of the policy. The form of the policy is subjoined to this article.

The premium is not always paid to the underwriter in ready money, but is passed to account. Nor does the underwriter debit the account of the person to whom he subscribes a policy with the whole amount of the premium, but with the premium less 5 per cent. Whenever losses occur which more than absorb the premiums on any one account, the underwriter is called upon to pay the balance. But should the underwriter's account be what is called good, that is, should the premiums exceed the claims, he sends round, during the spring and summer, to collect from his various debtors either the balance of his last year's account, or money on account, according to his judgment; but, upon what he receives, he makes an allowance of 12 per cent. An underwriter, if prudent, therefore, before he consents to receive, will not only look to the goodness of his account, but to the probability of its continuing so.

Insurance Brokers.—The larger part of the insurances at Lloyd's is effected by brokers. Some merchants, however, transact their own insurance business. But the majority give their orders for insurance to others, who undertake it for them, and are responsible for its proper management. These latter persons are called insurance brokers, and some of them manage the business of a number of principals. To them likewise are transmitted the orders for insurance from the outports and manufacturing towns. They charge the whole premium to their principals, and their profit consists in 5 per cent. upon the premium, 12 per cent. upon the money that they pay to the underwriters, and ½ per cent. that they deduct from all the claims which they recover from the underwriters. It is proper to remark that this is the established or regular profit; but competition has occasioned numerous deviations from it by the brokers, many of whom consent to divide this profit with the principals who employ them. The insurance brokers are not unfrequently underwriters also; and as some insurances are considered far more lucrative than others to underwriters, and as the brokers have particular facilities, in some respects, of judging of the goodness of their own risks, so likewise have they an inducement to play into one another's hands, and they do so accordingly. [Brokers.]

Clubs.—Besides the individual underwriters and companies above noticed, there are clubs or associations formed by ship-owners, who agree, each entering his ships for a certain amount, to divide among themselves one another's losses. These clubs are institutions of long standing; but, since the alteration of the law in 1824, appear to be on the decline. As a rule, clubs insure ships only. Their formation originated in a twofold reason: 1, that the underwriters charged premiums more than commensurate with the risk; and, 2, that they did not afford adequate protection. To avoid the first of these two evils, instead of paying a fixed premium, they pay among themselves the actual losses of their several members as they occur; and to avoid the second, they lay down certain principles of settlement in accordance with their views of indemnity. Each member of one of these clubs gives his power of attorney to the selected manager, and this manager issues a policy for each ship, which policy is subscribed by him as attorney for all the members, the premium inserted in the policy being understood to be nominal. These clubs are open to the leading objections that apply to individual underwriters; for the members are not collectively, but only individually, liable to those of their number who happen to sustain a loss: and the delay of settlement is such, that more than 12 months have been known to elapse before the payment of a loss has been obtained from all the members.

Rate of Premium.—Little need be said upon the circumstances that influence the rate of premium demanded by the insurers. It must be self-evident that premiums will vary according to the seasons, the quality of the vessel, the known character of the captain, the nature of the commodity, and the state of our political relations. All these, of course, are matters upon which each individual must exercise his own discretion, partly from general experience and partly from particular information; exaggeration of risk, and consequent exorbitancy of premium for any length of time, being out of the question, where so many individual underwriters, in addition to the companies, are in competition with one another, and where the merchants have the means at hand of effecting their insurances abroad. The premium, which in a small community is generally arranged by consent of the insurance offices and clubs on the spot, at Lloyd's is fixed in the general market. In fact, Lloyd's is an *open market for insurance.* We have already taken notice of the intelligence of which Lloyd's is the focus. In addition to this, there is a subscription register book for shipping maintained by the principal merchants, ship-owners, and underwriters. This book professes to give an account of the tonnage, build, age, repairs, and quality of almost all the vessels that frequent our ports; and, although exceedingly defective

in many respects, is a material assistance to the insurers, who have no means of ascertaining by their own observation the particulars of 1 in 100 of the ships they are called upon to insure.

Contract of Insurance.

Having thus given a general outline of the mode of transacting business between the insurers and insured, and the means used to enable both parties to come, as near as possible, to a due estimate of the risk to be insured against, we have now to explain the nature of the contract and the bearing of its more important clauses.

It is unnecessary to state that the object of those who are engaged in commerce, or in moving articles of merchandise from one part of the world to another, is to *buy* at such a price that, after paying all the expenses of transport, the *sale* price may leave them a surplus in the shape of profit. If there were no such contrivance as insurance, merchants would be obliged to calculate upon the probability of the occasional loss of their property, and to regulate their transactions accordingly; but it must be obvious that enterprise, under such circumstances, would be very much crippled. Now, insurance, in as far as it approaches perfection in guaranteeing the merchant against all loss except that of the market, substitutes a fixed charge for uncertain and contingent loss, and enables him to confine his attention exclusively to price and quality, and to charges of transport; in which latter, of course, the premium of insurance is included. But as, in practice, insurance is by no means a perfect protection, either to the merchant or shipowner, against all loss that may occur *in transitu*, there are, even after insurance, some contingencies remaining to be taken into consideration; and we do not know that we can do better, by way of explaining the contract of insurance, than state, as briefly and succinctly as possible, what are the losses against which the merchant and shipowner are not protected by an insurance effected in this country.

1. *Acts of our own Government.*—All losses arising from the acts of our own Government. Thus, if an embargo were laid on vessels about to sail for a particular quarter, and the merchant obliged to unload his goods; or if his goods were condemned to be destroyed in quarantine; or purposely destroyed at sea by some of our cruisers; no part of his loss would be made good by the insurer. The insurer in this country, although liable for the acts of foreign powers, is not liable for such acts directed against the property of their own subjects. Thus, if French property, insured in this country, were confiscated by the French Government, the owner would have no remedy against his insurer.

2. *Breaches of the Revenue Laws.*—All losses arising from a breach of the revenue laws. It may be observed, that if the owner of the ship, by his act, expose the goods of the merchant to loss, the merchant so injured, although he cannot recover from his insurers, may claim from him. It may also be observed, that if the captain of the vessel, by his act, to which neither the owner of the ship nor the merchant is a party, expose the ship and cargo to loss, the insurers in such case are bound to make good the loss; the insurers being liable for all damage arising from illegal acts of the captain and crew, supposing the owner of the ship not to be accessory. The illegal acts of the captain and crew, contrary to the instructions and without the consent of the owners, are termed 'barratry' in the policy. [Barratry.]

3. *Breaches of the Law of Nations.*—All losses arising from a breach of the law of nations. Thus, if any port is declared by a foreign power to be in a state of blockade, and such blockade is acknowledged by our Government; and if a ship, in defiance of that notification, attempt to break the blockade, and is taken in the attempt; the insurer is not liable to the loss. It will often happen, when a port is under blockade, that the profit is so great upon goods introduced in defiance of the blockade as to tempt adventurers to break it, and to enable them to afford a very high premium to insure against the risk. But as policies for such an object are not acknowledged in our courts of law, when effected, they are understood to be *policies of honour*. The same kind of policy is adopted by the underwriters to protect foreign merchants who prefer insuring in this country against British capture.

4. *Consequences of Deviation.*—All losses subsequent to any deviation from the terms of the policy. Thus, if a merchant, in a policy on produce from the West Indies to London, warrant the ship to sail on or before August 1, and the ship sail after that day and be lost, the insurer is exonerated. Or, if a merchant insure from London to Lisbon, and the ship call at Havre and is afterwards lost, the insurer is not liable. It will be understood, of course, that the owner of the ship is liable to the merchant for any breach of contract on his part, as well as that the insurer is liable for the barratry of the master; a deviation on the part of the master, not intended for the benefit of the owner, and contrary to his instructions, being considered barratry. Should the owner of the goods neglect to describe accurately the voyage for which he wishes to be insured, the loss would be a consequence of his own negligence.

There is a doctrine connected with barratry which it will here be proper to notice. A captain, owner or part owner of the ship in which he sails, cannot commit an act of barratry. In other words, the insurers are not in such a case liable for an act of his which would otherwise be barratrous. The equity of this doctrine, as far as regards the interests of the captain himself, cannot be called in question; but it is difficult to understand why the merchant who ships goods on board such a captain's vessel should not be permitted to insure, among other risks, against the captain's illegal acts. We have heard that a clause has occasionally been introduced into policies to protect merchants against captain-owners, and we do not suppose that our courts of law would refuse to enforce such a clause. Indeed, we cannot discover any reason why every party, saving the captain, should not have the power of insuring against the consequences of illegal acts of the captain. We believe that among the life offices which protect themselves from loss by suicide and the hands of justice, there are some which make a distinction in favour of those who merely hold policies on the lives of others as a collateral security. The propriety of such a distinction must strike every body.

5. *Unseaworthiness.*—All losses arising from unseaworthiness. Unseaworthiness may be caused in various ways, such as want of repair, want of stores, want of provisions, want of nautical instruments, insufficiency of hands to navigate the vessel, or incompetency of the master. It might be supposed, at first sight, that insurance affords a much less perfect security than it really does, seeing on how many pleas it is possible for the insurer to dispute his

liability; but when it is considered that the proof of unseaworthiness is thrown upon the defendant, and that the leaning of the courts is almost always in favour of the insured, it will be easy to suppose that no respectable insurers would ever plead unseaworthiness unless they could make out a case of more than ordinary strength and clearness. The degree of uneasiness felt by merchants and ship-owners at their liability to be involved in loss by cases of unseaworthiness may be guessed from the fact that although the Indemnity Assurance Company at one time precluded themselves from pleading unseaworthiness by a special clause in the policy, not only did they obtain no additional premium in consequence thereof, but they did not even obtain a preference over other companies and individuals at the same premium. At least, this fact must either be admitted as a proof of the absence of uneasiness on this head, or of that inveteracy of habit which seems to lead the great bulk of mankind always, if possible, to continue undeviatingly in those courses to which they are accustomed, even where the benefits to be derived from a deviation are undeniable.

6. *Protraction of the Voyage.*—All loss arising from unusual protraction of the voyage. Thus, if a ship meet with an accident in the Baltic, and the repairs detain the vessel till the close of the season, when the passage home is rendered impracticable by the ice till the opening of the ensuing season, no payment is made to the merchant in mitigation of his loss from interest of money, loss of market (if the market fall), or deterioration in the quality of his goods (unless arising from actual sea damage); nor to the ship-owner, in mitigation of his loss from the extra wages and maintenance of his crew. In most foreign countries the ship-owner is remunerated by the insurers for the wages and maintenance of his crew while his ship is detained in consequence of any loss for the making good of which they are liable.

7. *Liability for doing Damage to other Vessels.*—All loss to which the ship-owner is liable when his vessel does damage to others. According to our laws, the owner of every ship not in charge of a pilot, that does damage, by negligence of the master and crew, to any description of craft or vessel, is liable to make good the same to the extent of the value of his own ship and freight; for beyond this he is not liable. The common policy in use among the underwriters at Lloyd's does not protect the shipowner from this loss. But there is now a collision clause in many of the companies' policies. The clubs or associations, too, before mentioned almost universally take this risk. Indeed, this is one of the purposes which gave rise to their formation. Even they, however, limit their liability to the amount of the policy; so that if a ship insured with them were to run down another, and to sink herself in the collision, the owner would only receive the value of his own vessel from the club, and still be liable to the owner of the other vessel. A custom has gained ground, both among the underwriters at Lloyd's and the Insurance Companies, to admit their liability by a clause in their policies for ¾ of the loss which the owner of the vessel insured with them may sustain from damage done by his vessel to those of others. If such a case as the one just supposed should occur, the insured would receive by virtue of this clause the value of his own vessel and ¾ of the loss to be made good by him to the owner of the other vessel.

8. *Average Clause.*—The next description of loss of which we shall treat, against which the insured are not protected, is described in the following clause of the policy: 'Corn, fish, salt, seed, flour, and fruit are warranted free from average, unless general, or the ship be stranded; sugar, tobacco, hemp, flax, hides, and skins are warranted free from average under 5 per cent., unless general, or the ship be stranded; and all other goods, also the ship and freight, are warranted free from average under 3 per cent., unless general, or the ship be stranded.'

The language employed in this clause, being technical, requires explanation to render it intelligible to the general reader. Average is a name applied to certain descriptions of loss, to which the merchant and ship-owner are liable. There are two kinds of average, general and particular.

General Average comprehends all loss arising out of a voluntary sacrifice of a part of either vessel or cargo, made by the captain for the benefit of the whole. Thus, if a captain throw part of his cargo overboard, cut from an anchor and cable, or cut away his masts; the loss so sustained, being voluntarily submitted to for the benefit of the whole, is distributed over the value of the whole ship and cargo, and is called 'general average.'

Particular Average comprehends all loss occasioned to ship, freight, and cargo, which is not of so serious a nature as to debar them from reaching their port of destination, and when the damage to the ship is not so extensive as to render her unworthy of repair. Losses where the goods are saved, but in such a state as to be unfit to forward to their port of destination, and where the ship is rendered unfit to repair, are called 'partial or salvage loss.' The leading distinction between particular average and salvage loss is, that, in the first, the property insured remains the property of the assured—the damage sustained, or part thereof, as the case may be, and as will be hereafter explained, being made good by the insurer; and in the second, the property insured is abandoned to the insurer, and the value insured claimed from him, he retaining the property so abandoned, or its value.

Particular Average on Goods.—A few cases illustrative of the method of stating a claim for particular average will best explain the nature of this description of loss, and will at the same time show the reader what the practical distinction is between particular average and salvage loss.

The property insured we shall suppose to be *a ton of hemp*, the cost of which at Petersburg is 30*l.*, for which sum it is insured from Petersburg to London, and that the duty, freight, and charges to which the merchant is subject on landing at London are 10*l.* We shall likewise suppose that the hemp, on its arrival, is so damaged as not to be worth more than half what it would have fetched had it been sound. The insurer would then be called upon to make good to the insured 15*l.*, or 50 per cent. upon the sum insured. But it does not follow that this payment of 15*l.* would indemnify the merchant, or that it would not more than indemnify him, for the loss sustained.

	£ s.	£ s.
If the hemp upon arrival in this country would have fetched in a sound state - -	50 0	
Less duty, freight, and charges - -	10 0	
		40 0
But in its damaged state is only worth - -	25 0	
Less duty, freight, and charges - -	10 0	
		15 0
The merchant's loss by the damage is -		£25 0

Whereas he only receives from the insurer 15*l.* Upon the principle of a salvage loss he would also receive 15*l.*

	£ s.	£ s.
If the hemp would have fetched in a sound state	20 0	
Less duty, freight, and charges -	10 0	
		10 0
But in its damaged state is only worth -	10 0	
Less duty, freight, and charges -	10 0	
The merchant's loss by the damage is -	-	£10 0

Whereas he receives from the insurer 15*l.* Upon the principle of a salvage loss he would receive 30*l.*

	£ s.	£ s.
If the hemp would have fetched in a sound state	30 0	
Less duty, freight, and charges -	10 0	
		20 0
But in its damaged state is only worth -	15 0	
Less duty, freight, and charges -	10 0	
		5 0
The merchant's loss by the damage is -	-	£15 0

And he receives from the insurer 15*l.* Upon the principle of a salvage loss he would receive 25*l.*

It will be observed that the merchant's loss by the damage of his goods varies with the state of the market. It may also be observed, that in general the merchant will not receive from the insurer the whole amount of the loss that he sustains. Whenever his market is a profitable one (and that it must usually be so will be obvious to everybody)—whenever, indeed, his market is not a decidedly losing one, his policy does not afford him a complete protection.

The argument in favour of this mode of settling claims for particular average—and it should be observed that the subject has been discussed, and the principle acknowledged, in the courts of law—is, that the insurer's liability is to be guided by the amount upon which he has received a premium or consideration; that he is not to be affected by the rise or fall of markets; but that the *gross* market price of the *sound*, and the *gross* market price of the *damaged* goods, are to be the test by which the rate of damage upon the amount insured is to be adjusted; the insurer being liable, besides, for all the extra charges arising out of the damage.

In the first case stated, the merchant's loss by damage is 25*l.* upon 40*l.*, or 62½ per cent.; in the second, 10*l.* upon 10*l.*, or 100 per cent.; in the third, 15*l.* upon 20*l.*, or 75 per cent. If the duty, freight, and charges were diminished in proportion to the diminished value of the goods, the loss in each case would be 50 per cent. upon the nett price, as it is 50 per cent. upon the gross price. As far as the duty is concerned, Government, upon some articles, reduces it in proportion to the diminution in the value of the goods; and if the freight were reduced in a similar manner, the merchant would always be indemnified for his loss by the insurer. But the practice with regard to freight in this country admits of no such arrangement; freight being paid according to the quantity delivered.

To make the principle upon which claims for particular average are adjusted, and its bearing, still clearer, we shall illustrate it by a few more cases. Suppose two packages to be insured at cost price—a cask of rice and a cask of sugar—each weighing 10 cwt.; the cost of each at the port of shipment 10*l.*, the freight of each 10*s.* per cwt. at the port of delivery, both articles free from duty, and to arrive at a market where no more than the cost price is realised; assuming that both packages are damaged 50 per cent.—the rice by loss of quality, the sugar by loss of weight—the statement will be as follows:—

	£ s.	£ s.
10 cwt. of rice, had it arrived sound, would have produced - - - -	15 0	
Less freight on 10 cwt. at 10*s.* per cwt. -	5 0	
		10 0
But being damaged, did only produce - -	7 10	
Less freight on 10 cwt. at 10*s.* per cwt. -	5 0	
		2 10
Merchant's loss - - -	-	£7 10
	£ s.	£ s.
10 cwt. of sugar, if sound, would have produced -	15 0	
Less freight on 10 cwt. at 10*s.* per cwt. -	5 0	
		10 0
The barrel, being damaged, did only weigh 5 cwt. and produce - - -	7 10	
Less freight on 5 cwt. at 10*s.* per cwt. -	2 10	
		5 0
Merchant's loss - -	-	£5 0

In each case the merchant is entitled to recover from his insurer 5*l.*, or 50 per cent., upon 10*l.*, the sum insured, which, although an indemnity to him for his loss on the sugar, is far from being so for his loss upon the rice. If the merchant would contrive so to shape his contract with the ship-owner for freight as to reduce the freight in proportion to the depreciation in the value of the damaged commodity, he would be completely protected. The ship-owner might on his side protect himself by insurance from loss by reduction of quality, as he now does from loss by reduction of quantity. But we have already more than once adverted to the difficulty of breaking in upon established practices. The merchants go on from year to year complaining of the losses to which they are subjected from this awkward contrivance, while no steps are taken to improve it. To show that the principle is equitable as between the merchant and his insurer, we subjoin one more statement, where the damage is taken at 100 per cent.

	£ s.	£ s.
10 cwt. of rice, if sound, would have produced -	15 0	
Less freight on 10 cwt. at 10*s.* per cwt. -	5 0	
		10 0
Being totally spoiled did produce nothing.		
The merchant being still liable for the freight -		5 0
Making his loss - - - -		£15 0

He receives 10*l.* only from the insurer.

	£ s.	£ s.
10 cwt. of sugar, if sound, would have produced	15 0	
Less freight on 10 cwt. at 10*s.* per cwt. -	5 0	
		10 0

The barrel being washed out produces nothing.
The merchant, however, not being liable to pay freight
His loss is only - - - - £10 0
Which he recovers from the insurer.

It will be observed that in each case the insurer pays 10*l.* or the full sum upon which he receives the premium.

When whole cargoes, or parcels of goods of considerable value, are insured, the clause in the policy which protects the insurer from particular average under a certain percentage is often partially set aside. Thus, if a cargo of 500 hogsheads of sugar, valued at 10,000*l.*, were damaged to the extent of 460*l.*, the merchant, supposing the protecting clause to remain in force, would recover nothing from the insurer, the loss not amounting to 5 per cent. The additional written clause, by which it is the practice to modify the printed clause, is as follows: 'Particular average, payable upon each 10 hhds. sugar, 10 casks and 50 bags coffee, and 10 bags cotton, following numbers, and upon each package of manufactured goods, chest of indigo, bag of wool or silk, the same as if separately insured.' Such clauses may be, and are, introduced ad libitum by mutual consent of insurer and insured, the premium or consideration being arranged accordingly.

The protecting clause is considered, on the other hand, by the insurers, exceedingly unsatisfactory in some respects; and they, as occasion requires, insist upon additional protection. Thus, saltpetre, hides, cocoa, and tin plates are generally warranted free from particular average, unless the ship be stranded; and upon tobacco, it is customary for the insurers to make themselves liable only to such part of the particular average as exceeds 5 per cent., throwing 5 per cent. upon the merchant.

Particular Average on Freight.—The clause, as far as it affects 'freight,' calls for no particular comment. Particular average upon freight can only arise, according to prevailing practice, from loss of weight; and whenever the loss of weight amounts to 3 per cent. or upwards, the ship-owner is entitled to recover from his insurer. The ship-owner, upon the arrival of the ship at its port of destination, is entitled to hold the goods as security until the freight is paid. If the owner of the goods should prove insolvent, and the goods

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should be entirely spoiled by sea damage during the voyage, and the ship-owner thus lose his freight, he has no claim upon the insurer; because, although his collateral security is destroyed by a peril of the sea, his right to receive freight remains unimpaired, and it is against the loss or impairing of this right that the insurer protects him.

Particular Average on Ships.—Particular average upon ships is a subject somewhat more beset with difficulties. There is scarcely a ship which makes a voyage of any length, that does not sustain some damage. The clause in the policy warranting the ship free from particular average under 3 per cent., unless stranded, protects the insurer from the constant recurrence of petty claims; but in addition to this, it is the practice to class the damage that a ship sustains in the prosecution of her voyage under two heads: ordinary damage, or wear and tear; and extraordinary damage, or particular average. The splitting of sails, the breaking of anchors and cables, the upsetting of windlasses, are losses that come under the first head. The carrying away of masts and bulwarks, damage to the copper sheathing and hull from striking on rocks, come under the second.

When a ship sustains damage, if she be on her first voyage, the whole expense of the repairs is made good by the insurers; but if she be not on her first voyage, it is the established custom that the insurer pays no more than ¾ of the repairs, the owner of the vessel having, as it is thought, an equivalent for the ¼ which falls upon him, in the substitution of new work for old. Where the nature of the damage is such as to require that the copper should be stripped off the ship's bottom, the insurer pays the difference between the price of the old and the new copper on the weight of the old copper stripped off; the excess in weight of the new over the old copper is paid for by the ship-owner; and the labour of stripping and replacing the copper is paid for on the principle already mentioned. In any general rule of this kind it must be obvious that the ship-owner will sometimes gain and sometimes lose by an accident. As soon as the ship-owner, or his captain, learns that his vessel has met with an accident, or as soon after as possible, he summons regular surveyors to examine his vessel and report all defects, discriminating between those defects that have arisen from perils of the sea, and those from wear and tear. The first only are made good by the insurer, together with all charges, such as surveyors' fees, dock dues &c., caused by the necessity of undergoing repair. It has been already observed that when a ship is obliged in the progress of her voyage to put into port for the purpose of repair, although the owner of the ship be subjected to great expense for the wages and maintenance of his crew during the detention, he can recover no part of this expense from the insurer; the doctrine being, that the owner of the ship is bound to navigate his vessel, and that the insurer does not undertake to guarantee that the voyage shall be completed within any specific time. Such is the doctrine, at least, in this country, and the practice is founded upon it; but in all other countries the doctrine and practice are the reverse. For in them allowance is made to the ship-owner for the wages and maintenance of the crew during the whole period that the ship is under repair. Where a vessel sustains damage and undergoes repair in the progress of her voyage, and is subsequently lost, the insurer is liable both for the particular average and a total loss. Or the owner of the ship may, if he please, insure the amount expended in repair; and then, in the event of subsequent loss, the insurer is liable for the total loss only; but in the event of subsequent safe arrival, the average is augmented by the charge of insurance.

The operation of the clause warranting the ship free from average under 3 per cent., unless general, or the ship be stranded, may now be clearly seen. If a ship be insured and valued at 10,000*l.*, and the repairs of the vessel do not, after all the deductions above referred to, amount to 3 per cent., there is no claim upon the insurer unless the vessel shall have been stranded. [AVERAGE.]

Stranding.—The term stranded is not well chosen, admitting of more than one construction, and the clause of which it forms a part is imperfectly conceived. And in settlements of accounts, when differences arise, the parties who discuss them are more apt to strive for that interpretation of terms and clauses which is favourable to their interests than for that which is best adapted for general purposes. It is commonly understood that merely striking the ground and coming off is not a stranding; it being necessary, in order to fall within that term, that the ship should remain on the ground or rock, as it may happen, and that efforts should be made to float her. Striking on an anchor and leaking dangerously is not a stranding. We shall only adduce two illustrations, for the purpose of showing how ill adapted this clause is as a means to an end. Corn and other such articles are warranted free from particular average unless the ship be stranded, because the insurers, considering these articles to be peculiarly susceptible of damage, will not consent to take that risk except on some extraordinary occasion. A ship laden with corn makes a very stormy passage from the Baltic to London, and damages the whole of her cargo. Upon arrival off our coast she is stranded, but got off without straining or sustaining any damage. The insurer is held to be liable for the damage to the corn, under the clause of the policy. On another occasion, after a very favourable passage to our coast, a ship strikes upon a shoal, but is not stranded, sustaining, however, so much damage that she arrives at London with 6 feet water in her hold, and her cargo almost wholly spoiled. The insurer is held not to be liable under the clause of the policy.

General Average.—The insurer is bound to make good all general average without exception, however trifling the amount. General average is treated as though altogether unconnected with particular average; and damage to the goods not amounting to 3 per cent. is not payable by the insurer, although there may be also a general average, and the general and particular average together may amount to more than 3 or 5 per cent. General average is a charge which must be paid by the merchant and ship-owner, even if uninsured; although, when insured, he transfers, as it were, in virtue of his insurance, the charge from himself to his insurer. All the elements that can by possibility enter into general average may be classed under four heads:—1. Sacrifice of part of the ship and stores; 2. Sacrifice of part of the cargo and freight; 3. Remuneration of services required for general preservation; 4. Expense of raising money to replace what has been sacrificed, and to remunerate services.

1. When any part of the ship is sacrificed for the general benefit, the owner is entitled to receive (deducting, of course, his share of contribution) the amount of his outlay in the replacing of such sacrifice; allowance being made, on the principle stated above, where old works and materials are replaced with new. The deduction of ⅓,

however, does not invariably apply. For instance, ⅓ only is taken off the price of an iron cable that is slipped from for the general benefit, because iron cables are calculated to last for a great number of years: and no reduction is ever made from the price of anchors. The charge of replacing the loss may amount to considerably more than the value lost, computing the value at the place where the ship was originally fitted. Thus, the cost of replacing an anchor and cable slipped from in the Downs is frequently double the value of the anchor and cable at London. But whatever the charge may be, such charge forms the basis of settlement.

2. Sacrifice of the cargo and freight takes place in jettison, or where part of the cargo is flung overboard to lighten the vessel. Upon arrival in port, after such jettison, the owner of the goods jettisoned is entitled to receive (deducting his share of contribution) what the goods would have produced nett to him, supposing them to have arrived sound; and the owner of the ship is entitled to receive (deducting his share of contribution) the freight to which he would have been entitled upon the safe delivery of the goods.

3. Remuneration of services and other charges. When a ship loses her anchors and cables, very large sums are frequently awarded to boatmen who venture off to her with new ones at the imminent hazard of their lives. A ship disabled at sea is towed into port by another, and remuneration for such service is awarded according to the value saved, the detention occasioned, and the loss sustained. The ship rendering the service may be laden with fish or fruit, that may be totally spoiled by the detention, or may be in ballast. A ship captured by the enemy may be recaptured by a man-of-war or armed merchant vessel: here, again, salvage is awarded according to the circumstances of the case. All these charges are general average; that is to say, must be distributed over ship, freight, and cargo. When a ship with a cargo is driven on shore, the expense of attempting to get her off is general average. If she cannot be got off without discharging, the expense of discharging is general average; but the expense of getting the ship off after the cargo has been taken out falls exclusively upon the ship. The warehousing of the cargo, and other expenses incurred for its preservation, are charges exclusively upon the cargo. The expense of reloading is borne by the freight. When a ship puts into port in distress, the pilotage inwards is general average; the pilotage outwards is a charge upon the freight. This distribution of charges has settled into a tolerably well established practice; and upon this principle claims are settled at the offices, and at Lloyd's.

4. The money required to meet the above charges is sometimes attainable without expense. If the accident happen near home, and the ship-owner be respectable, he advances the money and recovers from the various parties concerned so soon as the accounts can be made up; or if the accident happen in a foreign port, where the owner of the ship is well known, the captain's bill upon him will sometimes be received in payment of the charges incurred. But where such facilities do not exist, the captain is empowered to pledge his ship, freight, and cargo as security to anyone he may prevail upon to supply the necessary funds. This pledge is termed a bottomry bond. By it the captain admits the receipt of the money; consents to the payment of a premium (which varies with the distance of the port of destination, the risk of the voyage, the respectability of the owner, and the necessities of the captain); and assigns the ship, freight, and cargo as security for the repayment of the money advanced and the stipulated premium. Should the captain consider the bottomry premium demanded of him exorbitant, or should he deem it preferable in other respects, he may sell a portion of the cargo for the purpose of raising such money as he may stand in need of towards the prosecution of his voyage. The expense of raising the requisite funds, whether by commission, by bottomry premium, or by loss on the sale of the cargo, is charged to those parties for whose interest the money is required. Thus, if a ship, having struck upon a rock, puts into port in distress, and is obliged to unload to repair; supposing the particular average upon the ship to amount to 500*l.*; the general average, consisting of assistance into port and expense of unloading, 200*l.*; particular charges on freight, consisting of expense of reloading and pilotage outwards, 100*l.*; and particular charges on cargo, consisting of warehouse rent and repair of packages, 200*l.*; and the expense of raising money should be 20 per cent.: these sums would be severally increased by this addition, and would be raised to 600*l.*, 240*l.*, 120*l.*, and 240*l.* [Bottomry.]

It still remains to be enquired in what proportion the general average is to be paid by the different owners of the cargo, and the owner of ship and freight. Almost all general averages are adjusted at the ship's port of destination, and the values of the ship and cargo are taken at what they would produce in their actual state upon arrival, and the freight according to what is actually receivable, less the wages of the captain and crew; the general average being distributed in proportion to these values. Should the cargo be altogether worthless, it cannot be made to contribute; and should the wages of the crew exceed the freight, then the freight is not liable to contribute. In case of jettison, the party whose property has been sacrificed for the general benefit receives indemnity on the same principle; the value to which he is entitled being what his property would have produced *nett*, supposing it to have been sold on the arrival of the vessel—the same value serving for the basis of his proportion of contribution. Some few cases occur where the general average is adjusted at the port of departure. Thus, if a ship, outward bound to the British colonies, cut from an anchor and cable in the Downs, or incur other general average on our own coast, the insurances being principally effected in this country, it is the custom to adjust it on the spot, by which means both delay and expense are avoided. On these occasions the values at the port of shipment are taken as the basis of contribution. A total loss, subsequently to a general average, does not exonerate the insurer from his prior liability; and although it is customary with the ship-owner, or his agent, specifically to insure the money expended in average, for the purpose of protecting the insurer against any greater liability than 100 per cent., he is not absolutely obliged to do so. When the average funds are raised by bottomry, the party advancing them takes the ship, freight, and cargo as security, and charges a premium to cover the risk of the ship's non-arrival at her port of destination; and thus, on such an occasion, a subsequent total loss relieves the insurer from all liability to average.

The laws and customs by which averages are adjusted vary in different countries; but the insurer in this country is only liable for the averages adjusted according to our laws. The merchant, however, whose goods arrive at a foreign port is

obliged to submit to the laws of that port. He may thus be a considerable loser; paying general average according to one law, and receiving from his insurer according to another. And he never can be a gainer, because, before he is entitled to recover from his insurer, he must prove that he has paid to the owner of the ship. This is one of the many inconveniences to which mercantile men are exposed, which cannot be entirely removed without, what it may be hoped will gradually take place, an assimilation of the commercial laws of different countries. A partial remedy for this grievance has been found in the introduction of a clause into policies when the ship is bound to a foreign port, to this effect: general average to be paid according to the foreign statement.

Proof of Loss.—The policy of insurance is the instrument under which the merchant and shipowner claim indemnification for all losses that are not specially excepted. The proof that the loss has been sustained must also be exhibited; such as the title to the vessel and cargo, and the evidence of the captain and crew to establish the circumstances out of which the claim arises. If A were to insure his vessel for the space of 12 months, and at the expiration of 6 months were to sell his ship to B: A's interest in the vessel having ceased, so also does his insurer's liability, unless the policy be sold with the ship; and B, if he wish to be protected, must make a new insurance, or purchase A's policy. Proof of ownership, therefore, is an essential preliminary to the recovery of a claim. In general practice no difficulty arises from this, because the fact of ownership is sufficiently notorious. The bill of lading is, in most cases, satisfactory proof that the cargo was on board, as well as of the amount of freight.

Valued and Open Policies.—If an insurance for 2,000*l.* be effected upon 100 hhds. of sugar, valued at 20*l.* per hhd., the bill of lading, showing that the vessel had 100 hhds. on board, establishes the interest at 2,000*l.*, and the policy is termed a valued policy. But if an insurance for 2,000*l.* be effected on 100 hhds. of sugar, and nothing be expressed as to value, the bill of lading only establishes that 100 hhds. are on board without establishing the amount of interest. The production of the invoice, showing the cost of the goods, is necessary to that end, the policy being termed an open one.

Return of Premium for Short Interest.—In a valued policy, when the whole of the property insured does not appear to have been shipped, the difference between the quantity insured and the quantity shipped is termed short interest. Thus, if 2,000*l.* be insured upon 100 hhds. of sugar, valued at 20*l.* per hhd., and 80 hhds. only be shipped; as the insurer's liability does not extend beyond 1,600*l.*, so he is obliged to return the premium upon 400*l.* to which no risk attaches. This return of premium is called a return for short interest.

For Over-Insurance.—In an open policy, where the value shipped is not equal to the value insured, the difference is termed over-insurance. If a merchant, A, make an insurance for 5,000*l.* upon goods, without specifying any value, from Calcutta to London, the premium being 60*s.* and the stamp duty 4*s.* per cent., the amount of interest that attaches to the policy is so fixed that he is neither to gain nor lose by the transaction in the event of the vessel's loss, supposing his insurance to be sufficient. To entitle him to recover a profit, the profit to be insured must be stipulated in the policy. The expense of insurance upon 100*l.* being 3*l.* 4*s.*, it is clear that every 100*l.* insurance covers 96*l.* 16*s.* original cost; that is to say, protects the merchant from loss to that extent in case of the loss of the vessel. If, then, we assume the invoice of the goods shipped to be 40,000 rupees, or, at the exchange of 2*s.* per rupee, 4,000*l.*, the interest attaching to the policy is ascertained as follows: If 96*l.* 16*s.* cost is insured by 100*l.* insurance, what will the 4,000*l.* cost be insured by? Answer, 4,132*l.* Under such circumstances, although a policy exists for 5,000*l.*, the insured is not able to prove interest for more than 4,132*l.*; and consequently, the insured being entitled to recover no more than that sum in case of loss, the insurer is called upon to make a return of premium for over-insurance upon 868*l.*

Although we have treated separately of returns for short interest and over-insurance, we should observe that these terms in practice are used indiscriminately; and indeed we cannot say that we perceive much advantage in making the distinction, or preserving the distinctive appellations.

It sometimes happens that the property expected in a vessel is not all insured at one time or in one policy. But this makes no difference in the principle of settlement according to our law; although, according to the laws of most other countries, the policies take precedence of one another according to their dates, the whole short interest falling upon the policy or policies last effected. The foreign law, in this instance, appears to us the more equitable and reasonable of the two; and that our reason for thinking so may be intelligible, and thus gain assent or meet with refutation, we shall state a case of short interest upon a number of policies, such as not unfrequently appears. A merchant, A, orders his correspondent at Calcutta to ship for his account a quantity of sugar, not exceeding 1,000 tons, at a price not exceeding 20*l.* per ton. In due time he receives a letter from his correspondent acknowledging the receipt of his order, and expressing confident hopes of being able to purchase the quantity, or the greater part of it, at the limits prescribed, and promising to advise as he proceeds. A, on receipt of this letter, say on January 1, makes a provisional insurance for 5,000*l.* upon sugar valued at 20*l.* per ton. Continuing without further advices, and fearing lest his correspondent's letter should have miscarried, and that he might have property afloat uninsured, on February 1, March 1, and April 1 he effects similar insurances, thus covering the whole 1,000 tons. He subsequently receives advice that his correspondent had not been able to purchase more than half the quantity ordered, at his limit, and he recovers from his insurers half the premium upon each policy. Now, it was not at all improbable that he might have received advice from his correspondent, as he expected, much sooner. And if he had received advice in the middle of February of the shipment of 500 tons, and that the ship which contained them was totally lost in the river Hooghly, the insurers upon the two first policies would have been liable for a total loss. And it appears to us a defective arrangement by which a party, who is at one time exposed to a total loss, should at another be compelled to return half his premium. It is true that the merchant may, if he please, insert in his policies a clause by which the policies shall be made to succeed one another; but we should say that the law, in insurance cases, as in the disposal of the property of deceased persons, ought to be the best general disposition, leaving to individuals the right of modification according to particular circumstances.

Return for Double Insurance.—Besides returns for short interest and over-insurance, there are returns for double insurance. They are, in fact, to all intents and purposes, the same thing. Double insurance exists where the party, through forgetfulness, makes an insurance upon his property twice over; or where the shippers and consignees of goods, when uncertain of one another's intentions, effect each an insurance upon them; or where the captain of a vessel in foreign parts, fearing lest his advices should not reach his owner, effects an insurance upon it, and the owner at the same time, acting with equal caution, effects one also. The observations already made upon returns for short interest, and upon the difference between our laws and those of other countries, apply with equal force here.

We have now gone over all the principal topics connected with marine assurance. Those who peruse this article with ordinary attention will, we hope, gain a tolerably clear insight into the principles and practice of the business; but a perfectly familiar acquaintance with it can only be acquired by those who are daily conversant with its details.

Duty on Policies of Marine Insurance.—This is regulated by the Act 30 Vict. c. 23. The Act of 1867 provides that—

On the passing of this Act the stamp duties now payable for policies of sea insurance shall cease and determine, and the several Acts and parts of Acts specified in the schedule marked (D.) to this Act annexed are hereby repealed, save so far as respects any policy made prior to the passing of this Act, and as respects any forfeiture or penalty incurred in respect of any offence against any enactment so repealed.

In this Act the expression 'sea insurance' means any insurance (including re-insurance) made upon any ship or vessel, or upon the machinery, tackle, or furniture of any ship or vessel, or upon any goods, merchandise, or property, of any description whatever, on board of any ship or vessel, or upon the freight of or any other interest which may be lawfully insured in or relating to any ship or vessel; and the word 'policy' means any instrument whereby a contract or agreement for any sea insurance is made or entered into.

The Commissioners of Inland Revenue shall provide blank policies, printed on paper, in the form set forth in Schedule (E.) to this Act, and stamped to denote the duty payable under this Act; and any person may buy such blank policies, stamped with the duty which he may require, at the price of such duty: provided always, that before any such stamped blank policies shall be issued, and before any vellum, parchment, or paper which may be brought to be stamped shall be delivered out stamped by any officer of inland revenue, he shall mark or write thereon the day, month, and year of such issue or delivery, and if he wilfully neglect so to do he shall forfeit the sum of 100*l.*

The said commissioners shall keep an office within the City of London for the distribution of blank policies, stamped as aforesaid, to persons carrying on the business of insurance within the said city, and purchasing the same, subject to the usual allowance made on purchase of stamps.

No contract or agreement for sea insurance (other than such insurance as is referred to in Sec. 55 of 'the Merchant Shipping Act Amendment Act, 1862') shall be valid unless the same is expressed in a policy; and every policy shall specify the particular risk or adventure, the names of the subscribers or underwriters, and the sum or sums insured; and in case any of the above-mentioned particulars shall be omitted in any policy, such policy shall be null and void to all intents and purposes.

No policy shall be made for any time exceeding 12 months, and every policy which shall be made for any time exceeding 12 months shall be null and void to all intents and purposes.

No policy shall be pleaded or given in evidence in any court, or admitted in any court to be good or available in law or in equity, unless duly stamped; and it shall not be lawful for the said commissioners or any officer of inland revenue to stamp any policy at any time after it is signed or underwritten by any person, on any pretence whatever, except in the two cases following; that is to say,

1st. Any policy of mutual insurance having a stamp or stamps impressed thereon may, if required, be stamped with an additional stamp or stamps, provided that at the time such additional stamp or stamps shall be required, the policy shall not have been signed or underwritten to an amount exceeding the sum or sums which the stamp or stamps previously impressed thereon will warrant.

2nd. Any policy made abroad, and chargeable with duty by virtue of Section 15 of the Act of the 28th and 29th years of her Majesty's reign, cap. 96, may be stamped within the time specified in that Act.

Nothing in this Act shall extend or be construed to extend to prohibit the making of any alteration which may lawfully be made in the terms and conditions of any policy after the same shall have been underwritten; provided that such alteration be made before notice of the determination of the risk originally insured, and that it shall not prolong the time covered by the insurance thereby made beyond the period of 6 months in the case of a policy made for a less period than 6 months, or beyond the period allowed by this Act in the case of a policy made for a greater period than 6 months, and that the articles insured shall remain the property of the same person or persons, and that no additional or further sum shall be insured by reason or means of such alteration.

Where any sea insurance is made for a voyage and also for time, or to extend to or cover any time beyond 24 hours after the ship shall have arrived at her destination and been there moored at anchor, the policy shall be chargeable with duty as a policy for a voyage, and also with duty as a policy for time.

Where any carrier by sea or other person shall, in consideration of any sum of money paid or to be paid for additional freight or otherwise, agree to take upon himself any risk attending goods, merchandise, or property of any description whatever while on board any ship or vessel, or engage to indemnify the owner of any such goods, merchandise, or property from any risk, loss, or damage, such agreement or engagement shall be deemed to be a contract for a sea insurance.

If any person shall become an assurer upon any sea insurance, or shall subscribe or underwrite, or otherwise sign or make, or enter into any contract, agreement, or memorandum, for or of any sea insurance, or shall receive or contract for any premium or consideration for any sea insurance, or shall receive or charge, or take credit in account for any such premium or consideration as aforesaid, or any sum of money as or for any such premium or consideration as aforesaid, or shall wilfully or knowingly take upon himself any risk, or render himself liable to pay, or shall pay or allow, or agree to pay or allow, in account or otherwise, any sum of money upon any loss, peril, or contingency relative to any sea in-

surance, unless such insurance shall be written on vellum, parchment, or paper duly stamped, or if any person shall be concerned in any fraudulent contrivance or device, or shall be guilty of any wilful act, neglect, or omission, with intent to evade the duties payable on policies under this Act, or whereby the duties may be evaded, every person so offending shall for every such offence forfeit the sum of 100*l.*

Every person who shall make or effect, or knowingly procure to be made or effected, any sea insurance, or shall give or pay, or render himself liable to pay, any sum of money, premium, or consideration whatever in the nature of a premium for or upon any sea insurance, or shall enter into any contract or agreement whatever for any sea insurance, unless the same insurance, contract and agreement for insurance, respectively, shall be written on vellum, parchment, or paper, being first duly stamped, shall for every such offence forfeit and pay the sum of 100*l.*; and every broker, agent, or other person negotiating or transacting any sea insurance contrary to the true intent and meaning of this Act, or writing any agreement for any sea insurance upon vellum, parchment, or paper not duly stamped, shall for every such offence forfeit the sum of 100*l.*

If any person shall make or issue, or cause to be made or issued, any document purporting to be a copy of a policy, and there shall not be in existence, at the time of such making or issue, a policy duly stamped whereof the said document shall be a copy, he shall for such offence forfeit the sum of 100*l.* in addition to any other penalty which he may have incurred under this Act.

It shall not be lawful for any broker, agent, or other person negotiating or transacting or making any sea insurance to charge his employer any sum of money for brokerage or agency, or for his pains or labour in negotiating, transacting, or making such insurance, or writing the same, or for any moneys expended or paid by way of premium or consideration in the nature of a premium for such insurance, unless the same shall be written on vellum, parchment, or paper, duly stamped; and all and every sum and sums whatever paid by such employer on any such account to any broker, agent, or other person negotiating or transacting or making any insurance contrary to this Act shall be deemed to be paid without consideration, and shall remain the property of such employer, his executors, administrators, or assigns.

This duty was reduced in 1833, and again in 1844, 1865, and 1867, and is now (1868) less than half what it was formerly.

Schedule B, containing the Stamp Duties granted by this Act.

For every policy of sea insurance for or upon any voyage—

	s.	*d.*
In respect of every full sum of 100*l.* and in respect of any fractional part of 100*l.* thereby insured		5

For every policy of sea insurance for time—

	s.	*d.*
In respect of every full sum of 100*l.* and in respect of any fractional part of 100*l.* thereby insured—		
Where the insurance shall be made for any time not exceeding 6 months		3
Where the insurance shall be made for any time exceeding 6 months and not exceeding 12 months		6

But if the separate and distinct interests of two or more persons shall be insured by one policy for a voyage or for time, then the duty of 3*d.* or the duty of 3*d.* or 6*d.*, as the case may require, shall be charged thereon in respect of every full sum of 100*l.* and every fractional part of 100*l.* thereby insured upon any separate or distinct interest.

These reductions must, of course, be beneficial. But the tax is altogether wrong in principle, and should be repealed altogether. Its obvious tendency is to discourage the coasting trade, by imposing a duty on goods carried by sea, from which those carried by land and canals are exempted. But the influence of the tax on vessels engaged in the foreign or colonial trade is still more objectionable. It is immaterial to a merchant sending a ship to sea, whether he insure her in London, Amsterdam, or Hamburg; and as policies executed in the last two cities are either wholly exempted from duties, or subject to such as are merely nominal, the effect of the duty is to transfer to the Continent a considerable part of the business of marine insurance, that would otherwise be transacted in London. It is plain, therefore, that this duty operates to drive a valuable branch of business from amongst us; and though it had no such effect, still it is sufficiently clear that a tax on providence, or on the endeavour to guarantee the safety of property at sea, is not one that ought to exist in any country, and least of all in so commercial a country as England.

(This article on Marine Insurance has been revised by a gentleman thoroughly conversant with the principles and details of the business.)

Form of a Policy of Insurance executed at Lloyd's.

S. G. *Be it known that* as well in own name, as for and in the name and names of all and every other person or persons to whom the same doth, may, or shall appertain, in part or in all, doth make assurance and cause and them and every of them, to be insured, lost or not lost, at and from upon any kind of goods and merchandises, and also upon the body, tackle, apparel, ordnance, munition, artillery, boat and other furniture, of and in the good ship or vessel called the whereof is master, under God for this present voyage, or whosoever else shall go for master in the said ship, or by whatsoever other name or names the same ship, or the master thereof, is or shall be named or called, beginning the adventure upon the said goods and merchandises from the loading thereof abcard the said ship upon the said ship, &c. and shall so continue and endure, during her abode there, upon the said ship &c.; and further, until the said ship, with all her ordnance, tackle, apparel &c. and goods and merchandises whatsoever, shall be arrived at upon the said ship &c., until she hath moored at anchor twenty-four hours in good safety, and upon the goods and merchandises until the same be there discharged and safely landed; and it shall be lawful for the said ship &c. in this voyage to proceed and sail to and touch and stay at any ports or places whatsoever without prejudice to this insurance. The said ship &c., goods and merchandises &c., for so much as concerns the assured, by agreement between the assured and assurers in this policy, are and shall be valued at touching the adventures and perils which we the assurers are contented to bear and do take upon us in this voyage, they are, of the seas, men-of-war, fire, enemies, pirates, rovers, thieves, jettisons, letters of mart and

£

Delivered the day of 186 (No.)

arrests, restraints and detainments of all kings, princes, and people, of what nation, condition, or quality soever, barratry of the master and mariners, and of all other perils, losses, and misfortunes that have or shall come to the hurt, detriment, or damage of the said goods and merchandises and ship &c. or any part thereof; and in case of any loss or misfortune it shall be lawful to the assured, their factors, servants and assigns, to sue, labour, and travel for, in, and about the defence, safeguard, and recovery of the said goods and merchandises and ship &c. or any part thereof, without prejudice to this insurance; to the charges whereof we, the assurers, will contribute each one according to the rate and quantity of his sum herein assured. And it is agreed by us, the insurers, that this writing or policy of assurance, shall be of as much force and effect as the surest writing or policy of assurance heretofore made in Lombard Street, or in the Royal Exchange, or elsewhere in London. And so we the assurers are contented, and do hereby promise and bind ourselves, each one for his own part, our heirs, executors, and goods, to the assured, their executors, administrators, and assigns, for the true performance of the premises, confessing ourselves paid the consideration due unto us for this assurance by the assured

at and after the rate of

In Witness whereof, we the assurers have subscribed our names and sums assured in.

N.B.—Corn, fish, salt, fruit, flour, and seeds are warranted free from average, unless general, or the ship be stranded; sugar, tobacco, hemp, flax, hides, and skins are warranted free from average under five pounds per cent.; and all other goods, also the ship and freight, are warranted free from average under three pounds per cent., unless general, or the ship be stranded.

Form of Policy of the Royal Exchange Assurance Company.

By the Corporation of the Royal-Exchange Assurance.

In the Name of God Amen.

as well in own name as for and in the name and names of all and every other person or persons to whom the same doth may or shall appertain in part or in all doth make assurance and causeth and them and every of them to be assured lost or not lost at and from

Including risk of craft to and from the ship. Free of capture and seizure and the consequences of attempt thereof.

upon any kind of goods and merchandises whatsoever loaden or to be loaden and also upon the body tackle apparel ordnance munition artillery boat and other furniture of and in the good ship or vessel called the

burthen or thereabouts whereof is master (under God) for this present voyage

or whosoever else shall go for master in the said ship or by whatsoever other name or names the same ship or the master thereof is or shall be named or called, beginning the adventure upon the said goods and merchandises from and immediately following the loading thereof on board the said ship

and upon the said ship &c.

and so shall continue and endure during her abode there upon the said ship &c. And further until the said ship with all her ordnance tackle apparel &c. and goods and merchandises whatsoever shall be arrived at

Upon the said ship &c. until she hath there moored at anchor twenty-four hours in good safety, and upon the goods and merchandises until the same be there discharged and safely landed; and it shall be lawful for the said ship &c. in this voyage to proceed and sail to and touch and stay at any ports or places whatsoever without prejudice to this assurance. The said ship &c. goods and merchandises &c. for so much as concerns the assureds (by agreement made between the assureds and the said Corporation in this policy) are and shall be rated and valued at

sterling, without further account to be given by the assureds for the same.

Touching the adventures and perils which the said Corporation are intended to bear and do take upon them in this voyage they are of the seas men of war fire enemies pirates rovers thieves jettisons letters of mart and countermart surprisals takings at sea arrests restraints and detainments of all kings princes and people of what nation condition or quality soever barratry of the master and mariners and of all other perils losses and misfortunes that have or shall come to the hurt detriment or damage of the said goods and merchandises and ship &c. or any part thereof: and in case of any loss or misfortune it shall be lawful to the assureds their factors servants and assigns to sue labour and travel for in and about the defence safeguard and recovery of the said goods and merchandises and ship &c. (or any part thereof) without prejudice to this assurance to the charges whereof the said Corporation will contribute according to the rate and quantity of the sum herein assured. And it is agreed by the said Corporation that this writing or policy of assurance shall be of as much force and effect as the surest writing or policy of assurance heretofore made in *Lombard Street* or in the *Royal Exchange* or elsewhere in *London*: and so the said Corporation are contented and do hereby promise and bind themselves and their successors to the assureds their executors administrators and assigns for the true performance of the premises,

confessing themselves paid the consideration due unto them for this assurance by

at and after

the rate of

per cent.

In Witness whereof the said Corporation have caused their common seal to be hereunto affixed and the sum or sums by them assured to be hereunder written at their office in the Royal Exchange of London this

day of

in the year of our Lord one thousand eight hundred and sixty-eight.

The said Corporation are content with this assurance for

Free from all average on corn flour fish salt fruit and seed, unless general or the ship be stranded. Free from average on sugar rum hides skins hemp flax and tobacco under five per cent. and on all other goods, the ship and freight under three per cent., unless general or the ship be stranded.

By order of the Court of Directors.

III. Insurance (Fire).

Insurance against fire is a contract of indemnity, by which the insurer, in consideration of a certain premium received by him, either in a gross sum or by periodical payments, undertakes to indemnify the insured against all loss or damage he may sustain on his houses or other buildings, stock, goods, and merchandise, by fire up to a certain amount during a specified period.

Insurances against fire are almost invariably made by Joint-Stock Companies, many of which are established in London, but operate by agencies throughout the country, whilst some have their chief offices in a few of the principal towns in the empire. Of these, the greater number insure at their own risk and for their own profit; but there are others, partaking more of the character of mutual insurance offices, in some of which the assured by annual policies, and in others those by septennial policies, only participate in the profit of the concern. The number of such offices is gradually diminishing. How far the insured in such companies as members become liable for the losses of the same, can only be decided by the provisions in the respective deeds of settlement.

The conditions on which the different offices insure are contained in their *proposals*, and are also printed on the back of every policy; and it is in most instances expressly conditioned that they undertake to pay the loss, not exceeding the sum insured, '*according to the exact tenor of their printed proposals, or according to the conditions.*'

Nothing can be recovered from the insurers, in the event of loss, unless the party insuring had an interest or property in the thing insured at the time when the insurance was effected, and when the loss happened. It often occurs that one office will not insure to the full amount required by an individual who has a large property; and in such case the party, to cover his whole interest, is obliged to insure at different offices. But, in order to prevent the frauds that might be practised by insuring the full value in various offices, there are, in the proposals issued by all the companies, articles which declare that persons insuring must give notice of any other insurance made elsewhere upon the same houses or goods, that the same may be specified and allowed by indorsement on the policy, in order that each office may bear its rateable proportion of any loss that may happen; and sometimes a clause is added, providing that unless such notice be given of each insurance to the office where another insurance is made on the same effects, the insurance made without such notice will be void.

Any trustee, mortgagee, reversioner, factor, or agent, has sufficient interest in the goods under his custody to effect a policy of insurance, provided the nature of such interest be distinctly specified at the time of executing such policy.

Most of the offices stipulate in their proposals against making good any loss occasioned by 'invasion,' 'foreign enemy,' 'civil commotion,' &c.; and under this condition the Sun Fire Office was exonerated from the loss occasioned by the disgraceful proceedings of the mob in 1780.

The risk commences in general from the time the proposal is *accepted* by the office, unless there be some other time specified.

Policies of insurance may be effected for any period. If for a year (which is most customary) or for a term of years by a single payment, it is usual for the office, by way of indulgence, to allow fifteen days after each year, or term of years, for the payment of the premium for the next period in succession; and provided the premium be paid within that time, the insured is considered within the protection of the office.

A policy of insurance is not in its nature assignable, nor can it be transferred without the *express consent* of the office. When, however, any person dies, his interest remains in his executors or administrators respectively, who succeed or become entitled to the property, provided such representatives respectively procure their right to be indorsed on the policy.

(For further details, see Marshall *On Insurance*, book iv.; Park *On Insurance*, c. 23; *The Law of Fire Insurance*, by C. J. Bunyon.)

The nature and mode of operation of fire offices may be described as follows:—

They insure against loss or damage by fire, in Great Britain and Ireland all descriptions of buildings, including mills and manufactories, and goods, wares, and merchandise in the same; ships in harbour or in dock; craft on navigable rivers and canals, and the goods laden on the same; waggons travelling the roads and railways, and their contents; and farming stock of all descriptions.

Insurances are generally divided into *common*, *hazardous*, and *doubly hazardous*. The distinguishing characteristics of these may be briefly described as follows:—

Common or 1st class. Buildings of brick or stone, and covered with tiles, slates, or metal.

Hazardous or 2nd class. Buildings partially or wholly constructed of timber, but covered with tiles, slates, or metal; and 1st class buildings in which hazardous trades are carried on.

Doubly hazardous, or third class. Buildings covered with thatch.

The ordinary rates when such buildings are in private occupation are:—

1st class	-	-	1s. 6d. per cent. per annum.
2nd ,,	-	-	2s. 6d. ,, ,,
3rd ,,	-	-	4s. 6d. ,, ,,

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I.—*Duties paid to Government by the following London Fire Insurance Offices for the 9 Years ending at Christmas* 1867.

Offices	1859	1860	1861	1862	1863	1864 Duty on Stock reduced to 1s. 6d. per cent.	1865 Part at 3s. and part at 1s. 6d.	1866 Duty at 1s. 6d.	1867
	£	£	£	£	£	£	£	£	£
Sun	203,437	206,210	208,669	209,612	205,402	195,276	148,908	108,497	112,055
Albert (dis.)	—	—	—	—	—	2 qrs. 669	1,334	2 qrs. 667	—
Alliance	45,853	46,787	46,594	46,224	47,998	50,795	46,578	37,995	39,338
Atlas	41,084	41,632	41,457	40,724	40,354	38,092	28,373	21,776	22,567
Bank of London (dis.)	1 qr. 51	—	—	—	—	—	—	—	—
British Nation (dis.)	—	—	—	—	—	3 qrs. 990	3 qrs. 991	—	1 qr. 247
British Provident (dis.)	—	—	—	—	—	—	—	—	—
Church of England	4,540	4,886	5,068	5,332	5,539	5,409	4,146	3,059	3,182
City and County (dis.)	—	—	—	—	—	602	514	3 qrs. 331	—
Commercial Union	—	—	1 qr. 3,457	17,091	20,419	18,340	14,284	13,482	12,995
County	66,014	67,557	69,184	70,675	72,381	71,457	53,929	40,000	42,181
Defender (dis.)	—	—	—	—	—	—	—	—	—
Emperor	571	704	742	796	854	924	777	651	623
Empire (dis.)	—	—	—	—	—	—	—	—	—
Equitable (dis.)	2,342	3 qrs. 1,296	—	—	—	—	—	—	—
European (dis.)	—	—	—	—	—	2 qrs. 1,068	2,027	3,232	3,147
Financial (dis.)	—	—	—	—	—	—	—	107	—
Friend in Need (dis.)	—	—	—	—	3 qrs. 52	88	95	3 qrs. 71	—
General	15,649	17,013	17,893	18,061	19,084	18,210	13,954	11,519	12,114
Globe (dis.)	39,555	40,612	42,796	41,892	42,180	1 qr. 12,579	—	—	—
Guardian	33,034	34,171	34,187	35,060	35,189	34,004	25,163	19,172	20,477
Hand-in-Hand	10,899	10,481	10,330	9,501	10,505	9,648	6,892	4,979	5,312
Hercules	—	—	—	—	2 qrs. 507	715	801	884	1,037
Home and Colonial (dis.)	—	—	—	—	—	2 qrs. 561	1,108	3 qrs. 810	—
Imperial	35,371	37,999	62,735	59,028	61,472	58,777	43,598	34,149	34,594
Law	33,918	35,937	38,285	40,440	42,165	43,248	33,702	24,847	26,559
Law Union	6,551	7,187	8,092	8,455	9,360	10,180	8,231	6,093	7,315
London	31,996	32,563	33,513	33,213	34,164	33,074	25,512	20,096	20,859
London and Lancashire	—	—	—	4,691	9,060	10,985	9,250	11,398	11,187
London and Southwark	—	—	—	—	—	1 qr. 532	1,167	1,418	1,699
Mercantile	—	—	1 qr. 4,079	—	—	—	—	—	—
Mercantile Union (dis.)	—	—	—	—	2 qrs. 820	2 qrs. 809	—	—	—
Netherlands	—	—	—	2 qrs. 72	1 qr. 20	42	43	51	100
North British and Mercantile (London)	—	—	—	1 qr. 390	24,217	23,040	17,545	19,784	19,776
Phœnix	134,348	138,561	137,347	136,251	138,079	128,458	97,686	72,750	75,344
Preserver	32	23	45	68	3 qrs. 56	113	72	46	51
Prince (dis.)	—	—	—	—	382	511	467	—	—
Royal Exchange	80,591	81,016	81,863	80,597	81,875	77,414	57,620	42,781	42,820
Royal Farmers'	12,097	12,268	12,518	12,562	12,751	12,379	9,349	6,727	6,877
State (dis.)	4,797	5,475	2 qrs. 2,912	—	1 qr. 1,000	—	—	—	—
Times (dis.)	—	—	—	—	—	—	—	—	—
Ultrajectum (dis.)	—	—	—	2 qrs. 70	3 qrs. 59	1 qr. 39	—	—	—
Union	29,610	30,693	31,638	31,808	31,877	29,857	20,828	15,922	16,718
United Kingdom Provident (dis.)	1,158	1,375	1,524	1 qr. 425	—	—	—	—	—
Unity (dis.)	15,334	15,564	16,076	3 qrs. 12,031	—	—	—	—	—
Volunteer Service and General (dis.)	—	—	—	1 qr. 3	3 qrs. 91	140	2 qrs. 33	—	—
Western	—	—	—	—	—	2,330	3,135	5,093	4,755
Westminster	32,437	33,033	31,809	33,062	32,503	31,290	21,361	17,415	18,178
Total	901,285	925,364	943,151	962,966	979,805	922,957	698,528	546,501	562,230

The nature of the tenure of a building materially affects the classification thereof for rating. These charges are exclusive of the duty payable, under 28 Vict. c. 30, to Government of 1*s.* 6*d.* per cent. on the amount of the policy. There is also a stamp duty of 1*d.* on each policy. There is also a stamp duty, as a contract stamp, of 1*d.* on every receipt for money (however small the amount) or memorandum issued when an insurance is effected. These stamp duties are borne by the office. Agricultural produce and stock on a farm are, by 3 & 4 Wm. IV., exempt from duty.

Agricultural produce, farming stock and implements, and utensils of husbandry, on any farm, may be insured, without the average clause, exempt from duty, provided it be insured to a fair value. The insurance office will not be subject to loss on goods or utensils damaged or destroyed whilst undergoing any process in which the application of fire-heat is necessary, nor will the insurance office be liable for loss on hay, corn, seeds, or other property, occasioned by its own natural heating, but the loss on any property in consequence (except that which, by its own natural heating, has been the cause of the fire) will be made good, as well as losses from lightning, where the buildings or other effects insured have been actually set on fire thereby, and losses by explosion of gas on the premises insured.

Insurances may also be made by special agreement on the following risks, and on others of a similar description, not included in the 2nd and 3rd heads of insurances, viz. on mills of all kinds, and the stock and utensils in them; also on buildings containing kiln, steam-engine, stove, or oven, used in the process of any manufacture, and the stock therein; sugar refiners, sea biscuit bakers, distillers, varnish makers, chemists' laboratories, theatres, coach painters, colour manufacturers, varnishers, musical instrument makers, refiners of saltpetre, spermaceti, wax, and oil, barge and boat builders, carpenters, cabinet makers, coach

II.—*Duties paid to Government by the following Country Fire Insurance Offices for the Years* 1862, 1863, 1864, 1865, 1866, *and* 1867.

Offices	1862	1863	1864 Duty on Stock reduced to 1s. 6d. per cent.	1865 Part at 3s. and part at 1s. 6d.	1866 Duty at 1s. 6d.	1867
England	£	£	£	£	£	£
Birmingham (dis.)	16,231	16,552	15,761	11,828	1 qr. 2,585	—
Birmingham Alliance	—	—	2 qrs. 795	1,506	1,431	1,366
Birmingham District (dis.)	9,257	9,431	9,096	—	—	—
Essex and Suffolk	7,523	7,443	7,330	5,429	5,491	4,077
Hants, Sussex, and Dorset (dis.)	2,358	2,351	2 qrs. 1,186	—	—	—
Kent	15,510	15,810	15,666	11,691	8,659	9,052
Lancashire	23,858	21,504	21,940	15,882	19,050	21,959
Leeds and Yorkshire (dis.)	31,302	31,617	1 qr. 10,384	—	—	—
Liverpool and London and Globe	71,231	81,525	135,089	96,492	85,081	88,095
Manchester	41,156	41,265	37,764	28,217	21,783	21,782
Midland Counties, late Lincolnshire	5,052	5,303	5,225	3,885	2,895	2,881
Norwich Equitable	3,161	3,169	3,125	2,486	1,803	1,751
Norwich Union	53,972	51,154	51,367	61,128	45,403	46,099
Nottinghamshire and Derbyshire	5,475	5,555	5,307	3,449	5,114	5,153
Oldham	—	1 qr. 14	17	10	11	11
Provincial	8,650	9,685	9,498	6,736	6,079	6,077
Queen	10,362	14,906	16,729	13,167	12,608	13,458
Royal Insurance, Liverpool	69,463	81,276	77,561	62,161	61,458	63,869
Salop	4,139	4,903	4,198	3,385	2,454	2,528
Sheffield (dis.)	3,798	3,926	—	—	—	—
Shropshire and North Wales	2,100	2,199	2,156	1,614	1,179	1,215
West of England	53,869	53,914	49,467	36,590	27,975	28,584
Yorkshire	23,241	23,730	22,695	16,813	12,882	13,407
Scotland						
Scottish Union	31,917	35,209	33,776	25,513	19,844	19,979
North British and Mercantile (Edinburgh)	34,428	35,846	33,365	26,684	19,998	21,504
Caledonian	14,100	14,568	14,609	11,193	8,382	9,407
Scottish Provincial	10,140	11,010	11,005	8,302	6,706	6,935
Northern	25,984	26,762	21,513	17,241	16,605	18,017
Scottish National	7,250	7,409	7,311	5,915	4,220	4,637
Stewarton, Dunlop, and Fenwick	3	3	3	3	1	1
Town and County; Dundee (dis.)	2 qrs. 125	232	267	—	—	—
Scottish	—	—	1 qr. 282	1,270	1,503	2,062
Scottish Commercial	—	—	—	1 qr. 461	2,999	3,191
Scottish Imperial	—	—	—	—	3 qrs. 715	1,769
Ireland						
Eins	—	—	—	—	3 qrs. 430	1,087
National	7,019	6,893	6,062	4,218	3,423	3,593
Patriotic	6,062	5,647	4,941	3,389	2,893	2,914
Total	625,822	663,961	668,568	487,241	408,476	427,132

makers, coopers, cork burners, floor-cloth painters, japanners, lampblack makers, letter-press printers, machine makers, melters of tallow and of rough fat, candle makers, cart-grease makers, oilmen, soap-boilers, rope and sail makers, ship chandlers, hemp and flax dressers, oil leather dressers, medals, curiosities, pictures, prints, drawings, statuary work, spinners of cotton, flax, lint, and wool, throughout all the operations attending the manufacturing of these materials, from the raw state into thread for the weaver, and such other risks as, by reason of the nature of the trade, the narrowness of the situation, or other dangerous circumstances, may increase the hazard thereof: all which special hazards must be inserted in the policy to render the same valid and in force.

Gunpowder, and buildings in which it is made, cannot be insured on any terms: neither do offices insure writings of any kind, books of accounts, ready money, bonds, bills, or any other securities for money.

Insurances may be made for more years than one by a single payment, and in such cases a discount is allowed on the premium and duty for every year except the first.

Rent may be insured by a special agreement for a term not exceeding 1 year, the amount being specified in the policy.

Insurance of mills, factories, risks of special hazard &c.—In consequence of the very frequent changes to which the rates for mills and factories of all kinds, mercantile risks &c. are necessarily subject, arising out of the ever-varying character of the processes, nature of goods &c. on which the degree of hazard depends, details of the rates for such risks cannot be given in any serviceable form.

N.B.—Several companies likewise insure property in foreign countries, which is not subject to the annual duty unless the same be situated in a British colony, and the policy be executed in Great Britain or Ireland.

A fire insurance policy consists of—

1. *Preamble or inductive clause*, reciting the names of the parties to the contract, the payment of a certain sum as the consideration for the insurance of certain property afterwards described for a certain period and for a specified sum: followed by *the description of the property*, arranged under various heads or items where it is of various kinds.

2. *The operative clause or obligation*; by which the company contracts, subject to the conditions annexed to the policy, to pay or make good loss or damage to the property insured up to the amount insured during the period for which the contract is made, or may be subsequently renewed by payment by the assured, and acceptance by the company, of the amount of premium for such renewal.

Clauses are sometimes added defining or limiting the liability of each shareholder or proprietor. The contract is then executed by the signatures of 2 or more directors of the company.

3. *The conditions* printed at the foot or on the back of the policy embrace the following points:—

(1.) The voiding of the policy if there should be any misrepresentation or omission in the description of the property on which the estimate of the risk is based.

(2.) As to payment of premium, and the period during which the policy is in force.

(3.) Modification of the liability of the company when there are other insurances on the same property.

4. As to assignments, transfer of interest in policies in case of death, removal of property to a place other than that described &c., to be notified to the company, whose consent (of which it reserves the option to itself) is to be signified by endorsement on the policy.

5. Goods held in trust to be so stated.

6. Risks not covered specifically detailed, such as damage by invasion, foreign enemy, riot, civil commotion, or any military or usurped power.

7. Articles not insured (as pictures, china &c.) unless specially enumerated.

8. No liability for prints, paintings &c., beyond a certain amount on each, unless specifically insured.

9. Uninsurable articles—books of accounts, money &c.

10. Gunpowder—limit as to quantity.

11. Damage by lightning allowed when the property insured is set on fire thereby; but not damage by explosion.

12. No liability under a farming stock policy for live stock above a certain price, unless specifically insured.

13. No liability for growing crops.

14. Notice to be given if building near completion or undergoing repair.

15. Goods in case of fire not to be abandoned.

16. Average clause.

17. Condition that in case of goods, the market value at time of fire to be the criterion of value.

18. Definition of period when insurance expires.

19. Statement of claim—how to be made and supported by proofs.

20. Arbitration clause.

21. Clause for reinstating at option of company.

With reference to 'No. 16, Average Clause,' above mentioned, it may be stated that frequently in mercantile insurances, and sometimes for other risks, the policy covers property in a variety of buildings or places in one undivided sum. The insurance is then made subject to the average or pro ratâ conditions under Act 9 Geo. IV. c. 13. Separate sums must be insured on each separate building, and on the contents thereof, unless subject to the following average clause.

Conditions of Average.—1. It is hereby declared and agreed that whenever a sum insured is declared to be subject to the conditions of average, if the property so covered shall, at the breaking out of any fire, be collectively of greater value than the sum insured thereon, then the insurance company shall pay or make good such a proportion only of the loss or damage as the sum so insured shall bear to the whole value of the said property at the time when such fire shall first happen.

2. But it is at the same time declared and agreed that if any property included in such average shall, at the breaking out of any fire, be insured by any other policy which, whether subject to average or not, shall apply to part only of the buildings or places, or of the property to which such average extends, then this policy shall not cover the same excepting only as regards any excess of value beyond the amount of such more specific insurance, which said excess is declared to be under the protection of this policy, and subject to average as aforesaid.

3. And it is further declared and agreed that if the assured shall claim under this policy for loss or damage to property embraced in the terms of any average policy extending as well to other buildings or places, or to other property not included in the terms of this insurance, and if at the breaking out of any fire there shall not be any property in such other buildings or places, or any such other property actually at risk to be protected by such policy, then, so far as regards the settlement of any claim under this policy, the terms and liability thereof shall be held to be concurrent in all respects with those of such other policy.

The generality of insurances in the United Kingdom are not, however, subjected to these conditions, although on the Continent and many other places abroad the pro ratâ condition in some form is applied to every insurance.

Amount of Property insured. Duty.—Insurance against fire has been practised in England for about 1¾ century, and is now very much adopted throughout the country.

Introduced at considerably later dates into the different countries on the Continent and in America, it is only in recent years that it has there experienced any active development.

Fire insurance was at an early period after its institution considered, though most erroneously, as we have shown in former editions of this work, to be a legitimate subject for taxation. The amount of this oppressive and impolitic tax varied frequently, till in the 55 Geo. III. (1815) the duty was fixed at 3*s.* per cent., at which it remained until the year 1864, when it was reduced, for insurances on stock in trade, to 1*s.* 6*d.* per cent., and in the following year the duty was fixed at 1*s.* 6*d.* per cent. on insurance on every class of property, except farming stock, which had so far back as 1833 been, and still remains, entirely exempted from duty.

By the official accounts it appears that in the year 1863, the last entire year for which the duty of 3*s.* per cent. was collected, the gross amount received for insurances was as follows:—

	£
In Great Britain - -	1,651,257
Ireland - -	83,865
Total duty -	1,735,122
Giving a sum covered of about	1,143,414,666

Whilst the amount insured on—

	£
Farming stock in Great Britain and Ireland was	74,785,409
Total sum insured -	1,218,200,075

For the year 1866, which was entirely at 1*s.* 6*d.* per cent. duty, the amount collected was for—

	£
Great Britain - - - - -	948,266
Ireland - - - - -	50,887
Total duty - - -	999,153
Giving a sum insured of about -	1,332,011,000
On farming stock in Great Britain and Ireland	77,979,410
Total -	1,410,176,410

Much property, however, still remains uninsured, giving great scope for a further expansion of this branch of commerce.

Even if there be not, as there should be, a total abolition of this tax, no long time can probably elapse before a considerable further reduction must be made in the amount of a burden the principle of which has already been condemned by all parties.

An abstract of the duty paid to Government (almost exclusive of Ireland) during the last few years is given in Tables I. and II.

IV. Insurance (Life).

That part of the business of life insurance which consists of granting annuities upon lives is treated of under Interest and Annuities; so that we have only to treat, in this place, of the insurance of sums payable at the death of the insurers or their nominees.

Suppose an individual of a given age wishes to insure 100*l.* payable at his death, the single premium, or the series of annual premiums, he ought to pay an office for such insurance must plainly depend on the expectation of life of such individual, and on the rate of interest or nett profit which the insurers may make by investing the premiums.

With respect to the first of these conditions, or the *expectation of life*, it is usual in estimating it to have recourse to tables framed from the mortality observed to take place in particular cities or districts, as in Northampton, Carlisle &c. [INTEREST AND ANNUITIES.] But though the actual decrement and expectation of life among an average population at every year of their lives were accurately determined, it is doubted whether it would form a fair basis for an insurance office to proceed upon. The general opinion seems to be that insured lives are decidedly above the average; for insurance offices invariably profess to act on the principle of rejecting bad lives or of making them pay a proportional increase of premium; and it may besides, it is said, be fairly presumed that persons insuring their lives are of a superior class, and are not, generally speaking, engaged in those manual and laborious occupations that are esteemed most injurious to health. But, on the other hand, the friends of parties whose lives are supposed to be bad, and the parties themselves, are most anxious they should be insured. It is also far from being an uncommon practice for certain individuals to prevail on persons whom they happen to know, or believe to be bad lives, to insure; and then to get a legal assignment of the policy in their favour, on their giving the 'men of straw' a bonus for their share in the fraud. At all events, there can be no question that large numbers of such lives are perpetually offered for insurance; and every individual conversant with the business knows that, in despite of all precautions, policies are very frequently effected upon them. Mr. Milne, on whose judgment every reliance may be placed, states distinctly that 'all the caution and selection which the offices in general can exercise is necessary to keep the lives insured up to the average goodness of the bulk of the population.' (*Ency. Brit.*, new ed., art. 'Annuities.') Since the competition among the different offices became so very keen as it has been of late years, there are but few lives so bad that they will not be taken by one office or another; and we doubt, were the results of their experience made public, whether it would be found that there is much foundation for the opinion as to the superiority of insured lives.

With respect to the second condition in valuing an insurance, or the rate at which the interest of money may be estimated, it is impossible to arrive at anything like accurate conclusions. At an average, perhaps, transactions in life insurance may extend over a period of 30 years from the time when they are entered into; and in such a lengthened term the greatest changes may take place in the rate of profit and the rate of interest. Mr. Finlaison, of the National Debt Office, appears to think that 4½ per cent. may be taken as the true average rate in this country, and that 4½ is a rate at which no loss need be apprehended. (*Parl. Paper* No. 284, Sess. 1829.) But this is not a point on which (as Mr. Finlaison seems to suppose) previous experience can be safely depended upon in forming engagements for the future; and were this the proper place for entering upon such discussions, we think we could assign pretty solid grounds for concluding that no institution intended to last for the next half century would be warranted in reckoning upon realising more than 3 per cent. upon its investments. We should look upon this as the maximum, and of course could expect nothing but ruin to fall upon any institution founded upon the hypothesis of realising 4½ per cent. of interest. At the same time we would not be understood as laying any undue stress upon this opinion, and are ready to admit that there must always be more of conjecture than of certainty in such conclusions.

Security being the principal object to be aimed at by every insurance office established on sound principles, they would not act wisely if they did not calculate their premiums considerably higher than may appear necessary to those who look only at what has taken place since the beginning of this century. Societies contracting prospective engagements that may extend for half a century or more are exposed to innumerable unforeseen contingencies; and they would be highly censurable, and altogether unworthy of the public confidence, were they so to conduct their affairs that they might be liable to serious embarrassments from fluctuations in the rate of interest, or an increase of sickness, or any other cause. The success that has hitherto attended the Equitable, and some of the long-established offices, must not be taken as any criterion of what may befall them and others during the next 100 years. Mr. Morgan, the late able Actuary of the Equitable, in his account of the rise and progress of that institution, published in 1828, has satisfactorily shown that its peculiar prosperity has been in a very great degree owing to circumstances which cannot possibly occur again. The premium, for example, charged by the Society, so late as 1771, for insuring 100*l.* on the life of a person aged 30 was 4*l.* 1*s.* 5½*d.*, whereas it was then only 2*l.* 13*s.* 4*d.*; and there was a corresponding difference in the premiums for other ages. (p. 36.) But the excessive magnitude of the premiums was not the only extraordinary source of profit enjoyed by this Society in the earlier part of its career. We learn from the same unquestionable authority that *half the insurances made during the first twenty-five years of the Society's existence were abandoned by the insurers*, in many cases, after the premiums upon them had been paid for a considerable number of years, *without any valuable consideration being given for them by the Society!* (p. 38.) So copious a source of profit was alone adequate to enrich any society; but such things rarely occur now—people are become too familiar with life insurance, and sales of policies are of too frequent occurrence, to allow any office to realise anything considerable in this way. Now, we ask, can anyone who takes these facts into view, and couples them with the frugal and cautious management which has hitherto always distinguished the Equitable Society, be surprised at its success? and can anything be more absurd than to appeal to its experience in casting the horoscope of the societies that have sprung into existence within the last few years? But, independently of these considerations, there are other circumstances sufficient to account for the great success of some of the old offices. Since the close of the American war a very decided diminution has taken place in the rate of mortality; the public tranquillity has neither been disturbed by foreign invasion nor intestine commotion; cholera excepted, we have not been once visited by any epidemic disorder; and the investments in the funds, during the war made at from 50 to 60, may now (1868) be realised at upwards of 90. We do not presume to say that circumstances may not be even more advantageous for the insurance offices during the next half century; but we should not certainly

think very highly of the prudence of those who proceeded to insure on such an assumption. Security, we take leave again to repeat, is, in life insurance, the paramount consideration. It is, we believe, admitted on all hands that the premiums were at one time too high; but we doubt whether the tendency at present be not to sink them too low. A great relaxation has taken place, even in the most respectable offices, as to the selection of lives; and the advertisements daily appearing in the newspapers, and the practices known to be resorted to in different quarters to procure business, ought to make every prudent individual consider well what he is about before he decides upon the office with which he is to insure. Attractive statements, unless where they emanate from individuals of unquestionable character and science, ought not to go for much. Life insurance is one of the most deceptive of businesses; and offices may for a long time have all the appearance of prosperity, which are, notwithstanding, established on a very insecure foundation. If a man insure a house or a ship with a society, or an individual, of whose credit he gets doubtful, he will forthwith insure somewhere else. But life insurance is quite a different affair. The bargain is one that is not to be finally concluded for, perhaps, 50 years; and any inability on the part of an establishment in extensive business to make good its engagements would be productive of a degree of misery not easy to be imagined.

Life insurance companies are divided into three classes. The first class consists of joint-stock companies, who undertake to pay *fixed* sums upon the death of the individuals insuring with them; the profits made by such companies being wholly divided among the proprietors. The second class are also joint-stock companies, with proprietary bodies; but instead of undertaking, like the former, to pay certain specified sums upon the death of the insured, they allow the latter to participate, to a certain extent, along with the proprietors, in the profits made by the business. The mode in which this sort of *mixed* companies allot the profits granted to the insured is not the same in all; and in some, the principle on which the allotment is made is not disclosed. The Rock, Sun, Royal Exchange, Liverpool and London and Globe, Alliance, Guardian, Scottish Union &c. belong to this mixed class. The third species of company is that which is formed on the basis of mutual insurance. In this sort of company there is no proprietary body distinct from the insured; the latter share among themselves the whole profits of the concern, after deducting the expenses of management. The Equitable Society, the Norwich Union, Scottish Widows' Fund &c. belong to this class.

The advantage to a person insuring in any one office as compared with another must plainly depend on a comparison between the premiums demanded, the conditions of the policy, and, above all, the security which it holds out. It may appear, on a superficial view, as if the mutual insurance companies would be in all respects the most eligible to deal with, inasmuch as they have no proprietors to draw away any share of the profits from the insured. It is doubtful, however, whether this advantage be not more than balanced by disadvantages incident to such establishments. Every one being a partner in the concern, has not only his own life insured, but is part insurer of the lives of all the other members, and may in this capacity, should the affairs of the society get into disorder, incur some very serious responsibilities. The management, too, of such societies is very apt to get into the hands of a junto, and to be conducted without the greater number of those interested knowing anything of the matter. There is also considerable difficulty, in constituting such societies, in distinguishing clearly between the rights of old and new members; for supposing a society to be prosperous, it is but reasonable that those who have belonged to it while it has accumulated a large fund should object to new entrants participating in this advantage. But the affairs of a society conducted in this way, or making distinctions in the rights of the members during a long series of years, could hardly fail of becoming at last exceedingly complicated; nor is it, indeed, at all improbable that the conflicting claims of the parties in some of the societies of this sort now in existence may ultimately have to be adjusted in the courts of law, or by an Act of the Legislature.

Supposing the premiums demanded by the societies which retain the whole profits to themselves, to be fairly proportioned to the values insured, we should be inclined to think that they are, on the whole, the most advisable to insure in. The subscribed capital of such associations as the Royal Exchange, Sun, Scottish Union &c. and the wealth of the partners (which is all liable, except in the case of the chartered companies, to the claims of the insured) afford unquestionable security. Individuals dealing with them know exactly what they are about. They know the precise premiums they will have to pay, and the exact amount of the sums that will be paid to their assignees in the event of their death. They incur no responsibility of any kind whatever; for, unless some very unprecedented and unlooked-for change should take place in the condition of the country, they may reckon with certainty on the terms of the policy being fulfilled to the letter.

But, as already observed, everything depends, in matters of this sort, on a comparison of the premium with the advantages to be realised. And where the premiums are believed, either through carelessness or intentionally, in order to provide for the safety of the establishment, to be a little too high, it may be more expedient, perhaps, to deal with a mixed company. The subscribed capital and fortunes of the proprietary body afford a guarantee on which the public may depend in dealing with any *respectable* company of this sort; while by receiving a share of the profits, the insured gain by the flourishing condition of the association, and it is of less consequence to them though the premiums should be too high.

It should, however, be borne in mind, that an individual insuring with a mixed company, on condition of his getting a proportion of the profits, becomes a *partner of such company*; and being so, incurs responsibilities. In dealing with such associations as the Alliance, the Rock, Scottish Union, and a few others, this responsibility can hardly be said to amount to anything. But there are companies of this class in the field, and holding out very tempting baits to the unwary, those insured in which may find, at some future period, that this responsibility is by no means a light matter.

A highly respectable company of this mixed class, with a large subscribed capital—the Guardian—inserts in all its policies the following condition, viz.: 'That the responsibility of the individual members shall, in all cases, be limited to their respective shares.' It may be doubted whether this condition be good in law; but if it be, it materially affects the security afforded by the company, which otherwise would justly claim a place in the very first class of offices. As no one attempts to secure himself against a contingency which he is satisfied cannot happen, the existence of a condition of this sort implies a doubt on the part of the proprietary

body of the perfect solidity of the establishment. Such a doubt may be, and we believe really is, very ill-founded; but the public will, most likely, be inclined to think that the proprietors ought to know better than anyone else.

The allotment of profit to the insured made by the mixed companies is sometimes effected by a diminution of the premiums, and sometimes by increasing the sum in the policy; and individuals should, in dealing with such societies, select, other things being equal, the association with which to insure, according as they wish to insure a large sum, or to get the premiums reduced.

We subjoin, from Mr. Babbage's work on *Life Assurance*, the following statement of the terms of the various mixed companies, as to the division of the profits with the insured. They are, for the most part, exceedingly vague. (This work of Mr. Babbage contains a good deal of useful information, intermixed, however, with not a few errors and misstatements. It was most ably reviewed in the 90th Number of the *Edinburgh Review*.) We also subjoin an account of the conditions, in respect of profits, under which new entrants are admitted into the Equitable.

Alliance.—At the periods of participation of the Company in the profits of its concerns, every policy for the whole term of life, which shall have paid 5 entire annual premiums, shall, if the allowance be made in reduction of annual premium, be entitled to such reduction from the original charge as shall then, and from time to time, be declared; but if the allowance be in addition to the amount assured, that addition shall also be continually declared from time to time.

Persons assuring their own lives have the option of declaring at the time of effecting the assurance, whether they will participate in the profits by an addition to their policy, or by a reduction of premium.

Atlas.—Persons assuring for the whole term of life for 100*l.* and upwards, in Great Britain and Ireland respectively, will be entitled, at the end of every 5th year, to participate in the surplus premiums, to be then ascertained by actual valuation.

Crown.—Two-thirds of such profits as shall periodically be declared divisible will be apportioned amongst assurers for the whole term of life, and may be applied to the reduction of the future annual premiums, or to the increase of the sum assured, as may be desired.

Economic.—At present ⅘ of the savings and profits divided amongst the assured entitled to participate therein, by additions to their policies, proportioned to their respective contributions, and in order to afford them the immediate benefit of such additions, interest thereon applied annually in reduction of their premiums.

Equitable.—That in case any prospective addition shall hereafter be ordered to be made to the claims upon policies of assurance in this Society, such order shall not take effect with respect to any policy granted after December 31, 1816, until the assurances existing in the Society prior in number and date to such policy, and if of the same date, prior in the number thereof, shall be reduced to 5,000; but as soon as such reduction shall have been ascertained in manner hereinafter mentioned, the said policy shall be within the effect and operation of the order for such addition, as to the payments made thereon subsequent to such ascertained reduction; so that if such order should be made to take effect generally from January 1, 1820, for the space of 10 years then next following, a policy effected in the year 1817 shall not be within the operation of such order until the assurances existing prior to the number and date of the policy, as aforesaid, shall have been reduced to 5,000; but such policy shall be within the operation thereof from the time when the reduction shall have been ascertained, in manner hereinafter mentioned, as to the payments made thereon subsequent to such ascertained reduction. And the like as to other cases. And this by law shall be considered as a part of every such order, and shall be virtually incorporated therein, although the same may not be thereby expressly referred to.

That in case any retrospective addition shall hereafter be ordered to be made to claims upon policies of assurance in this Society, such order shall not take effect with respect to any policy granted after December 31, 1816, until the assurances existing in the Society prior in number and date, and if of the same date, prior in the number thereof, shall be reduced to 5,000; but when the said reduction shall have been ascertained in manner hereinafter mentioned, such policy shall be within the effect and operation, and entitled to the benefit of such order, with respect to every payment made thereon subsequent to such ascertained reduction; so that if such order shall be made to take effect generally as to payments made before January 1, 1820, a policy effected in the year 1817 shall not be within the effect and operation thereof, unless the life assured shall exist, and the payments continue to be made, until the assurances existing in the Society prior to the number and date of the policy, as aforesaid, shall be reduced to 5,000; but as soon as such reduction shall have been ascertained, in manner hereinafter mentioned, such policy shall be within the effect and operation of such order for the several payments made thereon as aforesaid. And the like as to other cases. And this by-law shall be considered as a part of every such order, and be virtually incorporated therein, although the same may not be thereby expressly referred to.

That an enquiry be made on April 1 in every year in order to ascertain the number of assurances made and existing in this Society; and when it shall have been ascertained by such enquiry that the assurances existing prior to January 1, 1817 were, on December 31 immediately preceding such enquiry, reduced below the number of 5,000, the actuary do report the same to the court of directors, who shall communicate such report to the quarterly general court, to be holden in the June following; and that as many of such policies as had been made subsequent to December 31, 1816, and which were existing in the Society on December 31 immediately preceding such enquiry, be added, according to the priority in their dates and numbers, and if of the same date, according to the priority in their numbers, to those above mentioned, as shall be sufficient to complete the number to 5,000; and that the persons holding the policies so added shall be considered thenceforward as entitled to such additions as shall be thereafter made in respect of all the payments made subsequent to such ascertained reduction, and, under the same restrictions, to the same privileges of attending at the general courts, and of being eligible to the office of director.

That after the vacant numbers in the assurances existing in the Society on Jan. 1, 1817, shall have been filled up agreeably to the foregoing order, the actuary, on April 1 in every succeeding year, do ascertain the vacancies which have taken place in the preceding year in the policies constituting the 5,000 mentioned in the 5th resolution, and report the same to the court of directors, who shall communicate such report to the quarterly general court in the month of June following;

and that as many policies shall be added, according to the priority of their dates and numbers, and if of the same date, according to the priority in their numbers, as shall be sufficient to complete the number to 5,000; and that the persons holding those policies shall thenceforward be considered as entitled to such additions as shall be thereafter made in respect of all payments made subsequent to the 31st of the preceding December, and, under the same restrictions, to the same privileges of attending the general courts, and being eligible to the office of director.

Provided that nothing hereby ordered shall be construed to authorise an addition to the sum assured by any policy, upon which policy the number of payments required in that respect by the present by-laws of the Society shall not have been made.

N.B.—Those by-laws require that 6 annual payments at the least shall have been made before any addition to a claim can take place; and when such payments shall have been made, the party will be qualified to be received, in his turn, into the number of persons entitled to additions as aforesaid.

Guardian.—Persons assured for the whole term of life will be entitled at the end of every 5 years to participate in the profits of the Company, after a deduction of such sum per annum, for the guarantee of the capital, as the directors may think reasonable; the extent of which is, however, limited by the deed of settlement.

The share of the profits to be so allowed to the insured may either be added to the amount of their respective policies, or the value thereof be applied in reduction of the premiums hereafter to be payable on such policies, provided such option be declared in writing within 3 calendar months next after the dividend shall have been declared; but if such option be not declared, such share of profits will be added to the amount of policies.

Hope.—The business of this office has been transferred to the Imperial.

Imperial.—Upon every policy effected for the whole term of life, the assured will participate in the profits of the Company by having periodical additions made to the sums insured to the amount of ⅘ of such clear gains and profits.

Law Life.—At stated periods, the surplus of the fund arising from the premiums of assurance, and their accumulation beyond what may be thought necessary to answer the expected claims upon the Society, will be ascertained; and as large a portion of the savings as may be deemed consistent with the security of the institution will be divided between the proprietors and the assured in the following manner:—½ will be transferred to the proprietors' guarantee fund; and reversionary sums, equivalent to the remaining ½, will be added to the policies of those who shall have been 3 years assured for the whole term of life.

London Life Association.—The distinguishing principle of this Society is, that the benefits resulting from its transactions shall be enjoyed by the members during life, so as to render life assurance as easy to the assured as a due regard to security will admit.

Medical and Clerical.—Persons assured for the whole term of life will be entitled to share with the original proprietors the general profits of the business, in proportion to the amount of their respective assurances.

Norwich Union.—The whole of the surplus premiums is added at stated periods to the policies of the members, in proportion to the sums they have respectively contributed.

Rock.—That the said bonus shall be short of the actual surplus profits at the time of making the same, by the sum of 5,000*l.* at least.

That the bonus so declared shall be divided into 3 equal parts.

That one of the said parts shall be added to and consolidated with the subscription capital stock. (This is the proprietors' fund.)

That the remaining ⅔ be allotted to the policies in the manner described in the deed.

That the sum to which any person assured by the Company may become entitled under any such distribution shall be paid by the Company without interest, at the time when the sum assured by the policy shall become payable, and not before.

Union.—Those who assure with this Company will participate with the proprietors in the profits of the establishment, which will be added every 7 years to the respective policies.

University.—As it is intended that the capital advanced shall be repaid to the shareholder with a bonus of 100*l.* per cent., ⅓ of the profits, when ascertained by a valuation of all existing risks, will every 5 years be applied to form a fund for that purpose.

The remaining ⅔ of the profits to be divided between the assured and the shareholder, in the proportion of 8 parts to the former and 1 to the latter.

The profit or bonus to the assured to be given either by a diminution of the rate of premium, or by an increase of the amount of policy, at the option of the party.

Westminster.—By a regulation taking effect from May 9, 1832, this Society makes a positive addition of 10 per cent. every 10th year to all sums insured on single lives, for the whole term of life, by policies issued after that date; but it no longer grants any new policies.

In order to hinder the growth of gambling transactions upon life insurance, it was judiciously enacted by stat. 14 Geo. III. c. 48 that—

No insurance shall be made by any person or persons, bodies politic or corporate, on the life or lives of any person or persons, or any other event or events whatsoever, where the person or persons, for whose use or benefit, or on whose account, such policy or policies shall be made, *shall have no interest*, or by way of gaining or wagering; and that every insurance made contrary to the true intent and meaning of this Act shall be null and void to all intents and purposes whatsoever. (Sec. 1.)

It shall not be lawful to make any policy or policies on the life or lives of any person or persons, or other event or events, *without inserting in such policy or policies the name or names of the person or persons interested therein, or for what use, benefit, or on whose account such policy is so made or underwrote.* (Sec. 2.)

In all cases where the insured has an interest in such life or lives, event or events, no greater sum shall be recovered or received from the insurer or insurers than the amount or value of the interest of the insured in such life or lives, or other event or events. (Sec. 3.)

A creditor has an insurable interest in the life of his debtor; but it was decided, in a case which arose out of a policy on the life of the late Mr. Pitt, that if, after the death of a debtor whose life is insured by a creditor, and before any action is brought on the policy, the debt be paid, no action will lie.

All insurance offices either insert in their policies or refer in them to a declaration signed by the insured, setting forth his age, or the age of the party upon whom he is making an insurance;

whether he has or has not had the small-pox, gout, &c.; 'that he is not afflicted with any disorder that tends to the shortening of life;' that this declaration is to be the basis of the contract between him and the society; and that, if there be any untrue averment in it, all the money paid to the society upon account of the insurance shall be forfeited to them. (See Form. *post.*)

The condition as to the party not being afflicted with any disorder that tends to the shortening of life is vague, and has given rise to a good deal of discussion. But it is now settled that this condition is sufficiently complied with if the insured be in a reasonably good state of health; and although he may be afflicted with some disease, yet if it can be shown that this disease does not tend to shorten life, and was not, in fact, the cause of the party's death, the insurer will not be exonerated: 'Such a warranty,' said Lord Mansfield, 'can never mean that a man has not in him the seeds of some disorder. We are all born with the seeds of mortality in us. The only question is, whether the insured was in a *reasonably good state of health*, and such a life as ought to be insured on common terms.' (Marshall *On Insurance*, book iii.; Park *On Insurance*, c. 22.)

Policies of life insurance must be on stamped paper, the duty being as follows: viz.—

When the sum insured shall not exceed 500*l.*, for every 50*l.*, and any fractional part of 50*l.*, 6*d.*

Exceeding 500*l.* and not exceeding 1,000*l.*, for every 100*l.* and any fractional part of 100*l.*, 1*s.*

Exceeding 1,000*l.*, for every 1,000*l.* and any fractional part of 1,000*l.*, 10*s.*

We subjoin a statement of the terms and conditions on which the Sun Life Assurance Society transacts business, and a copy of one of its policies upon the life of a person aged 30, insuring his own life for 1,000*l.* The conditions of most of the other societies are similar, and may be learned by any one, on applying either at the head offices in town or at their agents' in the country. The premiums demanded by the principal offices are exhibited in Table V.

Sun Life.—An assurance for a term of years, or for the whole continuance of life, is a contract on the part of the office to continue the assurance during that term, on the payment of a certain annual premium, but the assured may drop it whenever the end is answered for which the assurance was made.

An assurance for the whole duration of life may be effected either with or without participation in the profits of the society, and at an annual, half-yearly, or quarterly premium, at a premium payable during a limited number of years only, or at a single premium.

Conditions of Assurance.

Persons effecting assurances on the *lives of others* must have a pecuniary interest in the lives to the full amount assured.

Assurances effected by persons *on the lives of others* are not void in case of death by suicide, duelling, or the hands of justice.

In the event of the death by suicide, duelling, or the hands of justice, of persons to whom assurances have been granted *on their own lives*, the assurances, although void so far as respects such persons, remain in force so far as any other person or persons shall then have a bonâ fide interest therein, acquired three months previously to such decease by assignment, or legal or equitable lien, upon due proof of the value of such interest being made to the satisfaction of the managers, according to the claimant's debt or purchase-money, with interest, and premiums paid by him; and if any person assured upon his own life, and who shall have been so for at least five years, die by his own hands, and not *felo de se*, the managers are at liberty, if they think proper, to pay for the benefit of his family any sum not exceeding what the society would have paid for the purchase of his interest in the policy, if it had been surrendered to the society the day previous to his decease, provided the interest in such assurance then be in the assured, or in any trustee or trustees for him, or for his wife or children.

Assurances which have become void by non-payment of the premium within fifteen days after the time stipulated in the policy, may be renewed on production of satisfactory proof to the manager of the health of the person on whose life the assurance was made, and payment of the premium within three calendar months, together with the additional sum of 10*s.* upon every 100*l.* assured by the policy.

Claims are paid within three months after certificates (according to the required forms) of the death and burial of the deceased are approved by the managers.

No assurance can take place until the first payment is made.

A certificate of birth or baptism should be produced, if possible, before the policy is issued.

Name of the life to be assured,
Profession or occupation,
Present residence,
Place of birth,
Date of birth,
Age next birth-day,
Sum,
Term,
Name and addition of the usual medical attendant of the life proposed,
Name and addition of two non-medical referees.

Has your medical referee often attended you professionally?

When did he last see you professionally, and for what complaint or disease?

Has he ever attended you for any serious illness?

What was the nature of it?

Have you ever had any serious illness?

What was the nature of it?

By whom were you then attended?

Have you ever had rheumatic fever, gout, asthma, or any fit or fits?

Have you ever been afflicted with rupture?

Have you ever exhibited any symptom of consumption or other disease of the lungs?

Are your parents living?

If not, state the diseases of which they died and their ages at the time of death?

How many brothers and sisters have you had?

Have you lost any?—if so, state the number; the diseases of which they died; and their ages at the time of death.

Have any of your near relations died of consumption of the lungs, or other pulmonary disease? If so, state the relationship, and the ages at which they died.

Are you afflicted with any disorder tending to shorten life?

Are you afflicted with disease or disorder of any kind?

What is the state of your health generally?

Have you had the small-pox or been vaccinated?

Has your life been declined by any other assurance office, or accepted at an increased rate of premium?

I do hereby certify that I am now in good health, that I do ordinarily enjoy a good state of health, that I am sober and temperate in my habits of life, and that I am not aware of any circumstance tending to shorten my life or to render an assurance on it more than usually hazardous.

And I do hereby further certify that I have had occasion for medical advice or assistance during the last

Also that I know no other medical practitioner so competent to certify as to my health, habits, and constitution as to whom I have referred.

In whose name is the policy desired,

Signed

Date of proposal,

Annual notices to be sent to

Declaration to be made and signed by or on behalf of a person who proposes to make an assurance on the life of another.

I described on the other side hereof, being desirous of assuring with the Sun Life Assurance Society the sum of £ on the life of also described on the other side, do hereby declare that I have an interest in h life to the full amount of the said sum of £ ; that to the best of my knowledge and belief h age does not exceed* years; that he is now in good health, that he does ordinarily enjoy a good state of health, that he is sober and temperate in h habits of life, that the whole of the statements on the other side hereof are true, and that I am not aware of any other circumstance tending to shorten h life, or to render an assurance on it more than usually hazardous; and this declaration is to be the basis of the contract between me and the said society; and if any untrue averment is contained in this declaration, or in the statements on the other side hereof, in setting forth h age, state of health, habits, profession, occupation, or other circumstances, then all moneys which shall have been paid to the society upon account of the assurance made in consequence thereof shall be forfeited.

Dated the day of 18

Witness *Signed*

Policy by the Sun Life Assurance Society for 1,000l. on the Life of A. B., aged thirty, insuring his own life.

No.

SUN LIFE ASSURANCE SOCIETY.

This policy of assurance witnesseth, that, whereas A. B. Esq., of —— Square, London, being desirous of making an assurance upon his own life for the whole duration thereof, and having subscribed, or caused to be subscribed, and delivered into this office, a declaration setting forth his ordinary and present state of health, wherein it is declared that the age of the said A. B. did not then exceed 30 years; and having paid to the managers for the Sun Life Assurance Society, at their office in the city of London, the sum of twenty-four pounds eleven shillings and eight-pence sterling, as a consideration for the assurance of the sum undermentioned for *one year* from the twentieth day of January, 1843:

Now know all men by these presents, that in case the said assured shall happen to die at any time within the term of *one year*, as above set forth, the stock and funds of this Society shall be subject and liable to pay and make good to the executors, administrators, or assigns of the said assured, within three months after the demise of the said assured shall have been duly certified to the managers aforesaid, at their said office, the sum of one thousand pounds sterling, of lawful money of Great Britain, with such addition or additions as the managers for the said Society may from time to time make thereto, under the powers vested in them by an Act of Parliament made and passed in the seventh year of King William IV. cap. 47.

It is hereby agreed that this policy may continue in force from *year* to *year*, until the expiration of the term first above-mentioned, provided that the said assured shall duly pay, or cause to be paid, to the managers, at their said office, on or before the nineteenth day of October next ensuing, the sum of twenty-four pounds eleven shillings and eight-pence sterling, and the like sum annually, on or before the day aforesaid; which annual payments shall be accepted, at every such period, as a full consideration for such assurance.

And it is hereby further agreed that the assurance by this policy shall be extended during peace to the risk of the above-named A. B. Esq., dying upon the sea in passing between any one part of Europe to any other part of Europe.

Provided nevertheless, that should the said assured, within the term for which this policy is granted, depart beyond the limits of Europe, die upon the seas (except as above stated), or engage in any military or naval service whatsoever, other than in the militia or in any yeomanry or volunteer corps acting within the United Kingdom of Great Britain and Ireland; or should the assurance have been obtained through any misrepresentation of the age, state of health, or description of the said assured; or should the said assured die by duelling, suicide, or the hands of justice; then this policy, and every thing appertaining thereto, shall cease, be void, and of none effect, so far as respects the said assured; but in case the said assured die by suicide, duelling, or the hands of justice, this policy shall remain in force so far as any other person or persons shall then have a bonâ fide interest therein, acquired three months previously to such decease by assignment, or by legal or equitable lien, upon due proof of the value of such interest being made to the satisfaction of the managers according to the claimant's debt or purchase money, with interest, and premiums paid by him. And if the said assured shall have been so for at least five years, and shall die by own hands, and not *felo de se*, the managers shall be at liberty, if they shall think proper, to pay for the benefit of family any sum not exceeding what the Society would have paid for the purchase of interest in the policy if it had been surrendered to the Society the day previous to decease, provided such interest shall then be in the assured, or in any trustee or trustees for .

In witness whereof, we, three of the managers for the said Society, have hereunto set our hands and seals, this day of 18 .

N.B. This Society is in no case bound by notice of any assignment of this policy, unless the same be delivered in writing at their office in Threadneedle Street, London.

Signed, sealed, and delivered, being first duly stamped, in the presence of

The following are the premiums demanded by the Sun Life Assurance Society for insurances on joint lives and survivorships.

* Insert age next birthday.

III.—*Joint Lives (with Profits).—A Table of Annual Premiums payable during the Joint Continuance of 2 Lives, for assuring* 100*l.*, *to be paid as soon as either of the two shall drop.*

Age next Birthday	Age next Birthday	Annual Premium £ s. d.	Age next Birthday	Age next Birthday	Annual Premium £ s. d.
10	10	2 7 5	25	50	5 14 7
	15	2 11 0		55	6 19 7
	20	2 14 6		60	8 13 11
	25	2 19 4	30	30	3 19 10
	30	3 5 3		35	4 5 6
	35	3 11 11		40	4 13 10
	40	4 1 1		45	5 3 2
	45	4 11 5		50	5 14 3
	50	5 7 2		55	7 3 1
	55	6 12 5		60	8 17 5
	60	8 6 11			
15	15	2 14 5	35	35	4 10 9
	20	2 17 9		40	4 18 6
	25	3 2 5		45	5 7 5
	30	3 8 3		50	6 1 11
	35	3 14 9		55	7 6 5
	40	4 3 10		60	9 0 6
	45	4 14 0			
	50	5 9 8	40	40	5 5 8
	55	6 14 11		45	5 13 10
	60	8 9 6		50	6 7 9
				55	7 11 8
20	20	3 0 11		60	9 5 5
	25	3 5 4			
	30	3 10 11	45	45	6 1 0
	35	3 17 3		50	6 13 11
	40	4 6 1		55	7 16 11
	45	4 16 1		60	9 9 8
	50	5 11 7			
	55	6 16 8	50	50	7 3 6
	60	8 11 1		55	8 7 4
				60	9 18 11
† 25	25	3 9 6			
	30	3 14 10	55	55	9 8 2
	35	4 0 11		60	10 18 11
	40	4 9 6			
	45	4 19 3	60	60	12 8 10

IV.—*Survivorships (without Profits).—A Table of Annual Premiums payable during the Joint Continuance of the 2 Lives, for assuring* 100*l.*, *to be paid at the decease of* 1 *person A, provided another B be then living.*

Age of A, the Life to be Assured	Age of B, the Life against which the Assurance is to be made	Annual Premium £ s. d.	Age of A, the Life to be Assured	Age of B, the Life against which the Assurance is to be made	Annual Premium £ s. d.
10	10	1 1 5	40	10	2 15 8
	20	1 2 2		20	2 15 7
	30	1 0 7		30	2 9 10
	40	0 19 5		40	2 7 7
	50	0 18 0		50	2 1 7
	60	0 16 7		60	1 16 6
	70	0 15 3		70	1 12 8
	80	0 14 1		80	1 10 2
20	10	1 7 0	50	10	3 18 6
	20	1 7 6		20	3 18 4
	30	1 6 0		30	3 15 0
	40	1 4 0		40	3 13 6
	50	1 2 2		50	3 5 6
	60	1 0 5		60	2 16 5
	70	0 18 9		70	2 6 5
	80	0 17 4		80	1 18 11
30	10	1 18 3	60	10	6 13 8
	20	1 17 11		20	6 13 7
	30	1 16 0		30	6 10 9
	40	1 14 8		40	6 10 6
	50	1 11 6		50	6 3 9
	60	1 9 0		60	5 12 0
	70	1 6 11		70	4 17 10
	80	1 4 8		80	4 4 11

From the specimens of premiums in the two preceding tables, the reader will easily judge of the proportional premium for any combination of two ages not inserted in them.

Equitable Assurance Society.—The following is the declaration required to be made and signed in the office, by or on the behalf of a person who proposes to make an assurance on his or her own life:—

I being desirous of becoming a member of the Society for Equitable Assurances on Lives and Survivorships, and intending to make assurance in the sum of upon and for the continuance of my own life, and having perused and considered that clause of the deed of settlement of the said Society which requires a declaration in writing of the age, state of health, and other circumstances attending the person whose life shall be proposed to be assured, do hereby declare and set forth, That my age does not exceed ; that I have had the small-pox; and have had the gout; and that I am not afflicted with any disorder which tends to the shortening of life; and I do hereby agree that this declaration be the basis of the contract between the said Society and me, and that if any untrue averment is contained in this declaration, all moneys which shall have been paid to the Society upon account of the assurance made in consequence thereof shall be forfeited. Dated the day of in the year of our Lord .

The following are the premiums demanded by the Equitable Society for insuring 100*l.*, or an equivalent annuity on the contingency of one life's surviving the other:—

Ages		Premium	Annuity equivalent to 100*l.* to be paid from the Death of the Life assured, during the remainder of the other Life
Life to be Assured	Life against which the Assurance is to be made	£ s. d.	£ s. d.
10	10	1 8 6	5 14 6
	20	1 9 1	6 14 10
	30	1 8 3	7 14 11
	40	1 7 8	9 5 6
	50	1 6 11	11 15 0
	60	1 6 0	15 13 5
	70	1 4 11	23 13 0
	80	1 3 4	40 10 8
20	10	1 16 6	5 6 11
	20	1 17 0	6 4 1
	30	1 15 9	7 0 6
	40	1 14 8	8 4 11
	50	1 13 6	10 1 9
	60	1 12 1	13 0 7
	70	1 10 6	18 12 8
	80	1 8 3	30 9 6
30	10	2 5 5	5 5 8
	20	2 6 0	6 2 9
	30	2 4 6	6 19 6
	40	2 2 9	8 3 8
	50	2 0 11	10 0 6
	60	1 18 10	13 0 0
	70	1 16 7	18 12 10
	80	1 15 9	30 9 3
40	10	2 19 2	5 3 6
	20	2 19 10	5 19 9
	30	2 18 2	6 16 8
	40	2 15 11	8 1 0
	50	2 12 10	9 16 6
	60	2 9 4	12 14 3
	70	2 5 11	18 5 6
	80	2 1 10	29 19 10
50	10	4 0 11	5 1 4
	20	4 1 10	5 16 2
	30	4 0 1	6 12 2
	40	3 17 10	7 16 9
	50	3 13 10	9 12 8
	60	3 7 7	12 6 8
	70	3 1 6	17 11 5
	80	2 15 0	28 12 6
60	10	5 16 9	4 19 3
	20	5 18 1	5 12 10
	30	5 16 3	6 7 7
	40	5 14 0	7 10 10
	50	5 10 7	9 8 0
	60	5 7 4	12 5 6
	70	4 19 10	17 5 8
	80	4 17 11	27 19 10
70	10	8 1 0	4 17 8
	20	8 2 9	5 10 3
	30	8 0 10	6 4 0
	40	7 14 7	7 5 5
	50	7 15 6	9 0 8
	60	7 8 8	12 0 3
	70	6 19 8	17 1 8
	80	5 8 9	27 5 11

An addition of 22 per cent., *computed upon the premium*, is charged upon military persons; and an addition of *eleven per cent.* on officers on half-pay, officers in the militia, fencibles, and the like levies; also on persons not having had the small-pox, or having had the gout.

Persons preferring the payment of a gross sum or single premium upon an assurance for any cer-

V.—Premiums demanded by the principal Life Insurance Societies for insuring 100*l. at every different Age from* 15 *to* 60, *for the whole Term of Life.*

Age	Alliance and Sun	Amicable	Crown	Economic	Equitable	Eagle		Guardian	Age
						Male	Female		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
15	1 14 8	1 15 6	1 15 9	1 10 8	1 18 7	1 18 9	—	1 16 2	15
16	1 13 6	1 16 6	1 16 7	1 11 5	1 19 8	1 19 7	—	1 17 2	16
17	1 14 3	1 17 6	1 17 5	1 12 3	2 0 8	2 0 5	—	1 18 2	17
18	1 15 1	1 18 6	1 18 3	1 13 0	2 1 8	2 1 4	—	1 19 2	18
19	1 16 0	1 19 6	1 19 1	1 13 10	2 2 8	2 2 3	—	2 0 1	19
20	1 16 11	2 0 6	1 19 11	1 14 7	2 3 7	2 3 2	1 12 7	2 1 0	20
21	1 17 11	2 1 6	2 0 10	1 15 5	2 4 6	2 4 1	1 13 5	2 1 10	21
22	1 18 11	2 2 6	2 1 9	1 16 3	2 5 4	2 5 3	1 14 4	2 2 8	22
23	2 0 1	2 3 6	2 2 9	1 17 2	2 6 3	2 6 4	1 15 4	2 3 6	23
24	2 1 3	2 4 6	2 3 9	1 18 1	2 7 1	2 7 5	1 16 5	2 4 5	24
25	2 2 6	2 5 6	2 4 10	1 19 0	2 8 1	2 8 7	1 17 6	2 5 4	25
26	2 3 9	2 6 6	2 5 10	2 0 0	2 9 1	2 9 9	1 18 8	2 6 4	26
27	2 5 0	2 7 6	2 6 11	2 1 0	2 10 1	2 11 0	1 19 9	2 7 4	27
28	2 6 7	2 8 6	2 8 0	2 2 0	2 11 1	2 12 3	2 0 9	2 8 4	28
29	2 7 11	2 9 6	2 9 2	2 3 1	2 12 3	2 13 7	2 1 8	2 9 6	29
30	2 9 2	2 10 6	2 10 4	2 4 3	2 13 5	2 15 0	2 2 6	2 10 7	30
31	2 10 6	2 11 6	2 11 6	2 5 5	2 14 7	2 16 6	2 3 4	2 11 10	31
32	2 11 10	2 12 6	2 12 9	2 6 8	2 15 9	2 18 0	2 5 10	3 1 0	32
33	2 13 4	2 14 0	2 14 0	2 8 0	2 17 1	2 19 9	2 4 4	2 14 4	33
34	2 14 11	2 15 6	2 15 4	2 9 3	2 18 5	3 1 6	2 6 0	2 15 8	34
35	2 16 8	2 17 0	2 16 9	2 10 5	2 19 10	3 3 4	2 7 8	2 17 0	35
36	2 18 5	2 18 6	2 18 2	2 12 6	3 1 4	3 5 5	2 9 2	2 18 6	36
37	3 0 4	3 0 0	2 19 10	2 14 2	3 2 10	3 7 7	2 10 8	3 0 0	37
38	3 2 4	3 1 6	3 1 2	2 15 11	3 4 6	3 9 10	2 12 2	3 1 7	38
39	3 4 5	3 3 0	3 2 10	2 17 9	3 6 2	3 12 4	2 13 8	3 3 3	39
40	3 6 6	3 5 0	3 4 7	2 19 9	3 7 11	3 15 0	2 15 0	3 5 0	40
41	3 8 7	3 7 6	3 6 5	3 1 10	3 9 9	3 17 9	2 16 11	3 6 9	41
42	3 10 9	3 10 0	3 8 4	3 4 1	3 11 8	4 1 0	2 18 6	3 8 8	42
43	3 12 11	3 12 6	3 10 6	3 6 6	3 13 8	4 4 4	2 15 3	3 10 8	43
44	3 15 3	3 15 6	3 12 8	3 9 0	3 15 9	4 7 11	2 14 7	3 12 8	44
45	3 17 8	3 18 6	3 15 0	3 11 9	3 17 11	4 11 8	2 16 0	3 14 11	45
46	4 0 5	4 1 6	3 17 6	3 14 7	4 0 2	4 15 9	2 17 6	3 17 3	46
47	4 3 3	4 5 0	4 0 1	3 17 8	4 2 7	5 0 0	2 19 1	3 19 8	47
48	4 6 6	4 9 0	4 3 0	4 0 11	4 5 1	5 5 6	3 0 9	4 2 4	48
49	4 10 2	4 13 6	4 5 10	4 4 4	4 7 10	5 9 6	3 2 6	4 5 1	49
50	4 14 2	4 16 6	4 8 11	4 8 0	4 10 8	5 14 7	3 4 4	4 8 0	50
51	4 18 9	5 0 0	4 12 1	4 11 11	4 13 6	6 0 3	3 6 3	4 11 0	51
52	5 3 6	5 4 6	4 15 3	4 16 1	4 16 5	6 6 1	3 8 4	4 14 2	52
53	5 8 7	5 8 6	4 18 6	5 0 6	4 19 7	6 12 9	3 10 8	4 17 5	53
54	5 14 1	5 13 0	5 1 11	5 5 3	5 2 10	6 19 9	3 13 0	5 0 11	54
55	5 19 11	5 18 0	5 5 17	5 10 3	5 6 4	7 7 2	3 15 8	5 4 8	55
56	6 6 4	6 3 0	5 9 6	5 15 7	5 10 1	7 15 1	3 18 6	5 8 7	56
57	6 13 2	6 8 6	5 13 6	6 1 3	5 14 0	8 3 6	4 1 7	5 12 10	57
58	7 0 5	6 14 0	5 18 0	6 7 4	5 18 2	8 12 7	4 5 0	5 17 4	58
59	7 7 9	7 0 0	6 2 4	6 13 9	6 2 8	9 2 4	4 8 7	6 2 2	59
60	7 14 11	7 6 6	6 7 2	7 0 7	6 7 4	9 13 0	4 12 4	6 7 2	60

Age	London, Birchin Lane	London, Life for Members	Norwich	Pelican	Promoter	University	West of England	Scottish Widows' Fund	Scottish Union	Age
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
15	—	—	1 14 9	1 11 11	1 7 11	1 16 8	1 14 9	1 16 5	1 12 11	15
16	1 12 1	—	1 15 9	1 12 9	1 8 8	1 17 9	1 15 9	1 17 5	1 13 11	16
17	1 13 1	—	1 16 9	1 13 6	1 9 5	1 18 8	1 16 8	1 18 6	1 15 0	17
18	1 19 0	—	1 17 8	1 14 4	1 10 2	1 19 7	1 17 7	1 19 7	1 16 1	18
19	1 19 11	—	1 18 6	1 15 3	1 10 11	2 0 7	1 18 6	2 0 7	1 17 3	19
20	2 0 9	—	1 19 6	1 16 1	1 11 8	2 1 5	1 19 5	2 1 6	1 18 5	20
21	2 1 5	2 4 4	2 0 6	1 16 10	1 12 6	2 2 4	2 0 0	2 2 5	1 19 7	21
22	2 2 0	2 5 6	2 1 3	1 17 7	1 13 5	2 3 1	2 0 10	2 3 5	2 0 9	22
23	2 2 7	2 6 6	2 2 0	1 18 4	1 14 4	2 4 0	2 1 3	2 4 3	2 1 11	23
24	2 3 1	2 7 0	2 2 9	1 19 2	1 15 3	2 4 9	2 2 6	2 4 11	2 3 1	24
25	2 3 8	2 8 0	2 3 5	2 0 1	1 16 3	2 5 8	2 3 3	2 5 10	2 4 3	25
26	2 4 3	2 9 0	2 4 3	2 1 5	1 17 6	2 6 8	2 4 0	2 6 10	2 5 4	26
27	2 5 1	2 10 0	2 5 3	2 2 7	1 18 8	2 7 7	2 5 0	2 7 10	2 6 5	27
28	2 5 11	2 11 0	2 6 3	2 3 11	1 19 11	2 8 7	2 6 0	2 8 11	2 7 7	28
29	2 6 10	2 12 6	2 7 3	2 5 2	2 1 1	2 9 8	2 7 0	2 10 0	2 8 9	29
30	2 7 10	2 13 6	2 8 3	2 6 4	2 2 3	2 10 9	2 8 0	2 11 1	2 9 11	30
31	2 8 10	2 14 6	2 9 3	2 7 7	2 3 6	2 11 11	2 9 0	2 12 3	2 11 3	31
32	2 9 11	2 16 0	2 10 4	2 8 11	2 4 8	2 13 0	2 10 3	2 13 6	2 12 6	32
33	2 11 1	2 17 0	2 11 5	2 10 3	2 5 8	2 14 3	2 11 3	2 14 9	2 13 10	33
34	2 12 4	2 18 6	2 12 6	2 11 9	2 7 1	2 15 6	2 12 9	2 16 1	2 15 3	34
35	2 13 8	3 0 0	2 13 6	2 13 5	2 8 7	2 16 11	2 13 10	2 17 6	2 16 9	35
36	2 15 1	3 1 6	2 14 8	2 15 1	2 10 1	2 18 4	2 15 3	2 19 0	2 18 3	36
37	2 16 8	3 3 0	2 15 9	2 16 10	2 11 8	2 19 9	2 16 8	3 0 6	2 19 10	37
38	2 18 2	3 4 6	2 17 0	2 18 8	2 13 6	3 1 4	2 18 0	3 2 7	3 1 6	38
39	2 19 11	3 6 0	2 18 3	3 0 6	2 15 2	3 2 11	2 19 6	3 3 9	3 3 3	39
40	3 1 8	3 8 0	2 19 6	3 2 8	2 17 0	3 4 7	3 1 3	3 5 6	3 5 0	40
41	3 3 6	3 10 0	3 0 9	3 5 2	2 18 10	3 6 4	3 2 10	3 7 3	3 6 10	41
42	3 5 6	3 12 0	3 2 0	3 7 8	3 0 8	3 8 1	3 4 6	3 9 3	3 8 9	42
43	3 7 8	3 14 0	3 3 3	3 10 4	3 2 6	3 10 0	3 6 4	3 11 3	3 10 10	43
44	3 10 0	3 16 0	3 4 9	3 13 1	3 4 6	3 12 0	3 8 3	3 13 4	3 13 1	44
45	3 12 6	3 18 0	3 6 3	3 16 1	3 6 7	3 14 1	3 10 3	3 15 6	3 15 4	45
46	3 15 2	4 0 0	3 8 0	3 19 4	3 8 11	3 16 2	3 12 2	3 17 9	3 17 5	46
47	3 18 2	4 2 6	3 10 3	4 1 6	3 11 5	3 18 6	3 14 6	4 0 3	3 19 10	47
48	4 1 5	4 5 0	3 12 6	4 4 8	3 13 2	4 1 4	3 16 9	4 2 9	4 2 4	48
49	4 4 10	4 8 0	3 14 9	4 8 2	3 17 3	4 4 4	3 19 3	4 5 6	4 5 0	49
50	4 8 5	4 11 0	4 0 0	4 12 2	4 0 8	4 7 6	4 1 8	4 8 4	4 7 9	50
51	4 12 3	4 14 0	4 3 3	4 16 4	4 4 7	4 10 9	4 4 8	4 11 2	—	51
52	4 16 1	4 17 0	4 6 8	5 0 7	4 8 8	4 14 1	4 7 9	4 14 2	4 16 7	52
53	5 0 1	5 0 6	4 10 0	5 5 4	4 13 1	4 17 8	4 11 0	4 17 4	—	53
54	5 5 2	5 5 0	5 1 6	5 11 7	4 17 10	5 1 4	4 14 9	5 0 8	5 4 10	54
55	5 10 4	5 9 6	5 5 3	5 17 4	5 2 9	5 5 4	4 15 9	5 4 2	—	55
56	5 15 8	5 14 0	5 9 6	6 3 7	5 8 4	5 9 7	4 19 0	5 7 11	5 14 0	56
57	5 17 7	5 19 0	5 13 6	6 10 4	5 14 2	5 14 0	5 2 6	5 11 11	—	57
58	6 1 10	6 4 0	5 17 8	6 16 4	6 0 4	5 18 2	5 6 6	5 16 1	6 4 4	58
59	6 6 10	6 9 6	6 2 6	7 4 6	6 6 7	6 2 8	5 10 6	6 0 7	—	59
60	6 12 2	6 15 0	6 7 5	7 11 7	6 12 10	6 7 4	5 14 9	6 5 4	6 15 9	60

tain term are chargeable in a due proportion to the annual premium for such term.

Every person making any assurance with the Society pays 5*s.* in the name of entrance money; and if the sum assured exceeds 100*l.*, the entrance money is charged after the rate of 5*s.* for every 100*l.* But if the person upon whose life an assurance is proposed does not appear before the directors, the entrance money is charged after the rate of 1*l.* for every 100*l.*

It is stated by Mr. Morgan, in his Account of the Equitable Society already referred to, that the number of insurances in that institution for terms of years does not much exceed the *one*

VI.—*A Table of Annual Premiums payable during the Continuance of Two Joint Lives for Assuring One Hundred Pounds, to be paid when either of the Lives shall drop.*

Age	Age	Amount	Age	Age	Amount	Age	Age	Amount	Age	Age	Amount	Age	Age	Amount
		£ s. d.			£ s. d.			£ s. d.			£ s. d.			£ s. d.
10	10	2 17 1	15	35	4 5 1	20	67	9 13 9	30	60	7 15 0	45	45	6 7 4
	15	3 1 1		40	4 10 4	25	25	4 0 10		67	9 18 1		50	6 17 9
	20	3 6 7		45	4 19 5		30	4 5 0	35	35	4 19 0		55	7 11 0
	25	3 9 5		50	5 11 3		35	4 10 3		50	5 5 6		60	8 9 6
	30	3 13 9		55	6 6 1		40	4 17 4		45	5 18 10		67	10 21 1
	35	3 19 6		60	7 6 0		45	5 6 2		50	6 5 0	50	50	7 7 8
	40	4 6 10		67	9 9 5		50	5 17 10		55	6 19 2		55	8 0 5
	45	4 15 11	20	20	3 13 11		55	6 12 6		60	7 18 6		60	8 18 2
	50	5 7 10		25	3 17 5		60	7 12 5		67	10 1 2		67	10 18 10
	55	6 2 8		30	4 1 9		67	9 15 9	40	40	5 11 9	55	55	8 12 2
	60	7 2 9		35	4 7 3	30	30	4 8 11		45	5 19 9		60	9 9 0
	67	9 6 3		40	4 14 6		35	4 14 1		50	6 10 8		67	11 8 5
15	15	3 5 0		45	5 3 6		40	5 0 11		55	7 4 5	60	60	10 4 9
	20	3 9 6		50	5 15 4		45	5 9 6		60	8 3 4		67	12 2 1
	25	3 13 1		55	6 10 2		50	6 1 0		67	10 5 6	67	67	15 15 8
	30	3 17 6		60	7 10 2		55	6 15 5						

hundredth part of those for the whole period of life; and that the business of the office at present is almost wholly confined to the assurance of persons *on their own lives*—those on the lives of *others*, whether for terms or for continuance, being, in consequence of the commission money allowed to agents and attorneys, engrossed by the new offices. (*Account of the Equitable Society*, p. 53.)

Form of a Proposal to be presented to a Weekly Court of Directors.

Name and profession of the life to be assured.
Place and date of birth.
Place of residence.
Age. Sum. Term.
By whom made.

To give reference to two persons of good repute (one, if possible, of the medical profession) to ascertain the present and general state of health of the life to be assured.

If had the small-pox. If vaccinated.
If afflicted with the gout. If ever ruptured.

Parties who do not appear before the Court of Directors are required to give a reference to three persons for an account of the present and general state of their health.

The following is the clause which is referred to in the declaration:—

That every person desirous of making assurance with the Society shall sign or execute a declaration in writing (in the presence of one credible witness, who shall attest the same), setting forth the age, state of health, profession, occupation, and other circumstances attending the person or persons whose life or lives shall be proposed to be assured; which declaration shall be the basis of the contract between the said Society and the person desiring to make assurance with them; in which declaration if any artful, false, or fraudulent representation shall be used, and the same shall at any time thereafter be discovered, from thenceforth the sums which shall have been paid to the Society on account of any assurance so fraudulently obtained shall be forfeited to the use of the Society; and all claims to be made on that behalf shall cease, determine, and be void, to all intents and purposes whatsoever.

INTEREST AND ANNUITIES. Interest is the sum paid by the borrower of a sum of money, or of any sort of valuable produce, to the lender, for its use.

The rate of interest, supposing the security for and facility of re-possessing the principal, or sum lent, to be equal, must obviously depend on what may be made by the employment of capital in industrious undertakings, or on the rate of profit. Where profits are high, as in the United States, interest is also high; and where they are comparatively low, as in Holland and England, interest is proportionally low. In fact, the rate of interest is nothing more than the *nett* profit on capital: whatever returns are obtained by the borrower, beyond the interest he has agreed to pay, really accrue to him on account of risk, trouble, or skill, or of advantages of situation and connection.

But besides fluctuations in the rate of interest caused by the varying productiveness of industry, the rate of interest on each particular loan must, of course, vary according to the supposed solvency of the borrowers, or the degree of risk supposed to be incurred by the lender, of either not recovering payment at all, or not recovering it at the stipulated term. No person of sound mind would lend on the personal security of an individual of doubtful character and solvency, and on mortgage over a valuable estate, at the same rate of interest. Wherever there is risk, it must be compensated to the lender by a higher premium or interest.

And yet, obvious as this principle may appear, all governments have interfered with the adjustment of the terms of loans: some to prohibit interest altogether, and others to fix certain rates which it should be deemed legal to charge, and illegal to exceed. The prejudice against taking interest seems to have principally originated in a mistaken view of some enactments of the Mosaical law (see Michaelis *On the Laws of Moses*, vol. ii. pp. 327—353, Eng. ed.), and a statement of Aristotle to the effect that, as money did not produce money, no return could be equitably claimed by the lender! But whatever may have been the origin of this prejudice, it was formerly universal in Christendom, and is still supported by law in all Mohammedan countries. The famous reformer Calvin was one of the first who saw and exposed the absurdity of such notions (see an extract from one of his epistles in *Principles of Political Economy*, by the author of this work, 3rd ed. p. 520); and the abuses caused by the prohibition, and the growing conviction of its impolicy, soon after led to its relaxation. In 1554 a statute was passed authorising lenders to charge 10 per cent. interest; in 1624 the legal rate was reduced to 8 per cent.; and in the reign of Queen Anne it was further reduced to 5 per cent., at which it still continues. It is enacted, by the statute (12 Anne c. 16) making this reduction, that 'all persons who shall receive, by means of any corrupt bargain, loan, exchange, chevizance, or interest of any wares, merchandise, or other thing whatever, or by any deceitful way or means, or by any covin, engine, or deceitful conveyance for the forbearing or giving day of payment, for one whole year for their money or other thing, above the sum of 5*l.* for 100*l.* for a year, shall forfeit for every such offence the *treble* value of the moneys, or other things, so lent, bargained' &c.

It is needless to waste the reader's time by entering into any lengthened arguments to show the inexpediency and mischievous effect of such interferences. This has been done over and over again. It is plainly in no respect more desirable to limit the rate of interest than it would be to limit the rate of insurance, or the prices of commodities; and though it were desirable, it cannot be accomplished. The real effect of all legislative enactments having such an object in view is to increase, not diminish, the rate of interest. When the rate fixed by law is less than the market or customary rate, lenders and borrowers are obliged to resort to circuitous devices to evade the law; and as these devices are always attended with more or less trouble and risk, the rate of interest is proportionally enhanced. During the war ended 1815 it was not uncommon for a person to be paying 10 or 12 per cent. for a loan, which, had there been no usury laws, he might have got for 6 or 7 per cent. Neither was it by any means uncommon, when the rate fixed by law was more than the market rate, for borrowers to be obliged to pay more than they really stipulated for. It is singular that an enactment which contradicted the most obvious principles, and had been repeatedly condemned by committees of the Legislature, should have been allowed to preserve a place in the Statute Book for so long a period; but at length it was substantially repealed by the Act 2 & 3 Vict. c. 37, which exempts bills of exchange not having more than 12 months to run, and contracts for loans of money above 10*l.*, from its operation.

Distinction of Simple and Compound Interest.—When a loan is made, it is usual to stipulate that the interest upon it should be regularly paid at the end of every year, half-year &c. A loan of this sort is said to be at simple interest. It is of the essence of such loan that no part of the interest accruing upon it should be added to the principal to form a new principal; and though payment of the interest were not made when it becomes due, the lender would not be entitled to charge interest upon such unpaid interest. Thus, suppose 100*l.* were lent at simple interest at 5 per cent., payable at the end of each year; the lender would, at the end of 3 or 4 years, supposing him to have received no previous payments, be entitled to 15*l.* or 20*l.*, and no more.

Sometimes, however, money or capital is invested so that the interest is not paid at the periods when it becomes due, but is progressively added to the principal; so that at every term a new principal is formed, consisting of the original principal and the successive accumulations of interest upon interest. Money invested in this way is said to be placed at *compound interest*.

It appears not unreasonable that when a borrower does not pay the interest he has contracted for, at the period when it is due, he should pay interest upon such interest. This, however, is not allowed by the law of England; nor is it allowed to make a loan at compound interest. But this rule is often evaded by taking a new obligation for the principal with the interest included, when the latter becomes due. Investments at compound interest are also very frequent. Thus, if an individual buy into the funds, and regularly buy fresh stock with the dividends, the capital will increase at compound interest; and so in any similar case.

Calculation of Interest.—Interest is estimated at so much per cent. per annum, or by dividing the principal into 100 equal parts, and specifying how many of these parts are paid yearly for its use. Thus, 5 per cent., or 5 parts out of 100, means that 5*l.* are paid for the use of 100*l.* for a year, 10*l.* for the use of 200*l.*, and 2*l.* 10*s.* for the use of 50*l.* for the same period, and so on.

Suppose, now, that it is required to find the interest of 210*l.* 13*s.* for 3½ years at 4 per cent. simple interest. In this case we must first divide the principal, 210*l.* 13*s.*, into 100 parts, 4 of which will be the interest for 1 year; and this being multiplied by 3½ will give the interest for 3½ years. But instead of first dividing by 100, and then multiplying by 4, the result will be the same, and the process more expeditious, if we first multiply by 4, and then divide by 100. Thus—

£	s.					
210	13	principal				
	4	rate per cent.				
1,00) 8,52	12(	£	s.	d.		
20		8	5	6½	1 year's interest	
8,52				3		
12		25	5	6½	3 years' interest	
6,24		4	4	3	¼ a year's interest	
4		£29	9	9½	3½ years' interest	
96						

It is almost superfluous to observe that the same result would have been obtained by multiplying the product of the principal and rate by the number of years, and then dividing by 100.

Hence, to find the interest of any sum at any rate per cent. for a year, multiply the sum by the rate per cent., and divide the product by 100.

To find the interest of any sum for a number of years, multiply its interest for one year by the number of years; or, without calculating its interest for one year, multiply the principal by the rate per cent. and that product by the number of years, and divide the last product by 100.

When the interest of any sum is required for a number of days, they must be treated as fractional parts of a year; that is, we must multiply the interest of a year by them, and divide by 365.

Suppose that it is required to find the interest of 210*l.* for 4 years 7 months and 25 days, at 4½ per cent.—

	£
Principal	210
Rate per cent.	4½
	840
	105

Interest for 1 year £9·45 × 4 = £37·80 ditto for 4 years

	£
Interest for 4 years	= 37·8000
6 months = ½ of 1 year	= 4·7250
1 month = ⅙ of 6 months	= ·7875
25 days	= ·6472
	£43·9597 = £43 19*s.* 2½*d.*

The interest for 25 days is $\frac{9{\cdot}45 \times 25}{365} = {\cdot}6472$; that is, it is equal to the interest for a year multiplied by the fraction $\frac{25}{365}$. Division by 100 is performed by cutting off two figures to the right.

Many attempts have been made to contrive more expeditious processes than the above for calculating interest. The following is the best:—

Suppose it were required to find the interest upon 172*l.* for 107 days at 5 per cent.

This forms what is called in arithmetical books a double rule of three question, and would be stated as follows:—

£ days £ £ days £ *s.* *d.*
100 × 365 : 5 :: 172 × 107 : 2 13 4½, the interest required

Hence, to find the interest of any sum for any number of days at any rate per cent., multiply the sum by the number of days, and the product by the rate, and divide by 36,500 (365 × 100); the quotient is the interest required.

When the rate is 5 per cent., or $\frac{1}{20}$ of the principal, all that is required is to divide the product of the sum multiplied by the days by 7,300 (365, the days in a year, multiplied by 20).

Five per cent. interest being found by this

extremely simple process, it is usual in practice to calculate 4 per cent. interest by deducting $\frac{1}{25}$; 8 per cent. by deducting $\frac{2}{25}$; 2½ per cent by dividing by 2; 2 per cent. by taking the half of 4, and so on.

In calculating interest upon accounts current, it is requisite to state the number of days between each receipt, or payment, and the date (commonly December 31) to which the account current is made up. Thus, 172*l.* paid on September 15, bearing interest to December 31, 107 days. The amount of such interest may, then, be calculated as now explained, or by the aid of tables. The reader will find in the article BOOKK-EEPING an example of interest on an account current computed as above, without referring to tables.

June 30 is, after December 31, the most usual date to which accounts current are made up, and interest calculated. In West India houses April 30 is the common date, because at that season the old crop of produce is generally sold off, and the new begins to arrive.

It is of great importance, in calculating interest on accounts current, to be able readily to find the number of days from any day in any one month to any day in any other month. This may be done with the utmost ease by means of the annexed table.

Table for ascertaining the Number of Days from any one Day in the Year to any other Day.

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	32	60	91	121	152	182	213	244	274	305	335	17	48	76	107	137	168	198	229	260	290	321	351
2	33	61	92	122	153	183	214	245	275	306	336	18	49	77	108	138	169	199	230	261	291	322	352
3	34	62	93	123	154	184	215	246	276	307	337	19	50	78	109	139	170	200	231	262	292	323	353
4	35	63	94	124	155	185	216	247	277	308	338	20	51	79	110	140	171	201	232	263	293	324	354
5	36	64	95	125	156	186	217	248	278	309	339	21	52	80	111	141	172	202	233	264	294	325	355
6	37	65	96	126	157	187	218	249	279	310	340	22	53	81	112	142	173	203	234	265	295	326	356
7	38	66	97	127	158	188	219	250	280	311	341	23	54	82	113	143	174	204	235	266	296	327	357
8	39	67	98	128	159	189	220	251	281	312	342	24	55	83	114	144	175	205	236	267	297	328	358
9	40	68	99	129	160	190	221	252	282	313	343	25	56	84	115	145	176	206	237	268	298	329	359
10	41	69	100	130	161	191	222	253	283	314	344	26	57	85	116	146	177	207	238	269	299	330	360
11	42	70	101	131	162	192	223	254	284	315	345	27	58	86	117	147	178	208	239	270	300	331	361
12	43	71	102	132	163	193	224	255	285	316	346	28	59	87	118	148	179	209	240	271	301	332	362
13	44	72	103	133	164	194	225	256	286	317	347	29		88	119	149	180	210	241	272	302	333	363
14	45	73	104	134	165	195	226	257	287	318	348	30		89	120	150	181	211	242	273	303	334	364
15	46	74	105	135	166	196	227	258	288	319	349	31		90		151		212	243		304		365
16	47	75	106	136	167	197	228	259	289	320	350												

By this table may be readily ascertained the number of days from any given day in the year to another. For instance, from January 1 to August 14 (first and last days included) there are 226 days. To find the number, look down the column headed January, to number 14, and then look along in a parallel line to the column headed August—you find 226, the number required.

To find the number of days between any other two given days, when they are both after January 1, the number opposite the first day must, of course, be deducted from that opposite to the second. Thus, to find the number of days between March 13 and August 19, deduct from 231, the number in the table opposite to 19 and under August, 72, the number opposite to 13 and under March, and the remainder, 159, is the number required, last day included.

In leap years, *one* must be added to the number after February 28.

For the mode of calculating discount, or of finding the present values of sums due at some future date, at simple interest, see DISCOUNT.

In counting-houses, interest tables are very frequently made use of. Such publications have, in consequence, become very numerous. Most of them have some peculiar recommendation, and are selected according to the object in view.

When interest, instead of being simple, is compound, the first year's or term's interest must be found, and being added to the original principal, makes the principal upon which interest is to be calculated for the second year or term; and the second year's or term's interest being added to this last principal, makes that upon which interest is to be calculated for the third year or term; and so on for any number of years.

But when the number of years is considerable, this process becomes exceedingly cumbersome and tedious, and to facilitate it tables have been constructed, which are subjoined to this article.

The first of these tables (No. I.) represents the amount of 1*l.* accumulating at compound interest, at 2½, 3, 3½, 4, 4½, 5, and 6 per cent. every year, from 1 year to 70 years, in pounds and decimals of a pound. Now, suppose that we wish to know how much 500*l.* will amount to in 7 years at 4 per cent. In the column marked 4 per cent. and opposite to 7 years, we find 1·315,932*l.*, which shows that 1*l.* will, if invested at 4 per cent. compound interest, amount to 1·315,932*l.* in 7 years; and consequently, 500*l.* will, in the same time, and at the same rate, amount to 500 × 1·315,932*l.* or 657·966*l.*; that is, 657*l.* 19*s.* 4*d.*

For the same purpose of facilitating calculation, the present value of 1*l.* due any number of years hence, not exceeding 70, at 2½, 3, 3½, 4, 4½, 5, and 6 per cent. compound interest, is given in the subjoined Table, No. II. Let it, for example, be required to find the present worth of 500*l.* due 7 years hence, reckoning compound interest at 4 per cent. Opposite to 7 years, and under 4 per cent., we find ·75991,781*l.*, the present worth of 1*l.* due at the end of 7 years; and multiplying this sum by 500*l.*, the product, being 379·9589*l.*, or 379*l.* 19*s.* 2*d.*, is the answer required.

ANNUITIES.

1. *Annuities certain.*—When a sum of money is to be paid yearly for a certain number of years, it is called an annuity. The annuities usually met with are either for a given number of years, which are called *annuities certain*; or they are to be paid

so long as one or more individuals shall live, and are thence called *contingent annuities*.

By the amount of an annuity at any given time is meant the sum to which it will then amount, supposing it to have been regularly improved at compound interest during the intervening period.

The present value of an annuity for any given period is the sum of the present values of all the payments of that annuity.

Nos. III. and IV. of the subjoined tables represent the amount and present value of an annuity of 1*l.* reckoning compound interest at 2½, 3, 3½, 4, 4½, 5, and 6 per cent. from 1 year to 70. They, as well as Nos. I. and II., are taken from 'Tables of Interest, Discount, and Annuities, by John Smart, Gent., 4to. London, 1726.' They are carried to 8 decimal places, and enjoy the highest character, both here and on the Continent, for accuracy and completeness. The original work is now become very scarce.

The uses of these tables are numerous, and they are easily applied. Suppose, for example, it were required to tell the amount of an annuity of 50*l.* a-year for 17 years at 4 per cent. compound interest.

Opposite to 17 (Table III.) in the column of years, and under 4 per cent., is 23·69751,239, being the amount of an annuity of 1*l.* for the given time at the given rate per cent.; and this multiplied by 50 gives 1184·8756195, or 1,184*l.* 17*s.* 6*d.*, the amount required.

Suppose, now, that it is required what sum one must pay down to receive an annuity of 50*l.* to continue for 17 years, compound interest at 4 per cent.?

Opposite to 17 years (Table IV.) and under 4 per cent. is 12·16566,886, the present value of an annuity of 1*l.* for the given time and at the given rate per cent.; and this multiplied by 50 gives 608·283443, or 608*l.* 5*s.* 8*d.*, the present value required.

When it is required to find the *time* which must elapse in order that a given sum improved at a specified rate of compound interest may increase to some other given sum, divide the latter sum by the former, and look for the quotient, or the number nearest to it, in Table No. I. under the given rate per cent., and the years opposite to it are the answer.—Thus,

In what time will 523*l.* amount to 1,087*l.* 5*s.* 7*d.* at 5 per cent. compound interest?

Divide 1087·2794 &c. by 523, and the quotient will be 2·0789 &c., which, under 5 per cent. in Table I. is opposite to 15 years, the time required.

If it had been required to find the time in which a given annuity, improved at a certain rate of compound interest, would have increased to some given sum, the question would have been answered by dividing, as above, the given sum by the annuity; and looking for the quotient (not in Table No. I., but) in Table No. III., under the given rate per cent., it would be found on a line with the time required.—Thus

A owes 1,000*l.*, and resolves to appropriate 10*l.* a-year of his income to its discharge: in what time will the debt be extinguished, reckoning compound interest at 4 per cent.?

1,000 divided by 10 gives 100, the number in Table No. III. under 4 per cent., and nearest to this quotient is 99·8265 &c. opposite to 41 years, the required time. Had the rate of interest been 5 per cent., the debt would have been discharged in somewhat less than 37 years. This example is given by Dr. Price (*Annuities*, 6th ed. vol. ii. p. 289); and on this principle the whole fabric of the sinking fund was constructed.

Of the abstract truth of the principle there cannot, indeed, be a doubt: but everything depends on the increasing sums annually produced being immediately invested on the same terms; and this, when the sum is large, and the period long, is altogether impracticable.

Let it next be required to find an annuity which, being increased at a given rate of compound interest during a given time, will amount to a specified sum: in this case we divide the specified sum by the amount of 1*l.* for the time and rate given, as found in Table III., and the quotient is the answer.—Thus,

What annuity will amount to 1,087*l.* 5*s.* 7*d.* in 15 years at 5 per cent. compound interest?

Opposite to 15 years in Table III., and under 5 per cent., is 21·5785 &c., the amount of 1*l.* for the given time and rate; and dividing 1087·2794 &c. by this sum, the quotient 50·387 &c., or 50*l.* 7*s.* 9*d.*, is the annuity required.

Deferred Annuities are those which do not commence till after a certain number of years; and *reversionary annuities*, such as depend upon the occurrence of some uncertain event, as the death of an individual &c.

The present value of a deferred annuity is found by deducting, from the value of an annuity for the whole period, the value of an annuity to the term at which the reversionary annuity is to commence.—Thus,

What is the present value of an annuity of 50*l.* to continue for 25 years, commencing at 7 years from the present time, interest at 4 per cent.?

According to Table No. IV., the value of an annuity of 1*l.* for 25 years at 4 per cent. is 15·62207,995, and that of 1*l.* for 7 years is 6·00205,467, which being deducted from the other, leaves 9·62002,528, which multiplied by 50 gives 481*l.*, the answer required.

Supposing the annuity, instead of being for 25 years, had been a perpetuity, it would have been worth 1,250*l.*, from which deducting 300*l.* 2*s.*, the value of an annuity for 7 years at 4 per cent., there remains 949*l.* 18*s.*, the value of the reversion.

For a selection of problems that may be solved by tables of annuities certain, see Smart's *Tables*, pp. 92—100.

2. *Life Annuities.*—After what has been stated in the article on INSURANCE (GENERAL PRINCIPLES OF), respecting tables of mortality, it will be easy to see how the value of a life annuity is calculated. Supposing—to revert to the example given before [INSURANCE, PRINCIPLES OF]—that it were required to find the present value of 1*l.*, the receipt of which is dependent on the contingency of a person, now 56 years of age, being alive 10 years hence, taking the Carlisle Table of Mortality, and interest at 4 per cent.: Now, according to that table, of 10,000 persons born together, 4,000 attain to 56, and 2,894 to 66 years of age. The probability that a person, now 56 years, will be alive 10 years hence, is, consequently, $\frac{2,894}{4,000}$; and the present value of 1*l.*, to be received certain 10 years hence, being 0·675564*l.*, it follows that if its receipt be made to depend on a life 56 years of age attaining to 66, its value will be reduced by that contingency to $\frac{2,894 \times 0{\cdot}675564l.}{4,000} = 0{\cdot}48877l.$, or 9*s.* 9¼*d.* If, then, we had to find the present value of an annuity of 1*l.* secured on the life of a person now 56, we should calculate in this way the present value of each of the 48 payments, which, according to the Carlisle table, he might receive, and their sum would, of course, be the present value of the annuity.

This statement is enough to show the principle on which all calculations of annuities depend; and this also was, in fact, the method according to which they were calculated, till Mr. Simpson and M. Euler invented a shorter and easier process, deriving from the value of an annuity at any age, that of an annuity at the next younger age. There is a considerable discrepancy in the sums at which different authors, and different insurance offices, estimate the present value of life annuities payable to persons of the same age. This does not arise from any difference in the mode of calculating the annuities, but from differences in the tables of mortality employed. These can only be accurate when they are deduced from multiplied and careful observations made, during a long series of years, on a large body of persons; or when the average numbers of the whole population, and of the deaths at every age, for a lengthened period have been determined with the necessary care. It is to be regretted that governments, who alone have the means of ascertaining the rate of mortality by observations made on a sufficiently large scale, have been singularly inattentive to their duty in this respect; and until a very few years since, when Mr. Finlaison was employed to calculate tables of the value of annuities from the ages of the nominees in public tontines, and of individuals on whose lives Government had granted annuities, all that had been done in this country to lay a solid foundation on which to construct the vast fabric of life insurance had been the work of a few private persons, who had, of course, but a limited number of observations to work upon.

The celebrated mathematician Dr. Halley was the first who calculated a table of mortality, which he deduced from observations made at Breslau, in Silesia. In 1724, M. de Moivre published the first edition of his tract on *Annuities on Lives*. In order to facilitate the calculation of their values, M. de Moivre assumed the annual decrements of life to be equal; that is, he supposed that out of 86 (the utmost limit of life on his hypothesis) persons born together, one would die every year till the whole were extinct. This assumption agreed pretty well with the true values between 30 and 70 years of age, as given in Dr. Halley's table, but was very remote from the truth in the earlier and later periods. Mr. Thomas Simpson, in his work *On Annuities and Reversions*, originally published in 1742, gave a table of mortality deduced from the London bills, and tables founded upon it of the values of annuities. But at the period when this table was calculated, the mortality in London was so much higher than in the rest of the country, that the values of the annuities given in it were far too small for general use. In 1746, M. Deparcieux published, in his *Essai sur les Probabilités de la Durée de la Vie Humaine*—a work distinguished by its perspicuity and neatness—tables of mortality deduced from observations made on the mortuary registers of several religious houses, and on lists of the nominees in several tontines. In this work separate tables were first constructed for males and females, and the greater longevity of the latter rendered apparent. M. Deparcieux's tables were a very great acquisition to the science, and are decidedly superior to some that are still extensively used. Dr. Price's famous work on *Annuities*, the first edition of which was published in 1770, contributed powerfully to direct the public attention to enquiries of this sort, and was in this respect of very great utility. Of the more recent works, the best are those of Mr. Baily and Mr. Milne, which, indeed, are both excellent. The latter, besides all that was previously known as to the history, theory, or practice of the science, contains much new and valuable matter, and to it we beg to refer such of our readers as wish to enter fully into the subject.

The table on which Dr. Price laid the greatest stress was calculated from the burial registers kept in the parish of All Saints, Northampton, containing little more than half the population of the town. There can be no doubt, however, as well from original defects in the construction of the table as from the improvement that has since taken place in the healthiness of the public, that the mortality represented in the Northampton table is, and has long been, decidedly above the average rate of mortality in England. Mr. Morgan, indeed, the late learned actuary of the Equitable Society, contended that this is not the case, and that the Society's experience shows that the Northampton table is still remarkably accurate. But the facts Mr. Morgan disclosed in his *View of the Rise and Progress of the Equitable Society* (p. 42), published in 1828, are quite at variance with this opinion; for he there states that the deaths of persons insured in the Equitable Society, from 50 to 60 years of age, during the 12 years previously to 1828, were 339; whereas, according to the Northampton table, they should have been 545! And Mr. Milne has endeavoured to show (art. 'Annuities,' new ed. of *Ency. Brit.*) that the discrepancy is really much greater.

The only other table used to any extent in England for the calculation of life annuities is that framed by Mr. Milne from observations made by Dr. Heysham on the rate of mortality at Carlisle. It gives a decidedly lower rate of mortality than the Northampton table, and there are good grounds for thinking that the mortality which it represents is not very different from the actual rate throughout most parts of England; though it cannot be supposed that a table founded on so narrow a basis should give a perfectly fair view of the average mortality of the entire kingdom.

In life assurance, the first annual premium is always paid at the commencement of the assurance, and the others at the termination of each year so long as the party assured survives. Hence, at the beginning of the assurance, the whole of the annual premiums payable for it exceed the value of an equal annuity on the life by one year's purchase; and, therefore, when the value of an assurance in present money is given, to find the equivalent annual premium during the life, the whole present value must be divided by the number of years' purchase an annuity on the life is worth, increased by 1. Thus for an assurance of 100*l.* on a life 40 years of age, an office, calculating by the Carlisle Table of Mortality, and at 4 per cent. interest, requires 53·446*l.* in present money. Now, according to that table and rate of interest, an annuity on a life just 40 years of age is worth 15·074 years' purchase, so that the equivalent annual premium is $\frac{53{\cdot}446l.}{15{\cdot}074+1} = 3\,325l.$, or 3*l.* 6*s.* 8*d.* The annual premium may, however, be derived directly from the value of an annuity on the life, without first calculating the total present value of the assurance. (Mr. Milne's *Treatise on Annuities*, or the art. 'Annuities' in the new edition of the *Ency. Britannica.*)

In order to exhibit the foundations on which tables of life annuities and insurance have been founded in this and other countries, we have given, in No. VII. of the following tables, the rate of mortality that has been observed to take place among 1,000 children born together, or the numbers alive at the end of each year, till the whole

become extinct, in England, France, Sweden &c., according to the most celebrated authorities. The greater part of this table was originally published by Dr. Hutton in his *Mathematical Dictionary*, art. 'Life Annuities.' Mr. Baily inserted it with additions in his work on *Annuities*; and it was published, with the column for Carlisle added, in the *Report of the Committee of the House of Commons on Friendly Societies*. The rate of mortality at Carlisle, represented in this table, is less than that observed anywhere else: the rates which approach nearest to it are those deduced from the observations already referred to, of M. Deparcieux, and those of M. Kersseboom on the nominees of life annuities in Holland.

In order to calculate from this table the chance which a person of any given age has of attaining to any higher age, we have only to divide the number of persons alive at such higher age, given in that column of the table selected to decide the question, by the number of persons alive at the given age, and the fraction resulting is the chance.

We have prefixed, by way of supplement to this table, Mr. Finlaison's table (No. V.) of the rate of mortality among 1,000 children born together, according to the decrement of life observed to take place among the nominees in Government tontines and life annuities in this country, distinguishing males from females. The rate of mortality which this table exhibits is decidedly less than that given in the Carlisle table; but the lives in the latter are the average of the population, while those in the former are all picked. The nominees in tontines are uniformly chosen among the healthiest individuals, and none but those who consider their lives as good ever buy an annuity. Still, however, the table is very curious, and it sets the superiority of female life in a very striking point of view.

Tables VI. and VIII. give the *expectation of life*, according to the mortality observed at Northampton and Carlisle, the former by Dr. Price, and the latter by Mr. Milne; and Table IX. is the English Life Table, computed by Dr. Farr.

The next table, No. X., extracted from the *Second Report of the Committee of the House of*

1.—*Table showing the Amount of* 1*l. improved at Compound Interest, at* 2½, 3, 3½, 4, 4½, 5, *and* 6 *per Cent., at the end of every Year, from* 1 *to* 70.

Years	2½ per Cent.	3 per Cent.	3½ per Cent.	4 per Cent.	4½ per Cent.	5 per Cent.	6 per Cent.
1	1·02500,000	1·03000,000	1·03500,000	1·04000,000	1·04500,000	1·05000,000	1·06000,000
2	1·05062,500	1·06090,000	1·07122,500	1·08160,000	1·09202,500	1·10250,000	1·12360,000
3	1·07689,062	1·09272,700	1·10871,787	1·12486,400	1·14116,612	1·15762,500	1·19101,600
4	1·10381,289	1·12550,881	1·14752,300	1·16985,856	1·19251,860	1·21550,625	1·26247,696
5	1·13140,821	1·15927,407	1·18768,631	1·21665,290	1·24618,194	1·27628,156	1·33822,558
6	1·15969,342	1·19405,230	1·22925,033	1·26531,902	1·30226,012	1·34009,564	1·41851,911
7	1·18868,575	1·22987,387	1·27227,926	1·31593,178	1·36086,183	1·40710,042	1·50363,026
8	1·21840,290	1·26677,008	1·31680,904	1·36856,905	1·42210,061	1·47745,544	1·59384,807
9	1·24886,297	1·30477,318	1·36289,735	1·42331,181	1·48609,514	1·55132,822	1·68947,896
10	1·28008,454	1·34391,638	1·41059,876	1·48024,428	1·55296,942	1·62889,463	1·79084,770
11	1·31208,666	1·38423,387	1·45996,972	1·53945,406	1·62285,305	1·71033,936	1·89829,856
12	1·34488,882	1·42578,089	1·51106,866	1·60103,222	1·69588,143	1·79585,633	2·01219,647
13	1·37851,104	1·46853,371	1·56395,606	1·66507,351	1·77219,610	1·88564,914	2·13292,826
14	1·41297,382	1·51258,972	1·61869,452	1·73167,645	1·85194,492	1·97993,160	2·26090,396
15	1·44829,817	1·55796,742	1·67534,883	1·80094,351	1·93528,244	2·07789,818	2·39655,819
16	1·48450,562	1·60470,644	1·73398,604	1·87298,125	2·02237,015	2·18287,459	2·54035,168
17	1·52161,826	1·65284,763	1·79467,555	1·94790,050	2·11337,681	2·29201,832	2·69277,279
18	1·55965,872	1·70243,306	1·85748,920	2·02581,652	2·20847,877	2·40661,923	2·85433,915
19	1·59865,019	1·75350,605	1·92250,132	2·10684,918	2·30786,031	2·52695,020	3·02559,950
20	1·63861,644	1·80611,123	1·98978,886	2·19112,314	2·41171,402	2·65329,771	3·20713,547
21	1·67958,185	1·86029,457	2·05943,147	2·27876,807	2·52024,116	2·78596,259	3·39956,360
22	1·72157,140	1·91610,341	2·13151,158	2·36991,879	2·63365,201	2·92526,072	3·60353,742
23	1·76461,068	1·97358,651	2·20611,148	2·46471,555	2·75216,635	3·07152,376	3·81974,966
24	1·80872,595	2·03279,411	2·28332,849	2·56330,417	2·87601,383	3·22509,994	4·04893,464
25	1·85393,410	2·09377,793	2·36324,498	2·66583,633	3·00543,446	3·38635,494	4·29187,072
26	1·90029,270	2·15659,127	2·44597,856	2·77246,979	3·14067,901	3·55567,269	4·54938,296
27	1·94780,002	2·22128,901	2·53166,711	2·88336,858	3·28200,956	3·73345,632	4·82234,594
28	1·99649,502	2·28792,768	2·62017,696	2·99870,332	3·42969,999	3·92012,914	5·11168,670
29	2·04640,739	2·35656,551	2·71187,798	3·11865,145	3·58403,649	4·11613,560	5·41838,790
30	2·09756,758	2·42726,247	2·80679,370	3·24339,751	3·74531,813	4·32194,238	5·74349,117
31	2·15000,677	2·50008,035	2·90503,148	3·37313,341	3·91385,745	4·53803,949	6·08810,064
32	2·20375,694	2·57508,276	3·00670,759	3·50805,875	4·08998,104	4·76494,147	6·45338,668
33	2·25885,086	2·65233,524	3·11194,235	3·64838,110	4·27403,018	5·00318,854	6·84058,988
34	2·31532,213	2·73190,530	3·22086,033	3·79431,634	4·46636,154	5·25334,797	7·25102,528
35	2·37320,519	2·81386,245	3·33359,045	3·94608,899	4·66733,781	5·51601,537	7·68608,679
36	2·43253,532	2·89827,833	3·45026,611	4·10393,255	4·87737,846	5·79181,614	8·14725,200
37	2·49334,870	2·98522,668	3·57102,543	4·26808,986	5·09686,049	6·08140,694	8·63609,712
38	2·55568,242	3·07478,348	3·69601,132	4·43881,345	5·32621,921	6·38547,729	9·15425,235
39	2·61957,448	3·16702,698	3·82537,171	4·61636,599	5·56589,908	6·70475,115	9·70350,749
40	2·68506,384	3·26203,779	3·95925,972	4·80102,063	5·81636,454	7·03998,871	10·28571,794
41	2·75219,043	3·35989,893	4·09783,581	4·99306,145	6·07810,094	7·39198,815	10·90286,101
42	2·82099,520	3·46069,589	4·24125,799	5·19278,391	6·35161,548	7·76158,755	11·55703,267
43	2·89151,008	3·56451,677	4·38970,202	5·40049,527	6·63743,813	8·14966,693	12·25045,463
44	2·96379,808	3·67145,227	4·54334,160	5·61651,508	6·93612,990	8·55715,028	12·98548,191
45	3·03790,303	3·78159,584	4·70235,555	5·84117,568	7·24824,843	8·98500,779	13·76461,083
46	3·11385,060	3·89501,372	4·86694,110	6·07482,271	7·57441,961	9·43425,818	14·59048,748
47	3·19169,713	4·01189,503	5·03729,404	6·31781,562	7·91526,849	9·90597,109	15·46591,673
48	3·27148,956	4·13225,188	5·21358,898	6·57052,824	8·27145,557	10·40126,965	16·39387,173
49	3·35 7,680	4·25621,944	5·39606,459	6·83334,937	8·61367,107	10·92133,313	17·37750,403
50	3·43710,972	4·38390,602	5·58492,686	7·10668,335	9·03263,627	10·46739,978	18·49015,427
51	3·52003,644	4·51542,320	5·78039,930	7·39095,068	9·43910,490	12·04076,977	19·52536,353
52	3·61111,235	4·65088,590	5·98271,327	7·68658,871	9·86386,463	12·64280,826	20·69688,534
53	3·70139,016	4·79041,247	6·19210,824	7·99405,226	10·30773,953	13·27494,868	21·93869,846
54	3·79392,491	4·93412,485	6·40883,302	8·31381,436	10·77158,631	13·93469,611	23·25502,037
55	3·88877,303	5·09214,859	6·63314,114	8·64636,692	11·25630,817	14·63563,092	24·65032,159
56	3·98599,236	5·23461,305	6·86530,108	8·99222,160	11·76284,204	15·36741,246	26·12934,089
57	4·08564,217	5·39165,144	7·10558,662	9·35191,046	12·29216,993	16·13578,308	27·69710,134
58	4·18778,322	5·55340,098	7·35428,215	9·72598,688	12·84531,758	16·94257,224	29·35892,742
59	4·29247,780	5·72000,301	7·61168,203	10·11502,636	13·42335,687	17·78970,085	31·12046,307
60	4·39978,975	5·89160,310	7·87809,090	10·51962,741	14·02740,793	18·67918,589	32·98769,085
61	4·50978,449	6·06835,120	8·15382,408	10·94041,251	14·65864,130	19·61314,519	34·96695,230
62	4·62252,910	6·25040,173	8·43919,793	11·37802,901	15·31828,014	20·59380,245	37·06496,944
63	4·73809,233	6·43791,379	8·73458,020	11·83315,017	16·00760,275	21·62349,257	39·28586,761
64	4·85654,464	6·63105,120	9·04035,051	12·30647,617	16·72794,187	22·70466,720	41·64619,967
65	4·97795,826	6·82998,273	9·35690,078	12·79873,522	17·48070,239	23·83990,056	44·14497,165
66	5·10240,721	7·03488,221	9·68443,530	13·31068,463	18·26733,400	25·03189,559	46·79366,994
67	5·22996,739	7·24592,868	10·02318,168	13·84311,201	19·08936,103	26·28349,036	49·60128,014
68	5·36071,658	7·46330,654	10·37394,129	14·39683,649	19·94838,541	27·59766,488	52·57736,755
69	5·49473,449	7·68720,574	10·73702,924	14·97270,995	20·84606,276	28·97754,813	55·73220,960
70	5·63210,286	7·91782,191	11·11282,526	15·57161,835	21·78415,568	30·42642,553	59·07603,018

Commons on Friendly Societies, gives a comparative view of the results of some of the most celebrated tables of mortality, in relation to the rate of mortality, the expectation of life, the value of an annuity &c. The coincidence between the results deduced from M. Deparcieux's table and that for Carlisle is very striking; and to render the information on these subjects laid before the reader as complete as the nature of this work will admit, we have given tables (Nos. XI.—XVII.) of the value of an annuity of 1*l.* on a single *life*, at every age, and at 3, 4, 5, 6, 7, and 8 per cent., according to the Northampton and Carlisle tables; we have also given tables of the value of an annuity of 1*l.* on 2 equal lives, and 2 lives differing by 5 years, at 3, 4, 5, and 6 per cent., according to the same tables. It is but seldom, therefore, that our readers will require to resort to any other work for the means of solving the questions that usually occur in practice with regard to annuities; and there are not many works in which they will find so good a collection of tables. We subjoin one or two examples of the mode of using the tables of life annuities.

Suppose it were required, what ought a person, aged 45, to give, to secure an annuity of 50*l.* a-year for life, interest at 4 per cent., according to the Carlisle table?

In Table No. XII., under 4 per cent., and opposite 45, is 14·104, the value of an annuity of 1*l.*, which being multiplied by 50, gives 705·2, or 705*l.* 4*s.*, the value required. According to the Northampton table, the annuity would only have been worth 614*l.* 3*s.*

The value of an annuity on 2 lives of the same age, or on 2 lives differing by 5 years, may be found in precisely the same way.

Some questions in *reversionary* life annuities admit of an equally easy solution. Thus, suppose it is required to find the present value of A's interest in an estate worth 100*l.* a-year, falling to him at the death of B, aged 40, interest 4 per cent. according to the Carlisle table?

The value of the perpetuity of 100*l.* a-year

II.—*Table showing the Present Value of 1l. receivable at the end of any given Year, from 1 to 70, reckoning Compound Interest at 2½, 3, 3½, 4, 4½, 5, and 6 per Cent.*

Years	2½ per Cent.	3 per Cent.	3½ per Cent.	4 per Cent.	4½ per Cent.	5 per Cent.	6 per Cent.
1	0·97560,976	0·97087,379	0·96618,357	0·96153,846	0·95693,780	0·95238,095	0·94339,623
2	·95181,440	·94259,591	·93351,070	·92455,621	·91572,995	·90702,948	·88999,644
3	·92859,941	·91511,166	·90194,270	·88899,636	·87629,660	·86383,760	·83961,928
4	·90595,064	·88848,705	·87144,223	·85480,419	·83856,134	·82270,247	·79209,366
5	·88385,429	·86260,878	·84197,317	·82192,711	·80245,105	·78352,616	·74725,817
6	·86229,687	·83748,426	·81350,064	·79031,453	·76789,574	·74621,540	·70496,054
7	·84126,524	·81309,151	·78599,096	·75991,781	·73482,846	·71068,133	·66505,711
8	·82074,657	·78940,923	·75941,156	·73069,020	·70318,513	·67683,936	·62741,237
9	·80072,836	·76641,673	·73373,097	·70258,674	·67290,443	·64460,892	·59189,846
10	·78119,840	·74409,391	·70891,881	·67556,417	·64392,768	·61391,325	·55839,478
11	·76214,478	·72242,126	·68494,571	·64958,093	·61619,874	·58467,929	·52678,753
12	·74355,589	·70137,988	·66178,330	·62459,705	·58966,386	·55683,742	·49696,936
13	·72542,038	·68095,134	·63940,415	·60057,409	·56427,161	·53032,135	·46883,902
14	·70772,720	·66111,781	·61778,179	·57747,508	·53997,286	·50506,795	·44230,096
15	·69046,556	·64186,195	·59689,062	·55526,450	·51672,044	·48101,710	·41726,506
16	·67362,493	·62316,694	·57670,591	·53390,818	·49446,932	·45811,152	·39364,628
17	·65719,506	·60501,645	·55720,378	·51337,323	·47317,639	·43629,669	·37136,442
18	·64116,591	·58739,461	·53836,114	·49362,812	·45280,037	·41552,065	·35034,379
19	·62552,772	·57028,603	·52015,569	·47464,242	·43330,179	·39573,396	·33051,301
20	·61027,094	·55367,575	·50256,588	·45638,695	·41464,286	·37688,948	·31180,473
21	·59538,629	·53754,928	·48557,090	·43883,360	·39678,743	·35894,236	·29415,540
22	·58086,467	·52189,250	·46915,063	·42195,539	·37970,089	·34184,987	·27750,510
23	·56669,724	·50669,175	·45328,563	·40572,633	·36335,013	·32557,131	·26179,726
24	·55287,535	·49193,374	·43795,713	·39012,147	·34770,347	·31006,791	·24697,855
25	·53939,059	·47760,556	·42314,699	·37511,680	·33273,000	·29530,277	·23299,863
26	·52623,472	·46369,473	·40883,767	·36068,923	·31840,248	·28124,073	·21981,003
27	·51339,973	·45018,906	·39501,224	·34681,657	·30469,137	·26784,832	·20736,795
28	·50087,778	·43707,675	·38165,434	·33347,747	·29157,069	·25509,361	·19563,014
29	·48864,125	·42434,636	·36874,815	·32065,141	·27901,502	·24294,630	·18455,674
30	·47674,269	·41198,676	·35627,841	·30831,867	·26700,001	·23137,743	·17411,013
31	·46511,481	·39998,714	·34423,035	·29646,026	·25550,241	·22035,947	·16425,484
32	·45377,055	·38833,703	·33258,971	·28505,794	·24449,991	·20986,617	·15493,740
33	·44270,298	·37702,625	·32134,271	·27409,417	·23397,121	·19987,254	·14614,849
34	·43190,534	·36604,490	·31047,605	·26355,209	·22389,589	·19035,480	·13791,155
35	·42137,107	·35538,340	·29997,686	·25341,547	·21425,444	·18129,029	·13010,522
36	·41109,372	·34503,243	·28983,972	·24366,872	·20502,817	·17265,741	·12274,077
37	·40106,705	·33498,291	·28005,161	·23429,685	·19619,921	·16443,563	·11579,318
38	·39128,492	·32522,615	·27060,194	·22528,543	·18775,044	·15660,536	·10925,785
39	·38174,139	·31575,355	·26147,250	·21663,061	·17966,549	·14914,797	·10308,552
40	·37243,062	·30655,684	·25265,847	·20828,904	·17192,870	·14204,568	·09722,219
41	·36334,695	·29762,800	·24403,137	·20027,792	·16452,507	·13528,160	·09171,905
42	·35448,483	·28895,922	·23577,910	·19257,493	·15744,026	·12883,962	·08652,740
43	·34583,886	·28054,294	·22780,590	·18516,820	·15066,054	·12270,440	·08162,962
44	·33740,376	·27237,178	·22010,231	·17804,635	·14417,276	·11686,133	·07700,908
45	·32917,440	·26443,862	·21265,924	·17119,841	·13796,437	·11129,651	·07265,007
46	·32114,576	·25673,652	·20546,787	·16461,386	·13202,332	·10599,668	·06853,781
47	·31331,294	·24925,877	·19851,968	·15828,256	·12633,810	·10094,921	·06465,831
48	·30567,116	·24199,880	·19180,645	·15219,476	·12089,771	·09614,211	·06099,840
49	·29821,576	·23495,029	·18532,021	·14634,112	·11569,158	·09156,391	·05754,566
50	·29094,221	·22810,708	·17905,337	·14071,262	·11070,965	·08720,373	·05428,836
51	·28384,606	·22146,318	·17299,843	·13530,059	·10594,225	·08305,117	·05121,544
52	·27692,298	·21501,280	·16714,824	·13009,672	·10138,014	·07909,635	·04831,643
53	·27016,876	·20875,029	·16150,699	·12509,300	·09701,449	·07532,986	·04558,156
54	·26357,928	·20267,019	·15606,467	·12028,173	·09283,683	·07174,272	·04300,147
55	·25715,052	·19676,717	·15079,814	·11565,551	·08883,907	·06832,640	·04056,742
56	·25087,855	·19103,609	·14566,004	·11120,722	·08501,347	·06507,276	·03827,115
57	·24475,957	·18547,193	·14073,433	·10693,002	·08135,260	·06197,406	·03610,486
58	·23878,982	·18008,981	·13597,520	·10281,733	·07784,936	·05902,291	·03406,119
59	·23296,568	·17482,506	·13137,701	·09886,282	·07449,701	·05621,230	·03213,320
60	·22728,359	·16973,309	·12693,431	·09506,040	·07128,901	·05353,552	·03031,434
61	·22171,009	·16478,941	·12264,184	·09140,423	·06821,915	·05099,621	·02859,843
62	·21633,179	·15998,972	·11849,453	·08788,868	·06528,148	·04856,830	·02697,965
63	·21105,541	·15533,954	·11448,747	·08450,835	·06247,032	·04624,600	·02545,250
64	·20590,771	·15083,565	·11061,591	·08125,803	·05978,021	·04404,381	·02401,179
65	·20088,557	·14641,325	·10687,528	·07813,272	·05720,594	·04194,648	·02265,264
66	·19598,593	·14216,879	·10326,114	·07512,762	·05474,253	·03994,903	·02137,041
67	·19120,578	·13800,853	·09976,922	·07224,809	·05238,519	·03804,670	·02016,077
68	·18654,223	·13398,887	·09639,538	·06948,970	·05013,937	·03623,495	·01901,959
69	·18199,242	·13008,624	·09313,563	·06683,818	·04799,072	·03450,948	·01794,301
70	·17755,358	·12629,736	·08998,612	·06429,940	·04594,497	·03286,617	·01692,737

interest 4 per cent., is 2,500*l.*; and the value of an annuity of 100*l.* on a person aged 40, interest at 4 per cent., is 1,507*l.* 8*s.*, which deducted from 2,500*l.* leaves 992*l.* 12*s.*, the present value required.

A person, aged 30, wishes to purchase an annuity of 50*l.* for his wife, aged 25, provided she survive him: what ought he to pay for it, interest at 4 per cent. according to the Carlisle table?

The value of an annuity of 1*l.* on a life aged 30 is 16·852*l.*; from which subtracting the value of an annuity of 1*l.* on 2 joint lives of 25 and 30, 14·339, the difference, 2·513 × 50 = 125·650, or 125*l.* 13*s.*, the sum required.

For the solution of the more complex cases of survivorship, which do not often occur in practice, recourse may be had to the directions in Mr. Milne's *Treatise on Annuities*, and other works of that description. To attempt explaining them here would lead us into details quite inconsistent with the objects of this work.

III.—*Table showing the Amount of an Annuity of 1l. per Annum, improved at Compound Interest, at 2½, 3, 3½, 4, 4½, 5, and 6 per Cent., at the end of each Year, from 1 to 70.*

Years	2½ per Cent.	3 per Cent.	3½ per Cent.	4 per Cent.	4½ per Cent.	5 per Cent.	6 per Cent.
1	1·00000,000	1·00000,000	1·00000,000	1·00000,000	1·00000,000	1·00000,000	1·00000,000
2	2·02500,000	2·03000,000	2·03500,000	2·04000,000	2·04500,000	2·05000,000	2·06000,000
3	3·07562,500	3·09090,000	3·10622,500	3·12160,000	3·13702,500	3·15250,000	3·18360,000
4	4·15251,562	4·18362,700	4·21494,787	4·24646,400	4·27819,112	4·31012,500	4·37461,600
5	5·25632,852	5·30913,581	5·36247,584	5·41632,256	5·47070,953	5·52563,125	5·63709,296
6	6·38773,673	6·46840,988	6·55015,218	6·63297,546	6·71689,166	6·80191,281	6·97531,854
7	7·54743,015	7·66246,218	7·77940,751	7·89829,448	8·01915,179	8·14201,845	8·39383,765
8	8·73611,590	8·89233,605	9·05168,677	9·21422,626	9·38001,362	9·54910,888	9·89746,791
9	9·95451,880	10·15910,613	10·36849,181	10·58279,531	10·80211,423	11·02656,332	11·49131,598
10	11·20336,177	11·46387,931	11·73139,316	12·00610,712	12·28820,937	12·57789,254	13·18079,491
11	12·48345,581	12·80779,569	13·14199,192	13·48635,141	13·84117,879	14·20678,716	14·97164,261
12	13·79553,997	14·19202,956	14·60196,164	15·02580,546	15·46103,181	15·91712,652	16·86994,120
13	15·14042,179	15·61779,045	16·11303,030	16·62683,768	17·15991,327	17·71298,285	18·88213,767
14	16·51895,234	17·08632,416	17·67698,636	18·29191,119	18·93410,937	19·59863,199	21·01506,593
15	17·93192,666	18·59891,389	19·29568,088	20·02358,764	20·78405,429	21·57856,359	23·27596,988
16	19·38022,483	20·15688,130	20·97102,971	21·82453,114	22·71933,673	23·65749,177	25·67252,808
17	20·86473,045	21·76158,774	22·70501,575	23·69751,239	24·74170,689	25·84036,636	28·21287,976
18	22·38634,871	23·41443,537	24·49969,130	25·64541,288	26·85508,370	28·13238,467	30·90565,255
19	23·94601,743	25·11686,944	26·35718,050	27·67122,940	29·06356,246	30·53900,391	33·75999,170
20	25·54466,787	26·87037,449	28·27968,181	29·77807,858	31·37142,277	33·06595,410	36·78559,120
21	27·18327,405	28·67648,572	30·26947,068	31·96920,172	33·78313,680	35·71925,181	39·99272,668
22	28·86385,590	30·53678,030	32·33590,215	34·24797,979	36·30337,795	38·50521,440	43·39229,028
23	30·58744,730	32·45288,370	34·48236,172	36·61789,898	38·93740,996	41·43047,512	46·99583,769
24	32·34903,798	34·42647,022	36·71275,021	39·08260,413	41·68919,841	44·50199,887	50·81558,795
25	34·15.76,393	36·45926,432	39·01958,669	41·64590,830	44·56521,014	47·72709,882	54·86451,320
26	36·01170,803	38·55304,225	41·41314,163	44·31174,463	47·57064,460	51·11345,376	59·15638,399
27	37·91200,073	40·70963,352	43·89486,059	47·08421,441	50·71132,361	54·66912,645	63·70576,703
28	39·85980,075	42·93092,252	46·46798,730	49·96758,299	53·99333,317	58·40258,277	68·52811,105
29	41·85629,577	45·21885,020	49·13600,925	52·96628,631	57·42·05,316	62·32271,191	73·63979,832
30	43·90270,316	47·57541,571	51·89257,728	56·08493,776	61·00706,966	66·43884,750	79·05818,622
31	46·00027,074	50·00267,818	54·73917,098	59·32833,527	64·75238,779	70·76078,988	84·80167,739
32	48·15027,751	52·50275,852	57·68141,507	62·70146,868	68·66024,524	75·29882,936	90·88977,803
33	50·35403,445	55·07784,128	60·72136,065	66·20952,743	72·75625,628	80·06376,083	97·34316,471
34	52·61288,531	57·73017,652	63·85515,240	69·85790,853	77·03995,646	85·06695,937	104·18375,460
35	54·92820,744	60·46208,181	67·08407,274	73·65222,487	81·49864,500	90·32030,734	111·43477,987
36	57·30141,263	63·27594,427	70·40960,528	77·59831,387	86·16396,581	95·83632,271	119·12046,666
37	59·73394,794	66·17422,259	73·83379,946	81·70224,642	91·01134,427	101·62813,884	127·26811,866
38	62·22729,664	69·15944,927	77·35844,744	85·97033,628	96·15820,176	107·70954,579	135·90020,578
39	64·78297,906	72·23423,275	80·98210,604	90·40914,973	101·46142,784	114·09502,308	145·05815,813
40	67·40255,351	75·40125,973	84·70247,775	95·02551,572	107·03032,306	120·79977,423	154·76196,562
41	70·08761,737	78·66329,753	88·52305,747	99·82653,635	112·81668,759	127·83976,294	165·04768,356
42	72·83980,781	82·02319,615	92·44725,448	104·81959,780	118·92478,554	135·23175,109	175·95054,457
43	75·66080,300	85·48·89,234	96·48166,239	110·01238,171	125·27640,102	142·99333,861	187·50757,724
44	78·55232,308	89·04810,911	101·23833,138	115·41287,698	131·91384,206	151·14300,554	199·75803,188
45	81·51613,116	92·71986,139	105·78167,290	121·02939,206	138·84996,540	159·70015,582	212·74351,379
46	84·55403,443	96·50145,723	110·43493,145	126·87056,774	146·09821,333	168·68516,361	226·50812,462
47	87·66788,529	100·39650,095	115·39097,255	132·94539,045	153·67963,294	178·11942,183	241·09861,209
48	90·85958,243	104·40839,598	120·58825,659	139·26320,607	161·59790,163	188·02539,292	256·56452,882
49	94·13107,199	108·54064,785	126·00854,557	145·83573,431	169·85535,720	198·42666,257	272·95840,055
50	97·48434,879	112·79686,729	130·99791,016	152·66708,368	178·50302,828	209·34799,570	290·33590,458
51	100·92145,751	117·18077,331	136·84283,702	159·77376,703	187·53566,455	220·81539,548	308·75605,886
52	104·44449,395	121·69819,651	142·96323,631	167·16471,771	196·97476,946	232·85616,526	328·28142,239
53	108·05560,629	126·31708,240	149·34594,958	174·85130,642	206·83865,408	245·49897,352	348·97830,773
54	111·75699,645	131·13749,488	156·00805,782	182·84535,868	217·14657,201	258·77392,220	370·91740,620
55	115·55092,136	136·07161,972	162·96168,998	191·15917,302	227·91795,038	272·71261,831	394·17205,057
56	119·43969,440	141·15376,831	170·22096,093	199·80953,994	239·17426,765	287·34824,922	418·81437,416
57	123·42568,676	146·38838,136	177·80110,057	208·79756,154	250·93776,159	302·71566,168	444·94123,661
58	127·51132,893	151·78003,280	185·71864,809	218·14967,200	263·22927,953	318·85144,477	472·61870,939
59	131·69911,215	157·33343,379	193·98020,085	227·87566,488	276·07459,710	335·79101,700	502·00771,782
60	135·99158,995	163·05343,680	202·59311,188	237·99068,548	289·49795,597	353·58371,785	533·12818,089
61	140·39137,970	168·94503,991	211·56533,783	248·51031,265	303·52536,190	372·26290,375	566·11587,174
62	144·90116,419	175·01339,110	220·90613,486	259·45072,516	318·18400,319	391·87604,893	601·08982,404
63	149·52369,330	181·26379,284	230·62485,416	270·83275,416	333·50298,333	412·46985,138	638·14779,349
64	154·26178,563	187·70170,662	240·73148,955	282·66190,433	349·50898,608	434·09334,395	677·43566,110
65	159·11833,027	194·33275,782	251·23508,699	294·96838,050	366·23783,096	456·79801,115	719·08280,076
66	164·09628,853	201·16274,055	262·14282,854	307·76711,572	383·71853,335	480·63791,170	763·22783,881
67	169·19869,574	208·19762,277	273·46322,253	321·07380,035	401·98586,735	505·66980,729	810·02150,933
68	174·42866,313	215·44355,145	285·20544,644	334·91041,236	421·07543,138	531·95329,765	859·62279,219
69	179·78937,971	222·90645,800	297·38063,555	349·31774,886	441·02361,679	559·55096,254	912·20016,004
70	185·28411,421	230·59406,174	309·99386,159	364·29045,881	461·86967,955	588·52851,066	967·93216,964

IV.—*Table showing the Present Value of an Annuity of 1l. per Annum, to continue for any given Number of Years, from 1 to 70, reckoning Compound Interest at 2½, 3, 3½, 4, 4½, 5, and 6 per Cent.*

Years	2½ per Cent.	3 per Cent.	3½ per Cent.	4 per Cent.	4½ per Cent.	5 per Cent.	6 per Cent.
1	0·97560,976	0·97087,379	0·96618,357	0·96153,846	0·95693,780	0·95239,095	0·94339,623
2	1·92742,415	1·91346,969	1·89969,427	1·88609,467	1·87266,775	1·85941,043	1·83339,267
3	2·85602,356	2·82861,135	2·80165,698	2·77509,103	2·74896,435	2·72324,803	2·67301,195
4	3·76197,421	3·71709,840	3·67307,921	3·62989,522	3·58753,570	3·54595,050	3·46510,561
5	4·64583,849	4·57970,719	4·51505,237	4·45181,271	4·38997,674	4·32947,667	4·21236,378
6	5·50813,536	5·41719,144	5·32855,302	5·24213,686	5·15787,248	5·07569,207	4·91732,432
7	6·34939,060	6·23028,295	6·11454,399	6·00205,467	5·89270,091	5·78637,340	5·58238,144
8	7·17013,717	7·01969,218	6·87395,553	6·73274,488	6·59588,607	6·46321,276	6·20979,381
9	7·97086,553	7·78610,892	7·60768,651	7·43533,161	7·26879,049	7·10782,167	6·80169,227
10	8·75206,393	8·53020,284	8·31660,532	8·11089,578	7·91271,818	7·72173,493	7·36008,705

Present Value of an Annuity of 1*l. per Annum &c.*—continued.

Years	2½ per Cent.	3 per Cent.	3½ per Cent.	4 per Cent.	4½ per Cent.	5 per Cent.	6 per Cent.
11	9·51420,871	9·25262,410	9·00155,103	8·76047,671	8·52891,692	8·30641,412	7·88687,457
12	10·25776,460	9·95400,398	9·66333,433	9·38507,376	9·11858,028	8·86325,164	8·38384,393
13	10·98743,187	10·63495,532	10·30273,848	9·98564,785	9·68285,242	9·39357,299	8·85268,295
14	11·69091,217	11·29607,512	10·92052,027	10·56312,293	10·22282,528	9·89864,094	9·29498,392
15	12·38137,773	11·93793,697	11·51741,089	11·11838,744	10·73954,573	10·37965,804	9·71224,898
16	13·05500,266	12·56110,401	12·09941,681	11·65229,561	11·23401,505	10·83776 956	10·10589,526
17	13·71 [illegible]	13·16611,845	12·65132,058	12·16566,886	11·70719,143	11·27406,625	10·47725,968
18	14·35336,363	13·75351,306	13·18568,172	12·65929,698	12·15999,180	11·68958,690	10·82760,347
19	14·97889,134	14·32379,909	13·70083,741	13·13593,940	12·59329,359	12·08532,086	11·15811,648
20	15·58916,228	14·87747,484	14·21240,330	13·59033,635	13·00793,645	12·46221,034	11·46992,121
21	16·18454,847	15·41502,412	14·69797,420	14·02915,995	13·40472,388	12·82115,271	11·76407,661
22	16·76543,924	15·93691,662	15·16712,483	14·45111, 34	13·78442,476	13·16300,256	12·04158,171
23	17·33211,048	16·44360,837	15·62041,047	14·85684,167	14·14777,489	13·48857,388	12·30337,897
24	17·88498,583	16·93554,210	16·05836,760	15·24696,314	14·49547,857	13·79864,179	12·55035,752
25	18·42437,642	17·41314,766	16·48151,159	15·62207,995	14·82820,896	14·09394,457	12·78335,615
26	18·95061,114	17·87684,239	16·89035,226	15·98276,918	15·14661,145	14·37518,550	13·00316,618
27	19·46401,087	18·32703,145	17·28536,150	16·32958,575	15·45130,282	14·64303,362	13·21053,413
28	19·96488,865	18·76410,820	17·66701,884	16·66306,322	15·74287,351	14·89812,726	13·40616,428
29	20·45354,991	19·18845,456	18·03576,740	16·98371,464	16·02188,853	15·14107,358	13·59072,101
30	20·93029,259	19·60044,132	18·39204,541	17·29203,330	16·28888,854	15·37245,103	13·76483,115
31	21·39540,741	20·00042,847	18·73627,576	17·58849,356	16·54439,095	15·59281,050	13·92908,599
32	21·84917,796	20·38876,550	19·06886,547	17·87355,150	16·78889,086	15·80267,667	14·08404,338
33	22·29188,093	20·76579,175	19·39020,818	18·14764,567	17·02286,207	16·00254,921	14·23022,961
34	22·72378,628	21·13183,665	19·70068,123	18·41119,776	17·24675,596	16·19290,401	14·36814,114
35	23·14516,754	21·48722,004	20·00066,109	18·66461,323	17·46101,240	16·37419,429	14·49824,636
36	23·55625,107	21·83225,247	20·29049,381	18·90828,199	17·66604,058	16·54685,171	14·62098,713
37	23·95731,811	22·16723,541	20·57052,542	19·14257,880	17·86223,979	16·71129,734	14·73678,031
38	24·34860,304	22·49246,156	20·84108,736	19·36786,424	18·04999,023	16·86789,271	14·84601,918
39	24·73034,143	22·80821,510	21·10249,987	19·58448,484	18·22966,572	17·01704,067	14·94907,468
40	25·10277,505	23·11477,195	21·35507,234	19·79277,359	18·40158,443	17·15908,636	15·04629,687
41	25·46612,200	23·41239,995	21·59910,371	19·99305,181	18·56610,949	17·29436,796	15·13801,591
42	25·82060,683	23·70135,917	21·83488,281	20·18562,674	18·72354,976	17·42321,758	15·22454,331
43	26·16641,969	23·98190,211	22·06268,870	20·37079,494	18·87421,029	17·54591,198	15·30617,294
44	26·50381,915	24·25427,389	22·28279,102	20·54884,129	19·01838,306	17·66277,331	15·38318,202
45	26·83302,586	24·51871,251	22·49545,026	20·72003,970	19·15631,742	17·77407,982	15·45583,209
46	27·15426,962	24·77544,904	22·70091,812	20·88465,356	19·28837,074	17·88009,650	15·52436,990
47	27·46778,255	25·02470,780	22·89943,780	21·04293,612	19·41470,484	17·98101,571	15·58899,821
48	27·77378,571	25·26670,660	23·09124,425	21·19513,088	19·53560,633	18·07715,782	15·65002,661
49	28·07256,947	25·50166,649	23·27656,449	21·34147,200	19·65129,813	18·16872,173	15·70757,227
50	28·36431,168	25·72976,397	23·45561,787	21·48218,462	19·76200,778	18·25592,546	15·76186,063
51	28·64915,774	25·95122,716	23·62861,630	21·61748,521	19·86795,003	18·33897,663	15·81307,607
52	28·92728,072	26·16623,996	23·79576,454	21·74758,193	19·96933,017	18·41807,298	15·86139,252
53	29·19884,948	26·37499,025	23·95726,043	21·87267,493	20·06634,466	18·49340,284	15·90697,407
54	29·46401,900	26·57766,043	24·11329,510	21·99295,667	20·15918,149	18·56514,556	15·94997,554
55	29·72293,928	26·77444,761	24·26405,323	22·10861,218	20·24802,057	18·63347,196	15·99054,296
56	29·97575,784	26·96554,370	24·40971,327	22·21981,910	20·33303,404	18·69854,473	16·02881,411
57	30·22261,740	27·15093,563	24·55044,760	22·32674,943	20·41436,664	18·76051,879	16·06491,898
58	30·46366,722	27·33100,546	24·68642,281	22·42954,756	20·49223,602	18·81954,170	16·09898,017
59	30·69905,290	27·50583,035	24·81779,981	22·52834,957	20·56673,303	18·87575,400	16·13111,336
60	30·90865,649	27·67556,364	24·94473,412	22·62345,997	20·63802,204	18·92928,953	16·16142,770
61	31·13039,657	27·84035,304	25·06737,596	22·71489,421	20·70624,119	18·98027,574	16·19002,613
62	31·34127,436	28·00034,276	25·18587,049	22·80278,289	20·77152,967	19·02883,401	16·21700,579
63	31·54378,377	28·15567,258	25·30035,796	22·88729,121	20·83399,298	19·07508,003	16·24245,829
64	31·73659,148	28·30647,823	25·41097,388	22·96854,927	20·89377,319	19·11912,384	16·26647,009
65	31·96147,706	28·45289,149	25·51784,916	23·04668,199	20·95097,913	19·16107,033	16·28912,272
66	32·16056,928	28·59501,028	25·62111,030	23·12180,959	21·00572,165	19·20101,936	16·31049,313
67	32·35176,876	28·73301,881	25·72087,951	23·19404,769	21·05810,685	19·23906,606	16·33065,390
68	32·53531,099	28·86705,768	25·81727,489	23·26350,739	21·10823,622	19·27530,101	16·34967,749
69	32·71030,311	28·99732,396	25·91041,053	23·33029,556	21·15620,691	19·30991,013	16·36761,650
70	32·89785,698	29·12549,132	26·00039,664	23·39451,497	21·20211,187	19·34202,665	16·38454,387

V.—*Table of the Progressive Decrement of Life among* 1,000 *Infants of each Sex, born together, according to Mr. Finlaison's Observations on the Mortality of the Nominees in the Government Tontines and Life Annuities in Great Britain.*

Age	Males	Females	Age	Males	Females	Age	Males	Females	Age	Males	Females	Age	Males	Females	Age	Males	Females
0	1,000	1,000	17	869	870	34	696	744	51	552	616	68	322	443	85	56	117
1	981	981	18	854	863	35	687	740	52	542	608	69	305	428	86	44	103
2	963	967	19	846	856	36	679	732	53	531	601	70	288	412	87	34	89
3	949	955	20	837	848	37	670	724	54	520	593	71	270	395	88	26	76
4	937	945	21	827	841	38	662	716	55	508	585	72	253	377	89	17	64
5	927	935	22	816	834	39	653	708	56	495	576	73	235	358	90	11	52
6	919	926	23	804	827	40	644	700	57	482	568	74	218	339	91	7	41
7	912	919	24	793	820	41	636	693	58	468	559	75	202	319	92	4	30
8	906	913	25	782	813	42	627	685	59	454	549	76	185	298	93	3	21
9	901	908	26	771	805	43	619	677	60	440	539	77	171	277	94	1	14
10	896	903	27	761	798	44	610	669	61	426	529	78	156	255	95		8
11	891	899	28	751	791	45	602	661	62	413	519	79	141	233	96		5
12	886	895	29	742	784	46	594	654	63	399	508	80	125	210	97		2
13	881	892	30	732	777	47	586	646	64	385	496	81	110	189	98		1
14	876	887	31	723	770	48	578	638	65	370	484	82	95	168	99		
15	872	883	32	714	763	49	570	631	66	355	471	83	81	149	100		
16	866	876	33	705	755	50	561	623	67	339	457	84	68	132			

VI.—*Table showing the Expectation of Life at every Age, according to the Observations made at Northampton.*

Age	Expect.	Age	Expect.	Age	Expect.	Age	Expect.	Age	Expect.	Age	Expect.
0	25·15	17	35·20	33	26·72	49	18·49	65	10·88	81	4·41
1	32·74	18	34·58	34	26·20	50	17·99	66	10·42	82	4·09
2	37·79	19	33·99	35	25·68	51	17·50	67	9·96	83	3·80
3	39·55	20	33·43	36	25·16	52	17·02	68	9·50	84	3·58
4	40·58	21	32·90	37	24·64	53	16·54	69	9·05	85	2·37
5	40·84	22	32·39	38	24·12	54	16·06	70	8·60	86	3·19
6	41·07	23	31·88	39	23·60	55	15·58	71	8·17	87	3·01
7	41·03	24	31·36	40	23·08	56	15·10	72	7·74	88	2·86
8	40·79	25	30·83	41	22·56	57	14·63	73	7·33	89	2·66
9	40·36	26	30·33	42	22·04	58	14·15	74	6·98	90	2·41
10	39·78	27	29·82	43	21·54	59	13·68	75	6·54	91	2·09
11	39·14	28	29·30	44	21·03	60	13·21	76	6·18	92	1·75
12	38·49	29	28·79	45	20·52	61	12·75	77	5·83	93	1·37
13	37·83	30	28·27	46	20·02	62	12·28	78	5·48	94	1·03
14	37·17	31	27·76	47	19·51	63	11·81	79	5·11	95	0·78
15	36·51	32	27·24	48	19·00	64	11·35	80	4·75	96	0·50
16	35·85										

VII.—*Table of Mortality; showing the Number of Persons alive at the end of every Year from 1 to 100 Years of Age, out of 1,000 born together, in the different Places, and according to the Authorities undermentioned.*

Ages	England			France			Sweden	Vienna	Berlin	Switzerland	Silesia	Holland
	Dr. Farr London	*Price* Northampton	*Heysham* Carlisle	*Deparcieux* Annuitants, &c.	*Buffon* Part Population	*Inverlair* Whole Population	*Wargentin* Whole Population	*Suessmilch*	*Suessmilch*	*Muret* Pays de Vaud	*Hoffmann* Breslau	*Kersseboom* Life Annuitants
1	515	743	816	745	731	768	780	564	685	813	719	804
2	431	625	778	709	652	674	730	471	598	746	606	768
3	395	582	775	698	597	629	699	430	556	711	551	776
4	368	553	760	692	557	599	671	404	534	685	515	749
5	349	536	680	687	540	585	656	377	507	661	495	689
6	332	521	668	684	525	573	644	357	487	638	479	676
7	317	509	659	682	513	566	634	344	476	617	466	664
8	305	499	654	675	501	560	626	337	467	597	455	652
9	300	492	649	667	494	556	619	331	461	579	445	646
10	297	487	646	660	488	551	611	327	456	563	436	639
11	295	483	643	655	482	547	606	322	453	548	428	633
12	293	478	640	650	482	543	602	318	450	535	422	627
13	291	474	637	685	479	538	597	314	447	523	417	621
14	289	470	634	681	476	534	591	310	444	513	413	616
15	288	465	630	678	472	529	586	306	441	504	409	611
16	286	461	626	674	468	524	580	302	438	496	404	606
17	284	457	622	670	464	519	574	299	435	488	401	601
18	282	452	618	665	459	513	568	295	432	481	397	596
19	280	446	615	661	455	508	562	291	428	474	393	590
20	278	441	609	656	449	502	556	288	424	468	390	584
21	275	434	605	651	445	496	550	284	420	462	386	577
22	272	428	601	646	440	490	544	280	415	457	381	571
23	269	421	596	640	434	484	538	276	410	452	376	566
24	267	415	592	634	430	478	533	273	405	447	371	559
25	264	409	588	629	425	471	526	269	399	442	367	551
26	262	402	584	623	419	465	521	265	393	437	362	543
27	258	396	579	617	408	458	515	261	387	432	356	535
28	255	389	575	612	402	452	509	256	381	427	351	526
29	253	383	570	606	398	445	503	251	375	422	346	517
30	250	376	564	600	388	438	497	247	369	417	340	508
31	247	370	559	595	383	432	491	243	364	412	335	499
32	244	364	553	590	377	425	485	239	359	407	329	490
33	241	357	547	584	371	418	479	235	354	402	324	482
34	238	351	542	579	366	411	473	231	349	397	318	474
35	234	344	536	574	355	404	468	226	343	392	313	467
36	231	338	531	568	350	397	462	221	337	387	307	460
37	228	331	525	564	344	390	457	216	330	382	302	453
38	225	325	519	559	338	383	451	211	323	377	296	446
39	222	318	514	554	330	376	445	205	316	373	289	439
40	218	312	508	549	324	369	439	199	309	368	282	432
41	215	305	501	544	319	362	433	194	303	363	275	425
42	210	299	499	539	312	355	426	189	297	358	268	419
43	206	292	487	534	307	348	420	185	292	353	261	413
44	204	286	480	529	299	341	414	181	287	348	254	407
45	201	279	473	524	292	334	408	176	282	343	247	400
46	197	272	466	519	283	327	402	171	277	339	239	393
47	193	265	459	513	269	320	397	165	272	334	231	386
48	189	259	452	508	262	312	390	159	267	329	223	378
49	185	252	446	502	255	305	384	153	262	324	215	370
50	181	245	440	496	248	297	378	147	257	319	207	362
51	177	238	434	490	239	289	372	142	252	314	199	354
52	173	231	428	483	233	282	367	137	247	309	191	345
53	168	224	421	478	229	274	358	133	242	304	183	336
54	164	217	414	471	224	265	349	128	237	299	175	327
55	159	210	407	465	218	258	340	123	232	294	167	318
56	155	203	400	456	207	249	331	117	227	287	159	309
57	150	195	392	449	202	240	322	111	221	280	151	300
58	145	189	384	438	194	232	312	106	215	273	143	291
59	140	182	375	429	190	223	303	101	209	266	135	282
60	134	175	364	419	185	214	293	96	203	259	127	273
61	129	168	352	409	165	204	282	91	197	252	118	264
62	123	161	340	399	157	195	271	87	192	246	110	255
63	116	154	327	388	150	186	259	82	186	239	103	245
64	110	147	314	378	144	176	247	77	180	232	096	235
65	103	140	302	367	135	166	235	72	174	225	090	225
66	096	133	289	356	126	157	224	67	168	218	083	215
67	089	126	277	345	117	147	212	62	162	211	076	205
68	081	119	265	334	106	137	200	57	156	204	069	195
69	074	113	251	322	96	129	187	52	150	196	062	185
70	066	106	240	311	90	118	175	48	145	188	055	175
71	058	99	228	299	86	108	162	44	140	180	048	165
72	051	92	214	287	75	99	149	40	135	172	041	155
73	043	85	200	275	70	89	135	36	130	164	034	145
74	035	78	184	262	63	80	121	33	125	156	027	135
75	027	71	168	248	52	72	108	30	120	148	020	125
76	019	65	152	234	47	63	096	27	115	140	013	115
77	011	58	136	220	42	56	084	24	110	132	007	105
78	009	52	121	206	36	48	075	21	105	124	001	095
79	007	46	108	194	34	41	065	18	100	116	000	085
80	005	40	095	181	23	33	056	16	095	108	000	075
81	004	35	084	170	21	29	047	14	090	100	000	065
82	003	30	073	159	18	24	038	12	085	092	000	055
83	002	25	062	149	15	19	031	10	080	084	000	045
84	001	20	053	140	12	15	024	8	075	076	000	035
85	000	16	045	133	10	12	019	7	070	068	000	025
86	000	12	037	126	8	9	014	6	065	060	000	020
87	000	9	030	111	7	7	011	5	060	052	000	015
88	000	7	023	98	6	6	008	4	055	044	000	010
89	000	5	018	86	5	5	006	3	050	036	000	005
90	000	4	014	76	4	4	004	2	045	028	000	000
91	000	3	010	66	3	3	003	2	040	020	000	000
92	000	2	008	56	2	3	002	1	035	012	000	000
93	000	1	005	46	2	2	001	1	030	004	000	000
94	000	1	004	36	1	2	001	1	025	000	000	000
95	000	1	003	26	1	1	001	1	020	000	000	000
96	000	1	002	16	1	1	001	1	015	000	000	000
97	000	1	001	06	1	1	001	1	010	000	000	000
98	000	1	001	06	1	1	001	1	005	000	000	000
99	000	1	001	06	1	1	001	1	000	000	000	000
100	000	1	001	06	1	1	001	1	000	000	000	000

VIII.—*Table showing the Expectation of Life at every Age, according to the Observations made at Carlisle.*

Age	Expect.	Age	Expect.	Age	Expect.	Age	Expect.	Age	Expect.	Age	Expect.
0	38·72	18	42·87	36	30·32	53	18·97	70	9·19	87	3·71
1	44·68	19	42·17	37	29·64	54	18·28	71	8·65	88	3·59
2	47·45	20	41·46	38	28·96	55	17·58	72	8·16	89	3·47
3	49·52	21	40·75	39	28·28	56	16·89	73	7·72	90	3·28
4	50·76	22	40·04	40	27·61	57	16·21	74	7·33	91	3·06
5	51·25	23	39·31	41	26·97	58	15·55	75	7·01	92	3·57
6	51·17	24	38·59	42	26·34	59	14·92	76	6·69	93	3·48
7	50·80	25	37·86	43	25·71	60	14·34	77	6·40	94	3·53
8	50·24	26	37·14	44	25·09	61	13·82	78	6·12	95	3·55
9	49·57	27	36·41	45	24·46	62	13·31	79	5·80	96	3·16
10	48·82	28	35·69	46	23·82	63	12·81	80	5·51	97	3·28
11	48·04	29	35·00	47	23·17	64	12·30	81	5·21	98	3·07
12	47·27	30	34·34	48	22·50	65	11·79	82	4·93	99	2·77
13	46·51	31	33·68	49	21·81	66	11·27	83	4·65	100	2·28
14	45·75	32	33·03	50	21·11	67	10·75	84	4·39	101	1·79
15	45·00	33	32·36	51	20·39	68	10·23	85	4·12	102	1·30
16	44·27	34	31·68	52	19·68	69	9·70	86	3·90	103	0·83
17	43·57	35	31·00								

IX.—*English Life Table, denoting the Expectation of Life at every Age, compiled by Dr. Farr from the Returns of Deaths, and published by and for the Government*, 1864.

Age or past life-time	Mean after lifetime		Age or past life-time	Mean after lifetime		Age or past life-time	Mean after lifetime		Age or past life-time	Mean after lifetime	
	Males	Females		Males	Females		Males	Females		Males	Females
	years	years		years	years		years	years		years	years
0	39·91	41·85	26	35·41	36·39	52	18·28	19·42	78	5·51	5·88
1	46·65	47·31	27	34·77	35·75	53	17·67	18·75	79	5·21	5·56
2	48·83	49·40	28	34·10	35·10	54	17·08	18·08	80	4·93	5·28
3	49·61	50·20	29	33·43	34·46	55	16·45	17·43	81	4·66	4·98
4	49·81	50·43	30	32·76	33·81	56	15·86	16·79	82	4·41	4·71
5	49·71	50·33	31	32·09	33·17	57	15·26	16·17	83	4·17	4·45
6	49·39	50·01	32	31·42	32·53	58	14·68	15·58	84	3·95	4·21
7	48·92	49·53	33	30·74	31·88	59	14·10	14·94	85	3·73	3·98
8	48·37	48·98	34	30·07	31·23	60	13·53	14·34	86	3·53	3·76
9	47·74	48·35	35	29·40	30·59	61	12·96	13·75	87	3·34	3·56
10	47·05	47·67	36	28·73	29·94	62	12·41	13·17	88	3·16	3·38
11	46·31	46·95	37	28·06	29·29	63	11·87	12·60	89	3·00	3·18
12	45·54	46·20	38	27·39	28·64	64	11·34	12·05	90	2·84	3·01
13	44·76	45·44	39	26·72	27·99	65	10·82	11·51	91	2·69	2·85
14	43·97	44·66	40	26·06	27·34	66	10·32	10·98	92	2·55	2·70
15	43·18	43·90	41	25·39	26·69	67	9·83	10·47	93	2·41	2·55
16	42·40	43·14	42	24·73	26·03	68	9·36	9·97	94	2·29	2·42
17	41·64	42·40	43	24·07	25·38	69	8·90	9·48	95	2·17	2·29
18	40·90	41·67	44	23·41	24·72	70	8·45	9·02	96	2·06	2·17
19	40·17	40·97	45	22·76	24·06	71	8·03	8·57	97	1·95	2·06
20	39·48	40·29	46	22·11	23·40	72	7·62	8·15	98	1·85	1·96
21	38·80	39·63	47	21·46	22·74	73	7·22	7·71	99	1·76	1·86
22	38·13	38·98	48	20·82	22·08	74	6·85	7·31	100	1·68	1·76
23	37·46	38·33	49	20·17	21·42	75	6·49	6·93			
24	36·79	37·68	50	19·54	20·75	76	6·15	6·56			
25	36·12	37·04	51	18·90	20·09	77	5·82	6·21			

X.—*Table giving a Comparative View of the Results of the undermentioned Tables of Mortality, in relation to the following Particulars.*

	By Dr. Price's Table, founded on the Register of Births and Burials at Northampton	By the First Swedish Tables as published by Dr. Price; for both sexes	By Mr. Deparcieux's Table, founded on the Mortality in the French Tontines, prior to 1745	By Mr. Milne's Table, founded on the Mortality observed at Carlisle	By Mr. Griffith Davies's Table, founded on the Experience of the Equitable Life Insurance Office	By Mr. Finlaison's Table, founded on the Experience of the Government Life Annuities	
						According to his *First* Investigation, as mentioned in his Evidence in 1829	According to his *Second* Investigation, as mentioned in his Evidence in 1857
						Mean of both Sexes	Mean of both Sexes
Of 100,000 persons aged 25 there would be alive at the age of 65 - -	34,286	45,137	51,033	51,335	49,330	53,470	53,950
Of 100,000 persons aged 65, there would be alive at the age of 80 - -	28,733	23,704	29,837	31,577	37,267	38,633	37,335
Expectation of life at the age of 25 years	39·85	34·58	37·17	37·86	37·15	38·35	38·31
Expectation of life at the age of 65 - -	10·88	10·10	11·25	11·79	12·35	12·81	12·50
Value of an annuity on a life aged 25, interest being at 4 per cent. - -	£15·428	£16·839	£17·420	£17·645	£17·494	£17·534	£17·634
Value of an annuity on a life aged 65, interest being at 4 per cent. - -	£7·761	£7·328	£8·039	£8·307	£8·635	£8·896	£8·731
Value of a deferred annuity commencing at 65, to a life now aged 25, interest at 4 per cent. - - -	£0·55424	£0·65512	£0·65452	£0·68823	£0·68723	£0·69078	£0·68331

Note.—In all the Tables above mentioned, it is to be observed that the mortality is deduced from an equal, or nearly equal, number of each sex; with the single exception of Mr. Davies's Table, founded on the experience of the Equitable, in which office, from the practical objects of life insurance, it is evident the male sex must have composed the vast majority of lives subjected to mortality. But as it is agreed on all hands that the duration of life among females exceeds that of males, it follows that the results of Mr. Davies's Table fall materially short of what they would have been, if the facts on which he has reasoned had comprehended an equal number of each sex. The Tables have not, in all cases, been computed at 4½ per cent., the rate allowed by Government.

XI.—*Table showing the Value of an Annuity on a Single Life, according to the Northampton Table of Mortality.*

Age	3 per Cent.	4 per Cent.	5 per Cent.	Age	3 per Cent.	4 per Cent.	5 per Cent.	Age	3 per Cent.	4 per Cent.	5 per Cent.
1	16·021	13·465	11·363	33	16·343	14·347	12·740	65	8·304	7·761	7·276
2	18·599	15·633	13·420	34	16·142	14·195	12·625	66	7·994	7·488	7·034
3	19·575	16·462	14·135	35	15·938	14·039	12·502	67	7·682	7·211	6·787
4	20·210	17·010	14·613	36	15·729	13·881	12·377	68	7·367	6·930	6·536
5	20·473	17·248	14·827	37	15·515	13·718	12·249	69	7·051	6·647	6·281
6	20·727	17·482	15·041	38	15·296	13·548	12·116	70	6·734	6·361	6·023
7	20·853	17·611	15·166	39	15·075	13·375	11·979	71	6·418	6·075	5·764
8	20·885	17·662	15·236	40	14·848	13·197	11·837	72	6·103	5·790	5·506
9	20·912	17·693	15·280	41	14·620	13·018	11·695	73	5·794	5·507	5·245
10	20·663	17·523	15·139	42	14·391	12·838	11·551	74	5·491	5·230	4·990
11	20·480	17·393	15·043	43	14·162	12·657	11·407	75	5·199	4·962	4·744
12	20·283	17·251	14·937	44	13·929	12·472	11·258	76	4·925	4·710	4·511
13	20·081	17·103	14·826	45	13·692	12·283	11·105	77	4·652	4·457	4·277
14	19·872	16·950	14·710	46	13·450	12·089	10·947	78	4·372	4·197	4·035
15	19·657	16·791	14·588	47	13·203	11·890	10·784	79	4·077	3·921	3·776
16	19·435	16·625	14·460	48	12·951	11·685	10·616	80	3·718	3·643	3·513
17	19·214	16·462	14·336	49	12·695	11·475	10·443	81	3·499	3·377	3·263
18	19·013	16·309	14·217	50	12·436	11·264	10·269	82	3·239	3·122	3·020
19	18·820	16·167	14·108	51	12·183	11·057	10·097	83	2·982	2·887	2·797
20	18·638	16·033	14·007	52	11·930	10·849	9·925	84	2·793	2·708	2·627
21	18·470	15·912	13·917	53	11·674	10·637	9·748	85	2·620	2·543	2·471
22	18·311	15·797	13·833	54	11·414	10·421	9·567	86	2·461	2·393	2·328
23	18·148	15·680	13·746	55	11·150	10·201	9·382	87	2·312	2·251	2·193
24	17·983	15·560	13·658	56	10·882	9·977	9·193	88	2·185	2·131	2·080
25	17·814	15·438	13·567	57	10·611	9·749	8·999	89	2·015	1·967	1·924
26	17·642	15·312	13·473	58	10·337	9·516	8·801	90	1·794	1·758	1·723
27	17·467	15·184	13·377	59	10·058	9·280	8·599	91	1·501	1·474	1·447
28	17·289	15·053	13·278	60	9·777	9·039	8·392	92	1·190	1·171	1·153
29	17·107	14·918	13·177	61	9·493	8·795	8·181	93	0·839	0·827	0·816
30	16·922	14·781	13·072	62	9·205	8·547	7·966	94	0·556	0·550	0·544
31	16·732	14·639	12·965	63	8·910	8·291	7·742	95	0·242	0·240	0·238
32	16·540	14·495	12·854	64	8·611	8·030	7·514	96	0·000	0·000	0·000

XII.—*Table showing the Value of an Annuity on a Single Life, according to the Carlisle Table of Mortality.*

Age	3 per Cent.	4 per Cent.	5 per Cent.	Age	3 per Cent.	4 per Cent.	5 per Cent.	Age	3 per Cent.	4 per Cent.	5 per Cent.
1	20·085	16·656	13·993	36	18·183	15·856	13·987	70	7·123	6·709	6·336
2	21·501	17·738	14·963	37	17·928	15·666	13·843	71	6·737	6·358	6·015
3	22·085	18·217	15·374	38	17·669	15·471	13·695	72	6·373	6·026	5·711
4	23·285	19·233	16·271	39	17·405	15·272	13·542	73	6·014	5·715	5·433
5	23·693	19·592	16·590	40	17·143	15·076	13·390	74	5·758	5·458	5·190
6	23·848	19·747	16·735	41	16·880	14·883	13·243	75	5·512	5·239	4·989
7	23·867	19·790	16·790	42	16·640	14·694	13·101	76	5·277	5·024	4·792
8	23·801	19·766	16·786	43	16·389	14·505	12·957	77	5·059	4·825	4·609
9	23·677	19·693	16·742	44	16·130	14·308	12·806	78	4·838	4·622	4·422
10	23·512	19·585	16·669	45	15·863	14·104	12·648	79	4·592	4·394	4·210
11	23·327	19·460	16·581	46	15·585	13·889	12·480	80	4·365	4·183	4·015
12	23·143	19·336	16·494	47	15·294	13·662	12·301	81	4·119	3·953	3·799
13	22·957	19·210	16·406	48	14·986	13·419	12·107	82	3·894	3·746	3·606
14	22·769	19·082	16·316	49	14·654	13·153	11·892	83	3·672	3·531	3·406
15	22·582	18·956	16·227	50	14·303	12·869	11·660	84	3·454	3·329	3·211
16	22·401	18·837	16·144	51	13·932	12·566	11·410	85	3·229	3·115	3·009
17	22·231	18·723	16·066	52	13·558	12·258	11·154	86	3·033	2·918	2·830
18	22·058	18·609	15·987	53	13·180	11·945	10·892	87	2·873	2·776	2·685
19	21·879	18·488	15·904	54	12·798	11·627	10·624	88	2·776	2·683	2·597
20	21·694	18·363	15·817	55	12·408	11·300	10·347	89	2·665	2·577	2·495
21	21·504	18·233	15·726	56	12·014	10·966	10·063	90	2·499	2·416	2·339
22	21·304	18·095	15·628	57	11·614	10·625	9·771	91	2·481	2·398	2·321
23	21·098	17·951	15·525	58	11·218	10·286	9·478	92	2·577	2·492	2·412
24	20·885	17·801	15·417	59	10·841	9·963	9·199	93	2·647	2·560	2·478
25	20·665	17·645	15·303	60	10·491	9·663	8·940	94	2·736	2·650	2·569
26	20·442	17·486	15·187	61	10·180	9·398	8·712	95	2·757	2·674	2·596
27	20·212	17·320	15·065	62	9·875	9·137	8·487	96	2·704	2·624	2·545
28	19·981	17·151	14·942	63	9·567	8·872	8·258	97	2·559	2·492	2·428
29	19·751	16·997	14·827	64	9·246	8·593	8·016	98	2·384	2·332	2·278
30	19·536	16·852	14·723	65	8·917	8·307	7·765	99	2·131	2·087	2·045
31	19·348	16·705	14·617	66	8·578	8·010	7·503	100	1·843	1·653	1·624
32	19·134	16·552	14·506	67	8·228	7·700	7·227	101	1·428	1·410	1·392
33	18·910	16·390	14·387	68	7·869	7·380	6·941	102	0·771	0·762	0·753
34	18·675	16·219	14·260	69	7·499	7·049	6·643	103	0·321	0·321	0·317
35	18·433	16·041	14·127								

XIII.—*Table showing the Value of an Annuity on the Joint Continuance of Two Lives of Equal Ages, according to the Northampton Table of Mortality.*

Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.
1 and 1	9·490	8·252	7·287	33 and 33	12·079	10·902	9·919	65 and 65	5·471	5·101	4·960
2 2	12·789	11·107	9·793	34 34	11·902	10·759	9·801	66 66	5·231	4·882	4·759
3 3	14·191	12·325	10·862	35 35	11·722	10·612	9·680	67 67	4·989	4·660	4·555
4 4	15·181	13·185	11·621	36 36	11·539	10·462	9·555	68 68	4·747	4·437	4·348
5 5	15·638	13·591	11·984	37 37	11·351	10·307	9·427	69 69	4·504	4·212	4·140
6 6	16·099	14·005	12·358	38 38	11·160	10·149	9·294	70 70	4·261	4·087	3·930
7 7	16·375	14·224	12·596	39 39	10·964	9·988	9·158	71 71	4·020	3·862	3·719
8 8	16·510	14·399	12·731	40 40	10·764	9·820	9·016	72 72	3·781	3·639	3·510
9 9	16·483	14·396	12·741	41 41	10·565	9·654	8·878	73 73	3·548	3·421	3·301
10 10	16·339	14·277	12·669	42 42	10·369	9·491	8·737	74 74	3·324	3·211	3·105
11 11	16·142	14·133	12·546	43 43	10·175	9·326	8·599	75 75	3·114	3·015	2·917
12 12	15·926	13·966	12·411	44 44	9·977	9·161	8·457	76 76	2·926	2·833	2·750
13 13	15·702	13·789	12·268	45 45	9·776	8·990	8·312	77 77	2·741	2·656	2·583
14 14	15·470	13·604	12·118	46 46	9·571	8·815	8·162	78 78	2·550	2·470	2·410
15 15	15·229	13·411	11·960	47 47	9·362	8·637	8·008	79 79	2·358	2·271	2·217
16 16	14·979	13·212	11·793	48 48	9·149	8·453	7·849	80 80	2·122	2·068	2·018
17 17	14·737	13·019	11·630	49 49	8·930	8·266	7·686	81 81	1·917	1·869	1·827
18 18	14·516	12·841	11·483	50 50	8·714	8·080	7·522	82 82	1·719	1·681	1·642
19 19	14·316	12·679	11·351	51 51	8·507	7·900	7·366	83 83	1·538	1·510	1·472
20 20	14·133	12·533	11·232	52 52	8·304	7·723	7·213	84 84	1·416	1·387	1·357
21 21	13·974	12·409	11·131	53 53	8·098	7·544	7·056	85 85	1·309	1·359	1·256
22 22	13·830	12·295	11·044	54 54	7·891	7·362	6·897	86 86	1·218	1·195	1·171
23 23	13·693	12·179	10·951	55 55	7·681	7·179	6·735	87 87	1·141	1·124	1·099
24 24	13·534	12·062	10·858	56 56	7·470	6·993	6·571	88 88	1·103	1·050	1·083
25 25	13·383	11·944	10·764	57 57	7·256	6·805	6·404	89 89	1·036	1·015	1·001
26 26	13·230	11·822	10·667	58 58	7·041	6·614	6·234	90 90	0·938	0·922	0·909
27 27	13·074	11·699	10·567	59 59	6·826	6·421	6·061	91 91	0·769	0·756	0·748
28 28	12·915	11·573	10·466	60 60	6·609	6·226	5·888	92 92	0·591	0·583	0·576
29 29	12·754	11·445	10·362	61 61	6·386	6·030	5·712	93 93	0·369	0·365	0·361
30 30	12·589	11·315	10·253	62 62	6·166	5·831	5·533	94 94	0·203	0·201	0·199
31 31	12·422	11·179	10·146	63 63	5·934	5·628	5·347	95 95	0·060	0·060	0·059
32 32	12·252	11·042	10·038	64 64	5·709	5·417	5·158	96 96	0·000	0·000	0·000

XIV.—*Table showing the Value of an Annuity on the Joint Continuance of Two Lives of Equal Ages, according to the Carlisle Table of Mortality.*

Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.
1 and 1	14·079	11·924	10·299	36 and 36	11·477	12·919	11·627	70 and 70	4·566	4·367	4·191
2 2	16·155	13·671	11·795	37 37	14·231	12·724	11·470	71 71	4·247	4·060	3·893
3 3	18·050	15·260	13·162	38 38	13·981	12·525	11·309	72 72	3·936	3·760	3·615
4 4	19·065	16·247	13·952	39 39	13·727	12·322	11·144	73 73	3·631	3·467	3·371
5 5	19·515	16·801	14·517	40 40	13·481	12·125	10·984	74 74	3·400	3·279	3·165
6 6	20·156	17·512	14·789	41 41	13·251	11·945	10·839	75 75	3·231	3·1 9	3·015
7 7	20·280	17·242	14·917	42 42	13·036	11·774	10·701	76 76	3·068	2·966	2·870
8 8	20·261	17·251	14·922	43 43	12·844	11·602	10·566	77 77	2·927	2·833	2·744
9 9	20·146	17·179	14·888	44 44	12·680	11·425	10·420	78 78	2··81	2··08	2·617
10 10	19·963	17·049	14·805	45 45	12·371	11·213	10·278	79 79	2·610	2·533	2·460
11 11	19·718	16·891	14·681	46 46	12·128	11·047	10·149	80 80	2·479	2·399	2·324
12 12	19·538	16·737	14·568	47 47	11·870	10·832	9·947	81 81	2·285	2·222	2·163
13 13	19·327	16·582	14·430	48 48	11·591	10·647	9·756	82 82	2·135	2·079	2·027
14 14	19·145	16·425	14·331	49 49	11·279	10·345	9·535	83 83	1·978	1·929	1·882
15 15	18·908	16·272	14·215	50 50	10·942	10·059	9·291	84 84	1·825	1·782	1·741
16 16	18·719	16·134	14·112	51 51	10·579	9·748	9·023	85 85	1··7	1·649	1·585
17 17	18 542	16·017	14·018	52 52	10·215	9·434	8·751	86 86	1·509	1·476	1·414
18 18	18·365	15·890	13·925	53 53	9·849	9·117	8·474	87 87	1·349	1·359	1·331
19 19	18·182	15·748	13·827	54 54	9·480	8·796	8·192	88 88	1·328	1·301	1·275
20 20	17·993	15··10	13·724	55 55	9·103	8·465	7·900	89 89	1·248	1·223	1·199
21 21	17·792	15·466	13··16	56 56	8·721	8·128	7·600	90 90	1·168	1·066	1·045
22 22	17·588	15·310	13·197	57 57	8·334	7·783	7 293	91 91	1·050	1·028	1·007
23 23	17·372	15·148	13·072	58 58	7·954	7·414	6·985	92 92	1·120	1·096	1·073
24 24	17·148	14·978	13··40	59 59	7·605	7·131	6·765	93 93	1·226	1·199	1·173
25 25	16·916	14·800	13·101	60 60	7·295	6·854	6·456	94 94	1·302	1·273	1·245
26 26	16·681	14·620	12·960	61 61	7·044	6·630	6·257	95 95	1·383	1·353	1·323
27 27	16·437	14·431	12·811	62 62	6·804	6·417	6·067	96 96	1·424	1·391	1·364
28 28	16·196	14·241	12·663	63 63	6··63	6·202	5··75	97 97	1·395	1·366	1·339
29 29	15·976	14·075	12·550	64 64	6·548	5··74	5·669	98 98	1·375	1·349	1·323
30 30	15·784	13·930	12·419	65 65	6·047	5·738	5·456	99 99	1·294	1·272	1·251
31 31	15·591	13·784	12·308	66 66	5·774	5·490	5·230	100 100	0·991	0·976	0·962
32 32	15·392	13·632	12·191	67 67	5·486	5·228	4 990	101 101	0·687	0·679	0·670
33 33	15·180	13·469	12·061	68 68	5·188	4·954	4·737	102 102	0·587	0·583	0·579
34 34	14·954	13·294	11·926	69 69	4·877	4·666	4·471	103 103	0··09	0·107	0·106
35 35	14·720	13·111	11·780								

XV.—*Table showing the Value of an Annuity on the Joint Continuance of Two Lives, when the Difference of Age is Five Years, according to the Northampton Table of Mortality.*

Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.
1 and 6	12·346	10·741	9·479	32 and 37	11·775	10·639	9·716	62 and 67	5·503	5·285	4·986
2 7	14 461	12·581	11·100	33 38	11·591	10·508	9·591	63 68	5·265	5·017	4·736
3 8	15·500	13·519	11·755	34 39	11·401	10·364	9·463	64 69	5·025	4·798	4·585
4 9	15··09	13·775	12·166	35 40	11·213	10·196	9··31	65 70	4·782	4··73	4·378
5 10	15·974	13·935	12·315	36 41	11·021	10 037	9·198	66 71	4·510	4·549	4··19
6 11	16·110	14·065	12·447	37 42	10·825	9 877	9·062	67 72	4·298	4·121	3·960
7 12	16·137	14·111	12·498	38 43	10·631	9·716	8·927	68 73	4·059	3·901	3·752
8 13	16·089	14·089	12·492	39 44	10·437	9·550	8·787	69 74	3·825	3·683	3·547
9 14	15·957	13·992	12·421	40 45	10·235	9··81	8·643	70 75	3·599	3·471	3 347
10 15	15·762	13·841	12·302	41 46	10·033	9··10	8·497	71 76	3·386	3·270	3·159
11 16	15·538	13·661	12·158	42 47	9·829	9·037	8·350	72 77	3·175	3·070	2·971
12 17	15··8	13·480	12·009	43 48	9 625	8·862	8·200	73 78	2·963	2·869	2·780
13 18	15·086	13·303	11·864	44 49	9·414	8·683	8·046	74 79	2·743	2·659	2·580
14 19	14·870	13·130	11·723	45 50	9 201	8·503	7·891	75 80	2·526	2·448	2 381
15 20	14·660	12·961	11·585	46 51	8·997	8··26	7·737	76 81	2·345	2·248	2··95
16 21	14··67	12·799	11·452	47 52	8·790	8·147	7·582	77 82	2·131	2·077	2·013
17 22	14·265	12·646	11·327	48 53	8·579	7·965	7·424	78 83	1·947	1·899	1·838
18 23	14··72	12·500	11·209	49 54	8·366	7·780	7·262	79 84	1·792	1·751	1·700
19 24	13·908	12·361	11·096	50 55	8·151	7·593	7·098	80 85	1·645	1·608	1·573
20 25	13·741	12·229	10·989	51 56	7·910	7·409	6 936	81 86	1·510	1·478	1·447
21 26	13·681	12·105	10·890	52 57	7·730	7·225	6·774	82 87	1·385	1·356	1·329
22 27	13·433	11·987	10·796	53 58	7·515	7·039	6·609	83 88	1·284	1·259	1·235
23 28	13·280	11 866	10·699	54 59	7·301	6·850	6·442	84 89	1·187	1·164	1 145
24 29	13·121	11·745	10·600	55 60	7·088	6·659	6·272	85 90	1·071	1·054	1·038
25 30	12 966	11·618	10·499	56 61	6·870	6·465	6·100	86 91	0·921	0·912	0·892
26 31	12·805	11 489	10·396	57 62	6 661	6 270	5 925	87 92	0·755	0·738	0·734
27 32	12·641	11·359	10·289	58 63	6·427	6·070	5·744	88 93	0·561	0·554	0 547
28 33	12·471	11·225	10·178	59 64	6·201	5·867	5·561	89 94	0·377	0·373	0·369
29 34	12·301	11·088	10·069	60 65	5·970	5·658	5·372	90 95	0·179	0·177	0·175
30 35	12·131	10·948	9·954	61 66	5·737	5·447	5·180	91 96	0·000	0·001	0·000
31 36	11·955	10 805	9·837								

XVI.—*Table showing the Value of an Annuity on the Joint Continuance of Two Lives, when the Difference of Age is Five Years, according to the Carlisle Table of Mortality.*

Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent.	5 per Cent.	Ages	3 per Cent.	4 per Cent	5 per Cent.
1 and 6	16·828	14·269	12·331	34 39	11·290	12·773	11·508	67 72	4·580	4·386	4·207
2 7	16··87	15·311	13·258	35 40	14·048	12·581	11·364	68 73	4·297	4·123	3 961
3 8	19·100	16·214	14·019	36 41	13·812	12·391	11·204	69 74	4·035	4·878	3·731
4 9	19·548	16·814	14·402	37 42	13·579	12·209	11·056	70 75	3·804	3·661	3·528
5 10	19·874	16·913	14·649	38 43	13·316	12·014	10·907	71 76	3·568	3·439	3·319
6 11	19·935	16·989	14·731	39 44	13·107	11·833	10·7 3	72 77	3·353	3·237	3·127
7 12	19·889	16·975	14·736	40 45	12·868	11·641	10·598	73 78	3·152	3·047	2·948
8 13	19·7 1	16 900	14·689	41 46	12·630	11·450	10·444	74 79	2·958	2·857	2·767
9 14	19·606	16·785	14·606	42 47	12·389	11·2 6	10·287	75 80	2·790	2·704	2·623
10 15	19·410	16 643	14·500	43 48	12·159	11·053	10·121	76 81	2·615	2·540	2·467
11 16	19 208	16·495	14·389	44 49	11·868	10·830	9·937	77 82	2·471	2·400	2·343
12 17	19·014	16·354	14·284	45 50	11·580	10·591	9·737	78 83	2·318	2·255	2·194
13 18	18·890	16·213	14·178	46 51	11·271	10·332	9·519	79 84	2·165	2·099	2·045
14 19	18·622	16·068	14·069	47 52	10·955	10·065	9·292	80 85	1·993	1·943	1·895
15 20	18·423	15·924	13·959	48 53	10·628	9·787	9·054	81 86	1·834	1·790	1·747
16 21	18·230	15·781	13 853	49 54	10·284	9·492	8·799	82 87	1·704	1·661	1·616
17 22	18·056	15·639	13·746	50 55	9·924	9·181	8·528	83 88	1·606	1·569	1·535
18 23	17·834	15·495	13·636	51 56	9·550	8·858	8·242	84 89	1·496	1·464	1·433
19 24	17·653	15·341	13·520	52 57	9·172	8 524	7·950	85 90	1·385	1·367	1·349
20 25	17·421	15·184	13 398	53 58	8·797	8·194	7·657	86 91	1·255	1·239	1·223
21 26	17·201	15·019	13·272	54 59	8·439	7·876	7·373	87 92	1·145	1·218	1·192
22 27	16 9 7	14·816	13·137	55 60	8·098	7·571	7·105	88 93	1·272	1·245	1·219
23 28	16·747	14·670	13 000	56 61	7·788	7·289	6·860	89 94	1·266	1·240	1·214
24 29	16·521	14·540	12·867	57 62	7·490	7·025	6·615	90 95	1·217	1·191	1·167
25 30	16 311	14 339	12·742	58 63	7·175	6·752	6·370	91 96	1·210	1·185	1·161
26 31	16·097	14·176	12·615	59 64	6·878	6 482	6·127	92 97	1·230	1·205	1·181
27 32	15··75	14·006	12·482	60 65	6·600	6·225	5·89	93 98	1·201	1·228	1·215
28 33	15·648	13·850	12·344	61 66	6·323	5·986	5·678	94 99	1·234	1·212	1·191
29 34	15·421	13·657	12·206	62 67	6·034	5·743	5·458	95 100	1·072	1·056	1·038
30 35	15·189	13·491	12·078	63 68	5·770	5·493	5·230	96 101	0·861	0·850	0·838
31 36	14·989	13·321	11 944	64 69	5·490	5 229	4·988	97 102	0·588	0·582	0·575
32 37	14·764	13·146	11·806	65 70	5·193	4·956	4·737	98 103	0·254	0·252	0·249
33 38	14·631	12·964	11·661	66 71	4·882	4·667	4·469				

The Northampton Table (No. VI.), by underrating the duration of life, was a very advantageous guide for the insurance offices to go by in insuring lives; but to whatever extent it might be beneficial to them in this respect, it became equally injurious when they adopted it as a guide in selling annuities. And yet, singular as it may seem, some of the insurance offices granted annuities on the *same* terms that they insured lives; not perceiving that, if they gained by the latter transaction, they must obviously lose by the former. Government also continued for a lengthened period to sell annuities according to the Northampton Tables, and without making any distinction between male and female lives! A glance at the Tables of M. Deparcieux ought to have satisfied them that they were proceeding on entirely false principles. But, in despite even of the admonitions of some of the most skilful mathematicians, this system was persevered in for many years. We understand that the loss thence arising to the public may be moderately estimated at 2,000,000*l.* sterling. Nor will this appear a large sum to those who recollect that, supposing interest to be 4 per cent., there is a difference of no less than 91*l.* 1*s.* in the value of an annuity of 50*l.* for life, to a person aged 45, between the Northampton and Carlisle Tables.

INVOICE. An account of goods or merchandise sent by merchants to their correspondents at home or abroad, in which the peculiar marks of each package, with other particulars, are set forth. [Book-keeping.]

IONIAN ISLANDS. The name given to the islands of Corfu, Paxo, Santa Maura, Ithaca, Cephalonia, Zante, Cerigo, and their dependent islets. With the exception of Cerigo, which lies opposite to the south-eastern extremity of the Morea, the rest lie pretty contiguous, along the western coasts of Epirus and Greece; the most northerly point of Corfu being in lat. 39° 48′ 15″ N., and the most southerly point of Zante (Cape Kieri, on which there is a light-house) being in lat. 37° 38′ 35″ N. Kapsali, the port of Cerigo, is in lat. 36° 7′ 30″ N., long. 23° E.

The area and population of the different islands may be estimated as follows:—

Islands	Area in Square Miles	Population in 1863
Corfu - -	227	73,553
Cephalonia - -	311	71,667
Zante - -	161	39,732
Santa Maura - -	156	20,902
Ithaca - -	44	11,964
Cerigo - -	116	11,720
Paxo - -	26	4,986
Total -	1,041	237,521*

* Of whom 9,527 were aliens and strangers.

Soil and Climate.—These are very various. Zante is the most fruitful. It consists principally of an extensive plain, occupied by plantations of currants, and having an air of luxuriant fertility and richness. Its climate is comparatively equal and fine, but it is very subject to earthquakes. Corfu and Cephalonia are more rugged and less fruitful than Zante; and the former from its vicinity to the snowy mountains of Epirus, and the latter from the Black Mountain in its interior, are exposed in winter to great and sudden variations of temperature; the frost sometimes damaging to a great extent the oranges and vines of these islands and those of Santa Maura. The latter is, in the hot season, exceedingly unhealthy —a consequence of the vapours arising from the marshes and the shallow seas to the N.E. Cerigo is rocky and sterile; it is subject to continued gales, and the currents seldom permit its waters to remain unruffled.

History, Government &c.—These islands have undergone many vicissitudes. Corfu, the ancient Corcyra, was famous in antiquity for its naval power, and for the contest between it and its mother state Corinth, which eventually terminated in the Peloponnesian war. Ithaca, the kingdom of the mythical Ulysses; Cephalonia, sometimes called Dulichium, from the name of one of its cities; Zante, or Zacynthus; Santa Maura, known to the ancients by the names of Leucas or Leucadia, celebrated for its promontory surmounted by a temple of Apollo, whence Sappho, it is said, precipitated herself into the ocean; and Cerigo, or Cythera, sacred to Aphroditê, have all acquired an immortality of renown. But, on comparing their present with their former state, we may well exclaim—

Heu quantum hæc Niobe Niobe distabat ab illâ!

After innumerable revolutions, they fell, early in the fifteenth century, under the dominion of Venice. Since the downfall of that republic they have had several protectors, or rather masters, being successively under the dominion of the Russians, the French, and the English. By the Treaty of Paris, in 1815, they were formed into a sort of semi-independent state, with an internal Government of their own, under the protection of Great Britain; a Lord High Commissioner, appointed by the English Government, having charge of the foreign relations, and of the internal, maritime, and sanitary police. The British commander-in-chief had the custody of the fortresses, and the disposal of the forces. It was stipulated in the Treaty of Paris that the islands may be called upon for the pay and subsistence of 3,000 men, as well as for the repair of their fortresses occupied by the British troops. The executive Government was vested in a president nominated by the Commissioner, and a senate of 5 members (1 for each of the larger islands of Corfu, Cephalonia, Zante, and Santa Maura, and 1 representing collectively the smaller ones of Ithica, Cerigo, and Paxo, by each of which he was elected in rotation). The senators were elected at the commencement of every quinquennial Parliament (subject to a negative from the Commissioner) from a legislative chamber of 40 members, themselves elected by the constituencies of the different islands, for 5 years. The senate and legislative assembly, together with the Commissioner, were thus the supreme authority: they were, when united, termed the Parliament, and as such, passed, amended, and repealed laws, in the mode prescribed by the constitution of 1817. Besides the General Government, there was in each island a local administration, composed of a regent, named by the senate, and from 2 to 5 municipal officers elected by their fellow-citizens. On June 1, 1864, these islands were voluntarily ceded to the kingdom of Greece by the British Government.

The State of Society in these islands is far from being good, and was formerly the most depraved imaginable. The people, when they were placed under the ægis of England, were at once lazy, ignorant, superstitious, cowardly, and bloodthirsty. Their vices may, we believe, be in great degree ascribed to the Government and religion established amongst them. The latter consisted of little more than a series of fasts and puerile observances; while the former was both weak and corrupt. The Venetians appointed to situations of power and emolument belonged mostly to noble and decayed families, and looked upon their offices merely as means by which they might repair their shattered fortunes. Hence the grossest corruption pervaded every department. There was no crime

for which impunity might not be purchased. Justice, in fact, was openly bought and sold; and suits were decided, not according to the principles of law or equity, but by the irresistible influence of faction or of gold. In consequence, the islands became a prey to all the vices that afflict and degrade a corrupt and semi-barbarous society. Sandys, one of the best English travellers who ever visited the Levant, having touched at Zante in 1610, expresses himself with respect to the inhabitants as follows: 'In habite they imitate the Italians, but transcend them in their revenges, and infinitely less civil. They will threaten to kill a merchant that will not buy their commodities; and make more conscience to breake a fast than commit a murther. He is weary of his life that hath a difference with any of them, and will walke abroad after daylight. But cowardice is joined with their crueltie, who dare doe nothing but sodainly upon advantage; and are ever privately armed. They are encouraged to villanies by the remissnesse of their lawes. The labourers do go into the fields with swords and partizans, as if in an enemie's countrey; bringing home their oils and wines in hogskins, the inside turned out.' (P. 7, ed. 1637.)

If the Zantiotes did not deteriorate during the next two centuries, which, indeed, was hardly possible, they certainly did not improve. Dr. Holland, by whom they were visited in 1812, tells us that he heard, 'on sure authority, that the number of assassinations in Zante has been more than 1 for each day of the year, though the population was only 40,000!' (*Travels in the Ionian Isles, &c.*, 4to. ed. p. 23.)

Matters were, if not quite so bad, very little better in the other islands. In Cephalonia, the inhabitants were divided into factions, entertaining the most implacable animosities, and waging a war of extermination against each other. A little vigour on the part of their rulers would have served to suppress their murderous contests. But this was not an object they wished to attain; on the contrary, their selfish and crooked policy made them seek to strengthen their own power by fomenting the dissensions that prevailed amongst their subjects. (Bellin, *Description du Golfe de Venise*, p. 165.) Considering the state of society at home, we need not wonder that the Cephalonians, who were distinguished among the islanders for activity and enterprise, were much addicted to emigration. The Venetians attempted to check its prevalence; but as they neglected the only means by which it could be prevented—the establishment of security and good order at home—their efforts were wholly unsuccessful.

The islanders did not, however, satisfy themselves with attempting to stab and prey upon each other. They were much addicted to piracy, particularly the inhabitants of Santa Maura and Cerigo; and it has been alleged that the Venetian Government participated in the profits of this public robbery, which, at all events, they took little pains to suppress.

A long series of years will be required to eradicate vices so deeply rooted, and to effect that thorough change in the habits and morals of the people that is so indispensable. The power and influence of the British Government had, however, a very decided effect. Piracy was suppressed; and assassination, though still bursting forth, especially in periods of political excitement, with renewed violence, was, speaking generally, a good deal less prevalent. A spirit of industry, sincerity, and fair dealing began to manifest itself. The present generation of nobles possess a degree of information, and a knowledge of the true interests of their country, which, though not all that might be wished for, was, at least, unknown to their fathers. But there is, notwithstanding, a vast deal of intrigue and faction, which was kept alive and fostered by the contentions in their mock Parliament. It is not easy to exaggerate the difficulties with which the successive British governors, from Sir Thomas Maitland down to Sir Henry Storks, had to contend. They were opposed by every means that feudal rancour, corruption and pseudo-patriotism could throw in their way. Not that we mean to say they always acted discreetly, or that the public expenditure was as judicious and economical as it might have been. But they, at all events, acted openly and in a straightforward manner; and with an earnest desire to maintain the public tranquillity, and to promote the prosperity of the commonwealth. And now that the responsibility has fallen on the Greeks themselves, it may perhaps be hoped by the more sanguine that the influence of our example, of our unbiassed execution of the law, and of the education so generally diffused, may in the end help to accomplish the regeneration of these islanders.

Manufactures &c.—These islands possess few manufactures properly so termed. The wives of the villani, or peasants, spin and weave a coarse kind of woollen cloth, sufficient in great part for the use of their families. A little soap is made at Corfu and Zante. The latter manufactures a considerable quantity of silk gros-de-Naples and handkerchiefs; the art of dyeing is, however, too little studied, and the establishments are on too small a scale. The peasantry, in general, are lazy, vain, delighting in display, and very superstitious. Those of Zante and Cephalonia are more industrious than the Corfiotes; in the first, particularly, their superior condition is probably to be ascribed, in part at least, to the nobles residing more on their estates in the country, and contributing, by their example, to stimulate industry. In Corfu, the taste for the city life, which prevailed in the time of the Venetian Government, still operates to a great degree. The Corfiote proprietor resides but little in his villa; his land is neglected, while he continues in the practice of his forefathers, who preferred watching opportunities at the seat of a corrupt Government, to improving their fortunes by the more legitimate means of honourable exertion and attention to their patrimony. In this respect, however, a material change for the better has taken place during the last 20 years.

Imports of Grain &c.—Great part of the land is held under short tenures, on the *métayer system*, the tenant paying half the produce to the landlord. Owing to the nature of the soil, and the superior attention given to the culture of olives and currants, the staple products of the islands, most part of the grain and cattle required for their consumption is imported. The hard wheat of Odessa is preferred, and large sums are annually sent to the Black Sea in payment. The Parliament, in March 1833, repealed the duties on the introduction of corn; and the grain monopoly of Corfu, which had been established in favour of Government, in order to provide against the possibility of a general or partial scarcity, was then also suffered to expire. These two sources of revenue, while they existed, did not probably produce less than 20,000*l.* annually.

Cattle.—They are similarly dependent upon Greece and Turkey for supplies of butchers' meat; a small number only of sheep and goats being bred in the islands. Oxen, whether for agriculture or the slaughter-house, are principally

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brought from Turkey. The beeves eaten by our troops were 6 weeks or 2 months walking down from the Danube, and the provinces that skirt it, to the shores of Epirus, where they remained in pasture until fit for the table.

Exports.—The staple exports from these islands are oil, currants, wine, soap, salt, and valonia. The first is produced in great abundance in Corfu and Paxo, and in a less quantity in Zante, Santa Maura, and Cephalonia. Corfu has, in fact, the appearance of a continuous olive wood; a consequence, partly, of the extraordinary encouragement formerly given to the culture of the plant by the Venetians. Although there is a harvest every year, the great crop is properly biennial; the tree generally reposing for a year after its effort. (In France and Piedmont the period of inactivity is of 2 and 3 years.) During 5 or 6 months, from October till April, the country, particularly in Corfu, presents an animated appearance, persons of all ages being busily employed in picking up the fruit. The average price may be about 1*l.* 11*s.* per barrel. Under the old Venetian system, the oil could only be carried to Trieste. It is charged with an ad valorem duty of 18 per cent., payable on the export. The quality might be much improved by a little more care in the manufacture, the trees being generally finer than in any other country. In 1863 the produce of oil was 80,385 barrels.

Currants, originally introduced from the Morea, are grown in Zante and Cephalonia. The plant is a vine of small size and delicate nature, the cultivation of which requires much care. Six or seven years elapse after a plantation has been made before it yields a crop. In the beginning of October the earth about the roots of the plant is loosened, and gathered up in small heaps, away from the vine, which is pruned in March; after which the ground is again laid down smooth around. The blight called the 'brina,' and rainy weather in harvest, produce great mischief. In his *Report* for December 18, 1867, Sir Charles Sebright, British consul at Cephalonia, shows how precarious this species of crop must be. The currants are gathered towards September, and after being carefully picked, are thrown singly upon a stone floor, exposed to the sun in the open air. The drying process may occupy a fortnight or longer, if the weather be not favourable. A heavy shower or thunder-storm (no unfrequent occurrence at that season) not only interrupts it, but sometimes causes fermentation. The fruit is then only fit to be given to animals. Should it escape these risks, it is deposited in magazines called '*seraglie*,' until a purchaser casts up. The '*serugliente*,' or warehouse keeper, delivers to the depositor a paper acknowledging the receipt for the quantity delivered, which passes currently in exchange from hand to hand till the time of export. Under the old Venetian Government, the liberty of traffic in this produce was exceedingly restricted. In Zante 5 persons, chosen out of the council of nobles assembled in presence of the *proveditore*, regulated what should be the price; and those who wished to purchase were under the necessity of describing to the Government the quantity they desired. This system was called the '*collegetto*.' The export duties consisted of an original duty of 9 per cent. ad valorem; a *dazio fisso*, or fixed duty of about 4*s.* 4*d.* per cwt.; and afterwards of a *novissimo*, or most recent duty, of 2*s.* 2*d.* per cwt. This latter was remitted in favour of vessels bringing salt fish &c. from the northern ports (chiefly English, Danes, and Dutch): it was afterwards relaxed in favour of Russian vessels from Odessa, and abandoned altogether as vexatious and unproductive. The *proveditore* received in addition 2 per cent., and each of his 2 Venetian councillors 1 per cent.; so that the fruit, the original cost of which was about 9*s.* per cwt., stood the exporter in little less than 18*s.* or 19*s.* Even under British protection, the fruit, which some years before had fetched as much as 30*s.* or 32*s.* per cwt., but had declined in 1832 to 8*s.* per cwt., was burdened with the *dazio fisso* of 4*s.* 4*d.*, and a duty of 6 per cent. ad valorem, being equivalent together, *at that price*, to an ad valorem duty of nearly 60 per cent.! In the mean time the import duties in England were raised, in 1829, to the enormous amount of 44*s.* 4*d.* per cwt., which, at the same low price, made an ad valorem duty of 500 per cent. The consequences were rapidly visible: a decline took place in the culture of the plant, as well as in the circumstances of the proprietors, whose staple export and means of existence were almost annihilated. As the prices fell, and the distress became greater, the necessitous grower was obliged to borrow money at high interest from foreign merchants, or from the Jews, who were, consequently, able to dictate the price at which they would take his produce. A legislative enactment on a scale commensurate with the difficulties which it had to grapple with, was, after much deliberation, matured and adopted by the Ionian Legislature in 1834. It commuted the duties upon currants for an ad valorem tax of 19½ per cent. (since reduced to 18 per cent.), being the same as that laid upon oil. The same Act increased, in a small degree, the duties previously paid on the importation of coffee, tea, and sugar, and upon foreign wines, silks, and gloves—articles which, being chiefly consumed by the affluent, were more appropriately subjected to an increase of duty, to supply in part the defalcation of revenue consequent on the reduction of the currant duty. The good effects of this enactment have been universally admitted. The duty on currants imported into the United Kingdom was reduced by Sir Robert Peel, in 1844, from 22*s.* 6*d.* to 15*s.* 9*d.* per cwt. (15*s.* + 5 per cent.), and it was lowered to its present rate of 7*s.* in 1860. The same rate of duty is levied on raisins, thus equalising the duties on raisins and currants, as advocated in the last edition of this work.

The currant crop of 1863 was 33,638,708 lbs., and was derived almost entirely from Cephalonia and Zante; and the crop of 1866 in the former was 7,854 tons, and exceeded that of 1865 by about 700 tons.

Salt may be obtained in considerable quantities in Corfu, Zante, and Santa Maura, for exportation: the latter island alone produced it until the late Act of Parliament, which provided that Government should let the salt-pans in all the islands to those bidders who should offer, by sealed tenders, to supply it at the lowest rate to the consumer, paying at the same time the highest price to Government. No export duty is charged upon it. In 1863, 84,560 lbs. were manufactured.

These statements show that heavy duties are levied upon the exportation of the staple products of the islands—an objectionable system, and one which, if it is to be excused at all, can only be so by the peculiar circumstances under which they are placed. There is no land tax or impost on property in the Ionian Islands, such as exists in many other rude countries; and, supposing it were desirable to introduce such a tax, the complicated state of property in them, the feudal tenures under which it is held, and the variety of usages with respect to it, oppose all but invincible obstacles to its imposition on fair and equal principles. At the same time, too, a large amount of revenue is

required to meet the expenses of the general and local Governments, to maintain an efficient police, and to prevent smuggling and piracy. However, we cannot help thinking that some very material retrenchments might be made from the expenditure; and it is to this source, more, perhaps, than to any other, that the inhabitants must look for any real or effectual relief from their burdens.

Under the British protectorate *the duties on exports* from the Ionian Islands were regulated by Acts dated June 8, 1835, April 26, 1837, and May 29, 1847.

Oil and currants	paid 18 per cent. ad valorem
Wine (excepting that of the Cephalonia Wine Company)	„ 6 „ „
Soap	„ 8 „ „
Valonia	„ 6 „ „
All other articles	Free

Now (1867) the heavy duty of 19½ per cent. ad valorem is levied in the Ionian Islands, being at least double that paid in Greece. (*Consular Report* of December 18, 1867.)

In 1863, the last year for which accounts have been given, the export duties levied on olive oil gave 23,708*l.*, on currants 30,533*l.*, on island wines 761*l.* No other item is found in the exports. In the same year, the revenue was 143,132*l.*, the expenditure 162,233*l.*

Tonnage.—In the 3 years 1861–3, the tonnage entered and cleared from the islands was—entered, 555,962, 592,669, 554,710—cleared, 555,800, 574,323, 555,667, respectively. More than 60 per cent. of these amounts were entered and cleared at Corfu. By far the largest portion of this tonnage was of American, i.e. United States, origin.

Trade with England.—This is but of limited extent, as will be seen by the subjoined tables.

Account of the Quantities of the Principal Articles Imported from the Ionian Islands into the United Kingdom in 1861–67.

Articles		1861	1862	1863	1864	1865	1866	1867
Corn, maize	cwts.	12,591	3,857	5,873	—	—	—	—
Fruit, currants	„	156,995	169,402	134,504	151,255	230,909	195,295	247,539
Fustic	tons	34	21	—	11	16	—	—
Oil, olive	tuns	695	2,951	775	530	1,470	110	2,189
Valonia	tons	80	64	109	—	—	185	—
All other articles	£	4,280	6,026	3,723	7,122	9,889	5,918	15,977
Total value	£	213,157	339,254	192,879	189,259	276,176	205,635	365,890

Account of the Quantities and Values of the Principal Articles Exported to the Ionian Islands from the United Kingdom in 1863–66.

Articles		Quantities				Declared Real Value			
		1863	1864	1865	1866	1863	1864	1865	1866
						£	£	£	£
Alkali, soda	cwts.	6,604	5,372	6,068	2,520	2,710	2,585	2,587	1,573
Apparel and haberdashery	value	—	—	—	—	18,510	16,335	13,923	12,175
Beer and ale	barrels	442	263	107	72	1,837	1,054	433	295
Butter	cwts.	432	156	74	46	1,955	814	403	241
Coals, cinders, and culm	tons	34,458	33,861	26,907	30,997	14,868	19,110	14,836	17,965
Cotton yarn	lbs.	446,084	592,010	904,391	739,572	35,502	38,360	78,128	59,840
Cottons, entered by the yard	yards	10,652,246	10,521,522	11,454,136	13,726,790	231,541	257,314	249,767	289,669
at value	value	—	—	—	—	2,202	3,021	4,483	4,106
Earthenware and porcelain	„	—	—	—	—	1,842	1,490	1,481	708
Hardwares and cutlery, unenumerated	cwts.	1,140	1,155	1,019	742	5,008	5,519	4,540	2,653
Iron, wrought and unwrought	tons	796	291	499	342	5,752	3,436	4,906	3,954
Linens, entered by the yard	yards	194,863	192,803	171,847	130,585	4,415	6,241	5,788	4,334
at value	value	—	—	—	—	489	279	956	869
Paper of all sorts (including paper hangings)	cwts.	333	572	393	221	1,527	2,649	1,786	997
Silk manufactures	value	—	—	—	—	1,374	803	901	414
Sugar, refined	cwts.	13,252	3,807	10,648	3,578	29,013	5,799	15,714	5,368
Woollens, entered by the yard	yards	237,470	419,359	356,747	341,452	16,132	28,182	21,109	20,548
at value	value	—	—	—	—	1,683	4,631	1,020	662
All other articles	„	—	—	—	—	28,810	22,912	19,136	15,294
Total value	—	—	—	—	—	405,118	420,333	436,191	434,005

The value of the exports in 1867 was 454,454*l.*

Ports.—The principal ports in the Ionian republic are *Corfu* and Zante, in the islands of the same names, and Argostoli in Cephalonia. The city and port of Corfu lie on the east side of the island, on the canal or channel between it and the opposite continent, which is here about 5 miles wide. The citadel, which projects into the sea, is furnished with a lighthouse, 240 feet high; the latter being in lat. 39° 37′ N., long. 19° 56′ E. The town is but indifferently built. Population about 18,000, exclusive of the military. The fortifications were, during the British protectorate, very strong, both towards the sea and the land, but here as elsewhere in the islands they were destroyed before we gave up possession. The canal has deep water throughout: its navigation, which is a little difficult, has been much facilitated by the erection of a lighthouse on the rock of Tignoso in the northern entrance, where the channel is less than a mile in width; and by the mooring of a floating light off Point Leschimo, in the southern entrance. Ships anchor between the small island of Vido and the city, in from 12 to 17 fathoms water.

The port, or rather gulf, of Argostoli, in Cephalonia, lies on the south-west side of the island. Cape Aji, forming its south-western extremity, is in lat. 38° 8′ 40″ N., long. 20° 28′ 30″ E. Cape San Nicolo, forming the other extremity, is about 4¾ miles from Cape Aji; and between them, within about 1½ mile of the latter, is the small islet of Guardini, on which is a lighthouse. From this island the gulf stretches N. ¼ W., from 7 to 8 miles inland. The town of Argostoli lies on the west side of a haven on the east side of the gulf formed by Point Statura. The situation is low and rather unhealthy. Population about 5,000. Its appearance and police, particularly the latter, were much improved during its occupation by the English. There is deep water and good anchorage ground in most parts of the gulf. The best entrance is between Cape San Nicolo and Guardini, keeping rather more than a mile to the eastward of the latter, on account of a reef that extends N.E. and S.W. from it nearly that distance.

The port and city of Zante are situated on the eastern side of the island, in lat. 37° 47′ N., long. 20° 54′ 42″ E. The city, the largest in the Ionian Islands, extends along the shore for nearly 1½ mile, but it is nowhere above 800 yards in breadth, except where it ascends the hill on which

the citadel is erected. The style of building is chiefly Italian; and the interior of the city displays everywhere great neatness, and even a certain degree of magnificence. Population estimated at about 20,000. It has a mole or jetty of considerable utility, at the extremity of which a lighthouse is erected; and a lazaretto, situated a little to the south-west. The harbour is capacious. Ships anchor opposite the town at from 500 to 1,000 yards' distance, in from 12 to 15 fathoms, availing themselves of the protection of the mole when the wind is from the N.E.

The total value of the imports from all countries in 1863 was estimated at 1,232,220*l.*, and that of the exports at 930,556*l.* But a considerable part of the imports was not destined for the consumption of the islands, but sent thither merely as to a convenient entrepôt, being intended for the supply of the contiguous provinces of Greece and Turkey. The amount of exports depends materially on the circumstance whether the year be one in which there is, or is not, a crop of olives, and on the goodness of the currant crops.

Money.—Accounts are kept in English money, or in Spanish dollars and oboli, 100 oboli being =1 dol.=4*s.* 4*d.*: a doubloon=1 dollar. (Tate's *Cambist.*)

Weights.—English weights and measures are sometimes made use of, though with Italian denominations; but the following are most generally used.

The pound *peso grosso*, or great weight of 12 oz. =7,384 grains troy: 94·8 lbs.=100 lbs. avoirdupois.

The pound *peso sottile*, or small weight, used for precious metals and drugs, is ¼ lighter than the foregoing; 12 oz. peso sottile corresponding to 8 oz. peso grosso.

The oke, used in the southern islands, weighs about 18,900 grains troy, or $2\frac{7}{10}$ lbs. avoirdupois. The Levant cantar, or quintal, should contain 44 okes.

The migliajo (1,000 lbs.), for currants in Zante, is 1 per cent. lighter than for other articles.

Measures of Length.—The Venetian foot is 12 onué=13¾ inches English.

Passo=5 Venetian feet.

Braccio, for cloths &c.=$27\frac{3}{4}$ inches English.
Do. for silks =$25\frac{3}{8}$ „ „

Land is measured by the *misura* or $\frac{1}{8}$ moggio, or bacile, 100 square *passi* being 1 misura, or bacile, about $\frac{3}{10}$ of an acre English.

Vineyards are measured by the *zappada*; 3 zappada (a computed day's work) being 1 misura.

Fire-wood is measured by the square passo, usually, however, only 2 feet thick, this depending on the quality of the wood.

Stone is measured by the passo cubo.

Measures of Capacity:—

Corn.—Corfu and Paxo; Moggio of 8 misure, about 5 Winchester bushels.

Cephalonia: Bacile should contain 80 lbs. peso grosso, best quality wheat.

Santa Maura: Cado, of 8 crivelli, 4=3 mog.; 1 cado=3¾ bushels English.

Ithaca: 5 Bacile=1 moggio.

Cerigo: Chiló, the measure of Constantinople, =1 bushel English.

Wine.—Corfu and Paxo: 32 quartucci=1 jar, and 4 jars=1 barrel=18 English wine gallons.

Cephalonia and Ithaca: 2 quartucci=1 boccale; 12 boccali=1 secchio; 6 secchio=1 barrel=18 English wine gallons.

Zante: 13⅓ quartucci=1 lire; 40 quartucci=jar; 3 jars=1 barrel=17⅝ English wine gallons.

Santa Maura: 22 quartucci=1 stamno; stamni=1 barrel=18 English wine gallons.

Cerigo: 2 agosten=1 boccia; 80 boccie=1 barrel =18 English wine gallons.

Oil.—Corfu and Paxo: 4 quartucci=1 miltro; 6 miltri=1 jar; 4 jars=1 barrel=18 English wine gallons.

Cephalonia: 9 pagliazzi=1 barrel=18 English wine gallons.

Zante: 9 lire, or 3 jars of 46 qu. each=1 barrel =17⅝ English wine gallons.

Santa Maura: 7 stamni	=1	barrel	=18	English wine gallons		
Ithaca: 13 pagliazzi	=1	„	=18			
Cerigo: 24 bozze	=1	„	=14	0·5	„	„

Salt.—Centinajo, about 4,000 lbs. Venetian peso grosso.

Lime.—Corfu, measure of 4 English cubic feet.

In compiling this article, we have consulted, besides the works referred to above, the *Voyage Historique, Pittoresque &c.*, by Saint Sauveur—a diffuse but valuable work. The account of Zante, in the last volume (tome iii. pp. 101–278), is particularly good. We have also looked into the *Voyage en Grèce* of Scrofani, 3 tomes, Paris, 1801; the *Archives du Commerce*; the *Papers laid before the Finance Committee &c.*; and Consul Sir C. Sebright's *Report* for 1866. But the most important part of the information we have been able to lay before the reader was derived from manuscript notes obligingly communicated by Earl Lovelace, who (when Lord King) was secretary to the British Government in these islands.

IPECACUANHA (Fr. ipecacuanha; Ger. amerikanische brechwurzel; Ital. ipecoacanna; Port. cipo de camaras, ipecacuanha; Span. ipecacuana, raiz de oro). The root of a perennial plant (*Cephaëlis ipecacuanha*) growing in Brazil and other parts of South America. It is, from its colour, usually denominated *white*, *grey*, or *ash-coloured*, and *pale-brown*. Little of the first variety is found in the shops. The grey and brown varieties are brought to this country in bales from Rio Janeiro. Both are in short, wrinkled, variously bent and contorted pieces, which break with a resinous fracture. The grey is about the thickness of a small quill, full of knots and deep circular fissures, that nearly reach down to a white, woody, vascular cord that runs through the heart of each piece; the external part is compact, brittle, and looks smooth: the brown is smaller, more wrinkled, of a blackish brown colour on the outside, and whitish within: the white is woody, and has no wrinkles. The entire root is inodorous; but the powder has a faint nauseous odour, and a somewhat bitter and acrid taste. In choosing ipecacuanha, the larger roots, which are compact and break with a resinous fracture, having a whitish-grey, somewhat semi-transparent, appearance in the outside of the cortical part, with a pale straw-coloured medullary fibre, are to be preferred. The medical virtues of the drug chiefly reside in the outer bark. When pounded, ipecacuanha forms the mildest and safest emetic in the whole materia medica. Though probably employed in America from time immemorial, it was not introduced into Europe till the time of Louis XIV., when one Grenier, a French merchant, brought 150 lbs. of it from Spain, with which trials were made at the Hôtel Dieu. Helvetius first made known its use in dysentery, for which Louis XIV. munificently rewarded him by a douceur of 1,000*l.* sterling. (Thomson's *Dispensatory*; Thomson's *Chemistry*; *British Pharmacopœia*, 1867.)

51,819 lbs., valued at 22,937*l.*, were imported in 1866, and 22,855 lbs. exported.

IRON (Dan. jern; Dutch, yzer; Fr. fer; Ger. eisen; Ital. ferro; Lat. ferrum, mars; Pol. zelazo; Port. ferro; Russ. scheleso; Span. hierro;

Swed. jern; Gr. σίδηρος; Sansc. loha; Arab. hedeed; Pers. ahun). The most abundant and most useful of all the metals. It is of bluish white colour; and, when polished, has a great deal of brilliancy. It has a styptic taste, and emits a smell when rubbed. Its hardness exceeds that of most other metals; and it may be rendered harder than most bodies by being converted into steel. Its specific gravity varies from 7·6 to 7·8. It is attracted by the magnet or loadstone, and is itself the substance which constitutes the loadstone. But when iron is perfectly pure, it retains the magnetic virtue for a very short time. It is malleable in every temperature, and its malleability increases in proportion as the temperature augments; but it cannot be hammered out nearly as thin as gold or silver, or even as copper. Its ductility is, however, more perfect; for it may be drawn out into wire as fine at least as a human hair. Its tenacity is such, that an iron wire 0·078 of an inch in diameter is capable of supporting 549·25 lbs. avoirdupois without breaking.

Historical Notice.—Iron, though the most common, is the most difficult of all the metals to obtain in a state fit for use; and the discovery of the method of working it seems to have been posterior to the use of gold, silver, and copper. We are wholly ignorant of the steps by which men were led to practise the processes required to fuse it and render it malleable. It is certain, however, that it was prepared in ancient Egypt, and some other countries, at a very remote epoch; but it was very little used in Greece till after the Trojan war. (See the admirable work of M. Goguet on the *Origin of Laws, Arts &c.*, vol. i. p. 140.)

Species of Iron.—There are many varieties of iron which artists distinguish by particular names; but all of them may be reduced under one or other of the 3 following classes: *cast* or *pig iron*, *wrought* or *soft iron*, and *steel*.

1. Cast or pig iron is the name given to this metal when first extracted from its ores. The ores from which iron is usually obtained are composed of oxide of iron and clay. The object of the manufacturer is to reduce the oxide to the metallic state, and to separate all the clay with which it is combined. This is effected by a peculiar process; and the iron, being exposed to a strong heat in furnaces, and melted, runs out into moulds prepared for its reception, and obtains the name of cast or pig iron.

The cast iron thus obtained is distinguished by manufacturers into different varieties, from its colour and other qualities. Of these the following are the most remarkable:—

a. White cast iron, which is extremely hard and brittle, and appears to be composed of a congeries of small crystals. It can neither be filed, bored, nor bent, and is very apt to break when suddenly heated or cooled.

b. Grey or *mottled* cast iron, so called from the inequality of its colour. Its texture is granulated. It is much softer and less brittle than the last variety; and may be cut, bored, and turned on the lathe. Cannons are made of it.

c. Black cast iron is the most unequal in its texture, the most fusible, and least cohesive, of the three.

2. Wrought or soft iron is prepared from cast iron by a process termed a refinement or finery. The wrought iron manufactured in Sweden is reckoned the finest in the world.

3. Steel consists of pieces of wrought iron hardened by a peculiar process. The Swedish iron imported into this country is mostly used in the manufacture of steel. [STEEL.] (Thomson's *Chemistry*.)

Uses of Iron.—To enumerate the various uses of iron would require a lengthened dissertation. No one who reflects for a moment on the subject can doubt that its discovery and employment in the shape of tools and engines have been of the utmost importance to man, and have done more, perhaps, than anything else, to accelerate his advance in the career of improvement. Locke has the following striking observations on this subject: 'Of what consequence the discovery of one natural body, and its properties, may be to human life, the whole great continent of America is a convincing instance: whose ignorance in useful arts, and want of the greatest part of the conveniences of life, in a country that abounded with all sorts of natural plenty, I think may be attributed to their ignorance of what was to be found in a very ordinary despicable stone—I mean the mineral of iron. And whatever we think of our parts or improvements in this part of the world, where knowledge and plenty seem to vie with each other, yet, to anyone that will seriously reflect upon it, I suppose it will appear past doubt, that, were the use of iron lost among us, we should in a few ages be unavoidably reduced to the wants and ignorance of the ancient savage Americans, whose natural endowments and provisions came no way short of those of the most flourishing and polite nations; so that he who first made use of that one contemptible mineral may be truly styled the father of arts and author of plenty.' (*Essay on the Understanding*, book iv. c. 12.)

Manufacture of Iron in Great Britain.—We are ignorant of the period when iron began to be made in England, but there is authentic evidence to show that iron works were established by the Romans in the Forest of Dean, in Gloucestershire, and in other parts of the kingdom. (Pennant's *Wales*, ed. 1810, vol. i. p. 89.) They were also established, at an early period, in Kent and Sussex; these counties being well supplied, not only with iron ore, but (which was at the time of still greater importance) with timber, the only species of fuel that was then used in the furnaces. It is to this latter circumstance that the slow increase in the production of iron in England, during a lengthened period, is to be ascribed. Complaints were very early made of the destruction of timber by the iron works; and in the reign of Elizabeth, when an unusual demand for timber for the navy, and for merchant vessels also, took place, the decrease of timber excited a great deal of attention. At length, in 1581, an Act was passed prohibiting the manufacturers of iron from using any but small wood, and from establishing any new works anywhere within 22 miles of the city of London, and 14 miles of the river Thames, and in several parts of Sussex specified in the Act. Soon after this, Edward, Lord Dudley, invented a process for smelting iron ore with pit-coal instead of timber; and it is difficult to point out many inventions that have been so advantageous. The patent which his lordship obtained in 1619 was exempted from the operation of the Act of 1623 (21 Jas. I. c. 23), setting aside monopolies; but though, in its consequences, it has proved of immense value to the country, the works of the inventor were destroyed by an ignorant rabble, and he was well-nigh ruined by his efforts to introduce and perfect his process. (*Report of Committee of House of Commons on Patents*, p. 168 &c.) The invention seems, in consequence, to have been for many years almost forgotten. The complaints of the destruction of timber continued; so much so,

that, in 1637, the exportation of iron without license was prohibited, and fresh restrictions were laid on the felling of timber. But the evil could not be abated by such means; and, in the early part of last century, complaints of the destruction of timber by the iron works became more prevalent than ever, and their total suppression began to be contemplated as a lesser evil than the continued decrease of the stock of timber. At this period more than ¾ of the iron made use of was imported, and the condition of the manufacture was most unprosperous. But the growing scarcity and high price of timber, coupled with the increasing demand for iron, at last succeeded in drawing the attention of some ingenious persons to Lord Dudley's process; and, about 1740, iron was made at Colebrook Dale, and one or two other places, by means of pit-coal, of about as good a quality as that made with timber. From this period the business steadily increased: at first, however, its progress was comparatively slow, and the furnaces of Kent and Sussex were not wholly relinquished for more than 30 years after iron began to be largely produced by means of pit-coal. The great demand for iron occasioned by the late war, and the obstacles which it threw in the way of supplies from abroad, gave the first extraordinary stimulus to the manufacture, which has now become of vast importance and great value. In 1740 the quantity of pig iron made in England and Wales amounted to about 17,000 tons, produced by 59 furnaces. Since this epoch the increase is believed to have been nearly as follows; viz.: In 1750, 22,000 tons; in 1788, 68,000 tons, produced by 85 furnaces; in 1796, 125,000 tons, produced by 121 furnaces; in 1806, 250,000 tons, produced by 169 furnaces; and in 1820 about 400,000 tons were produced but there is no account of the number of furnaces.

The author attributes this chiefly to the removal of the trade to the coal country.

The iron trade is now one of the greatest branches of industry carried on in the northern portion of the United Kingdom. It is chiefly confined to the western counties, the great majority of the smelting furnaces and malleable works being in Lanark and Ayr. Glasgow is its central mart.

Notwithstanding its present magnitude, the smelting and manufacture of iron in Scotland are of very recent origin. So late as 1830 there were only 16 blast furnaces in Scotland, the produce of which scarcely reached 40,000 tons. In 1867 there were 112 in blast, producing 1,031,000 tons of pig iron, which, at the average price for the year (which was unusually low), represents a value of 3,054,337*l.*

With the exception of a small work at Wilson Town, which was unsuccessfully attempted there at a somewhat remote period, almost nothing was done in Scotland in the manufacture of malleable iron till 1839, and even so late as 1842 the produce did not exceed 35,000 tons. During the year 1854, however, the production of malleable iron reached 122,400 tons; and taking the average price of all sorts, including plates for shipbuilding, to have been 10*l.* per ton, the gross amount of the produce would be 1,224,100*l.* The number of men employed in this branch was about 4,000, and the rate of wages paid about 18*s.* In 1858 there was a falling off in the production.

The increase in the interval has been, if possible, still greater than that exhibited above. And in proof of this we have merely to direct the reader's attention to the following, compiled from returns collected by Mr. Hunt, Keeper of Mining Records, the highest authority on such subjects.

Number of Iron Furnaces and Make of Pig Iron in Great Britain in 1867.

Counties	No. of Iron Works Active	No. of Furnaces built in District	No. of Furnaces in blast	Tons of Pig Iron Produced
England				
Northumberland	2	18	3	31,027
Durham	11	71	39	477,834½
Yorkshire:				
North Riding	14	67	50½	640,892
West Riding	12	36	25	109,002
Derbyshire	14	43	30	160,028
Lancashire	4	25	19	318,801
Cumberland	3	18	8 3-5	109,839
Shropshire	11	29	22	123,604
North Staffordshire	6	35	23	202,332
South Staffordshire	49	177	91½	515,638
Northamptonshire	4	9	5	25,184
Lincolnshire	3	6	5	25,579
Gloucestershire	3	10	6	71,186
Wiltshire	1	4	3	
Somersetshire	1	2	1	
Total	138	550	351 3-5	2,810,916½
Wales				
North Wales:—				
Denbighshire	3	9	8	32,843
South Wales:—				
Anthracite Furnaces	4	25	11	35,506
Glamorganshire	13	76	49	403,050
Brecknockshire	1	15	3	29,443
Monmouthshire	14	71	50	418,235
Total	35	196	120	919,077
Scotland				
Ayrshire	8	45	34	
Lanarkshire	14	96	67	
Fifeshire	3	13	3	
Linlithgowshire	1	4	2	
Stirlingshire	2	7	5	
Haddingtonshire	1	1	1	
Argyleshire	1	1	0	
Total	30	167	112	1,031,000
Grand Total	203	913	563 3-5	4,761,023½

This quantity, estimated at the mean average cost at the place of production, would have a value of 11,902,557*l.*

According to *Thom's Almanac* for 1868, the produce in 1866 of the iron mines in Ireland was 25,225 tons of ore, valued at 5,313*l.* It is added that considerable quantities of blackband ironstone are now shipped from Belfast to Scotland, and that 112,686 tons of iron pyrites, value 59,036*l.*, were obtained in 1866 from the mines of Wicklow.

This astonishing increase has been owing to a great variety of causes, among the more prominent of which may be specified the greater cheapness of iron, and its consequent application to a great many purposes, including the construction of various descriptions of agricultural implements, pipes for the conveyance of water, and the building of ships, for which it was not formerly supposed to be applicable. Unquestionably, however, the unprecedented demand of iron for railways in this country, and in the United States and the Continent, has given the most powerful stimulus to the manufacture; and, if only half the railway projects on foot in 1847 had been executed, the production of the iron, vast as it has been, would have been quite inadequate to supply the demand.

It will readily occur to the reader that a demand for iron for railways, depending as the formation of the latter does on many varying circumstances, must necessarily be both capricious and fluctuating; and hence it is not really possible to infer from the state of the iron trade at any given period what may be its state a few months after. In 1842 and 1843 the price of pig iron had sunk from 2*l.* to 2*l.* 10*s.* per ton, and the manufacturers in the least favoured districts were involved in the greatest difficulties. But subsequently the price of iron doubled or trebled; and though it has again receded, larger fortunes have been made in this than in any other department of industry. Similar mutations will,

doubtless, take place in future. On the whole, the fair presumption seems to be that the manufacture will go on increasing for an indefinite period. The uses to which iron may be applied seem to be all but infinite; and every fall of its price stimulates invention and introduces it into new channels. Most probably, indeed, the works situated in the least favoured districts, or those where iron is produced at the greatest expense, will, in the course of time, have to be abandoned. This, however, is merely a local and accidental grievance, and can in nowise affect the general well-being of the business.

The employment of the hot-blast, or of air heated to a high temperature, instead of common atmospheric air, in the working of furnaces, has been one of the greatest improvements in the manufacture, and has at once reduced the cost of production and increased the quantity. It was first used in Lanarkshire, in Scotland, and has been one of the principal causes of the extraordinary extension of the trade in that part of the empire, where it is now universally made use of.

Taking the annual produce of pig iron in the United Kingdom at 5,000,000 tons, and supposing that about 3 tons of coal are required for the production of each ton of iron, the consumption of coal in this branch of the iron trade will, on this hypothesis, amount to 15,000,000 tons a-year; and adding to this quantity 6,000,000 tons for the coal required for the conversion of pig iron into bar iron, it follows that a supply of no fewer than 21,000,000 tons of coal will be annually required in this single department of industry! And hence, also, the fact that the consumption of coal in the production of iron is nearly 8 times as great as its consumption in the metropolis!

From $\frac{2}{10}$ to $\frac{4}{10}$ of the total quantity of iron produced is used in the state of pig or cast iron, and is consumed principally in Great Britain and Ireland. The exports of pig iron, however, amounted in 1867 to 567,319 tons, sent principally to France, the United States, Holland, Prussia, and British North America. The residue is converted into wrought iron, being formed into bars, bolts, rods &c. The exports of bar iron amounted in 1867 to 883,570 tons; and during the same year, the exports of all sorts of iron reached the prodigious amount of 1,885,934 tons! which, at 8*l.* per ton, would be worth upwards of 15,000,000*l.* And their declared value did, in fact, amount, in 1868, to 14,997,176*l.*, and in 1867 to 15,126,912*l.*

Supposing the total quantity of pig iron produced in Great Britain to amount to 5,000,000 tons a-year, and to be worth, at an average, 3*l.* a ton, its total value will be 15,000,000*l.*; and the additional labour expended in forming the pig iron into bar iron—that is, into bars, bolts, rods &c.—may probably add about 5,000,000*l.* more to its value; making it worth in all about

Account of the different Descriptions of Iron (including Unwrought Steel) Exported from the United Kingdom during 1866, *specifying the Quantities sent to the different Countries.*

Countries	Pig and Puddled	Bar	Bolt, Rod, and Angle	Rails and Railway	Castings and Hollow Ware	Anchors, Bower, Boiler Plates, and Chains	Wire	Nails	Steel, Wrought and Unwrought	Tubes, Pipes, Bedsteads, and Agricultural Implements	Lighthouses, Bridge Work, Parts of Vessels &c.	Sundries, not including Ordnance
	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons
Russia	10,979	5,023	255	53,440	8,599	2,156	—	1,026	3,687	1,790	263	2,273
Sweden	5,029	—	—	6,252	—	—	—	—	—	273	—	—
Norway	3,889	3,228	438	—	1,477	2,530	86	—	—	239	—	186
Denmark	10,874	3,961	361	—	393	3,210	—	—	247	335	273	—
Hanover	3,360	—	—	—	—	—	—	—	—	—	—	—
Prussia and Schleswig	22,183	—	390	15,076	—	1,903	—	—	742	424	—	422
Mecklenburg and Oldenburg	—	1,095	—	—	—	—	—	—	—	—	—	—
Hanse Towns	32,356	7,089	—	760	1,641	3,959	270	105	1,089	1,550	—	648
Holland	60,305	5,305	455	5,531	2,986	8,051	506	249	1,610	1,843	—	787
Belgium	37,185	—	—	972	—	—	680	—	2,731	980	—	1,153
France	124,579	2,892	—	—	1,314	2,140	244	219	2,756	1,987	—	553
Portugal, Azores, and Madeira	—	6,324	2,903	—	—	3,129	—	—	—	—	260	269
Spain and Canaries	6,907	—	—	182	5,372	5,857	1,905	—	343	139	785	282
Italy: Sardinian States	10,390	4,949	1,416	4,042	5,764	5,224	—	—	640	—	—	463
Tuscany	—	2,050	—	—	—	—	—	—	—	—	—	—
Naples and Sicily	—	12,970	841	510	1,038	3,116	—	—	242	—	—	—
Austrian Territories	—	1,162	—	—	—	769	—	—	—	—	—	—
Greece	—	1,645	—	—	—	434	—	—	—	—	—	—
Turkey Proper	—	7,765	1,340	3,870	798	808	—	154	21	—	220	795
Wallachia and Moldavia	—	2,662	—	—	663	—	—	—	—	—	482	—
Egypt	—	3,140	—	73,741	3,561	961	—	198	17	—	900	1,623
Java	—	1,593	—	—	—	516	—	—	—	—	—	513
China (excluding Hong-Kong)	—	—	3,595	—	—	—	—	—	51	—	—	181
Japan	—	206	997	—	—	—	—	—	—	—	—	337
Cuba	—	3,873	—	5,078	2,873	2,599	—	530	—	452	—	1,662
St. Thomas	—	—	747	—	—	569	—	285	—	—	128	259
United States:												
North Atlantic Ports	87,092	59,295	7,583	60,786	832	28,985	3,550	196	21,977	676	—	1,350
South Atlantic Ports	6,313	2,788	89	40,320	650	4,878	33	74	667	146	—	238
Pacific Ports	3,355	6,109	1	1,243	102	4,077	140	29	797	754	—	198
Mexico	—	1,652	—	5,907	797	—	—	—	—	48	757	—
Brazil	—	3,910	355	—	2,801	2,198	—	497	142	235	538	1,337
Uruguay	—	3,445	456	—	85	1,276	—	—	—	100	247	934
Argentine Confederation	—	4,737	—	15,054	1,019	3,550	711	183	—	141	509	1,399
Chili	—	1,634	—	4,165	—	—	—	—	181	—	—	702
Peru	—	1,491	—	—	603	—	—	—	—	99	644	—
Channel Islands	—	—	—	—	—	151	—	111	—	—	—	—
Gibraltar	—	—	—	—	—	756	—	—	57	94	—	—
Malta	—	1,343	—	—	—	—	—	—	—	—	—	—
Ionian Islands	—	353	—	—	—	9	—	—	—	—	—	—
South Africa	—	—	—	—	—	—	—	—	—	—	123	661
Mauritius	—	—	—	—	1,320	—	—	191	—	65	178	667
British India:												
Bombay and Scinde	—	16,780	2,898	56,345	4,470	5,761	685	689	380	133	14,159	2,592
Madras	—	7,369	350	12,005	948	781	203	71	854	—	2,800	451
Bengal and Pegu	—	10,206	1,871	65,179	4,056	5,642	465	498	556	129	7,997	2,125
Straits Settlements	—	2,174	1,260	—	702	282	—	—	—	—	159	—
Ceylon	—	1,107	—	—	—	563	—	—	88	—	246	1,344
Hong-Kong	—	—	2,803	—	—	1,131	92	—	21	—	—	287
Australia	7,010	12,951	—	20,100	7,082	5,869	10,196	4,430	983	2,910	2,919	16,124
British North America	26,092	28,310	690	23,628	3,026	16,749	1,463	2,698	2,315	925	509	3,171
British West Indies and Guiana	—	—	—	—	2,567	1,117	—	1,519	—	—	559	1,462
Other countries	25,143	13,597	4,034	23,172	9,681	16,195	2,395	1,874	2,068	1,810	1,158	6,178
Total	500,500	[illegible]	35,496	[illegible]	78,491	143,810	24,533	15,852	44,870	17,555	36,507	51,782

Total of all exports, 1,691,943 tons.

Account of the Number of Furnaces, and of the Quantities of Iron in Tons produced in Great Britain in 1825, 1840, *and* 1848.

Place	Total Furnaces in 1825	Produce of Iron in 1825	Total Furnaces in 1840	Produce of Iron in 1840	Total Furnaces in 1848	Produce of Iron in 1848
Forest of Dean	—	—	4	15,000	—	—
South Wales	107	250,412	163	805,000	196	706,680
North Wales	14	17,756	15	26,500	11	16,120
Northumberland	—	—	6	11,000	36	100,000
Yorkshire	34	39,104	32	56,000	28	66,960
Derbyshire	19	22,672	18	31,000	30	95,000
Staffordshire	107	182,156	151	427,650	158	385,840
Shropshire	45	89,596	31	82,750	34	85,000
Scotland	25	33,540	70	241,000	150	550,000
Total	351	615,236	490	1,395,900	623	2,008,200

For produce in 1867, see p. 789.

20,000,000*l.* And if we recollect that wrought iron is to the hardware manufacture what malt is to the manufacture of beer, and leather to that of shoes, we shall be satisfied alike of its paramount importance in the arts and as a most prolific source of employment and of public wealth.

From extensive enquiries made by Government and others connected with the iron trade, the following statements have been deduced, which exhibit the districts in which iron was made, the number of furnaces, and the total quantity produced in 1825, 1840, and 1848.

Previously to 1845, the imports of foreign iron usually varied from 23,000 to 25,000 tons a-year. But at that epoch the duties on foreign iron (20*s.* a ton on iron in bars) were repealed; and there has since been an increase in the imports of Swedish bar iron, which is especially well fitted for being made into steel. Our imports of unwrought foreign iron amounted in 1867 to 71,703 tons, and in 1866 to 64,178 tons; while of wrought or manufactured iron and steel, 12,108 tons were imported in 1867. In 1866, 51,533, and in 1867, 60,056, tons of bar iron came from Sweden.

Perhaps in nothing has the fall of price, consequent on the diminution of the cost of production, that has taken place since the peace of 1815, been more conspicuous than in hardware. At an average, articles of hardware are at present (1868) from 50 to 75 per cent. lower than in 1820. And it may be safely affirmed that there are very few descriptions of articles in which a fall of price would have been so advantageous.

IRON-WOOD (Ger. eisenholz; Dutch, yserhout; Fr. bois de fer; Ital. legno di ferro; Span. plo hierro; Lat. sideroxylon, lignum ferreum). A species of wood of a reddish cast, so called on account of its corroding as that metal does, and its being remarkably hard and ponderous—even more so than ebony. The tree which produces it grows principally in the West India Islands, and is likewise very common in South America, and in some parts of Asia, especially about Siam.

ISINGLASS (Ger. hausenblase, hausblase; Fr. colle de poisson, carlock; Ital. cola di pesce; Russ. klei rübüi, karluk). One of the purest and finest of the animal glues. It is a product the preparation of which is almost peculiar to Russia. It is made of the air-bladders and sounds of different kinds of fish which are found in the large rivers that fall into the North Sea and the Caspian. That prepared from the sturgeon is generally esteemed the best; next to that the beluga; but isinglass is also prepared from sterlets, shad, and barbel, though not so good. The best is usually rolled in little ringlets; the second sort is laid together like the leaves of a book; and the common sort is dried without any care. When fine, it is of a white colour, semi-transparent and dry. It dissolves readily in boiling water, and is used extensively in cookery. It is also used for stiffening silk, making sticking-plaster, chemical tests &c. The duty on isinglass, which formerly amounted to 47*s.* 6*d.* per cwt., was wholly repealed in 1853. In 1867 the imports and exports were respectively 2,732 cwt. and 122 cwt. The price varies from 16*l.* 3*s.* to 44*l.* 16*s.* per cwt. (Thomson's *Chemistry*; *British Pharmacopœia*; Tooke's *View of Russia*, 2nd ed. iii. 343 &c.)

ISLE OF MAN. [MAN, ISLE OF.]

ITALY. [FLORENCE; GENOA; NAPLES; VENICE; &c.]

IVORY. The name given to the teeth or tusks of the elephant, and of the walrus or sea-horse. Each male elephant come to maturity has 2 tusks. These are hollow at the root, tapering, and of various sizes, depending principally on the age of the animal. Colour externally yellowish, brownish, and sometimes dark, internally white. The best are large, straight, and light-coloured, without flaws; not very hollow in the stump, but solid and thick. The most esteemed come from Africa, being of a closer texture, and less liable to turn yellow, than those from the East Indies.

The trade in London thus divide them:—

First sort, weighing 70 lbs. or upwards; second sort, weighing 56 lbs. to 60 lbs.; third sort, weighing 38 lbs. to 56 lbs.; fourth sort, weighing 28 lbs. to 37 lbs.; fifth sort, weighing 18 lbs. to 27 lbs.

All under 18 lbs. are called *scrivelloes*, and are of the least value. In purchasing elephants' teeth, those that are very crooked, hollow, and broken at the ends, or cracked and decayed in the inside, should be rejected; and care taken that lead or any other substance has not been poured into the hollow. The freight is rated at 16 cwt. to the ton. (Milburn's *Orient. Com.*)

Supply of Ivory.—The imports of elephants' teeth amounted in 1867 to 10,843 cwt. The medium weight of a tusk may be taken at about 60 lbs., so that the importation of 1867 may be taken at 19,300 tusks; a fact which presumes the destruction of at least 9,500 male elephants &c.! Occasionally tusks are accidentally broken, one lost in this way being replaced by a new one; a good many are also obtained from elephants that have died in the natural way; and some more are the produce of the walrus. Still it is sufficiently certain, that the supply from the last mentioned sources is not very large; and if to the quantity of ivory required for Great Britain, we add that required for the other countries of Europe, America, and Asia, the slaughter of elephants must, after every reasonable deduction is made, appear immense. Inasmuch, however, as this destruction falls only on the males, there is less foundation than might at first be supposed for the surprise that has sometimes been expressed that the breed of this noble animal has not been more diminished. The western and eastern coasts of Africa, the Cape of Good Hope, Ceylon, India, and the countries to the eastward of the Straits of Malacca, are the great marts whence supplies of ivory are derived. The imports from Western Africa into Great Britain in 1866 amounted to 2,078 cwt.; the East Coast furnished 1,024 cwt.;

Egypt 3,628 cwt.; the Cape &c. 526 cwt.; and India 1,552 cwt. The Chinese market is principally supplied with ivory from Malacca, Siam, and Sumatra. Of that exported from Zanzibar the various kinds are *babeliah*, or that intended for export to England or America; *Bombay ivory*, comprising all that is not suitable for other markets; *Cutch* ivory, for armlets, bangles &c.; and *scrivelloes* or small ivory, for billiard balls &c.

The chief consumption of ivory in England is in the manufacture of handles for knives; but it is also extensively used in the manufacture of musical and mathematical instruments, chessmen, billiard balls, plates for miniatures, toys &c. Ivory articles are said to be manufactured to a greater extent, and with better success, at Dieppe than in any other place in Europe. But the preparation of this beautiful material is much better understood by the Chinese than by any other people. No European artist has hitherto succeeded in cutting concentric balls after the manner of the Chinese; and their boxes, chessmen, and other ivory articles, are far superior to any that are to be met with anywhere else.

The following are the duties levied at the port of Zanzibar on ivory. Ivory from the coast, viz. from Kaliva, 8 dols. 50 cents per frazil of 35 lbs. avoir.; from Unyamwoori, 9 dols. Ivory from the last place, according as bought by Arabs or natives, 12 to 15 dols. The duty on other ivories varies, according to the place of production, from 2 dols. to 8 dols. 50 cents per frazil.

Historical Notice.—It is a curious fact that the people of all Asiatic countries in which the elephant is found have always had the art of taming the animal and applying it to useful purposes, but that no such art has ever been possessed by any native African nation. Is this owing to any difference between the Asiatic and African elephants, or to the inferior sagacity of the African people? We incline to think that the latter is the true hypothesis. Alexander the Great is believed to have been the first European who employed elephants in war. It appears pretty certain that the elephants made use of by the Carthaginians were mostly, if not wholly, brought from India; and that they were managed by Indian leaders. Some of the latter were captured by the Romans, in the great victory gained by Metellus over Asdrubal. (See, on this curious subject, two very learned and valuable notes in the *Ancient Universal History*, 8vo. ed. vol. xvii. p. 429, and p. 549. Buffon's article 'On the Elephant' is a splendid piece of composition.)

J

JAGGERY. [Sugar.]

JALAP or JALOP (Ger. jalapp; Fr. jalap; Ital. sciarappa; Span. jalapa). The root of *Ipomœa jalapa, Pentandria monogynia*, natural order *Convolvulaceæ*, so named from Xalapa, in Mexico, whence we chiefly import it. The root, when brought to this country, is in thin transverse slices, solid, hard, weighty, of a brownish colour on the outside, and internally of a yellowish-grey, with dark brown circular striæ. The hardest and darkest coloured is the best; that which is light, spongy, and pale-coloured, should be rejected. The odour of jalap, especially when in powder, is very characteristic. Its taste is exceedingly nauseous, accompanied by a sweetish bitterness. (Lewis's *Mat. Med.*; Brande's *Pharmacy*; *British Pharmacopœia*, 1867.) Jalap is adulterated with various roots of a similar appearance and botanical character. For these adulterations see Pereira's *Materia Medica*, and Ward and Bache's *United States Dispensatory*. The imports of jalap amounted in 1866 to 125,896 lbs., the average price of which was 3*s.* 11*d.* per lb.

JAMAICA PEPPER. [Pimento.]

JAPAN. [Nagasaki.]

JAPANNED WARES (Ger. japanische ware; Dutch, japansch lakwerk; Fr. marchandises de Japon). Articles of every description, such as tea-trays, clock-dials, candlesticks, snuff-boxes &c., covered with coats of japan, whether plain or embellished with painting or gilding. Birmingham is the grand staple of this manufacture, which is there carried on to a great extent. Pontypool, in Monmouthshire, was formerly famous for japanning; but it is at present continued there on a very small scale only. It is prosecuted with spirit and success at Bilston and Wolverhampton.

For information as to the history, extent, and character of the trade in japanned wares, see *Birmingham and the Hardware District*, 1865. In 1867 we imported 350 cwt. of japanned or lacquered ware, valued at 5,928*l.*, and exported 51 cwt., valued at 860*l.*

JASPER (Ger. jaspis; Dutch, jaspis; Fr. jaspe; Ital. diaspro; Span. jaspe; Russ. jaschma). This stone is an ingredient in the composition of many mountains. It occurs usually in large amorphous masses, sometimes in round or angular pieces; its fracture is conchoidal; specific gravity from 2 to 2·7. Its colours are various: when heated it does not decrepitate: it is usually divided into 4 species, denominated Egyptian jasper, striped or ribbon jasper, porcelain jasper, and common jasper. It is sometimes employed in the formation of seals, and in mosaic work &c. (Emanuel *On Precious Stones.*)

JERSEY. [Guernsey.]

JET or PITCH COAL (Dutch, git, zwarte barnsteen; Fr. jais, jayet; Ger. gagat; Ital. gagata, lustrino; Lat. gagus, gagates). Of a black velvet colour; occurs massive, in plates; sometimes in the shape of branches of trees, but without a regular woody texture. Internal lustre shining, resinous, soft, rather brittle, easily frangible, specific gravity 1·3. It is used for fuel, and for making vessels and snuff-boxes. In Prussia it is called black amber, and is cut into rosaries and necklaces. It is distinguished by its brilliancy and conchoidal fracture. (Thomson's *Chemistry.*)

JETSAM. [Flotsam.]

JETTISON. The act of casting over goods in order to save ship and cargo. [Average.] In order to justify jettison, it must have been resorted to by those who act through fear of perishing. 'Il ne suffit pas qu'on ait fait jet, il faut qu'on y ait été forcé par le crainte de périr.'—*Emérigon*, 12, 39. 'The old sea laws,' says Mr. Arnauld, 'with a quaint precaution, lay down in solemn patience, and detail certain powers to be observed by the captain in the storm, before proceeding to make any sacrifice for the general safety. But the best comment upon such prescription of ceremonies for celebration in the presence of impending loss, is

the experience of Jarga, who in the course of 60 years, passed as a magistrate in the consulate of the sea at Genoa, had known but four instances of regular jettison; and all of them were suspected of fraud, because the prescribed forms had been too well observed.'

The best illustration of a legitimate jettison is given by Emérigon. On February 16, 1782, Joseph Antoine Demoulin, of Marseilles, was pursued by four enemies, who rapidly gained on him. At nightfall, 5 p.m., he launched his long boat, having rigged her with mast and sail, and having fixed a light at a mast head. He then set her adrift, and changed his route. The enemy was deceived, and the captain reached Marseilles in safety. This jettison was considered to have been made for the sake of saving ship and cargo, and was held to be a general average loss. (*Emérigon*, c. 12, sec. 41; 1,623.)

Goods jettisoned still belong to their owners, and may be reclaimed on payment of salvage.

JEWELLERY. The manufacture of personal ornaments in gold, silver, and precious stones.

The chief seats of this manufacture are London (Clerkenwell) and Birmingham, the former for the finer, the latter for the medium and commoner kinds of work. It is one of the staple manufactures of Birmingham, employing, according to Mr. Wright, more hands than any other industry in that town. The trade too is in the hands of a large number of small and independent manufacturers. Mr. Wright calculates that 7,500 persons are engaged in the trade, and that, reckoning three persons to each of these workmen, 20,000 persons at least depend on the jewellery manufacture of Birmingham. The gold consumed in this trade is calculated to amount to 600,000*l.* or 700,000*l.* yearly, and the silver at from 100,000*l.* to 150,000*l.*

The exports of jewellery in the year 1867 were valued at 154,586*l.*, the imports at 120,935*l.* The exports were chiefly sent to Egypt, and most of the imports come from Belgium. (For the Birmingham jewellery trade, see Mr. Wright's essay, *Birmingham and the Midland Hardware District*, p. 452.)

JUICE OF LEMONS, LIMES, OR ORANGES. By the 30 & 31 Vict. c. 124, to amend the Merchant Shipping Act, it is provided, sec. 4, that the following rules shall be observed with respect to medicines, medical stores, and anti-scorbutics.

1. The Board of Trade shall from time to time issue and cause to be published scales of medicines and medical stores suitable for different ships and voyages, and shall also prepare or sanction a book or books containing instructions for dispensing the same.
2. The owners of every ship navigating between the United Kingdom and any place out of the same shall provide and cause to be kept on board such ship a supply of medicines and medical stores in accordance with the scale appropriate to the said ship, and also a copy of the said book or of one of the said books containing instructions.
3. No lime or lemon juice shall be deemed fit and proper to be taken on board any such ship, for the use of the crew or passengers thereof, unless the same has been obtained from a bonded warehouse for and to be shipped as stores; and no lime or lemon juice shall be so obtained or delivered from any warehouse as aforesaid unless the same is shown, by a certificate under the hand of an inspector appointed by the Board of Trade, to be proper for use on board ship, such certificate to be given upon inspection of a sample after deposit of the said lime or lemon juice in the warehouse; nor unless the same contains fifteen per centum of proper and palatable proof spirits, to be approved by such inspector, or by the proper officer of customs, and to be added before or immediately after the inspection thereof; nor unless the same is packed in such bottles, at such time and in such manner, and is labelled in such manner as the Commissioners of Customs may direct; provided that when any such lime or lemon juice is deposited in any bonded warehouse, and has been approved as aforesaid by the said inspector, the said spirits, or so much of the said spirits as is necessary to make up fifteen per centum, may be added in such warehouse, without payment of any duty thereon; and when any spirit has been added to any lime or lemon juice, and the same has been labelled as aforesaid, it shall be deposited in the warehouse for delivery as ship's stores only, upon such terms and subject to such regulations of the Commissioners of Customs as are applicable to the delivery of ship's stores from the warehouse.
4. The master or owner of every such foreign-going ship (except those bound to European ports or to ports in the Mediterranean Sea, and also except such ships or classes of ships bound to ports on the eastern coast of America north of the 35th degree of north latitude, and to any islands or places in the Atlantic Ocean north of the same limit, as the Board of Trade may from time to time exempt from this enactment) shall provide and cause to be kept on board such ship a sufficient quantity of lime or lemon juice from the warehouse duly labelled as aforesaid, such labels to remain intact until 24 hours at least after such ship shall have left her port of departure on her foreign voyage, or a sufficient quantity of such other anti-scorbutics, if any, of such quality, and composed of such materials, and packed and kept in such manner, as her Majesty by order in council may from time to time direct.
5. The master of every such ship as last aforesaid shall serve or cause to be served out the lime or lemon juice with sugar (such sugar to be in addition to any sugar required by the articles) or other such anti-scorbutics as aforesaid to the crew so soon as they have been at sea for 10 days, and during the remainder of the voyage, except during such time as they are in harbour and are there supplied with fresh provisions; the lime or lemon juice and sugar to be served out daily at the rate of an ounce each per day to each member of the crew, and to be mixed with a due proportion of water before being served out, or the other anti-scorbutics, if any, at such times and in such quantities as her Majesty by order in council may from time to time direct.
6. If at any time when such lime or lemon juice or anti-scorbutics is or are so served out as aforesaid any seaman or apprentice refuses or neglects to take the same, such neglect or refusal shall be entered in the official log book in the manner provided by sect. 281 of the principal Act, and shall be signed by the master and by the mate or some other of the crew, and also by the surgeon or medical practitioner on board, if any.

And if in any such ship as aforesaid such medicines, medical stores, book of instructions,

lime or lemon juice, sugar, or anti-scorbutics as are hereinbefore required are not provided, packed, and kept on board as hereinbefore required, the owner or master shall be deemed to be in fault, and shall for each default incur a penalty not exceeding 20*l.*, unless he can prove that the non-compliance with the above provisions, or any of them, was not caused through any inattention, neglect, or wilful default on his part; and if the lime or lemon juice and sugar or other anti-scorbutics are not served out in the case and manner hereinbefore directed, or if entry is not made in the official log in the case and manner hereinbefore required, the master shall be deemed to be in fault, and shall for each default incur a penalty not exceeding 5*l.*, unless he can prove that the non-compliance with the above provisions, or any of them, did not arise through any neglect, omission, or wilful default on his part; and if in any case it is proved that some person other than the master or owner is in default in any case under this section, then such other person shall be liable to a penalty not exceeding 20*l.*

Any person who manufactures, sells, or keeps or offers for sale any such medicines or medical stores as aforesaid which are of bad quality, shall for each such offence incur a penalty not exceeding 20*l.*

In any British possession out of the United Kingdom the governor or officer administering the government for the time being shall, subject to the laws of such possession, have power to make regulations concerning the supply within such possession of lime or lemon juice and anti-scorbutics for the use of ships; and any lime or lemon juice or anti-scorbutics duly supplied in accordance with any such regulations, shall be deemed to be fit and proper for the use of ships.

Whenever it is shown that any seaman or apprentice who is ill has, through the neglect of the master or owner, not been provided with proper food and water according to his agreement, or with such accommodation, medicines, medical stores, or anti-scorbutics as are required by the principal Act or by this Act, then, unless it can be shown that the illness has been produced by other causes, the owner or master shall be liable to pay all expenses properly and necessarily incurred by reason of such illness (not exceeding in the whole 3 months' wages), either by such seaman himself, or by her Majesty's Government, or any officer of her Majesty's Government, or by any parochial or other local authority on his behalf, and such expenses may be recovered in the same way as if they were wages duly earned: provided that this enactment shall not operate so as to affect any further liability of any such owner or master for such neglect, or any remedy which any seaman already possesses.

Where a seaman is by reason of illness incapable of performing his duty, and it is proved that such illness has been caused by his own wilful act or default, he shall not be entitled to wages for the time during which he is by reason of such illness incapable of performing his duty.

In 1867, 242,093 gallons of juice of lemons, limes, and oranges were imported into the United Kingdom.

JUNIPER BERRIES. [Berries.]

K

KAURI GUM. [Gum.]

KELP. A substance composed of different materials, of which the fossil or mineral alkali or, as it is commonly termed, soda, is the chief. This ingredient renders it useful in the composition of soap, in the manufacture of alum, and in the formation of crown and bottle glass. It is formed of marine plants, which, being cut from the rocks with a hook, are collected and dried on the beach to a certain extent; they are afterwards put into kilns prepared for the purpose, the heat of which is sufficient to bring the plants into a state of semi-fusion. They are then strongly stirred with iron rakes; and when cool, condense into a dark blue or whitish mass, very hard and solid. Plants about 3 years old yield the largest quantity of kelp. The best kelp has an acrid, caustic taste, a sulphurous odour, is compact, and of a dark blue greenish colour. It yields about 5 per cent. of its weight of soda. (Barry's *Orkney Islands*, p. 377; Thomson's *Dispensatory*.)

The manufacture of kelp is, or rather *was*, principally carried on in the Western Islands, and on the western shores of Scotland, where it was introduced from Ireland, about the middle of last century. Towards the end of the war which closed in 1815, the kelp shores of the island of North Uist let for 7,000*l.* a-year. It has been calculated that the quantity of kelp annually manufactured in the Hebrides only, exclusive of the mainland, and of the Orkney and Shetland Isles, amounted, at the period referred to, to about 6,000 tons a-year; and that the total quantity made in Scotland and its adjacent isles amounted to about 20,000 tons. At some periods during that war it sold for 20*l.* per ton. (Art. 'Scotland,' *Edinburgh Encyclopædia*.)

The foundations on which this manufacture rested were, nevertheless, altogether factitious. Its existence depended on the maintenance of the high duties on barilla and salt. Inasmuch, however, as kelp could not be substituted, without undergoing a very expensive process, for barilla, in a great many departments of industry in which the use of mineral alkali is indispensable, it became necessary materially to reduce the high war-duty laid on barilla. The ruin of the kelp manufacture has been ascribed to this reduction; but though barilla had been altogether excluded from our markets, which could not have been done without great injury to many most important manufactures, the result would have been perfectly the same, in so far as kelp is concerned, unless the high duty on salt had also been maintained. It was the repeal of the latter that gave the kelp manufacture the *coup de grâce*. The purification of kelp, so as to render it fit for soap-making, is a much more troublesome and expensive process than the decomposition of salt; and the greatest quantity of alkali used is now obtained by the latter method. Had the duty on salt not been repealed, kelp might still have been manufactured, notwithstanding the reduction of duty on barilla.

The manufacture is now almost extinct. Shores that formerly yielded the proprietors a rent of 200*l.* to 500*l.* a-year, are now worth next to nothing. The price of kelp since 1822 has not been, at an average, above 4*l.* per ton; and the article will, most probably, soon cease to be produced.

This result, though injurious to the proprietors of kelp shores, and productive of temporary distress to the labourers employed in the manufacture, is not to be regretted. It could not have been obviated without keeping up the price of some of the most important necessaries of life at a forced and unnatural elevation. The proprietors had not the vestige of a ground for considering that such a state of things would be permanent; they did right in profiting by it while it lasted; but they could not expect that Government was to subject the country, during peace, to some of the severest privations occasioned by the war, merely that *they* might continue to enjoy an accidental advantage.

KENTLEDGE. The name sometimes given to the iron pigs cast in a particular form for ballasting ships, and employed for that purpose.

KERMES (Ger. scharlachbeeren; Dutch, grein scharlakenbessen; Ital. grana, chermes, cremese, cocchi; Span. grana kermes, grana de la coscoja). An insect (*Coccus ilicis*, Linn.), of the same species as the true Mexican cochineal, found upon the *Quercus ilex*, a species of oak growing in Spain, France, the Levant &c. Before the discovery of America, kermes was the most esteemed drug for dyeing scarlet, and had been used for that purpose from a very remote period. Beckmann inclines to think that it was employed by the Phœnicians, and that it excelled even the famous Tyrian purple. (*History of Inventions*, vol. ii. p. 197, Eng. ed.) From the name of *coccum* or *coccus*, cloth dyed with kermes was called *coccinum*, and persons wearing this cloth were said by the Romans to be *coccinati*. (*Mart.* lib. i. epig. 97, lin. 6.) It is singular, however, notwithstanding its extensive use in antiquity, that the ancients had the most incorrect notions with respect to the nature of kermes; many of them supposing that it was the grains (*grana*) or fruit of the *ilex*. This was Pliny's opinion: others, after him, considered it in the same light, or as an excrescence formed by the puncture of a particular kind of fly, like the gall-nut. It was not till the early part of last century that it was finally and satisfactorily established that the kermes is really nothing but an insect assuming the appearance of a berry in the process of drying. The term kermes is of Persian origin. The Arabians had been acquainted with this production from the earliest periods in Africa; and having found it in Spain, they cultivated it extensively as an article of commerce, as well as a dye drug for their own use. But since the introduction of cochineal, it has become an object of comparatively trifling importance. It is still, however, prepared in some parts of Spain. Cloths dyed with kermes are of a deep red colour; and though much inferior in brilliancy to the scarlet cloths dyed with real Mexican cochineal, they retain the colour better, and are less liable to stain. The old tapestries of Brussels, and other places in Flanders, which have scarcely lost anything of their original vivacity, though 200 years old, were all dyed with kermes. The history of this production has been treated with great learning by Beckmann (*History of Inventions*, vol. i. pp. 171—191, 1st ed. trans.); and by Dr. Bancroft (*Permanent Colours*, vol. i. pp. 393—409).

KEY-WEST. A small island from 4 to 5 miles in length, by 1 in width; 56 miles S.W. from Cape Sable in Florida. It is one of the Florida keys, or of that extensive circular range of low islands, banks, and reefs, which fences the coast of Florida, and forms the northern boundary of the Gulf Stream, from the Tortugas Islands on the W. round to Cape Florida on the N. There are two lighthouses, one on the N.W. passage, another on the S.W. point of the island. About 7¼ miles S.W. from Key-West Lighthouse is another, which gives a flash for 10 seconds every alternate minute. The town of Key-West, near the N.W. part of the island, has about 1,600 inhabitants, and an excellent harbour, with about 25 feet water. A safe passage, about 6 miles in length, leads by Key-West from the Gulf Stream to the Gulf of Mexico. It has 12 feet water at ebb tide, and vessels from the N. bound for New Orleans, Mobile &c., or from the latter for the former, by passing through it, avoid the delay and danger of the more westerly passage round the Tortugas.

Owing to the frequent accidents to shipping from coming in contact with the banks and reefs in this dangerous vicinity, the American Government has organised an establishment at Key-West for the assistance of ships in distress, and made it the seat of an admiralty court for the adjudication of claims for salvage. The former consists of above 20 licensed vessels, with crews of about 10 men each. These are kept constantly cruising about on the look-out for ships in distress or wanting pilots; and as their emolument principally depends on the fees they obtain for their assistance, it may be fairly assumed that it will be rendered with the greatest alacrity. But the desirable thing is to hinder vessels from getting on shore, the assisting them when in that predicament being, though an important, a secondary consideration. The latter, however, and not the former, is the main object which the licensed cruisers of Key-West have in view; and it would be preferable could means be devised for making their remuneration depend rather on their success in preventing disasters than, as at present, in mitigating their influence. This is by no means easily done. Shipwrecks will, perhaps, be more effectually prevented by increasing the number of lighthouses, light-vessels, and sea-marks, along the edges of the islands and reefs, than in any other way. We subjoin an account of the ships wrecked, the sums awarded as salvages by the court of Key-West &c., in each of the 14 years ending with 1857.

Year	Number of Vessels	Salvage	Expenses	Value of Vessels and Cargoes
		dols.	dols.	dols.
1844	29	93,712	169,065	725,000
1845	26	69,592	105,709	737,000
1846	56	122,692	231,123	1,597,500
1847	37	109,000	200,600	1,624,000
1848	42	125,800	206,500	1,282,000
1849	47	127,870	219,160	1,305,000
1850	30	122,831	200,860	929,800
1851	34	75,852	165,085	941,500
1852	23	60,112	163,000	675,000
1853	57	174,350	230,100	1,973,000
1854	64	88,940	166,363	2,314,000
1855	80	100,195	189,800	2,844,077
1856	71	163,117	262,644	4,797,600
1857	59	101,990	172,984	2,663,450
Total -	655	1,556,453	2,683,295	24,359,027

(Blunt's *American Pilot*, p. 25; Hunt's *Commercial Magazine* for February 1858; &c.)

KINO (Fr. gomme de kino; Span. quino; Ger. kinoharz; Ital. chino). A gum, the produce of trees that grow in the East and West Indies, Africa, Botany Bay &c. The researches of Dr. Pereira and others have shown that kino is a vegetable extract or gum, obtained by boiling twigs of a tree (*Pterocarpus marsupium*) which grows in the East and West Indies, Africa, South America, and Australia. The nut is that exported from Bombay. The substance is found in small angular brittle fragments of a deep scarlet red colour, and of a glistening appearance. When chewed, it tinges the saliva blood-

red. It has a bitter, highly astringent taste, but leaves a slight sense of sweetness in the mouth. Kino contains a large quantity of a peculiar kind of tannin, 75 per cent. according to some chemists, but is chiefly used in medicine. (Pereira's *Materia Medica*; Wood and Bache's *United States Dispensatory*; *British Pharmacopœia* 1867.)

KIU KIANG. This river-port is situated at the outlet of the great Po Yang Lake, which occupies a vast area in the centre of the province of Kiang-si. It is distant 445 geographical miles from Shanghai, and 137 from Hankow. The object which the British ministers had in claiming this as one of the open ports in the treaty of 1861 seems to have been its proximity to the green tea districts of Kiang-si and Ngan-hwei. This important city was almost destroyed by the Taeping rebels, who occupied it from 1853 to 1858. When, however, this rebellion came to an end, the population rose anew from 10,000 to 40,000 souls in 1862. In 1866 there were at Kiu Kiang 8 British mercantile houses or agencies, and 3 United States firms. There is a British consul on the spot.

The following are the exports of tea for the years 1863–6:—

	1863 lbs.	1864 lbs.	1865 lbs.	1866 lbs.
Black -	9,818,608	10,294,555	8,961,556	12,476,400
Green -	15,724,115	7,609,605	16,140,790	10,549,666
Leaf -	885,235	352,348	152,788	131,353

This return for 1866 is exclusive of tea dust, 823,333 lbs. of which were exported in 1866.

Trade of Kiu Kiang, 1864–1866.

	1864	1865	1866
Exports (ex. treasure) -	£1,333,053	£2,291,413	£2,009,606
Imports (ex. treasure) -	1,044,218	1,161,633	1,301,070

479 vessels (almost exclusively British and American) of 357,875 tons entered, and 477 of 357,016 tons cleared the port in 1866. The chief imports are textile fabrics and opium.

KNIVES (Ger. messer; Dutch, messen; Fr. couteaux; Ital. coltelli; Span. cuchillos; Russ. noshi). Well-known utensils made of iron and steel, and employed to cut with; they are principally manufactured in London and Sheffield. Knives are made for a variety of purposes, as their different denominations imply; such as table knives, pen knives, oyster knives, pruning knives &c. Although England at present excels every part of the world in the manufacture of knives, as in most branches of cutlery, the finer kinds were imported until the reign of Elizabeth. It is stated by Mr. Macpherson (*Annals of Com.*, anno 1563) that knives were not made for use in England till 1563; but there can be no doubt that this is an error. They had been made, though probably of a rude and clumsy pattern, for centuries before, in the district called Hallamshire, of which Sheffield is the centre; and the cutlers of London were formed into a corporation in 1417. (*Manufactures in Metal*, vol. ii. c. i., in Lardner's *Cyclopædia*.)

KÖNIGSBERG. The capital of East Prussia, in lat. 54° 42′ 11″ N., long. 20° 29′ 15″ E. Population, in 1864, 101,507.

Port &c.—Königsberg is situated on the Pregel, which flows into the Frische Haff, or Fresh Bay, a large lake having from 10 to 14 feet water. The bar at the mouth of the Pregel has only from 10 to 11 feet water, so that vessels of more than that draught of water require to be lightered to come up to Königsberg. Pillau, in lat. 54° 33′ 39″ N., long. 19° 52′ 30″ E., on the north side of the entrance from the Baltic to the Frische Haff, is properly the port of the town, and since 1866 has been connected with it by railway. Within these few years a lighthouse has been erected on a rising ground a little to the south of Pillau, the lantern of which is elevated 95 feet above the level of the sea. The light is fixed and brilliant. The entrance to the harbour is marked by buoys; those on the larboard side being surmounted by small flags. A Gothic building, 120 feet above the level of the sea, has been erected to serve for a landmark; at a distance it looks like a three-masted ship under sail. There is usually from 15 to 16 feet water between the buoys on entering the harbour; but particular winds occasion material differences in this respect.

Trade of Königsberg.—Being situated on a navigable river of considerable importance, Königsberg has a large command of internal navigation, and is the principal emporium of a large extent of country, but her importance will be much increased by the completion of the East Prussian Southern Railway. Wheat, rye, and other species of grain are the chief articles of export. The wheat is somewhat similar to that of Dantzic, but of inferior quality, being larger in the berry, and thicker skinned. The rye is of good quality, but barley, with few exceptions, is thin and light. A few remarkably large and fine peas are exported; but the bulk are of small size and inferior. Oats are common feed, with a slight admixture of tares; but as these last answer in some degree the purpose of beans, the value of the oats is rather enhanced than otherwise by the circumstance. More tares are shipped here than from any other port in the Baltic. The price of all sorts of grain is usually lower at Königsberg than at the neighbouring Prussian ports. Linseed and rapeseed, hemp, flax, linens, oil-cake, oil, bristles, refined sugar &c. are largely exported; with smaller quantities of bones, mats, ashes, feathers, wax, hides and skins &c. The bristles are the best in the Baltic. Timber, deals, and staves are as good as at Memel, but being scarce, few or none are exported. The imports are sugar, tea, herrings, iron and steel, coffee, wines, tin and tin plates, dye woods, tobacco, spices, drugs, coals &c. The Government monopoly of salt has been abolished, and it will for the future, says Mr. Consul Hertslet, be subject to an import duty of 2 thalers or 6*s.* per cwt. In 1866 there arrived at Pillau 1,399 vessels of 154,036 tons, of which one-third were British.

Money, Weights, and Measures, same as at DANTZIC.

The following dues are charged on shipping at Königsberg and Pillau.

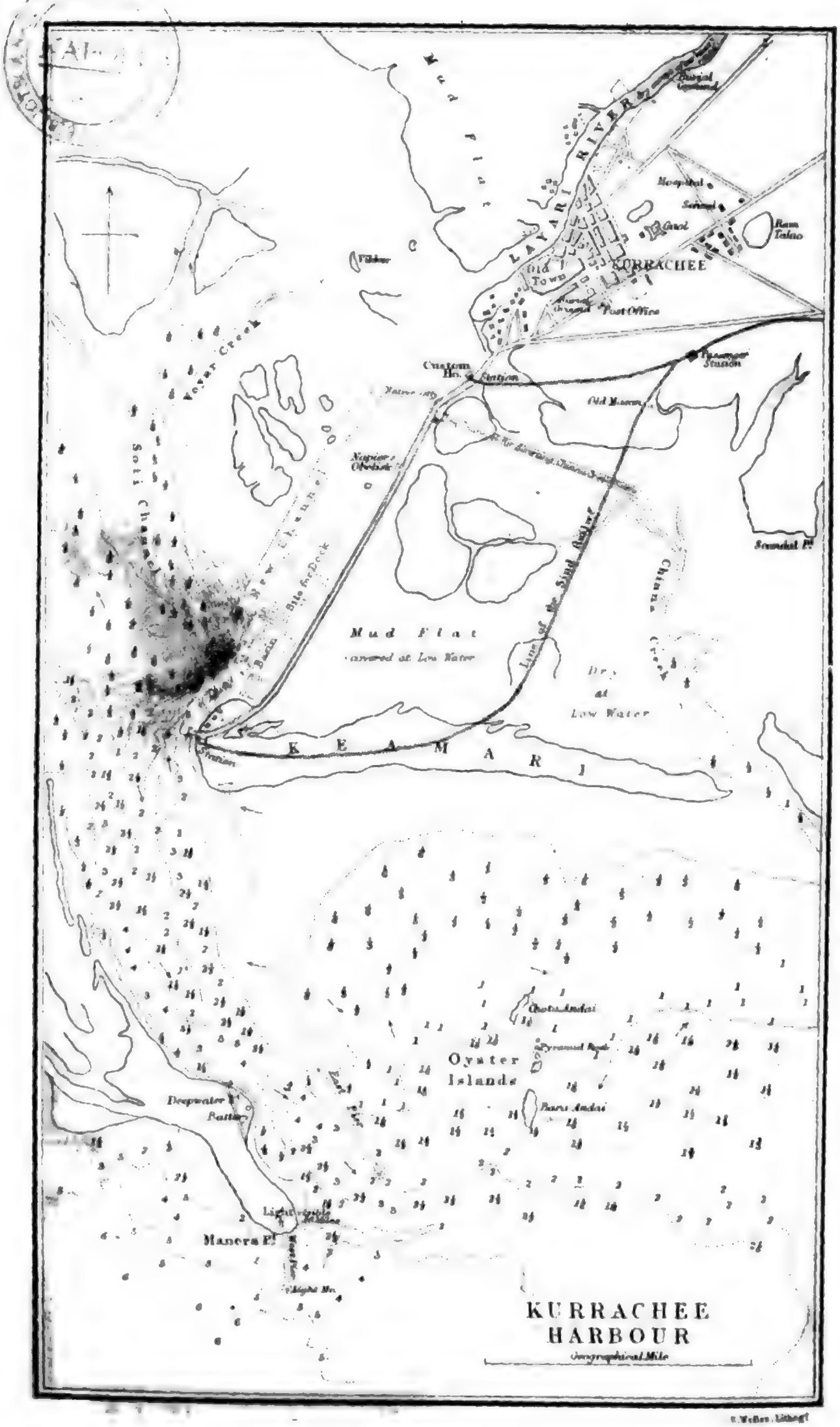
At Pillau.

If with cargo:
On arrival, 4 silvergroschen per last.
On departure, 4 silvergroschen per last.
If in ballast or empty:
On arrival, 2 silvergroschen per last.
On departure, 2 silvergroschen per last.

Ships had formerly to pay, respectively, 15 and 7½ silvergroschen per last, before June 1865, and subsequently, and up to May 15, 1867, 8 and 4.

At Königsberg.

River Pregel's Mouth.—Money for vessels coming to Königsberg, in and out—
If with cargo, 3 silvergroschen 6 pfennige per last,
If in ballast, 1 silvergroschen 9 pfennige per last,



London Longmans & Co.

E. Weller Lithog.

gainst the former dues of, respectively, 5 silver-groschen 6 pfennige, and 2 silvergroschen 9 fennige per last.

The Königsberg town dues, such as stream and ulwark money, River Pregel Mouth money, and ridge money, are reduced to half of the former ates from May 15, 1867, and Consul Hertslet *Report*, April 1867) holds out hope that all ocal dues will be abolished, and that the harbour lues will be assimilated to those of Hanover.

KURRACHEE. A sea-port of British India, t the N.W. extremity of the coast of Sinde, lat. 24° 51′ N., long. 67° 2′ E. Population of town and uburbs in 1853, 22,227. It derives almost all its mportance from its being the only safe sea-port n the coast of Sinde, and from its adaptation to erve as the grand W. emporium of the vast terri-ories traversed by the Indus. In this respect it ids fair entirely to supersede Tatta, elsewhere escribed. It is situated about 22 miles E. from Cape Monze, on a level piece of ground at the xtremity of the Brahooic mountains. The arbour, which is spacious and secure, has a bar t its mouth, on which there are from 16 to 18 eet water at high-water ordinary tides, and rom 20 to 21 feet or upwards at high-water prings. And allowing for the difference in the tatements with respect to the depth of water on he bar, still there can be no question that the arbour has been safely entered by ships of from 00 to 800 tons burden or upwards; and it is ccessible at all times of the year, even during the eason of the monsoons. It appears, indeed, to be ufficiently established, that, with a properly or-anised pilot establishment, and the employment or one or more years of two or three powerful team dredging machines to deepen or remove the ar, the port would be constantly available for hips of from 800 to 1,000 tons. Kurrachee has lighthouse at Massora Fort, visible 16 miles in lear weather.

A railway, certainly the most important for its ength (110 miles) of any in India, has been com-leted, from Kurrachee to Hyderabad on the ndus, the point at which the latter becomes vailable for large ships, and from which it may e navigated for about 570 miles by steamers uilt for the purpose. There is, consequently, very prospect of Kurrachee becoming one of the ost important of the Eastern emporiums. It ould be useless to dwell on the all but boundless xtent, the great natural riches, and the immense apacities of improvement of the countries watered y the Indus and its affluents; and it may fairly e doubted, taking these circumstances into ac-ount, whether the anticipations of those who ntend that the commerce of Kurrachee is des-ned, at some future and not very remote period, to equal that of New Orleans, the emporium of the Mississippi, be really so very wide of the mark as at the first blush of the matter they may seem to be. It is seen by the subjoined returns that, even at present, its trade is far from inconsiderable.

It has two routes to Tatta, and it has been said that there is a water communication between Kurrachee and the Indus; but this has been denied, and is most probably a mistake. No doubt, however, it would be easy, from the nature of the ground, to cut a canal between them, and this may, at some future period, be an expedient measure. In the mean time the railway, by bringing Kurrachee into contact, as it were, with Hyderabad and the deep water of the Indus, has made it the port of the latter. The telegraph wires from Aden to India have been carried in the first instance to Kurrachee.

In 1866–7 the exports consisted principally of wheat and other grain, provisions and oilman's stores, raw silk, raw cotton, oil and oil seeds, saltpetre and wool (which has rapidly increased, and is now by far the most important article), indigo, munjeet or madder, drugs &c. But when the navigation of the Indus is carried on actively, Kashmere shawls, silk, and a great variety of the most valuable articles, will be added to the list of exports.

The imports consist of cotton stuffs and twist, iron, hardware, and machinery, spices, wines &c.

I.—*Account of the Values (in Rupees) of the Imports into and Exports from Kurrachee in each of the 10 Years ending with 1865–6, with Amount of Customs Duties collected.*

Year	Imports	Exports	Total Value	Customs Duty
	Rs.	Rs.	Rs.	Rs.
1856-7	68,56,657	75,45,222	1,42,01,879	81,550
1857-8	1,08,11,012	1,07,81,286	2,15,92,298	89,198
1858-9	1,54,06,058	1,04,42,726	2,58,48,784	2,06,280
1859-60	1,71,27,517	91,[illegible]8,348	2,66,00,865	4,41,599
1860-1	1,65,66,581	1,02,69,918	2,68,36,499	5,18,853
1861-2	1,54,97,545	1,41,67,998	2,96,65,543	5,13,888
1862-3	2,26,24,184	3,28,75,942	5,53,01,126	5,98,380
1863-4	2,47,47,372	4,18,80,734	6,66,28,106	4,37,217
1864-5	2,31,67,000	2,92,80,150	5,24,47,150	3,41,374
1865-6	2,01,95,509	2,79,27,936	4,81,23,445	3,63,817
Total -	17,28,03,435	19,44,45,260	36,72,48,695	35,86,156
Average value for 10 years -	1,72,80,343	1,94,44,526	3,67,24,869	3,58,615
Value for 1866-7, end of April	2,98,71,665	2,52,89,893	5,51,61,548	4,23,256
Increase in 1866-7 -	1,25,91,312	58,45,567	1,81,36,679	84,441

The large amount of Customs duty collected from 1859–60 to 1862–3 inclusive was on account of 10 per cent. duty on railway iron, which was reduced by Act 26 of 1863 to 1 per cent.

I.—*Account showing the Countries having Trade with Sinde in 1865–6 and 1866–7, with the Value of the Imports from and Exports and Re-Exports to each.*

Countries	Imports		Exports and Re-Exports	
	1865-6	1866-7	1865-6	1866-7
	Rs.	Rs.	Rs.	Rs.
Foreign External Ports—				
United Kingdom - - -	38,21,731	64,76,125	1,09,78,575	78,36,381
France - - - -	6,300	7,346	1,57,037	5,39,182
Aden - - - -	—	—	1,588	32,148
Australia - - - -	—	—	31,152	—
Mauritius - - - -	4,903	198	6,86,571	8,10,071
Persian Gulf - - -	7,09,301	3,61,304	6,03,444	4,61,623
Soumeesnee and Mekran - -	57,751	59,614	92,119	60,967
Africa, Coast of - - -	6,692	9,520	1,475	2,398
Ceylon - - - -	—	—	350	—
Bombay Presidency - - -	1,59,43,124	2,03,70,573	1,50,34,342	1,24,87,233
Bengal ,, - - - -	2,97,605	—	1,125	—
Madras ,, - - - -	47,367	74,246	3,37,449	1,03,254
Indian Ports not British, Goa, Damaun and Diu - - - - -	735	7,460	2,709	795
Total - - - -	2,01,95,509	27,66,886	2,79,27,936	2,24,26,252

III.—*Table showing the Aggregate Value of the Principal Articles of Export from Sinde by Sea in 1866–67 compared with 1865–66.*

Articles	1865-6	1866-7	Increase	Decrease
	Rs.	Rs.	Rs.	Rs.
Apparel - -	20,878	18,540	..	2,338
Books and stationery	8,205	7,600	..	605
Borax - -	21,839	12,235	..	12,604
Cabinetware -	13,440	1,010	..	12,430
Cotton goods -	3,70,104	3,23,071	..	47,033
Wool -	96,55,403	69,09,963	..	27,45,440
Drugs and medicines	2,51,571	2,28,631	..	22,937
Dyes - -	14,17,160	12,54,915	..	1,62,245
Flax and manufactures of - -	..	20,000	20,000	..
Fruits and vegetables	2,44,530	1,69,552	..	75,478
Fuel—firewood -	..	8,179	8,179	..
Grain - -	32,84,735	47,82,737	14,90,002	..
Gum - -	17,633	9,302	..	8,331
Horses and animals -	4,61,042	2,26,030	..	2,35,012
Hides - -	56,742	76,973	20,231	..
Ivory - -	1,805	2,875	1,070	..
Jewellery - -	12,009	75	..	11,994
Jute and manufactures of - -	14,066	3,797	..	10,269
Lac - -	159	1,153	994	..
Oils - -	1,01,297	6,17,260	5,12,963	..
Provisions and Oilman's stores -	19,95,716	11,93,564	..	8,02,152
Saltpetre - -	97,548	54,190	..	43,358
Seeds - -	15,89,817	31,82,339	15,92,522	..
Silk and manufactures of - -	3,75,923	7,08,869	3,32,946	..
Sugar and other saccharine matters -	3,99,162	3,02,747	..	96,415
Tallow - -	132	7,403	7,271	..
Tea - -	3,016	12,957	9,941	..
Tobacco - -	34,530	7,345	..	27,192
Wood and manufactures of - -	7,670	43,701	36,031	..
Wool - -	64,18,801	41,50,830	..	22,87,971
Sundries - -	9,14,801	9,09,926	..	4,875
Total merchandise	2,77,96,614	2,52,28,095	40,40,150	66,08,669
Treasure - -	1,31,322	61,798	..	69,524
Total rupees -	2,79,27,936	2,52,89,893	40,40,150	66,78,193
Deduct increase -	..	..	..	40,40,150
Net decrease -	..		..	26,38,043

IV.—*Statement of Ships and Tonnage Entered and Cleared from Ports in Sinde in* 1866-67.

	Entered		Cleared	
	Vessels	Tonnage	Vessels	Tonnage
SQUARE-RIGGED VESSELS AND STEAMERS.				
Under British colours -	71	56,070	69	53,728
French ,, -	7	3,492	4	1,974
American ,, -	1	1,163	2	2,278
Russian ,, -	1	761	1	761
Portuguese ,, -	1	274	..	..
British Steamers - -	39	15,018	37	14,852
Total - -	120	76,898	113	73,593
NATIVE CRAFT.				
Under British colours -	612	31,819	614	34,501
Portuguese ,, -	7	220	6	164
Dutch ,, -	956	49,057	909	51,616
Arab ,, -	61	4,017	51	3,751
Mekran ,, -	7	155	8	152
Total - -	1,643	85,268	1,588	90,187
Grand total -	1,763	1,62,076	1,701	1,63,720

V.—*Table showing the Aggregate Value of the Principal Articles of Imports into Sinde by Sea in 1866–67 compared with similar Imports in 1865–66.*

Articles	1865–66	1866–67	Increase	Decrease
	Rs.	Rs.	Rs.	Rs.
Apparel - -	2,20,632	2,67,549	46,917	..
Arms and ammunition - -	28,049	32,651	5,602	..
Books and stationery	2,41,019	1,20,972	..	1,20,047
Cabinetware -	10,259	13,268	3,009	..
Carriages - -	13,806	22,167	8,361	..
Cocoanuts - -	1,28,687	1,64,024	35,337	..
Coffee - -	28,338	59,976	31,638	..
Coir, and manufactures of -	12,793	21,951	9,158	..
Corks - -	8,217	16,945	8,728	..
Cotton piece goods -	85,81,502	94,82,848	9,01,346	..
Cotton thread, twist, and yarn -	4,85,119	5,27,503	42,384	..
Drugs - -	1,39,379	1,29,294	..	10,085
Dyes - -	2,31,078	2,55,297	24,219	..
Earthenware and porcelain -	26,253	52,133	25,880	..
Fruits, dried and wet - -	3,63,279	2,87,315	..	75,964
Glassware - -	46,083	55,442	9,359	..
Grain and pulse -	2,08,432	92,012	..	1,16,420
Gums - -	5,326	5,827	501	..
Ivory, and manufactures of -	57,307	60,200	2,893	..
Jewellery - -	16,564	25,303	8,739	..
Jute, and manufactures of - -	4,42,732	4,62,992	20,260	..
Leather, and manufactures of -	40,176	48,002	7,826	..
Liquors (ales, cider, wines, liqueurs, spirits) - -	8,23,639	8,33,289	9,650	..
Machinery - -	99,125	4,14,283	3,15,158	..
Materials for steamers and flats -	..	5,64,761	5,64,761	..
Medical stores -	..	8,103	8,103	..
Metals, and manufactures of -	13,62,605	16,21,222	2,58,617	..
Oils - -	5,452	70,910	65,458	..
Oilman's stores and provisions -	1,66,899	2,37,825	70,926	..
Paints and colours -	29,736	55,397	25,661	..
Perfumery - -	10,262	14,359	4,097	..
Railway materials -	12,62,828	30,01,095	17,38,267	..
Silk, and manufactures of -	7,08,132	11,31,578	4,23,446	..
Spices - -	5,37,777	4,53,157	95,380	..
Sugar and other saccharine matters -	5,50,326	7,31,894	1,81,568	..
Tea - -	5,92,971	5,52,048	..	40,923
Tobacco - -	76,929	87,927	10,998	..
Timber and planks -	47,441	1,28,422	80,981	..
Wool, and manufactures of -	2,88,301	2,65,742	..	22,559
Sundries - -	9,77,784	8,99,759	..	78,025
Total merchandise	1,86,78,238	2,32,56,413	50,12,228	1,64,023
Treasure -	15,17,271	66,15,212	50,97,941	..
Total rupees -	2,01,95,509	2,98,71,655	101,40,169	..
Deduct decrease -	..	..	4,64,023	..
Net increase -	..	..	96,76,146	..

We have been indebted for these details, partly to the art. 'Kurrachee' in Thornton's excellent *Gazetteer of India*, and to the work of Mr. Andrew on the *Indus and its Provinces*, and partly to official papers of a later date, and private information. For tariff, see CALCUTTA.

L

LABUAN. A small island off the N.W. coast of Borneo, a dependency of the British crown, about 6 miles distant from the nearest point of the mainland, and 30 miles N. from the city of Borneo or Bruni, lat. 5° 12′ N., *long.* 115° 19′ 36″ E. It is from 25 to 30 miles in circuit, flat, and covered with wood. The anchorage, on the S. side of the island, is protected by a greater and 3 smaller islands; and the town of Victoria has been commenced at the embouchure of a rivulet in a small bay, at the head of the anchorage. Coal of good quality is found on the island, and it is well supplied with fresh water. It was ceded by the Sultan of Borneo to Great Britain in 1844; and the late Sir James Brooke, who negotiated its cession, was afterwards appointed its governor. When it came into our possession it was uninhabited; but its situation is such that, provided it be moderately healthy, it can hardly fail to become an important emporium. It lies near the best route for shipping from the Straits of Singapore to China, and, while it is extremely well situated for carrying on trade with the W. and N. coasts of Borneo and the Philippine islands, it will serve as a harbour of refuge, and as a convenient station for the steamers and other ships of war required to put down the piracy that has been, to the great injury of commerce, carried on to so great an extent from the ports and rivers of Borneo, and of some of the adjacent islands. In this respect its abundant supply of coal will be of the greatest service. In war the possession of Labuan will give us the entire command of the Chinese sea. (Brooke's *Journal*, and a paper by

Mr. Crawfurd in Keppel's *Borneo*, ii. pp. 144, 209.)

The total population of Labuan on January 1, 1867, was 3,828 persons, exclusive of military and convicts. The number of vessels which entered and cleared in 1863 was 25 of 7,332 tons, and 24 of 6,707 tons, the shipping gradually increasing. The shipping was chiefly British and from Singapore. The imports were worth, in 1866, 109,134*l.* 12*s.* 4*d.*, the chief items being piece goods, machinery, birds' nests, and specie. The exports were 58,293*l.* in value. In 1866 the coal mines produced 11,317 tons of coal.

Borneo or Bruni, on the adjacent shore of the mainland, the residence of the Sultan of Borneo Proper, has been termed the Venice of the East. It contains from 30,000 to 40,000 inhabitants, mostly Malays, and really seems as if it floated on the waves. It is situated on an estuary, and though built with little regard to regularity, it is intersected crosswise by two main streets, which divide it into 4 portions, 1 only of which stands on dry land. The houses in the other 3 parts are of wood built on piles, which support them above the water, with streets, if so they may be called, to admit the passage of canoes. The steamer which conveyed Sir James Brooke to Borneo, when Labuan was ceded, anchored in the main street in the centre of the town! 'The greatest novelty at Bruni,' says Mr. Marryat, from whom we have borrowed these details, 'is the floating bazaar. There are no shops in the city, and the market is held every day in canoes. These come in at sunrise every morning from every part of the river, laden with fresh fruit, tobacco, pepper, and every other article which is produced in the vicinity; a few European productions, such as handkerchiefs, check-cotton prints &c., also make their appearance. Congregated in the main street, the canoes are tacked together, forming lanes through which the purchasers in their own canoes paddle, selecting and bargaining for goods with as much convenience as if the whole were transacted on terra firma. Iron is here so valuable that it is used as money. One hundred flat pieces an inch square are valued at a dollar, and among the lower classes these iron pieces form the sole coin. They are unstamped, so that any person appears to be at liberty to cut his own iron into money; but whether such is really the case, I cannot vouch.' (Marryat's *Borneo &c.* p. 113.)

But though deficient in iron, the gold mines of Borneo are said to be of the richest description. Sir Stamford Raffles estimated that in his time about 32,000 Chinese labourers were employed in these mines on the W. coast of Borneo; and it is not easy to say how productive they might become, were the miners in a condition to prosecute their undertakings in safety, and to bring the resources of science and capital to their aid. Antimony is also found in abundance in Borneo, especially in the district of Sarawak, of which Sir James Brooke was rajah; and the diamonds of Borneo rival those of India and Brazil. But independently of its coal, and of its precious and other metals, its vegetable products might alone furnish the materials of an extensive commerce. The sago palm grows in great perfection in many parts of the island, and sago is largely exported in a rough state to Singapore. The areca nut, rattans, gutta percha, gum-benjamin, camphor, birds' nests &c., are also considerable articles of export; and sugar, pepper, and all the products of tropical regions, might, with a little care, be raised to any extent in most parts of this vast island. The numbers and ferocity of the savages by whom it is occupied present, indeed, innumerable obstacles to its improvement; but civilisation is beginning to make its way amongst them; and, though probably slow, its progress cannot well be arrested. Mr. Vice-Consul Martin's *Report* of February 29, 1868, states the value of the exports from Sarawak in 1866 at 74,849*l.*, and that of the imports 83,844*l.*, showing a decrease as compared with 1865 of about 30,000*l.* in each case.

LAC or GUM LAC (Ger. lack, gummilack; Fr. laque, gomme laque; Ital. lacca, gommalacca; Span. goma laca; Russ. laka, gummilak; Arab. laak; Hin. lak'h; Sansc. lākshā). A substance, which has been improperly called a gum, produced in Bengal, Assam, Pegu, Siam &c., on the leaves and branches of certain trees, by an insect (*Chermes lacca*). The trees selected by the insect on which to deposit its eggs are known by the names of the bihar tree (*Croton lacciferum*, Linn.), the pepel (*Butea frondosa*), bott, and coosim trees &c. After being deposited, the egg is covered by the insect with a quantity of this peculiar substance, or lac, evidently intended to serve, in the economy of nature, as a nidus and protection to the ovum and insect in its first stage, and as food for the maggot in its more advanced stage. It is formed into cells, finished with as much art as a honeycomb, but differently arranged. Lac yields a fine red dye, which, though not so bright as the true Mexican cochineal, is said to be more permanent; and the resinous part is extensively used in the manufacture of sealing-wax and hats, and as a varnish.

Lac, when in its natural state, encrusting leaves and twigs, is called *stick lac*: it is collected twice a-year; and the only trouble in procuring it is in breaking down the leaves and branches, and carrying them to market. When the twigs or sticks are large, or only partially covered, the lac is frequently separated from them, as it always ought to be when shipped for Europe, to lessen the expense of freight. The best stick lac is of a deep red colour. When held against the light, it should look bright, and when broken should appear in diamond-like points. If it be not gathered till the insects have left their cells, it becomes pale, and pierced at the top; and it is of little use as a dye, though probably better for a varnish.

Lac dye, *lac lake*, or *cake lac*, consists of the colouring matter extracted from the stick lac. Various processes have been adopted for this purpose. It is formed into small square cakes or pieces, like those of indigo. It should, when broken, look dark-coloured, shining, smooth, and compact: when scraped or powdered, it should be of a bright red colour, approaching to that of carmine. That which is sandy, light-coloured, and spongy, and which, when scraped, is of a dull brickdust colour, should be rejected.

Notwithstanding the continued fall in the price of cochineal, the use of lac dye has been extending in this country. The annual consumption may at present (1868) amount to about 1,200,000 lbs., having more than quintupled since 1818. The finest qualities of lac dye are seldom met with for sale in Calcutta, being generally manufactured under contract for the European market.

When stick lac has been separated from the twigs to which it naturally adheres, and coarsely pounded, the native silk and cotton dyers extract the colour as far as it conveniently can be done by water. The yellowish, hard resinous powder which remains, having somewhat of the appearance of mustard seed, is called *seed lac*. When liquefied by fire, it is formed into cakes, and denominated *lump lac*. The natives use the latter

in making bangles, or ornaments in the form of rings, for the arms of the lower class of females; the best *shellac* being used in manufacturing these ornaments for the superior classes.

Shellac is produced from seed lac, by putting the latter into bags of cotton cloth, and holding it over a charcoal fire, when the lac melts, and being strained through the bag, the resinous part, which is the most liquefiable, is obtained in a considerable degree of purity; it is formed into thin sheets or plates.

The largest consumers of shellac are hatters, sealing-wax and varnish makers.

Shellac is of two kinds—the thin flaky, called orange, garnet and liver; and the thicker sort, called button, which again is of two kinds, the bright amber-coloured and the dark.

Hatters use most the flaky dark, which, if pure, is of the strongest body. Varnish makers prefer the bright button. Sealing-wax makers give a decided preference to the button sorts. The bright button being the finest, requires less vermilion to overcome its strong properties. 25 years ago orange shellac was almost the only sort known in the market.

Shellac is greatly adulterated by resin, more especially the *dark* button sorts. The best test of the purity of button shellac is its fragrance of smell when on fire. This, with the pure buttons, both the amber and the dark, is most agreeable.

In Bengal, lac is chiefly produced in the forests of Sylhet and Burdwan, and nine-tenths of the shellac in the district round Cawnpore. The finest dye is said to be obtained from the stick lac of Siam and Pegu; but the shellac or resinous part obtained from the latter is inferior to that produced from Sylhet stick lac. It may be obtained in almost any quantity.

The duties formerly charged on lac when entered for consumption were repealed in 1845.

In 1867, 31,633 cwts. of shellac were imported, and 26,660 cwts. exported. During the same year the imports of lac dye were 9,260 cwts. Lac dye does not figure in the exports.

The finest lac dye is distinguished by the mark D. I., the 2nd by T. D., the 3rd by J. Mc. R., C. E. &c. The prices vary from 6*d.* to 2*s.* 5*d.* per lb.

The duties used to be 5 per cent. on lac dye, seed lac, and stick lac; and 20 per cent. on shellac; but it was obviously absurd to charge shellac, which, as already seen, is prepared from the refuse of lac dye, with *four* times the duty laid upon the latter. In 1842 the duties were reduced to 1*s.* per cwt., and, as already seen, were repealed in 1845. (Bancroft *On Permanent Colours*, vol. ii. pp. 1-60; Ainslie's *Mat. Med.*; Milburn's *Orient. Com.*; and *private information.*)

LACE (Dutch, kanten; Fr. dentelle; Ger. spitzen; Ital. merletti, pizzi; Russ. krushewo; Span. encojes). A plain or ornamented net-work, tastefully composed of many fine threads of gold, silver, silk, flax, or cotton, interwoven, from *Lacinia* (Lat.), the guard hem or fringe of a garment.

The origin of this delicate and beautiful fabric is involved in considerable obscurity; but there is no doubt it lays claim to high antiquity. In Mr. Hope's *Costumes of the Ancients*, many beautiful lace patterns are portrayed on the borders of the dresses of Grecian females; and from the derivation of the word '*lace*,' it is probable it was not unknown to the Romans. It is supposed that Mary de' Medici was the first who brought lace into France, from Venice, where, and in the neighbouring states of Italy, it is understood to have been long previously worn: but we find that in England, so early as 1483, 'laces of thread, and laces of gold, and silk and gold,' were enumerated among the articles prohibited to be imported. (1 Rich. III. c. 10.) It is, therefore, fair to presume that this manufacture had begun in England *prior* to that period, as this and many subsequent Acts were passed (19 Hen. VII. c. 21; 5 Eliz. c. 7; 13 & 14 Ch. II. c. 13; 4 & 5 Wm. & Mary c. 10 &c.) for the encouragement and protection of our home manufacture; but it may equally be concluded, that as *pins* (which are indispensable in the process of lace making) were not used in England till 1543, the manufacture of lace must have been vulgar in fabric, and circumscribed in its extent. Tradition says that the lace manufacture was introduced into this country by some refugees from Flanders, who settled at or near Cranfield, now a scattered village on the west side of Bedfordshire, and adjoining Bucks; but there is no certain evidence that we are indebted to the Flemings for the introduction of this beautiful art, though we undoubtedly owe to them most part of our manufactures of articles of dress; we have also imitated many of their lace fabrics, and greatly improved our manufacture, by profiting by the superior taste which they have displayed in the production of this article. In 1626 Sir Henry Borlase founded and endowed the free school at Great Marlow, for 24 boys, to read, write, and cast accounts; and for 24 *girls*, to knit, spin, and make *bone lace* (Lewis's *Topography*); so that there is reason to suppose that at this time the manufacture had commenced in Buckinghamshire, which by degrees extended to the adjoining counties of Bedford and Northampton. In 1640 the lace trade was a flourishing interest in Buckinghamshire (Fuller's *Worthies*, and different *Itineraries*); and so greatly had it advanced in England, that by a royal ordinance in France, passed in 1660, a mark was established upon the thread lace *imported from this country* and from Flanders, and upon the point lace from Genoa, Venice, and other foreign countries, in order to secure payment of the customs duties. (*Universal Dictionary.*)

Pillow Lace—the original manufacture—is worked upon a hard stuffed pillow, with silk, flax, or cotton threads, according to a parchment pattern placed upon it, by means of pins, bobbins, and spindles, which are placed and displaced, twisting, and interweaving the threads, so as to imitate the pattern designed. This manufacture has been long pursued in almost every town and village in the midland counties, particularly in Buckinghamshire, Bedfordshire, and Northamptonshire, besides at Honiton in Devon, and various other places in the west of England. The principal places where it is made in the Netherlands are Antwerp, Brussels, Mechlin, Louvaine, Ghent, Valenciennes, and Lisle. It is also made at Chantilly near Paris (celebrated for veils), Charleville, Sedan, Le Comté de Bourgogne, Liége, Dieppe, Havre, Harfleur, Pont l'Evesque, Gisors, Fécamp, Caen, Arras, Bapaume &c. in France; and at various places in Spain, Portugal, and Italy. In England and Ireland, besides the laws passed at different times to encourage and protect the manufacture, associations were formed in various places, with the view of exciting a spirit of emulation and improvement, by holding out premiums for the production of the best pieces of bone lace; and although smuggling of foreign lace was carried on to a great extent (in 1772, 72,000 ells of French lace were seized in the port of Leigh, and lodged in the king's warehouse there, besides numerous other seizures), the British manufacture advanced in an unparalleled degree. (*Gentleman's Mag.* 1751, vol. xxi. p. 520;

vol. xlii. p. 484.) It is imagined that the first lace ever made in this country was of the sort called *Brussels Point*, the net work made by bone bobbins on the pillow, and the pattern and sprigs worked with the needle. Such appears to have been the kind worn by the nobility and people of high rank, as is evident by the different portraits now in existence, painted by Vandyke, in the time of Charles I., and afterwards by Sir Peter Lely and Sir Godfrey Kneller, in the succeeding reigns of Charles II., Queen Anne, and George I. About a century since, the *grounds* in use were the old Mechlin, and what the trade termed the *wire ground*, which was very similar, if not identical, with the *modern* Mechlin, the principal article in the present French manufacture. The laces made in these grounds were singularly rich and durable; the designs of the *old Mechlin* resembled the figures commonly introduced in ornamental carving. Between 70 and 80 years ago, a great deterioration was occasioned by the introduction of the *Trolly* ground, which was exceedingly coarse and vulgar, the figures angular, and altogether in the worse taste conceivable. An improvement, however, took place about the year 1770, when the ground, which is probably the most ancient known, was re-introduced; this was no other than the one still in partial use, and denominated the *old French ground*. About 1777, or 1778, quite a *new* ground was attempted by the inhabitants of Buckingham and its neighbourhood, which quickly superseded all the others; this was the *point ground*, which had (as is supposed) been imported from the Netherlands. From the first appearance of this ground may be dated the origin of the modern pillow-lace trade; but it was not until the beginning of the present century that the most striking improvements were made; for during the last quarter of the 18th century, the article, though certainly much more light and elegant from the construction of the ground, was miserably poor and spiritless in the design. Soon after the year 1800, a freer and bolder style was adopted; and from that time to 1812, the improvement and consequent success were astonishing and unprecedented. At Honiton, in Devon, the manufacture had arrived at that perfection, was so tasteful in the design, and so delicate and beautiful in the workmanship, as not to be excelled even by the best specimens of Brussels lace. During the war with France, veils of this lace were sold in London at from 20 to 100 guineas; they are now sold at from 8 to 15 guineas. The effects of the competition of machinery, however, were about this time felt; and in 1815 the broad laces began to be superseded by the new manufacture. The pillow-lace trade has since been gradually dwindling into insignificance, compared with its condition 30 years back. It is difficult to form an estimate of the number of persons employed in pillow-lace making during its prosperity; but in a petition from the makers in Buckingham and the neighbourhood, presented to Queen Adelaide in 1830, it was stated that 120,000 persons were dependent on the trade; but this number has since been very greatly diminished.

Nottingham Lace.—A frame-work knitter of Nottingham, named Hammond, about the year 1768, was the first who made lace by machinery. Though dissipated and destitute of money, employment, or credit, the idea struck him, while looking at the broad lace on his wife's cap, that he could fabricate a similar article by means of his stocking-frame. (Gravenor Henson *On Hosiery, Lace &c.* p. 295.) He tried, and succeeded. The first machine ostensibly for lace (introduced at Nottingham about the same period) was called a pin machine, for making single press *point net* in imitation of the Brussels ground. This machine, although lost here, is still used in France in manufacturing the net called *tulle*. This was the age of experiments; and workmen at their leisure hours employed themselves in forming new meshes on the hand, in the hope of perfecting a complete hexagon, which had hitherto eluded all their efforts to discover. In 1782 the warp frame was introduced, which is still in use for making *warp lace*; and in 1799 it was first attempted to make *bobbin net* by machinery; but this was not found to answer. During the succeeding 10 years many alterations were made in the construction of the machines, with no better success, until at length, in 1809, Mr. Heathcoat, of Tiverton, succeeded in discovering the correct principle of the bobbin-net frame, and obtained a patent for 14 years for his invention. Steam power was first introduced by Mr. John Lindley, in 1815–16; but did not come into active operation till 1820. It became general in 1822–23; and a great stimulus was at this period given to the trade, owing to the expiration of Mr. Heathcoat's patent, the increased application of power, and the perfection to which the different hand frames had by this time been brought. A temporary prosperity shone on the trade; and numerous individuals—clergymen, lawyers, doctors, and others—readily embarked capital in so tempting a speculation. Prices fell in proportion as production increased; but the demand was immense; and the Nottingham lace frame became the organ of general supply—rivalling and supplanting, in plain nets, the most finished productions of France and the Netherlands.

Bobbin Net Manufacture.—In a former edition of this work, it was estimated that in 1843 there were employed in the production of machine lace 4,000 hands, receiving 165,000*l.* in wages; that the trade was confined to about 15 houses in Nottingham and the neighbourhood, and that the 'estimated total value of the bobbin net and warp lace trade amounted to 2,740,000*l.*' A remarkable advance has taken place since that period, owing to the improvements which have been made in the machinery. In an admirable paper on the history of this manufacture, read by Mr. William Felkin, of Nottingham (a most competent authority), before the Society of Arts, and published in their Journal for May 1856, he says: 'The era of ornamenting lace upon the machine has certainly been ushered in—the results are now startling and of incalculable importance. Every fancy article, from the narrow lace edging to the two-yard-wide store curtain, requiring some thousands of yarns to complete the design, are now as much familiarised to our mechanicians, designers, and workpeople, as they were 20 years ago unthought of or unknown.' Nothing can establish more conclusively the benefit which has resulted to the trade, owing to the improvements in the machinery, than the periodical reduction which has taken place in the price of the square yard. Mr. Felkin says: 'The second patented machine was a complex one; it required 60 motions to the formation of a mesh. A workman at one of these machines, 36 inches in width, could produce 1,000 meshes a minute. The motions have gradually been reduced to *six*, and a machine 5 yards wide will turn off 40,000 meshes per minute with ease. The first finished pieces were sold at 100*s.* the square yard; in 1813, 40*s.*; 1815, 30*s.*; 1818, 20*s.*; 1821, 12*s.*; 1824, 8*s.*; 1827, 4*s.*; 1830, 2*s.*; 1833, 1*s.* 4*d.*; 1836, 10*d.*; 1842, 6*d.*; 1850, 4*d.*; 1856, 6*d.*: the last is about a natural average price.' These reductions, however, have been greatly promoted by the improvements simulta-

neously made in the spinning of fine yarns. In 1810, No. 220 doubled yarn was worth 100*s.* per lb.; in 1856, only 10*s.* per lb.; and No. 240 in 1810 brought 140*s.*, while in 1856 its selling price was 18*s.* only. Mr. Felkin adds:—

'In 1831 embroidering and finishing of lace employed wholly, or in part, about 150,000 hands. They received wages 1,500,000*l.* in the year This fell, in 1833, to 550,000*l.*, and 55,000 hands; and in 1836 to 350,000*l.*, and 35,000 hands. Including wages at the machines, as well as the subsequent processes, there has been paid to at least 130,000 hands in 1856, 2,200,000*l.* in wages alone, in this department of the Nottingham lace trade.

'In conclusion, the manufacture of bobbin-net lace by machinery is scarcely half a century old. The following will give an approximate idea of what in this brief interval it has become in this country:—

'At several periods an account of the machines has been taken. In 1815 there were 140; 1820, 1,008; 1826, 2,469; 1831, 4,500—making a return of 3,417,000*l.*; 1833, 5,000, returning 2,620,000*l.*; 1836, 3,800, returning 2,212,000*l.*; in 1844, 3,200, returning 2,995,000*l.* In 1851 Mr. Birkin, reporting to Section 19 of the Great Exhibition, found 3,200 (34,382 quarters width) at work, returning 2,300,000*l.*, employing about 2,965,945*l.* capital, and 133,015 hands. Capital in bobbin-net machinery alone was estimated at 1,329,445*l.*

'In 1856 the machinery is increased to 3,500 (full 40,000 quarters in width), and greater power in production in the new ones. Also a far larger proportion is employed upon silk materials, and the number of frames making fancy goods forms now far the largest proportion. These changes will serve to account for the very large increase in the returns of the trade this year beyond 1850. 1,350 machines at least are rotary circulars, making plain goods by power in factories. At least 1,050 making fancies are worked by power, probably many more. About 2,158 machines in all, partly "levers," partly circulars, some pushers, and some traverse warps, make fancy goods now. The materials are all imported, and cost on importation during the past year 920,000*l.* The returns were 3,680,000*l.*, or thereabouts. This left for wages, interest, and profits, 2,760,000*l.*

'If to these figures be added the cost of materials (all imported) in the warp-lace trade, 60,000*l.*, and the ultimate returns, 360,000*l.*, the result of the operations of the entire machine-wrought English lace trade will be: Raw materials used cost, 980,000*l.*; total returns, 4,040,000*l.*; paid in wages, interest, wear and tear, and profits, 3,060,000*l.* The entire number of hands employed may be stated at 135,000.

'The trade was, until 1850 or thereabouts, cooped up in small unsightly workshops and warehouses for the most part, but has been transferred to a large extent into some of the noblest buildings of which any manufacturing town can boast. Factories, dressing-rooms, and warehouses are all becoming spacious, airy, and, I trust, healthy; at least 250,000*l.* has been expended within the last 7 years in this class of improvements.'

Between 1856, when the above account of the trade was written, and 1859, the wholesale houses had increased from 115 to upwards of 200; and a great many patents had been taken out for improvements in machinery for making fancy lace, for fabrics to be produced from lace machines, for gloves, shirts &c., and also for making gloves complete on the machines without seams. A new combination, by 4 different machines, of an imitation of Maltese lace was produced, and sold at 7*s.* per yard, which in Paris was readily sold for 35 francs. This class of machinery has gradually been increasing in Nottingham and its neighbourhood, and Melbourne in Derbyshire; and from the great variety of articles produced, it is likely to go on increasing. In 1859 the machinery in Nottingham and its suburbs had increased by upwards of 300, making an additional amount of 4,200 quarters in width. This number would have been considerably greater, had not the panic in 1857 prevented it. At present very few machines are being built. The increase of machinery may be classed as follows—viz. 200 for making fancy lace, and 100 for plain nets. A few have been exported to France and Barcelona in Spain. The population of Nottingham and its suburbs was estimated in 1859 at about 159,000, the majority of which was employed in the lace and hosiery trades, and it was believed that the number of hands employed, as well as the amount of capital, increased beyond Mr. Felkin's estimate, in proportion to the additional number of machines which had been introduced. Such had been the progress in the manufacture during the few years previous to 1859, that some descriptions of lace, viz. Spanish, Maltese, and Plat, were produced by machinery in such perfection, that they can scarcely be recognised from cushion-made goods. Looking, however, at the competition which exists in the trade, the manufacturers very generally complain of the anomalous position in which they are placed with respect to the French machine-made lace, which is allowed to be imported duty free; while the English manufacture is strictly prohibited from entering France. They complain also of the present mode of registering patents, as it prevents that easy investigation into the character of the machines which is so essential towards their improvement.

The *Embroidery* branch of the lace trade gave employment to many thousands of females in Nottingham and London, and their neighbourhoods, and also at Coggeshall in Essex. Mr. Felkin estimated that in 1813 not less than 73,000 were employed. At the Great Exhibition in 1851 (Class XIX.), a most interesting display of choice specimens of this industrial art was presented to the public, and a very able paper on the lace trade generally was contributed by the reporter of that Section (Richard Birkin, Esq., of Nottingham). There are, however, no statistics which furnish any accurate estimate of the number of persons (women and children) now engaged in that department. Owing to the great perfection to which machine-made lace has arrived, particularly since the successful introduction of the Jacquard mounting, it is understood that the embroidery branch of the trade has very greatly declined of late years, although in numerous articles of dress '*Limerick lace*' still continues to maintain its established character.

The remarkable improvements which have been gradually introduced into the manufacture of machine-made lace have seriously interfered with the *pillow lace* trade, and many thousands of women and children in the counties of Bedford and Buckingham are now finding a better reward for their labour in straw-plaiting. This applies, however, rather to the *narrow* hand-made lace than to the highest descriptions of this industrial art, which continue in great favour with the fashionable classes. At the Great Exhibition in 1851, specimens of Honiton lace (the most tasteful and flourishing of the British pillow-lace production) were exhibited in flouncings, shawls, scarfs, handkerchiefs, berthes, and a variety of other articles, varying in price from 10 to 200 guineas each; and there is a strong feeling, from the refinement displayed in the production of elegant designs in

this department, that it will continue to hold its ground notwithstanding the remarkable improvements in that produced by machinery, which from its low price is within the demand of the lower classes. But, like works of high art, Honiton lace is recognised by the higher classes as that of a master—the *original* picture and not the *copy*, and is consequently held in highest estimation. But although on the whole the fabrication of *pillow lace* has unquestionably fallen off, a new department of a kindred nature has sprung up, which has given employment to many thousands of women and children in the United Kingdom, but especially in Ireland. A description of lace termed '*crochet work*' has been introduced to a great extent of late years, and has been taught very generally in the industrial schools, both in the north and south of Ireland. The famine of 1847 directed the attention of humane persons to the expediency of providing employment for the starving class in that country, and this new department of industrial art is now pursued there to a great extent. At the present time (1868) it is believed that not less than 250,000 women and children are engaged in that branch and in the embroidery of fine muslins, to meet the prevailing taste, not only required by our own female population, but for export to all parts of the world. The crisis in 1857, which was attended by the failure of several of the larger houses in Glasgow engaged in the embroidered muslin trade, each of whom employed from 50,000 to 70,000 persons in the north of Ireland, led to great privations to those who were engaged in that branch, but they are now recovering from the depression which on that occasion befell the trade.

At the meeting of the Social Science Association held in 1866, Mr. Felkin read a paper on the state of the Nottingham lace trade:—

'The progress of the town and suburbs of Nottingham in population and material wealth during this century has been much advanced, he said, by the increase of the lace manufactures of the place. Nottingham has a population of about 75,000 within the limits of the municipal borough only; but, including the suburban parishes, which are practically parts of Nottingham, there are about 150,000 over. It has risen from 35,000 in 1811. In 1862 there were 1797 circular machines making bobbin net; of these 209 were at Tiverton, 100 at Barnstaple, 360 at Chard, 500 in Derbyshire, and 700 in and near Nottingham. Also 1,588 levers, 125 traverse warps, 42 pushers, all in Nottingham and its neighbourhood, making a total, with 353 standing, of 3,552 bobbin net, and 400 warp lace frames. Of these, 2,149 were making silk lace, and 1,450 cotton lace. There were employed on plain net 1,442, and on fancy 2,157, the latter being closer imitations of cushion lace than ever before made; although, since 1862, there have occurred great fluctuations in demand, and the prices of both silk and cotton materials have advanced full 75 per cent., the amount of machinery and employment was in 1865 about the same as 1862. The entire production continues to be finished and sold in Nottingham, except that at Tiverton, which is of silk, and sold in London. The approximate numbers of hands employed in 1865, for the whole body of the lace machinery, may be thus stated: 900 men employed in 180 shops for making machines, bobbins, carriages, points, guides, combs, needles &c., at average wages of 33*s.* a week; 10,300 men and youths at work in 130 larger factories and in lesser machine shops, 1,800 of whom may earn 16*s.*, 5,000 25*s.*, and 3,500 first-class levers' hands 35*s.* a week on an average. These all work alternate shifts of 4 and 5 hours each, in the entire day of 18 hours, during which the engine is going; 4,200 boys clearing, winding, threading bobbins, 5*s.*; 500 women filling bobbins and overlooking, 12*s.*; 15,000 brown net menders, who usually receive nets from the factories, and free them from the foul or uneven threads. It is generally supplementary labour to household work, by which 4*s.* to 8*s.* may be gained, average 5*s.* a week. 400 men warpers, 25*s.*; 300 men moulders, founders, and superintendents of machinery, 35*s.*; 60 carpenters, 30*s.*; 360 porters, 17*s.*; 120 carters, 20*s.*; 90 watchmen, &c., 20*s.*; 260 steam engineers, 22*s.*; 150 bleachers, 20*s.*; 100 male dressers of lace, 8*s.* to 30*s.*; 1,000 female white menders, at 12*s.*; 500 female lace folders, 10*s.*; 1,000 paper-box makers of both sexes, 7*s.*; 450 warehouse women, 12*s.*; 250 female overlookers, 15*s.*; 100 draughtsmen and designers, 40*s.*; 1,300 warehousemen and clerks taking salaries. There are employed in each finishing lace warehouse from 6 to 600 females, as the size and nature of the business may require. The number cannot be known except by actual census. They are taken from outdoor hands in brown mending and other employment on lace. The hours are 8 A.M. to 7 P.M., and the wages are about 9*s.* on an average; overtime is paid for. The kinds of work must be seen to be understood, but are in general more wearisome than heavy. In some of the factories and workrooms in lace houses, and in dressing-rooms, the heat is sometimes oppressive. In general ventilation is provided for, but hands do not always care to make use of it. There is a far greater number of females employed, sometimes from a too early age, in the houses of "mistresses," often their own mothers, upon drawing, scolloping, carding &c., processes light and simple enough upon goods which have been obtained from finishing houses. These young people must exercise care and cleanliness on the goods, or they would be spoilt. When they are returned to the warehouse the mistress receives a price, out of which she takes a portion for her labour, risk of damage, fire, light, house room &c. Some of these persons employ 12 to 20 young girls. The total number cannot be known accurately except by census. It being considered domestic employment, they are not under registration or visitation, except upon complaint made on sanitary grounds. A great improvement has been going on in regard to the age at which these children begin to do this kind of work, and the hours of their daily labour. The change dates from Mr. Grainger's report on this important subject, in 1844. The remaining department of female labour in connection with the machine trade is that of embroiderers with hook or needle, seam-joiners, or lace-runners, once amounting to 150,000, now reduced to a sixth of that number. Their average weekly earnings in 1837 was 4*s.*; now it is doubled, and more for the better kinds of work. As fast as the improved machinery produced figured work, nearly finished on the machines ready for sale, the lace embroiderers were cast aside. About 1840 an emigration set into Nottingham from all the districts within 50 miles to supply the increasing warehouse and outdoor female labourers required in both the lace and hosiery trades. There has thus been added to the already surplus female population of the place 13,000 within the last 26 years. In these 3 classes are computed from 90,000 to 100,000 females, which, added to the 38,000 above enumerated, makes a total of about 135,000 employed in the lace trade of Nottingham in 1865. The materials worked up cost about 1,715,000*l.*; the wages and profits amounted to 3,415,000*l.* or thereabouts, and the net returns may be stated at 5,130,000*l.*'

Our imports of lace, chiefly from Belgium and France, during the year 1867 were estimated at 191,607*l.*, of which 1,290*l.* worth was re-exported. Our exports of cotton lace and patent net wire in 1867 were valued at 470,420*l.*: more than half of this amount was shipped to the United States, France, and Holland.

Foreign Lace Trade.—The application of the Jacquard mounting to the bobbin-net machine has been attended with a great increase in the French manufacture, and in a very superior taste, in imitation of the most favoured '*grounds*,' particularly at Calais, St. Pierre de Calais, Lyons, and Cambray. The Calais machines numbered in 1839, 705; 1844, 801; 1851, 603. Many have been replaced by wider and speedier machines. They had 8 pushers, 14 traverse warps, 124 common circulars, 141 Jacquard circulars, and 321 levers; 50,000 females were employed, besides the ordinary proportion of machine hands and attendants. There were 800 other machines at Boulogne, St. Omer, Douay, Lille, St. Quentin, Caen, and Lyons. More expensive goods are produced on French machines than on ours; and English plain nets, which were formerly extensively smuggled into France, are now supplanted by their own. They have applied the Jacquard apparatus to their machinery with much success, and of late years have ceased to copy Nottingham patterns, turning their own taste in designs to good use and profit. There were at Brussels in 1850, 16; at Termonde, 8; at Malines, 5; at St. Josse, 4—in all 31 machines in Belgium—chiefly making 3-twist Brussels net, upon which cushion flowers were applied. In bobbin-net machinery there are probably in Switzerland, 80; in Saxony, 70; Austria, 100; Prussia and Russia, 30; in Spain and other countries, 80—altogether 360. (Felkin.) Since 1856 these branches have been steadily increasing. *Embroidery work* has also considerably increased, and for some years past has extended to the departments of La Meurthe, La Moselle, La Meuse, and Des Vosges. In the latter, forming the ancient province of Lorraine, this beautiful branch of industry has arrived at great perfection. It is estimated to give employment to from 150,000 to 180,000 females, spread over more than 20 departments of France, who earn from 8*d.* to 1*s.* per day, and double that sum in Paris. (Birkin.)

Hand-made Lace may give employment to upwards of 200,000 females of all ages, who earn from 6*d.* to 1*s.* a day. It is principally carried on at Caen and Bayeux, Chantilly and neighbourhood, Lille, Arras, Mirecourt, Du Puy, Boilleul, and Alençon. The lace of Alençon is the only fabric not made on the pillow, being worked entirely with the needle. It was introduced by Colbert in 1660 from Venice and Genoa, and is the only lace made with pure linen thread (handspun)—the thread being worth from 100*l.* to 120*l.* per pound. (Birkin.) Some beautiful specimens of hand-made lace were exhibited from Switzerland; and so great is now the demand for the article, that the manufacturers are forced to employ large numbers of females in the western provinces of Austria and the southern provinces of the Duchy of Baden. Perhaps 40,000 persons earn their living by the embroidery branch, first-class hands receiving 1*s.* per day, and second-class from 3*d.* to 8*d.* 100,000 pairs of curtains alone are estimated to be imported into Great Britain. But the Swiss also export largely to America, Germany, Italy, Spain, and other southern countries. Specimens of lace and embroidery were also exhibited from Saxony, Spain, Hamburg, Austria, and Malta. Belgium continues to sustain its high character in the production of that beautiful art, and (with the exception of point d'Alençon, made in the north of France) Brussels produces the most valuable known lace. Mechlin laces are made at Malines, Antwerp, and the vicinity; Valenciennes, at Ypres, Menin, Courtray, Bruges, Ghent, and Alost. The village of Grammont is remarkable for great improvements made in white thread lace, and also in black-point trimming laces. Some beautiful specimens of hand-made lace are now also imported from Madeira.

We are indebted for the greater portion of this learned and very excellent article to Mr. Robert Slater, of Fore Street, London.

LACK or LAC. A word used in the East Indies to denote the sum of 100,000 rupees, which, supposing them standards, worth 2*s.* each, amounts to 10,000*l.* sterling.

LADING, BILL OF. [Bill of Lading.]

LAGAN. [Flotsam.]

LA GUAYRA. The principal seaport of the republic of Venezuela, in the province of Caraccas, on the Caribbean Sea, lat. 10° 36′ 19″ N., long. 67° 6′ 45″ W. Population estimated at 8,000. In 1810 the population is believed to have amounted to 13,000; the reduction being a consequence of the loss of life caused by the tremendous earthquake of 1812, and the massacres and proscriptions incident to the revolutionary war. The population of the city of Caraccas, of which La Guayra may be considered as the port, fell off, from the same causes, from 43,000 in 1810, to 23,000 in 1830; but they are now both increasing.

Port.—There is neither quay nor mole at La Guayra. Ships moor E.N.E. and W.S.W., with their heads to the N. at from ¼ to ¾ mile from the land, in from 9 to 18 fathoms. The holding ground is good; and notwithstanding the openness of the road, vessels properly found in anchors and cables run very little risk of being driven from their moorings.

Trade.—The principal articles of export are coffee, cotton, cocoa, indigo, hides, sarsaparilla &c. The principal imports are cotton, linen, woollen and silk stuffs, with hardware and cutlery, wines, haberdashery &c. La Guayra shares the trade of Venezuela with the ports of Cumana, Puerto Cabello, Maracaibo &c., having about ⅓ of its entire amount, which, however, is insignificant. In 1867 the estimated value of our imports from Venezuela amounted to 85,943*l.*, while in 1866 they amounted to 202,036*l.*; and the value of our exports thither in 1867 amounted to 269,117*l.*, while in 1866 they were valued at 416,776*l.*

The gross value of the imports of La Guayra in 1864 amounted to 5,023,779 dols., in 207 vessels of 55,784 tons. The imports were chiefly corn and flour, provisions, textile fabrics, cutlery and tools. The chief exports are coffee, cotton, cocoa, indigo, dye woods, skins and hides. The exports of goods from the port are loaded with heavy duties, and most imports are severely taxed. The following are admitted duty free: corn and provisions. The following are prohibited: salt, cocoa, coffee, indigo, sugar, honey, syrup, molasses, and rum.

Port Regulations.—On casting anchor, a visit is paid by the collector of customs, or his agent, accompanied by other officers, who take from the master his register, manifest, and muster-roll, and an officer is left on board until the cargo is discharged. The master must swear to his manifest within 24 hours after his arrival, when the permit to discharge is granted, and within 3 days all invoices must be presented. The discharge completed, the same officers repair on board to examine the vessel, and all being found in order, the officer is withdrawn. The clearing of a vessel outwards (that has entered with cargo) in ballast is then completed by paying the port charges:

proof whereof being produced, the permission to sail is signed by the governor and harbour master. If the vessel take cargo on board, then the same formality, as to visiting, is pursued, as on the entry of a vessel.

Credit.—Goods imported are almost invariably sold upon credit; those exported are, on the other hand, always sold for ready money. The terms of credit vary from 2 to 6 months, or more. Bankruptcy is very rare.

Money, Weights, and Measures.—The currency of the country consists of silver money, known by the name of *macuquena*, divided into dollars of 8 reals, ½ do. of 4 reals, besides reals, ½ reals, and quartillas or ¼ reals. This money is of very unequal weight and purity, the coins issued since the commencement of the revolutionary war having been often a good deal defaced. The real should be worth 5*d.* sterling.

Weights and measures same as those of Spain.

Tare.—Real tare is taken both at the Custom House and by the merchant.

Commercial Prospects.—The commerce and industry of Venezuela suffered severely from the revolutionary struggle of which she was the theatre. But the country has been for some time past comparatively tranquil. As the riches of Venezuela consist entirely of the products of her agriculture, the Legislature has wisely exerted itself to give it encouragement, by abolishing tithes, the tobacco monopoly &c. But the want of a supply of efficient labour, arising out of the abolition of slavery, is the grand obstacle to the progress of industry. An able-bodied man can earn enough by a day's labour to keep himself for a week; and such being the case, can anyone expect industry to flourish, unless some sort of system for the supply of compulsory labour be resorted to? In countries like this, freedom and idleness are synonymous. The British consul at Maracaibo (report for 1867) says that the increase of commerce there has been equal to that at any other port of Venezuela. The import and export duties, which amounted to 110,000*l.* sterling in 1867, would, it is stated, have reached 1,000,000 dollars, but for the smuggling, connived at by badly-paid custom-house employés.

We have derived these details partly from *Consular Returns*, and partly from *private information.*

LAGUNA DI TERMINOS or LAGUNA DI CARMEN. A seaport on the S. shore of the Gulf of Mexico, State of Yucatan, lat. 18° 38′ 44″ N., long. 91° 51′ 22″ W. It derives its name from being situated about 1 mile within the S.W. extremity of Carmer Island, on the most westerly of the straits or entrances leading into the basin or lagoon of Terminos. Population about 3,000.

The port, which is secure and one of the best on the gulf, has from 12 to 14 feet water over the bar at the entrance to the lagoon. Vessels of greater draught load and unload by means of lighters, outside the bar, in from 3 to 4 fathoms, with good holding ground.

To enter the Port.—Run in over the bar with Xicalango Point, bearing by compass S. ¾ E., till Point Sacatal bears S.E. ¼ S., and then steer for it; and when the N. side of the island begins to shut in, haul up for the anchorage off the town. The lead is a safe guide on the W. side of the channel, but not on the E.

The chief trade of the town consists in the shipping of logwood, known in foreign markets by the name of Campeachy wood, from its having been originally cut down in the vicinity of that port and shipped from it. But Campeachy has ceased to be an entrepôt for logwood. It is now principally cut down on the mainland adjoining the lagoon of Terminos; and being thence conveyed to Laguna in coasting schooners, is sent from it to all parts of the world.

Vessels arriving with cargoes must bring a general manifest and invoice in triplicate, certified by the Mexican Consul at the port of departure. Those arriving from a foreign port in ballast, must produce a clearance either from the Mexican Consul or the authorities of the place whence they came, showing that they bring no cargo.

Pilotage 1 dollar 75 cents per foot; other port charges, such as harbour master's fees, anchorage, board of health &c., about 25 dollars each vessel. Ships arriving direct from a foreign port pay 1 dollar 50 cents per ton for tonnage dues.

LAMAR. Formerly COBIJA; a seaport of the republic of Bolivia, the ci-devant Upper Peru, on the west coast of South America, lat. 22° 39′ 30″ S., long. 70° 12′ W. Population about 5,000.

In 1833 Lamar was declared a free port, and in it centres almost the whole direct foreign trade of the republic. Its situation is, however, very unfavourable. It suffers greatly from want of fresh water; and is obliged to import all its provisions by sea, either from Valparaiso, on the one hand, or from Arica on the other. The desert of Atacama lies between it and the internal and populous part of the country, where the towns of Potosi, Cochabamba, Charcas &c., are situated. The produce imported at Lamar is conveyed across the desert on the backs of mules to the interior; the gold and silver of the mines being brought in the same way to the port to be shipped. These, with copper, saltpetre, chinchilli, skins, and wool, form the principal articles of export. Saltpetre is found in large quantities in the desert; the copper is found near the coast, and, owing to the scarcity of fuel, most part of it is exported in the shape of ore.

Peru possesses a long narrow slip of land, stretching along the coast of the Pacific from Arequipa to the Bay of Pica, which ought naturally to belong to Bolivia, being, in fact, the littoral of the later. The Bolivian Government has set on foot various negotiations to obtain the cession of this tract, which, besides greatly improving the frontier of the republic, would, at the same time, render her mistress of ARICA, which is, in all respects, much better fitted than Lamar for becoming the entrepôt of her trade. Hitherto, however, these negotiations have proved abortive, so that, as already stated, Lamar, at present, engrosses most part of the foreign trade of the state, which, however, is but inconsiderable. Our total imports from Bolivia in 1867 were valued at 140,043*l.*, and our total exports at 3,966*l.*

We subjoin the decree constituting Lamar a free port:—

1. From and after July 1 of this present year, 1833, Port Lamar shall be absolutely free and open.

2. Vessels of every nation may enter this port and remain as long as they please, without being subjected to any tax whatever, either on entrance, or during their stay, or on their departure.

3. They shall be free from all duties of anchorage, tonnage, shifting, unloading, or reloading, of cargo, deposit, storage, or any other, of whatever denomination.

4. Goods may be deposited in private warehouses, without any intervention on the part of the Government.

5. The Custom House of Port Lamar is suppressed. In its stead will be a Commissioner's office, for the purpose of distributing permits for the transportation of goods into the interior.

6. Whenever goods are to be sent into the interior, they must first be submitted to the Commissioner, together with the invoice corresponding.

7. The Commissioner will register them in a book, together with their valuation made by two merchants of the place, and the names of their owners, of the person to whom, and the place where they are to be sent. This is to be signed by the person entering the goods, who at the same time binds himself to have them transported direct to the Custom House for which they are destined, without opening any of the cases, bags, or other envelopes, each of which shall be sealed, marked, and numbered before departure. These points are to be expressed in the permit.

8. The Commissioner shall by the earliest post send a notice to the collector of the Custom House for which any merchandise is destined, specifying the numbers, characters, quantities, and qualities of the several articles.

9. The goods must not be carried by any unaccustomed roads, but only through Calama and the public thoroughfares: and whenever they pass through any place at which a guard or commissioner is stationed, the permits must be exhibited, in order that their arrival with their seals unbroken may be ascertained.

10. Merchants, either in person or by a representative, must produce to the Commissioner of the port a certificate of the delivery of the goods at the Custom House for which they are destined within 6 months from the day of their entry; in case they do not, they must at the end of that period pay the whole of the duties on them.

11. From and after July 1, 1833, all goods entered at Port Lamar shall pay a duty of only 5 per cent. over and above that of ½ per cent. to the consulado.

12. The duty of 5 per cent. shall be paid thus: at the port, 2 per cent. on the valuation made as aforesaid; and the other 3 at the Custom House in the interior for which the goods are destined. In each case one half at the end of 3, the other half at the end of 5 months.

13. All goods carried from Port Lamar by land to any of the adjoining republics shall only pay a transit duty of 2 per cent.

14. A duty of 2 per cent. shall be paid on ¾ of all gold and silver money entered at any of the Custom Houses in the interior for exportation through Port Lamar.

15. It is absolutely prohibited to export gold or silver, in bullion or plate, except in small quantities for the use of the person carrying it out. It will be seized wherever it is found on this side the districts of San Antonio, San Vincente, Atoca, Agua de Castilla, Lequepate, or the line of the canal.

16. All hardware for agriculture and mining, machinery, instruments of science or the arts, iron, steel, quicksilver, and moral books, may be introduced free of duty into the republic, and productions of Bolivia may be exported likewise free.

17. A premium of 2 per cent. on their value shall be allowed on the exportation through Port Lamar of cascarilla, wool, tin, cocoa, and coffee, in the shape of remission from duties to the amount on goods carried into the interior from the same port.

The remaining articles of the decree are of a purely local nature.

LAMB-SKINS (Ger. lammsfelle; Fr. peaux d'agneaux; Ital. pelli agnelline; Span. pielles de corderos). The value of lamb-skins varies according to the fineness, brilliancy, and colour of the wool. Black lamb-skins are more generally esteemed than those of any other colour. English lamb-skins are seldom to be met with perfectly black; but since the introduction of Merino sheep into this country, many of the white fleeces have, in point of quality, arrived at a pitch of perfection which justly entitles them to be ranked with some of the best fleeces in Spain. The importation of lamb-skins is very large. The great bulk are supplied by Italy. Thus, of 1,011,308 undressed skins imported in 1867, no fewer than 582,525 were from Italy, the large proportion being from Tuscany. They are mostly used in the glove manufacture. The total value of our imports of lamb-skins undressed and dressed was, in 1866, 64,645*l*., and in 1867, 59,049*l*.

LAMP (Ger. lampe; Fr. lampe; Ital. lucerna; Span. lampara; Russ. lampadu). An instrument used for the combustion of liquid inflammable bodies, for the purpose of producing artificial light.

It is unnecessary to give any description of instruments that are so well known. We may, however, remark that the discovery of Sir H. Davy, who, by covering the flame with wire gauze, succeeded in producing a lamp that may be securely used in coal mines charged with inflammable gas, is one of the most ingenious and valuable that has ever been made. The following extracts from a communication of the late Mr. Buddle, an able and well-informed coal engineer, evince the great importance of Sir Humphry Davy's invention:—

'Besides the facilities afforded by this invention to the working of coal mines abounding in fire damp, it has enabled the directors and superintendents to ascertain, with the utmost precision and expedition, both the presence, the quantity, and correct situation of the gas. Instead of creeping inch by inch with a candle, as is usual, along the galleries of a mine suspected to contain fire damp, in order to ascertain its presence, we walk firmly on with the safe lamps, and, with the utmost confidence, prove the actual state of the mine. By observing attentively the several appearances upon the flame of the lamp, in an examination of this kind, the cause of accidents which happened to the most experienced and cautious miners is completely developed; and this has hitherto been in a great measure matter of mere conjecture.

'It is not necessary that I should enlarge upon the national advantages which must necessarily result from an invention calculated to prolong our supply of mineral coal, because I think them obvious to every reflecting mind; but I cannot conclude without expressing my highest sentiments of admiration for those talents which have developed the properties, and controlled the power, of one of the most dangerous elements which human enterprise has hitherto had to encounter.'

LAMP-BLACK (Ger. kienruss; Fr. noir de fumée; Ital. nero di fumo, negrofumo; Span. negro de humo). 'The finest lamp-black is produced by collecting the smoke from a lamp with a long wick, which supplies more oil than can be perfectly consumed, or by suffering the flame to play against a metallic cover, which impedes the combustion, not only by conducting off part of the heat, but by obstructing the current of air. Lamp-black, however, is prepared in a much cheaper way for the demands of trade. The dregs which remain after the eliquation of pitch, or else small pieces of fir-wood, are burned in furnaces of a peculiar construction, the smoke of which is made to pass through a long horizontal flue, terminating in a close boarded chamber. The roof of this chamber is made of coarse cloth, through which

the current of air escapes, while the soot remains.' (Ure's *Dictionary of Chemistry.*)

LAND-WAITER or LANDING-WAITER. A name formerly given to searchers attached to the Customs.

LAPIS LAZULI. [ULTRAMARINE.]

LAST. An uncertain quantity, varying in different countries, and with respect to different articles. Generally, however, a last is estimated at 4,000 or 6,000 lbs.; but there are great discrepancies.

The following quantities of different articles make a last, viz.: 14 barrels of pitch, tar, or ashes; 12 dozen of hides or skins; 12 barrels of cod-fish, potash, or meal; 20 cades, each of 1,000 herrings, every 1,000 ten hundred, and every 100 five score; 10½ quarters of cole-seed; 10 quarters of corn or rape-seed. In some parts of England, 21 quarters of corn go to a last; 12 sacks of wool; 20 dickers (every dicker 12 skins) of leather; 18 barrels of unpacked herrings; 10,000 pilchards; 24 barrels (each barrel containing 100 lbs.) of gunpowder; 1,700 lbs. of feathers or flax.

Last is sometimes used to signify the burden of a ship.

LATH, LATHS (Dutch, latten; Fr. lattes; Ger. latten; Ital. correnti; Russ. slegü). Long thin and narrow slips of wood, nailed to the rafters of a roof or ceiling, in order to sustain the covering. Laths are distinguished into various sorts according to the different kinds of wood of which they are made, and the different purposes to which they are to be applied. They are also distinguished according to their length, into 5, 4, and 3 feet laths. Their ordinary breadth is about an inch, and their thickness ¼ of an inch. Laths are sold by the bundle, which is generally called a hundred: but 7 score or 140, are computed in the hundred for 8 feet laths; 6 score or 120, in such as are 4 feet; and for those which are denominated 5 feet the common hundred, or 5 score. In 1867 we imported, chiefly from Russia, 68,949 loads of lath wood, valued at 119,844*l.*

LATTEN. A name sometimes given to tin plates, or thin plates of iron, tinned over. [TIN.]

LAW. [MARITIME LAW; NEUTRALITY; &c.]

LAWN (Ger. and Fr. linon; Ital. linone, rensa; Span. cambray, estopilla, clarin). A sort of clear or open worked cambric, which, till of late years, was exclusively manufactured in France and Flanders. At present, the lawn manufacture is established in Scotland and in the north of Ireland, where articles of this kind are brought to such a degree of perfection as nearly to rival the productions of the French and Flemish manufactories. In the manufacture of lawns finer flaxen thread is used than in that of cambric. In 1866 we exported, chiefly to the United States, 7,570,245 yards of cambric and lawns, valued at 352,643*l.*

LAZARETTO. [QUARANTINE.]

LEAD (Ger. bley, blei; Dutch, lood, loot; Fr. plomb; Ital. piombo; Span. plomo; Russ. swinetz; Pol. olow; Lat. plumbum; Arab. anuk; Hin. sisa; Pers. surb). One of the most useful metals. It is of a bluish-white colour, and when newly melted is very bright, but it soon becomes tarnished by exposure to the air. It has scarcely any taste, but emits, on friction, a peculiar smell. It stains paper or the fingers of a bluish colour. When taken internally it acts as a poison. It is one of the softest of the metals; its specific gravity is 11·35. It is very malleable, and may be reduced to thin plates by the hammer; it may also be drawn out into wire, but its ductility is not very great. Its tenacity is so small that a lead wire $\frac{1}{126}$ inch diameter is capable of supporting only 18·4 lbs. without breaking. It melts at 612°. (Thomson's *Chemistry.*)

Lead is a metal of much importance in the arts. Its durability and malleability make it very suitable for the roofing of buildings, the construction of gutters, and such like purposes. It used to be very extensively employed in the formation of water-pipes and cisterns. But though water has no direct action on lead, it facilitates the action of the external air; and hence the lead of cisterns and of pipes from which the air is not entirely excluded becomes oxidised, and is covered with a white crust at the point where the surface of the water comes into contact with the air. Inasmuch, however, as this oxide is extremely deleterious, lead pipes and cisterns are now very generally superseded by those of cast iron. At present, perhaps, lead is more extensively used in the manufacture of small shot than in any other way. Its salts, though poisonous, are used in medicine to form sedative external applications; and frequently not a little, by the disreputable wine merchant, to stop the progress of acetous fermentation. Wine thus poisoned may, however, be readily distinguished; a small quantity of the bicarbonate of potass producing a white precipitate, and sulphuretted hydrogen a black one. Pure wine will not be affected by either of these tests. 'The oxide of lead enters into the composition of white glass, which it renders clearer and more fusible: it is also used in glazing common earthen vessels; hence the reason that pickles kept in common red pans become poisonous. Lead, with tin, and a small quantity of some of the other metals, forms pewter; with antimony, it forms the alloy of which printing types are made.' (Joyce's *Chemistry: Mineralogy.*)

Mines of this valuable mineral have been wrought in England from the era of the Romans. It does not, however, appear that it was obtained anywhere except in Derbyshire, till 1289, when it was discovered in Wales; and the fact that silver was found intermixed with the Welsh ores having transpired, gave a new stimulus to the business; but in other respects the discovery of silver was of no use; the quantity obtained being insufficient to defray the cost of its separation from the lead. At present, the most productive English lead mines are situated in Allendale, and other western parts of Northumberland; at Aldstone Moor, &c. in Cumberland; in the western parts of Durham; in Swaledale, Arkendale, and other parts of Yorkshire; in the hundred of High Peak in Derbyshire, in Salop, and in Cornwall. The Welsh mines are principally situated in the counties of Flint, Cardigan, and Montgomery; those of Scotland in Ayr, Kirkcudbright, and Lanark; and those of Ireland, in Wicklow, Down, and Limerick. Lead mines are also wrought to considerable advantage in the Isle of Man. We subjoin an abstract, deduced from the accounts furnished by the Museum of Practical Geology, of the

Quantities of Lead, Lead Ore, and Silver produced in the United Kingdom in 1867.

	Lead Ore		Lead		Silver
	tons	cwt.	tons	cwt.	oz.
England - -	58,742	6	42,639	15	469,647
Wales - -	26,054	1	19,551	0	147,009
Isle of Man - -	5,799	0	2,534	0	165,170
Ireland - -	1,832	12	1,308	0	12,140
Scotland - -	2,954	8	2,107	19	11,428
Total - -	93,432	1	68,440	14	805,394
Valued at -	£1,158,066		£1,337,509		£215,400

In 1867, 45,158 tons of lead were imported, and 38,950 tons were exported. English pig lead was worth, in the London market, in December 1867, 19*l.* 1*s.* 3*d.* per ton. In 1832 it was only worth 13*l.* 10*s.* per ton.

Account of the Real Value of the Lead exported from the United Kingdom in each of the 7 Years ending with 1867.

Articles	1861	1862	1863	1864	1865	1866	1867
	£	£	£	£	£	£	£
Pig, pipe, sheet, shot - -	423,621	766,488	773,864	779,144	581,644	661,526	623,170
Red and white lead - -	146,701	172,633	158,213	167,680	186,123	229,067	248,303
Total - - -	570,122	939,121	932,077	946,824	767,807	890,593	871,473

Russia, France, the United States, China, Australia, British India &c. are the marts to which our exports of lead are principally sent.

Lead, when first extracted from its ore, always contains a certain portion of silver, varying from a few grains to 45 oz. or more in the ton. When the silver mixed up with the lead is sufficient to repay the expense, it is usual to separate it, which is effected by the process known by the name of its inventor, Mr. Pattison. The lead of some of the English mines, especially those of Cornwall, and, also, of the Isle of Man, contains very considerable quantities of silver; and our readers will, perhaps, be surprised to learn that it has been estimated by the highest authority that, in 1867, the United Kingdom furnished no fewer than 805,394 oz. of silver, obtained from lead, worth 215,400*l.* (*Statement compiled by Robert Hunt, Esq., of the Museum of Practical Geology.*)

Of the 45,158 tons of lead imported in 1867, Spain sent us 35,651 tons. The lead mines of Granada would, in truth, were they properly wrought, be among the most productive in the world. Those of Murcia were in 1863 much more productive than all the others put together. And as it is, lead is, next to wine, the most important article which Spain has to offer in exchange for foreign products. In 1863, for example, the value of the exports of wool from Spain, once the most important article, had declined to 25,300,896 reals, while that of the exports of lead had risen to 120,891,195, that of wine to 322,019,254 reals.

In 1863, Spain sent about 20,000 tons of lead to France, i.e. about two-thirds of the imports.

The lead mines of the United States are principally situated in Illinois and Wisconsin, on the Upper Mississippi. Their produce, and that of the other mines in the Union, may, perhaps, amount to from 18,000 to 20,000 tons a-year.

LEAD, BLACK, or PLUMBAGO. [BLACK LEAD.]

LEAD, RED, or MINIUM. [MINIUM.]

LEAGUE. A measure of length containing more or fewer geometrical paces according to the customs of different countries. [WEIGHTS AND MEASURES.]

LEAKAGE. In Commerce, an allowance in the Customs, granted to importers of wine, for the waste and damage the goods are supposed to receive by keeping. (*Warehousing Act*, art. WAREHOUSING SYSTEM.)

LEATHER (Ger. leder; Dutch, leder, leêr; Dan. læder; Swed. läder; Fr. cuir; Ital. cuojo; Span. cuero; Russ. kosha; Lat. corium). The skins of various quadrupeds, dressed in a particular manner for the use of manufacturers, whose business it is to make them up, according to their different employments.

The leather manufacture of Great Britain is of very great importance, and ranks either third or fourth on the list; being inferior only in point of value and extent to those of cotton, wool, and iron, if it be not superior to the latter. Sir F. M. Eden, in his work on *Insurance*, estimated the value of the different articles manufactured of leather, in 1803, at 12,000,000*l.*; and there is reason to think that this statement was not very wide of the mark.

In 1867, the transactions of the various leather trades all over the kingdom were estimated to be represented by from 15,000,000*l.* to 20,000,000*l.* a-year in the aggregate. (This amount, we suspect, is understated.) There are upwards of a quarter of a million of persons engaged in making and selling boots and shoes in the kingdom, and about 16,000,000*l.* is calculated to be expended in that branch of the trade alone. There are between 200 and 300 leather sellers' shops in London, and there are about 500 tanneries in various parts of the kingdom, employing about 400,000 persons directly and indirectly, in preparing and dressing at least 80,000 tons of leather, the consumption keeping pace with the progress of industry. Of hides, 280,063 cwt. (dry) and 615,822 (wet) were imported in 1867, and 8,732,604 lbs. of tanned hides. About 300,000 tons of indigenous oak bark are consumed annually, besides importations, which in 1867 amounted to upwards of 476,000 cwt., and in the same year 272,333 cwt. of untanned hides were exported. (*Stat. Soc. Journal*, June 1867; and *Parl. Papers.*)

In speaking of the leather manufacture, Dr. Campbell has the following striking observations: 'If we look abroad on the instruments of husbandry, on the implements used in most mechanic trades, on the structure of a multitude of engines and machines; or if we contemplate at home the necessary parts of our clothing—breeches, shoes, boots, gloves—or the furniture of our houses, the books on our shelves, the harness of our horses, and even the substance of our carriages; what do we see but instances of human industry exerted upon leather? What an aptitude has this single material in a variety of circumstances for the relief of our necessities, and supplying conveniences in every state and stage of life? Without it, or even without it in the plenty we have it, to what difficulties should we be exposed.' (*Political State of Great Britain*, vol. ii. p. 176.)

Leather was long subject to a duty; the manufacture being, in consequence, necessarily conducted under the surveillance of the excise. In 1812, the duty, which had previously amounted to 1½*d.* per lb., was doubled; and continued at 3*d.* per lb. till July 1822, when it was again reduced to 1½*d.* per lb. The reduced duty produced a nett revenue of about 360,000*l.* It is clear, however, that either the duty ought not to have been reduced in 1822, or that it ought to have been totally repealed. The continuance of any part of the duty rendered it necessary to continue all the vexatious regulations required to insure the collection of the revenue, while the reduction of 1½*d.* in the cost of preparing a pound of leather was so trifling as hardly to be sensible. It is, however, unnecessary to enter into any discussion to show the extreme inexpediency of laying any duty on an article so indispensable to the labouring class, and to the prosecution of many branches of industry, as leather; and still less to show the inexpediency of subjecting so very important and valuable a manufacture to a vexatious system of revenue laws, for the sake of only 360,000*l.* a-year. Luckily, these have become matters of history. The leather duties were totally abolished in 1830; and as the manufacture

Account of the Real Value of the Leather Exported from the United Kingdom in each of the 7 Years ending with 1867.

Articles	1861	1862	1863	1864	1865	1866	1867
	£	£	£	£	£	£	£
Leather: tanned, unwrought -	361,455	405,658	440,797	381,842	409,219	438,170	428,268
Wrought: boots, shoes -	1,526,847	1,637,350	1,405,809	1,484,121	1,462,105	998,888	950,791
Of other sorts -		175,618	145,089	196,093	240,299	310,922	258,541
Saddlery and harness - -	307,756	343,813	341,668	346,990	350,531	282,484	220,472
Total - -	2,196,058	2,562,439	2,333,363	2,408,306	2,462,184	2,030,464	1,858,078

has since been relieved from every sort of trammel and restraint, it has rapidly increased. It is to be hoped that no future necessity may arise to occasion the reimposition of the leather duty.

Account of the Number of Pounds Weight of Leather charged with Duties of Excise in England in 1824–29.

1824	53,429,539	1827	47,616,716
1825	52,274,957	1828	50,233,689
1826	44,927,816	1829	46,200,843

The quantity annually charged with duty in Scotland during the same period was, at an average, about 6,000,000 lb.

Australia is by far the most extensive market for our exports of leather; and next to it, but at a great distance, are the Cape Colony, British North America, the West Indies, Brazil &c.

LEDGER. The principal book of accounts kept by merchants and tradesmen, wherein every person's account is placed by itself, after being extracted from the journal. [BOOK-KEEPING.]

LEECH FISHERY (Fr. sangsue; Ger. blutegel; Dutch, bloedzuiger; Russ. pirvitza; Dan. and Swed. blodiglar; Span. sanguijuela; Port. sanguisuga; Ital. mignatta). The demand for the medicinal leech (*Hirudo medicinalis*) is so great as to afford employment to a considerable number of persons in catching and selling the animal. It is common throughout Europe, America, and India, inhabiting lakes and pools. Norfolk supplies the greater part of the leeches brought to the London market; but some are taken in Kent, Suffolk, Essex, and Wales; and large quantities are imported from Bordeaux and Lisbon. They are caught in spring and autumn, by people who wade into the pools and allow them to fasten on their limbs; or more generally the catchers beat, as they wade in, the surface of the water with poles, which sets the leeches in motion, and brings them to the surface; when they are taken with the hand and put into bags. As they come to the surface just before a thunder-storm, this is regarded as a good time for collecting them. (Thomson's *Dispensatory*.)

We extract from the *Gazette des Hôpitaux* the following interesting account of the fishery of leeches at La Brenne, in France:—

'The country about La Brenne is, perhaps, the most uninteresting in France. The people are miserable-looking, the cattle wretched, the fish just as bad—but the leeches are admirable.

'If ever you pass through La Brenne, you will see a man, pale and straight-haired, with a woollen cap on his head, and his legs and arms naked; he walks along the borders of a marsh, among the spots left dry by the surrounding waters, but particularly wherever the vegetation seems to preserve the subjacent soil undisturbed: this man is a leech-fisher. To see him from a distance—his woe-begone aspect—his hollow eyes—his livid lips—his singular gestures—you would take him for a patient who had left his sick bed in a fit of delirium. If you observe him every now and then raising his legs, and examining them one after the other, you might suppose him a fool; but he is an intelligent leech-fisher. The leeches attach themselves to his legs and feet as he moves among their haunts; he feels their presence from their bite, and gathers them as they cluster about the roots of the bulrushes and sea-weeds, or beneath the stones covered with green and gluey moss. Some repose on the mud, while others swim about; but so slowly, that they are easily gathered with the hand. In a favourable season, it is possible, in the course of 3 or 4 hours, to stow 10 or 12 dozen of them in the little bag which the gatherer carries on his shoulder. Sometimes you will see the leech-fisher armed with a kind of spear or harpoon; with this he deposits pieces of decayed animal matter in places frequented by the leeches; they soon gather round the prey, and are presently themselves gathered into a little vessel half full of water. Such is the leech fishery in spring.

'In summer, the leech retires into deep water; and the fishers have then to strip themselves naked, and walk immersed up to the chin. Some of them have little rafts to go upon; these rafts are made of twigs and rushes, and it is no easy matter to propel them among the weeds and aquatic plants. At this season, too, the supply in the pools is scanty; the fisher can only take the few that swim within his reach, or those that get entangled in the structure of his raft.

'It is a horrid trade, in whatever way it is carried on. The leech-gatherer is constantly more or less in the water, breathing fog and mist and fetid odours from the marsh; he is often attacked with ague, catarrhs, and rheumatism. Some indulge in strong liquors, to keep off the noxious influence, but they pay for it in the end by disorders of other kinds. But, with all its forbidding peculiarities, the leech-fishery gives employment to many hands: if it be pernicious, it is also lucrative. Besides supplying all the neighbouring pharmaciens, great quantities are exported, and there are regular traders engaged for the purpose. Henri Chartier is one of those persons; and an important personage he is when he comes to Meobecq, or its vicinity; his arrival makes quite a fête—all are eager to greet him.

'Among the interesting particulars which I gathered in La Brenne relative to the leech trade, I may mention the following: One of the traders—what with his own fishing and that of his children, and what with his acquisitions from the carriers, who sell quantities *second-hand*—was enabled to hoard up 17,500 leeches in the course of a few months; he kept them deposited in a place where, in one night, they all became frozen en masse. But the frost does not immediately kill them; they may generally be thawed into life again. They easily, indeed, bear very hard usage. I am told by one of the carriers, that he can pack them as closely as he pleases in the moist sack which he ties behind his saddle; and sometimes he stows his cloak and boots on top of the sack. The trader buys his leeches pêle-mêle, big and little, green and black—all the same; but he afterwards sorts them for the market. Those are generally accounted the best which are of a green ground, with yellow stripes along the body.'

A tract published at Paris in 1845, by M. Joseph Martin, leech merchant, contains a great variety of curious and instructive details in regard to the natural history of leeches, the trade carried on in them, and the frauds of the dealers. They are,

we believe, much more extensively used in medical practice in France than in England; and, at all events, the quantity consumed in the former seems to be immense. Notwithstanding the exhaustion of some of the marshes and ponds in different parts of the country, whence supplies of leeches were formerly procured, great numbers are still obtained in France. By far the larger portion of the necessary supplies is, however, brought from abroad; principally from Germany, Spain, Sardinia, Turkey in Europe, Algiers, Asia Minor &c. In the French Custom-house the imports are estimated at 500 leeches per kilo.; but M. Martin affirms that 1,000 leeches do not, on an average, weigh more than a kilo. Hence the numbers and value of the leeches imported into France during each of the 5 years ending with 1847, will be—

Year	Numbers according to Official Returns	Numbers Corrected	Official Value
			fr.
1843	17,607,696	35,215,392	528,231
1844	15,232,673	30,465,346	456,980
1845	13,843,483	27,686,960	415,304
1846	12,721,545	25,443,090	381,647
1847	11,790,840	23,581,680	353,710

(*French Official Returns.*)

The importation of leeches into France has, however, greatly declined of late years. In 1850 it was 11,766,000 in number, valued at 150 fr. per 1,000. In 1855 the imports fell to 8,444,000 at 100 fr. per 1,000; in 1857 to 7,195,000 at 90 fr.; in 1859 to 5,873,000 at 80 fr. In fact, the supply of this animal in France itself is so considerable that foreign importation has become unnecessary. The export of French leeches has risen considerably, the chief consumption being that of Spain and Naples.

In 1867 leeches of the value of 8,999*l.* were imported into the United Kingdom, the value of the imports from France being 8,218*l.*

A considerable quantity of leeches is now obtained in Australia.

LEGHORN (Ital. Livorno). A city and seaport of the kingdom of Italy, province of Tuscany, lat. 43° 33′ 5″ N., long. 10° 16½′ E. Population, in 1862, 83,543.

Harbour, Road &c.—Leghorn has an outer harbour, protected by a fine mole, running in a N.N.W. direction upwards of ½ mile into the sea, and a small inner harbour or basin. The water in the harbour is rather shallow, varying from 8 feet in the inner basin to 18 or 19 feet at the end of the mole. The rise of the tide is about 14 inches. Ships lie within the mole with their sterns made fast to it by a cable, and an anchor out ahead. The lighthouse is built on a rock a little to the S.W. of the mole. It is a conspicuous object, being about 170 feet above the level of the sea. The roadstead lies W.N.W. of the harbour, between it and the Melora bank. The latter is of sand, lying N. and S., 4 miles in length by 2 in breadth, the side nearest the shore being about 4 miles from it. It consists, for the most part, of sand and mud, and has from 3 fathoms to ½ fm. water over it; but towards its southern extremity it is rocky; and there, on some of the points which project above the water, the Melora tower has been constructed to serve as a sea-mark; it bears from the lighthouse W. ½ N., distant about 4 miles. The best course for entering the roads is to keep to the northward of the Melora bank at about a mile from it, and then, having doubled it, to stand on for the lighthouse about 2½ miles, anchoring in from 7 to 9 fathoms, the lighthouse bearing S.S.E. ½ E., 4 miles off. The entrance by the channel to the south of the Melora bank is also quite safe; but it is not so suitable for large ships as that by the north. During southerly winds there is sometimes a heavy sea in the roads, but the holding ground is good; and with sufficient anchors and cables, and ordinary precaution, there is no danger. The Lazaretto lies to the south, about 1 mile from the tower, and is said to be one of the best in Europe.

Trade &c.—The comparative security and freedom which foreigners have long enjoyed in Tuscany, still more than its advantageous situation, render Leghorn the greatest commercial city of Italy. Its exports are similar to those from the other Italian ports; consisting principally of raw and manufactured silks, olive oil, borax, fruits, shumac, valonia, wines, rags, sulphur, cheese, marble, argol, anchovies, manna, juniper berries, hemp, skins, cork &c. Leghorn plaiting for straw hats is the finest in the world; and large quantities are imported into Britain. [Hats, Straw.] Besides the above, all sorts of articles, the produce of the Levant, may be had at Leghorn. Recently, however, this trade has fallen off; the English and other nations who used to import Levant produce at second hand from Italy, preferring now, at least for the most part, to bring it direct from Smyrna, Alexandria &c. The imports are exceedingly numerous and valuable, comprising all sorts of commodities, with the exception of those produced by Italy. Sugar, coffee, and all sorts of colonial produce; cotton stuffs, yarn, and wool; corn, woollen stuffs, spices, dried fish, indigo, dye woods, rice, iron, tin, hides &c. are among the most prominent articles. Ships with corn on board may unload within the limits of the lazaretto, without being detained to perform quarantine—a circumstance which has contributed to make Leghorn one of the principal depôts for the wheat of the Black Sea. Hard wheat, particularly from Taganrog, is in high estimation here and in the other Italian ports. It is particularly well fitted for making vermicelli, macaroni &c. The Government do not publish any official account of the imports and exports of Leghorn; and no mercantile circulars that we have seen supply the deficiency.

Money.—Down to 1837 accounts were principally kept in pezze da otto reali (or dollars of 8 reali), the pezza being divided into 20 soldi or 240 denari; but this money has been discontinued since the above date, and accounts are now kept in lire and centesima; i.e. the French currency is adopted except in name.

The metrical system of France has superseded the ancient weights and measures.

Credit, Charges &c.—Goods in general are bought and sold for silver money; between which, and the money in which bills of exchange are bought, there is a difference of 7 per cent. (agio) against silver; i.e. 107 dol. in silver 100 in gold.

On goods bought or sold (unless it be in effective money, where there is no discount) there is, generally speaking, a discount of 3 per cent.; on all cotton manufactures 4 per cent.

Charges on sales, including commission, are generally from 6 to 8 per cent.; on fish, 8 or 10 per cent.

Tares.—Cinnamon 12 to 14 lb. per ½ bale; Mocha coffee, 5 to 7 per cent.; indigo seroons, 20, 30 to 40 lb. per seroon; sugar, Havannah, 14 per cent.; crushed, 12 per cent. or real tare of package; loaf, the package, and 4 per cent. for paper, tobacco, 10 per cent.; rosin, 12 per cent. For most other articles specified in the price current the real tare is allowed.

Exchanges, Three Months' Date.—London, liv. at per £ sterling; Paris, liv. at per 100 francs; doubloons, 101*l.*; Genoa, liv. at per 100 Ln.; Trieste, liv. at per 100 C. Flor.

In 1836, a joint-stock bank was established in Leghorn, with a capital of 2,000,000 lire (66,666*l.* sterling, taking the lira at 8*d.*) in shares of 1,000 lire each. The whole of the capital is paid up, and the responsibility is limited to the capital. The managers have the power of issuing promissory notes to the extent of 6,000,000 lire. These notes, though received by the Government, are not legal tender. The operations of the bank are confined to the discounting bills of exchange not having more than 4 months to run, and to the purchase and sale of foreign coins. The rate of discount is fixed at 5 per cent. The superintendence is vested in a director and 8 regents, nominated by the shareholders; and the Government appoints a commissary and 3 censors (from among the shareholders), who exercise the highest authority, to secure obedience to the statutes. An annual report and balance-sheet is produced, and is accessible to all shareholders. The maximum amount for which notes are issued is 2,000 lire = 66*l.* 18*s.* 4*d.* sterling, the lowest, 200 lire = 6*l.* 13*s.* 4*d.* sterling. It is a profitable establishment; its shares are at a considerable premium, and it has a fair prospect of further success.

In 1865, 1,893 foreign vessels, of 423,707 tons, and 4,427 coasting vessels, of 558,650 tons, entered Leghorn, and the navigation of the port for 1864 comprised, in the arrivals, 200 British vessels of 34,360 tons; 5,305 Italian vessels; 703 French; 86 Austrian; 22 Spanish; 45 Dutch; 22 Swedish; 25 Roman; 240 Greek; 6 Ottoman &c. &c.; making in all 6,762 vessels of 822,920 tons. Leghorn is connected by railway with Florence, Pisa &c.

Account of the Quantities and Values of the Principal Articles Imported from Tuscany into the United Kingdom during each of the 4 Years ending with 1867.

Principal and other Articles		Quantities				Computed Real Value			
		1864	1865	1866	1867	1864	1865	1866	1867
						£	£	£	£
Argol	cwt.	531	1,399	1,279	1,652	3,145	5,072	5,025	6,516
Art, works of, in stone or marble (not distinguished in the entries until 1865)	value	—	—	—	—	—	15,306	14,221	10,754
Bones of animals and fish (except whalefins)	tons	1,242	938	1,221	704	6,978	5,583	5,788	3,554
Boracic acid	cwt.	19,509	20,607	28,130	24,865	48,774	51,518	71,076	62,163
Copper ore	tons	2,126	2,175	3,047	1,754	16,703	25,709	29,439	16,479
unwrought and part wrought	,,	52	31	65	7	4,166	3,000	5,370	482
Corn: Wheat	cwt.	18	65	7	24,395	8	25	3	17,063
Maize or Indian corn	,,	—	—	—	—	—	—	—	—
Wheatmeal and flour	,,	—	5	882	7,956	—	3	845	7,533
Fish, anchovies	lb.	314,659	783,419	300,349	337,745	9,176	22,850	8,761	9,850
Hats or bonnets of straw	,,	1,994	1,232	2,305	1,471	4,987	3,080	6,915	4,413
Hemp	cwt.	1,086	6,675	16,248	15,702	1,996	12,406	29,774	28,982
Lard	,,	—	9,012	34,327	100	—	31,629	122,491	240
Oil, olive	tuns	1,546	3,131	2,168	1,706	84,442	187,035	141,942	120,024
Pictures, viz. oil paintings	no.	1,227	990	810	1,419	14,110	26,514	25,318	15,189
Plaiting of straw, chip, or other materials	lb.	3,012	740	458	536	1,770	885	50	50
Rags and other materials for making paper	tons	858	437	299	390	18,289	9,497	5,976	6,955
Skins, lamb, undressed	no.	338,041	220,015	342,303	347,950	16,901	11,502	17,115	17,397
Stones: marble, sawn or otherwise manufactured	cwt.	11,685	18,505	29,906	35,271	11,685	18,505	29,906	35,271
in rough blocks or slabs	tons	6,777	6,953	7,919	7,816	50,830	52,573	54,143	58,620
Vermicelli and macaroni	cwt.	279	306	192	—	519	571	377	—
Wood and timber, not sawn	loads	1,920	326	130	—	15,345	2,551	650	—
Wool, sheep and lambs'	lb.	275,418	35,943	226,117	50,551	13,444	1,726	10,678	2,478
Woollen rags, torn up, to be used as wool	,,	527,072	416,528	305,424	62,272	11,574	8,761	4,663	879
Woollen rags not torn up	tons	134	40	171	299	—	—	—	6,706
All other articles	value	—	—	—	—	53,870	54,359	53,360	41,646
Total value		—	—	—	—	388,712	5[illegible],140	643,886	473,457

Account of the Quantities and Values of the Principal Articles of the Growth and Manufacture of the United Kingdom Exported to Tuscany during each of the 4 Years ending with 1867.

Principal and other Articles		Quantities				Declared Real Value			
		1864	1865	1866	1867	1864	1865	1866	1867
						£	£	£	£
Apparel and haberdashery	value	—	—	—	—	23,138	21,266	15,759	17,355
Carriages of all sorts	no.	247	58	27	2	16,485	11,105	5,170	340
Coals, cinders, and culm	tons	16,998	25,755	30,159	36,113	7,180	11,834	14,719	17,554
Copper, wrought and unwrought	cwt.	1,063	1,718	4,894	615	4,756	8,265	26,473	2,649
Cotton yarn	lb.	1,104,129	3,154,682	4,104,668	3,798,848	105,691	219,040	283,631	202,905
Cottons, entered by the yard	yards	9,747,876	15,811,810	18,441,525	15,640,423	256,792	554,853	417,984	302,604
at value	value	—	—	—	—	22,629	27,583	21,485	28,723
Drugs and chemical products	,,	—	—	—	—	5,112	4,769	3,988	3,450
Earthenware and porcelain	,,	—	—	—	—	7,012	8,202	5,125	5,635
Fish: herrings	barrels	17,662	8,780	15,024	13,258	17,648	9,091	14,774	12,934
pilchards	hhd.	1,640	1,471	1,348	537	3,905	5,025	4,318	1,600
Fuel, manufactured	tons	9,360	16,615	18,798	15,696	5,151	9,304	10,713	8,859
Hardwares and cutlery, unenumerated	cwt.	2,602	2,267	1,681	1,496	12,951	12,648	9,668	8,469
Iron, wrought and unwrought	tons	7,948	11,535	6,208	5,145	81,631	98,071	49,592	40,118
Leather, wrought and unwrought	value	—	—	—	—	345	799	102,590	23,966
Linen yarn	lb.	881,456	478,875	315,533	226,594	63,825	30,502	22,175	14,767
Linens, entered by the yard	yards	1,045,111	979,605	537,372	594,062	42,428	38,921	21,595	23,817
at value	value	—	—	—	—	2,046	2,782	3,001	2,234
Machinery: steam engines	,,	—	—	—	—	21,183	618	572	4,727
all other sorts	,,	—	—	—	—	6,698	11,808	4,453	8,012
Painters' colours (not otherwise described)	,,	—	—	—	—	3,093	3,212	3,991	3,406
Saltpetre	cwt.	3,655	2,683	3,169	1,820	6,978	4,286	4,234	2,026
Silk manufactures	value	—	—	—	—	1,812	1,467	672	777
Spirits, British	gallons	30,439	10,689	14,164	6,956	3,816	1,361	1,777	872
Tin plates	value	—	—	—	—	8,394	7,902	6,711	5,425
Woollens, entered by the yard	yards	2,616,015	2,339,661	1,995,934	2,057,990	163,418	160,586	132,773	128,797
Woollens, entered at value	value	—	—	—	—	6,613	13,614	6,861	3,457
All other articles	,,	—	—	—	—	55,296	68,149	72,784	76,528
Total value		—	—	—	—	851,153	1,128,259	1,256,946	949,875

Straw Hats.—The most interesting, and perhaps also the most important, industrial pursuit carried on in Tuscany, consists in the manufacture of straw hats and straw-plaiting. The straw grown in the country is peculiarly well adapted for the purpose, and the peasantry have attained to an unrivalled degree of skill in its manipulation. The value of the exports of the article increased from 9,833,000 lire in 1851, to 23,187,000 ditto in 1855, being about ¼ of the entire exports from the duchy in the course of the latter year, and we are informed that they have since continued to increase. It is said that about ¼ of the population of Tuscany derive their principal support from this manufacture; and though this be probably an exaggerated statement, it shows the importance of the business. Various efforts have been made in this and other countries to raise straw similar to that employed in Tuscany in the manufacture. Hitherto, however, these efforts have had but little success, and the superiority of Tuscany in this interesting branch of industry was never more conspicuous than at present. (*Annuaire de l'Economie politique pour* 1858, p. 501.)

In 1865, 6,320 vessels entered the port of Leghorn, of which 1,893, of 423,707 tons, were engaged in the foreign, and 4,427, of 558,650 tons, in the coasting trade.

LEMONS (Ger. limonen; Dutch, limoenen; Fr. limons, citrons; Ital. limoni; Span. limones; Port. limãos; Russ. limonü; Arab. lemōn). The fruit of the lemon tree. (*Citrus medica*, var. *β*, C.)

The lemon is a native of Assyria and Persia, whence it was brought into Europe; first to Greece, and afterwards to Italy. It is now cultivated in Spain, Portugal, and France, and is not uncommon in our greenhouses. Lemons are brought to England from Spain, Portugal, and the Azores, packed in chests, each lemon being separately rolled in paper. The Spanish lemons are most esteemed. (For an account of the imports, see ORANGES.)

LEMON JUICE or CITRIC ACID (Ger. zitronensaft; Fr. jus de limon; Ital. agro o sugo di limone; Span. jugo de limon). The liquor contained in the lemon.

It may be preserved in bottles for a considerable time, by covering it with a thin stratum of oil; thus secured, great quantities of the juice are exported from Italy to different parts of the world; from Turkey also, where abundance of lemons are grown, it is a considerable article of export, particularly to Odessa. The discovery of the antiscorbutic influence of lemon juice is one of the most valuable that has ever been made. The scurvy, formerly so fatal in ships making long voyages, is now almost wholly unknown; a result that is entirely to be ascribed to the regular allowance of lemon juice served out to the men. The juice is also frequently administered as a medicine, and is extensively used in the manufacture of punch. (See regulations as to supplies of lemon juice on board merchant vessels, art. JUICE OF LEMONS, LIMES, OR ORANGES; SEAMEN.)

LEMON PEEL (Ger. zitronenschalen, limonenschalen; Fr. lames d'écorce de citron; Ital. scorze di limone; Span. corteza de cidra). The outward rind of lemons is warm, aromatic, and slightly bitter—qualities depending on the essential oil it contains. It is turned to many uses; and when well candied, constitutes a very good preserve. In Barbadoes, a liqueur, known under the name of *eau de Barbade*, is manufactured from lemon peel, which the inhabitants have the art of preserving in a manner peculiar to themselves. Both the liqueur and the conserve used to be in high repute, especially in France.

LETTER. [POST OFFICE.]

LETTER OF CREDIT. A letter written by one merchant or correspondent to another, requesting him to credit the bearer with a certain sum of money. Advice by post should always follow the granting of a letter of credit: a duplicate of it accompanying such advice. It is prudent also, in giving advice, to describe the bearer of the letter, with as many particulars as possible, lest it fall improperly into other hands.

LETTERS OF MARQUE AND REPRISAL 'are grantable by the law of nations, whenever the subjects of one state are oppressed and injured by those of another, and justice is denied by that state to which the oppressor belongs.' (Chitty's *Com. Law*, vol. iii. p. 604.) Before granting letters of marque, Government is directed, by the 5 Hen. IV. c. 7, to require that satisfaction be made to the party aggrieved; and in the event of such satisfaction not being made within a reasonable period, letters of marque and reprisal may be issued, authorising the aggrieved party to attack and seize the property of the aggressor nation, without hazard of being condemned as a robber or pirate. Such letters are now only issued to the owners or captains of privateers during war, or when war has been determined upon. They may be revoked at the pleasure of the sovereign; and when hostilities terminate, they cease to have any effect.

The Act 41 Geo. III. c. 76 sanctioned the issue of commissions and letters of marque to vessels in the service of the customs, excise &c., but this statute was repealed by the 27 & 28 Vict. c. 23.

LICENSES. In Commercial Navigation. The rules and regulations to be observed in the granting of licenses to ships embodied in the Act 8 & 9 Vict. c. 87, given in the former edition of this work, have been repealed. The only regulation with reference to this subject in the Customs Consolidation Act of 1853, the 16 & 17 Vict. c. 107 s. 201, will be found in the art. SMUGGLING.

The statute last referred to contains clauses in regard to the licensing of agents for transacting business relating to the entry and clearance of ships, goods, and baggage, and of lightermen for the carriage of goods to and from importing and exporting ships. It gives the Treasury power, by warrant published in the *Gazette*, to appoint in what ports agents shall be licensed, the Commissioners of Customs granting the necessary licenses. Appointments had, previously to the passing of this Act, been made as to London, Dublin, Dover, Folkestone, Southampton, and Shoreham. But this licensing system was revoked by the following Treasury Warrant of March 14, 1861.

'Whereas, by certain warrants under the hands of the Lords Commissioners of her Majesty's Treasury, the ports of London, Dublin, Dover, Folkestone, Southampton and Shoreham were appointed ports in the United Kingdom in which persons acting as agents in the entry or clearance of any ships, or any goods or baggage, or any business relating thereto, should be required to be duly licensed for that purpose, and such appointments by the Customs Consolidation Act 1853 confirmed and directed to be continued until the same should be revoked;

'And whereas it is expedient that the said warrants or appointments should be revoked;

'We the undersigned Lords Commissioners of her Majesty's Treasury, in pursuance of the

An Account showing the Trades that cannot be carried on in the United Kingdom without Excise Licenses; the Sums charged for such Licenses; and the Number of Licenses granted for carrying on each Trade in the Year ending March 31, 1866; with the Total Amount of Revenue derived therefrom.

Description of License	Rate of Duty per Annum	England: Number of Licenses granted	Scotland: Number of Licenses granted	Ireland: Number of Licenses granted	United Kingdom: Total Number of Licenses granted
Auctioneers	£ 10 s. 0 d. 0	4,048	455	408	4,908
Appraisers and house agents	2 0 0	3,442	288	21	3,751
Distillers	10 10 0	8	117	23	148
Rectifiers	10 10 0	95	15	37	147
Chemists using stills	0 10 0	632	120	23	775
Still makers	0 10 6	..	16	3	19
Spirit licenses: dealers	10 10 0	3,922	388	476	4,786
additional to retail	2 2 0	3	..	..	3
foreign liquors	3 3 0	1,863	..	15,112	1,863
to retail in bottles	1 to 11 0 6	66,479	..	..	81,591
Spirit retailer's license: publicans	4 4 0 to 13 13 0	..	..	..	11,704
Spirit grocers, Scotland	9 18 5½ to 14 6 7½	..	11,704	15,112	298
Ireland	3 6 1½	..	..	..	3,969
Beer dealers, wholesale	5,220	..	80	298	1,932
additional retail license	1 2 0½	1,593	..	689	3,089
Retailers of table beer	0 5 0	2,170	..	..	87,572
Beer and cider retailers: publicans	1 2 0½ to 3 6 1½	72,334	919	539	42,691
Beer retailers, 45 Wm. IV. cap. 85	1 2 0½ to 3 6 1½	47,691	..	..	400
Cider retailers	1 2 0½	400	..	15,438	501
Beer and cider, Scotland	2 10 0 to 4 4 0	..	..	..	2,736
Wine dealers	10 10 0	2,241	501	..	35,417
Publicans	4 8 2½ to 2 4 0½	30,624	62	..	5,602
Grocers, Scotland	4 8 2½ to 1 2 0½	..	..	133	2,736
under 23 Vict. cap. 27	2 2 0 to 5 5 0	3,758	5,602	4,893	35,417
Sweets dealers	5 5 0	89	..	..	5,602
retailers	1 2 0½	9,905	21	116	3,874
Packet boat liquor license	1 1 0	205	97	14	124
Refreshment house ,,	0 10 6 to 1 1 0	5,785	89	84	10,086
Tobacco manufacturers	5 5 0 to 31 10 0	343	..	40	531
dealers	0 5 3	227,561	114	85	5,470
Maltsters	0 7 10½ to 4 14 6	5,370	19,125	106	563
Roasted malt: makers	20 0 0	13	401	22,943	262,819
dealers	10 0 0	11	2	150	6,021
Brewers, black or spruce beer	0 10 6 to 78 15 0		1	9	24
other beer, up to 30 barrels	0 14 6			..	12
30 to 50 ,,	1 7 6				
50 to 100 ,,	2 0 0				
100 to 1,000 ,, each 50	0 15 0	37,447	221	96	37,767
1,000 to 50,000 barrels each 50	0 14 0				
exceeding 50,000 barrels each 50	0 13 0				
Brewers using sugar	1 0 0	421	18	18	457
Retail brewers	5 10 3	12	1	4	17
Stage carriages: license	3 3 0	2,376	252	No duty	2,628
supplementary do.	0 0 6				
duty per mile	0 0 0½				
Post horses and carriages	7 10 0 to 70 0 0 at decreasing rates	8,842	961	..	9,803
Ireland	2 2 0 and 5 per cent.	..	..	1,971	1,971
Hackney carriages, London: license duty per week	1 0 0	7,160	..	..	7,160
if not used on Sundays	0 7 0				
Railway duty, England and Scotland	0 6 0				
Coffee and tea	5 per cent. on receipts	..	..	No duty	£149,318 15 1
Game licenses: April 5 to Oct. 31	0 2 6 and 0 11 6½	126,999	19,419	23,876	170,294
Nov. 1 to April 5	2 0 0	43,231	4,017	3,493	50,741
whole year	3 0 0				
keeper	2 0 0	3,217	1,139	368	4,724
dealer	2 0 0	1,858	205	69	2,112
Methylated spirits' makers	10 10 0	5	2	1	8
dealers	2 2 0	140	34	7	181
Paper makers	4 4 0	316	56	20	392
Soap ,,	4 4 0	174	24	96	294
Vinegar ,,	5 5 0	55	7	1	63
Hawkers and pedlars	2 0 0 to 4 0 0	16,339	1,424	201	17,964
Medicine vendors	0 5 0 to 2 0 0	10,757	761	No duty	11,518
Playing cards: maker and seller	1 0 0	6,259	848	635	7,772
seller only	0 2 6				
Plate licenses	2 6 0 to 5 15 0	7,161	960	378	8,499
Pawnbrokers	7 10 0 to 15 0 0	2,761	336	624	3,724

Total amount received for licenses in 1866, 2,236,841*l*.

power and authority conferred upon us by the said Act, and in exercise of the same, do hereby revoke the warrants or appointments, and the continuance thereof hereinbefore referred to, whereby the ports of London, Dublin, Dover, Folkestone, Southampton and Shoreham, or any of them, were appointed or declared to be, and be continued until revoked, ports or places in the United Kingdom in which persons acting as agents in the entry or clearance of any ships or of any goods or baggage, or any business relating thereto, shall be required to be duly licensed for that purpose.

'Whitehall Treasury Chambers, dated this 14th day of March, 1867.

(Signed) 'J. Bagwell,
Wm. Dunbar.'

'The board directs that copies of their Lordships' warrant be inserted in the *London* and *Dublin Gazettes*.'

The total number of excise licenses existing on March 31, 1867, was in England, 779,466; Scotland, 72,874; Ireland, 97,331. Total number, United Kingdom, 949,671: total revenue ditto, including licenses, for fractional parts of a year, and surcharges, 2,325,521*l*.

There are, also, in the United Kingdom, sundry businesses which cannot be carried on without a stamp license, such as bankers, attorneys, &c. The license duty paid by these parties amounted in the year ended March 31, 1866, to 184,101*l*.

LIGHTHOUSE. A tower situated on a promontory or headland on the sea coast, or on rocks or banks in the sea, for the reception of a light for

the guidance of ships at night. 'Usus ejus, nocturno navium cursu ignes ostendere, ad prænuntianda vada, portusque introitum.' (Plin. *Hist. Nat.* lib. xxxvi. c. 13.) There are also floating-lights, or lights placed on board vessels moored in certain stations, and intended for the same purposes as those on shore.

Historical Notices.—The lighting of fires for the direction of ships at night is of such obvious utility, that we need not wonder at the practice having originated at a very remote era. The early history of lighthouses is, however, involved in much obscurity; but it is reasonable to suppose that no long period would elapse after fires were lighted for the premonition and guidance of mariners, till towers would begin to be constructed for their reception. The most celebrated of all the ancient lighthouses was that erected by Ptolemy Soter, on the small island of Pharos, opposite to Alexandria, 'nocturnis ignibus cursum navium regens.' (Plin. lib. v. c. 31.) It was of great height, and is said to have cost 800 talents. Dr. Gillies tells us (*Hist. of Alexander's Successors*, vol. ii. p. 138, 8vo. ed.), that the tower was 450 feet in height; that each side of its square base measured 600 feet, and that its 'beaming summit' was seen at the distance of 100 miles! It is almost needless to add, that there is no authority for such statements, which indeed carry absurdity on their face. Its celebrity was such that Pharos rapidly became, and still continues to be in many countries, a generic term equivalent to lighthouse. In the ancient world, there were lighthouses at Ostia, Ravenna, Puteoli, Caprea, Rhodes on the Thracian Bosporus &c. (See *Suetonii Opera*, ed. Pitisci, tom. i. p. 755; and the *Ancient Universal History*, ix. 366, 8vo. ed.)

The *Tour de Cordouan*, at the entrance of the Gironde, the Eddystone Lighthouse, opposite to Plymouth Sound, that more recently constructed on the Bell Rock, opposite to the Frith of Tay, and that on the Bishop Rocks to the S.W. of the Scilly Islands, are the most celebrated modern lighthouses. The Tour de Cordouan was begun in 1584, by order of Henry III., and was completed in 1610. It was at first 169 feet (Fr.) high; but in 1727 it was enlarged, by the addition of an iron lantern, to the height of 175 French, or 186½ English feet. It used to be lighted by a coal fire, but it is now a revolving dioptric light of the first order. It is altogether a splendid structure; and is, besides, remarkable for being the first lighthouse on which a revolving light was exhibited. [Bordeaux.]

The first lighthouse erected on the Eddystone rocks only stood about 7 years, having been blown down in the dreadful storm of November 27, 1703; a second, erected in 1708, was burnt down in 1755. The present lighthouse, constructed by the celebrated engineer Smeaton, was completed in 1759. It is regarded as a masterpiece of its kind; and bids fair to be little less lasting than the rocks on which it stands.

The Bell Rock Lighthouse was built by Mr. Stevenson on the model of the Eddystone, and that on the Bishop Rocks was completed by Messrs. Walker and Burgess in 1858. The Skerryvore and Smalls Rock lighthouses are also of similar design to Eddystone.

Numerous lighthouses, marking the most dangerous points and the entrance to the principal harbours, are now erected in most civilised maritime countries. They are particularly abundant in the Baltic and in the Sound, and have contributed, in no ordinary degree, to render their navigation comparatively safe. Within these few years several new ones have been erected on the British coasts, and on those of France, the United States &c.

Precautions as to Lighthouses.—Many fatal accidents have arisen from ships mistaking one light for another; and hence the importance of those on the same coast being made to differ distinctly from each other, and of their position and appearance being accurately laid down and described. The modern inventions of revolving, intermitting, and coloured lights, afford facilities for varying the appearance of each light unknown to our ancestors, and have been, in that respect, of the greatest importance. For some interesting details on this subject, we would refer to 'Captain Close on Lighthouses and Coast Illuminations,' in vol. iv. of *Reports on the Paris Exhibition*, 1867.

Chart of Lighthouses &c.—A good descriptive work on lighthouses, beacons &c., is a desideratum. That of Coulier, *Guide des Marins pendant la Navigation nocturne*, Paris 1829, is perhaps the best. It must not be judged by its preface, which is as bad as possible; consisting of scraps from the most fantastical parts of Bryant's *Mythology*, and of attacks on us for our conduct in relation to Parga, and the alleged ill-treatment of the crew of a vessel wrecked on the island of Alderney! The book is really pretty good, which could not be anticipated from such a commencement. The reader will find the existing English and Irish lighthouses, and the greater number of those belonging to Scotland, laid down in the chart attached to the article Canals in this work. Its accuracy may be depended upon; for it has been copied from the official chart of the lighthouses on the British and contiguous coasts published by the Trinity House.

Law as to British Lighthouses.—The 8 Eliz. c. 13 empowered the Corporation of the Trinity House to erect beacons &c. to prevent accidents to ships; and though the Act does not expressly mention lighthouses, it has been held to extend to them; and on its authority, and the privileges attached to the office of buoyage and beaconage conferred on the Trinity House in 1594, the Corporation erects lighthouses. The tolls for their maintenance have been generally collected under the authority of letters patent from the Crown; those for the support of the Eddystone light, and some others in different parts of the kingdom, being, however, established by Act of Parliament. The first lighthouses erected by the Trinity House were built at Caistor, in Norfolk, in 1600.

All the lighthouses, floating-lights &c., exclusive of harbour-lights, from the Fern Islands, on the coast of Northumberland, round by Beachy Head and the Land's End, to the coast of Lancashire, have always belonged to the Trinity House, with the exception of about a dozen lights, viz. Tynemouth, Spurn (shore), Winterton, and Orford, Harwich, Dungeness, Skerries &c. These lights have been partly public and partly private property; but they have latterly been all acquired by the Trinity House. (See below.) The duties on their account have been, for the most part, always payable to the Trinity collectors.

The Act of 1853, 16 & 17 Vict. c. 131, and the Mercantile Shipping Act of 1854, have made the Trinity House directly subordinate in many respects to the Board of Trade. The dues for lights, beaconage &c., formerly payable to the Trinity House, are at present carried to the account of the Mercantile Marine Fund, which is to be charged with the cost of maintaining lights, buoys &c., and it, also, is to be charged with the pensions hitherto paid by the Trinity House. The latter is in future to prepare estimates; and

no expense is to be allowed which has not previously been sanctioned by the Board of Trade. The charges for lights &c. are to be revised and fixed by her Majesty in council, who is also to fix the tolls to be taken for new lights. The attention that will thus be drawn to the different charges on shipping cannot fail to be advantageous; and will, no doubt, bring about their reduction to the lowest point consistent with the realisation of the important objects for which they have been imposed. The most important clauses of the Mercantile Shipping Act, the 17 & 18 Vict. c. 104, and of the 25 & 26 Vict. c. 63, having reference to lighthouses, are as follow, viz.:—

Management of Lighthouses, Buoys, and Beacons, to be in Trinity House &c.—Subject to the provisions herein contained, and subject also to any powers or rights now lawfully enjoyed or exercised by any person or body of persons having by law or usage authority over local lighthouses, buoys, or beacons, herein termed 'local authorities,' the superintendence and management of all lighthouses, buoys, and beacons shall be vested in the following bodies, viz.:—

In England and Wales, and the islands of Jersey, Guernsey, Sark, and Alderney, and the adjacent seas and Islands, and in Heligoland and Gibraltar, in the Trinity House:

In Scotland and the adjacent seas and islands, and in the Isle of Man, in the Commissioners of Northern Lighthouses.

In Ireland and the adjacent seas and islands, in the Port of Dublin Corporation, now (1868) called Commissioners of Irish Lights. And, subject to the provisions herein contained, the said Trinity House, Commissioners, and Corporation, therein termed General Lighthouse Authorities, shall respectively continue to hold and maintain all property now vested in them in that behalf, in the same manner and for the same purpose as they have hitherto held and maintained the same. (17 & 18 Vict. c. 104 s. 389.)

Commissioners of Northern Lighthouses.—The persons holding the following offices shall be a body corporate, under the name of the Commissioners of Northern Lighthouses; that is to say—

1. The Lord Advocate and the Solicitor-General for Scotland;
2. The Lords Provosts of Edinburgh and Glasgow, and the Provosts of the cities of Aberdeen, Inverness, and Campbeltown;
3. The eldest bailies of Edinburgh and Glasgow;
4. The sheriffs of the counties of Edinburgh, Lanark, Renfrew, Bute, Argyle, Inverness, Ross, Orkney, Caithness, Aberdeen, Ayr, Fife, Forfar, Wigton, Sutherland, Kincardine, Kirkcudbright, and Elgin;

And shall have a common seal; and any 5 of such commissioners shall constitute a quorum, and shall have power to do all such matters and things as might be done by the whole body of commissioners. (Sec. 390.)

Power to elect certain new Members.—In addition to the persons above mentioned, it shall be lawful for the said commissioners, at any time after this Act comes into operation, to elect the provost or chief magistrate of any royal or parliamentary burgh, on or near any part of the coasts of Scotland, and the sheriff, of any county abutting on such coasts. (Sec. 391.)

Trinity House may inspect Lighthouses in Scotland and Ireland.—The Trinity House, their engineers, workmen, and servants, may at all times enter any lighthouses within the jurisdiction of the said commissioners or corporation, to view the condition thereof, or otherwise, for the purposes of this Act. (Sec. 392.)

Board of Trade may appoint Persons to inspect Lighthouses &c.—The Board of Trade may, upon complaint to the effect that any lighthouse, buoy, or beacon under the management of any of the said general lighthouse authorities, or any work connected therewith, is inefficient or improperly managed or unnecessary, authorise persons to inspect the same; and every person so authorised may inspect the same accordingly, and make such enquiries in respect thereof as he may think fit; and all officers and others having the care of such lighthouses, buoys, or beacons, or concerned in the management thereof, shall furnish all such information and explanations in relation thereto as he may require; and the said general lighthouse authorities and their respective officers shall at all times give to the Board of Trade all such returns, explanations, or information in relation to the lighthouses, buoys, or beacons within their jurisdiction and the management thereof, as such Board may from time to time require. (Sec. 393.)

The 25 & 26 Vict. c. 63 s. 43 provides that the following rules shall be observed with respect to the inspection of local lighthouses, buoys, and beacons; that is to say—

1. It shall be the duty of each of the general lighthouse authorities, or of such persons as may be authorised by such authority for the purpose, to inspect all lights, buoys, and beacons situate within the limits of the jurisdiction of such general authority, but belonging to or under the jurisdiction of any local authorities, and to make such enquiries in respect thereof and of the management thereof as they may think fit:
2. All officers and others having the care of such lighthouses, buoys, or beacons, or concerned in the management thereof, shall furnish all such information and explanations concerning the same as they may require:
3. All such local authorities and their respective officers shall at all times give to the inspecting authority all such returns, explanations, or information concerning the lighthouses, buoys, and beacons within their jurisdiction, and the management thereof, as the said authority may from time to time require:
4. The inspecting authority shall communicate to each local authority the results of its inspection of the lighthouses, buoys, and beacons within its jurisdiction, and shall also make general reports of the results of its inspection of local lighthouses, buoys, and beacons to the Board of Trade; and such reports shall be laid before parliament:
5. The powers given by sec. 394 of the principal Act to the general lighthouse authorities shall, so far as the same are applicable, extend and apply to the case of local buoys and beacons, other than local buoys and beacons placed or erected for temporary purposes, as well as to the case of local lighthouses. (25 & 26 Vict. c. 63 s. 43.)

Power to General Lighthouse Authorities to control Local Authorities.—Each of the said general lighthouse authorities, upon giving due notice of their intention, shall have power, with the sanction of the Board of Trade, to compel any local authority having jurisdiction in the matter of lighthouses, buoys, or beacons at any place situate within the jurisdiction of such general lighthouse authority, to lay down buoys or to remove or discontinue any existing lighthouse or beacon, or to make any variation in the character of any lighthouse or in the mode of exhibiting lights

therein; and no such local authority as aforesaid shall erect any new lighthouse, or remove or discontinue any lighthouse, or vary the character of any lighthouse or the mode of exhibiting lights therein, without the sanction of the general lighthouse authority within whose jurisdiction the same is situate. (17 & 18 Vict. c. 104 s. 394.)

In case of Default by Local Bodies, Local Lighthouses may be transferred to General Lighthouse Authorities.—If any local authority having power to erect, maintain, or place any local lighthouse, buoy, or beacon at any place within the jurisdiction of one of the said general lighthouse authorities fails so to do, or fails to obey any direction given by such authority under the last preceding section, her Majesty may, upon application from such general lighthouse authority, by order in council direct that such power as aforesaid shall be transferred to such last-mentioned authority; and such power, together with all powers of levying and receiving dues in respect of such lighthouse, buoy, or beacon, shall thereupon become vested in such last-mentioned authority; and such lighthouse, with its appurtenances, and also such buoy or beacon, and all dues leviable in respect thereof, shall thenceforth be subject in all respects to the same regulations as other lighthouses and light dues, buoys, and beacons provided for by this Act. (Sec. 395.)

Dues to be levied.—Subject to any alterations to be made under the powers hereinafter contained, the said general lighthouse authorities shall, in respect of the existing lighthouses, buoys, or beacons within their respective jurisdictions, continue to levy dues, herein called light dues, after the rate at which the same are levied at the time when this Act comes into operation; and such light dues shall be payable in respect of all ships whatever, except ships belonging to her Majesty and ships hereby exempted from payment thereof. (Sec. 396.)

The 25 & 26 Vict. c. 63 ss. 44 & 45 provides that the following persons shall be liable to pay light dues for any ship in respect of which light dues are payable; (that is to say), the owner or master, or such consignees or agents thereof as have paid or made themselves liable to pay any other charge on account of such ship in the port of her arrival or discharge, and in default of payment such light dues may be recovered in the same manner as penalties of the like amount may be recovered by virtue of the principal Act. (25 & 26 Vict. c. 63 s. 43.)

Every consignee and agent (not being the owner or master) hereby made liable for the payment of light dues in respect of any ship may, out of any moneys in his hands received on account of such ship, or belonging to the owner thereof, retain the amount of all dues so paid by him, together with any reasonable expenses he may have incurred by reason of such payment or liability. (Sec. 45.)

Light Dues to be subject to Revision by her Majesty in Council.—Her Majesty may, with the advice of her Privy Council, from time to time reduce all or any of the dues for the time being payable in respect of existing or future lighthouses, buoys, or beacons, for the time being under the management of the said general lighthouse authorities; and may also, with the like advice, from time to time increase or vary any of such dues, so that no dues payable in respect of any lighthouse, buoy, or beacon existing at the time when this Act comes into operation, are made to exceed the amount which has at any period previous to such time been received in respect thereof, or to which the said dues might during any part of such period as last aforesaid lawfully have been raised. (17 & 18 Vict. c. 63 s. 397.)

By 25 & 26 Vict. c. 63 ss. 46, 47, it is enacted that if any lighthouse, buoy, or beacon is erected or placed, or reconstructed, repaired, or replaced by any local authority having jurisdiction in the matter of lighthouses, buoys, or beacons, her Majesty may, on the application of the said local authority, by order in council fix such dues to be paid to the said local authority in respect of every ship which enters the port or harbour under the jurisdiction of such local authority or the estuary wherein such lighthouse, buoy, or beacon is situate, and which passes the said lighthouse, buoy, or beacon, and derives benefit therefrom, as her Majesty may deem reasonable:

The dues for the time being fixed by any such order in council as aforesaid shall be paid accordingly by the master of the said ship or other person or persons by whom the said light dues, if levied by one of the general lighthouse authorities, would be payable, and shall be recoverable in the same manner as light dues payable to such general authorities are recoverable.

All light dues leviable by any local authority under this Act shall be applied for the purposes of the construction, placing, maintenance, and improvement of the lighthouses, buoys, and beacons in respect of which the same are levied, and for no other purpose:

The local authority to whom the same are paid shall keep a separate account of the receipt and expenditure of such dues, and shall once in every year, or at such other time as the Board of Trade may determine, send a copy of such account to the Board of Trade, and shall send the same in such form and shall give such particulars in relation thereto as the Board of Trade may require:

Her Majesty may by order in council from time to time reduce, alter, or increase all or any of such dues, so that the same may, so far as it is practicable, be sufficient and not more than sufficient for the payment of the expenses incurred by the local authority in respect of the lighthouses, buoys, or beacons for which the dues are levied. (Secs. 46 & 47.)

Powers of General Lighthouse Authorities to alter and regulate Dues.—Each of the said general lighthouse authorities shall have power, with the consent of her Majesty in council, to do any of the following things; that is to say—

To exempt any ships or any classes of ships from the payment of light dues receivable by such authority, and to annex any terms or conditions to such exemptions:

To alter the times, places, and modes at and in which the light dues receivable by such authority are payable:

To substitute any other dues or class of dues, whether by way of annual payment or otherwise, in respect of any ships or classes of ships, for the dues payable to such authority for the time being. (17 & 18 Vict. c. 63 s. 398.)

Publication of Dues and Regulations.—Tables of all light dues, and a copy of the regulations for the time being in force in respect thereof, shall be posted up at all custom-houses within the United Kingdom; and each of the said general lighthouse authorities shall from time to time, as occasion requires, furnish copies of such tables and regulations to the Court of Customs in London, and to the principal officers of customs resident at all places where light dues are collected on account of such lighthouse authority; and such copies shall be posted up by the com-

missioners at the Custom-house in London, and by such officers at the custom-houses of the places at which they are respectively resident. (Sec. 399.)

Ship not to be cleared without Production of Receipt for Light Dues.—A receipt for light dues shall be given by the person appointed to collect the same to every person paying the same, and no officer of customs at any port where light dues are payable in respect of any ship shall grant a clearance or transire for any such ship, unless the receipt for the same is produced to him. (Sec. 400.)

Power of Distress for Light Dues.—If the owner or master of any ship fails on demand of the authorised collector to pay the light dues due in respect thereof, it shall be lawful for such collector, in addition to any other remedy which he or the authority by whom he is appointed is entitled to use, to enter upon such ship, and distrain the goods, guns, tackle, or any other thing of or belonging to or on board such ship, and to detain such distress until the said light dues are paid; and if payment of the same is not made within the period of 3 days next ensuing such distress, he may, at any time during the continuance of such non-payment, cause the same to be appraised by two sufficient persons or sworn appraisers, and thereupon sell the same, and apply the proceeds in payment of the light dues due, together with all reasonable expenses incurred by him under this section, paying the surplus (if any) on demand to the said owner or master.

Clause 402 regulates the mode in which light dues are to be paid over and accounted for.

Application of Light Dues.—All light dues coming to the hands of any of the said general lighthouse authorities under this Act shall be carried to the account of the Mercantile Marine Fund hereinafter mentioned, and shall be dealt with in manner hereinafter described. (Sec. 403.)

Power to Lighthouse Authorities to erect and alter Lighthouses, Buoys, and Beacons.—Each of the said general lighthouse authorities shall have power, within its jurisdiction, to execute the following works and do the following things; that is to say—

1. To erect or place new lighthouses, with all requisite works, roads, and appurtenances, or alter or remove any existing lighthouses:
2. To erect or place any new buoys or beacons, or alter or remove any existing buoys or beacons:
3. To take and purchase any land which may be necessary for the above purposes, or for the maintenance of the works or the residence of the light keepers:
4. To vary the character of any lighthouse or the mode of exhibiting lights therein:
5. To sell any land belonging to it:

But the exercise of the above power shall, in the case of the said commissioners and corporation, be subject to the restrictions hereinafter contained. (Sec. 404.)

Clause 405 directs that the powers given by the foregoing clause shall, in the case of the commissioners and corporation, be subject to approval by the Trinity House, with appeal to the Board of Trade.

Clauses 406 to 409 relate to proceedings between the commissioners &c. and the Board of Trade.

Her Majesty may by Order in Council fix Dues to be taken for New Lighthouses.—Upon the completion of any new lighthouse, buoy, or beacon, her Majesty may, by order in council, fix such dues in respect thereof, to be paid by the master or owner of every ship which passes the same or derives benefit therefrom, as her Majesty may deem reasonable, and may from time to time alter the amount thereof; and such dues shall be paid and collected in the same manner, by the same means, and subject to the same conditions in, by, and subject to which the light dues authorised to be levied by this Act are paid and collected. (Sec. 410.)

No Dues to be levied in the Channel Islands without Consent of the States.—No dues for any lighthouse, buoy, or beacon to be erected or placed in or near the islands of Guernsey, Jersey, Sark, or Alderney, shall be taken in the said islands of Guernsey or Jersey without the consent of the states of the said islands respectively: nor shall any powers hereinbefore given to the Trinity House in respect of any lighthouse, buoy, or beacon erected or placed in the islands of Guernsey or Jersey, or hereafter to be erected or placed in such islands, be exercised without the consent of her Majesty in council. (Sec. 411.)

Incorporation of 8 & 9 Vict. cc. 18 & 19.—The Lands Clauses Consolidation Act, 1845, and the Lands Clauses Consolidation Act (Scotland), 1845, shall be incorporated in this Act, and shall apply to all lighthouses to be constructed and all land to be purchased under the powers thereof. (Sec. 412.)

Clause 413 relates to the surrender of local lighthouses to general lighthouse authorities.

Penalty for injuring Lights, Buoys, and Beacons.—If any person wilfully or negligently commits any of the following offences; that is to say—

1. Injures any lighthouse or the lights exhibited therein, or any buoy or beacon:
2. Removes, alters, or destroys any light ship, buoy, or beacon:
3. Rides by, makes fast to, or runs foul of any light ship or buoy:

He shall, in addition to the expenses of making good any damage so occasioned, incur a penalty not exceeding 50*l.* (Sec. 414.)

Lighthouse Authorities may prohibit false Lights.—Whenever any fire or light is burnt or exhibited at such place or in such manner as to be liable to be mistaken for a light proceeding from a lighthouse, it shall be lawful for the general lighthouse authority within whose jurisdiction such place is situate, to serve a notice upon the owner of the place where the fire or light is burnt or exhibited, or on the person having the charge of such fire or light, either personally or by delivery at the place of abode of such owner or person, or by affixing the same in some conspicuous spot near to such fire or light, and by such notice to direct such owner or person, within a reasonable time to be therein specified, to take effectual means for the extinguishing or effectually screening such existing light, and for preventing for the future any similar fire or light; and any owner or person disobeying such notice shall be deemed guilty of a common nuisance, and in addition to any other penalties or liabilities of any kind thereby incurred, shall incur a penalty not exceeding 100*l.* (Sec. 415.)

If not obeyed, they may abate such Lights.—If any owner or person served with such notice as aforesaid, neglects for a period of 7 days to extinguish or effectually screen the fire or light therein mentioned, it shall be lawful for the general lighthouse authority within whose jurisdiction the same may be, by their servants or workmen, to enter upon the place whereon the same may be, and forthwith to extinguish such fire or light, doing no unnecessary damage and

all expenses incurred by such authority in such extinction may be recovered from such person or owner as aforesaid in the same way as penalties are hereby directed to be recoverable. (Sec. 416.)

The next part of the Act, that which refers to the MERCANTILE MARINE FUND, is so much mixed up with the law as to lighthouses, that it may be appropriately introduced in this place.

Sums to be carried to Mercantile Marine Fund. The following sums shall be carried to a common fund, to be entitled the 'Mercantile Marine Fund,' viz.:—

1. All fees and other sums (other than fines and forfeitures) received by the Board of Trade under the provisions of the third and fourth parts of this Act:

2. All light dues or other sums received by or accruing to the Trinity House, the Commissioners of Northern Lighthouses, and the Port of Dublin Corporation:

3. All rates and moneys received by the Trinity House under the local Act of the 7 Vict. c. 57, for the regulation of lastage and ballastage in the River Thames:

4. All fees and other sums mentioned in the table annexed hereto, which are received by receivers appointed under this Act, viz.:—

Fees and Remuneration of Receivers.—For every examination on oath instituted by a receiver with respect to any ship or boat which may be or may have been in distress, a fee not exceeding	£.	s.	d.
	1	0	0

But so that in no case shall a larger fee than 2*l.* be charged for examinations taken in respect of the same ship and the same occurrence, whatever may be the number or the deponents.

For every report required to be sent by the receiver to the Secretary of the Committee for managing the affairs of Lloyd's in London, the sum of			
	0	10	0

For wreck taken by the receiver into his custody, a percentage of 5 per cent. upon the value thereof,

But so that in no case shall the whole amount of percentage so payable exceed 20*l.*

In cases where any services are rendered by a receiver, in respect of any ship or boat in distress, not being wreck, or in respect of the cargo or other articles belonging thereto, the following fees instead of a percentage, viz.:—

If such ship or boat with her cargo equals or exceeds in value 600*l.*, the sum of 2*l.* for the first, and the sum of 1*l.* for every subsequent day during which the receiver is employed on such service, but if such ship or boat with her cargo is less in value than 600*l.*, one moiety of the above-mentioned sum.

And an account of the said fund, intituled 'The Mercantile Marine Fund Account,' shall be kept with her Majesty's Paymaster-General. (Sec. 417.)

Application of Mercantile Marine Fund.—Subject to any prior charges that may be subsisting thereon by virtue of any Act or Acts of Parliament or otherwise, the said fund shall be chargeable with the following expenses, viz.:—

1. The salaries and other expenses connected with the local marine boards, the examinations, and the shipping offices, provided for by the third part of this Act:

2. The salaries of surveyors, and other expenses connected with the survey of passenger steam ships provided for by the fourth part of this Act:

3. All expenses incurred by the general lighthouse authorities aforesaid in the works and services of lighthouses, buoys, and beacons provided for by this Act, or in the execution of any works necessary or expedient for the purpose of permanently reducing the expense of such works and services:

4. All expenses incurred by the Trinity House in respect of lastage and ballastage in the river Thames:

5. Such expenses for establishing and maintaining on the coasts of the United Kingdom proper life-boats, with the necessary crews and equipments, and for affording assistance towards the preservation of life and property in cases of shipwreck and distress at sea, and for rewarding the preservation of life in such cases, as the Board of Trade directs:

6. Any expenses incurred in carrying into effect the provisions with regard to receivers and the performance of their duties contained in this Act:

7. Any expenses which by this or any other Act of Parliament are specially charged thereon: And shall, save as hereinafter mentioned, be applicable to no other purpose whatever. (Sec. 418.)

Clause 419 relates to ballast and ballastage rates. [BALLAST.]

Establishments for Lighthouses and Ballastage charged on Fund to be fixed by her Majesty in Council.—Her Majesty may from time to time, with the advice of her Privy Council, fix the establishments to be maintained by each of the said general lighthouse authorities on account of the services of lighthouses, buoys, and beacons, and also as regards the Trinity House, on account of the service of lastage and ballastage in the river Thames (since by the Thames Conservancy Act, 27 & 28 Vict. c. 113, vested in the Thames Commissioners), or the annual or other sums to be paid out of the said fund, in respect of such establishments; and if it appear that any part of the establishments of the said lighthouse authorities is maintained for the purposes of such duties and also for other purposes, to fix and from time to time alter the portion of the expense of such establishments to be paid out of the said fund; and no increase of any establishment or part of an establishment so fixed shall be made without the consent of the Board of Trade. (Sec. 420.)

Clause 421 gives power to the general lighthouse authorities to grant superannuation allowances.

Clause 422 directs that estimates of all expenses to be incurred by lighthouse authorities shall be prepared and laid before the Board of Trade.

No Expense to be allowed unless sanctioned by the Board of Trade.—No expense of any of the said general lighthouse authorities in respect of the said services shall be paid out of the Mercantile Marine Fund, or allowed in account, other than the sums so allowed for establishment expenses as aforesaid, or included in estimates or accounts approved by the Board of Trade. (Sec. 423.)

For the Purpose of erecting and repairing Lighthouses &c., Treasury may advance Money.—For the purpose of the construction and repair of lighthouses, and of other extraordinary expenses connected with the said services, the Treasury may from time to time, upon the application of the Board of Trade, advance out of the produce of the consolidated fund of the United Kingdom such sums of money, upon such terms, and at such rate of interest as they think fit, and to pay the same

into the Mercantile Marine Fund account, so, nevertheless, that the whole sum for the time being due in respect of such advances shall never at any one time exceed 200,000*l.*; and upon any advance so made, the sum advanced and the interest shall be a charge on the Mercantile Marine Fund, and upon the dues, rates, fees, and payments carried thereto as aforesaid; and the Board of Trade shall make such provision for the repayment thereof out of the said fund, either by forming a sinking fund or otherwise, as the Treasury may require; provided that no such advance shall prevent any lawful reduction of any of the said dues, rates, fees, or payments, if such reduction be assented to by the Treasury. (Sec. 424.)

Clause 425 gives power to the Board of Trade to borrow money on the credit of the fund.

Clause 426 gives power to public works loan commissioners to advance money for such purposes on the credit of the fund.

Lighthouse Authorities to account for Receipt and Expenditure to the Board of Trade.—Each of the said general lighthouse authorities shall account to the Board of Trade for their receipts from the said light dues and ballastage rates, and for their expenditure as regards expenses paid out of the said fund, in such form, and at such times, and with such details, explanations, and vouchers as the Board of Trade requires, and shall, when required by such Board, permit all books of accounts kept by or under their respective direction to be inspected and examined by such persons as the said Board appoints for that purpose. (Sec. 427.)

Clause 428 directs that the accounts of the Mercantile Marine Fund be audited by commissioners of audit.

Clause 429 directs that the accounts of the fund be laid before Parliament.

Clause 430 directs that all property used for the purposes of lighthouses, buoys, beacons, light dues &c., is to be exempt from all rates and taxes.

The following provisions relative to lighthouses are contained in the Merchant Shipping Acts Amendment Act before referred to, 25 & 26 Vict. c. 63.

It is to be the duty of each of the general lighthouse authorities, or such persons as may be authorised, to inspect all lights, buoys, and beacons, though they may belong to local authorities, and the local authorities are bound to give all requisite information. The inspecting authority is to communicate the results of its inspection to the local authority.

Light dues are payable from the owner or masters, or such consignee or agents as have paid or made themselves liable to pay any other charge.

Consignees or agents may detain the amount of dues paid by them, together with reasonable expenses, out of moneys in their hands received on account of the ship.

Local authorities may, by order in council, claim dues for local lighthouses, buoys, and beacons.

Proceeds of such local dues to be applied shortly to the construction, placing, maintenance, and improvement of the lighthouses, buoys, and beacons.

The local authority must keep an account of receipt and expenditure, and forward a copy to the Board of Trade.

The Queen in council may reduce, alter, or increase dues for local authorities &c.

Fees on account of Lighthouses.—A wish to keep the charges on native ships as low as possible, and to insure them a preference, seems to have given rise to the practice that long existed, of exacting comparatively high duties from the foreign shipping entering our ports. But whatever may have been the motives for making this distinction, its policy seems more than questionable. It is quite right that the foreign ships coming to our shores for commercial purposes should be made to pay, as they now do, the *same* light and harbour duties as British vessels; but the imposition of comparatively high duties on them was decidedly injurious, inasmuch as it provoked retaliatory measures on the part of other states, obstructed the resort of foreigners to our markets, and, consequently, checked the growth of commerce.

This system was very properly condemned in a report by a committee of the House of Commons in 1822. There are, in the evidence annexed to that report, some well-authenticated instances of foreign ships having been totally lost, from the disinclination of the captains to enter a British port, while it was in their power, on account of the heavy charges to which they would have been exposed for lights &c. Down indeed to 1835, all ships, whether native or foreign, coming into any British port by *stress of weather*, were charged with full light duties; but this inhospitable regulation was repealed by an order in council of February 7 of that year (issued at the recommendation of the Trinity House), which exempted such vessels on account of lights. Our whole policy as to light duties, port charges &c., has within these few years been materially improved, and is now the very reverse of illiberal. The discriminating duties on foreign ships have been abolished: but even previously, in consequence of the general establishment of reciprocity treaties, the distinction had become nominal rather than real, and affected very few of the ships using our seas.

Large deductions, too, have been at different times made from the light duties; and after being still further augmented, these deductions were fixed by an order in council of February 2, 1859, at 50 per cent. on vessels making oversea, and at 35 per cent. on those making coasting, voyages; and again by order in council, which came into operation on April 1, 1868, the abatement of 50 per cent. from the tolls, was made uniform on coasting and oversea vessels, whether British or foreign: so that all invidious distinctions are now at an end. [NAVIGATION LAW.] It is indeed quite essential to their utility, that these duties should be moderate. They have the same influence upon the intercourse carried on by sea, that tolls have upon that carried on by land; and it is needless to add, that oppressive tolls are amongst the most effectual of all the engines by which rapacious ignorance has contrived to injure a country. There is nothing new in this statement: 'Avara manus portus claudit; et cum digitos contrahit, navium simul vela concludit; meritò enim illa mercatores cuncti refugiunt quæ sibi dispendia esse cognoscunt.' (Cassiodorus, *Varia.* lib. vii.)

Charges on account of Collection &c.—The lighthouse revenue, though formerly believed to be much greater than was necessary for keeping the establishment in a state of perfect efficiency, now just meets the expenditure, and the abatement allowed is so regulated as to secure the fund against a surplus. The surplus revenue was formerly, in so far at least as depended on the Trinity House, very judiciously expended in maintaining decayed seamen, and other useful purposes. But considering the vast importance of low shipping

charges, such persons should have been provided for in some less onerous way, and this view having been approved, no new pensions are now granted, and the old incumbents are fast dying out. Instead of reducing the charges generally on all lights, it has been proposed to make some of the more important lights duty free, as by this means the expense of collection would be saved, and business materially facilitated. This, however, would in effect impose a proportionally heavy charge on the ships belonging to the less frequented ports; so that, on the whole, the general reduction of the rates, or their abolition, would seem to be the better plan.

Lighthouses erected by Private Parties.—Private individuals erecting lighthouses have generally obtained a lease of the same from the Crown for a definite number of years, with authority to charge certain fees on shipping. Owing to the great increase of navigation, some of these lighthouses

I.—*Account of the Lighthouses and Floating Lights under the Management of the Corporation of the Trinity House of Deptford Strond, the Commissioners of Northern Lighthouses, and the Commissioners of Irish Lights, specifying the Rates of Toll charged on British and Foreign Ships passing such Lights; with the gross Amount of Duties collected on Account of such Lights during* 1866.

Lights &c.		Overseas	Coasting	
		Rate per Ton, 16ths of 1d.	Rate per Ton, 16ths of 1d.	
		British and Foreign Vessels	Per Ton	Per Vessel
East Coast. Shetland to Thames Entrance.				
North Unst	1 lighthouse	16	2	..
Whalsay	,,	16	2	..
Hressay Sound	,,	..	1	..
Sumburgh Head	,,	8	1	..
North Ronaldshay	,,	8	1	..
Start Point	,,	8	1	..
Auskerry	,,	8	1	..
Pentland Skerries	2 lighthouses	8	1	..
Noss Head	1 lighthouse	8	1	..
Tarbetness	,,	8	1	..
Covesea Skerries	,,	8	1	..
Kinnaird's Head	,,	8	1	..
Buchanness	,,	8	1	..
Girdleness	a double light	8	1	..
Bell Rock	1 lighthouse	16	2	..
Isle of May	,,	8	1	..
St. Abb's Head	,,	8	1	..
Fern	3 lighthouses	4	1	..
Coquet	1 lighthouse	..	4 or 1	..
Tinmouth	,,	2	1	..
Whitby	2 lighthouses	3	1	..
Flamboro'	1 lighthouse	4	1	..
Spurn Shore	2 lighthouses	8	1	..
Spurn Floating	1 floating light	..	1	..
Outer Dowsing	,,	3	1	..
Dudgeon	,,	4	1	..
Foulness	1 lighthouse	4	1	..
Haisboro' Sand (N. end)	1 floating light	4	1	..
Winterton and Orford	3 lighthouses	8	3	..
Haisboro' and Newarp	2 lighthouses 1 floating light	4	2	..
Cockle Gatt	1 floating light	2	1	..
St. Nicholas Gatt	,,	2	1	..
St. Nicholas Gatt Buoys		2	2	..
Lowestoft	3 lighthouses 1 floating light	4	2	..
N. E. Shipwash	,,	2	1	..
Harwich	2 lighthouses	4	1	..
Cork	1 floating light	2	1	..
Sunk and Galloper	2 floating lights and buoys	8	2	..
Kentish Knock	1 floating light	4	1	..
English Channel.				
Forelands	3 lighthouses	4	2	..
Goodwins & Gull Stream	2 floating lights	8	..	6
South Sand Head	1 floating light	4	1	..
Varne	,,	2	..	6
Dungeness	1 lighthouse	4	1	..
Beachy Head	,,	4	..	6
Owers	1 floating light	8	..	6
Needles	1 lighthouse 2 lighthouses at Hurst 1 lt. ho. at St. Katherine's Pt.	8	..	6
Shambles	1 floating light	1	..	6
Portland	2 lighthouses	4	..	6
Casquets	3 lighthouses	4	..	6
Hanois	1 lighthouse	4	..	..
Start	,,	4	..	6
Eddystone & Breakwater	2 lighthouses	4	..	6
Lizard	,,	4	..	6
Wolf Rock	1 lighthouse (building)			
Longships	1 lighthouse	8	1	..
Scilly	,,	4	..	6
Bishop Rock	,,	4	1	..
Seven Stones	1 floating light	8	1	..
Atlantic, Bristol, and St. George's Channels, Irish Sea etc.				
Godrevy	1 lighthouse	2 or 1	1	..
Trevose	,,	4	1	..
Lundy	1 lighthouse	4	1	..
Helwicks	1 floating light	2	1	..
Scarweather	,,	4	1	..
Nash	2 lighthouses	4	1	..
Breaksea	1 floating light	4	1	..
Flatholm	1 lighthouse	4	1	or 6
Bristol Channel	buoys, beacons, 1 floating light, and 1 lighthouse	4 or 2	2 or 4	..
Milford	2 lighthouses	4	..	6
Smalls	1 lighthouse	16	1	..
Hook Tower	,,	3	1	..
Coningbeg	1 floating light	3	1	..
South Bishop	1 lighthouse	..	1	..
Tuskar Rock	,,	3	1	..
Lucifer	1 floating light	3	1	..
Cardigan Bay	,,	3	1	..
Blackwater Bank	,,	3	1	..
Bardsey	1 lighthouse	4	1	..
Arklow Bank S.	1 floating light	3	1	..
Arklow Bank N.	,,	3	1	..
Wicklow, Lower	1 lighthouse	3	1	..
Codling Bank	1 floating light	3	1	..
Kish Bank	,,	3	1	..
Howth Bailey	1 lighthouse	3	1	..
South Stack	,,	4	1	..
Skerries	,,	16	1	..
Rock-a-Hill	,,	8	1	..
Calf of Man (I. of Man)	2 lighthouses	8	1	..
Carlingford	1 lighthouse	3	1	..
St. John's Point	,,	3	1	..
South Rock	,,	3	1	..
Douglas Head (I. of Man)	,,	8	1	..
Point of Ayre (I. of Man)	,,	8	..	..
Little Ross	,,	8	..	..
Mull of Galloway	,,	8	1	..
Copeland Island	,,	3	1	..
Maiden Rocks, South	,,	3	1	..
Maiden Rocks, North	,,	3	1	..
Cornewall	,,	8	1	..
Sanda	,,	8	1	..
Pladda	2 lighthouses	8	1	..
Mull of Kintyre	1 lighthouse	8	1	..
Rathlin Island	,,	3	1	..
Innishtrahul	,,	3	1	..
Rhinns of Islay	,,	8	1	..
Skerryvore	,,	16	2	..
Ardnamurchan	,,	8	1	..
Barrahead	,,	8	1	..
Dhuheish	,,	8	1	..
Island Glas	,,	8	1	..
Stornoway	,,	8	1	..
Butt of Lewis	,,	8	1	..
Cape Wrath	,,	8	1	..
Hoxburn Head	,,	8	1	..
Dunnethead	,,	8	1	..
Chanonry Head	,,	8	1	..
Hoy Sound	2 lighthouses	8	1	..
South and West Coast of Ireland.				
Mizenhead	1 lighthouse	3	1	..
Ballycotton	,,	3	1	..
Cork	,,	3	1	..
Old Head, Kinsale	,,	3	1	..
Fastnet Rock	,,	3	1	..
Calf Rock	,,	3	1	..
Skellings Rock, Lower	,,	3	1	..
Skellings Rock, Upper	,,	3	1	..
Tearaght Island	,, (lifd.)			
Loop Head	,,	3	1	..
Rock Island (Arran)	,,	3	1	..
Slyne Head, South	,,	3	1	..
Slyne Head, North	,,	3	1	..
Clare Island	,,	3	1	..

Account of the Lighthouses and Floating Lights &c.—continued.

Lights &c.		Overseas	Coasting	
		Rate per Ton, 16ths of 1d.	Rate per Ton, 10ths of 1d.	
		British and Foreign Vessels	Per Ton	
S. & W. Coast of Ireland—*cont.*				
Black Rock	1 lighthouse	3	1	..
Eagle Island, South	,,	3	1	..
Eagle Island, North	,,	3	1	..
Rathlin O'Birne	,,	3	1	..
Arranmore	,,	3	1	..
Tory Island	,,	3	1	..
Fannet Point	,,	3	1	..
Lights, the duties for which are payable only for special voyages.				
Bressay Sound	1 lighthouse	8	..	..
Inchkeith	,,	8	1	..
Coquet	,,	8	..	..
Bjorn Floating	1 floating light	4	..	..
Heligoland	1 lighthouse	16	..	..
Leman and Ower	1 floating light	8	..	..
Gunfleet	1 lighthouse	2	1	..
Swin Middle	1 floating light	2	1	..
Maplin	1 lighthouse	2	1	..
Mouse	1 floating light	2	1	..
Duties for special voyages—cont.				
Tongue	1 floating light	2	1	..
Girdler	,,	2	1	..
Bishop Rock	1 lighthouse	..	..	6
Morecambe Bay	1 floating light	4	1	..
Bahama Bank	,,	2	1	..
Point of Ayres (I. of Man)	1 lighthouse	..	1	..
Little Ross	,,	..	1	..
Macarthur's Head	,,	8	1	..
Skervuile	,,	16	2	..
Sound of Islay, North (Rhu Vaai)	,,	8	1	..
Phladda	,,	8	1	..
Lismore	,,	8	1	..
Corran	,,	8	1	..
Sound of Mull	,,	8	1	..
Isle Oronsay	,,	8	1	..
Kyleakin	,,	8	1	..
Rona	,,	8	1	..
Monach	,,	16	2	..
Gibraltar	,,	..	..	1s.

Gross amount collected in 1866, including that for the Local Lights belonging to the three Boards, 286,104*l.* 15*s.* 8*d.*

Abatement.—Until her Majesty, with the advice of her Privy Council, may see fit otherwise to determine, there shall be allowed to every Person paying such Tolls (being those specified in the foregoing Tables) an Abatement or Discount upon the amount payable by him; which Abatement or Discount shall, in the case of every Overseas or Coasting Vessel, be 50 per cent.

In proof of the effect of Trade on Lighthouse Revenue it may be mentioned that when the Trinity House were authorised to buy up all private interests in Lights, they had to pay in 1811 about 450,000*l.* for the 'Skerries' off the Anglesea Coast, a light which half a century earlier had been of little money value, but for which the patentees had the right to levy a toll on nearly all the Liverpool trade, and realised at last so large an annual income, that a jury awarded them in compensation the above enormous amount.

became very valuable properties. The most valuable were—

The Skerries, on a small islet or rock to the north-west of the Island of Anglesey, was granted to the ancestor of its late proprietor, to be *for ever* holden by him, his heirs and assignees, by the Act 5 Geo. II. c. 36, which also gave the proprietor power to charge certain rates on all vessels passing the light. Previously to its purchase by the Trinity House, this light produced a nett revenue of about 20,000*l.* a year.

Harwich Lights were held by General Rebow, under lease from the Crown, for 22 years from January 5, 1827, paying the Crown $\frac{3}{8}$ of nett duty collected.

Dungeness Light was held under lease from the Crown by the Earl of Leicester for 20 years from Midsummer, 1829. Nett produce of the duties equally divided between the Crown and the lessee. The duties were reduced at the renewal of the lease from 1*d.* to $\frac{1}{2}$*d.* per ton, and it was provided, that at its termination the lighthouses and buildings connected therewith, and the ground on which they are erected, should become the property of the Crown.

Wintertonness and Orfordness Lights were held by Lord Braybrooke under a lease from the Crown, which would have expired on June 1, 1849. Nett produce of the duties equally divided between the Crown and his lordship. The duties were reduced at the last renewal of the lease in 1828, from 1*d.* to $\frac{1}{2}$*d.* per ton. At the expiration of the lease, the lighthouses, grounds &c. were to become the property of the Crown.

Hunstanton Cliff Light was held by S. Lane, Esq., under a lease from the Crown, which would have expired in 1859. From October 16, 1837, $\frac{1}{16}$ of the nett produce would have gone to the Crown; and the lighthouses &c. would have become, at the expiration of the lease, the property of the Crown, as in the case of the Dungeness and Winterton lights.

Abatement.—Until her Majesty, with the advice of her Privy Council, may see fit otherwise to determine, there shall be allowed to every person paying such tolls (being those specified in the foregoing tables) an abatement or discount upon the amount payable by him; which abatement or discount shall, in the case of every Oversea vessel, be 50 per cent.; and on every Coasting vessel 35 per cent.

The Scotch or Northern Lights are under the management of a body of parliamentary commissioners. By 6 & 7 Wm. IV. c. 79 s. 40, and subsequent Acts, ending with the 25 & 26 Vict. cap. 68, all vessels, British or foreign, not wholly in ballast, which shall pass any Scotch lighthouse, or derive any benefit therefrom, shall pay at the rates specified in the prefixed and annexed tables, Nos. I. & II.

Irish Lights.—The various Acts regulating these lights range from 50 Geo. III. c. 95 to the 25 & 26 Vict. c. 63. They are under the management of the Commissioners of Irish Lights, formerly called the Dublin Ballast Board, or Port of Dublin Corporation. The rates of charges will be found in the prefixed and annexed tables.

Compensation to Private Parties.—The authority acquired by certain individuals and public bodies under letters patent, Acts of Parliament, and otherwise, of levying certain duties on account of lights, beacons, pilotage, harbour dues, &c. entitled them, for the most part, to demand higher fees from foreign than from British shipping. When, therefore, we entered into reciprocity treaties with foreign Powers, Government had to compensate the parties in question for the diminution that consequently took place in their charges on foreign ships. But this payment has now ceased, the Trinity Corporation having long since relinquished their claim to compensation; and the Act 6 & 7 Wm. IV. c. 79 having forbid such compensation being made to them, to the Commissioners of Northern Lights, and to the Commissioners for managing the Irish Lights.—(For some account of the Trinity Corporation, the reader is referred to the article Trinity House; see also Beacons, Ballast, Docks, Pilotage, and other charges on Shipping, Ships &c.)

Note.—This list (No. II.) must be referred to in all instances where local dues have been stated in the main body of the tables, and it must be observed that where several ports have been classed together on account of the general lights being identical (as for example, Newport, Bristol, Chepstow, Gloucester), the locals peculiar to each port have all been stated. It does not follow from this, that both the Usk and Burnham are due at Newport, or that either of them are due at Chepstow, but only that they must be referred to at this place, in order that whichever of these locals may be found chargeable by the understated conditions may be added to the general rates.

II.—*Statement of Duties payable on account of Local Lights in Great Britain.*

Lights &c	Overseas — British and Foreign Vessels	Coasting — British and Foreign Vessels
Cromarty. 1 lighthouse. On all vessels arriving at or departing from any port or place in the Firth of Cromarty, within the Sutors of Cromarty, of and under 50 tons	6d. per vessel	6d. per vessel
And for every additional 50 tons or part of 50 tons	6d. ,,	6d. ,,
Charonny. 1 lighthouse. On all vessels which shall pass or derive benefit from the said light, of and under 50 tons	6d. ,,	6d. ,,
And for every additional 50 tons or part of 50 tons	6d. ,,	6d. ,,
Carr Rock beacon, and Isle of May leading light. On all vessels for each time of crossing a line drawn from Buttonness to Fifeness; and on all vessels—to or from the northward—for each time of crossing a line drawn from Fifeness to Whitberryness, under 100 tons	4d. ,,	2d. ,,
Of 100 and under 200 tons	6d. ,,	4d. ,,
Of 200 tons and upwards	8d. ,,	6d. ,,
But vessels may cross both of these lines on the same voyage for one payment.		
Loch Ryan. 1 lighthouse. On all vessels arriving at or departing from any port or place within Loch Ryan, of and under 50 tons	6d. ,,	6d. ,,
And for every additional 50 tons or part of 50 tons	6d. ,,	6d. ,,
Devaar. 1 lighthouse. On all vessels arriving at or departing from any port or place in the Bay of Campbeltown, of and under 50 tons	6d. ,,	6d. ,,
And for every additional 50 tons or part of 50 tons	6d. ,,	6d. ,,
There shall also be paid for the said lights in Loch Ryan and on Devaar, by every vessel of and under 50 tons that shall pass into or out of the great basin of the Clyde (which shall be considered to be bounded on the S.E. by a line drawn from Corsewall to Glenarm in Ireland, on the N.W. by another line drawn from the Mull of Kintyre to Fairhead in Ireland, and on the N. by a third line from Kintyre to the Heads of Air) a toll—being 3d. for each light—of	6d. ,,	6d. ,,
And for every additional 50 tons or part of 50 tons	6d. ,,	6d. ,,
But vessels liable to the first toll for either of these lights are not chargeable with this in addition.		
Tees Buoys. On all vessels *passing* the buoys to or from the ports of Newcastle, Shields, Sunderland, Hartlepool, Stockton, Middlesbro', or Whitby, under 10 tons, for each time of passing	4d. ,,	4d. ,,
Of 10 tons and upwards, for each time of passing	6d. ,,	6d. ,,
Lynn Well. Floating light. On all vessels trading to or from the ports of Lynn or Wisbeach, or to or from the port of Boston, if navigated to the southward of the Longsand, also on all vessels entering or departing from Lynn Deeps southward of the Longsand	1d. per ton	8-16thsd. per ton
Hunstanton. 1 lighthouse. On all vessels passing to or from the ports of Lynn, Wisbeach, or Wells; or to or from the port of Boston southward	4d. per 20 tons, or 1d. per 5 tons	4d. per 20 tons, or 1d. per 5 tons
Woodbridge Buoys. On all vessels *entering* the port of Woodbridge under 50 tons	1s. per vessel	1s. per vessel
Of 50 and under 100 tons	2s. ,,	2s. ,,
100 tons and upwards	3s. ,,	3s. ,,
Trinity dues. Buoyage and Beaconage. On all vessels *entering* the port of London. (On coasting vessels, the duty is levied on those conveying goods or passengers from any port beyond Leigh or Faversham)	1d. per ton	8-16thsd. per ton
Wholly laden with coals	—	4-16thsd. ,,
On all vessels *entering* the ports of Sheerness, Rochester, Faversham Leigh, Maldon, Colchester, Harwich, Ipswich, Woodbridge, or Aldborough	8-16thsd. per ton	4-16thsd. ,,
Nore. Floating light. On all vessels *passing* the light *on their upward passage only*, under 100 tons	1s. per vessel	1s. per vessel
Of 100 and under 200 tons	2s. ,,	2s. ,,
200 ,, 300 ,,	3s. ,,	3s. ,,
300 ,, 400 ,,	4s. ,,	4s. ,,
400 ,, 500 ,,	5s. ,,	5s. ,,
500 tons and upwards	6s. ,,	6s. ,,
Thames River. Sea Reach lights. On all vessels, *on their upward passage only*, passing by or through Sea Reach, of 50 and under 100 tons	6d. ,,	6d. ,,
Of 100 and under 200 tons	1s. ,,	1s. ,,
200 ,, 300 ,,	1s. 6d. ,,	1s. 6d. ,,
300 ,, 400 ,,	2s. ,,	2s. ,,
400 ,, 500 ,,	2s. 6d. ,,	2s. 6d. ,,
500 tons and upwards	3s. ,,	3s. ,,
Calshot Spit. Floating light. On all vessels entering or departing from Southampton Water	8-16thsd. per ton	2-16thsd. per ton
Exeter Buoys. On all vessels navigating to or from the River Exe, per voyage	8-16thsd. ,,	2-16thsd. ,,
St. Anthony's Point. 1 lighthouse. On all vessels trading to or from the ports of Falmouth, Truro, or Gweek	8-16thsd. ,,	4-16thsd. ,,
On all vessels entering the said ports, for other purpose than that of trading, for each time of passing the light	4-16thsd. ,,	4-16thsd. ,,
Bideford Bar. 2 lighthouses. On all vessels entering the harbours of Bideford or Barnstaple, or any place within the bar	1d. 8-16thsd.	8-16thsd. ,,
Caldy. 1 lighthouse. On all vessels entering into, or going out of any port or place between Worms Head and St. Gowan's Head	8-16thsd. ,,	8-16thsd. ,,
Carmarthen Buoys. On all vessels entering or departing from the port of Carmarthen, or any place within the bar	12-16thsd. ,,	12-16thsd. ,,
Usk. 1 lighthouse. On all vessels trading to or from the port of Newport, or any place within the mouth of the river Usk	4-16thsd. ,,	4-16thsd. ,,
Burnham. 2 lighthouses. On all vessels *entering* Bridgwater River	3s. per vessel	3s. per vessel
On all vessels entering or departing from the port of Bristol, under 100 tons	3s. ,,	1s. or 6d. per vessel
Of 100 and under 250 tons	5s. ,,	
250 tons and upwards	7s. 6d. ,,	
Aberdovey Buoys. On all vessels crossing the bar at the entrance of the river Dovey	1d. per ton	8-16thsd. per ton
Conway Buoys. On all vessels entering or departing from the port of Conway	12-16thsd. per ton	12-16thsd. ,,
Menai. 1 lighthouse. On all vessels passing through the Straits of Menai, or entering or departing therefrom at the N.E. entrance thereof, or entering or departing from Beaumaris Bay, or any port, harbour, roadstead, creek, or place, between the N.E. entrance of the said Straits and Black Point on the west side, and Great Ormes Head on the east side, for each time of passing or crossing the said lighthouse or light in any direction	8-16thsd. ,,	8-16thsd. ,,
On all vessels from or to the ports of Liverpool or Chester, or any port, harbour, roadstead, creek, or place, between Liverpool and Great Ormes Head, and navigating to or from the westward between the Isle of Anglesea and the Isle of Man, for each time of passing or crossing the said lighthouse or light, in any direction	6d. per vessel	6d. per vessel
On all such vessels, so navigating, which, though not destined to any such port or place, shall enter into, or depart from Beaumaris Bay, for each time of passing or crossing the said lighthouse or light, in any direction, the like sum of	6d. ,,	6d. ,,
Air. 1 lighthouse and Dee buoys. On all vessels passing over Chester Bar, or between the S.W. part of Hoyle Sands and the mainland on the coast of Wales	2d. per ton	8-16thsd. per ton
St. Bees. 1 lighthouse. On all vessels passing to or from the ports of Whitehaven, Parton, Workington, or Maryport, per annum	2d. ,,	2d.

III.—*Duties for the Irish Local Lights, Payable only on Entering or Departing from the Places which are set against their Names.*

Lights	Places	Owners: British and Foreign Vessels	Coasting: British and Foreign Vessels	Lights	Places	Owners: British and Foreign Vessels	Coasting: British and Foreign Vessels
		per ton d. 16ths	per ton d. 16ths			per ton d. 16ths	per ton d. 16ths
Crookhaven	Crookhaven	3	1	Killybegs	Killybegs, Donegal, Ballyshannon	3	1
Charlesfort	Kinsale	3	1				
Cork Spit Bank	Cork, Queenstown	3	1	Oyster Island, 2 lights	Sligo	3	1
Youghal	Youghal	3	1	Black Rock	Sligo	3	1
Dungarvan	Dungarvan	3	1	Broadhaven	Broadhaven	3	1
Duncannon Fort	Waterford, Ross	3	1	Black Sod Point	Broadhaven Bay	3	1
Duncannon, North	Waterford, Ross	3	1	Inishgort Island	Westport, Newport	3	1
Kingstown, 2 lights (one only charged)	Kingstown Harbour	3	1	Mutton Island	Galway	3	1
Poolbeg (no charge)	Dublin.			Misheer Islands	Galway Bay	3	1
Howth Pier (no charge)				Beeves Rock	Limerick, Clare	3	1
Baltriggan	Baltriggan	3	1	Tarbert Rock	Limerick, Clare	3	1
Drogheda, 3 lights	Drogheda	9	3	Kilcadraan	Limerick, Clare, Kilrush	3	1
Dundalk	Dundalk	3	1	Samphire Island	Tralee	3	1
Greenore Point	Newry, Carlingford	3	1	Dunmore (no charge)			
Ardglass	Ardglass	3	1	Valentia Island	Valentia Harbour	3	1
Donaghadee (no charge)							
Larne Lough	Larne	3	1				
Innishowen Head, 2 lights	Londonderry	6	2	Berehaven	Berehaven, Bantry	3	1
Rotten Island	Killybegs	3	1				

IV.—*Account of the British and Irish Lighthouses and Floating Lights, from the Official Statement published by the Admiralty, corrected to* 1868.

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing, Fix., & Fl., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any Peculiarity of Lighthouse	Height in feet, Centre of Lantern above High Water	Height in feet of Building from Base to Vane	Year lighted
Scilly Isles:		° ′ ″	° ′ ″								
Bishop Rock	On Rock, S. Westernmost of Group	49 52 23	6 26 40	1	F.	..	16	Granite	110	147	1858
St. Agnes	Summit of Island	49 53 53	6 20 36	1	Rev.	Every minute	17	White	138	74	1680
Seven Stones	Light Vessel, in 40 fathoms, E. side of Rocks	50 3 37	6 4 37	2	F.	..	10	Red; carries a Ball at each mast Head	F. 20 M. 38	..	1841
Longships	On highest Rock, off Land's End	50 3 58	5 44 45	1	F.	..	14	White	85	51	1795
Penzance	S. Pier Head, outer part. E. extension	50 7 0	5 31 0	1	F.	..	9	White	33	22	1817
Wolf	On Rock	49 56 43	5 48 27	1	..	..	..	Granite	110	145	..
Lizard	On Cliff	49 57 59	5 12 6	2	F.	..	21	Octagonal White	E. 229 W. 252	61 each	1751
Falmouth	St. Anthony Point	50 5 0	5 1 0	2	Rev. F.	Every 20 seconds	13	Octagonal, Granite, White	72 55	62	1835
	Prince of Wales Breakwater 240 yds. beyond low water	..	..	1	F.	..	..	..	..	..	1860
Eddystone	On Rock	50 10 49	4 15 53	1	F.	..	13	Granite; Red and white in alternate horizontal bands	72	89	1703
Plymouth	On W. end of Breakwater	50 20 2	4 9 27	2	F.	..	9	Stone	63 48	76	1844
	Mill Bay, end of Pier	..	..	1	F.	..	..	..	..	..	..
	W. Barbican Pier Head	50 22 0	4 7 0	1	F.	..	6	..	29	20	1822
Start Point	140 yds. inside of S.E. Extreme of Point	50 13 18	3 38 28	1	Rev.	Every minute	20	Granite White	204	92	1836
Dartmouth	Kingswear or North side of Harbour	50 20 20	3 33 10	1	F.	..	11	Hexagonal Tower	85	36	1864
	110 ft. in advance	..	..	1	F.	..	..	On a flagstaff	70	..	..
	S. part of town near Coastguard station	..	..	1	F.	..	..	..	..	..	..
Torbay:											
Brixham	Pier Head, 600 or 700 ft. from land	50 24 0	3 30 0	1	F.	..	6	On an Iron Stand	20	..	1839
Torquay	Pier Head	50 27 30	3 31 0	1	F.	..	6	On an Iron Stand	15	..	1851
Teignmouth	S.W. end of Denn	50 32 35	3 29 36	2	F.	..	6	Limestone Tower, the other shifting on a house	34 each	37	1845
Lyme Regis	Inner Pier Head and Custom House	50 43 30	2 55 52	2	F.	..	5 each	Iron Stand. Lamp on Pier. Lamp on Custom House	12 21	.. ..	1853 ..
Portland	Near the Bill	50 31 22	2 26 49	2	F.	..	21	White	210	50	1716
		50 31 18	2 27 18				18	White	156	85	1789
	On Breakwater at extremity of Stage	Upper Light ..	..	1	F.	..	9	..	30	..	1851
	Shambles Shoal Light Vessel, in 15 fath., East End	..	..	1	F.	..	10	Red, carries a ball	38	..	1859
Weymouth	North Pier. East of Railway Station	..	..	2	F.	..	..	..	30	..	1867
				2					30	..	1867
Casquets	Eastern Lighthouse	49 43 17	2 22 42	3	Rev.	Every 20 seconds	15	White	113 each	One 15, the others 6a	1723

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing, Fix. & Fl., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any Peculiarity of Lighthouse	Height in feet, Centre of Lantern above High Water	Height in feet of Building from Base to Vane	Year lighted
		° ′ ″	° ′ ″								
Alderney	Braye Harbour, one on Old Pier, the other on N.E. corner of Reading room	49 43 30	2 12 6	2	F.	..	5 to 9	..	55 25	..	1859
Guernsey	St. Peter Port Old Harbour, Pier Head S. side of entrance, Inner Harbour	..	..	1	F.	..	3	Timber. White	34	21	1832
	St. Peter Port New Harbour, S. side of entrance, extremity of Castle Corner Breakwater	49 27 15	2 31 51	1	F.	..	9	Granite. Circular. Dark	46	40	1867
	S.W. rock of Hanoveaux, or Hanoveaux Rocks, W. end of Guernsey	49 26 2	2 42 10	1	Rev.	Every 45 seconds	12	Circular. Gray granite	100	117	1862
	Vermeet Breakwater, Outer end, St. Catherine's Bay	49 15 16	2 0 32	1	F.	..	10 to 12	Octagonal, Iron, White	60	30	1857
	Gouray Pier Head			1	F.	..	..	..	55 31	.. ..	857 1858
Jersey	St. Helier; on Victoria or New South Pier	49 10 29	2 .. 45	1	F.	..	6	..	15	..	1839
	St. Helier; Albert or North Pier, just within Pier Head	..	..	1	F.	..	3	Iron Lamp-post	23 58	..	1867
	One on Western angle of Albert Pier. The other within on the Esplanade Parapet	..	..	2	F.	..	3	Iron Lamp-post	46	..	1858
	Upper Pier Road	..	..	1	F.	..	3	Lamp-post, 640 yards E.N.E. of Victoria Pier Hack.	39 26	..	1865
Minquiers	Light Vessel. S.W. part of Plateau	48 53 38	2 17 29	2	F.	..	8 or 10	Two Masts, with a Ball at each Mast-head	57 16	..	1848
Poole	North side of Entrance	50 41 0	1 56 0	2	F.	..	6	Lamp-posts	80	109	1859
Needles Channel; Isle of Wight	Outer Needle Rock	50 39 42	1 35 27	1	E.	..	White 14, Red 9	Granite	76	87	1812
Hurst	Lantern within the Fortifications	50 42 26	1 32 56	2	F.	..	13 10	High, Conical, Red.	46	52	1733
Yarmouth	Outer Light near Castle Wall, West side on outer part of Quay. Inner one in the corner of a house	..	..	2	F.	..	..	Lamp post	12	..	1857
Calshot	Light Vessel, in 3½ fathoms, off Calshot Castle	50 48 0	1 16 0	1	Rev.	Every minute	9	Red; carries a Ball	31	..	1843
Southampton	Royal Pier	50 54 0	1 24 0	2	F.	..	..	Iron Posts	..	..	1841
Ryde	On Pier	..	..	1	F.	..	6 or 7	Lamp-post	21	..	1839
Stokes Bay	On Pier	..	..	2	F.	..	..	Lamp-posts	..	..	1865
Southsea	In Castle	50 47 0	1 5 0	1	F.	..	9	..	51	..	1827
Brading Haven	On Fort	..	..	1	F.	..	..	Small tower	38	..	1866
Nomans Land	On Fort	..	..	1	F.	..	..	..	58	..	1866
Horse Sand	On Fort	..	..	1	F.	..	..	..	34	..	1866
Spit Sand	On Fort	..	..	1	F.	..	..	Small tower	34	..	1866
Clarence Esplanade	On Pier	..	..	3	F.	..	..	Lamp-posts	..	..	1865
Victoria		..	..	2	F.	..	..	Lamp-post	..	..	1865
Outer Town, Cumber		..	..	1	F.	..	..	..	..	..	1865
King's Stairs		..	..	1	F.	..	..	..	..	..	1865
Clarence Victualling Yard	On Pier	..	..	1	F.	..	..	Lamp-post	..	..	1865
Gosport	Foot of High Street near Town Hall	..	..	1	Rev.	Every minute	9	Red; carries a Ball	38	..	1854
Warner	Light Vessel, in 13 fathoms, on eastern part of Shoal	50 43 50	1 4 0	2	F.	..	8 6	Red; carries a Ball at each Mast Head	M. 78; F. 58	..	1812
Nab	Light Vessel, in 5½ fathoms, off Point near Nab Rock	50 42 15	0 59 20	1	F.	..	19	Stone	178	122	1840
St. Catherine, Isle of Wight	On Point	50 34 30	1 17 47	1	F.	..	10	Red; carries a Ball	38	..	1785
Owers	Light Vessel, in 19 fathoms, S.E. end of 2 boats	50 38 50	0 40 0	1	F.	..	7	White. Dome Green	50	40	1849
Littlehampton	N. end of E. Pier	50 48 0	0 32 0	1	F.	..	..	..	..	..	1862
Worthing	On Pier	50 48 30	0 23 0	1	F.	..	10	White Granstone	42	58	1825
Shoreham	Opposite entrance of Harbour	50 50 0	0 15 0	1	F.	..	10	..	23 35	5 22	1890
Brighton	Chain Pier Head	50 49 0	0 8 0	1	F.	..	..	..	..	..	..

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude E.	Number of Lights	Fixed, Flashing, Fix. & Fl., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any peculiarity of Light-house	Height in feet, Centre of Lantern above High Water	Height in feet of building from base to vane	Year lighted
Newhaven	West Pier	° ′ ″ 50 47 0	° ′ ″ 0 5 25	2	F.	..	10	Wooden	30	33	1864
	Eastern Pier	..	..	1	F.	..	3	Stone colour, Wooden Octagon	18	..	1862
Beachy Head	Beletout Cliff	50 44 15	0 12 58	1	Rev.	Every 2 minutes: 15 seconds bright, 1 minute 45 seconds dark	23	White	285	47	1828
Eastbourne	..	50 45 0	0 17 0	1	F.	..	2	A small hand lantern	10	..	..
Hastings	Upper Light on the W. Hill above Town; Lower on Beach	50 52 0	0 36 0	2	F.	..	12 5	Octagonal-White	180 50	91 Lower 25	.
Rye	Cambert. N. side of Entrance	50 57 0	0 44 0	2	F.	..	5	White	47 24	24 18	..
	East side, 36 fathems from Old Pier Head, shows end of Pier, and at the extremity	..	..	2	F.	..	2 to 3 2	On a Mast. White	12 15	28	1860
	Extremity of Groin. W. entrance to harbour	..	..	1	F.	..	2 to 3	On a Mast Black	10	30	1864
Dungeness	Extreme Point, 237 yards from H. W.	50 54 47	0 58 18	1	F.	.	15	Red and white horizontal bands	92	107	1792
Varne Shoal	Light Vessel, in 16 fathoms, near W. end	50 56 18	1 16 20	1	Rev.	Every 20 seconds	10	Red; a Ball at Mast Head	38	..	1860
Folkestone	S. Pier Head	51 4 0	1 11 55	2	F.	..	6 each	White	37 33	31	1848
	Extremity of new Pier	..	..	1	F.	..	6	Iron Skeleton	31	28	1860
		..	..	1	F.	..	2	..	..	..	1849
Dover	Outer extremity of Admiralty Pier	..	..	1	F.	..	12	White	40	32	1850
	S. Pier	51 7 0	1 19 0	2	F.	..	..				
	N. Pier	..	..	1	F.	..	3	..	12	..	1848
	Near Clock Tower	..	..	1	F.	..	..	..	..	..	1852
South Foreland	On Head	51 8 23	1 22 22	2	F.	..	26 23	High: square, White. Low: Octagonal; both castellated	372 275	69 49	1793
Deal	On the Iron Pier, 367 yds. from esplanade	..	..	1	F.	..	..	..	..	..	1865
Goodwin Sand: S. Sand Head	Light Vessel, in 13 fathoms, off S. end of Sand	51 9 55	1 28 10	1	F.	..	10	Red; carries a Ball	38	..	1832
Gull Stream	Light Vessel, in 8 fathoms, near W. edge of Sand	51 16 30	1 30 0	1	Rev.	Every 20 seconds	7	Red; carries a Ball at the Mast Head	36	..	1809
N. Sand Head	Light Vessel, in 9 fathoms, off N. end of Sand	51 19 23	1 35 27	3	F.	..	10	Red; carries a Ball at each Mast Head	F. 28 M. 42 Mz. 28	..	1793
Ramsgate	W. Pier Head	51 19 42	1 25 23	1	F.	..	7	Granite Circular	38	37	..
	E. Pier Head	..	..	1	Fl.	Every 5 seconds, and 5 dark	5	Iron pillar	25	12	1857
Thames River, and Mouth: North Foreland	On head	51 22 28	1 26 48	1	F.	..	19	White. Octagonal	188	85	1790
Margate	W. end of pier	51 24 0	1 23 0	1	F.	..	10	Stone column	85	70	1829
E. Tongue Sand	Light Vessel, in 10 fathems	51 29 0	1 19 0	2	F.	..	10 6	Red; carries a Ball	38 14	..	1848
Princes Channel	Light Vessel, in 3½ fathoms, N. side of Channel between Tongue and Girdler Lights	..	..	1	Rev.	Every 20 seconds	10	Red; carries a Ball	38	..	1856
W. Girdler Sand	Light Vessel in 19 ft.	51 29 0	1 7 10	1	Rev.	Every ½ minute	10	Red; carries a Ball	38	..	1848
Nore	Light Vessel, in 3½ fathoms, E. end of Sand	51 29 0	0 48 0	1	Rev.	Every ½ minute	10	Red; carries a Ball	38	..	1732
Sheerness	Left Demi Bastion	51 26 48	0 44 42	1	F.	..	5	..	26	..	1850
Sea Reach	Southend Pier Head	..	..	1	F.	..	..	..	..	..	1840
	Chapman Head	..	..	1	F.	..	11	Red; on Piles	40	73	1849
	Mucking Flat	..	..	1	F.	..	11	White, with black band under the Lantern; on Piles	40	53	1849
Hope Point	In fort on a flagstaff	..	..	1	F.	..	..	Lamp	..	..	1850
Northfleet	India Arms wharf	..	..	1	F.	..	..	Lantern	..	..	1859

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude E.	Number of Lights	Fixed, Flashing, Fix. & Fl., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any peculiarity of Light-house	Height in feet, Centre of Lantern above High Water	Height of building from base to vane	Year lighted
		° ′ ″	° ′ ″								
Mouse -	Light Vessel, in 4 fathoms, W. end of Sand	51 32 0	1 0 0	1	Rev.	A flash every 20 seconds	10	Red; carries a Ball	38	..	1858
Maplin -	S.E. part of Sand -	51 33 0	1 3 0	1	F.	..	10	Red; screw Piles	36	69	1838
Swin, Middle	Light Vessel, in 4 fathoms, W. end of Sand	51 39 0	1 7 0	1	Rev.	Every minute	10	Red; carries a Ball	38	..	1857
Gunfleet -	S.E. part of Sand	51 45 30	1 20 0	1	Rev.	Every 30 seconds	10	Red; on piles of six sides	41	72	1850
Sunk -	Light Vessel, in 9½ fathoms. Fairway of E. Swin	51 49 28	1 31 8	1	F.	..	10	Red; carries a Ball	37	..	1802
Kentish Knock -	Light Vessel, in 11 fathoms. E. Side of Sand	51 40 30	1 40 30	1	Rev.	Every minute	10	Red; carries 2 Balls vertical	37	..	1840
Galloper -	Light Vessel, in 20 fathoms. S.W. part of Shoal	51 45 0	1 56 0	2	F.	..	10	Red; carries a Ball at each mast head	36 each	..	1803
Harwich	On the shore abreast Dovercourt	..	..	2	F.	..	12	White; on piles	45	..	1865
	70 fathoms within Landguard Point	51 56 15	1 19 0	1	F.	..	9 5	27 West angle of keeper's dwelling.	10	..	1848 1861
Cork -	Light Vessel, in 4 fathoms. Near ledge	51 56 0	1 25 0	1	Rev.	Every 1 minute	10	White Red; carries a ball	38	..	1844
Shipwash -	Light Vessel, in 9½ fathoms. Off N.E. end of Sand	52 1 30	1 38 0	1	F.	..	10	Red; carries a ball	38	..	1837
Orfordness -	On Ness - -	52 5 0 High Light	1 31 30	2	F.	..	14 13	Red and White horizontal bands	91 60	99 72	1792
Kessingland or Pakefield Gat	Cliff N.E. side of Kessingland Fish-houses	52 24 50	1 43 50	1	F.	..	9	..	68	..	1857
Lowestoft -	Each Pier of Harbour	..	..	2	F.	..	..	..	..	..	1847
	High Light on Cliff -	52 29 14	1 45 24	2	F.	..	16	White	119	53	1609
	Lower on Ness -	High Light		2	F.	..	11	White, on piles	40	45	..
Corton Gatway	Abreast Hopton Gap	..	..	2	F.	..	..	White. Timber frame	87 33	52 18	1865
Corton -	Light Vessel, in 15 fathoms. Outside Corton Patch	52 31 15	1 50 10	1	Rev.	Every 20 seconds	10	Red; a half ball under usual Ball at the mast head	38	..	1862
Hewett Channel or St. Nicholas Gat	Light Vessel, in 10 fathoms. Inner end of Channel	52 31 15	1 46 50	2	F.	..	10 4	Red; carries a Ball	38 14	..	1837
Yarmouth -	S. Pier at Gorleston -	52 31 25	1 44 20	1	F.	..	2	White flood stream is running into haven	..	..	1852
Cockle -	Light Vessel, in 5 fathoms. N. entrance, E. side	52 41 50	1 47 0	1	Rev.	Every minute	10	Red; carries a Ball	36	..	1844
Winterton -	Near Ness - -	52 43 0	1 41 30	1	F.	..	14	..	110	69	1790
Newarp -	Light Vessel, in 17 fathoms. Near N. Cross Sand	52 45 0	1 53 0	3	F	..	10	Red; carries a Ball at each mast-head	Main 54; the others 34	..	1791
Hasborough -	S.S.E. of Hasborough Church	52 49 0	1 32 0	2	F.	..	17 15	White	137 109	93 74	1791 1832
Hasborough -	Light Vessel, in 15 fathoms. Near N. end of Sand	52 58 0	1 36 0	2	F.	..	10	Red; carries a Ball at each mast-head	38	..	1840
Leman and Ower	Light Vessel, in 16 fathoms. Between Leman and Ower Sands	53 3 45	2 1 0	2	High Rev. Low F.	Every minute	10	Red; carries a Ball at each mast-head	34 27	..	1819
Cromer -	Near Cliff - -	52 56 0	1 19 0	1	Rev.	Every minute	23	White. Octagonal White	274 109	59 63	1665
Hunstanton -	On Point - -	52 56 54	0 29 50	1	F.	..	16	Red; carries a Ball at the mast-head	35	..	1833
Lynn Well -	Light Vessel, in 17½ fathoms. Off Hook of Long Sand, Lynn Deeps	53 1 25	0 25 10	1	Rev.	Every 20 seconds	10	..	..	..	..
Lynn -	East side of entrance to Cut	..	..	2	F.	..	5	..	..	..	..
Boston -	Hob Hole - -	..	..	2	F.	..	3	..	..	..	..
Dudgeon -	Light Vessel, in 9 fathoms. One mile S.W. of shoalest part	53 15 0	0 56 0	1	F.	..	10	Red; carries a Ball	38	..	1736
Outer Dowsing	Light Vessel, in 9 fathoms. W. side of shoal	53 29 15	1 2 40	1	Rev.	Every 20 seconds	10	A half Ball over usual Ball at mast-head	35	..	1861
Humber river: Spurn -	Light Vessel, in 9 fathoms. Off Point	53 34 0	0 13 0	1	Rev.	Every minute	10	Red; carries a Ball	36	..	1930
Spurn*	On Point - -	53 34 44 High Light	0 7 10	2	F.	..	15 17	High, Red. Low, White	95 54	112 76	1776
Bull Sand	Light Vessel, in 5½ fathoms). S.E. end	53 34 0	0 5 0	1	F.	..	8	Red; carries a Ball	21	..	1851 1932

* May be suddenly discontinued by being undermined by the sea.

***British and Irish Lighthouses and Floating Lights*—continued.**

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing Fix. & Fl., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any peculiarity of Light-house	Height in feet, Centre of Lantern above High Water	Height in feet of building from base to vane	Year lighted
		° ′ ″	° ′ ″								
Grimsby	Pier Heads	..	..	2	F.	..	..	..	..	..	..
Stallingborough	At Ferry	53 37 0	0 10 0	1	F.	..	..	..	..	..	1849
Killingholm	S. Killingholm	53 39 0	0 12 0	3	F.	..	11	High Lighthouse and N. tower, Red S.E. tower	68 55 37	77 45 45	1836 1846 1852
Paull	Near S.W. end of village	53 43 0	0 13 0	1	F.	..	7	White Red	56	59	1815
Hebbles	Light Vessel, in 5 fathoms, S. side of Channel	53 44 0	0 16 0	1	F.	..	5	Red; carries a Ball	16	..	1850
Chalderness	N.W. end of Brick and Tile Works	..	..	1	F.	..	..	..	..	..	1865
Winteringham	Edge of marsh	..	..	½	F.	..	..	On white triangles. Lower moveable	..	..	1862
Brough	East side of Creek	..	..	2	F.	..	..	Spars and globes	..	..	..
Whitton	Light Vessel, S. shore	..	..	2	F.	..	..	Red; carries a Ball	..	..	1865
Whitton	Off Whitton Middle ¼ mile above ferry new pier	..	..	2	F.	..	..	On white triangles. Lower moveable	..	..	1862
Walker	Between Whitton Ferry and Walker Dyke Clough	..	..	1	F.	..	..	On a pile	..	..	1865
Paxfleet	Paxfleet Ness	..	..	1	F.	..	..	Box and Pole	..	..	1863
Bridlington	North Pier Head	54 5 12	0 11 42	1	F.	..	8	..	24	..	1852
Flamborough	On Head	54 7 0	0 5 0	1	Rev.	Every 2 minutes	21	White	214	87	1806
Scarborough	Vincent Pier	54 17 0	0 23 0	1	F.	..	13	White	58	56	1806
Whitby	West Pier Head	54 30 0	0 37 0	1	F.	..	10	Yellowish Stone	85	60	1831
	East Pier Head	..	..	1	F.	..	8	..	54	..	1835
	High Whitby near Lang Hill	54 28 40	0 34 10	2	F.	..	25	White	240 each	66 46	1858
Tees River and Bay; Bran Sand	West part of Sand	54 38 0	1 13 0	2	..	..	..	Wood. High Lighthouse striped Black and White *vertically*; Low Lighthouse Red and White *horizontally*	53 38	60 45	1839
Fifth Buoy	Stag Wall behind the 5th Buoy	54 37 36	1 10 30	1	F.	..	7	Red, on Piles	26	..	1866
Seal Sand	On sand, 1,200 yards N.W. of 5th Buoy Light	..	..	1	F.	..	..	Red and White. Horizontal	42	..	..
Seaton	High Light ¼ mile inland, and Low Light on shore near Seaton Carew	54 40 0	1 12 0	2	F.	..	13	Stone	89 34	70	1839
Hartlepool	North Pier Head, West Harbour	..	..	1	F.	..	..	..	26	..	1855
	Pier Head, Old Harbour	54 41 0	1 11 0	1	F.	..	7	Yellow	37	..	1836
	Heugh	54 41 51	1 10 19	2	P.	.	15 4	Yellow	84 62	75	1847
Seaham	South Pier Head	54 50 0	1 19 0	1	F.	..	8	..	..	..	1846
	Red Acre Point	..	..	2	High F. Low Rev.	Every ½ minute	14 11	Stone	94 49	55	1843 1847
Sunderland	North and South Pier Heads, also South outlet	54 55 1	1 20 0	3	F.	..	13 10 Red Light 6	Yellow	73 58	64 23	1802
Souter Point	On Point	54 58 10	1 21 30	1	..	..	..	..	..	..	..
Tynemouth	Castle Yard	55 1 0	1 25 0	1	Rev.	Every minute	18	Square, White	151	79	1802
	North Pier Works	..	..	3	F.	..	..	..	..	..	1864
	Middle of North Pier	..	..	1	F.	..	..	..	..	..	1865
Tyne or N. Shields	Front of Dockwray Square; lowest near Clifford Fort	55 0 30	1 26 0	2	F.	..	16 13	White	123 77	49 76	1898
Blyth	South end of Town	55 7 0	1 30 0	2	F.	..	11 7	White	43 26	41 35	1788
Coquet	S.W. part of Island	55 20 6	1 32 0	1	F.	..	14	Square White tower, with turreted parapet	83	73 40	1841
Warkworth	North end of South Pier	55 21 0	1 35 0	1	F.	..	1	..	..	..	1849
Farn Islands: Farn	Higher near S.W. Point of Island; Lower near its N.W. Point	55 37 0	1 39 0	2	High Rev. Low F.	Every ½ minute	15 12	White. L. Octagonal	87 45	43 27	1776 1810
Longstone	On Rock	55 39 0	1 37 0	1	Rev.	Every ½ minute	14	Red	75	85	1826
Berwick	Pier Head	55 46 0	1 59 0	2	F.	..	11 8	Stone. Red top	45 28	44	..
Eyemouth	Corner of a House, and West Pier Head	55 52 25	2 5 0	2	F.	..	10 9	..	..	..	1857

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing, Fix. & Fl., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any Peculiarity of Light-house	Height in feet, Centre of Lantern above High Water	Height in feet of building from base to vane	Year lighted
		° ′ ″	° ′ ″								
St. Abbs Head	On Head - -	55 55 0	2 8 0	1	Fl.	Flash every 10 seconds	20	White	221	29	1862
Dunbar	Old Harbour	56 0 0	2 30 40	1	F.	..	5	White	43	27	1857
	Victoria Harbour -	..	..	1	F.	..	..	..	..	..	..
Cockenzie	Eastern pier head -	..	..	1	F.	..	8	Lamp-post	15	..	..
Firth of Forth: Fisherrow	Pier head - -	55 56 55	3 4 0	1	F.	..	5	Lamp-post	20	..	1839
	E. Pier inner part, about 674 yards from extremity	55 59 0	3 10 0	1	F.	..	8	White	22	19	1758
Leith	East Pier head -	..	..	1	F.	..	8	Red	17	..	..
	Extremity W. Pier -	..	..	1	F.	..	10	..	28	19	1879
Newhaven	On Pier - -	55 59 0	3 11 0	1	F.	..	5	White	20	11	..
	On Main Pier head -	55 59 0	3 13 0	1	F.	..	6	Stone	33	40	1845
Granton	On outer Pier heads -	..	..	2	F.	..	..	..	..	..	..
Inchkeith	Summit of Island	56 2 0	3 8 0	1	Rev.	Every minute	20	Stone	240	56	1804
Grangemouth	Entrance of River Carron, end of S. embankment	..	..	1	F.	..	10	White Stone	34	30	1847
											1866
Charleston	End of outer Pier	..	..	1	F.	..	..	..	..	..	1896
Inverkeithing	W. Quay of Harbour	..	..	2	F.	..	..	..	19	..	1866
St. David	..	..	..	1	F.	..	5	White	26	25	1860
Burnt Island	Head E. Pier of Harbour	56 4 0	3 14 0	1	F.	..	..	Stone	15	9	1853
	Ferry Pier - -	..	..	1	F.	..	..	..	..	..	1867
	New Pier - -	..	..	1	F.	..	..	..	..	..	1854
Pettycur	On Pier - -	..	..	1	F.	..	5	Lamp-post	35	..	..
Kirkcaldy	E. Pier head -	56 7 0	3 9 0	1	F.	..	..	..	20	..	..
Dysart	..	..	..	1	F.	..	..	..	20	..	..
West Wemyss	Pier head - -	..	..	1	F.	..	..	..	..	..	..
Buckhaven	On Parapet, E. Pier ad	56 10 6	3 1 41	1	F.	..	9	Iron tower, White	17	9	1854
St. Monans or Monance	One on Pier head; the other on the side of a house	56 12 30	3 46 15	2	F.	..	6	Lamp-post	20	..	1855
Pittenweem	East Pier head -	56 13 0	2 43 30	1	F.	..	6	Red brick Lantern	25	7	1853
	S.W. angle of a disused saw mill	..	..	1	F.	..	6	on wall	72	..	1853
	W. Pier head. And Shore Street	56 13 16	2 41 53	2	F.	..	4	White lamp-post	18	..	1848
E. Anstruther	..	..	..	..	..	..	..	..	20	..	..
Cellardyke	On side of house on W. part of Harbour	56 14 0	2 40 0	1	F.	..	..	..	..	..	..
Isle of May	Summit of Isle, and N.E. side	56 11 9	2 33 22	2	F.	..	21	Stone	240	78	1816
Bell Rock	Near North end of Reef	56 26 3	2 23 6	1	Rev.	Every 2 minutes	15	White	110	56	1811
St. Andrews	Pier head - -	56 20 3	2 47 0	1	F.	..	15	White	93	117	1811
	Turret in Cathedral wall	..	..	1	F.	..	6	Black with white top	30	18	1875
Firth of Tay: Buddonness, or Tay	On Ness - -	56 28 0	2 45 0	2	F.	..	5	..	18	..	1849
Ferryton Craig	S. side of Ferry -	56 27 0	2 49 0	2	F.	..	15	White	103	104	1870
							12	White tower	61	65	
							10	White on piles	80	78	1820
Newport	On W. Ferry Pier -	56 26 0	2 37 0	2	F.	..	7	White	50	53	1845
							8		10	..	..
Dundee Harbour	Middle and E. Piers	56 28 0	2 58 0	2	F.	..	7	Green post	16	..	..
	Camperdown Dock -	..	..	2	F.	..	5	Grey tower	10	..	1837
								Yellow, blue tops	12	15	
								Grey stone	19	22	1865
Arbroath	S.W. elbow, outer Harbour	56 33 0	2 35 0	1	F.	..	8	..	24	..	1839
	West side of inner Harbour	..	..	2	F.	..	..	..	..	..	..
Scurdy Ness	On Ness - -	56 42 0	2 26 0	1	..	..	..	..	..	..	..
Montrose	N. side of entrance -	56 42 0	2 27 0	2	F.	..	10	White	60	65	1813
							11		55	39	1839
Stonehaven	Inner side of Harbour	56 58 0	2 12 0	2	F.	..	8	..	18	..	..
Girdleness	On Ness - -	57 8 15	2 5 2	2	F.	..	19	Stone	24	..	1833
							16		185	170	
	End of N. Pier head	57 8 20	2 5 55	1	F.	..	8	White tower	115	89	1868
Aberdeen	Terry, half a mile up Harbour on S. shore	..	..	2	F.	..	8	White	35	..	1842
									47		
									50		
Buchanness	On Ness - -	57 28 15	1 46 11	1	Fl.	Every 5 seconds	16	White	150	115	1827
							10	Stone	84	26	1824
Peterhead	S. Harbour, Elbow of W. Pier	57 30 0	1 46 0	1	F.	..	10	Stone	26	32	1849
	N. Harbour, W. Pier Head	..	..	1	F.	..	5	Two Pillars	36; inner one 18	29	1841
Fraserburgh	Pier Head and Middle Pier	57 41 30	2 0 0	2	F.	..	15	White	140	76	1787
Kinnaird Head	On Head - -	57 41 51	2 0 6	1	F.	..	6	Stone	65	..	1852
Macduff	N. Pier Head -	57 40 0	2 30 0	1	F.	..	8	Stone	28	14	1851
	N. Pier Head -	57 40 0	2 31 0	1	F.	..	..	Post	..	..	..
Banff	Upper part of new Harbour	57 40 5	2 31 6	2	F.	..	..	..	30	..	1858
	S. Pier Head -	..	..	1	F.	..	..	..	..	..	
Elgin and Lossiemouth											
Covesea Skerries	Craig Head -	57 43 15	3 20 20	1	Rev.	Every minute	18	Stone	100	118	1846
Chanonry	On Point - -	57 34 30	4 5 0	1	F.	..	11	Stone	40	49	1846
Cromarty	On Point at Town -	57 41 0	4 2 0	1	F.	..	9	Stone	60	48	1846

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing, Fix. & Fl., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in Clear Weather	Colour, or any peculiarity of Lighthouse	Height in feet. Centre of Lantern above High Water	Height in feet of building from base to vane	Year lighted
		° ′ ″	° ′ ″								
Tarbet Ness	On Point	57 51 54	3 46 30	1	Int.	Visible 2½ minutes, dark ½ minute	15 to 18	White	175	134	1830
Little Ferry	N. side of Entrance	57 56 0	4 0 0	2	F.	..	4	Common Lanterns	10	..	..
Latheron-wheel	S. Head	58 16 10	3 22 55	1	F.	..	3		14		
Wick or Pulteney town	N. Pier Head. End of new Breakwater	58 26 0	3 5 0	2	F.	..	8	White Stone Lantern	..	..	1872
Noss Head	On Head	58 28 38	3 3 5	1	Rev.	Every ½ minute	18	..	35	34	1851
Pentland Skerries	On Island	58 41 24	2 55 25	2	F.	..	18	Stone	175	68	1849
		High Light					16		170	118	1794
									140	88	
Dunnet Head	On Head	58 40 16	3 22 20	1	F.	..	23	Stone	346	66	1831
Holburn	On Little Head, W. side Thurso Bay	58 36 50	3 32 12	1	Fl.	Every 10 seconds	15	White	70	29	1862
Orkney Islands:											
Cantick	On Head, S.E. extremity of South Walls, Hoy I.	58 47 0	3 7 45	1	Rev.	Every minute	15	Brick White	115	73	1858
Hoy Sound	High Light stands on N.E. Point of Gremsa I., and Low Light on its N.W. Point	58 56 9	3 16 35	2	F.	..	15 11	Stone	115 55	103 38	1851
Kirkwall	Pier Head	58 59 10	2 57 30	1	F.	..	9	Stone	22	27	1854
Auskerry, Stromness Firth	On South part of Island	59 2 0	2 34 0	1	F.	..	16	White bricks	110	112	1867
Start Point, Ronaldsha Firth	On E. Point Sanday Island	59 16 39	2 22 25	1	F.	..	15	White	100	91	1806
North Ronaldsha	On N. Point of Orkneys	59 23 15	2 23 38	1	Fl.	Every 10 seconds	17	Brick	140	139	1854
Shetland Islands:											
Sumburgh Head	S.W. Point of Shetlands	59 51 0	1 16 0	1	F.	..	22	Stone	300	55	1821
Bressay	E. side of Entrance to Lerwick	60 6 10	1 7 30	1	Rev	Every minute	15	Brick White	100	53	1858
Whalsey Skerries	Bound Skerry	60 25 24	0 44 0	1	Rev.	Every minute	17	Brick White	145	98	1851
N. Unst	Muckle Flugga, N. part of Island	60 51 20	0 53 3	1	F.	..	21	White	250	64	1854
Cape Wrath	N.W. Point of Scotland	58 37 30	4 59 41	1	Rev.	Every 2 minutes	30	White	400	65	1828
Ru Stoer	North end of South Ear	58 14 10	5 23 0	1	..	..	..	..	..	..	..
South Rona	N.E. Point of Island	57 34 31	5 57 25	1	Fl.	Every 1½ seconds	20	White	222	42	1857
Kyle Akin, Loch Alsh	S.W. Point, Gillean Island, W. Entrance	57 16 39	5 44 28	1	F.	..	11	White	53	70	1857
Oronsay, or Ornsay, Hebrides, or Western Islands:	On Island, N.W. part of Sleat Sound	57 8 39	5 46 50	1	F.	..	12	White	58	63	1857
Butt of Lewis	N. Point of Hebrides	58 30 40	6 16 0	1	F.	..	18	White	170	120	1862
Stornoway	Light on Arnish Point and Beacon on Arnish Reef	58 11 28	6 22 10	1	Rev.	Every ½ minute	12	White	56	45	1852
Monach	Shillay Island off W. Coast of North Uist	57 31 34	7 41 38	2	Upper Fl. F.	Every 10 seconds	17 12	White	120 62	133	1864
Scalpa: Gilsa Island	E. Point Island	57 51 25	6 38 28	1	F.	..	16	White	130	100	1789
Usbenish	E. side. South Uist	57 17 55	7 11 51	1	F.	..	18	White	176	80	1857
Barra Head	Highest part of Bernera Island; South Point of Hebrides	56 47 8	7 39 9	1	Int.	Visible 2½ minutes dark ½ minute	32	Stone	680	60	1833
Skerryvore	On Rock, 12 miles W.S.W. from Tyree Island	56 19 22	7 6 32	1	Rev.	Every minute	17	Stone	150	158	1844
Dubhe Artach Rocks		56 8 0	6 38 30	..	..	..	..	..	..	..	..
Ardnamurchan	On Point	56 43 38	6 13 29	1	F.	..	18	Stone	180	118	1849
Sound of Mull	Runa Gal Rock, 50 yards seaward of high-water mark	56 38 0	6 4 0	1	F.	..	12	White	55	63	1857
Lismore	Muuille Island	56 27 19	5 36 22	1	F.	..	14	White	103	86	1833
Corran Point	Loch Eil	56 43 16	5 14 28	1	F.	..	10	White	38	42	1860
Oban	On Pier	56 25 0	5 31 0	2	F.	..	..	Lantern	..	..	1858
Philadda Island	N. end of Jura Sound	56 14 48	5 40 51	1	F.	..	11	White	42	42	1860
Crinan Canal	E. side	56 5 30	5 33 0	1	F.	..	4	Stone	25	..	1851
Iron Rock: Sgeirmeanile or Skervuile	On Rock, Sound of Jura	55 52 30	5 50 0	1	Rev.	Every minute	14	White	73	About 83	1865
Rhu Vaal	Rhuda Mhaol, N. Point of Islay Island	55 56 6	6 7 30	1	F.	..	15	White	147	113	1859
Macarthurs Head	S. end of Islay Sound	55 45 50	6 2 50	1	F.	..	17	White	123	42	1861
Rhynns of Islay	Orveray Island, off S.W. Point of Islay	55 40 20	6 30 46	1	Fl.	Every 5 seconds	17	White	150	96	1825

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing, Fix. & Fl., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any peculiarity of Lighthouse	Height in feet, Centre of Lantern above High Water	Height in feet of building from base to vane	Year lighted
		° ′ ″	° ′ ″								
Loch in Daul	Dune Point - -	55 40 15	6 29 10	1	F.	..	11	Square Tower	45	60	1853
Port Ellen -	Carraig Fadda Point, West entrance of Harbour	55 37 13	6 12 41	1	F.	..	11				
Mull of Kintyre, or Cantyre	S.W. Headland of Kintyre	55 18 39	5 43 0	1	F.	..	22	White	297	38	1787
Sanda -	Ship Rock - -	55 16 30	5 34 55	1	F.	..	17	Stone	165	44	1850
Davar -	N.E. part of Island -	55 25 45	5 32 10	1	Rev.	Every ½ minute	15	Stone, White	120	65	1854
Campbellton	Old Pier Head -	55 25 30	5 35 30	1	F.	..	2	A common Lantern	18	15	..
Ardrishaig	Pier Head - -	56 0 45	5 26 30	1	F.	..	4	Stone	25	19	1850
Pladda -	Island off S.E. Point of Arran Island	55 26 0	5 7 9	2	F.	..	17 14	Stone	150 77	95 43	1790
Clyde River: Cumbrae -	W. side of Little Cumbrae Island	55 45 16	4 58 6	1	F.	..	15	White	115	56	1757
Toward -	On Point - -	55 51 45	4 59 17	1	Rev.	Every 52 seconds	10	White	70	63	1812
Cloch -	On Point - -	55 56 35	4 52 30	1	F.	..	10	White	76	76	1797
Greenock	About a mile N.N.W. of Custom house	55 57 0	4 45 0	2	F.	..	8	Lamp Posts	40	30	1804
	Quay in front of Custom house	..	..	1	F.	..	4	Lamp on Iron Pillar Lamp	26	20	1829
Port Glasgow	W. Quay - -	55 56 15	4 41 0	1	F.	..	3	Black Stone	18	12	1801
Cardross -	Pillar Bank -	..	..	1	F.	..	4	with White Top	22	34	1849
Bowling Bay	E. entrance of Bowling Harbour or Firth of Clyde Canal	..	..	1	F.	..	2	Lantern on a Pillar. Brown	18	8	1849
	Donald's Quay, 200 ft. from end	..	..	1	F.	..	..	Lamp	26	16	1849
Broomielaw	..	..	..	1	F.	..	..	Iron Lamps	..	..	1814
Ardrossan -	Extreme end of Breakwater	55 38 27	4 49 28	1	F.	..	5	White	25	23	1840; rebuilt 1856
Saltcoats -	On arm of Pier -	55 37 52	4 47 21	1	F.	..	6	A spire	15	18	1840
Troon Harbour	Inner end of Pier; and at Pier Head	55 33 0	4 41 0	2	F.	Every minute; 40 seconds bright and 20 eclipsed	9 6	White	37 35	25 each	1827 1848
Ayr Harbour	N. Pier - -	55 28 17	4 38 26	3	F.	..	Tide 4, the others 16	White	24 37 56	8 62	1790 1826; improved 1866
Loch Ryan -	Cairn Ryan Point -	54 57 45	5 2 0	1	F.	..	10	White	46	50	1817
Cornewall -	On the Point, W. side entrance to Loch Ryan	55 0 29	5 0 28	1	Rev.	Every 2 minutes	15	White	112	110	1817
Port Patrick	Inner Lighthouse S.E. angle of Harbour 150 yards within outer Lighthouse, which is not lighted	54 50 20	5 7 2	1	F.	..	8	Stone. White	37	30	1790; re-lighted 1856
Mull of Galloway	S. Point - -	54 38 9	4 51 20	1	Int.	Two minutes and a half visible, and half minute eclipsed	23	Stone	325	86	1830
Little Ross -	On Island - -	54 46 0	4 5 0	1	Fl.	Every 5 seconds	18	White	175	85	1815
Annan River	Barnkirk, or Annan Foot	54 57 40	3 16 0	1	F.	..	..	..	..	..	1841
Skinburness, or Cott	Near Silloth -	54 52 30	3 23 0	1	F.	..	9	White. Wood	80	32	1841
Lee Scar -	On Rocks - -	54 52 0	3 25 0	1	F.	..	6	On Piles	25	45	1841
Solway -	Light Vessel, in 4½ fathoms, Robin Rigg Channel	54 48 0	3 32 0	1	F.	..	..	..	25	25	1841
Maryport	Extremity of South Wooden Pier	54 43 0	3 30 20	1	F.	..	6	White	19	17	1796
	Inner South Stone Pier	..	..	1	F.	..	12	White	52	35	1834
	Jetty, South side -	..	..	1	F.	..	3	Red	18	..	1857
	North Tongue -	..	..	1	F.	..	3	Green	8	..	1857
Workington -	Ends of John and Wooden Piers	54 39 0	3 38 0	2	F.	..	11	..	55	25	1845
Harrington -	Stone Pier Head -	54 37 0	3 34 0	1	F.	..	11	On an Iron Pedestal	44	36	1797
Whitehaven	West Pier Head -	54 33 0	3 36 0	1	Rev.	Every 2 minutes	19	White	52	47	1821
	North Pier Head -	..	..	1	F.	..	..	White	47	..	..
	Old Quay - -	..	..	1	F.	..	25	Square. White	556	55	1719
St. Bees -	On Head - -	54 30 50	3 38 0	1	Rev.	Every 1 minutes	15	White	106	99	1818
Point of Ayre	A quarter of a mile S.W. of Point	54 24 56	4 22 1	1	Rev.	Every 1 minutes	8	White	21	15	1811
Peel	E. side of Entrance -	54 13 0	4 42 0	1	F.	..	5 to 7	Argand	32	..	1865
	Extremity of Breakwater	..	..	1	F.	..	..	Lamps	575	70	1818
Calf of Man -	W. side Calf I. -	54 3 0	4 52 0	2	Rev.	Every 2 minutes	24 22 9	White	282	55	1818
St. Mary Port	Pier Head - -	54 4 0	4 44 0	1	F.	..	..	White	25	18	1813
Castletown Harbour	New Pier Head -	54 5 0	4 39 0	1	W.	..	8	Grey Stone	32	30	1793 1849

***British and Irish Lighthouses and Floating Lights*—continued.**

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing, Fix. & Fl., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any peculiarity of Light-house	Height in feet, Centre of Lantern above High Water	Height in Feet of Building from base to vane	Year lighted
		° ′ ″	° ′ ″								
Derby Haven	Fort Island entrance of Harbour	54 5 0	4 36 0	1	F.	..	6	White tower on Fort	50	45	1850
	S.W. end of Breakwater	..	..	1	F.	.	2	..	14	12	..
Douglas	On Head - -	54 9 0	4 28 0	1	F.	..	11	White	103	65	1832
	N. Pier Head -	54 10 0	4 28 0	1	F.	..	6	Buff, with Black Base	58	43	1796
Ramsey -	S. Pier Head -	54 20 0	4 23 0	1	F.	..	4 or 5	Dark Stone	28	27	1840
Bahama Bank	Light Vessel, in 11 fathoms, a mile off S.E. tail of Shoal	54 20 0	4 12 0	2	F.	..	10	Red; carries a R. ll at each mast-head	F. 29 M. 36	..	1848
Morecambe Bay: Walney -	S. Point Walney Island	54 2 56	3 10 32	2	One Rev. One F.	Every minute	13	Stone	70	60	1790
	Light Vessel in 12 fathoms	53 54 0	3 31 0	1	Rev.	A flash every 10 seconds	10	A Red globe at the mast-head	75	..	1863
Morecambe Bay	Poulton, N. end of stone Pier -	54 4 20	2 52 30	1	F.	..	8	Stone, White	48	30	1851
	Light Vessel, between Venman and Clark Wharf, splits in 24 feet	54 1 20	3 0 0	1	F.	..	5 3	Mast Occasior Beacon	30	..	1854
Lune River	Cockerham Promontory and Plover Scar Rock	53 59 0	2 53 0	2	F.	..	..	H. Wood. L. Stone	54 20	..	1847
Wyre River	N.E. elbow of N. Wharf Bank	53 57 14	3 1 46	1	F.	..	10	On Screw Piles. Red.	30	..	1840
Fleetwood -	High Light in Town; Low Light on Esplanade	53 55 36	3 1 0	2	F.	.	13 9	Upper, Stone colour, Red Lantern; Lower, Stone colour	90 30	..	1841
Ribble River	S.E. of Stanner Point, N. side of entrance	53 44 38	3 1 17	1	Int.	Every 4 minutes	12	Stone	81	..	1848
	Lytham - -	53 44 10	2 58 30	1	F.	..	..	White	..	..	..
Mersey and Dee Rivers, Entrance: Liverpool -	N.W. Light Ship, in 6½ fathoms W. extreme of 3 & 4 fathom Tongue	53 29 30	3 10 0	1	Rev.	Every minute	11	Black, with a broad White streak, with two Masts, carries a Black Ball, Foremast Head	58	..	1814
Formby -	Light Vessel, in 46 feet At elbow of Crosby and Queen's Channels	53 31 40	3 10 50	1	F.	..	8	Red; carries a Red Ball	30	..	1831
Crosby -	Light Vessel, in 48 feet. Crosby Channel N.E. elbow of Great Burbo Bank	53 30 40	3 6 57	1	F.	..	8	Red; carries a Red Ball	29	..	1840
Crosby -	Near Crosby Point -	53 31 25	3 3 27	1	F.	..	12	..	85	74	1856
Air -	On Point - -	53 22 0	3 19 24	1	F.	..	9	Red and White in horizontal bands	55	65	1776
Hoylake -	Near Church -	53 23 40	3 10 42	2	F.	..	13 11	White White	55 31	64 42	1763
Leasowe -	On shore, midway between Mersey and Dee Rivers	53 21 49	3 7 27	1	F.	..	15	White	94	110	1763
Bidston -	Bidston Hill -	53 24 0	3 4 27	1	F.	..	23	Stone	228	68	1771
Rock -	Point W. side of entrance of Mersey	53 26 45	3 2 27	1	Rev.	Every minute	14	White	61	94	1830
Liverpool -	Pier - -	..	..	1	F.	..	..	..	..	..	..
Birkenhead	New Ferry Pier -	..	..	1	F.	..	..	..	..	..	..
Runcorn	Bridgewater and Old Quay Docks	53 20 0	3 16 0	1	F.	..	..	..	..	..	1863
	Light vessel -	..	..	1	..	..	..	..	..	..	1866
Woodside Ferry	..	..	..	1	F.	..	..	..	..	..	1863
Great Orme Head	North Point, Steep Cliff	53 20 35	3 52 0	1	F.	..	24	Square castellated gray stone	325	..	1862
Menai -	Trwyn-Du Point -	53 18 51	4 2 21	1	F.	..	9	White	61	96	1837
Bonmaris -	Pier - -	53 15 45	4 5 23	1	F.	..	16	..	..	36	1855
Lynus -	On Point - -	53 25 0	4 17 16	1	Fl.	Ten seconds. Visible 8 seconds; obscured 2		White castellated	123		1835
Amlwch Port	N. Pier - -	53 25 0	4 20 0	1	F.	..	9	White	26	9	1817
Skerries	Highest Island -	53 25 18	4 36 24	1	F.	..	16	White	117	75	1714
	New Breakwater -	..	..	1	F.	..	4	On a Mast	40	..	1850
	End of Western Jetty, Old Harbour	..	..	1	F.	..	..	..	20	..	1858
Holyhead	Old Pier-Head -	53 20 0	4 37 0	1	F.	..	11	Stone	44	37	1820
	Inner Harbour, Port side	..	..	1	F.	..	..	..	10	..	1866
	Inner Harbour, Starboard side	..	..	1	F.	..	..	..	16	..	1866

British and Irish Lighthouses and Floating Lights—continued

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing, Fix. & Fls., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any peculiarity of Lighthouse	Height in feet, Centre of Lantern above High Water	Height in feet of building from base to vane	Year lighted
		° ′ ″	° ′ ″								
Stack	South Stack Rock, off N.W. point of Holyhead Island	53 18 0	4 42 0	1	Rev.	Every 2 minutes	20	White	201	84	1809
Caernarvon	On Llanddwyn Island	53 8 0	4 24 40	1	F.	..	5	..	50	..	1845
	On Pier Head	..	..	1	F.	..	..	..	..	..	1858
Bardsey	On Island	52 45 0	4 48 0	1	F.	..	17	Square White Tower	129	99	1821
Aberystwith Cardigan Bay	Entrance of Harbour	52 25 0	4 5 0	2	F.	..	..	..	..	..	1864
	Light Vessel, In 26 fathoms	52 22 30	4 58 0	1	Rev.	Every 30 seconds	9	Red, carries a Ball at the Mast head	About 25	..	1860
South Bishop	On Rock	51 51 0	5 25 0	1	Rev.	Every 20 seconds	16	White	144	36	1839
Smalls	On Rock	51 43 20	5 40 5	1	F.	..	15	Granite, Red and White horizontal Bands	115	141	1778
Bristol Channel:—											
St. Ann's	On Point, Milford Haven	51 41 0	5 19 25	2	F.	..	20 16	White. L. Octagonal	192 159	75 59	1714
Milford Haven	Dockyard	..	..	2	F.	..	3	..	..	46 23	1861
Caldy	On Island, South part	51 37 58	4 40 57	1	F.	..	20	White	214	57	1819
Penby	Pier Head	..	..	1	F.	..	3	..	14	..	1836
Saundersfoot	South Pier Head	51 43 0	4 42 0	1	F.	..	..	..	15	..	..
Pembrey Harbour Burry Port	Entrance of Burry River	51 41 0	4 15 0	1	F.	..	9	White, Black top	55	18	..
Llanelly	South end of Break water	51 40 0	4 10 25	1	F.	..	7	..	36	50	1850
	Whiteford Point	..	..	1	F.	..	7	On piles	30	..	1851
Helwick	Light Vessel in 16½ fathoms, W. end of Sand	51 51 0	4 24 0	1	Rev.	Every minute	10	Red; carries a Ball	38	..	1846
Mumbles	On Island	51 34 3	3 58 10	1	F.	..	15 to 18	White	114	56	1798
	S.W. Pier Head	51 37 0	3 56 0	1	F.	..	5 to 7	White, Red top	24	20	1803
Swansea	S. Dock Entrance	..	..	2	F.	..	..	Lamp Post	..	..	1859
	N. Dock Entrance	..	..	2	F.	..	..	Lamp Post	..	..	1860
	New Cut Bridge	..	..	1	F.	..	..	Lamp Post	..	..	..
Scarweather	Light Vessel in 15 fathoms, Western Edge	51 26 53	3 55 21	1	Rev.	Red face 3 times in a minute	10	A half globe over the usual globe	58	..	1862
Porthcawl Harbour	S.E. end of new outer breakwater	..	..	1	F.	..	11	..	34	..	1856
	N.W. end of breakwater	..	..	2	F.	15 feet apart	..	..	37 44	..	1866
Nash	On Point	51 24 0 High light	3 33 0	2	F.	..	19 17	White	162 136	111 60	1852
Cardiff	Near Docks	51 27 48	3 9 42	2	F.	..	..	..	..	..	1858
Usk, Newport	W. side of entrance of River	51 32 0	3 0 0	2	F.	..	11	White	47	57	1821
									92	..	1853
Breaksea	Light Vessel in 8 fathoms, near W. end	51 19 45	3 17 42	2	Rev. F.	Flash every 15 seconds	..	On a pedestal abaft	58 14	..	1866
English and Welsh Grounds	Light Vessel in 5 fathoms, South side of Channel	51 26 30	2 58 0	1	Rev.	Every minute	10	Red; carries a Ball	38	..	1858
Avon	East side of Entrance	51 30 0	2 42 0	1	F.	..	13	Octagonal, White	73	85	1840
New Passage Piers	Charstone Rock	..	..	1	F.	..	..	..	..	..	..
Flatholm	On Island, S. Point	51 22 36	3 7 0	1	F.	..	18	White	156	99	1737
Bridgewater or Burnham	East side of Entrance of River Parret	51 15 0	3 0 0	2	Upper Int. Lower F.	Visible 3½ minutes, then suddenly eclipsed ½ a minute	15 9	Upper White, Lower Square, with Black streak vertically	91 23	99 36	1832
Watchet Harbour	End of Breakwater	..	..	1	F.	..	4	Rectangular White top, Red middle, with Black base	30	11	1862
Ilfracombe	Lantern Hill, North side of Harbour	51 13 0	4 7 0	1	F.	..	10	White	127	29	..
Bideford	Braunton Sands, N. side of River	51 4 0	4 12 0	2	F.	..	14 11	H. Octagonal, White	93 44	88 15	1820
Lundy	Ridge of Island	51 10 7	4 40 15	2	Upper Rev. Lower F.	Every 2 minutes	31	White	540 470	96	1820
Hartland Point	On Point	51 1 21	4 31 30	1	..	..	..	..	..	..	..
Trevose Head	N.W. part	50 32 55	5 2 3	2	F.	..	20 17	White	204 199	87	1847
Godrevy	On Island	50 14 0	5 24 0	1	Fl.	A Flash every 10 seconds	15	Octagonal, Stone	120	86	1859 1862
Hayle	Lelant sand hills or Towans	50 11 30	5 26 0	2	F.	..	6	Wood, Triangular-fwd. Square-Black	80 69	15 11	1840
St. Ives	Pier Head, 36 ft. from the end	50 12 0	5 28 0	1	F.	..	7	..	23	25	1831

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing, Fix. & Fl., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any Peculiarity of Light-house	Height in feet, Centre of Lantern above High Water	Height in feet of Building from Base to Vane	Year lighted
		° ′ ″	° ′ ″								
Fastnet	Summit of Rock	51 23 18	9 36 45	1	Rev.	Every 2 minutes	18	Circular, in the middle a broad horizontal red belt	148	92	1854
	S. point of Old Head	51 36 11	8 31 58	1	F.	..	21	White, with 2 red belts	235	100	1683
Kinsale	Fort Charles, East side of Harbour	51 41 48	8 29 30	1	F.	..	11	White	98	48	1804
	Roche Point, East side of Entrance	51 47 33	8 15 14	2	Rev. F.	Every minute	10 5	White	98 60	49	1817
	East Elbow of Spit Bank, off Queenstown, in 9 ft.	51 50 41	8 16 26	1	F.	..	5	White, on Screw piles, upper part Grey, piles Red	32	..	1848 1853
Cork Harbour or Queenstown	Lough Mahon, off Meelough Bank 100 ft. from Channel	51 55 0	8 19 14	1	F.	..	2	White, on piles	24	..	1859
	Donkathel, North side Channel	51 54 0	8 20 14	1	F.	..	2	White, on piles	24	..	..
	Black Rock Castle	51 54 0	8 20 24	1	F.	..	5	Lamp	74	..	1865
	King's Quay, on Navigation Wall	51 53 25	8 21 6	1	F.	..	1	Lamp	..	..	..
	Tivoli	51 54 0	8 21 50	1	F.	..	1	Lamp	..	..	..
Ballycot	Outer Island	51 44 30	7 59 0	1	Fl.	A Flash every 10 seconds	15	Circular, Red projecting Gallery and up to bottom of Lantern Nosh	195	80	1850
Youghal	W. side of Entrance	51 56 54	7 50 24	1	F.	..	6	Circular, Stone Colour	78	..	1852
Minehead	S. side of Head	51 30 33	7 55 8	1	Int.	Every minute	21	..	285	68	1850
Dungarvan	Ballinacourty Point N. Entrance	52 4 27	7 33 5	1	F.	..	20	Circular	52	44	1858
	Hook Tower, E. side of Entrance	52 7 25	6 55 53	1	F.	..	16	White, with 3 horizontal Red Belts, Lantern Red	152	115	1791
Waterford	Dunmore, Pier Head W. side of Entrance	52 9 0	6 59 30	1	F.	..	5	White	44	31	1825
	In Duncannon Fort E. side of Channel	52 13 15	6 56 0	2	F.	..	10	White	53	25	1774
	Duncannon N., ¼ a mile NNE. ½ E. of fort	..	..	1	F.	..	16	White	128	55	1858
	Spit off Passage Point	..	..	1	F.	..	..	On piles	..	..	1867
Saltees	Light Vessel in 32 fathoms, off Coningbeg Rock, southernmost of Saltee Islands	52 7 25	6 40 0	2	F.	..	10 8	Carries 2 Balls	M. 38 F. 28	..	1824
Tuskar	On Rock	52 12 9	6 12 21	1	Rev.	Every 2 minutes	15	Circular, White	101	110	1815
Lucifer shoals	Light Vessel near the Shoals	52 21 25	6 9 30	1	F.	..	..	Hull Black, with White stripe, 3 Masts with globe at Main mast head	..	..	1868
Blackwater bank	Light Vessel in 19 fathoms, N.E. part, 3 miles E. ½ S. of Black Buoy	52 30 10	6 5 0	1	F.	..	9	Hull Black, with White stripe, and 3 Masts, 2 globes at Main mast head	53	..	1857
	Light Vessel in 25 fathoms, 2 miles from S. end of Bank	52 40 45	5 57 10	1	Rev.	Every minute	10	Hull Black, with White stripe. ½ globe over a globe at Main mast head, with 3 Masts	on Main mast 39	..	1824
Arklow	Light Vessel, in 18 fathoms, from N. end of Bank, S.E. by E. ½ E. 3¼ miles	52 53 0	5 50 20	2	F.	..	..	Hull Black, with White stripes. 3 masts, with a globe on the Fore and Main mast	38 22	..	1867
Wicklow	On the Head	52 57 30	6 0 5	1	Int.	10 seconds bright, and 3 dark	16	White	121	46	1816
Codlinghank	Light Vessel in 8 fathoms, 3¼ miles S.E. by S. from S. end of Bank	53 4 40	5 45 40	1	Rev.	Every 20 seconds	9	Hull Black, with White stripes. 3 Masts, with a globe and a ½ globe at Main mast head	39	..	1867

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing, Fix. & Fls., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any peculiarity of Lighthouse	Height in feet, centre of Lantern above High Water	Height in feet of Building from Base to Vane	Year lighted
		° ′ ″	° ′ ″								
Dublin Bay: Kish	Light Vessel, in 10 fathoms, off N. point of Kish bank	53 18 48	5 56 50	1	Rev.	Every minute	10	3 Masts. A Ball at Main mast head	36	..	1811
Kingstown	E. Pier head of Harbour	53 18 0	6 8 0	1	Rev.	Every ½ minute	9	Granite	41	41	1672
	W. Pier head	..	..	1	F.	..	4	Granite	36	29	1845
Poolbeg	End of S. wall, entrance to river Liffey	53 20 30	6 9 16	2	F.	..	12	White	High Light 68	63	1768
	Near the eastern extremity of N. wall	53 21 0	6 14 0	1	F.	..	10	Iron, circular, grey stone colour	29	28	1820
	..	..	..	1	F.	..	..	..	..	..	1861
Baily	S.E. point of Howth Peninsula	53 21 40	6 3 20	1	F.	..	15	White	134	42	1671
Howth	E. Pier head	53 23 0	6 4 0	1	F.	..	11	White	43	37	1818
Balbriggan	Pier S. side of entrance	53 36 45	6 11 0	1	F.	..	10	White	42	33	1769
Rockabill	Summit of largest rock	53 35 45	6 0 30	1	Fl.	Every 12 seconds	18	Circular, grey stone	148	105	1860
Drogheda	Sand hills, S. side of Boyne river	53 43 0	6 15 0	3	F.	..	6 to 7	On timber framings	27 40 23	30	1842
Dundalk	Entrance of Channel	53 58 40	6 18 0	1	Fl.	Every 15 seconds	9	On screw piles. White	53	..	1855
	..	..	..	2	F.	..	..	..	..	..	1861
Carlingford	Haulbowline Rock	54 1 0	6 5 0	2	F.	..	15	White	104	111	1825
	Greenore Point	54 1 55	6 7 52	1	Rev.	Every 15 seconds	9	White	29	41	1830
Dundrum Bay	St. John's Point	54 13 10	5 40 0	1	Int.	Every minute	12	White	62	..	1844
Ardglass	Head of Harbour	54 16 19	5 36 30	1	F.	..	6	..	18	..	1816
Strangford Lough	Castlown Point	..	..	1	F.	..	..	On piles	..	..	..
South Rock	On Rock	54 25 55	5 25 4	1	Rev.	Every minute and ½	12	White	52	60	1797
Donaghadee Harbour	S.E Pier head	54 38 45	5 32 1	1	F.	..	12	Grey	56	53	1836
Copeland	Small Copeland I.	54 41 44	5 32 0	1	F.	..	16	White	131	52	1796
Belfast Bay	Hollywood Bank	54 39 0	5 55 0	1	F.	..	5	On screw piles	27	..	1848
Larne Lough	Farrs Point	54 51 7	5 47 21	1	F.	..	11	White	42	50	1839
Maidens	On Rocks	54 55 42	5 44 18	2	F.	..	14	Towers	95 E.	76	1839
		Western Light					13	White with Red central Belt on each	82 W.	68	
Rathlin	Altacorry Head, N.E. point Island	55 18 10	6 10 45	2	Upper Int. F.	Every minute; bright 30 seconds, dark 10 seconds	21	Circular, A Red Belt under the gallery	243 192	88	1856
Foyle Lough: Inishowen	Dunagree Point	55 13 38	6 55 38	2	F.	..	13 each	Circular, White	47 each	49	1837
Warren Point	On Point	..	..	1	F.	..	..	On a pole	30	..	1861
Red Castle	Outer edge of Ridge Shoal	..	..	1	F.	..	..	Red Wood Piles	25	..	1852
White Castle	E side Channel	..	..	1	F.	..	..	On Piles	26	..	1848
Tute	On flats, S.E. side Channel	..	..	1	F.	..	..	Black Wood Piles	25	..	1850
Cunnyberry	On flats, N.W. side Channel	..	..	1	F.	..	..	Red Wood Piles	25	..	1848
Culmore	On Point	..	..	1	F.	..	..	Red Mast and lantern	45	..	1848
Culkeeragh	E. side Entrance	..	..	1	F.	..	..	Red brick	30	..	1851
Boom Hall	..	..	..	1	F.	..	..	..	12	..	1859
Rosse Bay	Light Vessel	..	..	1	F.	..	..	..	20	..	1859
Near Rock Mill	..	..	..	1	F.	..	..	..	15	..	1859
Inistrahull	N.E. part of Island	55 25 55	7 13 37	1	Rev.	Every 2 minutes	18	White	181	42	1818
Lough Swilly	Fanad Point	55 16 33	7 37 53	1	F.	..	14	White	91	91	1816
Tory Island	N.W. Point	55 16 26	8 15 0	1	F.	..	16	White	130	87	1832
Aranmore I.	Rinrawros or N.W. Point of Aran Island	55 0 52	8 33 48	1	Fl.	Every 20 seconds	18	Circular, White	233	76	1865
Rathlin-o-Birne	On Island	54 39 47	8 49 52	1	F.	..	16	Circular, Red, Dome and under the Light room	116	65	1856; altered 1864
Killybegs	St. John's Point	54 34 8	8 27 33	1	F.	..	14	White	98	47	1831
	Rotten I.	54 36 51	8 26 23	1	F.	..	12	White	68	47	1838
Sligo	Black Rock, in Sligo Bay	54 18 0	8 37 0	1	F.	..	15	White	79	64	1839
	Oyster Island	54 16 5 N. Light	8 34 4	2	F.	..	17	White	40 49	45 each	1837
Broadhaven	Gubacashel Point, on W. side of Entrance	54 16 0	9 53 0	1	F.	..	12	Stone Colour	87	50	1853
Eagle	Eagle Rock, W.S.W. 3 miles from Erris Head	54 17 0 Western	10 5 31	2	F.	..	30	White	220	87 64	..
Black Rock	Western extremity	54 4 10	10 19 20	1	Rev.	A flash every half minute	22	Circular, dark stone colour	283	50	1864

British and Irish Lighthouses and Floating Lights—continued.

Name of Light	Place	Latitude N.	Longitude W.	Number of Lights	Fixed, Flashing, Fix. & Fl., Int., Alt., Revolving	Interval of Revolution or Flash	Miles seen in clear Weather	Colour, or any peculiarity of Lighthouse	Height in feet, centre of Lantern above High Water	Height in feet of Building from Base to Vane	Year lighted
		° ′ ″	° ′ ″								
Blacksod Point	Quay - -	54 5 54	10 3 51	1	F.	..	10	A square granite tower in roof of dwelling. Reddish gray	37	41	1856
Clew Bay:											
Clare Island	N. point of Island -	53 49 30	9 59 30	1	F.	..	27	White	341	50	1806
Inishgort -	On Island. Entrance to Westport	53 49 54	9 40 12	1	F.	..	10	White	56	26	1827
Slyne Head -	Outermost Island off Head, Illaunimmul	53 23 58 North Light	10 14 1	2	One Rev. One F.	Every 2 minutes	15 14	White	115 104	79 each	1836
Galway Bay:											
Eeragh Island	W. Point - -	53 8 55	9 51 30	1	Rev.	Every 3 minutes	14	Circular, Two Red horizontal belts	115	101	1857
Inisheer -	S. Point - -	53 2 40	9 31 30	1	F.	..	15	Circular. A broad white belt 28 feet in width, horizontal on the shaft of the Tower	110	12	New lantern 1856
Mutton Island	Centre of Island off town of Galway	53 15 13	9 3 10	1	F.	..	10	White, Reding Red	35	31	1817
River Shannon:											
Loophead -	500 yards E. by S. from extremity of Head	52 33 38	9 55 34	1	F.	..	22	Circular, White	277	75	1797; rebuilt 18 3
Kilcredan -	On Point - -	52 34 47	9 42 34	1	F.	..	10	White	133	43	1824
Scattery Island	Rinana Point -	..	..	1	F.	..	..	Iron frame, movable tramway	..	..	..
Tarbert -	On Rock - -	52 35 30	9 21 47	1	F.	..	15	White	58	54	1834
Beeves -	On Rock, S.W. side -	52 30 0	9 1 18	1	F.	..	10 to 12	..	40	..	1854
Tralee -	On little Samphire I.	52 16 14	9 52 55	1	F.	..	4	Circular, Blue Stone	26	..	1854
Tearaght -	On Island - -	52 4 0	10 40 0	1	..	..	..	..	..	..	..
Valentia -	Cromwell's Fort -	51 56 0	10 19 16	1	F.	..	12	White	71	48	1841
Skelligs -	Highest Rock, 7½ miles off shore	51 46 14	10 32 45	2	F.	..	25 18	White	372 175	48 46	1826
Calf Rock -	On Rock - -	51 54 10	10 14 50	1	Fl.	Every 15 seconds	17	Circular, Red, with White belt	130	102	1866
Bantry Bay, Bearhaven, or Berehaven	Eastern Entrance on Roancarrig I.	51 39 10	9 44 49	1	F	..	12	Circular, White, with Red belt	53		1847
Crookhaven -	Rock Island Point N. side of Entrance	51 28 35	9 42 39	1	F.	..	13 10	White Red	67	69 45	1843; improved 1867

LIMA. The capital of Peru, on the west coast of South America, lat. 12° 2′ 42″ S., long. 77° 7′ 15″ W. Population estimated at 75,000, in 1863.

Callao, the port of Lima, is about 6 miles W. from the latter; the two being connected by railway. The harbour lies to the north of a projecting point of land, in the angle formed by the small uninhabited island of San Lorenzo. Previously to the emancipation of Peru, and the other ci-devant Spanish provinces in the New World, Lima was the grand entrepôt for the trade of all the west coast of South America: but a considerable portion of the foreign trade of Peru is now carried on through Buenos Ayres, and the former is also in the habit of importing European goods at second hand from Valparaiso and other ports in Chili. The exports from Lima consist principally of silver, cubic nitre, the most important, cotton, copper ore, bark, soap, sheep's wool, Alpaca wool, &c. Guano is found in large quantities on some parts of the coast of Peru, but is principally imported from some small islands, opposite to Pisco, where it is found in vast quantities. The great value of guano as a manure is now generally recognised, and it is hardly of less importance as an article of commerce, 192,308 tons having been imported in 1867 into the United Kingdom, of which no fewer than 164,112 tons, estimated as being worth 1,969,344*l.*, were from Peru. That which she supplies is decidedly the best. The imports consist principally of cotton stuffs, linens, woollens, and hardware, coals, beer and ale, principally from England; silks, brandy, wine, and quicksilver from Spain and France; stock-fish and flour from the United States, indigo from Mexico, Paraguay herb from Paraguay, spices, dye-stuffs, &c. Timber for the construction of ships and houses is brought from Guayaquil. The declared value of the different articles of British produce and manufacture exported to Peru in 1867, amounted to 1,426,448*l.* The total value of exports from Peru, in 1865, was 6,245,491*l.*, of which 3,853,554*l.* worth were from Callao; and the total value of the imports into the United Kingdom from Peru, was, in 1867, 3,701,362*l.*

Moneys, Weights, and ***Measures,*** same as those of Spain; for which, see CADIZ.

LIME (Ger. kalk; Fr. chaux; Ital. calcina, calce; Span. cal; Russ. iswest). An earthy substance of a white colour, moderately hard, but which is easily reduced to powder, either by sprinkling it with water or by trituration. It has a hot burning taste, and in some measure corrodes and destroys the texture of those animal bodies to which it is applied. Specific gravity, 2·3. Calcium, the metallic basis of lime, was discovered by Sir H. Davy.

There are few parts of the world in which lime does not exist. It is found purest in limestone, marble, and chalk. None of these substances is, however, strictly speaking, lime; but they are all

easily converted into it by a well-known process; that is, by placing them in kilns or furnaces constructed for the purpose, and keeping them for some time in a white heat—a process called the burning of lime. (Thomson's *Chemistry*; Watts' *Dictionary of Chemistry*.)

The use of lime as mortar in building has prevailed from the earliest antiquity, and is nearly universal. As a manure to fertilise land, it is very extensively used in this country, and in an inferior degree in some parts of the Continent and of North America. But it is a curious fact that the use of lime as a manure is entirely a European practice; and that its employment in that way has never been so much as dreamed of in any part of Asia or Africa, unless by Europeans. Lime is used as a medicine, and is of much importance in the arts, as a flux in the smelting of metals, in the shape of chlorate in bleaching, in tanning, and as a disinfectant, &c. (*British Pharmacopœia*, 1867.) Lime and limestones may be carried and landed coastwise without any customs document whatever.

Lime (Fr. citronier; Ger. citrone; Hin. neemdo). A species of lemon (*Citrus medica*, var. δ C.) which grows in abundance in most of the West India islands, and is also to be met with in some parts of France, in Spain, Portugal, and throughout India, &c. The lime is smaller than the lemon, its rind is usually thinner, and its colour, when the fruit arrives at a perfect state of maturity, is a fine bright yellow. It is uncommonly juicy, and its flavour is esteemed superior to that of the lemon; it is, besides, more acid than the latter, and to a certain degree acrid. [Juice; Lemons.]

LINEN (Ger. linnen, leinwand; Dutch, lynwaat; Fr. toile; Ital. tela, panno, lino; Span. lienza, tela de lino; Russ. polotno). A species of cloth made of thread of flax or hemp. The linen manufacture has been prosecuted in England for a very long period; but though its progress has been considerable, particularly of late years, it has not been so great as might have been anticipated. This is partly, perhaps, to be ascribed to the efforts that have been made to bolster up and encourage the manufacture in Ireland and Scotland, and partly to the rapid growth of the cotton manufacture—fabrics of cotton having to a considerable extent supplanted those of linen.

In 1691, both Houses of Parliament addressed his Majesty (William III.), representing that the progress of the woollen manufacture of Ireland was such as to prejudice that of this country; and that it would be for the public advantage were the former discouraged, and the linen manufacture established in its stead. His Majesty replied, 'I shall do all that in me lies to discourage the woollen manufacture in Ireland, and encourage the linen manufacture, and to promote the trade of England!' We may remark, by the way, that nothing can be more strikingly characteristic of the illiberal and erroneous notions that were then entertained with respect to the plainest principles of public economy, than this address and the answer to it. But whatever the people of Ireland might think of their sovereign deliberately avowing his determination to exert himself to crush a manufacture in which they had begun to make some progress, Government had no difficulty in prevailing upon the Legislature of that country to second their views, by prohibiting the exportation of all woollen goods from Ireland, except to England, where prohibitory duties were already laid on their importation! It is but justice, however, to the Parliament and Government of England, to state that they have never discovered any backwardness to promote the linen trade of Ireland: which, from the reign of William III. downwards, has been the object of regulation and encouragement. It may indeed, be doubted whether the regulations have been always the most judicious that might have been devised, and whether Ireland has really gained anything by the forced extension of the manufacture. Mr. Young and Mr. Wakefield, two of the highest authorities as to all matters connected with Ireland, contend that the spread of the linen manufacture has not really been advantageous. And it seems to be sufficiently established, that though the manufacture might not have been so widely diffused, it would have been in a sounder and healthier state, had it been less interfered with.

This great increase in the production of flax and linen is easily explained. The stimulus given to the supply of all materials for textile fabrics, consequent on the deficiency of cotton, will account for the development of the cultivation of flax in Ireland. The average produce of flax per acre in 1864 and 1866, in stone of 14 lbs., was:—

	1864	1866
Leinster	37·7	31·6
Munster	50·8	28·4
Ulster	34·3	20·1
Connaught	31·0	27·8
General average	34·2	21·3

[Flax; Hemp.]

Bounties.—Besides premiums and encouragements of various kinds, bounties were granted on the exportation of linen for a very long period previously to 1830. In 1829, for example, notwithstanding it had then been very much reduced, the bounty amounted to about 300,000*l.*, or to nearly *one seventh* part of the entire real or declared value of the linen exported that year! It is not easy to imagine a greater abuse. A bounty of this sort, instead of promoting the manufacture, rendered those engaged in it comparatively indifferent to improvements: and though it had been otherwise, what is to be thought of the policy of persisting for more than a century in supplying the foreigner with linens for less than they cost? We have not the least doubt that were the various sums expended in well-meant but useless attempts to force this manufacture, added together, with their accumulations at simple interest, they would be found sufficient to yield an annual revenue, little, if at all, inferior to the entire value of the linens we now send abroad. And after all, the business never began to do any real good, or to take firm root, till the manufacture ceased to be a domestic one, and was carried on principally in mills, and by the aid of machinery, a change which the old forcing system tended to counteract. The only real and effectual legislative encouragement the manufacture has ever met with, has been the reduction and repeal of the duties on flax and hemp, and the relinquishing of the absurd attempts to force their growth at home.

Irish Linen Manufacture.—Spinning by the hand is now almost unknown in Ireland, and the manufacture has disappeared from several parts of the country, where it had been largely introduced. On the whole, however, there can be no doubt that the introduction of the factory system has been, and will continue to be, most advantageous. Belfast has long been the great seat of the manufacture in Ireland, and there it is carried on in large factories furnished with the best machinery, and conducted on the most approved principles. In 1841, there were in the town and its immediate vicinity, 25 steam mills for spinning linen yarn, one of which employed 800 hands; and in 1854, the number of mills had increased to 33, while

their size and efficiency have also been considerably augmented. The value of the exports of all sorts of linen manufactures from Belfast in 1850, has been stated at 2,804,106*l.* And the exports from all Ireland were supposed to amount, in 1857, to about 106,000,000 yards, worth about 4,400,000*l.* Only an inconsiderable part of the exports goes direct to foreign countries; by far the greater portion is sent by the Cross-channel trade to Great Britain, or rather to Liverpool. According to the latest returns, there were in Ireland, in 1858, 76 flax mills, employing in all about 32,000 hands. We may add that in 1825, the trade between Great Britain and Ireland was placed on the footing of a coasting trade, and no official details of the linens imported or exported from or to either country has since been kept at the Custom-house; but, though not official, such of the foregoing statements as refer to them are, we believe, nearly accurate.

The culture of flax in Ireland, which increased very rapidly down to 1853, declined to 91,500 acres in 1858, and gradually rose again to 263,507 acres in 1866, and 253,105 acres 1867, of which 234,491 were in Ulster. (For further details, see Thom's *Irish Almanac for* 1868, pp. 779–784.)

Scotch Linen Manufacture.—In 1827, a Board of Trustees was established in Scotland for the superintendence and improvement of the linen manufacture. It is not easy to suppose that the institution of this Board could of itself have been of any material service; but considerable bounties and premiums being at the same time given on the production and exportation of linen, the manufacture went on increasing. Still, however, it did not increase so fast as cotton and some others, which have not received any adventitious support, until machinery began to be extensively employed in the manufacture; so that it is very doubtful whether the influence of the bounty has been so great as it would at first sight appear to have been. The regulations as to the manufacture, after having been long objected to by those concerned, were abolished in 1822, and the bounties ceased in 1830.

Dundee is the grand seat of the Scotch linen manufacture; and its progress there during the last few years has been so extraordinary, that the following details in respect to it may not be unacceptable.

The manufacture appears to have been introduced into Dundee some time towards the beginning of the last century; but, for a lengthened period, its progress was comparatively slow. It 1745 only 74 tons of flax were imported, without any hemp; the shipments of linen cloth during the same year being estimated at about 1,000,000 yards, no mention being made either of sail-cloth or of bagging. In 1791, the imports of flax amounted to 2,444 tons, and those of hemp to 299 tons; the exports that year being 7,842,000 yards linen, 280,000 yards sail-cloth, and 65,000 do. bagging. From this period the trade began to extend itself gradually, though not rapidly. Previously to the peace of 1815, no great quantity of machinery was employed in spinning; but about this period, in consequence, partly and principally, of the improvement of machinery, and its extensive introduction into the manufacture, and partly of the great regularity with which supplies of the raw material were obtained from the Northern Powers, the trade began rapidly to increase. Its progress has, indeed, been quite astonishing; the imports of flax and hemp having increased from about 3,000 tons in 1814 to 15,000 tons in 1830, to 46,361 tons at an average of 1857 and 1858, and to 48,165 tons in 1865, though they fell to 87,716 tons in 1866, and 39,491 tons in 1867.

We gave in a former edition an account of the number of pieces of the different descriptions of linen goods annually exported from Dundee. But large quantities are now sent off by railway; and as the carriage on them is charged by weight, no account is kept of the pieces so despatched; and, consequently, no account can now be given of the total quantities exported. We have, however, been assured, by a high authority in the town, that the total value of the linens exported from Dundee in 1858 may be safely estimated at 3,100,000*l.*

It is not easy to give any satisfactory explanation of the wonderful progress of the linen manufacture at Dundee. Something must be ascribed to the convenient situation of the port for obtaining supplies of the raw material; and more, perhaps, to the manufacture having been long established in the towns and villages of Strathmore, the Carse of Gowrie, and the northern parts of Fife, of which Dundee is the emporium. But these circumstances do not seem adequate to explain the superiority to which she has recently attained in this department; and, however unphilosophical it may seem, we do not really know that we can ascribe it to anything else than a concurrence of fortunate accidents. Nothing, in fact, is so difficult to explain as the superiority to which certain towns frequently attain in particular departments of industry, without apparently possessing any peculiar facilities for carrying them on. But from whatever causes their pre-eminence may arise in the first instance, it is very difficult, when once they have attained it, for others to come into competition with them. They have, on their side, established connections, workmen of superior skill and dexterity in manipulation, improved machinery &c. Recently, indeed, the advantages in favour of old establishments have been, to a considerable extent, neutralised by the prevalence of combinations amongst their workmen; but it is to be hoped that means may be devised for obviating this formidable evil.

Dunfermline, in Fife, with the contiguous district, is the principal seat of the manufacture of napery. The table-cloths which it supplies are of the best quality, and their patterns have latterly been greatly improved. They are now fully equal to, if they do not surpass, the very best specimens furnished by Germany and the Low Countries. In fact, table-linen is now shipped from this country for Germany; and the duty of 10 per cent. on the importation of German damasks and such like fabrics has been repealed, without the measure having any injurious influence over the manufacturer in this country.

In England the linen manufacture is principally seated in Leeds and its immediate vicinity, where there are some very large mills, and in other parts of the W. Riding. It is also carried on in parts of Lancashire, Dorset, Durham, and Salop.

It is perhaps needless to add that, the state of the linen trade during the last five years has been quite exceptional. The complete prostration of the cotton manufacture during the greater part of the American civil war, was to some extent met by a vast increase in the production of other textile fabrics, and some years must elapse before the manufacture of cotton, flax, and wool, resume their natural proportions. Thus in 1865 the exports of linen were double in quantity those of 1861, and much more than double in value.

Value of the Manufacture. Number of Persons employed.—There are no means by which to form an accurate estimate of the entire value of the linen manufacture of Great Britain and Ireland. Dr. Colquhoun estimated it at 15,000,000*l.*, but there cannot be a doubt that this estimate was, at

the time, much exaggerated. In the first edition of this work, we estimated the annual value of the manufacture at 7,500,000*l.* Sir F. M. Eden estimated the entire value of the linen manufacture of Great Britain in 1800 at 2,000,000*l.* (*Treatise on Insurance*, p. 76.)

In 1858, we reckoned it at 12,000,000*l.* But it has increased very rapidly since that time, especially since the commencement of the cotton famine, and its value for the United Kingdom is at present (1867) probably not under, if it do not exceed, 20,000,000*l.* But taking it at this amount, and setting aside a third part of this sum for the value of the raw material, and another third for profits, wages of superintendence, wear and tear of capital, coal &c., we have 6,666,000*l.*, to be divided as wages amongst those employed in the manufacture. And supposing each individual to earn, at an average, 40*l.* a year, the total number employed would be nearly 170,000. We may add that according to the returns under the census of 1861, 96,689 persons were then employed in the linen manufacture in Great Britain, of whom 76,897 were employed in Scotland, and 19,792 in England, while in Ireland the linen and damask weavers alone numbered 60,626.

Export of Linens to France.—Previously to 1833 the export of linens and linen-yarn from this country to France was quite inconsiderable. It then, however, began to increase; and the oppressive duties that previously existed on the importation of these articles into France having been materially reduced in 1834-36, so powerful a stimulus was given to the trade, that the exports of yarn from the United Kingdom to France rose from 4,012,141 lbs. in 1836, to 22,202,292 lbs. in 1842. This influx of foreign yarn having, of course, subjected the French spinners to considerable temporary difficulties, they set up a cry for the reimposition of the duties; and the Government being weak enough, or ignorant enough, to listen to their interested representations, the duties were again largely augmented in 1842. In consequence the exports of yarn &c., from this country to France declined even more rapidly than they had increased. But we may shortly state, that the injury which the French Government did by this measure to our spinners is but trifling compared with that which they did to their own subjects; for, while they stopped all progress in the manufacture, and deprived the producers of the articles sent hither in exchange for yarns of their best market, they about doubled the price of linens to the consumers.

Since the negotiation however of the commercial treaty with France, a considerable increase in the exports of linen yarn has taken place, though the amount has only been increasing slowly. The linen trade with France is almost stationary.

An Account of the Pounds Weight of Linen Yarn Exported from the United Kingdom to France during each of the undermentioned Years ending with 1867.

Years	British Linen Yarn Exported from United Kingdom to France	Years	British Linen Yarn Exported from United Kingdom to France
	lbs.		lbs.
1831	17,503	1850	699,602
1832	76,512	1855	[illegible]
1833	867,248	1857	[illegible]
1834	1,430,369	1861	[illegible]
1835	2,384,678	1862	[illegible]
1840	13,137,367	1863	[illegible]
1841	20,832,875	1864	[illegible]
1842	22,202,292	1865	2,931,336
1843	13,824,285	1866	[illegible]
1844	13,546,737	1867	[illegible]
1845	9,153,188		

Account of the Quantities and Values of the Linen Manufactures and Linen Yarn of British Produce Exported from the United Kingdom in each of the 4 *Years ending with* 1867.

Articles	Quantities				Value			
	1864	1865	1866	1867	1864	1865	1866	1867
					£	£	£	£
Linen Manufactures:								
White or plain, damask &c. - - - yds.	190,653,754	222,790,744	234,589,974	200,236,615	6,707,619	7,537,571	8,108,178	6,563,801
Printed, checked and dyed ,,	12,873,669	16,965,490	14,246,634	6,902,510	505,599	606,040	553,003	237,003
Sailcloth - - ,,	6,941,219	7,250,257	6,632,091	4,835,715	394,284	382,713	350,796	269,609
Thread - - - lbs.	3,978,321	3,931,922	3,781,849	2,753,794	..	..	..	..
Linen yarn - - ,,	40,177,150	36,796,673	33,608,171	31,103,859	2,991,969	2,335,321	2,374,132	2,455,634
Other sorts - -	..	..	..	..	565,311	630,666	584,268	412,693
Total value - -	..	..	..	..	11,164,782	11,692,311	11,959,577	9,936,790

The United States, Brazil, Cuba, and the Hanse Towns, but especially the first, are by far the largest importers of manufactured linens. The great outlets for yarn are at present (1867) Spain, inc. Gibraltar, the Hanse Towns, Holland, France, Italy, Belgium, and Prussia.

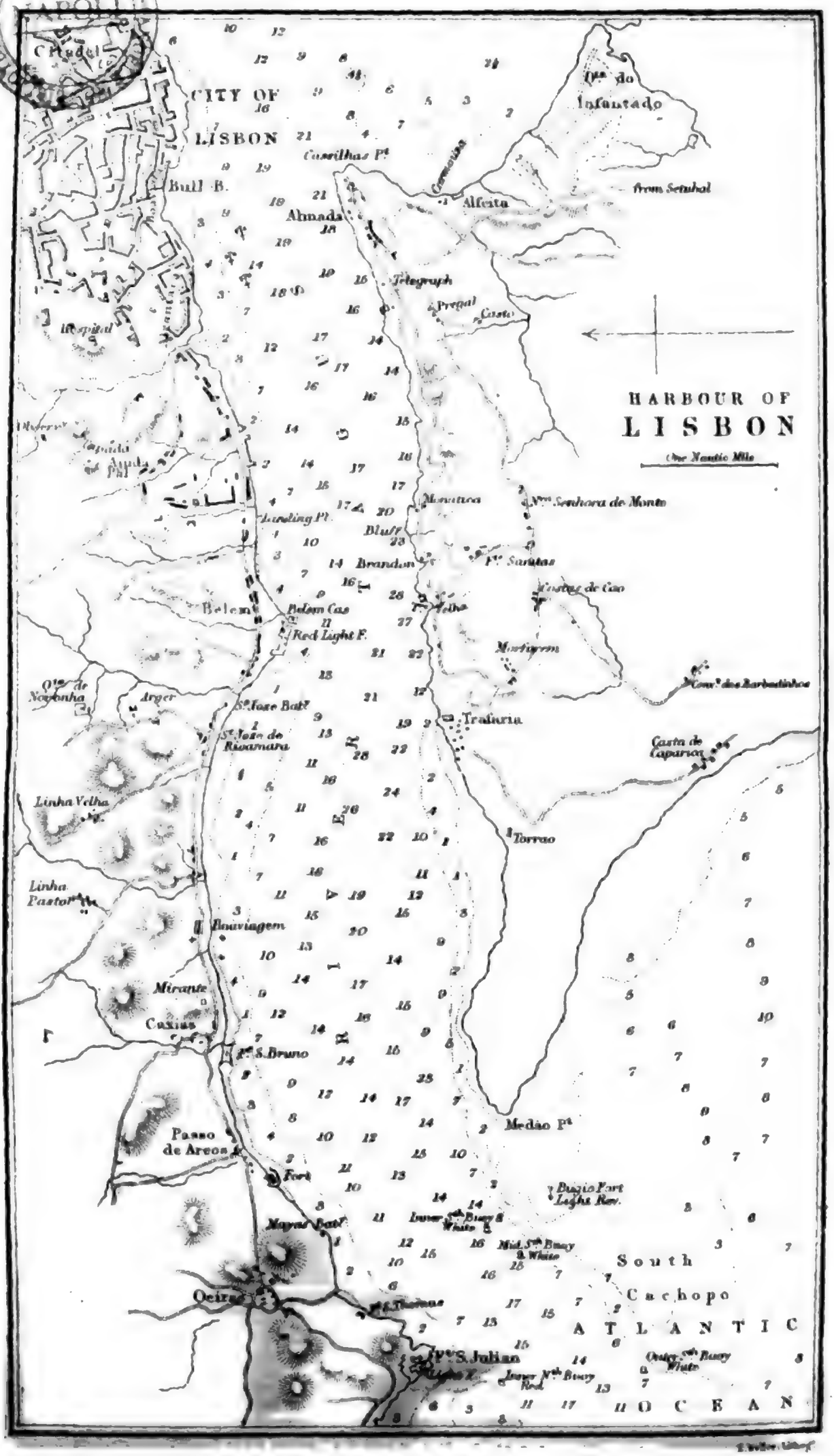
The following are the Imports of Flax, Hemp, and Jute for the 7 *Years ending* 1867.

Articles	1861	1862	1863	1864	1865	1866	1867
	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.
Flax, dressed or undressed -	1,333,679	1,798,331	1,458,962	1,842,917	1,918,132	1,547,598	1,110,669
Hemp, dressed or undressed -	600,100	984,325	1,059,862	1,063,763	1,065,705	1,101,094	833,450*
Jute (ex yarn) - - -	903,092	963,776	1,223,033	2,108,942	2,074,537	1,525,903	1,592,611
Total - - -	3,037,871	3,746,450	3,741,857	4,891,667	5,087,779	4,174,593	3,536,730

* Undressed hemp only for 1867.

LIQUORICE (Ger. sussholz; Fr. réglisse, racine douce; Ital. regolizia, ligorizia, liquirizia; Span. regaliz orozuz). A perennial plant (*Glycyrrhiza glabra*), a native of the south of Europe, but cultivated to some extent in England, particularly at Mitcham in Surrey. Its root, which is its only valuable part, is long, slender, fibrous, of a greyish brown externally, and yellow internally, and when fresh very juicy, sweet, and without odour (*British Pharmacopœia*, 1867). The liquorice grown in England is fit for use at the end of 3 years; the roots, when taken up, are either immediately sold to the brewers' druggists or to common druggists, by whom they are applied to different purposes, or they are packed in sand, like carrots or potatoes, till wanted. Liquorice-root was charged till 1853 with a duty of 5*s.* per cwt., when it became duty free. 5,272 cwts. were imported in 1867, valued at 6,857*l.*

LIQUORICE JUICE (*Succus Liquoritæ*). Popularly *black sugar*, the inspissated juice of the roots just mentioned. Very little of this extract is prepared in Britain, by far the greater part of our supply being imported from Sicily. The juice obtained by crushing the roots in a mill, and subjecting them to the press, is slowly boiled till it becomes of a proper consistency, when it is formed into rolls of a considerable thickness, which are



London. Longmans & Co

usually covered with bay leaves. This is the state in which we import it. Most part of it is afterwards redissolved, purified, and cast into small cylindrical rolls of about the thickness of a goose quill, when it is called *refined liquorice*. It is then of a glossy black colour, brittle, having a sweet mucilaginous taste. It is used in the *materia medica*, particularly in coughs, colds &c. What is called *liquorice paste* is an inferior or coarser variety of the same article, mostly brought from Turkey. (Thomson's *Chemistry*; Thomson's *Dispensatory*.)

The oppressive duty of 3*l.* 15*s.* per cwt., with which it was loaded down to 1842, was reduced in that year to 27*s.* 6*d.* and in 1853 to 20*s.* The duty was repealed altogether in 1860.

The imports of juice and paste amounted in 1867 to 4,379 and 23,811 cwts., respectively.

LISBON. The capital of Portugal, on the N. bank of the Tagus, the observatory of the fort being in lat. 38° 42′ 24″ N., long. 9° 5′ 50″ W. The city proper is surrounded by walls with gates or barriers, at which articles of food, drink, and firing for the use of the town pay octrois or duties. Total pop. in 1863, 224,063, whereof about 170,000 are within and the remainder without the walls.

Lisbon, within the walls, paid in 1854-55, from July 1, 1854, to June 30, 1855, 95,000*l.* public taxes, 200,000*l.* town dues, and 46,000*l.* municipal charges: it consumed, during the same period, 11,877 sheep, 13,139 pigs, 19,826 oxen, 3,656 calves, 141,000 gallons of wine, and 143,000 imperial quarters of wheat: the town dues are received by Government.

The total revenue of the kingdom was estimated from direct and indirect taxes for 1866–67, at for direct 4,904,393, and indirect 9,085,309 milreis.

Port.—The harbour, or rather road, of Lisbon is one of the finest in the world, and the quays are at once convenient and beautiful. Fort St. Julian marks the northern entrance of the Tagus. It is built on a steep projecting rock. There is a light-house in the centre, 120 feet above the level of the sea. At the mouth of the Tagus are two large banks, called the North and South *Cachops*. There are two channels for entering the river; the North or Little, and the South or Great Channel, exhibited in the annexed plan. On the middle of the South Cachop, about 1½ mile from Fort St. Julian, is the Bugio fort and light-house, the latter being 66 feet in height. The least depth of water in the north channel on the bar is 4 fathoms, and in the south 6. The only danger in entering the port arises from the strength of the tide; the ebb running down at the rate of 7 miles an hour; and after heavy rains, when there is a great deal of fresh water in the river, the difficulty of entering is considerably augmented. When, at such periods, there is a strong wind from the sea, there is a complete break all over the bar; vessels moor up and down the river with open hawse to the southward. In some parts they may come within 200 yards of the shore, being guided by the depth of water, which, from nearly 20 fathoms in mid-channel, shoals gradually to the edge.

Trade &c.—Mr. Secretary of Legation Lytton states in his *Report* of January 15, 1867, that since 1861 no annual returns relative to Portugese commerce have been published. Though one of the best situated commercial cities of Europe, the commerce of Lisbon cannot be very extensive, as the country she supplies is but small, and in a very backward state of improvement, though the capital is now connected by rail with Spain and the rest of Europe. Contrary, however, to what might perhaps be expected, nowhere is political and religious tolerance carried to a greater extent: there are several daily newspapers, both political and commercial, the latter ably conducted. The police is excellent, and one may walk through all parts of the town at all hours of the night in perfect security. Lisbon has a government commercial school, a commercial association, and a small though pretty exchange. It is lighted by gas.

The importation duties levied at the custom-house for the year ending July 30, 1862, were 551,397*l.* The principal imports were:—

Articles	Imports	
	Value	Duties
	milreis	milreis
Animals	45,622	492
Animal products	1,171,751	170,587
Fish	304,416	113,265
Woollens and furs	703,599	265,895
Silks	299,465	64,965
Cottons	2,107,905	439,756
Linen	202,721	43,571
Timber	229,115	33,051
Farinaceous substances	248,105	35,019
Colonial goods	1,965,787	965,013
Vegetable substances	286,719	27,360
Metals	2,348,539	61,481
Minerals	450,038	1,286
Liquids	189,111	126,318
Glass, crystal, &c.	91,189	22,103
Paper	104,331	12,356
Chemicals	114,566	12,902
Divers products	93,516	8,955
Divers manufactures	534,302	46,316
Untaxed articles	2,902,492	—
Total	14,287,290	2,450,654
£	3,214,640	551,397

1 milreis = 54*d.*

The duties on exportation are 1 per cent., excepting wines, liquors, oak bark, vinegar, gold and silver, rags and argol. The export duty on port wine has been reduced from 13*s.* 9½*d.* to 1*s.* 8*d.* per pipe. The Portuguese tariff is long and complex: a copy of it occupies 34 pages of Mr. Secretary Lytton's *Report* of June 22, 1866. See also his *Report* of January 15, 1867. Chief exports in 1854, wheat 39,100 qrs. (35,400 to England, 3,500 to France); wine 258,000 gallons; 1,170 tons of cork wood, 62,000 tons of salt, 2,350 cwts. tartar, 62,000 half-chests oranges, 640 tons wool, and 2,700 tons onions.

The value of the chief exports from Lisbon was in 1861–2, 900,187*l.*, of which liquids and vegetable substances represented one-half. The values of the imports into, and exports from the port in 1864, were respectively 3,085,190*l.* and 923,757*l.* The number and tonnage of vessels of each nation entered and cleared at Lisbon in 1864 were as follow:—

Countries	Entered		Cleared	
	Vessels	Tons	Vessels	Tons
British	465	125,795	457	124,532
Russian	40	—	40	—
Norwegian	44	—	40	—
Swedish	49	—	46	—
Danish	56	—	64	—
Dutch	4	—	20	—
Belgian	21	—	20	—
French	136	—	148	—
Spanish	30	—	36	—
Portuguese	351	—	346	—
Brazilian	21	—	21	—
Other countries	27	—	27	—
Total	1,324		1,335	

Few vessels are built at Lisbon. In 1864 only 2 ships came from the stocks in the capital. Most of the Portuguese shipping is built at Vianna, Figueira, and Caminha.

There are no longer any regular mail packets between Southampton and Portugal, except the Brazil packet which touches at Lisbon about the 13th of each month: occasional merchant steamers carry letters between Lisbon and Liverpool, Glasgow, and London.

There are at Lisbon the following insurance companies and agencies:—

Fidelidade (Sea, Fire, and Life Insurance)	-	capital £300,000	by shares
United Commercial (Sea and Fire)	-	,, 120,000	,,
Restauracad (Sea and Fire)	-	,, 44,500	,,
Garantie (Oporto Company) Sea and Fire Insurance	-	,, 225,000	,,
Seguranca (do. do.)	-	,, 225,000	,,
Equidade (do. do.)	-	,, 225,000	,,

Agencies of the English companies Athenæum, Albion, Sun, Liverpool and London and Norwich Union, and of the Madrid Life Insurance Companies; also the London and Lancashire, Fire and Life; Royal, do.; Imperial, do.; El Fenix Espagnol, do.; La Union de Madrid, do.; La Anegaradora, do.; La Capanola, Maritimo.

Port Regulations.—All vessels coming over the bar are to heave-to at the Paço d'Arcos, that they may be registered and receive on board a customs officer. Masters of vessels must bring with them 2 manifests of the cargo, containing shippers' and receivers' names, marks, number and contents of packages, legalised by the Portuguese consul at the port of departure. They will otherwise be fined double the amount of duties. The bill of health must contain the number and names of passengers, and be also legalised by the Portuguese consul. Passengers must be provided with passports: masters of vessels are otherwise liable to pay a fine.

Vessels loading, unloading, or merely remaining in the port (in *franquia*), which they are permitted to do for 6 days (or for 10 days if sufficient grounds be assigned for the indulgence), must anchor in and continue in the situation pointed out by the authorities; and as any infringement of the customs or port regulations is followed by heavy fines, and is often the cause of much delay, they should be carefully attended to.

All masters of vessels, seamen, and passengers are obliged to deliver up to the authorities who come on board all soap and tobacco they may possess, being only allowed to retain what may be deemed sufficient for their own use on board. Any tobacco or soap found in their possession while going on shore is seized, and the bearer subjected to imprisonment and to very heavy fines; the tobacco taken from the parties on arrival is restored to them on leaving.

Port Charges consist of pilotage and tonnage dues. Pilotages inwards for vessels of 3 masts, 35*s.* 6*d.*; of 2 masts and 1 ditto, 27*s.* 6*d.* Pilotages outwards for vessels of 3 masts, 32*s.*; of 2 masts and 1 ditto, 24*s.* Tonnage dues are rather complicated. Vessels coming in with a full cargo and leaving in ballast, coming in and leaving in ballast, coming in with cargo and leaving with foreign goods, pay 13½*d.* per ton; also vessels taking ⅔ of the cargo salt and foreign goods pay said tonnage dues on the goods.

Vessels arriving loaded and leaving with cargo pay for Portuguese goods 8*d.*; the same vessels taking ⅔ salt and the remainder goods pay on the Portuguese goods. Vessels coming in and going out with the same cargo pay 3¾*d.* per ton, also those which come in loaded and leave with a full cargo of salt, and those which take ⅔ of the cargo salt pay this tonnage duty on the salt. Vessels arriving in ballast and leaving with a full cargo of salt pay no tonnage dues, and vessels putting in in distress. No tonnage dues are paid on grain, oil, or salt, if they form ⅔ of the cargo, the vessel clearing for Lisbon.

Money.—Gold is the circulating medium, silver being only legal tender to the extent of 22*s.* 3*d.* in any payment. The gold in circulation is almost all British coin, sovereigns and half-sovereigns, the former having a legal value of 4,500, the latter of 2,250 reis. There are also some Portuguese coins, 8,000 reis pieces and 4,000 reis in circulation, and a few 5,000, 2,500, and 1,000 reis pieces. Silver, the old coins of 480, 240, 120, and 60 reis, are being withdrawn; the new coins consist of 500, 200, 100, and 50 reis pieces. Copper 40, 20, 10, and 5 reis pieces. The mille reis is thus about 4*s.* 5½*d.* Accounts are kept in reis; 1,000 are called mille reis, and 1,000,000 reis are called a conto. In the notation of accounts, the mille reis are separated from the reis by the following sign $: thus a sovereign 4,500 is 4 $ 500.

The old crusado is 400, the new crusado 480 reis. 100 reis are called tostao (plural tostoes). 20 reis is called a vintem (plur. vintens). The 8,000 pieces are denominated 'peças.' The average rate of exchange on England is 50*d.* per mille reis. Bills drawn in foreign coin, without any declared exchange, are payable in Portugal at the *uso* exchange at maturity. The uso is 30 *d.* | *s.* for England, 100*d.* | *d.* for France, and 3 *m.* | *d.* for Hamburg, Holland, and Genoa. There are no direct exchange operations on other places besides these, excepting Spain, the price of the dollar varying from 920 to 960 reis.

Weights and Measures.—The French system has been adopted by Government. Commercial Weights.—The *arvatel*, libra, or pound = 2 marcos = 4 quartels = 16 onças = 128 outavas = 7,084 Eng. grains. 32 arvatels, or lbs. = 1 arroba; 4 arrobas = 1 quintal; and 13⅓ quintals, or 54 arrobas = 1 tonnelada or ton. 100 Portuguese lbs. = 101·19 (101⅛ nearly) lbs. avoirdupois = 45·89 kilog.

The measure by which corn, salt, and dry vegetables are principally sold is the *moio* or *moyo* = 15 fangas = 60 alquiéres = 240 quartos = 480 outavas = 2·79 (rather more than 2¾) imp. quarters. The weight of a moyo of corn depends, of course, on the quality of the grain. A moyo of salt may be taken at about 1,600 lbs.

The principal liquid measure, the *almude* = 3·641 imp. gallons, is divided into 2 potes or cantaros, 12 canadas, and 48 quartilhos. A pipe in the S. province = 26 almudes; in Lisbon for shipment it is 30 almudes = 109·23 (109¼ nearly) imp. gall.

Measures of length, 1 pe = 1⅓ palmo = 12·95 Eng. inch; 3 palmos = 1 covado; 5 palmos = 1 vara; 2 varas, or 10 palmos = 1 braça. A yard is reckoned equal to 4 palmos; a metre, to 4⅓ palmos.

The weights are uniform throughout Portugal: the measures vary almost from one parish to another. (Dourstber, *Dictionnaire Universel*, voce 'Arroba,' &c.; Kelly's *Cambist*, art. 'Lisbon;' &c.)

Bank of Lisbon, now called Bank of Portugal, was founded in Nov. 1846, being a reintegration of the old bank founded in 1822. Its capital is 1,780,000*l.*, in shares of about 22*l.* and 110*l.* Its rate of discount is invariably 5 per cent. per annum for bills not having more than 3 months to run.

It has the privilege of issuing notes, and which is more valuable, of having its claims on estates paid in full, provided the estate amounts to so much! This privilege, which is justly obnoxious, allows it to be more liberal or less cautious in discounting than it would be otherwise. It is bound to publish monthly statements of its situation, but, like the majority of such documents, they are drawn out so that it is impossible to make anything satisfactory out of them. From those of July 1855? it appears that the notes in circulation were 206,600*l.*; deposits, 553,500*l.*; cash, 383,400*l.*; bills discounted, 325,200*l.*

Commission.—Portuguese houses generally charge 3 per cent.; foreign houses 2½ per cent.; *del credere* ½ per cent. per month.

According to the Portuguese laws, agents are obliged to effect insurance on shipments, unless they have orders to the contrary.

Brokerage, ⅛ per cent. for bills, ½ per cent. for funds and goods, payable by buyer and seller; for grain 400 reis per moyo (about 8*d.* per quarter) is paid; for butter, and sometimes for rice, 1 per cent. is charged.

Customary Tares.—Annatto, single baskets 1½ lb. each, draft 2 lb. per 320 lb.; cotton, 2 lb. per bag, draft 2 lb. per 5 bags; coffee, linen bag, 1½ lb., cotton do. 1 lb. each, draft 2 lb. per 5 bags; cocoa, like coffee. Copaiva oil in tin canisters, 2 lb. each, draft 2 lb. per 320 lb.; in barrels it is measured; India-rubber (caoutchouc), 2 lb. per bundle, draft 2 lb. per 320 lb.; gum, 1 lb. per basket, draft as above; tapioca, 20 lb. per barrel, draft as above; sugar, general tare, 7 to 8 arrobas per box, draft 24 lb. barrel 18 lb. to 20 lb., draft 2 lb.; bags, invariable tare, 2 lb. per bag, draft 2 lb. per 5 bags.

Tea, per chest, 15 to 24 lb. according to size; cinnamon, 12 lb. per box; pepper, 2 lb. per bag; rice, 1 lb., draft as above. Oil is now sold by weight, 34 lb. per almude (66 almudes are reckoned to the tun), and real tares of casks allowed. All goods for exportation must be accompanied on board by a custom-house permit.

Warehousing.—The custom-house has spacious stores, where all goods, except inflammatory ones, such as pitch and tar, are allowed to remain, free of expense, for 12 months; raw cotton, sugar, coffee, cinnamon, tea, hides, pepper, sarsaparilla, saltpetre, and tobacco may remain for 24 months. After these periods the rent is 20 reis per 128 lb. for dry goods, and 16 reis per almude for liquids. All labour in the custom-house is done by its workmen, for which 85 reis per 128 lb. gross weight is charged. Lisbon possesses an Industrial Institute, where artisans are instructed in arts and trades. It has 47 manufactories moved by steam engines of 722 horse-power, and 68 by manual labour. The latter employ 4,769 workmen.

On sale of goods, credits varying from 3 to 6 months are allowed; export goods are usually paid by cash. (Compiled from *private information*, obtained from the best sources, direct from Lisbon.)

Trade of the United Kingdom with Portugal.—We subjoin

An Account of the Quantities and Computed Values of the Principal Articles Imported into the United Kingdom from Portugal from 1865 *to* 1867.

Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Animals: oxen and bulls	number	4,279	5,514	6,851	76,502	112,360	131,193
Argol	cwt.	690	2,080	1,273	1,290	3,740	1,934
Caoutchouc	,,	1,885	1,349	777	19,385	9,914	6,768
Copper ore	tons	1,803	1,021	1,078	31,688	16,550	15,119
Cork	,,	6,015	5,807	5,512	195,188	188,728	179,140
Corks, ready made	lbs.	225,938	369,914	566,644	12,228	20,038	19,612
Corn: maize or Indian corn	cwt.	—	11	118,552	—	3	58,644
Cotton, raw	,,	8,689	5,777	4,701	77,131	97,425	13,787
Cream of tartar	,,	491	285	161	2,361	1,369	665
Fruit: Almonds, not bitter	,,	1,684	5,960	5,904	5,948	22,919	20,824
Figs	,,	20,918	24,580	27,604	14,510	17,061	18,384
Grapes	bushels	12,649	11,892	22,174	10,568	9,872	18,097
Oranges and lemons	,,	151,572	196,542	195,923	68,193	99,040	89,010
Gum, copal	cwt.	1,101	1,711	1,998	3,559	5,925	6,432
Hides, not tanned	,,	4,662	7,111	6,979	13,542	1,777	17,396
Manganese ore	tons	1,791	2,355	3,359	6,438	19,243	21,854
Oil, olive	tuns	1,093	1,358	3,496	57,185	76,633	203,760
palm	cwt.	—	10,012	11,642	—	20,341	22,442
seed	tuns	406	999	1,005	12,940	49,650	62,348
Onions	bushels	87,050	97,716	126,375	29,256	34,040	46,847
Orchal	cwt.	6,257	3,510	3,940	10,719	4,961	8,590
Potatoes	,,	16,626	23,413	28,303	5,996	8,507	11,772
Pyrites of iron or copper	tons	137,787	165,993	165,556	397,897	491,416	341,625
Salt	,,	5,166	5,975	5,612	5,466	5,975	5,612
Sugar, unrefined	cwt.	9,435	2,611	11,896	11,017	2,695	12,464
Teeth, elephants'	,,	641	507	578	21,880	16,915	20,369
Wax, bees'	,,	297	1,615	1,364	9,912	14,769	11,443
Wine	gallons	3,740,578	3,541,265	2,724,538	1,145,134	914,573	757,140
Wool, sheep and lambs'	lbs.	2,535,455	3,175,696	1,896,482	137,811	163,645	90,935
All other articles	value	—	—	—	103,562	133,208	138,017
Total	—	—	—	—	2,171,801	2,517,928	2,324,541

Account of the Quantities and Values of the Principal Articles, the Produce and Manufacture of the United Kingdom, Exported to Portugal from 1865 *to* 1867.

Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Apparel and haberdashery	value	—	—	—	30,940	29,437	33,419
Brimstone, refined in the U. K.	cwt.	24,330	29,201	59,211	13,746	19,859	38,098
Butter	,,	25,669	23,739	22,550	128,067	125,548	101,779
Coals, cinders, and culm	tons	141,059	157,151	141,900	66,145	78,680	72,055
Copper, wrought and unwrought	cwt.	5,433	5,898	4,845	24,906	26,975	19,832
Cotton yarn	lbs.	144,881	176,975	167,905	15,977	20,345	17,080
Cottons, entered by the yard	yards	40,238,484	49,255,263	49,529,961	843,050	1,012,125	843,449
at value	value	—	—	—	17,684	27,535	21,713
Drugs and chemical products	,,	—	—	—	16,838	13,318	15,969
Earthenware and porcelain	,,	—	—	—	9,087	6,180	5,681
Glass manufactures	,,	—	—	—	12,505	11,561	9,772
Hardwares and cutlery, unenumerated	cwt.	6,042	4,466	4,619	36,213	28,980	28,405
Iron, wrought and unwrought	tons	30,177	16,388	16,703	251,491	147,477	125,172
Lead and shot	,,	241	172	179	5,337	3,812	3,927
Lead, white	cwt.	4,780	3,598	3,511	6,678	5,740	5,119
Linens, entered by the yard	yards	1,578,223	1,731,071	1,702,085	49,893	52,192	47,086
Machinery: Steam engines	value	—	—	—	18,984	4,859	10,877
All other sorts	,,	—	—	—	20,743	11,937	16,138
Oil, seed	gallons	81,912	72,157	91,519	12,071	11,829	14,880
Painters' colours (not otherwise described)	value	—	—	—	5,458	6,213	6,967
Silk, thrown and yarn	lbs.	19,396	13,662	16,713	23,967	17,353	22,460
manufactures	value	—	—	—	14,275	8,616	5,269
Spirits, British	gallons	692,107	31,492	222,109	85,752	3,990	27,764
Tin, unwrought	cwt.	1,439	1,299	991	6,067	5,898	4,553
Tin plates	value	—	—	—	18,778	16,981	27,334
Woollens, entered by the yard	yards	1,656,625	1,533,756	1,267,610	140,827	133,241	105,457
at value	value	—	—	—	3,860	3,661	3,303
All other articles	,,	—	—	—	187,670	167,829	192,470
Total	—	—	—	—	2,066,037	2,001,101	1,823,382

In 1865 there were 6,940 kilomètres of Portuguese railroads in operation and 3,245 in course of construction, but the want of good ordinary roads is severely felt throughout the country. (Mr. Lytton's *Reports*, ending with that of 1867.)

A line of telegraphs now extends throughout the kingdom.

LITERARY PROPERTY. [Books.]

LITHARGE (Ger. glötte, glätte; Dutch, gelit; Fr. litharge; Ital. litargirio; Span. almartaga, litargirio; Russ. glet; Lat. litargyrium). An oxide of lead in an imperfect state of vitrification.

Most of the lead met with in commerce contains silver, from a few grains to 30 ounces or more in the fodder: when the quantity is sufficient to pay the expense of separation, it is *refined*; that is, the metal is exposed to a high heat, passing at the same time a current of air over the surface; the lead is thus oxidised and converted into *litharge*, while the silver, remaining unchanged, is collected at the end of the process.—(Thomson's *Chemistry*; &c.) Litharge is used for various purposes in the arts, by potters, glass-makers, painters &c.

LIVERPOOL DOCKS, SHIPPING &c. [Docks, Liverpool.]

LOADSTONE (Ger. magnet; Dutch, magneet; Fr. aimant; Ital. calamita; Span. iman; Russ. magnit; Lat. magnes). M. Hatty observes, that the ores in which the iron contains the least oxygen without being engaged in other combinations, form natural magnets; and he calls the *loadstones* of commerce, which are found in considerable masses in Germany, Sweden, Norway, Spain, Italy, China, Siam, the Philippine Isles, Corsica, and Ethiopia, *oxidulated iron*. The loadstone is characterised by the following properties:—A very strong action on the magnetic needle; specific gravity 4·2457; not ductile; of a dark grey colour, with a metallic lustre.—Primitive form the regular octahedron. Insoluble in nitric acid.

This singular substance was known to the ancients, and they had remarked its peculiar property of attracting iron; but it does not appear that they were acquainted with the wonderful property which it also has, of turning the pole when suspended, and left at liberty to move freely. Upon this remarkable circumstance the mariner's compass depends, an instrument which gives us such infinite advantages over the ancients. It is this which enables the mariner to conduct his vessel through vast oceans out of the sight of land, in any given direction; and this directive property also guides the miner in subterranean excavations, and the traveller through deserts otherwise impassable. The natural loadstone has also the quality of communicating its properties to iron and steel; and when pieces of steel properly prepared are touched, as it is called, by the loadstone, they are denominated artificial magnets. [Compass.]

LOAN. [Funds; Interest.]

LOBSTER (Fr. écrevisse; Lat. cancer). A fish of the crab species, of which vast quantities are consumed in London.

The minimum size of lobsters offered for sale is fixed by 10 & 11 Wm. III. c. 24 at *eight* inches from the tip of the nose to the end of the middle fin of the tail. No lobsters are to be taken on the coast of Scotland between June 1 and September 1, under a penalty of 5*l*. The Scilly Islands and the Land's End abound in lobsters, as well as several places on the Scottish shores, particularly about Montrose. But the principal lobster fishery is on the coast of Norway; whence it is believed about 1,000,000 lobsters are annually imported into London. Those of Heligoland are, however, esteemed the best; they are of a deeper black colour, and their flesh is firmer than that of those brought from Norway. Turbots and lobsters may be imported either in British or foreign vessels free of duty.

LOCK, LOCKS (Ger. schlösser; Dutch, sloten; Fr. serrures; Ital. serrature; Span. cerraduras, cerrajos; Russ. Samki). A well-known instrument, of which there are infinite varieties. A great deal of art and delicacy is sometimes displayed in contriving and varying the wards, springs, bolts &c., and adjusting them to the places where they are to be used, and to the occasions of using them. From the various structure of locks, accommodated to their different intentions, they acquire various names, as stock locks, spring locks, padlocks &c. The grand difficulty to be overcome in making a lock is to construct it so that it may not be opened by any key except its own, nor admit of being picked; it should also be possessed of sufficient strength and durability, and not be too complex. Many ingenious contrivances have been proposed for the attainment of the desired security, several of which are possessed of much merit. And though we believe that no lock has hitherto been constructed that may not (if proper facilities are given) be picked; yet it is true that some of the best locks, such as those made by Messrs. Bramah, Chubb, Mordan, and other first-rate artists, are so very difficult to pick, that the security which they afford may, in a practical point of view, be regarded as all but perfect. Common door-locks are now usually inserted in the wood, instead of being, as formerly, screwed to it; and when so placed are called *mortis* locks. Carpenter's locks, in which the bolt is perpendicular, are well known and widely used. Willenhall, Wolverhampton, Walsall and Wednesfield are the chief seats of the lock trade. Nearly 5,000 hands are reported to be engaged in these localities. The principal foreign markets are Australia, New Zealand and India. English locks are, for finish and security, by far the best in the world. (*Birmingham and the Hardware District*, p. 77.)

LOG, SHIP'S (Fr. loc). A piece of timber, usually of a fish-like or quadrantal shape, so constructed and balanced, by being loaded at one end, as to swim perpendicularly on the surface of the water. It has a line attached to it, and is employed in ships to ascertain the rate of sailing. The log-line is divided into spaces, or knots, which, if properly measured, bear the same proportion to a marine mile that ½ minute bears to an hour. On throwing the log into the sea it remains stationary, or nearly so; and the log-line being drawn out, or unwound from its reel, by the ship proceeding on her course, her speed is estimated by observing the number of knots, each of which represents a mile, run out in ½ minute as measured by a ½ minute sand-glass. Hence, if 3, 4, or 5 knots are run out in ½ minute, the rate of sailing is 3, 4, or 5 miles an hour as the case may be; and hence, also, the custom of stating a ship's rate of sailing in knots instead of miles. N.B. A great variety of logs have been suggested; but the principle being the same in them all, it is needless to enter into any particulars with respect to their construction.

From the log being affected by currents and other disturbing causes, the results obtained by its means have usually to be subjected to various corrections; and, except under favourable circumstances, are but little to be depended on. Whenever, therefore, an opportunity offers, the true place of the ship should be determined by observation. But in hazy weather, or when observations cannot

be taken, and in narrow seas, the log, when carefully used, may be of the greatest service; and it should never be wholly dispensed with.

Log-Book (Fr. livre du loc). This, which is, in fact, the ship's journal, derives its name from the circumstance of the *dead reckoning*, or the results obtained by heaving the log compared with the ship's course, being usually given in it. In its present improved state, the log-book comprises an account of every event of any importance that takes place during a voyage, whether relating to the ship, the crew, the passengers (if any), or the cargo, which should be taken down as soon as possible after its occurrence. Inasmuch, too, as it is of the highest importance in all matters relating to the voyage, the log-book should be carefully and faithfully compiled, and made out in a clear and distinct manner. This, indeed, is one of the principal duties of a master.

Log (Official). In addition to, or in conjunction with, the ordinary ship's log, all masters of British ships, not wholly engaged in the coasting trade, are bound to keep an *official log*, in such form as may, from time to time, be prescribed by the Board of Trade. The entries to be made in this log are specified in the Mercantile Shipping Act of 1854, as follows, viz.:—

Official Logs to be kept in forms sanctioned by Board of Trade.—The Board of Trade shall sanction forms of official log-books which may be different for different classes of ships, so that each such form contains blanks for the entries hereinafter required; and an official log of every ship (except ships employed exclusively in trading between ports on the coasts of the United Kingdom) shall be kept in the appropriate sanctioned form; and such official log may, at the discretion of the master or owner, either be kept distinct from the ordinary ship's log or united therewith, so that in all cases all the blanks in the official log be duly filled up. (Sec. 280.)

Entries to be made in due Time.—Every entry in every official log shall be made as soon as possible after the occurrence to which it relates, and if not made on the same day as the occurrence to which it relates shall be made and dated so as to show the date of the occurrence and of the entry respecting it: and in no case shall any entry therein in respect of any occurrence happening previously to the arrival of the ship at her final port of discharge be made more than 24 hours after such arrival. (Sec. 281.)

Entries required in Official Log.—Every master of a ship for which an official log-book is hereby required shall make or cause to be made therein entries of the following matters; (that is to say,)

(1.) Every legal conviction of any member of his crew, and the punishment inflicted:

(2.) Every offence committed by any member of his crew for which it is intended to prosecute, or to enforce a forfeiture, or to exact a fine, together with such statement concerning the reading over such entry, and concerning the reply (if any) made to the charge, as hereinbefore required:

(3.) Every offence for which punishment is inflicted on board, and the punishment inflicted:

(4.) A statement of the conduct, character, and qualifications, of each of his crew, or a statement that he declines to give an opinion on such particulars:

(5.) Every case of illness or injury happening to any member of the crew, with the nature thereof, and the medical treatment adopted (if any):

(6.) Every case of death happening on board, and of the cause thereof:

(7.) Every birth happening on board, with the sex of the infant and the names of the parents:

(8.) Every marriage taking place on board, with the names and ages of the parties:

(9.) The name of every seaman or apprentice who ceases to be a member of the crew, otherwise than by death, with the place, time, manner, and cause thereof:

(10.) The amount of wages due to any seaman who enters her Majesty's service during the voyage:

(11.) The wages due to any seaman or apprentice who dies during the voyage, and the gross amount of all deductions to be made therefrom:

(12.) The sale of the effects of any seaman or apprentice who dies during the voyage, including a statement of each article sold, and of the sum received for it:

(13.) Every collision with any other ship, and the circumstances under which the same occurred. (Sec. 282.)

Entries how to be signed.—The entries to be made in official log-books shall be signed as follows; viz.: Every such entry shall be signed by the master and by the mate or some other of the crew, and every entry of illness, injury, or death shall be also signed by the surgeon or medical practitioner on board (if any); and every entry of wages due to or of the sale of the effects of any seaman or apprentice who dies shall be signed by the master and by the mate and some other member of the crew; and every entry of wages due to any seaman who enters her Majesty's service shall be signed by the master and by the seaman or by the officer authorised to receive the seaman into such service. (Sec. 283.)

Penalties in respect of official Logs.—The following offences in respect of official log-books shall be punishable as hereinafter mentioned; viz.:—

(1.) If in any case an official log-book is not kept in the manner hereby required, or if any entry hereby directed to be made in any such log-book is not made at the time and in the manner hereby directed, the master shall for each such offence incur the specific penalty herein mentioned in respect thereof, or where there is no such specific penalty, a penalty not exceeding 5*l*.

(2.) Every person who makes or procures to be made or assists in making any entry in any official log-book in respect of any occurrence happening previously to the arrival of the ship at her final port of discharge more than twenty-four hours after such arrival shall for each such offence incur a penalty not exceeding 30*l*.

(3.) Every person who wilfully destroys or mutilates or renders illegible any entry in any official log-book, or who wilfully makes or procures to be made or assists in making any false or fraudulent entry or omission in any such log-book, shall for each such offence be deemed guilty of a misdemeanor. (Sec. 284.)

Entries in official Logs to be received in Evidence.—All entries made in any official log-book as hereinbefore directed shall be received in evidence in any proceeding in any court of justice, subject to all just exceptions. (Sec. 285.)

Official Logs to be delivered to Shipping Master.—In the case of foreign-going ships the master shall, within 48 hours after the ship's arrival at her final port of destination in the United Kingdom, or upon the discharge of the crew, whichever first happens, deliver to the shipping master before whom the crew is discharged the official log-book of the voyage; and the master or owner of every home trade ship, not exclusively employed in trading between ports on the coasts in the United Kingdom

shall within 21 days after the 30th of June and the 31st of December in every year transmit or deliver to some shipping master in the United Kingdom the official log-book for the preceding half year; and every master or owner who refuses or neglects to deliver his official log-book as hereby required shall be subject to the same consequences and liabilities to which he is hereby made subject for the non-delivery of the list of his crew. (Sec. 286.)

Official Logs to be sent home in case of Transfer of Ship, and in case of Loss.—If any ship ceases by reason of transfer of ownership or change of employment to fall within the definition of a foreign-going or of a home trade ship, the master or owner thereof shall, if such ship is then in the United Kingdom, within 1 month, and if she is elsewhere, within 6 months, deliver or transmit to the shipping master at the port to which the ship belonged the official log-book (if any) duly made out to the time at which she ceased to be a foreign-going or home trade ship, and in default shall for each offence incur a penalty not exceeding 10*l.*; and if any ship is lost or abandoned, the master or owner thereof shall, if practicable, and as soon as possible deliver or transmit to the shipping master at the port to which the ship belonged the official log-book (if any) duly made out to the time of such loss or abandonment, and in default shall for each offence incur a penalty not exceeding 10*l.* (Sec. 287.)

LOGWOOD (Fr. bois de Campèche; Ger. Kampescholz; Dutch, Campecheout; Span. palo de Campeche). The wood of a tree (*Hæmatoxylon Campechianum*, Linn.), a native of America, and which attains the greatest perfection at Campeachy, and in the West Indies. It thrives best in a wet soil, with a large proportion of clay. The logwood tree is like the white thorn, but a great deal larger. The wood is hard, compact, heavy, and of a deep red colour internally, which it gives out both to water and alcohol. It is an article of great commercial importance, being extensively used as a dye wood. It is imported in logs, that are afterwards chipped. (The logwood tree, and the adventures of those that were formerly engaged in cutting it, are described by Dampier; see his *Voyages*, vol. ii. part 2, p. 56, ed. 1729.)

The imports of logwood in 1867 amounted to 28,530 tons. Of these 22,382 tons came from Honduras and the British West Indies, 1,012 tons from Mexico, and 944 tons from the United States. Its price in 1867 varied from 10*l.* 10*s.* 10*d.* to 3*l.* 15*s.* 9*d.* per ton. The best is that from Mexico. It was made duty free in 1845.

We borrow from the learned and able work of Dr. Bancroft, the following curious details with respect to the use of logwood in this country:—'Logwood seems to have been first brought to England soon after the accession of Queen Elizabeth: but the various and beautiful colours dyed from it proved so fugacious, that a general outcry against its use was soon raised; and an Act of Parliament was passed in the 23rd year of her reign, which prohibited its use as a dye under severe penalties, and not only authorised but directed the *burning* of it, in whatever hands it might be found within the realm; and though this wood was afterwards sometimes clandestinely used (under the feigned name of blackwood), it continued subject to this prohibition for nearly 100 years, or until the passing of the Acts 13 & 14 Ch. II.; the preamble of which declares, that the ingenious industry of modern times hath taught the dyers of England the art of fixing colours made of logwood, *alias* blackwood, so as that, by experience, they are found as lasting as the colours made with *any other sort of dyeing wood whatever*; and on this ground it repeals so much of the statute of Elizabeth as related to logwood, and gives permission to import and use it for dyeing. Probably the solicitude of the dyers to obtain this permission induced them to pretend that their industry had done much more than it really had, in fixing the colours of logwood; most of which, even at this time, are notoriously deficient in regard to their durability.' (*On Permanent Colours*, vol. ii. p. 340.)

LOUIS D'OR. A French gold coin, first struck in 1640. It was subsequently made by the French mint regulations equal to 24 livres, or 1*l.* sterling. This, however, was under-rating it in respect of silver; and hence, as every one preferred paying his debts in the over-valued coin, silver became the principal currency of France, the gold coins being either sent to the melting-pot or exported. In Britain, the process was reversed. Gold having been, for a lengthened period, over-valued by our mint in respect to silver, it became the principal currency of the country.

LUBECK. [HANSEATIC LEAGUE.]

LUGGAGE. [BAGGAGE.]

M

MACAO. A sea-port and settlement belonging to the Portuguese, on the island of the same name, at the mouth of the Canton river in China, in lat. 22° 12′ 45″ N., long. 113° 35′ E. The situation of Macao strikingly resembles that of Cadiz. It is built near the extremity of a peninsula projecting from the south-west corner of the island of Macao, to which it is joined by a long narrow neck. Across this isthmus, which is not more than 100 yards wide, a wall is erected, with a gate and guard-house in the middle for the Chinese soldiers. The greatest length of the peninsula belonging to the Portuguese, from N.E. to S.W., is under 3 miles, and its breadth under ½ mile. The broadest part, to the north of the town, is flat, and of a light sandy soil: but is well cultivated, principally by Chinese, and produces all sorts of Asiatic and European culinary vegetables. Provisions are obtained from the Chinese part of the island or from the main land.

The Portuguese obtained possession of Macao in 1586. It was for a considerable period the seat of a great trade, carried on not only with China, but with Japan, Siam, Cochin-China, the Philippine Islands &c.; but for many years past it has been of comparatively little importance, though it is probable, that if it belonged to a more enterprising and active people, it might still recover most part of its former prosperity. Formerly the public administration was vested in a senate composed of the bishop, the judge, and a few of the principal inhabitants: but all real authority was till 1849 in the hands of the Chinese mandarin resident in the town.

Advantage was taken, however, of the state of weakness to which the Chinese were reduced by

the war with Great Britain in 1839-42, to expel the Chinese civil functionaries and Customs' officials, and since 1849, the settlement has been looked upon as a colony of Portugal, an assumption which the Chinese Government have not, however, admitted, and which will probably be actively combated ere long.

The population of Macao is estimated at some 30,000 Chinese and 5,000 Europeans or Indo-Europeans.

The Government is conducted by a Governor, the Chief Justice, who, with the Secretary of Government, are as a rule the only officials coming from the mother country.

The following return shows the number of Chinese exported as bond-servants from Macao in 1866 :—

To Havana - - -	15,517
Peru - - -	7,384
Total - -	22,901

The following is a summary of imports, with estimated value, for 1866 :—

Articles		Quantities	Value
			dols.
Tea -	chests	4,337	34,696
Rice -	piculs	214,513	499,249
Opium -	chests	9,076	5,429,103
Raw silk -	boxes	926	261,690
Specie -	value	..	1,224,668
Sundries -	,,	..	563,413
Total -	-	..	8,012,809

These figures are, however, only approximate, as, in the absence of a custom-house, a simple memorandum of cargo is all that is required by the Government. The value of exports from Macao for 1865 amounted to 4,665,361 dollars, and in 1866 to 3,768,007 dollars.

The following is the return of shipping for the year 1866 :—

	Entered	Cleared
British - -	40	36
Foreign - -	135	77

The Harbour is on the west side of the town, between it and Priest's Island, and is small and inconvenient of access save by vessels of comparatively light draught, of which, moreover, no great number can be accommodated at one time. The water not being sufficiently deep to admit large ships, they generally anchor in the roads on the other side of the peninsula, from 5 to 10 miles E.S.E. from the town, an open sea way protected only on the south by the island called the Typa. A steamer runs daily from Hong Kong to Macao and back, accomplishing the journey in 4 hours. All vessels coming into the roads send their boats to the Portuguese Custom-house on the south side of the town.

When a ship arrives among the islands, she is generally boarded by a pilot, who carries her into Macao roads. As soon as she is anchored, the pilot proceeds to Macao to inform the mandarin of her nationality. If there be any women on board, application must be made to the bishop and senate, for leave to send them on shore, as they will not be permitted to proceed to Whampoa in the ship. As soon as the mandarin has made the necessary enquiries, he orders off a river pilot, who brings with him a *chop* or license to pass the Bocca Tigris, or mouth of the Canton river, and carries the ship to Whampoa. For pilot regulations and charges see WHAMPOA. No port dues are levied, but the following harbour regulations are enforced :—

Macao Port Regulations.—1. Any vessel nearing the road and wanting a pilot, must have its national flag at the foremast head.

2. No notice will be taken at the office of the captain of the port of any damage occurring to vessels coming in or going out when not piloted by the office pilot.

3. The captain of the port will not employ any pilot without having previously examined him; and as it is necessary to keep a pilot establishment, vessels coming in or going out without such office pilot will not be exempted from payment of pilotage dues.

4. Captain of a vessel or his agent shall report his vessel at the captain of the port's office within 24 hours after his arrival, and in default of doing so he shall pay a fine of 100 dollars.

5. The captain of a vessel on landing shall present his ship's papers at the office of the captain of the port; where they will remain until his departure.

6. Vessels cannot enter the inner harbour with gunpowder on board. Such gunpowder must be deposited at the Bar Fort, whence it can be received on going out.

7. It is forbidden to throw ballast or rubbish overboard in port, under a penalty of 100 dollars.

8. Vessels are not permitted to change their moorings in the river without the permission of the captain of the port.

9. Vessels must keep their sheet anchors ready for letting go.

10. If any man deserts his vessel, the same must be reported to the captain of the port, who will assist in his apprehension, and if the deserter cannot be found during the stay of the vessel in port, but should appear after her departure, he shall be arrested (if so required) and delivered to the police authorities.

11. It is forbidden to land invalids without the consent of the captain of the port. For contravention of this a fine will be imposed of 100 dollars.

12. If the captain of a vessel wishes to send any sick man to the hospital, he must apply to the captain of the port; the vessel being answerable for the expenses.

13. The captain of a vessel may not discharge either part or the whole of his crew in Macao, without the permission of the captain of the port.

14. Vessels coming to in the roads, with intention of loading or unloading, must report at the office of the captain of the port, as ordained by the 5th art. Agents will be held answerable for the neglect.

Although the independence of Macao is officially ignored by the Chinese Government, its status as a Portuguese colony has been recognised in fact by the British and other Governments, who maintain Consular agents there but leave the control of their respective subjects in the hands of the Portuguese authorities. A treaty was signed on the 13th August 1862 between the Governor of Macao and two Chinese Commissioners, by the wording of which Portugal was left free to infer undisputed possession of the peninsula; but on the exchange of ratifications being demanded in the following year the treaty was disavowed by the Chinese Government, on the ground that it had been extorted under irregular menaces.

The currency of Macao, weights and measures &c. are the same as those of Canton.

Trade of Macao. The Chinese regulations do not permit any vessels, except such as belong to Portuguese or Spaniards, of which there are very few, to trade at Macao. But the Portuguese inhabitants lend their names, for a trifling consideration, to such foreigners as wish to be associated with them for the purpose of trading from the port. Independently, however, of this,

vessels of other nations usually experience no difficulty in obtaining the connivance of the Chinese officers to the landing or receiving of goods in the roads, by means of Portuguese boats. At intervals, indeed, the prohibitory regulation is strictly enforced; but we believe that there has been no instance of this in recent years.

Port Charges.—The measurement duty paid by Spanish and Portuguese vessels is moderate. When a vessel has once paid the full amount, and is admitted on the list of registered ships belonging to the port (limited by the Chinese to 25), she is liable only to a third of the original charges, on every subsequent occasion of her entering, so long as she continues on the register. Portuguese vessels from Europe do not possess this privilege, unless they be registered as belonging to a morador of Macao.

The rates of measurement duty, which vary, as at CANTON, on three classes of vessels, are the following:—

		taels.	
1st.	On vessels of 154 covids and upwards,	0·723	per covid
2nd.	from 120 to 154 covids	0·72	,,
3rd.	90 to 120 ,,	0·4	,,

These rates are nearly the same as those levied on Canton junks, trading with foreign countries, and ought, in fact, to be entirely so. The dimensions are taken and calculated in the manner formerly practised at Canton; but the Chinese, at both places, speak not of the covid, but of the chang of 10 covids. However, as this is only a decimal increase, it makes no difference in the method of calculation.

The following additional charges, to be calculated on the amount of measurement duty, are the same on every class of vessels, viz.:—

2 per cent. for inspectors.

8 per cent. for difference in weight by the treasury scales.

10 per cent. for loss in melting.

17 per cent. for making sycee.

Also the sum of 70 taels for the 'public purse,' or hoppo's treasury.

In addition to these, the following are the charges levied by the hoppo (collector of customs), or his deputy:—

On a 1st class vessel from Europe, 250 taels; if belonging to Macao or Manilla, 50 taels.

On a 2nd class vessel from Europe, 240 taels; if belonging to Macao or Manilla, 40 taels.

On a 3rd class vessel from Europe, 170 taels; if belonging to Macao or Manilla, 30 taels.

Ships importing rice are exempt from the measurement duty, and pay only 50 dollars, as fees to the procurador of Macao and the officers of his department.

Portuguese vessels from Europe, in addition to the measurement duty, have to pay to the Canton hong merchants a charge, termed by the Portuguese, Hanistagem, or Consoo charge, which is usually a matter of specific bargain, varying from about 200 dollars on a vessel of 200 tons, to 3,500 dollars and upwards on those of 500 tons, and of larger sizes.

The charges on goods carried by the inner passage, between Canton and Macao, being generally less than those paid on goods to and from Whampoa; and the duties levied by the Portuguese, on articles of merchandise imported by vessels belonging to Macao, being very moderate; the Chinese are often led to engage in speculations on board the Macao vessels, the risk being so much less than in native junks. If the ship owners could so manage their expense as to be satisfied with only the same freight as is charged by English vessels, it would probably induce many more Chinese to make remittances in this way.

Opium.—The trade in opium is prohibited at Macao by the Chinese Government, as well as throughout the rest of the empire. It was, nevertheless formerly carried on to a great extent by the Portuguese moradores, or citizens, to the exclusion of all others, even Portuguese who were not citizens. But this restriction having occasioned the decline of the trade, it was abolished in 1823, when the senate passed a regulation, throwing open the trade to all, without distinction, whether Portuguese or foreigners; securing to the latter, 'hospitality and the utmost freedom in their speculations.' The import of opium is on the increase at Macao, 9,076 chests (chiefly Patna), valued at 5,429,103 dollars, having been landed here in 1866, while in 1865 but 7,593 chests, valued at 3,662,919 dollars, were brought in.

Imports.—Goods imported pay at the Portuguese Custom-house a duty of 6 per cent. on a fixed valuation, besides some fees, and coolie hire. The following are a few articles extracted from the tariff:—

Articles		Valuation	Duty
		taels	taels
Cotton - - -	per picul	4	0·240
Broad cloth, middling - -	covid	1·600	0·096
better than ordinary	,,	0·800	0·048
ordinary or coarse -	,,	0·480	0·028
Camlets - - -	,,	1·280	0·016
Betel nut - - -	picul	1·200	0·072
Tin - - -	,,	8	0·480
Birds' nests, 1st sort - -	catty	22·400	1·344
Rattans - - -	picul	1·200	0·072
Saltpetre, Bengal - -	,,	4	0·240
coast of Goa - -	,,	1·600	0·096
Pepper - - -	,,	4	0·240

Opium imported in Portuguese ships pays, per chest, 10½ drs.
foreign ,, ,, 15½ ,,

Gold and silver, whether in coin, in bullion, or manufactured, pay on importation, 2 per cent.; except in Spanish vessels from Manilla, when the charge is 1½ per cent.

Exports.—No duty is levied by the Portuguese on goods exported from Macao; nor does the Custom-house take any cognisance of them.

Duties and Charges on Goods landed at Macao.—Macao is a place without any manufactures or commerce of its own. Prices are, in consequence, generally dependent on those of Canton. Money is usually paid at 72 taels per 100 dollars.

It is a point of some interest to ascertain the internal duties and expenses to which goods landed at Macao are liable, before coming into the Chinese purchaser's hands at Canton. But the subject is so involved in mystery and uncertainty, the charges varying according to the quantity of goods laden in one boat &c., that it is scarcely possible to arrive at any accurate information respecting it. We believe, however, that the following may be considered as a pretty close approximation to the real amount of charges incurred on cotton landed at Macao:—

Portuguese duty, fees &c. - -	mace 2—6	per picul
Duties and charges on conveyance to Canton	,, 6—5	,,
Canton charges, difference of weight, brokerage on sale &c. - - -	,, 8—0	,,
Total, about taels,	2—6—9	

The duties and charges on conveyance from Macao to Canton are, for pepper -	mace 9—0	per picul
Ditto, rattans - - -	,, 4—5	,,
Ditto, betel nut - - -	,, 4—5	,,

The hoppo's examiner charges 90 taels per boat of 1,000 piculs, the largest quantity allowed to be conveyed by a single boat; but the same charge of 90 taels is levied, although the boat should only contain 100 piculs.

The duty on exporting goods from Canton to Macao is in some cases less, in other cases greater, than the Whampoa duty. Thus, nankeens to Macao pay 2 dollars per 100 less than to Whampoa. Most descriptions of silk piece goods also pay less duty. On the other hand, tea, paper,

China ware &c. pay a higher duty to Macao than to Whampoa.

For details as to the *Weights, Measures* &c. used at Macao, see CANTON.

While our exports to Macao were *nil* in 1867, our imports therefrom (chiefly tea) amounted to 127,354*l*.

For further particulars, see Hamilton's *East India Gazetteer*, art. 'Macao;' Milburn's *Orient. Com.*; and *Consular Reports on Trade of China* &c. 1865–66. [CANTON.]

MACARONI. A species of wheaten paste formed into long, slender, hollow tubes, used amongst us dressed with cheese, and in soups, broths &c. It is the same substance as vermicelli: the only difference between them being that the latter is made into smaller tubes. Both of them are prepared in the greatest perfection in Naples, where they form the favourite dish of all classes, and the principal food of the bulk of the population. The flour of the hard wheat (*grano duro*) imported from the Black Sea is the best suited for the manufacture of macaroni. Being mixed with water, it is kneaded by means of heavy wooden blocks wrought by levers, till it acquires a sufficient degree of tenacity; it is then forced, by simple pressure, through a number of holes, so contrived that it is formed into hollow cylinders. The name given to the tubes depends on their diameter; those of the largest size being macaroni, the next to them vermicelli, and the smallest fedelini. At Genoa, and some other places, the paste is coloured by an admixture of saffron; but at Naples, where its preparation is best understood, nothing is used except flour and water; the best being made of the flour of hard wheat, and the inferior sorts of the flour of soft wheat. When properly prepared and boiled to a nicety, Neapolitan macaroni assumes a greenish tinge. It is then taken out of the caldron, drained of the water, and being saturated with concentrated meat gravy, and sprinkled with finely grated cheese, it forms a dish of which all classes, from the prince to the beggar, are passionately fond. But the macaroni used by the poor is merely boiled in plain water, and is rarely eaten with any condiment whatever. The macaroni usually served up in England is said, by those familiar with that of Naples, to be a disgrace to the name it bears. When properly prepared, macaroni is nutritious and easy of digestion. The lazzaroni pique themselves on the dexterity with which they swallow long strings of macaroni and vermicelli without breaking them. (We are principally indebted for these details to an article on macaroni in the *Penny Magazine* for August 10, 1833.)

Macaroni is liable to a duty of 4½ per cwt. In 1867 we imported 10,266 cwt. of macaroni and vermicelli, chiefly from Genoa.

MACE (Ger. macis, muskatenbluthe; Dutch, foelie, foely, muscaatbloom; Fr. macis, fleur de muscade; Ital. mace; Span. macio; Port. maxcis, flor de noz moscada; Lat. macis). A thin, flat, membranous substance, enveloping the nutmeg; and consequently only to be found in the countries that produce the latter. It is of a lively reddish yellow colour, a pleasant aromatic smell, and a warm, bitterish, pungent taste. Mace is chiefly imported from Penang and Singapore in bags, each weighing about 100 lb. Mace should be chosen fresh, tough, oleaginous, of an extremely fragrant smell, and a bright colour—the brighter the better. The smaller pieces are esteemed the best. The preferable mode of packing is in bales, pressed down close and firm, which preserves its fragrance and consistence.

The duty on mace was reduced in 1853 from 2*s.* 6*d.* to 1*s.* per lb. It was abolished in 1859. In 1867 we imported 26,269 lb.

A production is met with on the coast of Malabar, so like mace, that at first it is not easy to be distinguished; but it has not the least flavour of spiciness, and when chewed has a kind of resiny taste. Eight cwt. of mace are allowed to a ton. The East India ton of mace is 50 cubic feet in cases. (Milburn's *Orient. Com.*)

MADDER (Ger. färberöthe; Dutch, mee; Fr. alizari, garance; Ital. robbia; Span. granza, rubia; Russ. marionа, krap; Hin. munjith). The roots of a plant (*Rubia tinctorum*), of which there are several varieties. They are long and slender, varying from the thickness of a goose-quill to that of the little finger. They are semi-transparent, of a reddish colour, have a strong smell, and a smooth bark. Madder is very extensively used in dyeing red; and though the colour which it imparts be less bright and beautiful than that of cochineal, it has the advantage of being cheaper and more durable. It is a native of the south of Europe, Asia Minor, and India; but has been long since introduced into and successfully cultivated in Holland, Alsace, Provence &c. Its cultivation has been attempted in England, but without any beneficial result. Our supplies of madder were for a lengthened period almost entirely derived from Holland (Zealand); but large quantities are now imported from France and Turkey.

Dutch or Zealand madder is never exported except in a prepared or manufactured state. It is divided by commercial men into four qualities, distinguished by the terms *mull, gamene, ombro*, and *crops*. The roots being dried in stoves, the first species, or mull, consists of a powder formed by pounding the very small roots, and the husk or bark of the larger ones. It is comparatively low priced, and is employed for dyeing cheap dark colours. A second pounding separates about a third part of the larger roots; and this, being sifted and packed separately, is sold here under the name of gamene or gemeens. The third and last pounding comprehends the interior, pure, and bright part of the roots, and is sold in Holland under the name of *kor kraps*, but is here simply denominated crops. Sometimes, however, after the mull has been separated, the entire residue is ground, sifted, and packed together under the name of *omberoofde* or ombro. It consists of about one third of gamene, and two thirds of crops. Prepared madder should be kept dry. It attracts the moisture of the atmosphere, and is injured by it.

The Smyrna or Levant madder (*Rudia peregrina*), the alizari or lizary of the modern Greeks, is cultivated in Bœotia, along the border of lake Copais, and in the plain of Thebes. It also grows in large quantities at Kurdar near Smyrna, and in Cyprus. The madder of Provence has been raised from seeds carried from the latter in 1761. Turkey madder affords, when properly prepared, a brighter colour than that of Zealand. It is, however, imported in its natural state, or as roots; the natives, by whom it is chiefly produced, not having industry or skill sufficient to prepare it like the Zealanders, by pounding and separating the skins and inferior roots; so that, the finer colouring matter of the larger roots being degraded by the presence of that derived from the former, a peculiar process is required to evolve that beautiful Turkey red which is so highly and deservedly esteemed. (Thomson's *Chemistry*; Bancroft *On Colours*, vol. ii. pp. 221—278: see also Beckmann, *History of Inventions*, vol. iii. art. 'Madder.')

In France, madder is prepared nearly in the same manner as in Zealand. The following instructive details as to its cultivation, price &c. in Provence, were obligingly furnished to us by an English gentleman, intimately acquainted with such subjects, who visited Avignon in the autumn of 1829:—

'This town (Avignon) is the centre of the madder country, the cultivation of which was introduced here about the middle of the 18th century, and, with the exception of Alsace, is still confined (in France) to this department (Vaucluse). The soil appears to be better adapted for its cultivation here than anywhere else, and it has long been the source of great wealth to the cultivators. But the returns fluctuate very greatly.

'The root is called *alizari*, and the powder (made from it) *garance or garancine*. The plant is raised from seed, and requires 3 years to come to maturity. It is, however, often pulled in 18 months without injury to the quality; the quantity only is smaller. A rich soil is necessary for its successful cultivation; and when the soil is impregnated with alkaline matter, the root acquires a red colour; in other cases it is yellow. The latter is preferred in England, from the long habit of using Dutch madder, which is of this colour; but in France the red sells at 2 fr. per quintal higher, being used for the Turkey red dye.

'It is calculated that when when wheat sells at 20 fr. per hectolitre, *alizari* should bring 35 fr. per quintal (poids de table), to give the same remuneration to the cultivator. That is, wheat 68*s.* per English quarter, and *alizari* 34*s.* per English cwt. The price has, however, been frequently as low as 22 fr. per quintal.

'Prices undergo a revolution every 7 or 8 years, touching the minimum of 22, and rising as high as 100 fr. As in every similar case, the high price induces extensive cultivation, and this generally produces its full effect 4 or 5 years after. The produce of Alsace, which is inferior both in quantity and quality to that of Vaucluse, is generally sold in Strasburg market.

'England employs both the root and the powder, according to the purpose for which they are intended. The Dutch madder is more employed by the woollen dyers, and the French by the cotton dyers and printers.

'In making purchases of *garance*, it is essential to employ a house of confidence, because the quality depends entirely upon the care and honesty of the agent. The *finest* is produced from the roots after being cleaned and stripped of their bark. The *second* by grinding the roots without cleaning. A *third* by mixing the bark of the *first* while grinding; and so on to any degree of adulteration.

'The price of *alizari* in the country, which was only 25 fr. in July, is now (November 1829) at 36 fr., and is expected to be at 40 fr. very shortly. The crop being deficient both here and in Holland, and the certainty of its being also deficient next year, added to the small quantity existing in England, give reason to believe that the price will reach 60 fr. before many months, and will continue to advance for a year or two more.

'The *quintals* above mentioned are of 100 lb. poids de table—the weight in general use over the south of France, and even in Marseilles. This weight is different in the different provinces, varying from 22 to 25 per cent. lighter than the *poids métrique*. At Avignon, 124 poids de tables = 50 kilogrammes, consequently 126 lb. are equal to 1 cwt. English. At the exchange of 25 50 the cwt. costs (including 11*s.* for freight, duty, and all charges till delivered in London or Liverpool), 61*s.* or 60*s.*'

The duty on madder was repealed in 1845.

Madder does not deteriorate by keeping, provided it be kept dry.

It is imported in casks weighing from 15 to 23 cwt.

Account of the Quantities and Values of the different varieties of Madder Imported in 1866, *showing the Countries whence they came, and the Total Value of the Imports from each Country.*

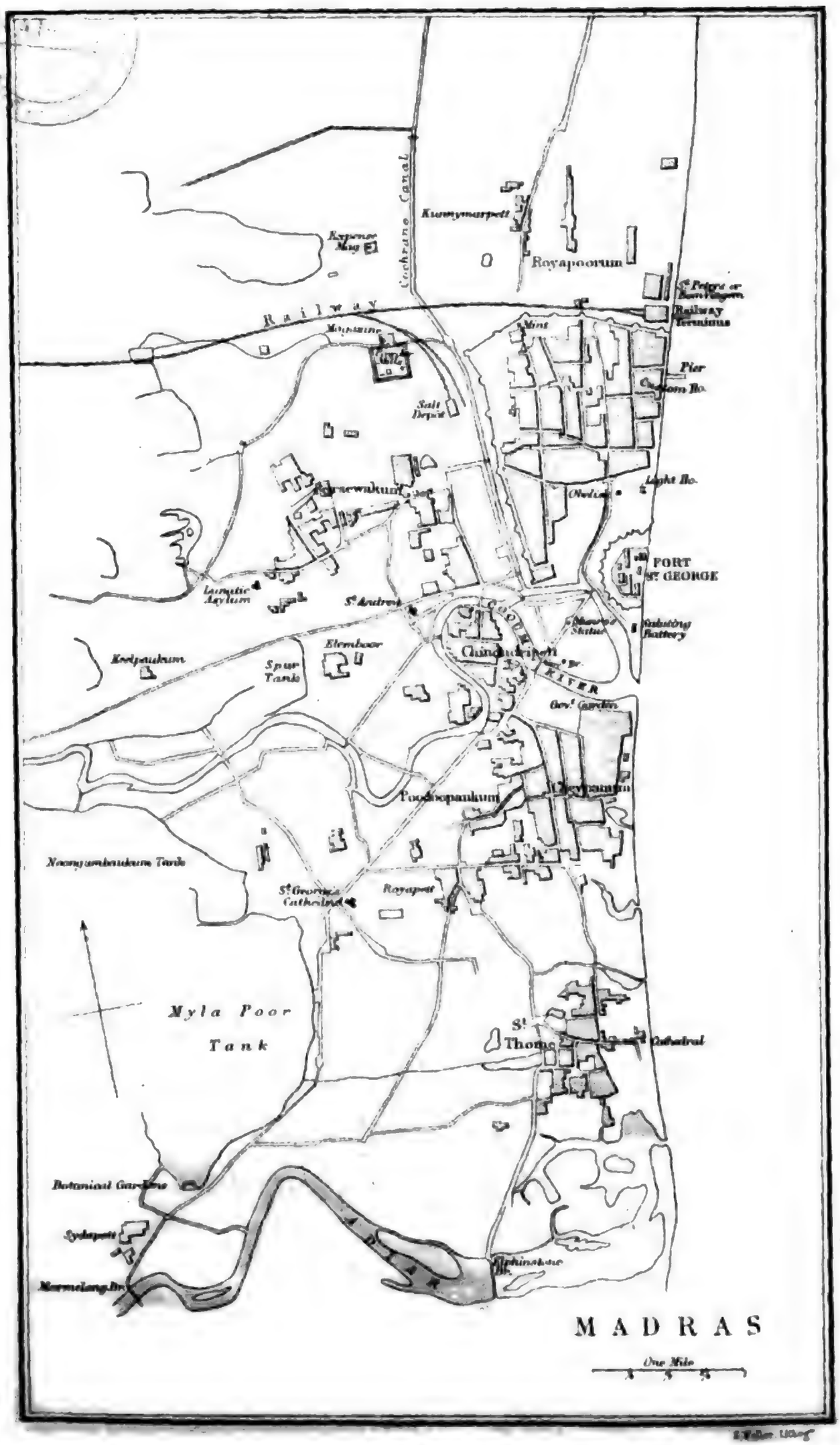
Countries		Madder	Madder Root	Munjeet	Garancine	Value
						£
Russia	cwt.	6,056	..	..	..	13,694
Holland	"	10,212	1,856	..	12,236	107,475
France	"	98,731	6,333	..	36,337	484,611
Austrian Territories	"	..	5,021	..	..	4,238
Italy: Naples	"	2,518	63,105	..	437	98,482
Greece	"	..	1,378	..	..	2,895
Turkey	"	3,493	141,365	..	..	296,965
Egypt	"	..	1,451	..	..	3,219
British India, Bombay and Sinde	"	..	1,530	1,709	..	6,013
Bengal and Pegu	"	..	..	151	..	302
Other parts	"	721	1,920	..	80	5,506
Total	"	121,363	221,668	1,851	49,150	1,021,395

In 1867 we imported 121,146 cwt. of madder and 138,855 cwt. of madder root, and exported 1,105 cwt. madder, and 8,581 cwt. madder root.

In 1867 the garancine imported was valued at 6*l.* 11*s.* per cwt., and the madder and madder roots at from 1*l.* 12*s.* to 2*l.* 7*s.* 6*d.* per cwt. (For an account of East Indian madder, see MUNJEET.)

MADEIRA. [WINE.]

MADRAS. The principal emporium of the coast of Coromandel, or western shore of the Bay of Bengal, lat. of lighthouse, 13° 5′ 10″ N., long. 80° 16′ 29″ E. It is the seat of the Government of the second presidency of British India, having under it a territory, including the tributary states, of 257,042 square miles, with a population, according to the latest returns, of 36,060,551, paying, in 1865, a gross annual revenue of about 7,000,000*l.* sterling. The town had a population, in 1862, of 457,771, and is situated in the Carnatic province, a low, sandy, and rather sterile country. It is without port or harbour, lying close upon the margin of an open roadstead, the shores of which are constantly beaten by a heavy surf. Besides these disadvantages, a rapid current runs along the coast; and it is within the sphere of the hurricanes or typhoons, by which it is occasionally visited. In every respect, indeed, it is a very inconvenient place for trade, and its commerce is consequently greatly inferior to that of either Calcutta or Bombay. It has been in the possession of the English above two centuries, having been founded by them in 1639, and retained ever since. Fort St. George is a strong and handsome fortification, lying close to the shore. The Black Town of Madras, as it is called, stands to the north and eastward of the fort, from which it is separated by a spacious esplanade. Here reside the native, Armenian, and Portuguese merchants, with many Europeans unconnected with the Government. Like most other Indian towns, it


Cochrane Canal
Kummumarpett
Royapooram
Railway
Railway Terminus
Mint
Pier
Light Ho.
Salt Depot
PORT
St. GEORGE
Lunatic Asylum
St. Andrew
Saluting Battery
Elembore
Spur Tank
Chindadrepett
RIVER
Gov.t Garden
Poodoopankum
Nungambaukum Tank
St. George's Cathedral
Royapet
Myla Poor
Tank
St. Thome
Cathedral
Botanical Gardens
Sydapet
MADRAS
One Mile

is irregular and confused, being a mixture of brick and bamboo houses. Madras, like Calcutta and Bombay, is subject to English law; having a Supreme Court of Judicature, the judges of which are named by the Crown, and are altogether independent of the local Government. The population is not exactly ascertained, but there are said to be about 400,000 persons within a radius of 2½ miles round Fort St. George.

In Madras roads, large ships moor in from 7 to 9 fathoms, with the flagstaff off the fort bearing W.N.W., 2 miles from shore. From October to January is generally considered the most unsafe season of the year, in consequence of the prevalence of storms and typhoons. On October 15, the flagstaff is struck, and not erected again until December 15; during which period a ship coming into the roads, or, indeed, anywhere within soundings on the coast of Coromandel (reckoned from Point Palmyras to Ceylon), vitiates her insurance, according to the conditions of the policies of all insurance offices in India. The cargo boats used for crossing the surf, called *Massula* boats, are large and light; made of very thin planks sewed together, with straw in the seams instead of caulking.

The boats belonging to ships in the roads sometimes proceed to the back of the surf, and wait for the country boats from the beach to come to them. When it is dangerous to have communication with the shore, a flag is displayed at the beach house, which stands near the landing place, as a station.

The fishermen use a species of floating machine of a very simple construction, named a catamaran. It is formed of 2 or 3 logs of light wood, 8 or 10 feet in length, lashed together, with a small piece of wood inserted between them to serve as a stempiece. They hold generally 2 men, who paddle themselves through the surf, to carry letters, or refreshments in small quantities, to ships, when no boat can venture out. They wear a pointed cap made of matting, where they secure the letters, which take no damage. Medals are given to such catamaran men as distinguish themselves by saving persons in danger. They are all under the immediate control of the Government.

The erection of a solid wrought iron screw pile pier will, it is hoped, obviate the dangers of landing at Madras. It is 1,000 feet long, 40 feet broad, with 4 lines of railway, turntables, 6 fixed and 8 movable cranes. Its total cost was about 83,000*l.*, and tolls are levied on goods and passengers.

Internal Communication.—The rivers of this Presidency being little or not navigable, communication is held by means of roads, canals, and railways. Of the last there were, in 1866, 650 miles open for traffic. Madras communicates with Calcutta, Bombay, and Ceylon by telegraph.

Lighthouse.—A powerful 'flashing light' has been exhibited on the new lighthouse immediately to the N. of the fort. This light is elevated 128 feet above the level of the sea, and may be seen in clear weather from the deck of a ship at a distance of from 17 to 24 miles. The new lighthouse bears S. 23° W., and is distant about 13 miles from the south-eastern extremity of the Pulicat shoal; but no ship or vessel when standing in from the northward for Madras roads should bring the light to bear to the S. of 28° W., or S.S.W. ½ W. unless her position be well ascertained. Commanders of ships should bear in mind the serious risk they run by incautiously approaching the Pulicat shoal; and as heavy weather or other causes may obscure the light, it is imperatively necessary to keep the lead going, and to keep a vigilant look-out. (*Statement issued by Marine Board.*)

Commerce.—IMPORTS—cotton and hardware goods; manufactured metals; glass; books; wines; provisions; railway materials; spirits; apparel; timber; and horses. EXPORTS—cotton, sugar; coffee; indigo; rice; hides; jaggery; cocoa-nut-oil; oil-seeds; cardamoms; senna and pepper. The greater part of the trade is with the United Kingdom; the rest with Bombay, Calcutta, and other Indian ports, Ceylon, the Straits, France, Mauritius, New South Wales, and America.

Customs Tariff: Imports and Exports.—By the Indian Customs Duties Act of March 1867 one uniform tariff was fixed for all the ports in British India. [CALCUTTA.]

Moneys, Weights, and Measures.—The Government rupee (for an account of which see CALCUTTA) is now in general circulation as settled by the Act No. XIII. of 1862, which provided for a new silver and copper coinage at all the mints in British India.

Silver Coin.

A rupee to be called the Government rupee.
A half rupee.
A quarter rupee or four anna piece.
An eighth of a rupee or two anna piece.

Copper Coin.

A double pice or half anna.
A pice or quarter anna.
A half pice or one-eighth of an anna.
A pie, being one-third of a pice, or one-twelfth of an anna.

Revised Weights and Measures.—The weights and measures recognised by Government are as follow:—

		Avoirdupois. lbs.	oz.	drs.
180 grains	= 1 tolah =	0·	0·	6·58
3 tolas	= 1 pollam =	0·	1·	5·75
40 pollams	= 1 viss =	3·	1·	5·01
8 viss	= 1 maund =	24·	10·	15·54
20 maunds	= 1 candy			

Measures		Cylinder: Diameter	Cylinder: Depth	Contents in Cubic Inches
	1 ollock	inches 2·6	inches 2·4	12½
8 ollocks	= 1 measure	5·0	5·1	100
4 „	= ½ „	4·0	4·0	50
2 „	= ¼ „	3·2	3·1	25
8 measures	= 1 marcal	10·3	9·6	800
4 „	= ½ „	8·2	7·6	400

The 'garce' is 400 marcals or 185·2 cubic feet or 5·152 tons of water. According to the *old* measure of Madras, the puddee or 'measure' was 93¾ cubic inches, and the marcal 750 cubic inches.

Car. paddy weighs about	83 tolas	the 100 cubic inches	
Raw rice	„	114	„ „
Horse gram	„	120	„ „

The standard Madras puddee or 'measure' is generally a cylinder, 4 inches in diameter and 8 inches deep, containing 100 cubic inches, as in the above table. Now 100 cubic inches of *water* at 80° weigh 3·6 lbs. avoirdupois, or 140 tolas exactly.

1 measure	=	144 quarts
2·77 „	=	1 gallon
22·18 „	=	1 bushel
22·18 marcals or 177½ measures	=	1 quarter
1 garce	=	18 quarters

The seer is often spoken of as a measure, whereas it is properly a weight of 80 rupees (though in some places it is 84 rupees).

Where the seer is spoken of as a measure, it is usual to calculate 2 Madras measures to 3 seers, and it so happens that two of the Madras regulation measures contain about 6·2 lbs. of paddy, a

weight equal to 3 seers of 80 rupees. 1 lb. avoirdupois = 38·889 tolas.

Salt.—Salt continues to be sold in the Madras Presidency by the garce and marcal. But the accounts are kept in Indian maunds:—

24 chattals or 80 tolas	=	1 seer
80 seers	=	1 Indian maund
120 maunds	=	1 garce
5 maunds	=	1 marcal
400 marcals	=	1 garce or 144 bushels
35 seers	=	7 lbs. Avoirdupois

At 120 rupees a garce, one measure of salt, costs 7 2/10 pice, and a marcal as. 1. p. 9·6.

Account of the Principal Articles of Merchandise, and of Treasure, Exported from the Presidency of Madras, by Sea, in each of the Years ended April 30, 1864–5.

Articles	Exports	
	1864	1865
	£	£
Coffee - -	125,109	209,656
Cotton, raw -	4,511,481	5,962,796
Cotton goods, including twist and yarn - -	127,188	76,819
Drugs - -	9,145	14,176
Dyes { Indigo	405,256	532,857
Other kinds	5,082	6,580
Grain { Rice -	176,449	474,501
Wheat -	3,923	9,744
Other kinds -	85,242	110,278
Gums - -	54	108
Gunnies and gunny bags	52	209
Hides and skins -	142,864	166,544
Ivory and ivory ware	256	345
Jewellery and precious stones	9,940	5,074
Lac and lacquered ware	57	61
Oil - -	271,632	196,101
Saltpetre - -	6,240	3,215
Seeds - -	291,281	202,431
Shawls, Cashmere -	84	382
Silk, raw - -	..	..
goods -	4,294	4,456
Spices - -	49,569	45,616
Sugar and sugar candy	240,934	265,976
Tea - - -	87	55
Timber and wood -	27,140	25,219
Tobacco - -	13,779	2,353
Wool, raw - -	..	..
Total of principal and other articles -	7,225,866	9,841,942
Treasure - - -	94,557	104,745
Total merchandise and treasure -	7,367,092	9,946,187

Account of the Value of the Principal Articles of Merchandise and Treasure Imported into the Presidency of Madras, by Sea, in each of the Years ended April 30, 1864–65.

Articles	Total Imports	
	1864	1865
	£	£
Apothecaries' and medical stores, materials, &c. - -	5,047	3,391
Apparel - - -	99,201	109,570
Arms and ammunition -	5,350	4,902
Beads - - -	56	280
Books and stationery -	23,270	38,409
Carriages - - -	976	940
Coal and coke - -	19,685	17,979
Cotton twist and yarn -	249,985	308,623
goods - -	472,598	500,334
Drugs - - -	13,296	11,255
Dyes of all kinds - -	675	911
Fruits and nuts - -	86,426	70,604
Glassware - - -	17,897	19,434
Gums - - -	7,573	5,825
Horses - - -	10,941	8,380
Ice - - - -	7,336	36,274
Jewellery and precious stones	54,090	38,828
Machinery of all kinds -	9,770	24,915
Malt liquors - -	91,284	160,527
Metal manufactures * -	32,905	32,382
Metals, raw * { Copper -	26,654	20,764
Iron -	91,169	114,404
Lead -	961	975
Spelter -	2,441	2,876
Steel -	3,519	1,828
Tin - -	17,891	14,087
Other sorts	60,415	42,365
Military stores - -	121,750	197,004
Naval " - -	19,370	11,745
Oilman's " - -	15,900	14,647
Paints and colours -	4,757	4,116
Perfumery - - -	4,301	4,176
Porcelain and earthenware	7,347	7,080
Provisions - - -	17,273	15,173
Railway materials and stores	211,459	146,558
Salt - - - -	3	1
Saddlery - - -	4,945	5,918
Silk, raw - - -	—	43
Silk goods - - -	7,353	6,873
Spirits of all kinds -	9,888	11,317
Spices - - - -	50,148	59,635
Sugar and sugar candy and loaf -	965	471
Tea - - - -	10,877	11,708
Timber and wood - -	15,066	20,141
Tobacco - - -	5,434	12,184
Umbrellas - - -	766	890
Wines - - -	64,936	53,184
Woollen goods - -	35,503	37,528
Total of principal and other articles of merchandise -	2,135,181	2,230,156
Total treasure - -	1,921,843	2,077,533
Total merchandise and treasure	4,055,024	4,307,689

* Except railway materials (separately specified).

Number and Tonnage of Vessels of each Nation (including Steamers) Entered at Ports in the Presidency of Madras, in each Year ended April 30, 1865 and 1866.

Nationality of Vessels	Entered				Cleared			
	1865		1866		1865		1866	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
British - -	2,091	617,476	2,125	697,665	2,193	731,092	2,219	816,951
American - -	2	1,205	7	4,791	2	1,208	7	5,748
Arabian - -	10	4,588	6	3,113	12	5,887	9	5,359
Asiatic - -	1	415	—	—	—	—	—	—
Belgian - -	—	—	—	—	1	330	—	—
Danish - -	1	356	1	301	2	728	1	391
Dutch - -	—	—	1	280	—	—	—	—
French - -	117	50,776	155	71,121	171	82,196	158	82,915
German - -	12	4,753	6	2,441	4	2,089	5	2,072
Norwegian - -	1	695	—	—	1	409	1	409
Portuguese - -	1	670	—	—	—	—	1	670
Prussian - -	—	—	—	—	—	—	1	869
Russian - -	—	—	—	—	—	—	—	—
Spanish - -	—	—	1	485	—	—	1	485
Swedish - -	1	347	—	—	2	654	1	495
Total -	2,147	680,420	2,301	780,797	2,388	826,764	2,404	915,555
Native craft -	5,460	288,837	5,982	268,087	6,793	343,107	6,898	275,407
Total -	8,607	969,257	8,283	1,048,874	9,182	1,169,871	9,302	1,190,962

Statement of the Total Value of Imports, including Treasure, at the several Ports of the Presidency of Madras, in each of the years ended April 30, 1863, 1864, 1865.

	1863	1864	1865
	£	£	£
Aroot, South -	14,682	15,083	15,321
Canara, South -	8,768	15,095	14,675
Fort St. George, or Madras - -	2,620,402	3,038,966	3,197,559
Gantam - -	812	1,350	2,201
Godavery - -	1,749	2,977	4,000
Kistna - -	148	477	711
Masulipatam - -	98,766	77,557	78,641
Malabar - -	61,562	66,825	43,660
Tanjore - -	550,252	564,266	564,185
Tuticorin - -	419,552	540,879	566,345
Vizagapatam - -	1,599	1,477	2,792
Total -	3,800,540	4,325,074	4,473,089

Summary of the external Commerce of Madras by Sea, in 1864 and 1865.

For the Year 1864	Merchandise	Treasure	Total
	£	£	£
Imports - -	2,135,181	1,921,843	4,055,024
Exports - -	7,973,105	94,557	7,367,662
Total - -	9,408,286	2,016,400	11,422,686
For the year 1865			
Imports - -	2,230,156	2,077,533	4,307,689
Exports - -	6,815,942	103,745	6,919,687
Total - -	9,046,098	2,181,278	11,227,376

In 1866 the value of our imports from Madras, was 5,653,854*l.*, and our exports thereto 1,780,187*l.*, and in 1867, 2,741,664*l.* and 1,845,153*l.* General rates of agency and commission, revised by the

Account of the Trade of Madras with Foreign Countries in 1865, specifying the Values of the Imports and Exports.

Countries	Year ended April 30, 1865					
	Imports			Exports		
	Merchandise	Treasure	Total	Merchandise	Treasure	Total
	1865	1865	1865	1865	1865	1865
	£	£	£	£	£	£
United Kingdom	1,681,426	589,999	2,271,425	5,165,985	7,500	5,173,485
Aden	..	..	..	1,275	..	1,275
Africa	..	..	..	..	..	..
America	41,203	..	41,203	..	..	..
Arabian and Persian Gulfs	3,940	6,304	10,244	65,884	..	65,884
Australia { New South Wales	11,190	141,893	153,083	727	..	727
Australia { Other Parts	81	..	81	1,759	..	1,759
Cape of Good Hope	121	..	121	724	..	724
Ceylon	288,566	973,036	1,261,602	734,617	65,260	799,877
China	14,559	2,864	17,423	6,779	15,000	21,779
France	50,945	257,156	308,101	694,633	..	694,633
Germany	287	..	287	..	..	..
Maldive Islands	2,288	..	2,288	677	..	677
Mauritius and Bourbon	1,360	28,039	29,399	58,806	..	58,806
Mediterranean Ports	..	..	..	..	..	..
Port Natal	48	..	48	961	..	961
Penang, Singapore, and Malacca	152,252	32,192	184,444	52,311	16,470	68,781
Spain	..	..	..	..	..	..
Sumatra	611	..	611	309	15	324
Sweden	..	..	..	..	..	..
Turkey	1,279	750	2,029	29,295	..	29,295
West Indies	..	..	..	1,200	..	1,200
Total	2,240,156	2,032,533	4,272,689	6,815,944	104,245	6,920,187

Chamber of Commerce, and recommended for adoption, June 1, 1845.

1. On the total sum of a debit or credit side of account at the option of the agent, excepting items on which a commission of 5 per cent. is chargeable, 1 per cent.

2. On effecting remittances, or purchasing, selling, or negotiating bills of exchange, 1 per cent.

3. On subscriptions to Government-loans, purchasing, selling, transferring, or exchanging public securities and bank shares, ½ per cent.

4. On delivering up public securities, or lodging them in any of the public offices, ½ per cent.

5. On receiving and delivering private commissions of wines, cattle, and merchandise, 2½ per cent.

6. On collecting rents, 2½ per cent.

7. On purchase of lottery tickets, and amount of prizes, 1 per cent.

8. On the sale of lottery tickets from other settlements, 2½ per cent.

9. On letters of credit granted against pay and allowances to be drawn monthly, 2½ per cent.

10. On executorship or administration to estates of deceased persons, 5 per cent.

11. On the management of estates for executors or administrators, 2½ per cent.

12. On becoming security for administrators, 2½ per cent.

13. On debts when a process of law or arbitration is necessary, 2½ per cent.

And if recovered by such means, 5 per cent.

14. On bills of exchange, notes &c., dishonoured, 1 per cent.

15. On overdue debts collected, 2½ per cent.

16. On becoming security for individuals to Government or others, 2½ per cent.

17. On all sales or purchases of goods, 5 per cent., with the following exceptions:—

On houses, lands, and ships, 2½ per cent.

On diamonds, pearls, and jewellery, 2½ per cent.

On treasure and bullion, 1 per cent.

On all goods and merchandise withdrawn, shipped, or delivered to order, half commission.

On all other descriptions of property for sale, if withdrawn or otherwise disposed of by the owners, half commission.

On goods transferred to auction or commission salesmen, half commission.

18. On investing proceeds of sales in goods, 2½ per cent.

19. On guaranteeing sales, bills, bonds, contracts for goods, or other engagements, 2½ per cent.

20. On ships' disbursements, 2½ per cent.

21. On chartering ships or engaging tonnage for other parties, 2½ per cent.

22. On advertising as the agents of owners or commanders of ships for freight or passengers, on the amount of freight or passage money, by charter or otherwise, whether the same shall pass through the agents' hands or not, 5 per cent.

23. On effecting insurance, or writing orders for insurance, whether on lives or property, ½ per cent.

24. On settling losses, partial or general, and returns of premium, 2 per cent.

25. On procuring money on respondentia, wherever payable, 2 per cent.

26. On giving orders for the provision of goods where a commission is not chargeable on sale or shipment, 2½ per cent.

27. On attending the delivery of contract goods, 2 per cent.

28. On receiving freight of goods, and passage money of troops by ships entered inwards, 2½ per cent.

Rates of Godown Rent per Month.

	Rs. a.
Bales of punjum cloth of 30 pieces, per bale	0 8
Screwed do. of cotton, of 500 lbs., per bale	0 4
Loose bundles of do. of 250 lbs., per bundle	0 4
Bales of taffaties and raw silk, per bale	1 0
Chests of opium, per chest	0 8
of indigo, per chest	0 8
of wine, of 12 dozen, per chest	0 8
Pipes of wine, puncheons and butts, each per pipe	1 0
Bags of rice and sugar, per bag	0 1
of saltpetre, per bag	0 1
Metals, per ton	0 4

Other articles in proportion to the above.

Rule 1.—Goods in the Custom-house to be allowed to remain a week free of charge.

2.—After that period on each package, single rates for seven days.

3.—After that, treble rates.

4.—The day of landing and that of removal to be reckoned as one day; Sundays and holidays are not reckoned in the rent free terms. When delay is caused by the inability of the Custom House officers to examine and pass the goods, such delay is not to be reckoned.

Unclaimed Goods.—Goods not cleared within two months from the date of landing will be sold

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by public auction, after due notice in the official *Gazette*. The proceeds will be applied to the payment of duty and other charges, and the surplus (if any) paid to the owner on application within one year from the date of sale.

It would appear from the *Madras Almanac* for 1868, that there are, besides the Government bank or Bank of Madras, the Government savings bank, and various private bankers, three joint stock banks with a paid-up capital of 2,650,000*l*.

Insurance.—The only local assurance society appears to be the Madras Equitable, established in 1842, but there were in 1868 42 agencies for English and other establishments.

Table of Port Charges at Madras.

Anchorage Dues.

				S. Roads. Rs. a. p.	N. Roads. Rs. a. p.
British ships, and ships under foreign, European, or American colours				38 0 0	0 0 0
Country ships, from	800	to 801	tons	35 0 0	0 0 0
Do.	500	300	,,	28 0 0	0 0 0
Do.	300	200	,,	21 0 0	0 0 0
Do.	200	101	,,	17 0 0	0 0 0
Do.	100	50	,,	14 0 0	0 0 0
Do.	50	10	,,	10 0 0	0 0 0
Native craft, from	400	300	,,	0 0 0	21 0 0
Do.	300	200	,,	0 0 0	17 0 0
Do.	200	100	,,	0 0 0	14 0 0
Do.	100	50	,,	0 0 0	10 0 0
Do.	50	20	,,	0 0 0	5 0 0
Do.	20	10	,,	0 0 0	1 0 0

Light-House Dues.

	Rs. a. p.
All British and foreign ships, on anchoring	25 0 0
Country ships	14 0 0
Snow, brig, hetch, and schooner	7 0 0
Sloop and cutter	5 0 0
Large dhonies	5 0 0
Small ,,	2 0 0

The foregoing statements sufficiently exhibit the commercial importance of Madras. The limited extent of its trade, as compared with that of Calcutta and Bombay, is partly ascribable to the badness of its port or roadstead, the want of any navigable river or other easy means of communication with the interior, and the backward state of the provinces of which it is the capital, in consequence of the heavy and fluctuating land tax to which they are subject. In 1866, 59,931,904 letters and newspapers (ex books and parcels) passed the post-office of British India. (Hamilton's *East Indian Gazetteer; Geographical Dictionary*, art. 'Madras;' *Madras Almanac; Official Returns of the Trade of Madras*; &c.)

MAGNESIA (Fr. magnésie; Ger. gebraunte magnesia; Ital. magnesia). One of the primitive earths, having a metallic basis. It is not found native in a state of purity, but is easily prepared. It is inodorous and insipid, in the form of a very light, white, soft powder, having a specific gravity of 2·3. It turns to green the more delicate vegetable blues, is infusible, and requires for its solution 2,000 parts of water at 60°.

MAHOGANY. The wood of a tree (*Swietenia Mahogani*) growing in the West Indies and Central America. There are two other species of Swietenia found in the East Indies, but they are not much known in this country.

Mahogany is one of the most majestic and beautiful of trees: its trunk is often 40 feet in length, and 6 feet in diameter; and it divides into so many massy arms, and throws the shade of its shining green leaves over so vast an extent of surface, that few more magnificent objects are to be met with in the vegetable world. It is abundant in Cuba and Hayti, and it used to be plentiful in Jamaica; but in the latter island most of the larger trees, at least in accessible situations, have been cut down. The principal importations into Great Britain are made from Honduras and Campeachy. That which is imported from the islands is called Spanish mahogany; it is not so large as that from Honduras, being generally in logs from 20 to 26 inches square and 10 feet long, while the latter is usually from 2 to 4 feet square, and 12 or 14 feet long, but some logs are much larger. Mahogany is a very beautiful and valuable species of wood: its colour is a red brown, of different shades, and various degrees of brightness; sometimes yellowish brown: often very much veined and mottled, with darker shades of the same colour. The texture is uniform, and the annual rings not very distinct. It has no larger septa; but the smaller septa are often very visible, with pores between them, which in the Honduras wood are generally empty, but in the Spanish wood are mostly filled with a whitish substance. It has neither taste nor smell, shrinks very little, and warps or twists less than any other species of timber. It is very durable when kept dry, but does not last long when exposed to the weather. It is not attacked by worms. Like the pine tribe, the timber is best on dry rocky soils, or in exposed situations. That which is most accessible at Honduras grows upon moist low land, and is, generally speaking, decidedly inferior to that brought from Cuba and Hayti; being soft, coarse, and spongy; while the other is close grained and hard, of a darker colour, and sometimes strongly figured. Honduras mahogany has, however, the advantage of holding glue admirably well; and is, for this reason, frequently used as a ground on which to lay veneers of the finer sorts. The best qualities of mahogany bring a very high price.

The cuttings in Honduras are established on most of the large streams flowing through the departments of Santa Barbara and Yoro. To the mouth of these streams the logs are floated, and shipped to England in vessels of from 400 to 800 tons. The trees are generally the property of the state, and the cutters stipulate to pay from 5 to 10 dollars for every tree they fell. The season for cutting is from August till winter sets in.

Not long since, Messrs. Broadwood, the distinguished pianoforte manufacturers, gave the immense sum of 3,000*l*. for three logs of mahogany! These logs, the produce of a *single tree*, were each about 15 feet long, and 88 inches square: they were cut into veneers of 8 to an inch. The wood was particularly beautiful, capable of receiving the highest polish; and when polished, reflecting the light in the most varied manner, like the surface of a crystal; and from the wavy form of the pores, offering a different figure in whatever direction it was viewed. Dealers in mahogany generally introduce an auger before buying a log; but, notwithstanding, they are seldom able to decide with much precision as to the quality of the wood, so that there is a good deal of lottery in the trade. The logs for which Messrs. Broadwood gave so high a price were brought to this country with a full knowledge of their superior worth. Mahogany was used in repairing some of Sir Walter Raleigh's ships at Trinidad, in 1597; but it was not introduced into use in England till 1724.

The duty on foreign mahogany used to be 7*l*. 10*s*. a ton, on Honduras 1*l*. 10*s*., and on Jamaica mahogany, 4*l*.; its effect being to force the consumption of the inferior in preference to the superior article. Luckily, however, the duty on foreign and colonial mahogany, after being reduced in 1845 to 20*s*. and 5*s*. per ton, was wholly repealed in 1845; but in 1860 a duty of 1*s*. per load was imposed on mahogany and other furniture woods, and this again was abolished, and the importation declared free, in 1866. There has been, in consequence of the

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reduction and repeal, a very great increase in the consumption of the superior sort of mahogany for upholstery purposes, while the cheaper varieties are now largely employed (notwithstanding the difficulties thrown in the way by Lloyd's regulations), in the construction of ships, and in coarser fabrics. In 1840 the imports amounted to 23,115, and in 1867 to 52,737 tons. Honduras, Mexico, and Cuba are the great sources of supply; the timber brought from Central America being the cheapest. (Tredgold's *Principles of Carpentry*, p. 204; *Library of Entertaining Knowledge*, volume on *Timber Trees and Fruits*; Edwards's *West Indies*, vol. iv. p. 208, ed. 1819 &c.; and the *Mahogany Tree*, by Messrs. Chalouer and Fleming, passim; &c.)

MAIZE or INDIAN CORN (Fr. blel de Turquie; Ger. Türkisch korn, mays; Ital. grano turco o Siciliano; Span. trigo de Indias, trigo de Turquia). One of the cereal grasses (*Zea Mays*), supposed to be indigenous to South America, being the only species of corn cultivated in the New World previously to its discovery. It was introduced into the Continent about the beginning, and into England a little after the middle, of the sixteenth century. Its culture has spread with astonishing rapidity; being now extensively grown in most Asiatic countries, and in all the southern parts of Europe. It has the widest geographical range of all the ceralia, growing luxuriantly at the equator, and as far as the 50th degree of north, and the 40th of south latitude. It has been raised in England, in nursery gardens near the metropolis, for more than a century; and recently it has been attempted to raise it in the fields, but with indifferent success. Like other plants that have been long in cultivation, it has an immense number of varieties. The ear consists of about 600 grains, set close together in rows, to the number of 8, 10, or 12. The grains are usually yellow; but they are sometimes red, bluish, greenish, or olive-coloured, and sometimes striped and variegated. The maize of Virginia is tall and robust, growing 7 or 8 feet high; that of New England is shorter and lower; and the Indians farther up the country have a still smaller sort in common use. The stalk is jointed like the sugar cane. The straw makes excellent fodder; and the grain, as a bread corn, is liked by some; but though it abounds in mucilage, it contains little or no gluten, and is not likely to be much used by those who can procure wheaten or even rye bread. (Loudon's *Encyclopædia of Agriculture*; &c.) For the imports of maize, duties &c., see CORN LAWS AND CORN TRADE.]

MALACCA. [SINGAPORE.]

MALAGA. A city and sea-port in the south of Spain, in Granada, lat. 36° 43½′ N., long. 4° 25′ 7″ W. Population in 1860, 113,050.

Harbour.—Malaga has an excellent harbour. It is protected on its eastern side by a fine mole, full 700 yards in length. The lighthouse of Malaga is 109 yards from the east mole head, lat. 36° 43′ 30″ N., long. 4° 25′ 38″ W. It gives a red flash every three minutes, is visible for 15 miles, and is 125 feet above high water. A second light on the east side of the entrance, 48 yards from the sea, is only 41 feet above high water mark. A shoal has grown up round the mole head, and the depth of water throughout the harbour is said to be diminishing. Latterly, however, a dredging machine has been employed to deepen it, by clearing out the mud and accumulating sand. The depth of water, at the entrance to the harbour and within the mole, is from 26 to 30 feet; and close to the city from 8 to 10 feet. The harbour could easily accommodate more than 450 merchant ships; it may be entered with all winds, and affords perfect shelter.

Trade &c.—Owing to the want of official returns, and the prevalence of smuggling, it is not possible to obtain any accurate accounts of the trade of Malaga, or, indeed, of any Spanish port. The great articles of export are wine and fruits, particularly raisins and almonds, grapes, figs, and lemons; there is also a considerable exportation of olive oil, with quantities of brandy, anchovies, cummin seed, aniseed, barilla, *esparto labrado* [ESPARTO], soap &c. The lead which is largely exported from Malaga is brought from Ada. [LEAD.] The imports consist principally of cotton stuffs, iron and hardware, machinery, coals &c., from England; with salt-fish, dye stuffs, and all sorts of colonial produce; linens; raw cotton from the United States; butter and cheese from Holland; timber and naval stores from the Baltic &c. The Americans import considerable quantities of Malaga wine.

In 1863 the total tonnage of vessels which entered the port of Malaga was 160,460, and of those that cleared 144,759, while the value of the imports was 1,171,135*l.*, and of the exports 1,576,233*l.* The trade appears to be on the increase; the exports were greater than those from any other Spanish port, but it ranked as the eighth in the value of its imports. The quantity of Malaga wine exported was 6,527,202 litres, or about 1,400,000 gallons. The best markets for this wine are Cuba, Venezuela, and France, a small quantity only coming to England. There is a railway between Cordova and Malaga, which connects it with Madrid and the whole network of European railways.

The following details, abstracted from Mr. Inglis's valuable work on Spain, contain accounts of the trade of Malaga, which are still of interest.

'*Wine.*—The wines of Malaga are of two sorts, sweet and dry; and of the former of these there are four kinds; first, the common "Malaga," known and exported under that name. In this there is a certain proportion of boiled wine, which is allowed to burn, and which communicates a slightly burnt taste to the "Malaga." The grape from which this wine is made is a white grape, and every pipe of "Malaga" contains no less than *eleven* gallons of brandy. Secondly, "Mountain." This wine is made from the same grape as the other, and, like it, contains colouring matter and brandy; the only difference is that, for "Mountain," the grape is allowed to become riper. Thirdly, "Lagrimas," the richest and finest of the sweet wines of Malaga; the name of which almost explains the manner in which it is made. It is the droppings of the ripe grape hung up, and is obtained without the application of pressure.

'The dry wine of Malaga is produced from the same grape as the sweet wine, but pressed when greener; in this wine there is an eighth part more of brandy than in the sweet wine; no less than 1-12th part of the dry Malaga being brandy.

'The whole produce of the Malaga vineyards is estimated at from 35,000 to 40,000 pipes; of which about 27,000 pipes may be exported. The principal market is the United States and South America; and to these the export is upon the increase. The average price of the wines shipped from Malaga does not exceed 35 dollars per pipe; but wines are occasionally exported at the price of 170 dollars. Many attempts have been made at Malaga to produce sherry, but not with perfect success. The sherry grape has been reared at Malaga upon a soil very similar to that of Xeres;

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but the merchants of Malaga have not ventured to enter the wine for export. One reason of the very low price of the wines of Malaga is to be found in the cheapness of labour: field labour is only 2½ reals a day (4½*d.*). In the fruit and vintage time it is about double.

'*Fruit.*—Next to its wines, the principal export of Malaga is fruit, viz. raisins (the chief), almonds, grapes, figs, and lemons.

'The raisins exported from Malaga are of three kinds, *muscatel*, *bloom* or *sun raisin*, and *lexias*. The muscatel is the finest raisin in the world. In its preparation no art is used; the grape is merely placed in the sun, and frequently turned. The bloom or sun raisin is a different grape from the muscatel; but its preparation is the same. The lexias acquire this name from the liquor or ley in which they are dipped, and which is composed of water, ashes, and oil; these, after being dipped, are also dried in the sun. All muscatel raisins are exported in boxes, and also a part of the bloom raisin.

'*Oil.*—There is also a large export of oil from Malaga.' (Vol. ii. pp. 190–196.)

See also Mr. Consul Marks' *Report* of August 10, 1865, on Esparto or Spanish grass, and the sudden and extensive demand for it. [ESPARTO.]

The trade of Malaga, like that of most other Spanish ports, has been materially increased of late years. Lines of steamers have been established that ply along the southern and eastern coasts of the peninsula, and a powerful stimulus has been given to all sorts of industrial pursuits. The influence of the latter is, no doubt, most powerfully felt at Alicante, Valencia, and those towns that have improved communications with the interior, but it is, also, sufficiently obvious here and in others of the less favourably situated seaports.

Money.—Accounts are kept in reals of 34 maravedis vellon. (For the coins, and their value, used at Malaga, see CADIZ.)

Weights and Measures.—The weights are the same as those of Cadiz. The arroba or cantara = 4·19 English wine gallons; the regular pipe of Malaga wine contains 35 arrobas, but is reckoned only at 34; a bota of Pedro Ximenes wine = 53½ arrobas; a bota of oil is 43, and a pipe 35 arrobas; the latter weighs about 860 lbs. avoirdupois: a carga of raisins in 2 baskets or 7 arrobas; a cask contains as much, though only called 4 arrobas: as a last for freight are reckoned—4 botas or 5 pipes of wine or oil; 4 bales of orange peel; 5 pipes of Pedro Ximenes wine or oil; 10 casks of almonds (each about 380 lbs. English); 20 chests of lemons and oranges; 22 casks of almonds (of 8 arrobas each); 44 casks of raisins (of 4 arrobas each); 88 half casks of raisins; 50 baskets or 160 jars of raisins.

Port Charges.—The port and harbour dues amount, on an English vessel of 300 tons, to about 21*l.*; on a Spanish vessel, of the same burden, they would be about 11*l.* 10*s.*

Warehousing.—Goods may be warehoused for 12 months, paying 2 per cent. ad valorem in lieu of all charges; but, at the end of the year, they must be either entered for consumption or reshipped. The 2 per cent. is charged, whether they lie a day or the whole year.

There is an excellent account of Malaga in Townsend's *Travels in Spain*, vol. iii. pp. 10–42.

MALMSEY. [WINE.]

MALT (Ger. maly; Dutch, mout; Fr. mal, blédgermé; Ital. malto; Span. cebada retonada ó entallecida; Russ. solod; Lat. maltum). The term malt is applied to designate grain which, being steeped in water, is made to germinate to a certain extent, after which the process is checked by the application of heat. This evolves the saccharine principle of the grain, which is the essence of malt. The process followed in the manufacture is very simple. Few changes have been made in it; and it is carried on at this moment very much in the same manner that it was carried on by our ancestors centuries ago. Rice, and almost every species of grain, has been used in malting; but in Europe, and especially in England, malt is prepared almost wholly from barley. It is the principal ingredient in the manufacture of beer, and is little used except in brewing and the distillation of spirits.

Duties on, and Consumption of, Malt. Influence of the Reduction of the Duty and the Opening of the Trade.—Owing to malt liquor having early become the favourite beverage of the people of England, the manufacture of malt has been carried on amongst us, for a lengthened period, on a very large scale. Instead, however, of increasing with the increasing wealth and population of the country, it was nearly stationary for the hundred years ending with 1816. In proof of this we may mention that the quantity of malt that paid duty in England and Wales, at an average of the 12 years ending with 1720, was 24,191,304 bushels a-year; whereas the annual average quantity that paid duty during the 12 years ending with 1816, was only 23,197,754 bushels! This apparently anomalous result is probably in some measure to be accounted for by the increased consumption of tea and coffee, which are now in almost universal use; but there cannot be a question that it is mainly owing to the exorbitant duties with which malt, and the ale or beer manufactured from it, have been loaded, and to the oppressive regulations imposed on the manufacture of malt and the sale of beer. The effect of these duties and regulations was to impose a tax of about 7*s.* on the malt and beer made from a bushel of barley; which, taking the average price of barley at from 4*s.* to 5*s.* a bushel, was equivalent to an *ad valorem* duty of from 140 to 175 per cent.! The exorbitancy of the duty was not, however, its most objectionable feature. It was about equally divided—one half being assessed directly on malt, and the other on beer: but the beer duty affected only beer brewed by public brewers, or for sale, and did not affect that which was brewed for private use; and as rich families brewed all the beer they made use of, the consequence of this distinction was, that the beer duty fell wholly on the lower and middle classes, who did not brew any beer; or, in other words, the poor man was compelled to pay twice the duty on the malt he made use of that was paid by the rich man! That such a distinction should ever have been made, or submitted to for any considerable period, is certainly not a little astonishing. Originally, however, the distinction was not so great as it afterwards became; and being increased by slow degrees, the force of habit reconciled the Parliament and the country to the gross inequality and oppressiveness of the tax. But the public attention being at length forcibly attracted to the subject, and the effect of the exorbitant duties on malt and beer in increasing the consumption of ardent spirits having been clearly pointed out—(*Edinburgh Review*, No. 98, art. 4), the beer duty was repealed in 1830. This measure of substantial justice and sound policy reflected great credit on the administration of the Duke of Wellington; which was also entitled to the public gratitude for having placed the licensing system on a fair footing, and established, for the first time, a free trade in beer.

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...e Quantities of Malt charged with Duty in England and Wales, of the Revenue ...d thereon, and of the Rates of Duty, in the Undermentioned Years, from 1702.

...ber of ...of Malt	Amount of Duty	Rate of Duty per Bushel	Year	Number of Bushels of Malt	Amount of Duty	Rate of Duty per Bushel
	£				£	
5,778	313,907	6 16-21*d.*	1808	21,726,415	4,854,698	4*s.* 5½*d.*
,982	702,957	..	1809	22,120,984	4,942,771	..
,021	511,954	..	1810	23,546,546	5,261,562	..
,610	635,330	..	1811	25,982,749	5,806,251	..
,844	665,527	..	1812	18,092,963	4,044,716	..
,172	707,467	..	1813	21,701,336	4,849,419	..
,521	736,815	..	1814	25,320,613	5,657,228	..
,686	661,259	..	1815	26,246,795	5,865,606	..
,674	573,089	..	1816	21,158,348	4,217,259	4*s.* 5½*d.*—2*s.* 5*d.*
,869	645,998	..	1817	20,855,566	2,509,817	2*s.* 5*d.*
,786	758,396	..	1818	21,629,838	2,961,024	..
,402	722,732	..	1819	22,612,290	3,268,881	2*s.* 5*d.*—3*s.* 7½*d.*
,284	624,851	..	Stock in hand		420,263	..
,926	457,719	..	1820	25,884,242	4,311,446	3*s.* 7½*d.*
,614	648,173	..	1821	26,138,437	4,718,540	..
,252	727,158	..	1822	26,688,512	3,624,242	3*s.* 7½*d.*—2*s.* 7*d.*
,971	999,818	16-21*d.*—9½ 2-21*d.*	1823	21,845,152	3,285,502	2*s.* 7*d.*
,960	1,123,040	9½ 2-21*d.*	1824	27,615,343	3,960,693	..
,676	1,007,851	..	1825	29,572,741	5,813,072	..
,812	760,388	..	1826	27,355,971	5,530,895	..
,702	1,023,554	..	1827	25,066,557	5,241,610	..
,086	996,756	..	1828	30,547,819	5,941,884	..
,576	810,544	..	1829	25,128,135	5,026,133	..
,198	851,648	..	1830	26,980,992	5,474,699	..
,938	1,054,188	..	1831	32,963,170	4,257,781	..
,052	1,031,799	..	1832	31,669,771	4,090,678	..
960	950,827	..	1833	33,789,010	4,364,113	..
,057	854,341	..	1834	34,119,616	4,449,745	..
150	1,070,125	..	1835	36,078,855	4,660,183	..
,926	835,713	..	1836	37,196,998	4,804,612	..
,905	931,978	..	1837	33,692,556	4,351,929	..
3,0	971,085	..	1838	33,825,985	4,368,931	..
,298	1,024,336	..	1839	33,826,016	4,369,193	..
,136	1,001,050	..	1840	36,653,412	4,841,229	2*s.* 7*d.*—2*s.* 7*d.* and 5 per cent.
,136	1,022,950	..				
105	1,028,083	9½ 2-21*d.*—9½ 4-5*d.*	1841	30,956,394	4,198,460	2*s.* 7*d.* and 5 per cent.
100	1,534,154	9½ 4-5*d.*—1*s.* 4½*d.*				
018	1,817,516	1*s.* 4½*d.*	1842	30,796,262	4,176,742	..
104	1,846,108	..	1843	30,891,902	4,189,592	..
114	1,138,782	..	1844	31,856,551	4,320,516	..
105	1,745,953	..	1845	30,508,810	4,137,774	..
139	1,777,917	..	1846	35,725,774	4,845,050	..
534	1,495,548	..	1847	30,269,965	4,105,563	..
578	1,789,790	..	1848	31,848,456	4,319,486	..
072	1,763,277	..	1849	33,161,128	4,498,152	..
092	1,591,163	..	1850	34,423,189	4,668,685	..
159	1,487,775	..	1851	34,638,214	4,697,807	..
163	2,092,191	1*s.* 4½*d.*—1*s.* 7½*d.*	1852	35,485,625	4,812,466	..
and	46,716		1853	36,215,817	4,915,842	..
66	2,142,950	1*s.* 7½*d.*—1*s.* 4½*d.*	1854	31,868,978	5,219,405	From May 8, 1854, 4*s.*
765	1,601,717	1*s.* 4½*d.*	1855	30,199,820	6,039,942	..
511	1,679,222	..				
522	1,620,515	..	1856	34,439,473	6,143,628	From July 5, 1856, 2*s.* 7*d.* plus 5 per cent.
573	1,816,819	..				
10	2,029,349	..	*1857	36,313,925	5,514,465	
58	1,769,476	..	*1858	38,015,619	5,135,808	
22	2,085,701	..	1859	39,021,653	4,965,320	net
49	950,296	..	1860	40,715,458	6,269,526	
86	1,218,155	..	1861	35,691,950	5,835,069	
84	2,175,406	1*s.* 4½*d.*—2*s.* 5*d.*	1862	41,314,218	5,459,759	
and	466,633	1*s.* 4½*d.*—2*s.* 5*d.*	1863	37,425,456	5,075,195	
58	5,555,906	2*s.* 5*d.*—4*s.* 5½*d*	1864	43,569,216	5,737,001	
11	4,838,056	4*s.* 5½*d.*	1865	43,966,939	5,879,591	
and	914,356		1866	45,190,569	6,012,109	
01	4,811,066	..	1867	45,982,399	6,169,962	net
25	5,955,716	..				
13	5,397,635	..				

* Years ended March 31.

the duty has materially increased of malt; and the anticipations tended that its abolition, if com- trade in beer, would be no great nue, are in a fair way of being lamour that was raised against account of its supposed influence nkenness, was, we firmly believe, foundation. If the measure in- rtainly did, the consumption of lity is that it equally diminished of gin; and it is surely super- t this is a most beneficial change. umber of new public-houses were le of beer; but it has not hitherto this circumstance, though it oc- mon alarm among the clergy in different parts of the country, any public inconvenience. Like l lines of business, the trade of overdone; and a considerable hops have since been shut up. am Smith sagaciously remarked, on of alehouses that occasions ion to drunkenness among the common people; but that disposition, arising from other causes, necessarily gives employment to a multitude of alehouses.' (*Wealth of Nations*, p. 161.) The way to eradicate this disposition is by giving a better education to the poor, and inspiring them with a taste for less grovelling enjoyments. All that the fiscal regulations and police enactments intended to promote sobriety have ever done, is to make bad worse, to irritate and disgust, to make the lower classes more enamoured of that which they conceive is unjustly withheld from them, and to stimulate them to elude and defeat the law.

The duty on malt was first imposed in England in 1697, and in Scotland in 1713; but it was not introduced into Ireland till 1785. The following tables exhibit the progress of the consumption and of the duties directly falling on malt from a remote period. But the principal consumption of malt being in beer, the duties on the latter were, in fact, duties on malt; and must always be taken into account in forming anything like a correct estimate of the influence of the latter. Ample information as to the duties on beer will be found in the art. ALE AND BEER.

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Account of the Quantities of Malt charged with Duty in Scotland, of the Revenue received thereon, and of the Rates of Duty, in each Year, from 1800.

Year	Number of Bushels of Malt	Amount of Duty	Rate of Duty per Bushel	
		£		
1800	876,598	29,670	8½d.	
1801	607,381	20,561	..	
1802	1,716,278	70,927	1s. 8½d.	
	Stock in hand	20,389		
1803	1,511,284	137,879		
			Barley	Bigg
1804	1,091,377	107,587	3s. 2½d.	3s. 1½d.
	Stock in hand	34,898	..	..
1805	1,136,112	206,955	..	..
1806	1,244,104	223,647	..	..
1807	1,230,298	226,647	..	..
1808	1,048,945	189,954	..	..
1809	774,788	139,802	..	..
1810	820,294	149,206	..	..
1811	1,042,256	184,882	..	..
1812	953,152	169,870	..	..
1813	685,244	123,705	..	..
1814	1,260,802	231,276	..	..
1815	1,297,777	236,359	3s. 0½d.	2s. 11½d.
1816	1,162,424	164,743	2s. 6½d. to 1s. 8½d.	2s. 1½d. to 1s. 8½d.
1817	1,015,478	94,509	1s. 8½d.	1s. 8½d.
1818	1,500,315	140,274	..	..
1819	1,114,720	179,266	1s. 8½d.—3s. 7½d.	1s. 8½d.—3s. 7½d.
	Stock in hand	17,539		
1820	1,182,408	242,882	3s. 7½d.	3s. 7½d.—3s. 1d.
1821	1,301,559	251,609	..	3s. 1d.—2s. 10½d.
1822	1,403,177	183,052	3d. 7½d.—2s. 7d.	2s. 10d.—1s. 9½d. —2s.
1823	1,616,590	198,606	2s. 7d.	2s.
1824	2,788,208	355,505	..	..
1825	3,023,847	402,114	..	..
1826	2,726,505	335,574	..	..
1827	2,714,073	333,489	..	..
1828	3,867,150	478,508	..	..
1829	3,714,565	457,584	..	..
1830	5,101,916	562,431	..	..
1831	4,186,955	515,579	..	..
1832	3,714,534	458,096	..	..

Year	Number of Bushels of Malt	Amount of Duty	Rate of Duty per Bushel	
		£	Barley	Bigg
1833	4,502,956	550,558	2s. 7d.	2s.
1834	4,495,792	555,367	..	..
1835	4,509,555	551,606	..	..
1836	4,265,187	541,910	..	..
1837	4,585,045	558,513	..	..
1838	4,104,141	505,913	..	..
1839	4,360,561	532,107	..	..
1840	4,797,501	579,541	2s. 7d. and 5 per cent.	2s.—2s. and 5 per cent.
1841	4,038,249	530,572	2s. 7d. and 5 per cent.	2s. and 5 per cent.
1842	3,786,176	505,899	..	..
1843	3,579,697	481,310	..	..
1844	3,884,478	516,004	..	..
1845	4,091,758	547,448	..	..
1846	4,184,867	559,155	..	..
1847	3,616,814	485,331	..	..
1848	4,092,917	534,543	..	..
1849	4,297,309	558,157	..	..
1850	4,759,501	618,647	..	..
1851	4,102,915	540,765	..	..
1852	3,971,178	521,728	..	..
1853	4,146,830	566,574	..	..
1854	5,119,791	671,830	4s.	3s. 1d.
1855	2,376,715	466,122	..	..
1856	1,009,161	179,325	2s. 7d. and 5 per cent.	2s and 5 per cent.
1857	1,124,591	164,999	..	..
1858	1,217,418	164,959	net	..
1859	1,310,476	189,386	..	..
1860	1,664,015	240,234	..	..
1861	1,594,488	232,145	..	..
1862	1,772,756	252,661	..	..
1863	1,720,281	227,123	..	..
1864	1,526,305	202,913	..	..
1865	2,079,251	274,491	..	..
1866	2,499,108	325,680	..	..
1867	2,552,417	315,943	net	..

Account of the Quantities of Malt charged with Duty in Ireland, of the Revenue received thereon, and of the Rates of Duty in each Year, from 1800.

Year	Number of Bushels of Malt	Amount of Duty	Rate of Duty per Bushel
		£	
1800	681,340	57,090	1s. 6½d.
1801	1,030,175	78,760	..
1802	3,641,579	276,115	..
1803	3,553,762	285,584	1s. 6½d.—1s. 9½d.
	Stock in hand	34,162	..
1804	2,807,535	270,036	1s. 9½d.—2s. 9½d.
	Stock in hand	28,598	..
1805	2,766,867	317,999	2s. 5½d.
1806	2,814,418	353,195	2s. 5½d.—2s. 6½d.
	Stock in hand	22,200	..
1807	2,372,293	302,291	2s. 6½d.
1808	2,197,758	331,010	..
1809	2,038,617	324,291	..
1810	2,322,515	371,425	..
1811	2,681,842	341,723	..
1812	2,206,206	281,117	2s. 6½d.
1813	2,967,603	428,850	2s. 6½d.—3s. 5½d.
	Stock in hand	63,406	..
1814	3,156,175	522,813	3s. 5½d.
1815	2,664,466	482,985	3s. 5½d.—4s. 5d.
	Stock in hand	122,233	..
1816	1,879,741	359,809	4s. 5d.—2s. 4½d.
1817	1,385,486	164,771	2s. 4½d.
1818	1,783,696	211,950	..
1819	1,747,444	207,656	..
1820	1,793,671	319,680	3s. 6½d.
	Stock in hand	43,974	..
1821	1,949,315	347,426	..
1822	1,756,391	275,614	3s. 6½d.—2s. 7d.
1823	1,709,595	217,502	2s. 7d.
1824	2,107,729	276,255	..
1825	2,706,802	356,108	..
1826	2,698,253	349,808	..
1827	1,803,091	230,899	..
1828	2,409,228	311,192	2s. 7d.
1829	2,012,079	259,894	..
			From Barley / From Bigg
1830	1,959,606	251,646	2s. 7d. / 2s.
1831	2,101,844	265,503	.. / ..

Year	Number of Bushels of Malt	Amount of Duty	Rate of Duty per Bushel	
		£	From Barley	From Bigg
1832	2,006,750	256,678	2s. 7d.	2s.
1833	1,918,849	245,387	..	..
1834	2,204,655	272,791	..	..
1835	2,355,645	288,602	..	..
1836	2,387,615	285,552	..	..
1837	2,25 5,747	288,170	..	..
1838	2,264,440	284,954	..	..
1839	1,744,580	218,305	..	..
1840	1,401,156	178,705	2s. 7d.—2s. 7d. and 5 per cent.	2s.—2s. and 5 per cent.
1841	1,149,692	151,910	2s. 7d. and 5 per cent.	2s. and 5 per cent.
1842	1,269,656	168,099	..	..
1843	1,181,781	151,048	..	..
1844	1,441,177	190,471	..	..
1845	1,681,112	222,761	..	..
1846	1,788,644	237,057	..	..
1847	1,287,405	184,297	..	..
1848	1,670,519	221,548	..	..
1849	1,576,105	210,180	..	..
1850	1,687,102	224,108	..	..
1851	1,596,956	217,757	..	..
1852	1,647,073	221,303	..	..
1853	1,650,007	217,659	..	..
1854	1,837,432	251,041	4s.	3s. 1d.
1855	1,817,031	261,012	..	..
1856	1,478,104	219,286	2s. 7d. and 5 per cent.	2s. and 5 per cent.
1857	1,681,197	248,396	..	..
1858	1,834,717	281,228	net	..
1859	2,164,200	275,650	..	..
1860	2,219,026	342,859	..	..
1861	2,149,108	332,193	..	..
1862	2,513,760	357,578	..	..
1863	1,919,095	278,063	..	..
1864	2,611,127	367,031	..	..
1865	2,889,774	373,650	..	..
1866	2,475,620	327,154	..	..
1867	2,491,382	320,781	net	..

Prices of Malt, at Greenwich Hospital, from 1730 to 1840, per Winchester Quarter, and from 1845 to 1865, per Imperial ditto.

Year	Price	Year	Price	Year	Price
	s. d.	s. d.		s. d.	
1730	20 6	1815	69 7½	1840	68 4½
1740	27 3½	1820	68 8½	1845	59 9
1750	24 0	1821	61 11	1846	64 4½
1760	24 9	1822	52 8½	1847	70 2½
1770	28 3	1825	59 11	1848	60 6
1780	31 1	1824	62 1	1849	59 9
1790	55 6	1825	71 10½	1855	73 11
1800	84 0	1830	56 1½	1860	76 0
1805	85 7	1835	61 4½	1865*	59 0
1810	84 5				

* The last purchase made. Brewing discontinued in 1866, in consequence of reduced number of In-pensioners.

By 28 & 29 Vict. c. 66 the malt duty is charged according to the weight of the grain. By the first clause, the maltster must give notice, in writing, of his desire to the officer of excise, under whose survey he is, and must commence operations within a calendar month of his notice. 2. Proper machinery must be provided. 3. Notice before 12 o'clock (noon) of the day before he intends to ship grain. 4. Maltster to declare the weight. 5. Mode of ascertaining the weight of grain. 6. Of calculating duty. 7. Weights and measures to be provided by the maltster. 8. Supervisor may weigh grain with such measures. 9. 100*l.* penalty if declared weight exceeded by 2 lbs.

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avoirdupois. The other clauses refer to minor details. The Act is to be in force for four years from June 29, 1865.

By 27 & 28 Vict. c. 9 malt may be manufactured free of duty for the purpose of feeding animals, under certain restrictions, the principal of which is the mixing a certain quantity of linseed meal or cake, with the malt so manufactured. This Act is to continue for 5 years from its passing, April 28, 1864. From a series of experiments undertaken by the Board of Trade in the year 1866, it seems that a decided loss attends the employment of malt for the purpose of feeding cattle.

It would appear from the 11th Inland Revenue Report, that the demand for cattle-feeding purposes continues to fall off, so that the number of maltsters of this class has been reduced from 27 to 4, only 5,975 bushels having been made in 1866.

Regulations as to the Manufacture of Malt.—These are embodied in the Acts 7 & 8 Geo. IV. c. 52, and 11 Geo. IV. c. 17. The former Act is exceedingly complex; it has no fewer than *eighty-three* clauses; and the regulations embodied in it, though frequently repugnant to common sense, were enforced by 106 penalties, amounting in all to the enormous sum of 13,500*l.*! But it was not in the nature of things that such a law could be allowed to exist for any considerable period. It was not only loudly and universally condemned by the malsters, but by all the more intelligent officers of excise. In consequence, the 11 Geo. IV. c. 17 was passed. This latter statute is entitled to very considerable praise; it repeals a good many of the penalties, and some of the most vexatious and useless regulations, in the former; so that the business may now be carried on with equal security to the revenue, and with infinitely less risk and annoyance on the part of the manufacturer. The existing regulations principally refer to the gauging of the cisterns, the wetting of the malt, the emptying of the cisterns, the gauging of the malt when in the coach frames, the payment of the duties &c. But as no one would think of undertaking the business of a maltster without having a copy of both Acts in his possession, it would be quite unnecessary for us, even if our limits permitted, to give an abstract of these Acts.

Malt may not be imported into the United Kingdom for home use under pain of forfeiture; but it may be warehoused for exportation. (6 Geo. IV. c. 107 s. 52.)

MALTA. An island in the Mediterranean, belonging to the British, nearly opposite to the southern extremity of Sicily, from which it is about 54 miles distant.

Valetta, the capital, is situated on the north coast of the island. Malta is about 20 miles long, and 10 or 12 broad. The island of Gozo, about a fourth part of the size of Malta, lies to the north-west of the latter, at about 4 miles' distance; and in the strait between them is the small island of Cumino. There is a light on Gozo island, lat. 36° 4′ N., long. 14° 10′ E., which revolves every minute, is 400 feet above high-water mark, and is visible for 24 miles. A second light is on Tigne point, Marsa Musceit harbour. A third is on the castle of St. Almo, 167 feet above high water, and is visible for 15 miles. A fourth, on the north-west angle of the Ricasoli fort, is red. A fifth is on Marsa Sirocco Dallamem point, and also red. A sixth is on Carallo Bianco point of Lampedusa island. In 1863 the population of both islands amounted, excluding the garrison (ex the Maltese regiment), to 145,368; of which that of Gozo was 15,446. The entire revenue collected in Malta amounted, in 1863, to 157,381*l.* of which about 13,170*l.* is derived from the rent of lands; 97,244*l.* from customs, and 23,132*l.* from other rents not of lands. The public debt was 175,385*l.* at 2 and 2½ per cent. interest.

Valetta, the capital of the island, is defended by almost impregnable fortifications. 'These,' says Mr. Brydone, 'are indeed most stupendous works. All the boasted catacombs of Rome and Naples are a trifle to the immense excavations that have been made in this little island. The ditches, of a vast size, are all cut out of the solid rock; these extend for a great many miles; and raise our astonishment to think that so small a state has ever been able to make them.' (*Tour through Sicily and Malta*, Letter 15.) Since the island came into our possession, the fortifications have been considerably improved; so that at present it is a place of very great strength.

After the capture of Rhodes by the Turks, the Emperor Charles V. made a present of Malta to the Knights of St. John of Jerusalem, in whose possession it remained till 1798, when it was taken by the French. It was taken from the latter by the English in 1800, and was definitely ceded to us in 1814.

The island consists mostly of a rock, very thinly covered with soil, a good deal of which has been brought, at an immense expense, from Sicily; but being cultivated with the utmost care, it produces excellent fruits, particularly the celebrated Maltese oranges, corn, cotton, with small quantities of indigo, saffron, and sugar. The principal dependence of the inhabitants is on their cotton; the crop of which in 1863 amounted to 7,876,960 lbs., is partly exported raw and partly manufactured. In 1866, 953,792 lbs. of Maltese cotton reached the United Kingdom, but in 1867 the island does not appear to have contributed to our supplies. The corn raised in the island is not sufficient to feed the inhabitants for more than 5 or 6 months, and at an average above 100,000 quarters of foreign wheat are required for their use. In addition to corn, cattle, provisions of all sorts, including dried fish, fruits, Egyptian peas, wine &c. are largely imported. The other leading articles of import comprise cottons, cotton yarn, linens, woollens, and most sorts of manufactured goods; coal, partly for use in the island, but far more for the supply of the steamers that call here on their voyage to and from Alexandria, Marseilles &c.; gunpowder, and other warlike stores for the use of the garrison; sugar, coffee, and other colonial products; tobacco, oil, wines, timber &c. The trade in corn used to be monopolised by Government; and after the monopoly was abandoned, duties on importation, varying with the price, were imposed. But in 1835 these duties were abolished; and the fixed duties on corn entered for consumption, specified in the first column of the subjoined tariff, were substituted, and those in the third column are now (1868) in force. [TARIFFS, COLONIAL.]

Malta presents unusual facilities, which have not hitherto been taken proper advantage of, for becoming the entrepôt of the corn trade of the Mediterranean and Black Sea. Her warehouses for corn are, like those of Sicily and Barbary, excavated in the rock; and are, perhaps, the best fitted of any in Europe for the safe keeping of corn. The wheat lodged in them may be preserved for an indefinite period; and it is affirmed that though it should, on being deposited, be affected by the weevil, it is very soon freed from that destructive insect. It is not often that corn can be brought direct from Odessa, Taganrog &c. to England, without the risk of being damaged; but were it brought in the first instance to Malta, and bonded there, it might afterwards be conveyed in the best order to Lon-

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don, or anywhere else. Malta is also admirably well suited for becoming a centre of the corn trade of Egypt, Barbary, Italy &c.

During the war ended in 1815, particularly during the period when Napoleon's anti-commercial system was in operation, Malta became a great entrepôt for colonial and other goods, which were thence conveyed, as opportunities offered, to the adjacent ports. This commerce ceased with the circumstances that gave it birth; and for some years after the return of peace, the trade of the island was depressed below its natural level by the imposition of various oppressive discriminating duties. In 1819, this vexatious system was partially obviated; but it continued to exert a pernicious influence till 1837, when, pursuant to the recommendation of Messrs. Austin and G. C. Lewis, commissioners of enquiry, the then existing tariffs of customs duties and port charges were wholly abolished; and a new tariff (which is subjoined) was issued in their stead. It imposed moderate duties, for the sake of revenue only, on a few articles in general demand, without regard to the country whence they came, at the same time that it equalised the tonnage duties, and reduced the warehouse rent on articles in bond to the lowest level.

There are some good springs of fresh water. Valetta is partly supplied by water brought by an aqueduct a distance of about 6 miles, and partly by the rain collected in cisterns.

Harbour.—The harbour of Valetta is double, and is one of the finest in the world. The city is built on a narrow tongue of land, having the castle and light of St. Elmo at its extremity, and an admirable port on each side. That on the south-eastern side, denominated the grand port, is the most frequented. The entrance to it, about 250 fathoms wide, has the formidable batteries of St. Elmo on the one hand, and those of Fort Ricasoli on the other. In entering, it is necessary not to come within 50 or 60 fathoms of the former, on account of a spit which projects from it; but in the rest of the channel there is from 10 to 12 fathoms water. The port, which runs about 1¼ mile inwards, has deep water and excellent anchorage throughout: the largest men-of-war coming close to the quays. Port Marsamuscetto, on the north-western side of the city, is also a noble harbour. The entrance to it, which is about the same breadth as that of the grand port, is between St. Elmo and Fort Tignè. In the centre of the basin is an island, on which are built a castle and a lazaretto, for the convenience of the ships performing quarantine, by which the port is principally used. Owing to the narrowness of the entrance, and the usual variableness of the wind, it is customary for most vessels bound for Valetta to take a pilot on board before entering the harbour.

TARIFF (A).—Duties on imports 1835 and 1868, and also dues for store rent, which the collector of customs is required to levy on the account of the Government of Malta.

Articles	Import Duties 1835	Store Rents on Articles lodged in Bond	Import Duties 1868
	£ s. d.	s. d.	
Beer, per Maltese barrel*	0 2 0	0 2	free in bottle
Cattle: bullocks and other animals of the same kind, per head	0 10 0		
Horses and mules, per head	1 0 0		
Charcoal, per salm	0 0 6	0 1	
Grain:			
Wheat, per salm	0 10 0	0 2	1s. 3½d. per bushel
Indian corn, per salm	0 6 0	0 2	9½d. „
Barley, per salm	0 4 0	0 1	
Saggina, per salm	0 3 0	0 2	
Other inferior grains	0 5 0	0 2	
Manufactured grain, per cantar	0 6 0	0 1	
Wheat, Indian corn, barley, or other inferior grains, if damaged so as to be unfit for the food of man (commonly called *frumenfazze*), per salm	0 2 0	0 2	
Rice			3s. 10d. per cwt.
Manufactured grain, if damaged so as to be unfit for the food of man, per cantar	0 2 0	0 2	
Oil, olive, per caffiso	0 0 6	0 0½	1½d. per gallon
Potatoes, per cantar	0 0 10	0 2	
Pulse and seeds:			
Beans, garavances, chick-peas, kidney beans, lentils, lupins, peas and vetches, per salm	0 2 0	0 2	
Carob beans and cotton seeds, per cantar	0 0 6	0 2	
Spirits; viz. for every Maltese barrel of such spirits of any strength not exceeding the strength of proof by Sykes's hydrometer, named, *London proof*, and so in proportion for any greater strength than the strength of proof*	1 2 0	0 2	2s. 4½d. per gallon
Vinegar, per *Maltese* barrel†	0 2 0	0 2	
Wines, the value of which shall exceed 15*l.* per pipe or 11 Maltese barrels, per Maltese barrel*	0 11 8	0 2	
All other wines, per Maltese barrel†	0 2 0	0 2	2½*d.* to 1*s.* 2*d.* per barrel

* 2*d.* for each 6 months. † 2*d.* for the first 6 months, 3*d.* for each 6 months subsequently.

The store rents on grain lodged in bond to be payable from the day on which the grain was lodged. The store rents on every other article mentioned in the tariff to be payable from the 10th day after the day on which such article was lodged.

TARIFF (B).—Tonnage dues which the collector of customs is required to levy on the account of the Government of Malta.

Vessels discharging merchandise in the island shall, on clearing outwards, pay for every ton or any part thereof, 6*d.*

TARIFF (C).—Fees which the collector of customs is required to levy on the account of the Government of Malta.

	s. d.
For each certificate under the office seal	2 6
For each sheet of printed official forms	0 2

Tariff of dues authorised to be levied for account of Government, by the superintendent of quarantine, Malta.

Shipping in Quarantine.—1. Vessels entered upon a quarantine to pay for each day of their continuance in port, as follows:—

	s. d.
Vessels not exceeding 25 tons	0 6
from 25 tons to 50 „	1 0
51 „ 100 „	1 6
101 „ 150 „	2 0
151 „ 200 „	2 6
201 „ 250 „	2 9
251 „ and upwards	3 0

2. Vessels of whatever size, sailing in quarantine, having entered upon the performance thereof, to pay at the above rates, but in no case more than 2*s.* a day for the remainder of the term of quarantine.

3. Vessels liable to quarantine, not having en-

An Account of the Quantities and Declared Values of the Principal Articles of British and Irish Produce and Manufacture Exported from the United Kingdom to Malta in each of the 3 Years ending with 1867.

Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Apparel and haberdashery	value	—	—	—	30,066	29,966	25,365
Beer and ale	barrels	5,390	4,682	4,471	18,186	15,590	15,392
Books, printed	cwts.	145	195	133	2,192	2,441	1,829
Butter	,,	1,481	1,458	1,411	7,537	7,367	6,853
Coals, cinders, and culm	tons	152,991	168,990	145,795	81,274	92,072	85,846
Copper, wrought and unwrought	cwts.	1,212	1,145	1,959	5,588	4,618	8,144
Cotton yarn	lbs.	558,526	1,027,351	737,270	33,907	59,955	36,872
Cottons, entered by the yard	yards	13,921,809	15,097,139	10,624,237	253,326	276,809	174,757
at value	value	—	—	—	3,970	3,757	4,004
Earthenware and porcelain	,,	—	—	—	4,079	4,974	3,127
Fish: Herrings	barrels	1,345	1,299	3,217	1,345	1,302	3,275
Glass manufactures	value	—	—	—	3,514	2,986	2,758
Gunpowder	lbs.	475,613	532,823	104,560	15,216	12,701	2,567
Hardwares and cutlery, unenumerated	cwts.	2,147	2,350	1,797	10,860	12,889	10,603
Iron, wrought and unwrought	tons	1,848	2,258	1,072	15,927	20,552	9,124
Linens, entered by the yard	yards	652,177	477,738	427,211	27,313	19,169	17,196
at value	value	—	—	—	2,064	1,144	1,875
Oil, seed	gals.	20,097	19,163	23,146	2,907	3,361	3,590
Plate, plated ware, jewellery, and watches	value	—	—	—	1,599	1,110	1,140
Provisions (not otherwise described)	,,	—	—	—	1,902	1,353	1,227
Silk manufactures	,,	—	—	—	2,299	993	4,104
Soap	cwts.	836	863	1,690	1,057	1,099	1,788
Sugar, refined	,,	3,830	2,160	1,067	5,821	3,096	2,513
Tin plates	value	—	—	—	2,155	1,105	3,270
Woollens, entered by the yard	yards	351,653	315,584	288,598	26,120	21,282	24,515
at value	value	—	—	—	1,127	3,563	487
All other articles	,,	—	—	—	70,304	45,018	45,995
Total		—	—	—	631,901	653,303	498,796

tered upon the performance thereof, to pay 2*s.* for each day of their continuance in port.

4. Vessels compelled by stress of weather to enter the great harbour, to be subject, while they remain there, to the additional charge of 3*s.* a day, for every guard boat which the superintendent of quarantine may deem it necessary to place over them.

Any vessel in quarantine entering the great harbour without a justifiable cause, incurs the penalty of 200 dollars imposed by the second article of the proclamation, dated October 12, 1820. (No. XIII.)

5. Vessels having contagious diseases on board to pay an extra rate in proportion to the expense that may be incurred, but in no case to exceed 20*s.* a day, in addition to the usual rate.

Effects received into the lazaret for depertation to be chargeable with a due proportion of the actual expense thereof, which at present, on ordinary occasions, is at the rate of 2*s.* 6*d.* a day for each guardian, and 1*s.* 8*d.* a day for each labourer, whom it may be necessary to employ.

Cattle landed in the lazaret to be chargeable, for each	*s.*	*d.*
Horse, mule, or ass	3	0
Bullock, or other animal of the kind	2	0
Sheep, goat, pig, or other small animal	1	0

Persons performing quarantine in the lazaret to pay at the rate of 2*s.* 6*d.* a day for each guardian employed, but no single individual to be chargeable with more than 1*s.* 3*d.* a day.

Documents issued under the office seal, 2*s.* 6*d.* each.

Rates of pilotage to be exacted from vessels entering or departing from the harbours of Valetta or Marsamuscetto when in charge of pilots, viz.:—

For vessels up to the register tonnage of	£	*s.*	*d.*
101 tons	0	8	4
From 101 ,, to 150	0	12	6
151 ,, to 250	0	16	8
251 ,, to 350	1	1	0
351 ,, and upwards	1	5	0

For leaving either of the above-mentioned harbours when proceeding to sea, half of the above rate to be paid.

Going out of one of the above-mentioned harbours and entering the other, ¾ of the above rate to be paid.

Pilots taken on board of vessels in quarantine are entitled (if victualled on board) to 1*s.* 8*d.* per diem; if otherwise, to 2*s.* 4*d.*, exclusive of the pilotage.

N.B.—In all cases pilot boats must be in readiness when required.

N.B.—Merchant steam vessels pay for tonnage dues 1*l.* up to 400 tons; above 400 and not exceeding 800, 1*l.* 5*s.*; above 800, 1*l.* 10*s.*

We exported to Malta in 1866 foreign colonial produce to the amount of 94,539*l.* The value of the imports from Malta during the same year was 115,638*l.*; the principal articles being cotton and elephants' teeth.

The central position, excellent port, and great strength of Malta, make it an admirable naval station for the repair and accommodation of the men-of-war and merchant-ships frequenting the Mediterranean, and render its possession of material importance to the British empire. Since Malta-built vessels were admitted into the ports of the United Kingdom on the same terms as British-built, the trade of ship-building has materially increased in the island. The Maltese shipwrights are diligent, expert workmen; and, their wages being moderate, it is a favourable place for careening. Owing to the want of a dry dock, all ships above the size of a sloop of war, that require to have their bottoms examined, have to come to England for that purpose. This, surely, should be obviated. Quarantine is strictly enforced at Malta; but there is every facility for its performance, and the charges are less than at any other port in the Mediterranean.

Malta is now the centre of a very extensive steam-packet system; the steamers from England for Constantinople, Alexandria, and other ports of the Levant, touching here. The French steamers from these ports usually perform quarantine at Malta.

Money.—In 1825, British silver money was introduced into Malta; the Spanish dollar being made legal tender at the rate of 4*s.* 4*d.*; the Sicilian dollar at 4*s.* 2*d.*; and the scudo of Malta at 1*s.* 8*d.*

Weights and Measures.—The pound or rottolo, commercial weight = 30 oncie = 12·216 English grains. Hence 100 rottolo (the cantaro) = 174½ lbs. avoirdupois, or 79·14 kilogrammes. Merchants usually reckon the cantaro at 175 lbs.

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The salm of corn, stricken measure ·985 of an imperial quarter heaped measure, is reckoned 16 per cent. more. The caffiso, or measure for oil, contains 4½ English gallons = 20·4545 litres. The barrel is double the caffiso. The Maltese foot = 11¼ English inches = ·2836 mètres. The canna = 8 palmi = 81·9 English inches = 2·079 mètres. Merchants usually convert Malta measure into English in the proportion of 3½ palmi to a yard, or 2 ⅔ yards to 1 canna.

Bills on London are usually drawn at 30 and 60 days' sight. The deputy commissary general is obliged to grant, at all times, bills on the treasury here for British silver tendered to him, at the rate of 100*l.* bill for every 101*l.* 10*s.* silver, receiving, at the same time, other silver, at a fluctuating rate of exchange.

MAN (ISLE OF). Is situated in the Irish Sea, at about an equal distance from England, Scotland, and Ireland. It is about 30 miles long, and 10 or 12 broad. The interior is mountainous, and the soil nowhere very productive. Population, in 1861, 52,469. This island used to be one of the principal stations of the herring fishery; but for a considerable period it has been comparatively deserted by the herring shoals, a circumstance which is not to be regretted; for the fishery, by withdrawing the attention of the inhabitants from agriculture and manufactures, and leading them to engage in what has usually been a gambling and unproductive business, has been, on the whole, injurious to the island. The steam packets from Liverpool and Dublin touch at the Isle of Man; which is, in consequence, largely frequented by visitors from all parts of the empire, whose influx has materially contributed to the improvement of Douglas, the principal port in the island, and other towns.

The feudal sovereignty of Man was formerly vested in the Earls of Derby, and more recently in the Dukes of Athol, a circumstance which accounts for the fact of the duties on most commodities consumed in the island having been, for a lengthened period, much lower than those on the same commodities when consumed in Great Britain. This distinction, which still subsists, though to a smaller extent, has produced a great deal of smuggling, and been in no ordinary degree injurious to the revenue and trade of the empire. During the present century, indeed, the clandestine trade of Man has been confined within comparatively narrow limits; but to accomplish this, a considerable extra force of custom-house officers and revenue cruisers has been required; and the intercourse with the island has to be subjected to various restraints. Nothing, as it appears to us, can be more impolitic than the continuance of such a system. The public has, at a very heavy expense, purchased all the feudal rights of the Athol family; and having done so, it is certainly high time that an end were put to the anomalous absurdity of having a considerable island, lying, as it were, in the very centre of the empire, and in the direct line between some of the principal trading towns, with different duties on many important articles! It might be necessary, perhaps, to make some compensation to the inhabitants for such a change; and this might be done, with advantage to them and without expense to the public, by modifying and improving the internal regulations and policy of the island, which are very much in need of amendment. We do not, indeed, imagine that the island would lose anything by the proposed alteration; for the temptation which the present system holds out to engage in smuggling enterprises diverts the population from the regular pursuits of industry, and, along with the herring lottery, is the principal cause of that idleness for which the Manx are so notorious. The customs revenue collected in the Isle of Man in 1852 amounted to 28,077*l.*; but from this sum 14,373*l.* was deducted on account of expenses of collection, public works, internal government &c. We subjoin an abstract of the Acts which now (1868) regulate the trade with the Isle of Man: the conditions under which it is carried on have been a good deal simplified.

The regulations under which the trade of the Isle of Man is now conducted are embodied in the Acts 16 & 17 Vict. c. 106, the 16 & 17 Vict. c. 107, the 29 & 30 Vict. c. 23, and 30 & 31 Vict. c. 85, and are as follows, viz.:—

Duties in Table, to be levied on Goods imported into the Isle of Man.—In lieu of all duties of customs now payable by law upon the importation of goods into the Isle of Man, there shall be raised, levied, collected, and paid unto her Majesty, her heirs and successors, the several duties of customs as the same are respectively set forth in figures in following table, viz.:—

Duties applicable to the Isle of Man.

	£	s.	d.
Coffee, the import duties in Great Britain or Ireland not having been paid thereon - - the lb.	0	0	2
Corn, viz. wheat, barley, bear or bigg, oats, rye, peas, beans, buckwheat, maize or Indian corn - the quarter	0	1	0
Wheat meal and flour, barley meal, oatmeal, rye meal, and flour pea meal, bean meal, buckwheat meal, and maize or Indian corn meal - - the cwt.	0	0	4½
Spirits; viz. brandy, Geneva, and all foreign spirits, not being liqueurs, cordials, or perfumed spirits - the gallon	0	8	0
Rum and rum shrub, of the British possessions the gallon	0	6	0
British or Irish spirits exported from a duty-free warehouse under bond in the United Kingdom - the gallon	0	6	0
Such spirits not exceeding the strength of proof by Sykes's hydrometer, and so in proportion for any greater or less strength than the strength of proof, and for any greater or less quantity than a gallon			
Eau de Cologne, per flask (50 not containing more than 1 gallon) - - - - - -	0	0	4
of the gallon	0	10	0
Liqueurs, cordials, and perfumed spirits - the gallon	0	10	0
Sugar, viz. Muscovado - - - the cwt.	0	3	0
Sugar candy, white or brown, refined sugar, or sugar rendered by any process equal to refined, foreign or British - - - - the cwt.	0	6	0
Tea - - - - the lb.	0	0	4
Tobacco, viz. unmanufactured - - the lb.	0	2	6
Manufactured, of all sorts, and cigars - the lb.	0	3	6
Wine containing less than 26 degrees of proof spirit, verified by Sykes's hydrometer, the strength thereof having been ascertained by test at Liverpool or some other station or port in Great Britain or Ireland - the gallon	0	0	8
Other wines - - - - the gallon	0	1	8
Goods, wares, and merchandise imported or brought from any place from whence such goods may be lawfully imported into the Isle of Man, and not hereinbefore charged with duty, or declared to be free of duty, for every 100*l.* of the value thereof - - -	15	0	0

Power to the Treasury to remit and reimpose the Duties on unenumerated Articles.—The commissioners of the Treasury may from time to time, by any order or orders under their hands, declare that all or any articles legally importable into the Isle of Man, and not enumerated in the said table, and upon which the said duty of 15 per cent. is hereby imposed, shall and may, from and after any day or days named in such order or orders, be imported from the places and in the manner therein mentioned into the Isle of Man duty free, during such time or times as shall be therein named, or until such order or orders respectively, or any of them, shall be rescinded, and such articles shall be imported duty free accordingly so long as any such order or orders, or any of them, shall continue unrescinded; and the said commissioners may at any time, by any order under their hands, revoke the whole or any part of any previous order or orders, or any of them, for such time and in such manner as they may see fit; and all orders of the commissioners of the Treasury made in pursuance of this enactment shall be duly published in the London and Dublin *Gazettes* twice at least within 14 days from the date of such orders respectively, and a copy of every such order shall be laid before both Houses of Parliament within 6 weeks after the date of such order if Parliament be then sitting, and if

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not, then within 6 weeks after the commencement of the then next session of Parliament. (16 & 17 Vict. c. 106 s. 5.)

The following Treasury order has since appeared:—

'By virtue of the powers vested in us under the fifth section of the Customs Tariff Act, 16 & 17 Vict. c. 106, to remit and re-impose the duties levied on unenumerated articles legally importable into the Isle of Man, these are to authorise you under the said section of the Customs Tariff Act, to allow all articles enumerated in the tariff of the United Kingdom, and not enumerated in the tariff of the Isle of Man, and which, under the tariff of the island, would be subject to an ad valorem duty of 15 per cent., to be admitted free of duty so long as the order permitting such free importation shall remain unrescinded. For which this shall be your warrant.

'ABERDEEN, JOHN SADLEIR.

'Whitehall, Treasury Chambers, August 27, 1855.'

Isle of Man to be deemed Part of the United Kingdom for the Purposes of this Act.—The Isle of Man shall be deemed and taken to be part of the United Kingdom for all the purposes of this Act, but nothing herein contained shall prejudice or affect, or be construed in any way directly or indirectly to prejudice or affect, any of the rights or privileges legally exercised or enjoyed by the said isle at the time of the passing of this Act. (16 & 17 Vict. c. 107 s. 346.)

Goods delivered out of Charge of Customs in Isle of Man not to be brought into Britain or Ireland.—No foreign goods upon which a higher duty is payable on their importation into Great Britain or Ireland than on their importation into the Isle of Man, shall, after the same have been cleared and delivered out of charge of the proper officer of customs for consumption or otherwise in the said isle, be carried or shipped or be waterborne or be brought to any quay, wharf, or other place to be shipped or waterborne to be carried from the said isle into Great Britain or Ireland; nor shall any such goods which may be brought to the said isle, though not cleared and delivered as aforesaid, be removed or carried thence into Great Britain or Ireland until the same have been duly cleared for that purpose by the proper officer of customs, nor (unless reported for removal in the same ship and in continuation of the voyage to some port in Great Britain or Ireland) until sufficient security by bond or otherwise shall have been given, in such manner, and on such terms and conditions, as the Commissioners of Customs may direct, for the due delivery thereof at some port or place in Great Britain or Ireland; and all goods carried, brought, shipped, removed, or waterborne to be shipped, removed, or carried contrary hereto shall be forfeited, and every person who shall carry, ship, bring, remove, or waterbear to be shipped, removed, or carried, any goods contrary hereto, or who shall aid or be concerned therein, shall forfeit treble the value of such goods, or the sum of 100*l.*, at the election of the Commissioners of Customs. (Sec. 347.)

Goods, the Growth or Manufacture of the Isle of Man, may be imported into Great Britain or Ireland on Certificate &c.—Any goods, the growth of the Isle of Man, or there manufactured from materials the growth of the said isle, or from materials not subject to duties in Great Britain or Ireland, or from materials upon which the duty has been paid in Great Britain or Ireland, and upon which no drawback has been subsequently granted, may be brought from the said isle into Great Britain or Ireland without payment of any duty: provided always, that such goods may nevertheless be charged with such proportion of such duties as shall fairly countervail any duties of excise payable on the like sort of goods the produce of that part of the United Kingdom into which they shall be brought; and any articles, either wholly or in part manufactured in the said isle from any materials upon which a higher duty is payable upon their importation into the United Kingdom than on their importation into the Isle of Man, may be brought from the said isle into Great Britain or Ireland on payment of the duty payable on such goods in that part of the United Kingdom into which they shall be so brought. (Sec. 348.)

Declaration and Certificate of Growth or Manufacture of Goods from Isle of Man.—Before any goods shall be shipped in the Isle of Man to be carried to Great Britain or Ireland as the growth or produce of that isle, or as manufactures of that isle from materials the growth and produce thereof, or from materials not subject to duty in Great Britain or Ireland, or from materials upon which the duties shall have been paid and not drawn back in Great Britain or Ireland, proof shall be made by the written declaration of some competent person, to the satisfaction of the collector or comptroller of customs at the port of shipment, that such goods (describing and identifying them) are of such growth, produce, or manufacture, as the case may be; and in such declaration shall be stated the name of the person by whom such goods are intended to be shipped, and such person, at the time of shipping (not being more than 1 month after the date of such declaration), shall make and subscribe a declaration before such collector or comptroller, that the goods to be shipped are the same as are mentioned in such declaration, and thereupon the collector or comptroller shall, on demand, give to the master of the ship in which the goods are to be exported a certificate of such proof of produce or of manufacture, describing the same, and setting forth the name of the party and of the ship and of the master thereof, and the destination of the goods. (Sec. 349.)

Act not to affect Excise Drawbacks.—Nothing herein contained shall be deemed or construed to affect the laws and regulations now in force respecting duties and drawbacks of excise on goods removed to the Isle of Man. (Sec. 350.)

Stores of Manx Ships.—If any ship or boat bound from the Isle of Man to Great Britain or Ireland shall have on board any stores of spirits, tobacco, or tea for the use of the crew, exceeding the quantities specified in the following table, such stores, together with the casks or packages containing the same, and also the ship or boat, shall be forfeited:—

	In Ships or decked Vessels	In open Boats
Spirits for each seaman -	Half a gallon -	One quart
Tobacco for each seaman	One pound -	Half a pound
Tea for the whole crew -	Two pounds -	One pound

Treasury may restrict Imports.—The Commissioners of the Treasury shall and may at any time, if they see fit, by order under their hands, restrict or limit the importation into the Isle of Man of any foreign goods to such quantities per annum and in such manner as they may deem necessary, and also determine into what ports in the Isle of Man and from what places such goods may be imported. (Sec. 352.)

Management of Duties.—The duties of customs payable on the importation of goods into the Isle of Man shall be collected, paid, recovered, and accounted for under the management and control of the Commissioners of Customs; and, except the

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necessary charges of collecting, recovering, and accounting for the same, the said duties shall from time to time (subject to the deductions hereinafter mentioned) be brought and paid into the receipt of her Majesty's Exchequer, distinctly and apart from all other branches of the public revenue, and shall go to and make part of the Consolidated Fund of the United Kingdom: Provided always, that any of the collectors of customs of the said isle shall retain, and he and they is and are hereby authorised and required, agreeably to such directions as shall from time to time be given for that purpose by the Commissioners of Customs, to retain, such sum or sums of money in his or their hands as may be sufficient to defray the necessary expenses attending the government of the said Isle of Man and the administration of justice there, and other charges incurred in the said isle, which have heretofore been or may hereafter be deemed fit and proper charges to be deducted from and paid out of the duties of customs collected in the said Isle of Man; and upon the amount of the said expenses and charges being ascertained, the said commissioners are hereby authorised to direct the same to be paid out of the said moneys so retained to such person or persons as may be entitled to receive the same. (Sec. 353.)

Expenses of the Government, and 2,300*l. per annum to Harbour Commissioners of Isle of Man, to be paid by Customs.*—The necessary expenses attending the government of the Isle of Man and the administration of justice there, and other charges incurred in the said isle, which have heretofore been deemed fit and proper charges to be deducted from and paid out of the duties of customs collected in the said isle, or which may hereafter be deemed proper charges, and also the annual sum of 2,300*l.* made payable by Act 8 & 9 Vict. c. 94, s. 25 to her Majesty's Receiver-General in the said Isle of Man, and to be applied for the lawful purposes of the harbour commissioners therein mentioned, shall and may be retained and paid by the collector of customs of the said isle, out of the duties of customs collected in the said isle, as hereinbefore provided. (Sec. 354.)

Additional Allowance for Public Works in the Isle of Man.—In addition to the deductions from the customs duties hereinbefore provided for, there shall be set aside annually a sum equal to $\frac{1}{20}$ of the amount derived from such duties, to be applied by the Commissioners of the Treasury in effecting improvements in the harbours and other public works in the Isle of Man, the necessary repairs and improvements in the harbours taking priority of other public works; and it shall be lawful for the Court of Tynwald from time to time to determine what improvements and public works shall be so undertaken, the lieutenant-governor having a veto upon such decision. (Sec. 355.)

Under 23 & 24 Vict. c. 56, the harbour commissioners are entitled, acting with the Receiver-General of the Isle of Man, to borrow such an amount as can be covered by an annual interest of 2,300*l.* for the purpose of improving harbours in the island. The application of the fund so subscribed shall be decided on by the Court of Tynwald, the lieutenant-governor of the island being empowered to exercise a veto.

By 26 & 27 Vict. c. 86, dues may be collected at the harbour of Port Erin, improvements in the harbour at this port having been effected in aid of the herring fishery.

The harbour dues levied are as follows:—As soon as the pier is carried out at a distance of 300 feet from low water mark, the dues levied in the first column are payable; as soon as 150 feet farther, those in the second column.

	1st col.	2nd col.
	d.	*d.*
Every vessel of 5 tons burden and upwards, per ton	3	4
After 14 days, between October 1 and June 1, for each 10 days, per ton additional	1	1
Between June 1 and October 1, for each 10 days, per ton additional	2	2

The above dues are to be paid every time a vessel enters the harbour. Composition on vessels under 30 tons for herring fishery season, 2*l.*; October 1 to June 1, 1*l.*; whole year, 3*l.* 30 tons and upwards, and under 50 tons, 4*l.* for herring season, 6*l.* whole year. Wind-bound vessels half dues. Steam vessels to pay the same as sailing. Vessels for which dues have been paid returning within 24 hours with same cargo, not to be liable to dues again. Yachts belonging to royal yacht clubs in the United Kingdom exempt among others.

MANGANESE (Ger. braunstein, glasseise; Dutch, bruinsteen; Fr. manganèse, magalaise, savon du verre; Ital. manganesia; Span. manganesia; Lat. magnesia nigra, manganesium). A metal which, when pure, is of a greyish white colour, like cast-iron, and has a good deal of brilliancy. Its texture is granular; it has neither taste nor smell; it is softer than cast-iron, and may be filed; its specific gravity is 8. It is very brittle, and can neither be hammered nor drawn out into wire. Its tenacity is unknown. When exposed to the air it attracts oxygen with considerable rapidity. It soon loses its lustre, and becomes grey, violet, brown, and at last black. These changes take place still more rapidly if the metal be heated in an open vessel. Ores of manganese are common in Devonshire, Somersetshire &c. The ore of manganese, known in Derbyshire by the name of *black wadd*, is remarkable for its spontaneous inflammation with oil. Oxide of manganese is of considerable use; it is employed in making oxymuriatic acid, for forming bleaching liquor. It is also used in glazing black earthenware, for giving colours to enamels, and in the manufacture of porcelain. It is the substance generally used by chemists for obtaining oxygen gas. In 1866, 48,700 tons of manganese ore were imported into the United Kingdom, chiefly from Holland and Spain, and were valued at 216,723*l.* A compound of manganese and potash is one of the most powerful and valuable disinfectants known. (Thomson's *Chemistry*; &c.)

MANGEL WURZEL or FIELD BEET (Fr. betteraves; Ger. mangold wurzel; Ital. biettola). A mongrel between the red and white beet. It has been a good deal cultivated in France, Germany, and Switzerland, partly as food for cattle, and partly to be used in distillation, and in the extraction of sugar. Its culture in Great Britain is comparatively recent; and Mr. Loudon questions whether it has any advantages over the turnip for general agricultural purposes. The preparation of the soil is exactly the same as for turnips, and immense crops are raised on strong clays. The produce per acre is about the same as that of the Swedish turnip: it is applied almost entirely to the fattening of stock, and the feeding of milch cows. (Loudon's *Encyclopædia of Agriculture.*)

MANIFEST. In Commercial Navigation, a document signed by the master, containing the name or names of the places where the goods on board have been laden, and the place or places for which they are respectively destined; the name and tonnage of the vessel, the name of the master, and the name of the place to which the vessel belongs; a particular account and description of all the packages on board, with the marks and numbers thereon, the goods contained in such packages, the names of the respective shippers and consignees, as far as such particulars are

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known to the master &c. A separate manifest is required for tobacco. The manifest must be made out, dated, and signed by the captain, at the place or places where the goods, or any part of the goods, are taken on board. [IMPORTATION AND EXPORTATION.]

By the Customs Tariff Amendment Act, 23 Vict. c. 22, the master and owner must, within 6 days of the final clearance outwards of any ship in which goods are shipped for exportation, deliver to the proper officer of customs a *manifest*, containing an account of all the goods duly shipped for *exportation*, and submit a declaration that this account is true, under a penalty. If, however, the whole of the bills of lading relating to the goods exported in the ship, and duly signed by the master or his agent, are delivered to the proper officer of customs either at the time, or within 24 hours after the final clearance outwards of the ship, with a declaration that they represent, to the best of his knowledge and belief, the whole of the cargo exported, the manifest may be dispensed with. (Maude and Pollock, *Law of Merchant Shipping*, p. 96.)

MANILLA. The capital of Luçonia or Luzon, the largest of the Philippine Islands, and the principal settlement of the Spaniards in the East, in lat. 14° 36′ 8″ N., long. 120° 53½′ E. Population of the capital and its environs, according to the somewhat doubtful statistics of 1865, was 230,448, of which 4,581 were stated to be of European origin, 15,151 Chinese, and 210,811 native Indians. Manilla is built on the shore of a spacious bay of the same name, at the mouth of a river navigable for small craft for about ½ mile, but for the bridges at a distance of about 150 yards from its mouth. The bar, on which there is generally a depth of from 11 to 12 feet of water, is the only obstacle to vessels of 2,000 tons and upwards loading close up to the first bridge. The principal depôts for exports are situated in the space between this bridge and the entrance to the river. Merchant vessels anchor in Manilla Bay, but the Spanish war vessels and those carrying coals to the arsenal anchor at Cavita, about 7 miles to the southward, where there is a good harbour, well sheltered from the W. and S. W. winds, to which the bay is exposed. The arsenal at Cavita is defended by Fort St. Philip, the strongest fortress on the islands. The city is surrounded by a wall and towers, and some of the bastions are well furnished with artillery.

The lights in Manilla Bay are 5 on Burias Island, 2 of which are blue; 1 on the highest point of Corregidor Island, which revolves every minute; 1 on the islet of Caball; another on the north shore of the canal; and 1 on Sunghy Point. 1 of the lights on Burias Island is visible for 20 miles. The light on Corregidor Island is 639 feet above high water mark.

Vessels on entering Manilla Bay between sunrise and sunset must hoist their national flag under a penalty of 5 dols. to 10 dols. Masters of vessels coming to this port from one where there is a Spanish consul or agent must bring their certificates of cargo or ballast, under a penalty of 300 dols.

Though situated within the tropics, the climate of the Philippines is sufficiently temperate; the only considerable disadvantage under which they labour in this respect being that the principal part of the group comes within the range of the typhoons. The soil is of very different qualities, but for the most part singularly fertile. They are rich in mineral, vegetable, and animal productions. It is stated in a statistical account of the Philippines, published at Manilla in 1818 and 1819, that the entire population of the islands amounted to 2,249,852, of which 1,376,222 belonged to Luçonia. But this return is believed to have been underrated; and the population having increased very considerably in the interval, it is now estimated at upwards of 4,000,000. There are some, but not many, Chinese settlers, and few Europeans. The natives are said to be the most active, bold, and energetic of any belonging to the Eastern Archipelago. 'These people,' says a most intelligent navigator, 'appear in no respect inferior to those of Europe. They cultivate the earth like men of understanding; are carpenters, joiners, smiths, goldsmiths, weavers, masons &c. I have walked through their villages, and found them kind, hospitable, and communicative; and though the Spaniards speak of and treat them with contempt, I perceived that the vices they attributed to the Indians ought rather to be imputed to the Government they have themselves established.' (*Voyage de M. de la Perouse*, c. 15.)

The trade between this country and Manilla fluctuates considerably. The exports to the Philippines were as low as 458,000*l.* in 1862, and reached 955,300*l.* in 1865, 917,841*l.* in 1866, and 1,042,468*l.* in 1867. They are chiefly cotton cloth (the trade in which seems to be steadily increasing, and formed in 1867 $\frac{8}{10}$ of the whole), linens, woollens, and iron. On the other hand, our imports thence, consisting chiefly of sugar, hemp, tobacco and cigars, coffee, and gums copal and mastic, were valued in 1866 at 1,196,557*l.*, and in 1867 at 762,214*l.* Cowries figure in the exports from Manilla. The average exportation of sugar to the United Kingdom is about 500,000 cwts.

The general exports from Manilla were in 1864 valued at 2,296,178*l.*, the imports at 2,679,052*l.* The former represented the following articles:—

Articles		Manilla	Iloilo	Cebu
Sugar - -	piculs	805,411	131,067	58,364
Coffee - -	,,	37,845	..	..
Hemp - -	,,	467,293	6,660	20,277
Cordage - -	,,	22,515	..	..
Sapan wood -	,,	29,835	500	150
Hides - -	,,	7,444	..	45
Mother of pearl shells	,,	2,090	..	..
Gum mastic -	,,	2,573	..	..
Indigo -	quintals	3,046	..	..
Tobacco, leaf -	,,	70,548	..	..
Cigars -	millions	72,380	..	..
Tortoiseshell -	cattles	200	..	..
Cowries -	piculs	1,604	..	..
Horns - -	,,	49	..	..
Canes - -	,,	1,572	..	..
Rice - -	cavans	170,914	..	..
Paddy - -	,,	79,556	5,840	..
Cocoa-nut oil -	jars	6,901	..	..

Port Charges.—On foreign vessels, 2 rs. per ton, and one-half on such as neither load nor unload cargo, beside fees amounting from 5 dols. to 15 dols., according to the size of vessels.

Import Duties.—Spanish commodities, by Spanish vessels, pay 3 per cent. ad valorem, and 8 by foreign. Foreign commodities, by foreign vessels 14 per cent., and 7 by Spanish; in general being 8 per cent. under national flag from Singapore, and 9 from China. Spirits and strong liquors, produce of Spain, by Spanish vessels 10 per cent., and 25 by foreign; if they be foreign produce, by Spanish vessels 30 per cent., and 60 by foreign. Cider and beer, produce of Spain, by Spanish vessels 3 per cent., and 10 by foreign: if they be foreign produce, by Spanish vessels 20, and 25 foreign. All Spanish wines, by national vessels 3 per cent., and 8 by foreign. Foreign wines, by Spanish vessels 40 per cent., and 50 by foreign, except champagne, which pays, by Spanish vessels 7 per cent., and 14 by foreign. Cotton twist, grey, black, blue, and purple, knives or bolos (such as the natives use) ready-made clothes, boots, shoes, preserved fruits, confectionary and vinegar, by Spanish vessels 20 per cent., and 30

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by foreign. British and other foreign cotton and silk manufactures, made in imitation of native cloths, chiefly stripes or checks of black, blue, and purple colours, Madras and Bengal, grey, white, and printed cottons, towels, table napkins, and table cloths, 15 per cent. by Spanish vessels, and 25 by foreign. Beche de mer, rattans, diamonds, tortoiseshell, mother-o'-pearl shell, and birds' nests, 1 per cent. by Spanish vessels, and 2 by foreign. Machinery of all sorts for the promotion of the industry of the country, cotton twist of red, rose, yellow and green colours, gold and silver, coined or uncoined, plants and seeds, free. Tropical productions similar to those of the Philippines, also arrack and gunpowder, are prohibited. Opium is only admitted to be deposited for re-exportation. Swords, fowling-pieces, muskets, pistols, and warlike stores may be deposited for re-export, and cannot be introduced without the special license of Government; but cannon and dress swords are admitted. It is probable that Spanish tariffs, both home and colonial, will undergo a complete revision under the auspices of the new Government of 1868.

Export Duties.—Commodities and produce of every description to Spain, by national vessels pay 1 per cent., and 2 by foreign. Elsewhere, 1½ by Spanish vessels, and 3 by foreign. Hemp, by national vessels to whatever destination, 1 per cent., and 2 by foreign. Rice, by Spanish vessels free, and 4½ per cent. by foreign. Manufactured tobacco, and cordage of Manilla hemp, free by all flags. Gold dust, gold in bars, and silver in bars, free.

Entrepôt Duties.—One per cent. ad valorem, and 1 per cent. at the exportation, with 1 per cent. more if the commodities should be kept there more than twelve months, two years being the longest time allowed for it.

Port and Custom-house Regulations.—Vessels newly arrived are not to communicate with the shore until having been visited by the port captain's boat; and within 30 hours after this visit, a manifest must be presented, stating packages, marks, and numbers; but the vessel may retain her cargo 10 days in transit without stating whether for consumption or deposit, and without being obliged to land or incurring any charge on the same, except gunpowder, pocket pistols, and forbidden arms.

Terms for Sales and Purchases.—Sales and purchases made, duty paid, at 3 to 6 months' credit, occasionally at 2½ per cent. discount for prompt payment, and exports are bought for cash.

The principal currency of Manilla consists of Spanish dollars, of 8 reals and 96 grains, but South American dollars are also current. The weights in use are the Spanish lb., which is nearly 2 per cent. heavier than the English; the arroba = 25½ Eng. lbs. nearly: the quintal = 102 lbs.; and the pecul of 5 arrobas or 1¼ cwt. English. The cavan is a measure for rice &c., varying from 96 to 135 lbs. The Spanish merchants have a chamber of commerce, and a joint-stock insurance society. The United States, France, and Belgium have consuls, and each of the Canton marine insurance companies has an agent here. There are, however, neither fire nor life offices nor agencies; nor is any newspaper, price-current, or other periodical publication issued in Manilla.

Considering the great fertility and varied productions of the Philippines, and their peculiarly favourable situation for carrying on commerce, the limited extent of their trade may excite surprise. This is naturally and entirely a consequence of the wretched policy of the Spanish Government, which persevered until recently in excluding all foreign ships from the ports of the Philippines, confining the trade between them and Mexico and South America to a single ship! Even ships and settlers from China were excluded. 'Provisions,' says La Perouse, 'of all kinds are in the greatest abundance here, and extremely cheap; but clothing, European hardware, and furniture bear an excessively high price. The want of competition, together with prohibitions and restraints of every kind laid on commerce, *render the productions and merchandise of India and China at least as dear as in Europe!*' Happily, this miserable policy, the effects of which have been admirably depicted by M. de la Perouse, has been materially modified, and, it may be hoped, will, under the new régime of 1868, be entirely changed. Even the events of the revolutionary war destroyed for ever the old colonial system of Spain, and the ships of all nations are now freely admitted into Manilla and the other ports in the Philippines. An unprecedented stimulus has, in consequence, been given to all sorts of industry; and its progress will no doubt become more rapid, according as a wider experience and acquaintance with foreigners makes the natives better aware of the advantages of commerce and industry, and disabuses them of the prejudices of which they have been so long the slaves. It appears from the *Report* of Mr. Vice-Consul De Bosch on the *Commerce of Sual for* 1866, that intercourse between Manilla and Sual by means of steamers had been commenced.

MANNA (Fr. manne; Ger. mannaesche; Ital. manna). The concrete juice of several species of ash growing in the south of Europe. The juice exudes spontaneously in warm, dry weather, and concretes into whitish tears; but the greater part of the manna of commerce is obtained by making incisions in the tree, and gathering the juice in baskets, where it forms irregular masses of a reddish or brownish colour, often full of impurities. Manna is imported in chests, principally from Sicily and Calabria. The best is in oblong pieces from 1 to 6 inches long, moderately dry, friable, porous, of a yellowish white colour, and in some degree transparent; the inferior kinds are moist, unctuous, and brown. It has a slight peculiar odour, and a sweet taste, with some degree of bitterness not very pleasant, and leaving a nauseous impression on the tongue. In 1867, 27,262 lbs. were imported, valued at 4,775*l.*; and 4,712 lbs. were exported. (Thomson's *Dispensatory*; *British Pharmacopœia*, 1867.)

MARBLE (Ger., Russ. and Lat. marmor; Dutch, marmer; Fr. marbre; Ital. marmo; Span. marmol). A genus of fossils, composed chiefly of lime; being a bright and beautiful stone, moderately hard, not giving fire with steel, fermenting with and soluble in acid menstrua, and calcining in a slight fire.

The colours by which marbles are distinguished are almost innumerable. Some are quite black; others, again, are of a snowy white; some are greenish; others greyish, reddish, bluish, yellowish &c.; while some are variegated and spotted with many different colours and shades of colour. The finest solid modern marbles are those of Italy, Blankenburg, France, and Flanders. Great quantities of very beautiful marble have been discovered at Portsoy in Banffshire, and at Tiree and other places in the Western Isles. Kilkenny, in Ireland, has abundance of beautiful black marble intermixed with white spots, called *Kilkenny marble*. Derbyshire abounds in this mineral. Near Kemlyn-bay, in Anglesea, there is a quarry of beautiful marble called *verde di Corsica*, from its also being found in Corsica. Its colours are green, black, white, and dull purple, irregularly

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lisposed. Italy produces the most valuable narble, and its exportation makes a considerable branch of her foreign commerce. The black and he milk-white marble of Carrara, in the duchy of Massa, are particularly esteemed.

The marbles of Germany, Norway, and Sweden are very inferior, being mixed with a sort of scaly imestone.

Marble is of so hard, compact, and fine a texture as readily to take a beautiful polish. That most esteemed by statuaries is brought from the island of Paros, in the Archipelago; it was employed by Praxiteles and Phidias, both of whom were natives of that island; whence also the famous Arundelian marbles were brought. The marble of Carrara is likewise in high repute among sculptors.

The specific gravity of marble is from 2,700 to 2,800. Black marble owes its colour to a slight mixture of iron.

In 1867 we imported 10,263 tons of rough and 0,717 cwts. of sawn or otherwise manufactured narble, chiefly from Tuscany, the value of the whole being 146,711*l.*

MARITIME LAW. By maritime law is meant he law relating to harbours, ships, and seamen. t forms an important branch of the commercial aw of all maritime nations. It is divided into a variety of different departments; such as those with respect to harbours, the property of ships, the duties and rights of masters and seamen, contracts of affreightment, average, salvage &c. The reader will find those subjects treated of under their respective heads.

Sketch of the Progress of Maritime Law.—The earliest system of maritime law was supplied by he Rhodians, several centuries before the Christian era. The most celebrated authors of antiquity have spoken in high terms of the wisdom of he Rhodian laws: luckily, however, we are not wholly left, in forming our opinion upon them, to he vague though commendatory statements of Cicero and Strabo. (Cicero pro *Lege Manilia*; Strab. lib. xiv.) The laws of Rhodes were adopted by Augustus into the legislation of Rome; and such was the estimation in which they were held, hat the Emperor Antoninus, being solicited to decide a contested point with respect to shipping, is reported to have answered that it ought to be decided by the Rhodian laws, which were of paramount authority in such cases, unless they happened to be directly at variance with some regulation of the Roman law. ('Ego quidem mundi dominus, lex autem maris legis id Rhodia, qua de ebus nauticis præscripta est, judicetur, quatenus nulla nostrarum legum adversatur. Hoc idem divus quoque Augustus judicavit.') The rule of he Rhodian law with respect to average contributions in the event of a sacrifice being made at sea for the safety of the ship and cargo is expressly laid down in the *Digest* (lib. xiv. tit. 2); and the most probable conclusion seems to be, that most of the regulations as to maritime affairs embodied in the compilations of Justinian have been derived from the same source. The regulations as to average adopted by all modern nations are borrowed, with hardly any alteration, from the Roman, or rather, as we have seen, from the Rhodian law!—a conclusive proof of the sagacity of those by whom they had been originally framed. The only authentic fragments of the Rhodian laws are those in the Digest. The collection entitled *Leges navale Rhodiorum*, published at Bâle in 1561, is now admitted by all critics to be spurious.

The first modern code of maritime law is said to have been compiled at Amalfi, in Italy, a city at present in ruins; but which, besides being early distinguished for its commerce, will be for ever famous for the discovery of the Pandects, and the supposed invention of the mariner's compass. The Amalfitan code is said to have been denominated *Tabula Amalphitana*. But if such a body of law really existed, it is singular that it should never have been published, nor even any extracts from it. M. Pardessus has shown that all the authors who have referred to the Amalfitan code and asserted its existence, have copied the statement of Freccia, in his book *De Subfeudis* (*Collection des Lois Maritimes*, tome i. p. 145); and as Freccia assures us that the Amalfitan code continued to be followed in Naples at the time when he wrote (1570), it is difficult to suppose that it could have entirely disappeared; and it seems most probable, as nothing peculiar to it has ever transpired, that it consisted principally of the regulations laid down in the Roman law, which it is known preserved their ascendancy for a longer period in the south of Italy than anywhere else.

But, besides Amalfi, Venice, Marseilles, Pisa, Genoa, Barcelona, Valencia, and other towns of the Mediterranean were early distinguished for the extent to which they carried commerce and navigation. In the absence of any positive information on the subject, it seems reasonable to suppose that their maritime laws would be principally borrowed from those of Rome, but with such alterations and modifications as might be deemed requisite to accommodate them to the particular views of each state. But whether in this or in some other way, it is certain that various conflicting regulations were established, which led to much confusion and uncertainty; and the experience of the inconveniences thence arising doubtless contributed to the universal adoption of the *Consolato del Mare* as a code of maritime law. Nothing certain is known as to the origin of this code. Azuni (*Droit Maritime de l'Europe*, tome i. pp. 414—439, or rather Jorio, *Codice Ferdinando*, from whose work a large proportion of Azuni's is literally translated) contends, in a very able dissertation, that the Pisans are entitled to the glory of having compiled the whole, or at least the greater part, of the *Consolato del Mare*. On the other hand, Don Antonio de Capmany, in his learned and excellent work on the Commerce of Barcelona (*Antiguo Comercio de Barcelona*, tome i. pp. 170—183), has endeavoured to show that the *Consolato* was compiled at Barcelona, and that it contains the rules according to which the consuls which the Barcelonese had established in foreign places so early as 1268 were to render their decisions. It is certain that the *Consolato* was printed for the first time at Barcelona in 1502, and that the early Italian and French editions are translations from the Catalan. Azuni has, indeed, sufficiently proved that the Pisans had a code of maritime laws at a very early period, and that several of the regulations in it are substantially the same as those in the *Consolato*. But it does not appear that the Barcelonese were aware of the regulations of the Pisans, or that the resemblance between them and those in the *Consolato* is more than accidental, or may not fairly be ascribed to the concurrence that can hardly fail to obtain among well-informed persons legislating upon the same topics, and influenced by principles and practices derived from the civil law.

M. Pardessus, in the second volume of his excellent work already referred to, appears to have been sufficiently disposed, had there been any grounds to go upon, to set up a claim in favour of Marseilles to the honour of being the birthplace of the *Consolato*; but he candidly admits that such a pretension could not be sup-

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ported, and unwillingly adheres to Capmany's opinion. 'Quoique Français,' says he, 'quoique porté par des sentimens de reconnoissance, qu'aucun événement ne sauroit affoiblir, à faire valoir tout ce qui est en faveur de Marseilles, je dois reconnoitre franchement que les probabilités l'emportent en faveur de Barcelone.' (Tome ii. p. 24.)

But to whichever city the honour of compiling the *Consolato* may be due, there can be no doubt that its antiquity has been greatly exaggerated It is affirmed, in a preface to the different editions, that it was solemnly accepted, subscribed, and promulgated, as a body of maritime law, by the Holy See in 1075, and by the kings of France and other potentates at different periods between 1075 and 1270. But Capmany, Azuni, and Pardessus have shown in the clearest and most satisfactory manner that the circumstances alluded to in this preface could not possibly have taken place, and that it is wholly unworthy of attention. The most probable opinion seems to be, that it was compiled, and began to be introduced, about the end of the 13th or the beginning of the 14th century. And notwithstanding its prolixity, and the want of precision and clearness, the correspondence of the greater number of its rules with the ascertained principles of justice and public utility gradually led, without the intervention of any agreement, to its adoption as a system of maritime jurisprudence by all the nations contiguous to the Mediterranean. It is still of high authority. Casaregis says of it, though, perhaps, too strongly, 'Consulatus maris, in materiis maritimis, tanquam universalis consuetudo habens vim legis, inviolabiliter attendenda est apud omnes provincias et nationes.' (Disc. 213, n. 12.)

The collection of sea laws next in celebrity, but anterior, perhaps, in point of time, is that denominated the *Roole des Jugements d'Oleron*. There is as much diversity of opinion as to the origin of these laws as there is with respect to the origin of the *Consolato*. The prevailing opinion in Great Britain has been, that they were compiled by direction of Queen Eleanor, wife of Henry II., in her quality of Duchess of Guienne, and that they were afterwards enlarged and improved by her son Richard I. on his return from the Holy Land; but this statement is now admitted to rest on no good foundation. The most probable theory seems to be, that they are a collection of the rules or practices followed at the principal French ports on the Atlantic, as Bordeaux, Rochelle, St. Malo &c. They contain, indeed, rules that are essential to all maritime transactions, wherever they may be carried on; but the references in the code sufficiently prove that it is of French origin. The circumstance of our monarch's having large possessions in France at the period when the rules of Oleron were collected, naturally facilitated their introduction into England, and they have long enjoyed a very high degree of authority in this country. 'I call them the laws of Oleron,' said a great civilian (Sir Leoline Jenkins, *Charge to the Cinque Ports*), 'not but that they are peculiarly enough English, being long since incorporated into the customs and statutes of our admiralties; but the equity of them is so great, and the use and reason of them so general, that they are known and received all the world over by that rather than by any other name.' Molloy, however, has more correctly, perhaps, said of the laws of Oleron, that 'they never obtained any other or greater force than those of Rhodes formerly did: that is, they were esteemed for the reason and equity found in them, and applied to the case emergent.' (*De Jure Maritimo et Navali*, Introd.)

A code of maritime law issued at Wisby, in the island of Gothland, in the Baltic, has long enjoyed a high reputation in the North. The date of its compilation is uncertain, but it is comparatively modern. It is true that some of the Northern jurists contend that the laws of Wisby are older than the rules of Oleron, and that the latter are chiefly copied from the former! But it has been repeatedly shown that there is *not* so much as the shadow of a foundation for this statement. (Pardessus, *Collection &c.* tome i. pp. 425–462; *Foreign Quarterly Review*, No. 13, art. 'Hanseatic League.') The Laws of Wisby are not certainly older than the latter part of the 14th or beginning of the 15th century, and have obviously been compiled from the *Consolato del Mare*, the rules of Oleron, and other codes that were then in use. Grotius has spoken of these laws in the most laudatory manner: 'Quæ de maritimis negotiis,' says he, 'insulæ Gothlandiæ habitatoribus placuerunt, tantum in se habent, tum equitatis, tum prudentiæ, ut omnes oceani accolæ eo, non tanquam proprio, sed velut gentium jure, utantur.' (*Prolegomena ad Procopium*, p. 64.)

Besides the codes now mentioned, the ordinances of the Hanse Towns, issued in 1597 and 1614, contain a system of laws relating to navigation that is of great authority. The judgments of Damme, the customs of Amsterdam &c., are also often quoted.

A translation of the Law of Oleron, Wisby, and the Hanse Towns is given in the 3rd edition of Malynes' *Lex Mercatoria*; but the edition of them in the work of M. Pardessus is infinitely superior to every other.

But by far the most complete and well-digested system of maritime jurisprudence that has ever appeared, is that comprised in the famous *Ordonnance de la Marine* issued by Louis XIV. in 1681. This excellent code was compiled under the direction of M. Colbert, by individuals of great talent and learning, after a careful revision of all the ancient sea laws of France and other countries, and upon consultation with the different parliaments, the courts of admiralty, and the chambers of commerce, of the different towns. It combines whatever experience and the wisdom of ages had shown to be best in the Roman laws, and in the institutions of the modern maritime states of Europe. In the preface to his treatise on the *Law of Shipping*, Lord Tenterden says, 'If the reader should be offended at the frequent references to this ordinance, I must request him to recollect that those references are made to the maritime code of a great commercial nation, which has attributed much of its national prosperity to that code—a code composed in the reign of a politic prince; under the auspices of a wise and enlightened minister; by laborious and learned persons, who selected the most valuable principles of all the maritime laws then existing; and which, in matter, method, and style, is one of the most finished acts of legislation that ever was promulgated.'

The Ordinance of 1681 was published in 1760, with a detailed and most elaborate commentary by M. Valin, in 2 volumes, 4to. It is impossible which to admire most in this commentary, the learning or the sound good sense of the writer. Lord Mansfield was indebted for no inconsiderable portion of his superior knowledge of the principles of maritime jurisprudence to a careful study of M. Valin's work.

That part of the *Code de Commerce* which treats of maritime affairs, insurance &c. is copied, with very little alteration, from the Ordinance of 1681. The few changes that have been made are not always improvements.

No system or code of maritime law has ever been issued by authority in Great Britain. The laws and practices that now obtain amongst us in reference to maritime affairs have been founded principally on the practices of merchants, the principles laid down in the civil law, the laws of Oleron and Wisby, the works of distinguished jurisconsults, the judicial decisions of our own and foreign countries &c. A law so constructed has necessarily been in a progressive state of improvement; and, though still susceptible of amendment, it corresponds at this moment more nearly, perhaps, than any other system of maritime law, with those universally recognised principles of justice and general convenience by which the transactions of merchants and navigators ought to be regulated.

The decisions of Lord Mansfield did much to fix the principles, and to improve and perfect the maritime law of England. It is also under great obligations to Lord Stowell. The decisions of the latter chiefly, indeed, respect questions of neutrality, growing out of the conflicting pretensions of belligerents and neutrals during the war ended 1815; but the principles and doctrines which he unfolds in treating those questions throw a strong and steady light on those branches of maritime law. It has occasionally, indeed, been alleged—and the allegation is probably in some degree well founded—that his lordship has conceded too much to the claims of belligerents. Still, however, his judgments must be regarded, allowing for this excusable bias, as among the noblest monuments of judicial wisdom of which any country can boast. 'They will be contemplated,' says Mr. Serjeant Marshall, 'with applause and veneration, as long as depth of learning, soundness of argument, enlightened wisdom, and the chaste beauties of eloquence hold any place in the estimation of mankind.' (*On Insurance*, Prelim. Disc.)

The 'Treatise of the Law relative to Merchant Ships and Seamen,' by the late Lord Tenterden, does credit to the talents, erudition, and liberality of its noble and learned author. It gives within a brief compass a clear and admirable exposition of the most important branches of our maritime law, and may be consulted with equal facility and advantage by the merchant, the general scholar, and the lawyer. Mr. Serjeant Marshall has entered very fully into some and has touched upon most points of maritime law in his work on *Insurance*, and has discussed them with great learning and sagacity. The works of Mr. Justice Park, Mr. Abbott, and a few others, are also valuable. Of the earlier treatises, the *Lex Mercatoria* of Malynes is by far the best; and, considering the period of its publication (1622), is a very extraordinary performance.

Statutes with Respect to Importation and Exportation, Navigation &c.—The preceding remarks refer merely to the principles, or leading doctrines, of our maritime law. These, however, have often been very much modified by statutory enactments; and the excessive multiplication of Acts of Parliament suspending, repealing, or altering parts of other Acts, has often involved our commercial and maritime law in almost inextricable confusion, and been most injurious to the public interests. No one, indeed, who is not pretty conversant with the subject would readily imagine to what an extent this abuse has sometimes been carried. From the Revolution down to 1786 some hundreds of Acts were passed, each enacting some addition, diminution, or change in the duties, drawbacks, bounties, and regulations previously existing in the customs. In consequence, the customs laws became so intricate and unintelligible, that hardly one merchant in fifty could tell the exact amount of duty affecting any article, or the course to be followed either in entering or clearing out vessels; being obliged to leave it entirely to the clerks of the Custom-house to calculate the amount of duties, and to direct him how to proceed so as to avoid forfeiting the goods and the ship! and yet, so powerful is the influence of habit in procuring toleration for the most pernicious absurdities, that this monstrous abuse was allowed to go on increasing for 50 years after it had been denounced as intolerable. Mr. Pitt has the merit of having introduced something like order into this chaos. Under his auspices, all the separate customs duties existing in 1787 were repealed, and new ones substituted; consisting, in most instances, of the equivalents, so far at least as they could be ascertained, of the old duties. In carrying this measure into effect, the House of Commons passed no fewer than 3,000 resolutions. The regulations as to entries and clearances were also simplified.

The advantages resulting from this measure were very great; but during the war ended 1815 so many new duties and regulations were passed, that the necessity for a fresh consolidation became again very urgent, and was effected in 1819. It was not, however, in the customs department only, or in the mere article of duties, that the merchants and shipowners were bewildered by the multiplicity of statutory regulations. There was not a single branch of the law regulating their transactions that escaped the rage for legislation. Previously to 1822, no fewer than 113 statutes had been passed relating to the fisheries; and the makers and buyers of sails and cordage were supposed to be familiar with the various obscure and contradictory regulations embodied in the *twenty-three* Acts of Parliament relating to these articles! But the enormity of the abuse will be rendered more apparent by laying before the reader the following extract from the *Report of the Lords' Committee on Foreign Trade in* 1820.

'Before your committee proceed to advert to the points which have been the principal objects of their enquiry, they are anxious to call the attention of the House to the excessive accumulation and complexity of the laws under which the commerce of the country is regulated, with which they were forcibly impressed in the very earliest stage of their proceedings. These laws, passed at different periods, and many of them arising out of temporary circumstances, amount, as stated in a recent computation of them, to upwards of 2,000, of which no less than 1,100 were in force in 1815; and many additions have been since made. After such a statement, it will not appear extraordinary that it should be matter of complaint by the British merchant, that, so far from the course in which he is to guide his transactions being plain and simple—so far from being able to undertake his operations, and to avail himself of favourable openings, as they arise, with promptitude and confidence—he is frequently reduced to the necessity of resorting to the services of professional advisers, to ascertain what he may venture to do, and what he must avoid, before he is able to embark in his commercial adventures with the assurance of being secure from the consequences of an infringement of the law. If this be the case (as is stated to your committee) with the most experienced among the merchants, even in England, in how much greater a degree must the same perplexity and apprehension of danger operate in foreign countries and on foreign merchants, whose acquaintance with our statute book

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must be supposed to be comparatively limited, and who are destitute of the professional authority which the merchant at home may at all times consult for his direction! When it is recollected, besides, that a trivial, unintentional deviation from the strict letter of the Acts of Parliament may expose a ship and cargo to the inconvenience of seizure, which (whether sustained or abandoned) is attended always with delay and expense, and frequently followed by litigation, it cannot be doubted that such a state of the law must have the most prejudicial influence both upon commercial enterprise in the country, and upon our mercantile relations and intercourse with foreign nations; and perhaps no service more valuable could be rendered to the trade of the empire, nor any measure more effectually contribute to promote the objects contemplated by the House in the appointment of this committee, than an accurate revision of this vast and confused mass of legislation, and the establishment of some certain, simple, and consistent principles, to which all the regulations of commerce might be referred, and under which the transactions of merchants engaged in the trade of the United Kingdom might be conducted with facility, safety, and confidence.' (p. 4.)

Since this report was printed, a very considerable progress has been made in simplifying and clearing up the statute law, on the principles laid down in it. The law as to shipping and navigation has been particularly improved. The principles laid down in the famous Navigation Acts of 1650 and 1660 were, indeed, sufficiently distinct and obvious; but when these Acts were passed, there were above 200 statutes in existence, many of them antiquated and contradictory, which they did not repeal, except in so far as the regulations in them might be inconsistent with those in the new Acts. But besides these, a number of statutes were passed almost in every session since 1660, explaining, limiting, extending, or modifying, in one way or other, some of the provisions of the Navigation Acts; so that ultimately there were questions perpetually arising, as to which it was very difficult to discover the precise law. On such occasions recourse was often had to the courts; and the good sense and equity which generally characterised their decisions mitigated the mischievous consequences resulting from the uncertainty of the statute law, and even gave it the appearance of consistency. This uncertainty, however, has been well nigh removed. A bill introduced and carried through Parliament in 1824 repealed above 200 antiquated and contradictory statutes; and the new Customs and Navigation Acts passed in the following year were drawn up with a brevity and precision which do honour to the memory of their compiler, the late Mr. Hume, of the Board of Trade. But various alterations having been subsequently made in the customs laws, new statutes embodying these alterations were passed in 1833, and again in 1845. And a still more perfect and complete consolidation has been effected by the Customs Consolidation Act of 1853, the 16 & 17 Vict. c. 107. It has the two great recommendations of being at once brief and perspicuous. It embraces the whole statute law with respect to the importation and exportation of commodities, the coasting and colonial trades, smuggling &c. The law relating to ships and seamen, which, down to 1854, was in a very confused and contradictory state, has also been digested under its different heads, and embodied in two statutes, the Mercantile Shipping Act of 17 & 18 Vict. c. 104, and Merchant Shipping Acts Amendment Act of 25 & 26 Vict. c. 63. These statutes, which contain no fewer than 626 clauses, might, we think, be advantageously compressed; but they are a vast improvement on the previous state of the statute law on the subject.

The most important modern works on Maritime Law are Maude and Pollock's *Law of Merchant Shipping*, and Pritchard's *Admiralty Digest*.

It may be worth while observing, that hardly a session passes without giving birth to more or fewer Acts, making certain changes or modifications in the customs laws. Where these changes apply only to some particular emergency, without affecting the general principles or rules laid down in the statutes, there can be no doubt that they should be embodied in separate Acts; but where any modification or alteration is to be made in the principles of the law, the better way, as it appears to us, would be to introduce it directly into the leading Act on the subject—re-enacting it in an amended or altered form. In no other way is it possible to preserve that unity and clearness which are so very desirable. The multiplication of statutes is a very great evil, not only from the difficulty of ascertaining the exact degree in which one modifies another, but from its invariably leading to the enactment of contradictory clauses. The property and transactions of merchants ought not to depend upon the subtleties and niceties of forced constructions, but upon plain and obvious rules, about which there can be no mistake. It would, however, be idle to expect that such rules can ever be deduced from the conflicting provisions of a number of statutes: those in the same statute are not always in harmony with each other.

MARK or MARC. A weight used in several parts of Europe, for various commodities, especially gold and silver.

In France, the mark was divided into 8 oz. = 64 drachms = 192 deniers or pennyweights = 4,608 grains. In Holland, the mark weight was also called Troy weight, and was equal to that of France. When gold and silver are sold by the mark, it is divided into 24 carats.

The pound, or *livre*, *poids de marc*, the weight most commonly used in retail dealings throughout France previous to the Revolution, was equal to 2 marcs, and consequently contained 16 oz. = 128 drs. = 384 den. = 9,216 gr. One kilogramme is nearly equal to 2 livres. Subjoined is a table of livres, *poids de marc*, from 1 to 10, converted into kilogrammes. Any greater number may be learned by a simple multiplication and addition.

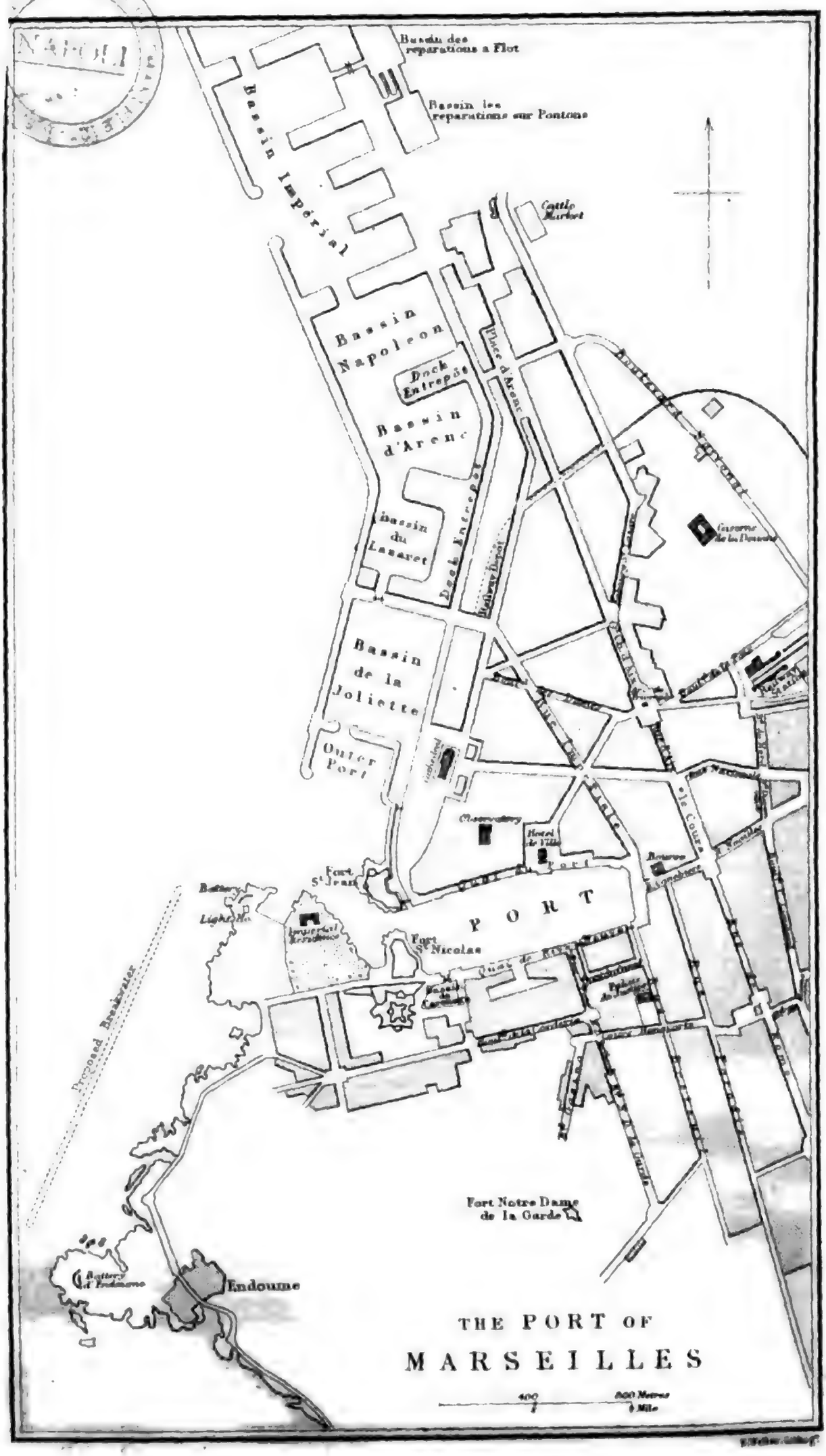
livres	kilo.	livres	kilo.
1 =	0·4895	6 =	2·9370
2 =	0·9790	7 =	3·4265
3 =	1·4685	8 =	3·9160
4 =	1·9580	9 =	4·4056
5 =	2·4475	10 =	4·8951

MARK. A term sometimes used among us for a money account, and in some other countries for a coin. The English mark is ⅔ of a pound sterling, or 13*s.* 4*d.*; and the Scotch mark is ⅓ of a pound Scotch. The mark Lubs, or Lübeck mark, used at Hamburg, is a money of account, equal to 14½*d.* sterling.

MARK, TRADE. [TRADE MARK.]

MARKET. A public place in a city or town, where provisions are sold. No market is to be kept within 7 miles of the city of London; but all butchers, victuallers &c. may hire stalls and standings in the flesh-markets there, and sell meat and other provisions. Every person who has a market is entitled to receive toll for the things sold in it; and, by ancient custom, for things standing in the market, though not sold but those who keep a market in any other manner

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Bassin des reparations a Flot
Bassin les reparations sur Pontons
Bassin Impérial
Cattle Market
Bassin Napoleon
Dock Entrepôt
Bassin d'Arenc
Place d'Arenc
Bassin du Lazaret
Dock Entrepôt
Bassin de la Joliette
Outer Port
Caserne de la Douane
Chamber of Commerce
Hotel de Ville
Fort St Jean
Fort St Nicolas
Quai de Rive Neuve
Palais de Justice
Rue Impériale
Rue Noailles
Rue Cannebière
Rue de la Darse
Rue de la Loge
Rue Thubaneau
Rue Paradis
Rue Grignan
Rue Colbert
Rue Vacon
Rue Sylvabelle
Rue Pavillon
Rue Caisserie
Rue Fortia
Rue Reine
Rue Longue des Capucins
Rue Longue des Chartreux
Rue Longue des Dames
Rue Longue des Prêtres
Rue Longue des Recollets
Rue Longue des Réformés
Rue Longue des Minimes
Rue Longue des Augustins
Rue Longue des Carmes
Rue Longue des Cordeliers
Rue Longue des Jacobins
Rue Longue des Observantins
Rue Longue des Récollets
Rue Longue des Trinitaires
Rue Longue des Ursulines
Rue Longue des Visitandines
Rue Longue des Carmélites
Rue Longue des Clarisses
Rue Longue des Dominicaines
Rue Longue des Franciscaines
Rue Longue des Hospitalières
Rue Longue des Religieuses
Rue Longue des Sœurs
Rue Longue des Tertiaires
Rue Longue des Visitandines
Rue Longue des Carmélites
Rue Longue des Clarisses
Rue Longue des Dominicaines
Rue Longue des Franciscaines
Rue Longue des Hospitalières
Rue Longue des Religieuses
Rue Longue des Sœurs
Rue Longue des Tertiaires
PORT
Proposed Breakwater
Fort Notre Dame de la Garde
Endoume
THE PORT OF
MARSEILLES

than it is granted, or extort tolls or fees where none are due, forfeit the same. [FAIRS.]

MARSEILLES. A large commercial city and sea-port of France, on the Mediterranean, lat. 43° 17′ 49″ N., long. 5° 22½′ E. Population in 1866, including suburbs, 300,131.

The port now consists of the natural harbour, called 'Vieux Port,' and the two basins formed within the new Breakwater, called respectively 'Port de la Joliette' and 'Port Napoléon.' The Vieux Port, about 1,000 yards long and 300 wide, has a very narrow entrance between two old forts, but is one of the safest ports in the world. Dredging machines are constantly at work to maintain a uniform depth of about 18 feet throughout the Old Port, which is exclusively reserved for sailing ships, which usually lie in tiers on the north and south sides, and mostly discharge their cargoes over their bows on to the quays. These have been considerably widened of late years. There are numerous tug-boats always at command for vessels entering or leaving.

A breakwater, 2,400 mètres long, has now been completed. It lies off the land on the north side of the Old Port, and has a lighthouse on each end. A vessel on rounding the south entrance of this breakwater enters the port of La Joliette, to the left, a basin about 600 yards long by about 460 wide. It is surrounded on all sides by spacious quays, and furnished with iron tramways for the conveyance of merchandise in railway trucks to the dock buildings and railway station. La Joliette is used for steam as well as for sailing vessels of considerable draught of water; the whole northern and about half of the western sides being reserved for the fleet of steamships belonging to the Messageries Impériales.

An opening with a turning-bridge leads from La Joliette to the Port Napoléon, which is considerably more spacious than the former. On its eastern side there are two basins, 'du Lazaret' and 'd'Arenc,' with spacious quays for the whole. In this harbour the ships lie broadside on to the wharves, and discharge their cargoes. The great dock warehouses form a range of buildings of stone and iron, six storeys high, and capable of containing 40,000 tons of general merchandise. In both of these artificial ports there is ample depth of water for the largest ships, but unfortunately neither of them is very safe when the wind blows violently from the north-west or north-east. The whole, including the old harbour, would contain at one time as many as 2,000 vessels.

The isles of Rattoneau and Pomègues, and that named after the celebrated Château d'If, all fortified, lie in a cluster off the port, the latter distant about 1½ mile in a west-south-westerly direction. Rattoneau and Pomègues are connected by a breakwater, and thus form a very convenient port, almost exclusively used for the quarantine service.

Outside of these islands lies a reef with a lighthouse called 'Le Planier,' in lat. 43° 11′ 54″ N., long. 5° 13′ 59″ E. It is distant about 4½ miles from the island Le Maire, lying to the east of it, both of them being about 7 miles from the Château d'If.

To the north of the Port Napoléon another port, to be called the Port Impérial, is being constructed, and another breakwater, in a line with the existing one, is to enclose the bay formed by Cape Pinède.

The merchandise discharged from the vessels in La Joliette and Port Napoléon, and even in the Old Port, can at once be passed through these buildings and forwarded to th interior of the country, and any part of the Continent, without going through the town.

There are as yet very insufficient means for docking vessels at Marseilles, but the Port Impérial will have a large stone dry-dock, and one of Clarke's patent hydraulic lifts for repairing vessels.

The custom-house is on the quay of the Old Port, and there is a branch at Port de la Joliette, principally for the examination of passengers' luggage.

The Tribunal of Commerce sits in the Exchange, and the judges are periodically elected from amongst the leading merchants.

All the principal mercantile offices are near the head of the Old Port.

Vessels approaching the harbour of Marseilles generally heave-to for a pilot on approaching the islands, and they are charged pilotage whether they take one or not.

French ships and foreign vessels having reciprocity treaties, upwards of 80 tons burden, pay for pilotage 22 centimes per ton inwards, and 15 outwards. If the pilot is taken on board 6 or 7 miles off the port, the full charge is paid: it is reduced ¼ if he comes on board 2 or 3 miles off, and ½ if he comes on board at the entrance of the port.

Immediately on receiving pratique the ship is taken to the old or new harbour, according to the nature of the cargo she has on board, or the goods she may have to take in.

The only charge leviable on ships visiting Marseilles consists of a small payment at the Health Office for the bill of health. It amounts to from 5 to 15 centimes per ton. There are no tonnage, anchorage, or light dues of any sort. Ballast is of course paid for.

Vessels can be well repaired at Marseilles, but the charges are high. The charges for docking are as follow:—

Sailing Ships.

	francs	centimes
Entering into and leaving the dry dock on the same day, per ton	0	80
For every day beyond the first day and per ton	0	40

Steam Ships.

	francs	centimes
Entering into and leaving the dry dock on the same day, per horse power	4	0
For every day beyond the first day and per horse power	2	0

No payment will be received on any sailing vessel for less than 250 tons.

No payment will be received on any steam-vessel for less than 60 horses' power. Upon steam-vessels whose horse power exceeds that of 250 horses, the prices above mentioned will be reduced ½ for every horse power above the 250 first and up to 400, and ¾ for all beyond the first 400. For sailing ships upwards of 1,000 tons, the foregoing prices will be reduced ½ for every ton above the first 1,000 and up to 1,500, and ¾ for every ton above 1,500.

The approaches to the port are admirably lighted, and the service is kept up without any charge to the shipping. The different lights in the bay or at the entrance of the port are described at the end of this article.

The mistral, or north-west wind, is the prevailing one: it blows in very heavy gusts, which render the approach to the port of Marseilles exceedingly difficult at times, and vessels rarely leave the port until it subsides.

Trade &c.—Marseilles is a city of great antiquity, and has long enjoyed a very extensive commerce. Havre—partly, no doubt, from its being, as it were, the port of Paris—used to enjoy a greater share of the trade of France; but, not-

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withstanding the increased importance of the former, it has recently been equalled, and sometimes surpassed, by that of Marseilles.

Great prosperity has manifested itself here of late years, particularly since the annexation of Algeria, and the growth of the railway system.

Marseilles carries on trade with every part of the world. Its principal importations consist of oilseeds from India, the coast of Africa, Egypt, and the Levant ports; raw sugars from the West Indies, Brazil, Réunion, Mauritius, and Manilla; cotton from Egypt and the Levant; and much varied merchandise from all parts. At all times much wheat and grain is brought here from the Black Sea and Danube; but when the crops are short in France, England, Spain, or Italy, the quantity imported is very large, and the port and town then assume an extraordinary state of animation.

Marseilles soap, which has long been famous, continues to be largely made in spite of the exorbitant octroi duties and other difficulties the manufacturers have to contend with.

The exports from Marseilles consist chiefly of silk fabrics, wines, brandies, and liqueurs; woollen and other stuffs, madder, oil, and colonial products, soap, and refined sugar. Of the last-named article as much as 50,000 tons have been exported from Marseilles to the different parts of the Mediterranean in the course of a year.

A very active trade is carried on between Marseilles and Algeria, as well as with Corsica.

The large steam ships of the Messageries Impériales now connect this port by a monthly service with India, China, Japan, Mauritius, and Réunion, in competition with the Peninsular and Oriental Steam Company.

Two well-equipped life boats lie constantly at the entrance to the port ready for any emergency. The expenses are met by voluntary contributions.

According to Mr. Consul Mark's *Report*, the customs receipts, which in 1865 amounted to 21,341,216 francs, yielded 20,264,587 francs only in 1866; but business was, in consequence of the commercial crisis and a visit of the cholera, very dull throughout the latter year.

A joint-stock bank established here in 1835 has latterly been converted into a branch of the Bank of France; 4,000 shares and 4,000,000 francs of the stock of the latter having been assigned to its proprietors.

These statements show that the trade of Marseilles is of much importance; she is, in fact, the principal emporium in South Europe; and it is not easy to say in how great a degree her trade would be increased, were the French tariff again revised and placed on a still more liberal footing.

Account of the Number and Tonnage of the French and Foreign Ships which entered and cleared from Marseilles in 1866.

	Entered		Cleared	
	Vessels	Tonnage	Vessels	Tonnage
French steamers	2,014	736,156	2,010	714,609
Foreign ,,	532	192,347	539	188,389
French sailing vessels	3,763	564,752	3,654	378,639
Foreign ,,	2,349	441,448	2,330	466,646
Total	8,658	1,729,703	8,533	1,747,283

'There was a large falling off in the foreign shipping which entered and cleared from Marseilles during 1866, as compared with the preceding year, amounting to about one-sixth:—

Nations	Arrivals			Departures		
	Ships	Tonnage	Crews	Ships	Tonnage	Crews
United Kingdom	191	111,703	7,560	186	111,601	7,612
Austria	231	77,963	2,353	241	77,138	2,377
Denmark	3	404	23	3	404	23
Spain	304	72,012	7,885	477	70,789	7,704
United States	41	20,578	476	41	19,245	509
Greece	406	101,621	5,955	389	101,953	5,920
Hanover	1	709	21	1	555	17
Italy	1,214	176,833	12,921	1,205	178,378	13,140
Mecklenburg	10	3,050	105	10	2,950	109
Holland	23	9,216	406	23	9,673	416
Portugal	4	574	36	4	574	36
Prussia	22	6,950	205	18	5,968	227
Rome	8	1,334	66	8	1,334	63
Argentine Republic	1	290	13	1	290	13
Russia	78	33,900	1,340	73	35,544	1,498
Sweden and Norway	32	9,291	378	26	7,844	311
Turkey	12	3,997	314	14	4,330	339
Uruguay	7	1,842	90	6	1,490	65
Hans Towns	10	6,046	167	9	5,408	165
Total	2,607	641,313	38,314	2,749	635,160	38,116

'The British shipping shows a remarkable falling off in 1866. In 1865, 241 vessels, collectively of 137,454 tons, entered the port; whereas 191 ships came here in 1866, and the total tonnage reached 111,703 tons only.' (Mr. Consul Mark's *Report for* 1866, printed 1868.)

Subjoined is a list of the lights provided for the port of Marseilles and its approaches, describing the nature and position of each.

1st. A fixed light, of the 4th class, at the foot of the round tower of the Fort St. Jean, on the left hand of the entrance to the old port, on a small round turret	Elevation 9 mètres. Visible at 9 miles. Lat. 43° 17′ 45″. Long. 5° 1′ 26″ E. N.B. Meridian of Paris	A white light
2nd. A variable light, of the 4th class, on the point called Tête du Nore, between the bay called 'Anse de la Réserve' and that of the Pharo, to the right of the entrance to the port. On a small turret with a habitation attached	Elevation 10 mètres. Visible at 10 miles. Lat. 43° 17′	A white light varied every three minutes by flashes, followed by short obscurations
These two lights are hidden towards the south-west by the projecting bluff of the Pharo.		
3rd. A fixed light, of the 4th class, upon the southern point of the breakwater, on a round tower	Elevation 25 mètres. Lat. 43° 17′ 56″. Long. 5° 1′ 17″ E. Visible at 8 miles	A red light
4th. Light on the Château d'If. A fixed light, of the 4th class, upon the eastern point of the island, on a round tower	Elevation 9 mètres. Lat. 43° 16′ 48″. Long. 2° 27′ 59″ E. Visible at 9 miles	A white light
5th. Planier light. A revolving light of the 4th class. The flashes succeed each other every half minute. It is situated on a rocky reef, on a round tower	Elevation 40 mètres. Lat. 43° 11′ 57″. Long. 5° 53′ 59″ E. Visible at 20 miles	At 8 miles to the S.W. of the port of Marseilles. In ordinary weather the eclipses appear to be total only at a distance of 6 miles. The light is white
6th. A temporary light has been erected at the north end of the great breakwater, at the entrance to the Port Napoléon	Elevation 12½ mètres	A white light with red flashes every minute

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MASTER. In Commercial Navigation, the person intrusted with the care and navigation of the ship.

Formerly none were qualified to be masters of British ships unless natural-born British subjects or those naturalised by Act of Parliament, or denizens by letters of denization &c. But these restrictions no longer exist; and all parties, whether natives or foreigners, provided they have the necessary certificates (see *post*), may be selected to serve as masters.

'The master is the confidential servant or agent of the owners; and in conformity to the rules and maxims of the law of England, *the owners are bound to the performance of every lawful contract made by him relative to the usual employment of the ship.*' (Abbott, Lord Tenterden, on *the Law of Shipping*, part ii. c. 2.)

From this rule of law it follows that the owners are bound to answer for a breach of contract, though committed by the master or mariners against their will, and without their fault. (*Id.*) Nor can the expediency of this rule be doubted. The owners, by selecting a person as master, hold him forth to the public as worthy of trust and confidence; and in order that this selection may be made with due care, and that all opportunities of fraud and collusion may be obviated, it is indispensable that they should be made responsible for his acts.

The master has power to hypothecate, or pledge, both ship and cargo for *necessary repairs executed in foreign parts* during the course of the voyage; but neither the ship nor cargo can be hypothecated for repairs *executed at home*.

The master has no lien upon the ship for his wages, nor for money advanced by him for stores or repairs. In delivering judgment upon a case of this sort, Lord Mansfield said—'As to wages, there is no particular contract that the ship should be a pledge; there is no usage in trade to that purpose; nor any implication from the nature of the dealing. On the contrary, the law has always considered the captain as contracting personally with the owner; and the case of the captain has, in that respect, been distinguished from that of all other persons belonging to the ship. This rule of law may have its foundation in policy, for the benefit of navigation; for, as ships may be making profit and earning every day, it might be attended with great inconvenience if, on the change of a captain for misbehaviour or any other reason, he should be entitled to keep the ship till he is paid. Work done for a ship in England is supposed to be done on the personal credit of the employer: in foreign parts the captain may hypothecate the ship. The defendant might have told the tradesmen that he only acted as an agent, and that they must look to the owner for payment.'

The master is bound to employ his whole time and attention in the service of his employers, and is not at liberty to enter into any engagement for his own benefit that may occupy any portion of his time in other concerns; and therefore, if he do so, and the price of such engagement happen to be paid into the hands of his owners, they may retain the money, and he cannot recover from them. (Abbott, part ii. c. 4.)

Wilfully destroying or casting away the ship, or procuring the same to be done by the master or mariners, to the prejudice of the owners, freighters, or insurers; running away with the cargo; and turning pirates, are offences punishable by transportation beyond seas for not less than 15 years, or by imprisonment for not more than 3 years. [SEAMEN.]

After the voyage has been commenced, the master must proceed direct to the place of his destination, without unnecessarily stopping at any intermediate port, or deviating from the shortest course. No such deviation will be sanctioned unless it has been occasioned by stress of weather, the want of necessary repair, avoiding enemies or pirates, succouring of ships in distress, sickness of the master or mariners, or the mutiny of the crew. (Marshall *On Insurance*, book i. c. 6, s. 3.) To justify a deviation, the necessity must be real, inevitable, and imperious; and it must not be prolonged one moment after the necessity has ceased. A deviation without such necessity vitiates all insurances upon the ship and cargo, and exposes the owners to an action on the part of the freighters. If a ship be captured in consequence of deviation, the merchant is entitled to recover from the owners the prime cost of the goods, with shipping charges; but he is not entitled to more, unless he can show that the goods were enhanced in value beyond the sum above mentioned.

If a merchant ship has the misfortune to be attacked by pirates or enemies, the master is bound to do his duty as a man of courage and capacity, and to make the best resistance that the comparative strength of his ship and crew will allow.

By the common law, the master has authority over all the mariners on board the ship—it being their duty to obey his commands in all lawful matters relating to the navigation of the ship, and the preservation of good order. But the master should in all cases use his authority with moderation, so as to be the father, not the tyrant of his crew. On his return home he may be called upon by action at law to answer to a mariner he has either beaten or imprisoned during the course of the voyage; and unless he show sufficient cause for chastising the mariner, and also that the chastisement was reasonable and moderate, he will be found liable in damages. Should the master strike a mariner without cause, or use a deadly weapon as an instrument of correction, and death ensue, he will be found guilty, according to the circumstances of the case, either of manslaughter or murder. (Abbott, part ii. c. 4.)

The master may by force restrain the commission of great crimes; but he has no jurisdiction over the criminal. His business is to secure his person, and to deliver him over to the proper tribunals. [SEAMEN.]

Much abuse having arisen from masters improperly leaving seamen in foreign parts, various penalties have been imposed on those guilty of such offences. These are specified in detail in the article SEAMEN; and it also contains a full statement of the conduct which masters are bound to follow in the hiring of seamen; in the payment of their wages; in the bringing home deserted seamen from abroad; in the registration of returns respecting seamen; and a variety of other particulars.

The law makes no distinction between carriers by land and carriers by water. The master of a merchant ship is, in the eye of the law, a carrier; and is, as such, bound to take reasonable and proper care of the goods committed to his charge, and to convey them to the place of their destination, *barring only the acts of God and the Queen's enemies*.

Every act which may be provided against by ordinary care renders the master responsible. He would not, for example, be liable for damage done to goods on board in consequence of a leak in the ship occasioned by the violence of a tempest, or other accident; but if the leak were occasioned by rats, he would be liable, for these might have been exterminated by ordinary care, as by putting cats

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on board &c. On the same principle, if the master run the ship in fair weather against a rock or shallow known to expert mariners, he is responsible; he is also liable for any injury done to the cargo by improper or careless stowage.

The master must not take on board any contraband goods, by which the ship and other parts of the cargo may be rendered liable to forfeiture or seizure. Neither must he take on board any false or colourable papers, as this might subject the ship to the risk of capture or detention. But it is his duty to procure and keep on board all the papers and documents required for the manifestation of the ship and cargo, by the law of the countries from and to which the ship is bound, as well by the law of nations in general, as by treaties between particular states. These papers and documents cannot be dispensed with at any time, and are quite essential to the safe navigation of neutral ships during war. [LOG (OFFICIAL); SHIPS' PAPERS.]

It is customary in bills of lading to insert a clause limiting the responsibility of the master and owners, as follows: '*The act of God, the Queen's enemies, fire, and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, save risk of boats, as far as ships are liable thereto, excepted.*' When no bill of lading is signed, the master and owners are bound according to the common law. [BILLS OF LADING.]

The most difficult part of the master's duty is when, through the perils of the sea, the attacks of enemies or pirates, or other unforeseen accidents, he is prevented from completing his voyage. If his ship have suffered from storms, and cannot be repaired within a reasonable time, and if the cargo be of a *perishable nature*, he is at *liberty* to employ another ship to convey it to the place of destination. He may do the same if the ship have been wrecked and the cargo saved, or if his own ship be in danger of sinking, and he can get the cargo transferred to another; and in *extreme cases* he is at liberty to dispose of the cargo for the benefit of its owners. But, to use the words of Lord Chief Justice Tenterden, 'the disposal of the cargo by the master is a matter that requires the utmost caution on his part. He should always bear in mind that it is his *duty to convey it to the place of destination.* This is the purpose for which he has been intrusted with it, and this purpose he is bound to accomplish by every reasonable and practical method. What, then, is the master to do, if, by any disaster happening in the course of his voyage, he is unable to carry the goods to the place of destination, or to deliver them there? To this, as a general question, I apprehend no answer can be given. Every case must depend upon its own peculiar circumstances. The conduct proper to be adopted with respect to perishable goods will be improper with respect to a cargo not perishable: one thing may be fit to be done with fish or fruit, and another with timber or iron: one method may be proper in distant regions, another in the vicinity of the merchant; one in a frequented navigation, another on unfrequented shores. The wreck of the ship is not necessarily followed by an impossibility of sending forward the goods, and does not of itself make their sale a measure of necessity or expedience: much less can the loss of the season, or of the proper course of the voyage, have this effect. An unexpected interdiction of commerce, or a sudden war, may defeat the adventure, and oblige the ship to stop in her course; but neither of these events doth of itself alone make it necessary to sell the cargo at the place to which it may be proper for the ship to resort. In these and many other cases the master may be discharged of his obligation to deliver the cargo at the place of destination; but it does not therefore follow that he is authorised to sell it, or ought to do so. What, then, is he to do? In general, it may be said, *he is to do that which a wise and prudent man will think most conducive to the benefit of all concerned.* In so doing, he may expect to be safe, because the merchant will not have reason to be dissatisfied; but what this thing will be, no general rules can teach. Some regard may be allowed to the interest of the ship, and of its owners; but the interest of the cargo must not be sacrificed to it. Transhipment for the place of destination, if it be practicable, is the first object, because that is in furtherance of the original purpose: if that be impracticable, return, or a safe deposit, may be expedient. A disadvantageous sale (and almost every sale by the master will be disadvantageous) is the last thing he should think of, because it can only be justified by that necessity which supersedes all human laws.' (*Law of Shipping*, part iii. c. 3.)

The most celebrated maritime codes, and the opinions of the ablest writers, have differed considerably as to these points. According to the Rhodian law (*Pand.* i. 10, s. 1) the captain is released from all his engagements, if the ship by the perils of the sea, and without any fault on his part, become incapable of proceeding on her voyage. The laws of Oleron (art. 4), and those of Wisby (arts. 16, 37, 55), say that the captain *may hire another ship*; harmonising in this respect with the present law of England. The famous French Ordinance of 1681 (tit. 'Du Frêt,' art. 11), and the *Code de Commerce* (art. 296), *order the captain to hire another ship*; and if he cannot procure one, freight is to be due only for that part of the voyage which has been performed (*pro ratâ itineris peracti*). Valin has objected to this article, and states that practically it meant only that the captain must hire another ship if he would earn the whole freight. Emérigon (tom. i. p. 428) holds that the captain, being the agent not only of the owners of the ship, but also of the shippers of the goods on board, is bound, in the absence of both, to use his best endeavours to preserve the goods, and to do whatever, in the circumstances, he thinks will most conduce to the interest of all concerned; or what it may be presumed the shippers would do, were they present. This, which seems to be the best and wisest rule, has been laid down by Lords Mansfield and Tenterden, as stated above, and may be regarded as the law of England on this point.

The master of a ship is liable for goods of which she is robbed in part; and the reason, as Lord Mansfield stated, is, lest room should be given for collusion, and the master should get himself robbed on purpose, in order that he might share in the spoil. The master is, however, entitled to indemnify himself out of the seamen's wages for losses occasioned by their neglect.

The conditions under which seamen and apprentices are to be taken on board ship, and the obligations of the master with respect to them, are fully set forth in the art. SEAMEN; and it also contains, as already stated, full details as to the conduct which masters are bound to pursue in regard to a variety of other particulars.

For the duty of the master, as respects Custom House regulations, see the articles IMPORTATION AND EXPORTATION, QUARANTINE, SMUGGLING &c.; and for a further discussion of this important subject, see the excellent work of Lord Tenterden *On the Law of Shipping*, part iii. c. 3 &c.; Chitty *On Commercial Law*, vol. iii. c. 8 &c.; and the articles CHARTERPARTY, FREIGHT &c.

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Qualification of Masters. Means by which they should be ascertained.—Considering the important nature of the duties which the master of a ship has to perform, it has been customary in some countries to require that all persons, previously to their being nominated to act in that capacity, should undergo an examination by some public board respecting their knowledge of seamanship, and their possession of the various qualifications necessary to act as masters, and that none should be appointed without their being licensed by such board, or other competent authorities. We are inclined to think that this practice is consistent with sound policy, and we are glad it has been adopted in this country. In former editions we observed on this subject as follows, viz.:—

'There can, unhappily, be no doubt that the ignorance and incapacity of the masters and inferior officers of ships has been a copious source of disaster. Officers of the navy have to go through a course of discipline, and are obliged to submit to certain examinations as to their proficiency in seamanship. This, also, was the case with the officers of the East India Company's ships, which were exceedingly well navigated. Indeed, the Company trusted entirely for protection to the goodness of their ships, and the skill of their officers and men; it not being their practice ever to insure. But the masters and officers of ordinary merchant ships, even of those engaged in the conveyance of passengers, are not subjected to any specific training, or regular examination. Everything is left to mere individual investigation and selection; and this, as everyone knows, depends almost wholly on accident; or, which is nearly equivalent to it, on the skill, industry, liberality &c. of the ship-owner. It is sufficiently clear that masters so chosen cannot fail of being, in many instances, very ill qualified for their business. Few, however, have any notion of the extent of the mischief thence arising; but we have been assured by gentlemen of undoubted information, and extensively connected with the business of insurance, that nearly half the losses at sea may be ascribed to the incapacity and carelessness of the masters and crews. Perhaps there may be some exaggeration in this; but supposing that only a third part, or that 212 out of the 636 vessels wrecked in 1841, were lost through the circumstances referred to, is not that enough, not merely to justify Government interfering to avert so great an evil, but to make such interference an imperative duty?

'The interposition of Government in a case of this sort is not only absolutely just and necessary, but it is conformable to the highest authority. The famous French Ordinance of 1681 has the following article: "Aucun ne pourra ci-après être reçu capitaine, maître ou patron de navire, qu'il n'ait navigué pendant cinq ans, et n'ait été examiné publiquement sur le fait de la navigation, et trouvé capable par deux anciens maîtres, en présence des officiers de l'Amirauté et du Professeur de l'Hydrographie, s'il y en a dans le lieu." (Liv. ii. tit. 1. s. 1.) A like article has been inserted in the *Code de Commerce*; and in 1825 the French Government issued an ordinance specifying, in detail, the qualifications that are necessary before anyone can obtain a certificate of his fitness to command a ship, either on a foreign or a coasting voyage; the persons who are to examine candidates; and the rules to be observed in the examination. A similar system has been adopted in Prussia; and we cannot entertain a doubt that it would be of the greatest service were it introduced into this country. The authority of the master is so very great, and the trust reposed in him, including not merely the ship and goods of his employers, but the lives of the crew and passengers, so very extensive, that it is the bounden duty of the public to provide, in as far as practicable, that it be not committed to ignorant or incapable hands.

'At present the care of the lives of hundreds of passengers may be committed, without check or control of any sort, and without their knowing anything of the matter, to any incapable blockhead who may be able to prevail on an owner to appoint him to a ship. No doubt it is for the interest of the owner to appoint the best captain he can find; but he may be unable to form a correct estimate of the qualifications necessary for such a situation; and though this were not the case, hundreds of circumstances may conspire to blind his judgment, and to make him select a master who is really unworthy. Hence the advantage of the preliminary examination by competent parties, which, if made efficient, would certainly afford a powerful guarantee against the chance of an unfit person being appointed.

'We rather incline to think, should we have occasion to notice this important subject on any future occasion, that it will be to announce that some such plan as that which we have ventured to recommend has been adopted. It has, we are glad to say, been approved by the Committee appointed by the House of Commons in 1843 to enquire into the causes and prevention of shipwrecks. "Your committee, after carefully weighing the evidence adduced, consider that, under all the circumstances, it would materially promote science, and prevent the loss of life and property, if a legislative enactment were introduced by Government, establishing local boards for the purpose of examining into the abilities, conduct, and character of all who wish to qualify as masters and mates in the merchant service. And your committee further recommend the establishment of schools for the purpose of teaching navigation in the different seaports, to be supported by a small tonnage duty to be levied on the vessels belonging to such ports."' (*Report*, p. 4.)

This proposal, for subjecting the masters or commanders of merchant ships to an examination by competent parties, with the view of ascertaining their fitness for undertaking their peculiar duties, was adopted and carried into effect under the Mercantile Marine Act, the 13 & 14 Vict. c. 93. This statute authorised the Board of Trade to establish Local Marine Boards in ports having 30,000 tons or upwards of ships trading to foreign parts. These boards were empowered to examine all candidates for the situation of masters and mates who came before them, in such subjects connected with seamanship, navigation &c., and in such manner as the Board of Trade may prescribe. In the event of the examiners being satisfied with their proficiency, they are to grant them 'certificates of competency.' These, however, may be cancelled either from evidence being subsequently had of the incompetency of the parties or of their drunkenness, tyranny &c. The Act took effect on January 1, 1851, since which date no foreign-going ship has been cleared out without the master and mate or mates being qualified according to the statute. And there can be no doubt that if the plan be properly carried out, and the examinations be made sufficiently strict and searching, it will be productive of a great deal of good; but if otherwise—that is, if certificates be given to incompetent parties—it will be decidedly injurious, and will serve as a cloak under which ignorance and presumption may be advanced to situations where skill and caution are indispensable. This

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would be a deplorable result; and we are sorry to have to say that some of the very worst shipwrecks that have recently occurred have been occasioned by what would appear to be the gross incapacity of masters holding first-class certificates. This is a matter that requires to be carefully enquired into. Sham examinations are not a security against imposture, but a device to make confidence be given to those who are unworthy of any. The existing statutory regulations in regard to this important subject are embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104, and are as follows, viz.:—

Examinations to be instituted for Masters and Mates.—Examinations shall be instituted for persons who intend to become masters or mates of foreign-going ships, or of home trade passenger ships, or who wish to procure certificates of competency herein after mentioned; and, subject as herein mentioned, the Local Marine Boards shall provide for the examinations at their respective ports, and may appoint and remove and re-appoint examiners to conduct the same, and may regulate the same; and any members of the Local Marine Board of the place, where the examination is held may be present and assist at any such examination. (Sec. 131.)

Powers of Board of Trade over Examinations.—The Board of Trade may from time to time lay down rules as to the conduct of such examinations and as to the qualifications of the applicants, and such rules shall be strictly adhered to by all examiners; and no examiner shall be appointed unless he possesses a certificate of qualification, to be from time to time granted or renewed by the Board of Trade; and the sanction of the Board of Trade shall be necessary, so far as regards the number of examiners to be appointed, and the amount of their remuneration; and the Board of Trade may at any time depute any of its officers to be present and assist at any examination; and if it appear to the Board of Trade that the examinations for any two or more ports can be conducted without inconvenience by the same examiners, it may require and authorise the Local Marine Boards of such ports to act together as one board in providing for and regulating examinations and appointing and removing examiners for such ports. (Sec. 132.)

Fees to be paid by Applicants for Examination.—All applicants for examination shall pay such fees, not exceeding the sums herein specified, as the Board of Trade directs; and such fees shall be paid to such persons as the said board appoints for that purpose. (Sec. 133.)

For a certificate as Master 2*l.*—For a certificate as Mate 1*l.*

Certificates of Competency to be granted to those who pass.—Subject to the proviso after contained, the Board of Trade shall deliver to every applicant who is duly reported by the local examiners to have passed the examination satisfactorily, and to have given satisfactory evidence of his sobriety, experience, ability, and general good conduct on board ship, a 'certificate of competency' to the effect that he is competent to act as master, or as first, second, or only mate of a foreign-going ship, or as master or mate of a home trade passenger ship, as the case may be; provided that in every case in which the Board of Trade has reason to believe such report to have been unduly made, such board may remit the case either to the same or to any other examiners, and may require a re-examination of the applicant, or a further enquiry into his testimonials and character, before granting him a certificate. (Sec. 134.)

Certificates of Service to be delivered to Persons who served as Masters or Mates before 1851 *&c.*—Certificates of service, differing in form from certificates of competency, shall be granted as follows (that is to say):—

1. Every person who before the 1st day of January, 1851, served as master in the British merchant service, or who has attained or attains the rank of lieutenant, master, passed mate, or second master, or any higher rank in the service of her Majesty or of the East India Company, shall be entitled to a certificate of service as master for foreign-going ships:

2. Every person who before the 1st day of January, 1851, served as mate in the British merchant service shall be entitled to a certificate of service as mate for foreign-going ships:

3. Every person who before the 1st day of January, 1854, has served as master of a home trade passenger ship, shall be entitled to a certificate of service as master for home trade passenger ships:

4. Every person who before the 1st day of January, 1854, has served as mate of a home trade passenger ship shall be entitled to a certificate of service as mate for home trade passenger ships:

And each of such certificates of service shall contain particulars of the name, place, and time of birth, and of the length and nature of the previous service of the person to whom the same is delivered; and the Board of Trade shall deliver such certificates of service to the various persons so respectively entitled thereto, upon their proving themselves to have attained such rank or to have served as aforesaid, and upon their giving a full and satisfactory account of the particulars aforesaid. (Sec. 135.)

No Foreign-going Ship or Home Trade Passenger Ship to proceed to Sea without Certificates of the Master and Mates.—No foreign-going ship or home trade passenger ship shall go to sea from any port in the United Kingdom unless the master thereof, and in the case of a foreign-going ship the first and second mates or only mate (as the case may be), and in the case of a home trade passenger ship the first or only mate (as the case may be), have obtained and possess valid certificates either of competency or service appropriate to their several stations in such ship, or of a higher grade; and no such ship, if of 100 tons burden or upwards, shall go to sea as aforesaid unless at least one officer besides the master has obtained and possesses a valid certificate appropriate to the grade of only mate therein or to a higher grade; and every person who, having been engaged to serve as master or as first or second or only mate of any foreign-going ship, or as master or first or only mate of a home trade passenger ship, goes to sea as aforesaid as such master or mate without being at the time entitled to and possessed of such a certificate as herein required, or who employs any person as master, or first, second, or only mate of any foreign-going ship, or as master or first or only mate of a home trade passenger ship, without ascertaining that he is at the time entitled to and possessed of such certificate, shall for each such offence incur a penalty not exceeding 50*l.* (Sec. 136.)

Certificates for Foreign-going Ships available for Home Trade Passenger Ships.—Every certificate of competency for a foreign-going ship shall be deemed to be of a higher grade than the corresponding certificate for a home trade passenger ship, and shall entitle the lawful holder thereof to go to sea in the corresponding grade in such last-mentioned ship; but no certificate for a home trade passenger ship shall entitle the holder to go to sea as master or mate of a foreign-going ship. (Sec. 137.)

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The Registrar to record Grants, Cancellations &c. of Certificates.—All certificates, whether of competency or service, shall be made in duplicate, and one part shall be delivered to the person entitled to the certificate, and the other shall be kept and recorded by the Registrar-General of Seamen or by such other person as the Board of Trade appoints for that purpose; and the Board of Trade shall give to such registrar or such other person immediate notice of all orders made by it for cancelling, suspending, altering, or otherwise affecting any certificate in pursuance of the powers herein contained; and the registrar or such other person as aforesaid shall thereupon make a corresponding entry in the record of certificates; and a copy purporting to be certified by such registrar or his assistant or by such person as aforesaid of any certificate shall be primâ facie evidence of such certificate, and a copy purporting to be so certified as aforesaid of any entry made as aforesaid in respect of any certificate shall be primâ facie evidence of the truth of the matters stated in such entry. (Sec. 138.)

In case of Loss, a Copy to be granted.—Whenever any master or mate proves to the satisfaction of the Board of Trade that he has, without fault on his part, lost or been deprived of any certificate already granted to him, the Board of Trade shall, upon payment of such fee (if any) as it directs, cause a copy of the certificate to which by the record so kept as aforesaid he appears to be entitled, to be made out and certified as aforesaid, and to be delivered to him; and any copy which purports to be so made and certified as aforesaid shall have all the effect of the original. (Sec. 139.)

Penalties for False Representations.—Every person who makes, or procures to be made, or assists in making, any false representation for the purpose of obtaining for himself or for any other person a certificate either of competency or service, or who forges, assists in forging, or procures to be forged, or fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any such certificate or any official copy of any such certificate, or who fraudulently makes use of any such certificate or any copy of any such certificate which is forged, altered, cancelled, suspended, or to which he is not justly entitled, or who fraudulently lends his certificate to or allows the same to be used by any other person, shall for each offence be deemed guilty of a misdemeanor. (Sec. 140.)

By the provisions of the Act 25 and 26 Vic. c. 63, the regulations demanding proficiency from the masters and mates in merchant ships are extended to engineers in steam vessels, the same fees being payable on examination as are paid in the case of masters and mates.

The following clauses are from a subsequent part of the same statute:—

Misconduct endangering Ship or Life or Limb a Misdemeanor.—Any master of or any seaman or apprentice belonging to any British ship who by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, does any act tending to the immediate loss, destruction, or serious damage of such ship, or tending immediately to endanger the life or limb of any person belonging to or on board of such ship, or who by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, refuses or omits to do any lawful act proper and requisite to be done by him for preserving such ship from immediate loss, destruction, or serious damage, or for preserving any person belonging to or on board of such ship from immediate danger to life or limb, shall for every such offence be deemed guilty of a misdemeanor. (Sec. 239.)

Power of Admiralty Courts to remove Master.—Any court having Admiralty jurisdiction in any of her Majesty's dominions may, upon application by the owner of any ship being within the jurisdiction of such court, or by the part owner or consignee, or by the agent of the owner, or by any certificated mate, or by one-third or more of the crew of such ship, and upon proof on oath to the satisfaction of such court that the removal of the master of such ship is necessary, remove him accordingly; and may also, with the consent of the owner or his agent, or the consignee of the ship, or if there is no owner or agent of the owner or consignee of the ship within the jurisdiction of the court, then without such consent, appoint a new master in his stead; and may also make such order, and may require such security in respect of costs in the matter, as it thinks fit. (Sec. 240.)

Power to investigate Cases of alleged Incompetency and Misconduct.—If the Board of Trade or any Local Marine Board has reason to believe that any master or mate is from incompetency or misconduct unfit to discharge his duties, the Board of Trade may either institute an investigation or may direct the Local Marine Board at or nearest to the place at which it may be convenient for the parties and witnesses to attend to institute the same, and thereupon such persons as the Board of Trade may appoint for the purpose, or, as the case may be, the Local Marine Board, shall, with the assistance of a local stipendiary magistrate (if any), and if there is no such magistrate, of a competent legal assistant to be appointed by the Board of Trade, conduct the investigation, and may summon the master or mate to appear, and shall give him full opportunity of making a defence either in person or otherwise, and shall for the purpose of such investigation have all the powers given by the first part of this Act to inspectors appointed by the Board of Trade, and may make such order with respect to the costs of such investigation as they may deem just; and shall on the conclusion of the investigation make a report upon the case to the Board of Trade; and in cases where there is no Local Marine Board before which the parties and witnesses can conveniently attend, or where such Local Marine Board is unwilling to institute the investigation, the Board of Trade may direct the same to be instituted before two justices or stipendiary magistrate; and thereupon such investigation shall be conducted, and the results thereof reported, in the same manner and with the same powers in and with which formal investigations into wrecks and casualties are directed to be conducted, and the results thereof reported, under the provisions contained in the eighth part of this Act, save only that, if the Board of Trade so directs, the person bringing the charge of incompetency or misconduct to the notice of the Board of Trade shall be deemed to be the party having the conduct of the case. (Sec. 241.)

Board of Trade may cancel or suspend Certificates in certain Cases.—The Board of Trade may suspend or cancel the certificate (whether of competency or service) of any master or mate in the following cases; (that is to say,)

1. If, upon any investigation made in pursuance of the last preceding section, he is reported to be incompetent, or to have been guilty of any gross act of misconduct, drunkenness, or tyranny.

2. If, upon any investigation conducted under the provisions contained in the eighth part of this Act, or upon any investigation made by a naval court constituted as hereinafter mentioned, it is

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reported that the loss or abandonment of or serious damage to any ship or loss of life has been caused by his wrongful act or default.

3. If he is superseded by the order of any Admiralty Court or of any naval court constituted as hereinafter mentioned.

4. If he is shown to have been convicted of any offence.

5. If, upon any investigation made by any court or tribunal authorised or hereafter to be authorised by the legislative authority in any British possession to make enquiry into charges of incompetency or misconduct on the part of masters or mates of ships, or as to shipwrecks or other casualties affecting ships, a report is made by such court or tribunal to the effect that he has been guilty of any gross act of misconduct, drunkenness, or tyranny, or that the loss or abandonment of or serious damage to any ship, or loss of life, has been caused by his wrongful act or default, and such report is confirmed by the governor or person administering the government of such possession.

And every master or mate whose certificate is cancelled or suspended shall deliver it to the Board of Trade or as it directs, and in default shall for each offence incur a penalty not exceeding 50*l.*; and the Board of Trade may at any subsequent time grant to any person whose certificate has been cancelled a new certificate of the same or of any lower grade. (Sec. 242.)

In 1855 the Board of Trade issued the following notice of the examinations under the Merchant Shipping Act, viz.:—

1. Under the provisions of the Merchant Shipping Act, 1854, no 'foreign-going ship' or 'home trade passenger ship' can obtain a clearance or transire, or legally proceed to sea, from any port in the United Kingdom unless the master thereof, and in the case of a foreign-going ship the first and second mates or only mate (as the case may be), and in the case of a 'home trade passenger ship' the first or only mate (as the case may be), have obtained and possess valid certificates, either of competency or service, appropriate to their several stations in such ship, or of a higher grade; and no such ship, if of one hundred tons burden or upwards, can legally proceed to sea unless at least one officer besides the master has obtained and possesses a valid certificate, appropriate to the grade of only mate therein, or to a higher grade; and every person who, having been engaged to serve as master, or as first or second or only mate of any 'foreign-going ship,' or as master or first or only mate of a 'home trade passenger ship,' goes to sea as such master or mate without being at the time entitled to and possessed of such a certificate as the Act requires, or who employs any person as master, or first, second, or only mate of any 'foreign-going ship,' or as master or first or only mate of any 'home trade passenger ship,' without ascertaining that he is at the time entitled to and possessed of such certificate, for each offence incurs a penalty not exceeding 50*l.*

By a 'foreign-going ship' is meant one which is bound to some place out of the United Kingdom beyond the limits included between the river Elbe and Brest; and by a 'home trade passenger ship' is meant any home trade ship employed in carrying passengers; and it is to be observed that foreign steam ships when employed in carrying passengers between places in the United Kingdom are subject to all the provisions of the Act, as regards certificates of masters and mates, to which British steam ships are subject. (Sec. 291.)

2. Every certificate of competency for a 'foreign-going ship' is to be deemed to be of a higher grade than the corresponding certificate for a 'home trade passenger ship,' and entitles the lawful holder to go to sea in the corresponding grade in such last-mentioned ship; but no certificate for a 'home trade passenger ship' entitles the holder to go to sea as master or mate of a 'foreign-going ship.'

3. A certificate of service entitles an officer who had already served as either master or mate in a British foreign-going ship before the 1st January, 1851, or as master or mate in a home trade passenger ship before the 1st January, 1854, to serve in those capacities again; and it also entitles an officer who has attained or attains the rank of lieutenant, master, passed mate, or second master, or any higher rank in the service of her Majesty or of the East India Company, to serve as master of a British merchant ship, and may be had by application to the Registrar-General of Seamen, Custom House, London, or to any shipping master in the outports, on the transmission and verification of the necessary certificates and testimonials.

4. Certificates of competency will be granted to those persons who pass the requisite examinations, and otherwise comply with the requisite conditions. For this purpose examiners have been appointed under the Local Marine Boards, and arrangements have been made for holding the examinations at the under-mentioned ports upon the days specified against them; and these days are so arranged for general convenience, that a candidate wishing to proceed to sea, and missing the day at his own port, may proceed to another port where an examination is coming forward. The days for commencing the examinations at the various ports are as follow:—

Places	*Days*
Aberdeen†	Fridays and Saturdays in the first and third week in each month.
Belfast	1st and 3rd Tuesday in each month.
Bristol†	1st Friday and 3rd Tuesday in each month.
Cork	4th Monday in each month.
Dublin	1st and 3rd Thursday in each month.
Dundee†	Saturday in each week.
Glasgow†	Thursdays, held alternately at each place.
Greenock†	
Hull†	2nd Tuesday in each month.
Leith†	2nd Tuesday and 3rd Saturday in each month.
Liverpool†	*Monday*, Tuesday, Thursday, and Friday, in each week.
London†	Monday, Tuesday, and Wednesday, in Navigation; *Thursday*, Friday, and Saturday, in Seamanship.
Newcastle†	1st day of each month, not being Sunday.
Shields†	10th day of each month, ditto.
Sunderland†	20th day of each month, ditto.
Plymouth†	3rd Wednesday in each month.

† At these places extra examinations are held.

5. Applicants for examination must give their names to the shipping master or to the Local Marine Board at the place where they intend to be examined, on or before the day of examination, and must conform to any regulations in this respect which may be laid down by the Local Marine Board; and if this be not done, delay may be occasioned.

6. Testimonials of character, and of sobriety, experience, ability, and good conduct on board ship, will be required of all applicants, and without producing them no person will be examined. As such testimonials may have to be forwarded to the office of the Registrar-General of Seamen in London for verification before any certificates can be granted, it is desirable that candidates should lodge them as early as possible. Upon application to the shipping master candidates will be supplied with a form, which they will be required to fill up and lodge with their testimonials in the hands of the examiners.

7. The examinations will commence early in the forenoon on the days before mentioned, and be continued from day to day until all the candidates whose names appear upon the shipping

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master's list on the day of examination are examined.

8. The qualifications required for the several ranks undermentioned, are as follows:—

QUALIFICATIONS FOR CERTIFICATES OF COMPETENCY FOR 'FOREIGN-GOING SHIP.'

(*a.*) A SECOND MATE must be seventeen years of age, and must have been four years at sea.

In Navigation.—He must write a legible hand, and understand the four first rules of arithmetic and the use of logarithms. He must be able to correct the courses steered for variation and leeway, and find the difference of latitude and longitude therefrom; be able to correct the sun's declination for longitude, and find his latitude by meridian altitude of the sun; and work such other easy problems of a like nature as may be put to him. He must understand the use of the sextant, and be able to observe with it, and read off the arc.

In Seamanship.—He must give satisfactory answers as to the rigging and unrigging of ships, stowing of holds, &c.; must understand the measurement of the log-line, glass, and lead-line; be conversant with the rule of the road, as regards both steamers and sailing-vessels, and the lights carried by them.

(*b.*) An ONLY MATE must be eighteen years of age, and have been four years at sea.

In Navigation.—In addition to the qualification required for a second mate, an only mate must be able to work a day's work complete, including the bearings and distance of the port he is bound to by Mercator's method. He must be able to observe and calculate the amplitude of the sun, and deduce the variation of the compass therefrom. He must know how to lay off the place of the ship on the chart, both by bearings of known objects, and by latitude and longitude. He must be able to use a sextant and determine its error, and adjust it, and find the time of high water from the known time at full and change.

In Seamanship.—In addition to what is required for a second mate, he must know how to moor and unmoor, and to keep a clear anchor; to carry out an anchor; to stow a hold; and to make the requisite entries in the ship's log.

(*c.*) A FIRST MATE must be nineteen years of age, and have served five years at sea, of which one year must have been as either second or only mate, or as both. Service in a superior capacity is in all cases to be equivalent to service in an inferior capacity.

In Navigation.—In addition to the qualification required for an only mate, he must be able to observe azimuths and compute the variation; to compare chronometers and keep their rates, and find the longitude by them from an observation by the sun; to work the latitude by single altitude of the sun off the meridian; and be able to use and adjust the sextant by the sun.

In Seamanship.—In addition to the qualification required for an only mate, a more extensive knowledge of seamanship will be required, as to shifting large spars and sails, managing a ship in stormy weather, taking in and making sail, shifting yards and masts &c., and getting cargo in and out; getting heavy spars and weights, anchors &c., in and out: casting a ship on a lee-shore; and securing the masts in the event of accident to the bowsprit.

(*d.*) A MASTER must be twenty-one years of age, and have been six years at sea, of which one year must have been as first or only mate, and one year as second mate; or two years as first and only mate. Service in a superior capacity is in all cases to be equivalent to service in an inferior capacity.

In addition to the qualification for a first mate, he must be able to find the latitude by a star &c. He will be asked questions as to the nature of the attraction of the ship's iron upon the compass, and as to the method of determining it. He must possess a sufficient knowledge of what he is required to do by law, as to entry and discharge, and the management of his crew; as to penalties and entries to be made in the official log. He will be questioned as to his knowledge of invoices, charter-party, Lloyd's agent, and as to the nature of bottomry, and he must be acquainted with the leading lights of the channel he has been accustomed to navigate, or which he is going to use.

In cases where an applicant for a certificate as master ordinary has only served in a fore and aft rigged vessel, and is ignorant of the management of a square rigged vessel, he may obtain a certificate on which the words 'fore and aft rigged vessel' will be written. This is not, however, to apply to mates, who, being younger men, are expected for the future to learn their business completely.

(*e.*) An EXTRA MASTER'S EXAMINATION is intended for such persons as wish to prove their superior qualifications. Before being examined for an extra master's certificate, an applicant must have served one year either as a master with an ordinary certificate of competency, or as a master having a first class certificate granted by one of the former Boards of Examiners.

In Navigation.—As the vessels which such masters will command frequently make long voyages, to the East Indies, the Pacific &c., the candidate will be required to work a lunar observation by both sun and star, to determine the latitude by the moon and star, by Polar star off the meridian, and also by double altitude of the sun, and to verify the result by Sumner's method. He must be able to calculate the altitudes of the sun or star when they cannot be observed, for the purposes of lunars, to find the error of a watch by the method of equal altitudes, and to correct the altitudes observed with an artificial horizon.

He must understand how to observe and apply the deviation of the compass: and to deduce the set and rate of the current from the D. R. and observation. He will be required to explain the nature of great circle sailing, and know how to apply practically that knowledge; but he will not be required to go into the calculations. He must be acquainted with the law of storms, so far as to know how he may probably escape those tempests common to the East and West Indies, and known as hurricanes.

In Seamanship.—The extra examination will consist of an enquiry into the competency of the party to heave a ship down, in case of accident befalling her abroad; to get lower masts and other heavy weights in and out; how to construct rafts, and as to his resources for the preservation of the ship's crew in the event of wreck, and in such operations of a like nature as the examiner may consider necessary.

QUALIFICATIONS FOR CERTIFICATES OF COMPETENCY FOR 'HOME TRADE PASSENGER SHIPS.'

(*a.*) A MATE must write a legible hand, and understand the first four rules of arithmetic. He must know and understand the rule of the road, and describe and show that he understands the Admiralty regulations as to lights. He must be able to take a bearing by compass, and prick off the ship's course on a chart. He must know the marks in the lead line, and be able to work and heave the log.

(*b.*) A MASTER must have served one year as a

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mate in the foreign or home trade. In addition to the qualifications required for a mate, he must show that he is capable of navigating a ship along any coast, for which purpose he will be required to draw upon a chart produced by the examiner the courses and distances he would run along shore from headland to headland, and to give in writing the courses and distances corrected for variation, and the bearings of the headlands and lights, and when the courses should be altered either to clear any dangers or to adapt it to the coast. He must understand how to make his soundings according to the state of the tide.

GENERAL RULES AS TO EXAMINATIONS AND FEES.

9. The candidates will be allowed to work out the various problems according to the method and the tables they have been accustomed to use, and will be allowed five hours to perform the work; at the expiration of which, if they have not finished, they will be declared to have failed, unless the Local Marine Board see fit to extend the time.

FEES TO BE PAID BY APPLICANTS FOR EXAMINATION.

10. The fee for examination must be paid to the shipping master. If a candidate fail in his examination, half the fee he has paid will be returned to him by the shipping master on his producing a document which will be given him by the examiner. The fees are as follow:—

For 'Foreign-going Ships.'

	£	s.	d.
Second mate - - - -	1	0	0
First and only mate, if previously possessing an inferior certificate - - -	0	10	0
If not - - - -	1	0	0
Master, whether extra or ordinary -	2	0	0

For 'Home trade Passenger Ships.'

Mate - - - - -	0	10	0
Master - - - - -	1	0	0

11. Any one who has been one year in possession of a master's first-class certificate granted by one of the former boards of examiners, or of an ordinary master's certificate of competency granted under the present examiners, may pass an extra examination, and receive an extra certificate in exchange for his former one, without payment of any fee; but if he fails in his first examination he must pay half a master's fee on his coming a second time; and the same sum for every subsequent attempt.

12. If the applicant passes, he will receive a document from the examiner, which will entitle him to receive his certificate of competency from the shipping master at the port to which he has directed it to be forwarded. If his testimonials have been sent to the registrar to be verified, they will be returned with his certificate.

13. If an applicant is examined for a higher rank and fails, but passes an examination of a lower grade, he may receive a certificate accordingly, but no part of the fee will be returned.

14. In all cases of complete failure the candidate must be re-examined *de novo*, and in case of failure in seamanship a candidate will not be re-examined until after a lapse of six months, to give him time to gain experience.

15. As the examinations of masters and mates are made compulsory, the qualifications have been kept as low as possible; but it must be distinctly understood that it is the intention of the Board of Trade to raise the standard from time to time, whenever, as will no doubt be the case, the general attainments of officers in the merchant service shall render it possible to do so without inconvenience; and officers are strongly urged to employ their leisure hours, when in port, in the acquirement of the knowledge necessary to enable them to pass their examinations; and masters will do well to permit apprentices and junior officers to attend schools of instruction, and to afford them as much time for this purpose as possible.

EXAMINATIONS IN STEAM.

16. Arrangements have been made for giving to those masters or first or only mates who possess certificates of competency, or who may apply for such certificates, and who desire it, an opportunity of undergoing an examination as to their practical knowledge of the use and working of the steam engine. These examinations will be conducted under the superintendence of the Local Marine Boards, at such times as they may appoint for the purpose; and the examiners will be selected by the Board of Trade, from the engineer surveyors appointed under the Act. The examination will not comprise intricate theoretical questions, but will be such as to satisfy the examiner that the applicant is competent to control the working of the engine, and has such a knowledge of the ordinary parts of the machinery as will enable him to judge of the nature of an accident, and, in the absence of the engineer, to give the necessary directions in the engine room. The practice will be as follows: The applicant must deliver to the shipping master a statement in writing to the effect that he wishes to be examined in steam. If he is about to pass an examination in navigation, the statement must be on or annexed to a form prepared for that purpose; if the applicant has a certificate of competency the statement must be delivered to the shipping master with his certificate, so that due notice may be given to the examiner, and so that the Board of Trade on receiving it may have the means of indorsing on his certificate and recording the fact that he has 'Passed in Steam.' He must also, at the same time, pay a fee of one pound (1*l.*), which will be applied in remunerating the examiners. Notice will be given of the time at which the applicant is to attend to be examined, and if he passes, the result of the examination will be reported to the Board of Trade, and his certificate of competency will be issued or returned to him, as the case may be, with an indorsement as above mentioned, showing that he has 'Passed in Steam.' If he fails no notice of the failure will be recorded on the certificate, but no part of the fee will be returned.

17. Full directions as to the course of examination in steam and the qualifications required of candidates, are contained in the instructions issued to engineer surveyors appointed as examiners at the larger ports.

MASTICH or MASTIC (Ger. mastix; Dutch, mastik; Fr. mastic; Ital. mastice; Span. almastica, almaciga; Arab. arāh). This resinous substance is the produce of the *Pistacia Lentiscus*, a native of the Levant and particularly abundant in the island of Chios. It is obtained by making transverse incisions in the trunks and branches of the trees, whence the mastic slowly exudes. About 1,600 cwt. are annually exported from Chios, part of which is brought to this country, packed in chests. The best is in the form of dry, brittle, yellowish transparent tears; it is nearly inodorous, except when heated, and then it has an agreeable odour; chewed, it is almost insipid, feeling at first gritty, and ultimately soft; its virtues are trifling. (Ainslie's *Materia Indica*; *British Pharmacopœia*, 1867.) The fruit of the mastic yields a green fixed oil, much used by the Arabs of North Africa for food and light. The total imports of mastic in 1866 were 1,698 cwts.,

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valued at 71,059*l.*, and in 1867 only 152 cwts., of which last one-third came from the Philippine Islands, and one-third from Australia.

MATE. In a merchant ship, the deputy of the master, taking, in his absence, the command. There are sometimes only 1, and sometimes 2, 3, or 4 mates in a merchantman, according to her size; denominated 1st, 2nd, 3rd &c. mates. The law, however, recognises only 2 descriptions of persons in a merchantman—the master and mariners; the mates being included in the latter, and the captain being responsible for their proceedings. For qualifications necessary under Mercantile Marine Act to obtain certificate of competency to act as mate, see MASTER.

In men-of-war, the officers immediately subordinate to the captain are called lieutenants. But the *master*, or officer whose peculiar duty it is to take charge of the navigation of the ship, has certain mates under him selected from the midshipmen. The boatswain, gunner, carpenter &c. have each their mates or deputies, taken from the crew.

The officers subordinate to the commander in the ships belonging to the East India Company were called 1st, 2nd, 3rd &c. officers. East Indiamen had no sailing masters, the commanders performing that duty. (Falconer's *Marine Dictionary*; &c.)

MATS (Dutch, matten; Fr. nattes; Ger. matten; Ital. stuoje, stoje; Port. esteiras; Russ. progoshki; Span. esteras). Textures composed, for the most part, of flags, reeds, the bark of trees, rushes, grass, rattans, old ropes &c. In this country mats are used for a great variety of purposes. The coarser sort are very largely employed in the packing of furniture and goods; in the stowage of corn and various other articles on board ship; in horticultural operations; in covering the floors of churches and other public buildings &c.: the finer sorts are principally employed in covering the floors of private houses.

In Europe, mats are principally manufactured for sale in Russia, where their production is a prominent branch of national industry. They consist of the bark of the lime or linden tree, and are known in this country by the name of *bast* mats. The Russian peasants manufacture this sort of material into shoes, cordage, sacks for corn &c., and employ it in an endless variety of ways. In consequence of the vast quantities of matting that are thus made use of at home and sent abroad, the demand for it is immense. It is principally produced in the government of Viatka, Kostroma, and those immediately contiguous; and in the months of May and June, the period when the bark is most easily detached from the stem, the villages in the governments in question are almost deserted, the whole population being then in the woods employed in stripping the trees. The Academician Köppen, who has carefully investigated this curious subject, estimates the average annual production of mats in European Russia, as follows:—

		pieces
Government of	Viatka	6,000,000
	Kostroma	4,000,000
	Kasan	1,000,000
	Nijni Novgorod	1,000,000
	Vologda, Tamboff, Simbirsk, and Penza	2,000,000
Total		14,000,000

Köppen further estimates that about ¼ of this vast quantity, or 3½ millions, are exported, the rest being consumed at home.

It is obvious from these statements, that the annual destruction of linden trees must be quite enormous; and it may well excite astonishment that they are not already all but exhausted. But whether it be from the rapid growth of the tree, or the vast extent of the forests in which it is found, the gloomy forebodings of Mr. Tooke as to its destruction have not hitherto been realised (*View of Russia*, iii. 262), and mats have not become either scarcer or dearer. It is, however, hardly possible to suppose that such should continue to be the case, seeing the rapid increase of population and of the consumption of matting in most parts of the empire. But in the event of its becoming scarcer, the inhabitants will have no difficulty in finding substitutes; so that we agree in opinion with those who think it would be bad policy to impose any restrictions on this branch of industry, in the view of averting an evil which may never occur; and which, if it do occur, may be easily obviated. (See a very interesting article in the *Supplément au Journal de l'Intérieur de St.-Pétersbourg*, for 1841, p. 113.)

Archangel is the principal port for the shipment of mats; and it appears that at an average of the years 1851 and 1852, the export of mats from that port amounted to 615,360 pieces a year. During the five years 1861–5 the average value of the mats exported from the northern Russian ports was about 14,500*l.* [ARCHANGEL.] Large quantities are also shipped from Petersburg, Riga, and other ports; and most descriptions of Russian produce sent abroad are packed in mats. The duty of 5 per cent. *ad valorem* formerly charged on mats has been repealed. Russian mats fetch, in the London market, about 3*l.* per 100. In 1867 mats and matting of the value of 38,048*l.* were imported into the United Kingdom.

Various descriptions of reed mats are extensively manufactured in Spain and Portugal; some of them being very beautifully varied. In Spain large quantities of matting are made of the Esparto rush. [ESPARTO.]

Rush floor mats, and rattan table mats of a very superior description are brought from China. They should be chosen clean, of a bright clear colour, and should, when packed, be thoroughly dry.

The mats of the Japanese are soft and elastic, serving them both for carpets and beds; they are made of a peculiar species of rush cultivated for the purpose.

The bags in which sugar is imported from the Mauritius consist of matting formed of the leaves of a tree growing in the island, interwoven in broad strips. They are very strong and durable, and may be washed and cleaned without sustaining any injury. Being imported in large quantities they are sold very cheap. Besides the works already referred to, see Milburn's *Oriental Commerce*, and the valuable little work entitled *Vegetable Substances, Materials of Manufactures*, published by the Society for the Diffusion of Useful Knowledge, pp. 116–123.

It is probable that mats formed the first sort of wove fabrics produced by man; and it is worthy of remark, that but few savage tribes have been discovered which have not attained to considerable eminence in their manufacture. On the coast of Guinea and other places in the west of Africa, pieces of fine mat, about a yard long, and of a pretty uniform texture, were denominated *makkutes*, and formed a sort of money; the value of commodities being rated and estimated in them. (Morellet, *Prospectus d'un Dictionnaire de Commerce*, p. 122.) They enjoyed this distinction, no doubt, from their utility, and the great care and labour bestowed on their preparation. There is hardly an island in the South Seas in which the natives have not acquired great skill and dexterity in the making of mats. The finer sorts consist, generally, of

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dyed reeds or grass; and have a very brilliant appearance.

For some remarks on the mats of Greece, Algeria, Portugal, and India, see Mr. Digby Wyatt's *Report* on the carpets &c. in the Paris Exhibition of 1867.

MAULMAIN or MOULMEIN. A sea-port town of India, on the eastern side of the Bay of Bengal in the district of Amherst, one of the divisions of the province of British Burmah. The town is situated on a small peninsula formed by the Salweine, the Gyne, and the Attaran rivers. Lat. 16° 30′, long. 97° 42′. There is a fine port formed by a natural breakwater in the island of Balu, which protects it from westerly gales. Customs duties and port dues are levied. The tariff of import and export duties is that promulgated in 1867 as applicable to all the Ports of India. [CALCUTTA.] The population of the town is given at 17,042. Its principal export consists of rice, and paddy, and timber. In consequence of the great forests of teak, Maulmain is famous for its ship-building. (Thornton's *Gazetteer.*)

In 1864, the shipping at this port consisted of 172 vessels of British origin, 19 of American, 3 French, with 143 native craft, forming together a tonnage of 93,778 entered, and 202 British, 14 foreign, and 156 native craft cleared, the tonnage of the latter being 86,169. The total imports, including treasures, at this port during the three years 1862–4 were valued at 54,626*l.*, 57,092*l.*, and 60,541*l.*, respectively, and the exports for the same period at 437,908*l.*, 274,121*l.*, 206,430*l.* The value of the wood exported from British Burmah in the year 1863 was 238,121*l.*, that of the year 1864 was 176,138*l.*, and the value of the total exports from the province by sea in 1866 was 2,825,522*l.*

In 1864 the teak exported from the various provinces and settlements of British India and the Indian Archipelago amounted to more than 50,000 loads, and was worth, at an average, about 11*l.* 19*s.* the load. In 1867 there were imported into the United Kingdom 12,644 loads, valued at 123,582*l.* the price for the larger portion per load being 9*l.* 16*s.*, from the Straits settlement, Bengal and Pegu.

For further particulars as to the trade of British Burmah &c. see EAST INDIES; RANGOON.

MAURITIUS. [PORT LOUIS.]

MEAD or METHEGLIN (Ger. meht, meth; Dutch, meede, meedrank; Fr. hydromel; Ital. idromele; Russ. liper). The ancient, and, for a long time, the favourite drink of the northern nations. It is a preparation of honey and water.

MEAL (Ger. mehl; Dutch, meel; Fr. and Ital. farine; Span. farina; Russ. muka; Lat. farina). The edible part of wheat, oats, rye, barley, and pulse of different kinds, ground into a species of coarse flour. [CORN LAWS &c.]

MEDALS. Pieces of metal, generally in the form of a coin, and impressed with some peculiar stamp, intended to commemorate some individual or action. Medals are of very different prices—varying according to their rarity and preservation, the fineness of the metal, the beauty of the workmanship &c. The value of medals of all kinds imported, with the knowledge of the Government, in 1867, was only 82*l.*

MEDITERRANEAN PASS. The nature of this sort of instrument has been described by Mr. Reeves, in his *Treatise on the Law of Shipping*, as follows:—

'In the treaties that have been made with the Barbary States, it has been agreed, that the subjects of the King of Great Britain should pass the seas unmolested by the cruisers of those states; and for better ascertaining what ships and vessels belong to British subjects, it is provided that they shall produce *a pass* under the hand and seal of the Lord High Admiral, or the Lords Commissioners of the Admiralty. In pursuance of these treaties, passes are made out at the Admiralty, containing a very few words, written on parchment, with ornaments at the top, through which a scolloped indenture is made; the *scolloped tops* are sent to Barbary; and being put in possession of their cruisers, the commanders are instructed to suffer all persons to pass who have passes that will fit these scolloped tops. The protection afforded by these passes is such, that no ships, which traverse the seas frequented by these rovers, ever fail to furnish themselves with them, whether in the trade to the East Indies, the Levant, Spain, Italy, or any part of the Mediterranean; and from the more particular need of them in the latter, they, no doubt, obtained the name of *Mediterranean passes*. For the accommodation of merchants in distant parts, blank passes, signed by the Lords of the Admiralty, are lodged with the governors abroad, and with the British consuls, to be granted to those who comply with the requisites necessary for obtaining them. As this piece of security is derived wholly from the stipulations made by the Crown with a foreign power, the entire regulation and management of it has been under the direction of his Majesty who, with the advice of the privy council, has prescribed the terms and conditions on which these passes shall be granted. Among others are the following:—They are to be granted for none but British-built ships, or ships made free, navigated with a master and three-fourths of the mariners British subjects, or foreign Protestants made denizens. Bond is to be given in the sum of 300*l.* if the vessel is under 100 tons, and in 500*l.* if it is of that or more, for delivering up the pass within 12 months, unless in the case of ships trading from one foreign port to another; and such passes need not be returned in less than 3 years.

'It has been found expedient, at the conclusion of a war, and sometimes during a peace, to recall and cancel all passes that have been issued, and to issue others in a new form. This has been done for two reasons. 1st. That these useful instruments, by various means, either accidental or fraudulent, came into the hands of foreigners, who, under cover of them, carried on in security a trade which otherwise would belong to British subjects, and which had been purchased by the crown, at the expense of keeping up this sort of alliance. 2dly, That the Barbary states complained, that, adhering to the rule of fitting the other part of the indenture to the passes, they were obliged to suffer ships to pass that did not belong to British subjects.'

We have thought it right to give this explanation, though, since the occupation of Algiers by the French, and the disappearance of the corsairs of the other Barbary powers, Mediterranean passes have fallen into disuse.

MELBOURNE. The capital of the British colony of Victoria, formerly Port Phillip in Australia, occupying the S.E. portion of that continent, stretching through 9° of long., from Cape Howe on the E. to the Glenelg river on the W. The town is situated on the north bank of the Yarra-Yarra river, about 9 miles (following its windings) from its mouth in the basin of Port Phillip, lat. 37° 49′ 5″ S., long. 144° 58′ 35″ E. It was founded in 1837, and extends along the banks of the river. In 1851, it had a population of 23,000; and such has been the immigration consequent on the discovery of the gold fields,

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that, including suburbs, it had, in 1867, 126,536 inhabitants. A considerable portion, however, of this immense population is to be regarded as migratory only, and as residing in town merely till their ultimate destination has been decided upon. The sudden increase of population raised house rents to an unparalleled height; and for some considerable time a large proportion of the population was not housed, but encamped under tents! But partly through the extraordinary stimulus which was thus given to building, and partly through the mercantile failures consequent on the overtrading of 1853 and 1854, there has been a very heavy fall of rents, which do not now (1868) exceed half their amount in 1852. The site of the town is unfortunate; for the river being obstructed by a bar and shallows, it is not generally navigable for vessels of more than 60 tons burden; and it has the further disadvantage of being low, and liable to be flooded by the overflowing of the river during the wet season. Melbourne was, also, till lately, very ill supplied with fresh water. But this defect has been remedied by the construction of works that do credit to the colony. The reservoirs are of great magnitude, so as to afford an adequate supply in periods of drought. It has been proposed to facilitate the trade of the town by removing the bar at the mouth of the river, and deepening its channel; but this would be a very expensive undertaking, and one of which the success would be not a little doubtful. The excavation of a ship canal from the deep water in the bay to Melbourne has also been proposed; and it probably would be the preferable plan; but in the meantime a railway has been completed, which has obviated many of the inconveniences which were experienced. It seems, however, not unlikely that the trade of the town, and the greater part, perhaps, of its population, will ultimately centre at Williamstown, a village a few miles distant, on a headland extending into the bay, opposite to which all large vessels coming to Melbourne are obliged to anchor. The principal objection to Williamstown is the scarcity and bad quality of the fresh water; but this objection might, perhaps, be obviated by sinking wells, or conveying hither a supply of water from some of the adjacent streams, as has been done at Melbourne.

In consequence of the discovery in 1851 of the extraordinarily rich gold-fields situated in this colony, its progress has been since quite unprecedented. The population of Victoria, for example, which amounted to about 90,000 in 1851, had increased to above 232,000 in 1854, and to 653,744 on September 30, 1867, of whom 369,103 were males, and 284,641 females. The trade, navigation &c. of the colony have increased in something like the same proportion. But it is a curious fact that the production of gold appears to have attained its maximum in 1852, and has not been so great since.

Value of Principal Articles Imported (including Bullion and Specie), in each of the Years 1864, 1865, *and* 1866.

Principal Articles	1864	1865	1866
	£	£	£
Apparel and slops	186,860	433,756	517,157
Beer and cider *	335,019	340,731	300,878
Boots and shoes	372,110	634,118	358,083
Butter and cheese	116,742	111,511	166,358
Candles	183,360	101,733	190,325
Coals	174,379	145,881	146,734
Cottons	27,722	283,231	550,557
Flour	573,331	452,854	259,034
Furniture	73,701	37,989	66,390
Grain of all kinds (including rice)	954,991	1,028,642	1,186,277
Drapery	2,340,417	979,450	674,524
Hardware & Ironmongery	366,133	358,762	259,661
Machinery	68,447	129,970	157,851
Oilmen's stores	180,246	63,912	129,673
Opium *	121,991	14,246	77,580
Potatoes	29,748	44,276	20,177
Provisions	134,991	63,948	124,573
Railway materials	9,446	9,620	49,608
Silks	68,055	126,395	1,151,118
Specie	940,992	756,010	130,035
Stationery	241,916	205,300	187,228
Sugar of all kinds *	638,286	657,346	380,644
Spirits of all kinds *	484,702	351,565	810,098
Tea *	519,287	421,418	57,266
Timber	318,122	271,848	341,203
Tobacco *	728,477	297,854	247,665
Wine of all kinds *	261,642	171,360	241,132
Woollens *	191,551	209,721	876,330
Total value	14,974,815	13,257,537	14,771,711

* The value imported and warehoused is given for these articles.

Total Quantities and Value of Principal Articles Exported (including Bullion and Specie), in each of the Years 1864, 1865, *and* 1866.

Principal Articles		Quantities			Value		
		1864	1865	1866	1864	1865	1866
					£	£	£
Gold (exclusive of specie)	ozs.	1,545,419	1,343,802	1,479,195	6,206,237	6,190,717	5,9[illegible],987
Specie: gold	value	..	..	..	1,029,872	809,269	961,493
silver	..	..	..	..	3,806	5,000	6,800
Hides	no.	144,577	108,319	68,538	91,551	72,187	42,715
Cattle	..	8,813	1,677	1,211	65,189	12,840	8,070
Horses	..	1,810	1,745	2,080	42,198	34,900	36,751
Sheep	..	146,569	24,005	10,464	108,780	19,797	23,437
Skins	..	79,960	102,401	87,490	8,173	11,174	11,056
Drapery	packages	9,628	7,767	8,891	491,806	401,879	497,948
Flour	tons	4,704	3,169	4,491	116,179	73,026	74,956
Wool	lbs.	39,471,892	44,270,666	42,390,978	3,250,128	3,315,109	3,196,471
Total value	..	..	..	..	13,898,384	13,150,748	12,889,546

Number and Tonnage of Vessels Entered and Cleared at each Port, in each of the Years 1863, 1864, *and* 1865.

Ports	Entered						Cleared					
	1864		1865		1866		1864		1865		1866	
	Vessl.	Tons	Vessl.	Tons	Vessl.	Tons	Vessl.	Tons	Vessl.	Tons	Vessl.	Tons
Melbourne	1,522	566,316	1,557	557,164	1,699	610,438	1,588	569,789	1,610	551,978	1,699	604,400
Geelong	117	27,799	113	25,916	79	14,429	116	33,277	104	26,491	84	22,378
Portland	17	3,681	7	953	5	837	29	5,865	7	1,469	4	549
Port Fairy	9	853	20	1,300	25	1,912	20	2,340	19	3,070	47	10,065
Port Albert	90	20,434	31	4,563	4	528	94	20,913	36	5,154	5	875
Warrnambool	11	1,139	15	1,057	16	1,417	58	7,480	47	11,189	63	12,459
Wahgunyah	—	—	—	—	5	388	—	—	—	—	34	3,540
Echuca	—	—	—	—	171	13,389	—	—	—	—	166	13,379
Swan Hill	—	—	—	—	13	877	—	—	—	—	40	2,773
Kerang	—	—	—	—	38	3,832	—	—	—	—	38	3,681
Cowan	—	—	—	—	23	1,932	—	—	—	—	23	1,932
Total	1,816	620,200	1,743	580,975	2,078	649,979	1,896	641,614	1,823	599,351	2,203	675,741

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Number and Tonnage of Vessels that Entered and Cleared from the Port of Victoria, with Cargoes and in Ballast, in the Year 1866.

Nationality of Vessels	Entered						Cleared					
	With Cargoes		In Ballast		Total		With Cargoes		In Ballast		Total	
	Vessl.	Tons	Vessl.	Tons	Vessl.	Tons	Vessl.	Tons.	Vessl.	Tons	Vessl.	Tons.
British:												
United Kingdom	298	319,037	1	135	299	319,172	183	140,097	103	70,476	286	210,573
Colonial	1,532	349,107	116	10,274	1,648	359,681	1,189	257,135	605	135,881	1,794	393,016
American (U.S.)	27	21,142	—	—	27	21,142	4	3,975	29	23,931	33	27,906
Swedish	18	10,807	—	—	18	10,807	3	1,580	12	6,478	15	8,058
Norwegian	1	629	—	—	1	629	—	—	—	—	—	—
Danish	6	1,918	—	—	6	1,918	1	355	5	1,580	6	1,935
Dutch	20	11,297	—	—	20	11,297	7	4,235	15	9,925	22	14,160
Prussian	1	143	—	—	1	143	1	143	—	—	1	143
Hanseatic	—	—	—	—	—	—	—	—	1	354	1	354
German	21	8,589	—	—	21	8,589	2	738	11	4,556	13	5,294
French	29	13,314	—	—	29	13,314	14	5,673	14	6,572	28	12,245
Italian	3	888	—	—	3	888	—	—	3	919	3	919
Chilian	4	1,091	—	—	4	1,091	—	—	5	1,016	5	1,016
Hawaiian	1	476	—	—	1	476	—	—	—	—	—	—
Total	1,961	659,570	117	10,409	2,078	669,979	1,404	413,945	799	261,788	2,203	675,741

Account of the Quantities and Values of the Principal Articles, ex. Gold, Imported into the United Kingdom from Victoria in each of the 3 Years ending with 1867.

Principal Articles	Quantities			Computed Real Value		
	1865	1866	1867	1865	1866	1867
				£	£	£
Antimony, ore and regulus of - tons	414	330	518	3,591	3,582	5,106
Bark for tanners' or dyers' use - cwts.	27,608	62,197	66,418	14,504	27,533	28,880
Copper ore - - tons	2,762	4,530	5,477	38,858	58,098	59,293
regulus - - ,,	—	—	—	—	—	—
unwrought - - ,,	600	1,077	760	56,931	80,938	51,554
part wrought - - ,,	69	199	—	6,044	10,551	—
Corn: wheat - - cwts.	30	66	150,177	13	41	124,015
wheat flour - - ,,	153	70	28,024	87	52	23,314
Hides, not tanned - - ,,	33,227	35,514	15,880	94,830	63,896	31,146
tanned, tawed, curried, or dressed lbs.	1,472,380	1,691,301	1,859,229	54,966	65,057	73,320
Oil, spermaceti or head matter - tuns	45	151	57	4,813	19,178	6,963
Rags and other materials for making paper - - - tons	550	236	263	7,822	3,964	4,749
Skins, sheep, undressed - - no.	180,084	86,066	120,394	26,385	15,845	19,985
Sugar: molasses - - cwts.	1,917	6,216	5,120	987	4,206	3,267
Tallow - - - ,,	18,907	62	9,810	37,788	143	21,197
Tin ore - - - tons	242	123	130	15,320	6,180	6,340
Wool, sheep and lambs' - - lbs.	45,603,352	46,627,993	51,177,842	3,984,726	4,581,816	4,726,167
All other articles - - value	—	—	—	49,500	39,509	42,068
Total - - - -	—	—	—	4,399,090	4,983,541	5,235,914

Account of the Foreign and Colonial Produce and Manufactures Exported from the United Kingdom to Victoria in each of the 3 Years ending with 1867.

Principal Articles	Quantities			Declared Real Value		
	1865	1866	1867	1865	1866	1867
				£	£	£
Apparel and haberdashery - value	—	—	—	1,014,202	1,170,168	665,258
Arms and ammunition:						
Fire arms (small) - no.	1,675	2,456	3,802	6,242	6,858	2,310
Gunpowder - - lbs.	1,698,247	1,556,103	931,589	45,351	38,725	19,785
Bacon and hams - - cwts.	7,615	17,896	16,532	32,119	81,677	68,192
Bags, empty - - dozens	102,791	108,854	84,418	92,591	78,984	56,641
Beer and ale - - barrels	54,470	50,034	57,254	218,908	209,266	191,708
Books, printed - - cwts.	6,262	6,064	5,761	71,068	67,156	61,856
Butter - - - lbs.	581	3,190	119	2,740	16,435	595
Candles - - - lbs.	892,845	1,534,272	1,307,193	30,695	60,261	49,913
Cheese - - - cwts.	6,754	12,655	9,014	27,416	55,464	38,732
Confectionery - - value	—	—	—	14,995	14,979	10,349
Corn: malt - - qrs.	35,897	32,874	28,651	104,058	125,383	88,607
Cottons entered by the yard yards	11,074,103	14,563,165	13,388,071	356,522	476,710	369,429
at value - value	—	—	—	74,239	118,553	84,554
Drugs and chemical products ,,	—	—	—	53,858	68,630	66,978
Earthenware and porcelain - ,,	—	—	—	50,903	55,110	50,369
Furniture: cabinet and upholstery wares - - ,,		—	—	29,416	27,747	21,389
Glass manufactures - - ,,		—	—	68,591	75,716	67,517
Hops - - - cwts.	6,010	6,324	3,901	40,164	48,116	33,356
Hardwares and cutlery, unenumerated - - ,,	47,021	43,984	39,416	177,318	161,692	123,146
Hats of all sorts - - dozens	46,883	55,977	41,463	103,565	103,518	69,781
Iron, wrought and unwrought tons	34,252	36,960	36,028	483,672	498,431	402,979
Lead and shot - - ,,	944	1,078	1,280	20,509	24,923	27,990
Leather, wrought and unwrought - - value	—	—	—	359,025	289,997	209,435
Saddlery and harness - ,,	—	—	—	51,351	55,602	36,220
Linens, entered by the yard yards	4,406,868	4,484,505	3,768,598	155,102	161,295	124,865
Machinery: steam engines - value	—	—	—	48,125	72,726	72,959
all other sorts - ,,	—	—	—	31,694	47,671	35,533
Musical instruments ,,	—	—	—	26,568	27,795	12,942
Paper of all sorts (including paper hangings) - cwts.	41,552	50,193	56,073	124,660	140,556	137,734
Pickles and sauces - - value	—	—	—	50,981	52,615	40,597
Silk manufactures - -	—	—	—	68,385	46,150	26,561
Soap - - - - wts.	919	1,189	745	1,753	2,018	1,574
Spirits - - - gallons	76,646	158,966	95,096	9,794	21,259	10,955
Stationery, other than paper value	—	—	—	45,316	38,180	28,895
Woollens, entered by the yard yards	9,998,709	11,124,744	8,417,462	787,960	900,345	649,617
at value - value	—	—	—	68,122	55,466	45,877
All other articles - ,,	—	—	—	57,669	68,145	57,104
Total - -	—	—	—	5,727,938	6,103,717	4,555,415

Account of the Quantities and Values of the Principal Articles of Foreign and Colonial Produce Exported from the United Kingdom to Victoria in each of the 3 Years ending with 1867.

Principal and other Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Candles, stearine	cwts.	7,172	15,150	32,518	25,550	51,959	119,283
Chicory, roasted	lbs.	288,317	410,928	234,525	3,604	5,137	2,932
Coffee	,,	30,151	64,906	70,531	1,205	2,172	2,253
Confectionery	,,	298,942	271,236	216,172	8,585	10,172	8,106
Corks, ready-made	,,	79,026	67,899	82,580	4,281	3,678	4,473
Currants	cwts.	11,556	27,007	23,117	9,854	26,894	20,934
Figs	,,	863	1,854	794	1,248	3,098	1,137
Fish cured, unenumerated	,,	1,451	4,954	3,502	7,607	21,952	14,733
Ginger	,,	443	981	1,024	895	2,502	2,283
Gloves of Leather	pairs	..	5,796	..	..	652	..
Hats or bonnets of straw	lbs.	12	20	818	41	79	5,717
Isinglass	cwts.	9	47	84	244	1,331	2,452
Liquorice juice and paste	,,	704	238	159	1,195	911	556
Oil, olive	tuns	127	255	158	6,685	14,569	9,853
Paper, not for hangings	cwts.	213	379	725	518	1,485	1,861
Quicksilver	lbs.	43,776	71,284	85,261	4,514	6,534	7,549
Raisins	cwts.	2,474	3,940	5,687	3,834	5,631	8,175
Rice not in the husk	,,	279	1,042	..	192	708	..
Silk manufactures:							
Broad stuffs and ribbons	lbs.	370	914	80	1,008	1,919	105
Spirits: Rum	proof gallons	108,994	115,967	80,313	10,475	10,512	8,303
Brandy	,,	47,284	83,294	51,639	12,609	20,799	8,964
Mixed in bond	,,	27,306	77,565	24,842	2,731	7,757	2,482
Succades	lbs.	21,719	15,518	16,627	1,629	1,164	1,397
Tar	barrels	476	829	795	446	701	598
Tea	lbs.	4,163	19,578	23,951	317	1,570	1,896
Tobacco, Manufactured, and cigars	,,	375,227	392,434	323,081	31,148	17,088	15,540
Unmanufactured	,,	232,670	170,014	29,637	8,855	6,344	952
Wine	gallons	253,193	257,159	97,798	68,989	78,413	29,718
Wood, sawn or split	loads	9,333	7,786	5,805	28,544	22,988	15,683
Woollens, entered by the piece	pieces	362	225	232	1,415	741	696
at value	value	..	..	..	1,484	2,456	3,371
All other articles	,,	..	..	..	55,418	58,918	64,419
Total value		..	..	..	303,122	393,887	364,351
Total value of British and Foreign Produce		..	..	..	6,033,074	6,597,744	4,919,764

The chief imports of grain and provisions are from other Australian colonies, and the fact that such large importations of food are necessary, points merely to the fact that a far larger portion of the population is engaged in mining and analogous industries than can be maintained by the labour of those who are engaged in agriculture. The importation of spirits has considerably declined within the last few years.

Export of Gold from Victoria in each Year from 1851 to 1867.

Year	Quantities	Year	Quantities
	oz.		oz.
1851	145,137	1860	2,156,661
1852	1,988,527	1861	1,967,120
1853	2,497,724	1862	1,658,285
1854	2,141,699	1863	1,627,066
1855	2,751,535	1864	1,515,160
1856	2,985,922	1865	1,556,737
1857	2,502,461	1866	1,480,597
1858	2,528,479	1867	1,435,687
1859	2,280,957		

Scale of Commercial Charges, adopted by the Melbourne Chamber of Commerce.

COMMISSIONS:

On cash payments when not in funds	5 per cent.
On cash payments when in funds	2½ ,,
On purchase and shipment of gold dust	1 ,,
On purchase and shipment of gold-dust, if drawn against	2½ ,,
On the amount of invoice in either case.	
On purchase and shipment of merchandise and on other purchases when not in funds	5 ,,
Ditto ditto when in funds	2½ ,,
On private sales, including the purchase of bills for remittance	5 ,,
On guarantee of sales, including remittances	5 ,,
On goods received for sale and reshipped, and on consignments of merchandise withdrawn, on invoice value	2½ ,,
On debts, rents, and other accounts collected, recovered, and remitted	5 ,,
On granting of letters of credit	2½ ,,
On letters of credit acted upon, an additional charge of	2½ ,,
On freight or charter procured for vessels, and freight or passage money collected	5 ,,
On freight paid at port of departure	2½ ,,
On ship's disbursements and outfits when not in funds	5 ,,
Ditto ditto when in funds	2½ ,,
On guarantee of captains' drafts on owners, taken for balance of ships' disbursements	5 ,,
On money obtained on bottomry or respondentia	5 ,,
On insurance effected, or orders written for insurance, on the assured value	½ ,,
On insurance losses, partial or total, settled, or on premiums recovered	5 ,,
All sales of goods understood to be guaranteed, unless there be special orders to the contrary.	
On guarantee or security for contracts	5 ,,
Acting as trustee on assignments	5 ,,
On advances on produce for shipment	2½ ,,
Auctioneer's commission and brokerage to be charged when incurred.	
Advances and current accounts not liquidated at the end of the season, March 31, the balance to be charged as a fresh advance, subject to a commission of	5 per cent
INTEREST:	
On advances for duty, freight, and lighterage, and on accounts current per annum	10 ,,
CHARGES:	
For passing accounts with the government for emigrant ships	£21 0s.
For entering ship inwards at the Custom House, when the original port of departure is Australia, Van Diemen's Land, or New Zealand	£2 2s.
For clearing ship outwards when the port of destination is in the same places as above	£2 2s.
For entering ship inwards from other ports	£5 5s.
For clearing ship outwards	£5 5s.
For attending delivery of cargo from lighters, and giving notice to consignees	15s. per day
Fee for each surveyor within the city	£1 1s.
Fee for survey of hatches and stowage of cargo	£1 1s.
Fee for survey of hull of vessel	£5 5s.
On wool, for receiving, weighing, marking, and delivering	¼d. per lb.
In addition to the tare on wool, an allowance for draft of	1 lb. per cwt.

Table of Import and Export Duties from April 12, 1866.

Articles Imported by Land or Sea	Rate of Duty £	s.	d.	
Spirits or strong waters of any strength not exceeding the strength of proof by Sykes's Hydrometer, and so in proportion for any greater or less strength than the strength of proof	0	10	0	per gallon
Spirits, cordials, liqueurs, or strong waters sweetened or mixed with any article, so that the degree of strength cannot be ascertained by Sykes's Hydrometer, including all alcohol, diluted or undiluted with water or other menstruum, and containing in solution any essence, essential oil, ether, or other flavouring or other substance, whether of natural or artificial origin	0	10	0	,,
Spirits perfumed	0	10	0	,,
Wine per gallon in wood, or for 6 reputed quart bottles, or for 12 reputed pint bottles	0	3	0	
Ale, porter, spruce, and other beer, cider, and perry per gallon in wood, or for 6 reputed quart bottles, or for 12 reputed pint bottles	0	0	6	
Tobacco, manufactured	0	2	0	per lb.
unmanufactured	0	1	0	,,
sheepwash	0	0	3	,,
Snuff	0	2	0	,,
Cigars	0	5	0	,,
Tea	0	0	3	,,
Sugar and molasses	0	3	0	per cwt.
Coffee and chicory, cocoa and chocolate	0	0	2	per lb.
Opium, including all goods, wares, and merchandise, mixed or saturated with opium, or with any preparation or solution thereof, or steeped therein respectively	0	10	0	per lb.
Rice	0	2	0	per cwt.

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	Rate of Duty £	s.	d.	
Dried and preserved fruits and vegetables, nuts of all kinds (not including cocoa nuts), butter, cheese, candles, bacon, lard, hams, starch, soap, confectionary, biscuits, comfits, sweetmeats, succades, jams, macaroni, vermicelli, maizena, preserved meats and fish	0	0	1	per lb. or package of that reputed weight
Hops	0	0	2	per lb.
Malt	0	0	6	per bush.
Salt	1	0	0	per ton
Vinegar	0	0	6	per gallon
Varnish	0	2	0	,,
Salted provisions, including fish not otherwise enumerated and not caught from vessels owned in the colony	0	5	0	per cwt.
Doors	0	1	0	each
Window sashes	0	1	0	per pair
Plate of gold	0	8	0	,, oz. troy
Plate of silver	0	1	0	,,
Barley	0	0	3	per bush.
Oats	0	0	3	,,
Millinery and all articles made up from fabrics of silk, or of silk mixed with other materials	0	5	0	per cubic foot, measuring outside the package, or for any package less than one cubic foot
Apparel and slops and all articles made up wholly or in part from fabrics of wool, cotton, linen, or mixed materials (except corn or wool bags); boots or shoes, hosiery and gloves, hats, caps, and bonnets (untrimmed), saddles, harness, and leatherware				4*l.* per ditto
Watches, jewels and jewellery of all kinds, manufactures of silk or of mixed materials of which the greater part is silk, musical instruments, carriages, glass and glassware, chinaware and porcelain, furniture, toys, and turnery, woodenware, brushware and wickerware, earthenware, oilmen's stores not otherwise enumerated (except oils in bulk, tapioca, sago, arrowroot, spices, pepper, and ginger), woollen blankets and rugs				10 per cent. ad valorem

Exemptions from Import Duties.—All goods, wares, and merchandise not included in the above table of imported articles, gold and silver coin, passengers' baggage, cabin and other furniture or personal effects, which have been in use and not imported for sale, carriages used in the conveyance of goods or passengers across the frontier, all packages in which goods are ordinarily imported, and all minor articles used in the making up of apparel of mixed or undescribed materials shall be exempt from duty.

Articles Exported by Land or Sea	Rate and Duration of Duty
Gold, including gold in its natural state, whether mixed with any other substance or not, gold dust and all other gold, except gold coin, watches, and articles of jewellery and plate	1*s.* per oz. troy until December 31, 1866, 6*d.* per oz. troy from and after that date to December 31, 1867, and from and after December 31, 1867, the said duty shall cease and determine

Like many other British colonies, Victoria has adopted a protective tariff, not so much perhaps with a view to fostering home manufactures as with that of providing a revenue for its very considerable expenditure. Still, protective purposes are avowed, and manufactures are fostered by this system.

The basin of Port Phillip, which receives the Yarra-Yarra and other rivers, is a large circular bay, or inlet of the sea, whence the colony derived its former name. It has a narrow entrance, not more than 1¾ mile in width, partly occupied with rocks and shoals. A lighthouse has been erected near the extremity of Point Lonsdale, towards the west side of the entrance, lat. 38° 16′ S., long. 140° 40′ E., and another on Point Gellibrand, near the head of the bay, between Williamstown and the mouth of the Yarra-Yarra river, lat. 37° 52′ S., long. 144° 55′ E. The bay is about 40 miles broad from S. to N., and at its greatest extent is about 40 miles long from E. to W. It is said to cover an area of above 800 sq. miles, and might accommodate all the navies of all the countries in the world.

The whole trade of the colony, which is already very extensive, and is continuing to increase, is at present carried on from this basin. And from its advantageous situation, and its stretching so far inland, it is probable it will always continue to engross the largest share of the trade, though, no doubt, it will be partly, also, carried on from other ports. Geelong, at the head of a deep bay on the W. side of the basin, had in 1861 a population of 22,986, and a very considerable trade. For further details see the *Victoria Commercial and Nautical Almanac* annual, a very meritorious publication.

Prospects of the Colony.—Of these it would be hazardous to speak with much confidence. The produce of gold, which amounted to above 4,247,000 oz. in 1852, amounted to only 1,543,802 oz. in 1862, and but 1,479,194 oz. were exported in 1867. But it is impossible to say whether the decline will be permanent, or whether the produce will not again rise to or above its old level. The excitement caused by the discovery of the gold fields was not confined to the colonists or the diggers, but acted with such force on the commercial world that the value of the imports into Victoria, which amounted to 1,056,437*l.* in 1851, rose to 15,182,530*l.* in 1856–7. As this excessive importation occurred simultaneously with a diminished supply of gold, a ruinous revulsion necessarily followed, accompanied by an all but universal bankruptcy, and a vast sacrifice of property.

These, however, are but evanescent difficulties. Other industries of a more important and permanent character are occupying the attention of the colonists. Wool, of which 16,345,468 lbs. were exported in 1851, rose to the amount of 42,390,978 lbs. in 1866. Hides are also an important item of export from the colony. Still, on the whole it must be admitted that its trade is nearly stationary, the imports during the last ten years having varied only by about a million; and the exports being even more nearly uniform. It is of course possible to infer from these facts, that the trade is steady and satisfactory. The system adopted in regard to the disposal of the land, and the results to which it has led, are the grand difficulties with which the colony has to contend. It is impossible, indeed, to condemn too severely our policy in this respect, both in this and our other colonies. It is fitted only to injure them, and to turn the tide of emigration from their shores to the United States. To set a minimum price of 20*s.* an acre upon the unoccupied pasture lands of Australia, several acres of which are required to feed a single sheep, may be regarded as the triumph of political quackery. While, however, it prevented the sale of land, it necessarily led to its being let in vast tracts at low rents with certain rights of pre-emption, and to its being exclusively occupied by squatters; and through the discovery of the gold fields and the influx of population, these parties have become a leading class. There can, it is affirmed, be no doubt that their interests are opposed to those of the bulk of the colonists; and it is believed that under the constitution lately given to the colony they will command a majority in the legislature.

In consequence of this preposterous system, which, in a colony where large fortunes have been made, has restricted the purchase of lands to a very small part of their extent, the country can, in no proper sense of the word, be said to be occupied. The population has no power of diffusing itself over the surface, but is congregated into the large towns of Melbourne, Geelong, and the camps at the diggings. There are neither villages, farms, nor farm steadings. A man of moderate means may as soon think of getting land in Middlesex as in Victoria. And hence it

Wharfage Rates.

Authority under which levied or by which legalised	Specification of Taxes	£	s.	d.	Authority under which originally established	At what period
	Liquors in Bulk.					
Vict. No. 20	Tun butt, each	0	3	0	27 Vict. No. 209	May 11, 1864
	Pipe or puncheon, each	0	2	0		
	Hogshead, each	0	1	0		
	Barrel or quarter cask, each	0	0	6		
	Octave, keg, drum, tin, jar, or other small single package, each	0	0	3		
	Other Goods.					
	Case, crate, cask, bale, box, bundle, trunk, bag, keg, firkin, or package, measuring—					
	35 cubic feet and upwards	0	3	0		
	20 ,, ,, to 30	0	2	0		
	10 ,, ,, ,, 20	0	1	6		
	6 ,, ,, ,, 10	0	0	9		
	3 ,, ,, ,, 6	0	0	6		
	1 ,, ,, ,, 3	0	0	3		
	Less than 1 foot	0	0	2		
	Steam boilers, millstones, chains, machinery, railway materials, pig iron, cordage, oakum, flax or other fibrous articles, carriages, furniture, and goods not otherwise enumerated, per ton	0	5	0		
	Lead, lead pipes, iron, iron wire, steel or other loose metal, shot, nails, or metal in casks, cases or frames, per cwt.	0	0	3		
	Sugar, salt, coffee, rice, flour, meal, potatoes, or other vegetables, grain, seeds, malt, hops, or pulse, per cwt.	0	0	3		
	Spades, shovels, brooms, forks, frying pans, and small pieces of shaped wood, per dozen	0	0	3		
	Timber, per load of 40 cubic or 150 superficial feet	0	3	0		
	Posts and rails, per 100	0	3	0		
	Pickets or palings, per 100	0	1	0		
	Shingles or laths, per 1,000	0	1	0		
	Oars, tubs, or buckets, per dozen	0	0	6		
	Coals, coke, or firewood, per ton	0	1	0		
	Slates and bricks, per 1,000	0	5	0		
	Empty casks or shooks, per bundle	0	0	6		
	Goods to be rated according to weight or measurement, at the option of the collector of customs, at the port of discharge.					
	Duty on Spirits Distilled in Victoria.					
25 Vict. No. 147	Spirits distilled in Victoria, from malt, grain, roots, fruits, or wine per gallon	0	5	0	25 Vict. No. 147	June 19, 1 62
,,	Spirits distilled from sugar, treacle, molasses, wort, wash, or spirit wash with which sugar, treacle, or molasses have been mixed or worked, or from beer or ale, per gallon	0	8	0	,,	,,

Rates of Pilotage.

Authority under which levied or by which legalised	Specification of Taxes, Duties, Fees &c.							Authority under which originally established	At what period
17 Vict. No. 28									April 12, 1854
	Port Philip	Sailing Vessels and Steamers under sail only			Steamers and Vessels towed by Steam				
		Per Ton	Maximum	Minimum	Per Ton	Maximum	Minimum		
		d.	£	£ s.	*d.*	£ s.	£ s.		
	1. From without the heads to Melbourne and Geelong, and vice versâ	6½	50	6 0	4½	34 10	4 0		
	2. From within the heads to Melbourne or Geelong	4	31	3 10	3	23 0	2 10		
	3. From without the heads to outer anchorage Hobson's Bay,* or anchorage at Point Henry, and vice versâ	5½	42	4 15	3½	27 0	3 0		
	4. From within the heads to outer anchorage Hobson's Bay, or anchorage at Point Henry	3	23	2 10	2½	19 0	2 5		
	5. From without the heads to any anchorage within the heads and below the channels, and vice versâ	2½	19	2 5	1½	11 10	1 10		
	6. From Melbourne to Point Henry, and vice versâ	2½	19	2 5	1½	11 10	1 10		
	7. From Melbourne to Geelong, and vice versâ	3½	27	3 0	2½	19 0	2 5		
	8. For each remove from one place of anchorage to another in Hobson's or Corio bay	1	8	1 0	1	6 0	1 0		
	9. From Hobson's Bay to Melbourne, and vice versâ	2½	5	2 0	1½	3 0	1 5		
	10. From Point Henry to inner harbour, Geelong, and vice versâ	2½	7	1 10	1½	5 0	1 5		
	Outports.								
	Into or out of Port Albert	3	24	3 0	2½	16 0	2 10		
	Corner Inlet	3	24	3 0	2½	16 0	2 10		
	Portland Bay	2½	16	2 0	1½	11 0	1 10		
	Belfast	..	..	..	..	..	..		
	Warrnambool	..	..	..	..	..	..		

* N.B.—A line bearing N. 56° E. (magnetic) from the lighthouse on Gellibrand' Point, and running through the St. Kilda white buoy divides the inner from the outer anchorage of Hobson's Bay.

is that the vast majority of those who make money in the colony hasten to leave it; some proceeding to England, and many to the United States, where they may invest the whole or a portion of their earnings in superior lands sold for the low price of 1¼ dollar an acre. We do not presume to cast the horoscope of a policy which has such results; but we hardly suppose that, even in this region of anomalies, a suicidal system of this sort can be immortal. In 1866, 271 miles of railway had been completed and opened in this colony, at a cost for construction of 9,876,611*l.*

MÉMEL. A commercial town of East Prussia, lat. or lighthouse 55° 43′ 40″ N., long. 21° 6′ 10″ E. Population, December 3, 1867, 19,031. Memel is situated on the north-east side of the great bay, denominated the *Currische Haf*, near its junction with the Baltic. It is, consequently, the principal entrepôt of the country traversed by the Niemen, and as such enjoys a pretty extensive commerce.

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Harbour.—The harbour of Memel is large and safe; but the bar at the mouth of the Currische Haf has seldom more than 17 feet water, and sometimes not more than 13 or 14 feet; so that ships drawing more than 16 feet water are frequently obliged to load and unload a part of their cargoes in the roads, where the anchorage is but indifferent, particularly when the wind is N. or N.W. We find that Mr. Consul Ward, in his *Report* for 1867, gives the average depth for the year as 18 feet. There is a light, on the N.E. side of the entrance to Memel harbour, 98 feet above high water, and visible 20 miles off. It is lighted from August 1 to May 15. The outer buoy lies in 6 fathoms water, about a mile without the light-house, which bears from it S.E. by E. ¾ E. The channel thence to the harbour is marked by white buoys on the north, and red on the south side. Three beacons to the north of the town, when brought into a line, lead directly into the harbour. Inasmuch, however, as the channel is subject to frequent changes, both in depth and direction, it is always prudent, on arriving at the outer buoy, to heave to for a pilot: but this is not obligatory; and the Prussian authorities have issued directions for ships entering without a pilot, which may be found in Norie's *Sailing Directions for the Cattegat and Baltic*, p. 36.

Trade.—Timber forms the principal article of export; for though that of Dantzic be considered better it is generally cheaper, and almost always more abundant, at Memel. Here, as at Dantzic, the best quality of all sorts of wood articles is called *khron*, or crown, the second *brack*, and the third *bracks brack*. Large quantities of hemp and flax are also exported, as are bristles, hides, linseed (the finest for crushing brought to England), wax, pitch, and tar &c. The exports of grain, especially rye, are sometimes very considerable. The wheat of Lithuania is reckoned the best. All flax and hemp shipped from Memel must be *bracked*, or assorted by sworn selectors. [Flax and Hemp.] The imports consist principally of salt, herrings, coffee, sugar, spices, dye-woods, tobacco, tea, iron, cotton stuffs and yarn, cutlery, wine &c. To the war of 1866 is attributed the falling off in trade of the port, exhibited in the following statement of the value of imports and exports for 4 years, ending with 1867:—

	dols.		dols.
1864 -	- 11,000,000	1866 -	- 8,676,230
1865 -	- 9,585,000	1867 -	- 7,875,510

The abolition of the Government monoply of salt on June 1, 1868, led to a considerable increase of the importation of that article from England. This port is open to navigation throughout the year, but the navigation of the river Niemen, and adjacent streams, the Currische Haf &c., closes about the latter end of November, and opens about the middle of April. In 1867, 980 ships, of 106,429 lasts, arrived at Memel, and at the end of that year 98 sailing ships, of 23,107 lasts, and 7 small steamers, belonged to the port.

MERCURY or QUICKSILVER (Fr. vif argent; Ger. quicksilber; Ital. argento vivo; Span. azogue; Russ. rtut; Lat. hydrargyrum; Arab. zibākh; Hin. parah; Sansc. pārada). This metal was known in the remotest ages, and seems to have been employed by the ancients in gilding, and separating gold from other bodies, just as it is by the moderns. Its colour is white, and similar to that of silver; hence the names of *hydrargyrum*, *argentum vivum*, *quicksilver*, by which it has been known in all ages. It has no taste or smell. It is brilliantly lustrous, and when its surface is not tarnished, it makes a very good mirror. Specific gravity 13·568. It differs from all other metals in being always fluid, unless when subjected to a degree of cold equal to —39°, when it becomes solid. The congelation of mercury was first observed in 1759. (Thomson's *Chemistry*; *British Pharmacopœia* 1867.)

Mercury is found in various parts of the world. Among the principal mines are those of Almaden, near Cordova, in Spain; Idria, in Carniola; Wolfstein and Morsfield, in the Palatinate; Guancuaelica, in Peru &c. 'Most of the ores of mercury are readily distinguished from those of any other metal; in the first variety, globules of the metal are seen attached to or just starting on the surface, which is at once a sufficient criterion, mercury being unlike every other metal; in the second, by the fine white colour, and the action of the blowpipe, which sublimes the mercury and leaves the silver behind; the third, by its beautiful deep red tint, varying from cochineal to scarlet red, excepting in those termed hepatic cinnabars, which are generally of a lead grey; the fourth, by its grey colour, its partial solubility in water, and its complete volatilisation by heat, emitting at the same time an arsenical odour. Before the blowpipe, these varieties burn with a blue flame and sulphurous odour, leaving more or less residue behind them, and which may consist of earthy matter, as silex and alumina, together with the oxides of iron and copper.' (Joyce's *Chem. Min.*)

Till within comparatively late years, the supplies of quicksilver have been almost entirely derived from Europe. The quantity, however, now supplied from California is large, and is rapidly increasing. The average produce of the Californian mine at New Almador is about 2,500 flasks of 76½ lbs. each. The selling price of mercury is from 1*s.* 8*d.* to 2*s.* per lb. The discovery of these mines has greatly lowered the price, and by implication has rendered the process of amalgamating gold and silver much more cheap and easy.

Mercury is often adulterated by the admixture of lead, bismuth, zinc, and tin. When the metal quickly loses its lustre, is covered with a film, or is less fluid and mobile than usual, or does not readily divide into round globules, there is reason to suspect its purity.

Our supplies of mercury are still chiefly derived from Spain. The imports vary very much. They were 4,510,350 lbs. in 1864, only 1,264,239 lbs. in 1865, and rose to 3,315,410 lbs. in 1866, falling again to 2,191,143 lbs. in 1867, valued at 194,150*l.*

The exports of quicksilver from Spain in 1863 amounted to 771,048 kilogrammes, and it would appear, from Mr. Sackville West's *Report* of January 1, 1867, that the total produce of the Spanish quicksilver mines in 1863 was 168,624 6 met. quintals, or about 37,770,880 lbs. The province of Idria, in Austria, has also some rather productive quicksilver mines.

There are 2 sulphurets of mercury; the black or *ethiops mineral*, and the red or *cinnabar*. When mercury and sulphur are triturated together in a mortar, the former gradually disappears, and the whole assumes the form of a black powder, denominated ethiops mineral. If this powder be heated red-hot, it sublimes; and on a proper vessel being placed to receive it, a cake is obtained, of a fine red colour, which is called cinnabar. This cake, when reduced to powder, is well known in commerce by the name of *vermilion*. Cinnabar may be prepared in various other ways.

Calomel, or subchloride of mercury, is the most useful of all the preparations obtained from it. It is in the form of a dull white and nearly tasteless powder, having a specific gravity of 7·176. It is more generally employed, and with better effect,

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than almost any other remedy in the whole range of the materia medica. (*British Pharmacopœia* 1867.)

Besides its uses in medicine, mercury is extensively employed in the amalgamation of the noble metals, in water-gilding, the making of vermilion, the silvering of looking-glasses, the making of barometers and thermometers &c.

MESSINA. One of the principal ports of Sicily, and second only to Palermo in the number of its inhabitants, of which it contained (1862) 62,024. It stands on ground which rises from the sea on all sides of the port. Its port is one of the largest and safest in the Mediterranean; but the entrance is narrow and difficult. It is protected by a natural breakwater nearly 600 yards long, and 65 broad.

The trade of Messina is considerable, and rapidly increasing. The following, as given in Mr. Vice-consul Rickard's *Report* for 1866, are the values of its exports and imports, for the five years ending with 1866.

Year	Exports	Imports
1862	£889,055	£681,390
1863	871,111	732,542
1864	986,758	884,298
1865	1,094,168	948,577
1866	1,097,966	895,163

The number of ships which entered the port of Messina in 1866 was 5,047, the total burden 923,471 tons; of these 3,420 were Italian, the tonnage being 273,960.

Port charges on British vessels, as given in Mr. Rickard's *Report*: anchorage dues 5*d.* per ton. Sailing vessels discharging or taking in cargo may proceed to one or more ports to complete either, without paying a second anchorage fee. Steam vessels pay 50 centimes (5*d.*) a ton per solar month, less a discount of 40 per cent. for engine room.

Sanitary dues.—Sailing vessels and steamers arriving from, or having touched at any place in Turkey, Egypt, Syria, America, and the western coast of Africa, landing or taking in cargo or passengers, are charged 40 centimes per ton. From all other countries sailing vessels pay 23 centimes and steamers 5 centimes per ton.

Coasting trade.—These pay 20 centimes yearly.

Bills of health.—2 francs are charged for a new bill of health when required. Vessels wind-bound, or sailing for orders, may take pratique without paying any of the above dues. The quarantine regulations of Messina are restrictive and vexatious.

Good table wine at Messina is worth now (1867) about 1*s.* per gallon. There is a great trade in oranges and lemons. In 1866, 700,000 boxes of oranges, 2,000 pipes of picked lemons, 2,000 pipes of lemon juice, and 350,000 lbs. avoirdupois of essence, extracted from the peel, were exported. 1,000 lemons yield 1 lb. avoirdupois of essence, and 9 imperial gallons of lemon juice. Sixty gallons of raw, yield 10 gallons of concentrated juice.

The cultivation of silk is largely prosecuted in the neighbourhood of Messina.

A railroad was opened in 1866 between Messina and Catania. The distance is 58 miles. (See Mr. Vice-consul Rickard's *Report*, from which most of the above particulars are derived. (For Trade of Sicily, see art. PALERMO.)

METALS (Lat. metalla; Fr. métaux). Solid (with the single exception of quicksilver, which is fluid, and used, on that account, to be called semi-metal), opaque, heavy bodies, which melt at various degrees of temperature, and recover their previous solidity when it is reduced; when cut or fractured they exhibit a brilliant or lustrous appearance, and possess more or less malleability, tenacity, and so forth. The really valuable metals, comprising gold, silver, quicksilver, copper, lead, iron, and tin, were all known to the ancients, and were as much esteemed by them as by the moderns. They are sometimes found native, but far more generally in the shape of ores intermixed with other bodies. And their separation from the latter, and manufacture into useful and ornamental articles, is one of the greatest achievements of human industry, and has contributed more, perhaps, than anything else to accelerate the progress of civilisation. At this moment the smelting, refining, and working of metals forms one of the most important, if it be not the most important, industrial pursuit carried on in this country. The reader will find notices of the most important metals under their respective names. And we only notice them here that we may insert the following statements, viz., an estimate of the quantity and value of the metals produced in the United Kingdom in 1866 as they came from the furnace, and an account of the quantities and values of the metals exported in each of the three years ending with 1867.

The estimate of statement of the quantities and value of the metals produced in a crude state in 1867 is:—

Metals	Quantities	Value
Iron - - - tons	4,761,023	£11,902,557
Tin - - - ,,	8,700	729,203
Copper - - - ,,	10,233	831,761
Lead - - - ,,	68,140	1,337,509
Zinc - - - ,,	3,750	79,693
Silver - - - oz.	805,594	215,400
Gold - - - ,,	1,520	5,890
Other metals - value	—	15,000
Total - -	—	15,187,013

Account of the Quantities of Foreign and Colonial Metals Imported into the United Kingdom during each of the 5 Years ending with 1867.

Metals	1863	1864	1865	1866	1867
Copper ore and regulus - tons	102,099	93,304	122,248	129,547	102,782
Metallic - - ,,	12,788	25,437	22,858	21,000	20,663
Iron bars - - - ,,	46,635	53,918	51,464	64,178	71,705
Steel - - - ,,	4,016	7,819	6,777	4,451	—
Lead - - - ,,	28,604	30,616	31,903	36,946	45,158
Zinc - - - ,,	34,572	31,281	30,685	29,259	—
Tin - - - ,,	2,728	4,905	5,698	55,231	54,297
Quicksilver - - lbs.	1,762,393	4,763,499	1,781,825	3,315,410	—

Account of the Quantities of the Foreign and Colonial Metals Exported from the United Kingdom in each of the 5 Years ending with 1867.

Metals	1863	1864	1865	1866	1867
Copper - - - tons	6,287	9,025	9,514	14,092	14,160
Iron - - - ,,	12,860	12,581	9,676	14,345	23,079
Zinc - - - ,,	4,285	3,125	3,771	5,489	6,827
Tin - - - ,,	1,135	1,396	2,005	1,083	1,529
Quicksilver - - lbs.	1,831,558	2,96 ,451	1,155,937	1,964,083	2,432,140

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Account of the Quantities and Values of the Metals Exported from the United Kingdom, being the Produce of the same, during each of the 4 Years ending with 1867.

Metals	Quantities				Value			
	1864	1865	1866	1867	1864	1865	1866	1867
	tons	tons	tons	tons	£	£	£	£
Iron, pig	485,985	547,641	500,500	567,519	1,412,332	1,599,491	1,512,145	1,660,926
bar, bolt, and rod	279,758	254,257	260,419	301,150	2,568,049	2,199,837	2,328,695	2,559,062
railroad	408,215	434,300	498,091	582,420	3,305,086	3,550,563	4,183,198	4,889,389
wire	19,409	21,137	22,533	18,697	416,614	474,905	463,336	361,193
cast	68,877	96,322	76,491	80,755	670,111	792,581	707,992	677,433
hoops, links, plates	123,283	116,032	135,657	145,103	1,776,652	1,603,964	1,784,226	1,785,447
wrought	107,109	122,992	129,599	110,431	2,257,406	2,156,302	2,638,114	2,141,496
Steel	26,834	23,877	34,413	32,526	890,393	783,149	1,124,917	1,063,954
Copper, slabs	6,010	5,569	5,964	9,642	686,147	496,148	538,034	781,950
sheets, nails &c.	20,282	15,016	12,238	14,717	2,110,376	1,480,430	1 171,732	1,219,270
mixed or yellow	9,293	9,950	9,564	13,092	801,761	816,640	771,936	971,203
other sorts	1,365	1,073	651	500	167,256	136,992	87,816	53,979
Brass	2,133	2,211	2,065	2,312	234,013	232,309	225,148	216,633
Lead	35,767	27,278	30,011	29 825	779,174	581,684	661,526	625,170
Zinc	5,188	4,461	5,454	7,174	112,083	94,659	130,859	158,283
Tin	4,457	5,185	4,280	4,226	482,147	498,370	382,981	383,241
plates	50,147	62,718	70,978	78,984	1,263,246	1,481,098	1,596,192	2,063,260
Total	—	—	—	—	19,832,869	19,577,302	20,641,867	21,638,929

METHYLATED SPIRIT. [SPIRITS.]

MILE. The usual measure of roads in England, being 8 furlongs, or 1,760 yards.

MILK (Fr. lait; Ital. latte; Lat. lac). A fluid secreted by the female of all those animals denominated *mammalia*, and evidently intended for the nourishment of her offspring. The milk of every animal has certain peculiarities which distinguish it from all other milk. But the animal whose milk is most used by men, and with which, consequently, we are best acquainted, is the cow. The external character of all milk is that of a white opaque fluid, having a sweetish taste, and a specific gravity somewhat greater than that of water. When allowed to remain at rest, it separates into two parts; a thick whitish fluid called *cream*, collecting in a thin stratum over its surface, and a more dense watery body, remaining below. Milk which has stood for some time after the separation of the cream, becomes acescent, and then coagulates. When the coagulum is pressed gently, a serous fluid is forced out, and there remains the caseous part of the milk, or pure cheese.

Butter, one of the most valuable animal products, is solidified cream, and is obtained artificially by churning. [BUTTER and CHEESE.]

Milk has always been a favourite food of most European nations, and especially of the British. *Lacte et carne vivunt*, says Cæsar of our ancestors; and the same articles still continue to form a large part of our subsistence. Mr. Middleton estimated (*Agricultural Survey of Middlesex*, 2nd ed. p. 419), that, in 1806, no fewer than 8,500 milch cows were kept for the supply of London and its environs with milk and cream; and he estimated the average quantity of milk obtained from each cow at *nine quarts* a day, or 3,285 quarts a year, leaving, every deduction being taken into account, 3,200 quarts of marketable produce.

But Mr. Youatt, in his valuable work on cattle, their breeds &c., estimated the number of dairy cows kept in 1843, in London and its environs, at 12,000; affording, on Mr. Middleton's hypothesis, an annual supply of 38,400,000 quarts of milk. Now, as milk is sold by the retailers at from 3*d.* to 4*d.* a quart after the cream is separated from it, and as the cream is usually sold at from 2*s.* 6*d.* to 3*s.* a quart, and there is reason to suspect that a good deal of water is intermixed with the milk, we believe we should hardly be warranted in estimating that the milk, as obtained from the cow, is sold at less than 5*d.* a quart, which gives 800,000*l.* as the total price of the milk consumed in the city and its immediate vicinity. If to this sum were added the further sums paid for cheese and butter, the magnitude of the entire sum paid in the metropolis for milk, and the various products derived from it, would appear not a little astonishing.

Since the last edition of this work was published, statistics of cattle in the United Kingdom have been supplied. From these we learn that the ordinary number of cattle kept in Middlesex, is about 24,000, of which number probably $\frac{2}{3}$ are cows. But no county, with the single exception of Cheshire, suffered so seriously from the losses of the cattle plague, as Middlesex did; for 30 per cent. of the cattle had perished up to March 5, 1866. The London dairies are in fact dens of disease, and the time, it may be hoped, is not far distant, when they will be put an end to altogether.

At present, a very considerable part of the metropolis is supplied with milk drawn a very long way off, and sent regularly, punctually, and at an early hour, by the various railways. In point of fact, nothing in the economy of railways is more striking than the development of a system, by which the supply of the metropolis and other large towns, can be derived from healthy outlying country districts, at considerable distances from the dense populations in the great towns throughout the United Kingdom. On June 25, 1867, the number of cattle returned for Middlesex was 18,722. In 1866, 967 cwts. of condensed or preserved milk were imported, valued at 5,414*l.*

MILLET (Ger. hirse; Fr. millet, mill; Ital. miglio, panicastrello; Span. mijo; Lat. milium, panicum miliaceum). There are 3 distinct species of millet; the Polish millet, the common or German millet, and the Indian millet. It is cultivated as a species of grain; and is sometimes employed to feed poultry, and as a substitute for rice. The Indian millet grows to a large size; but the autumns in England are seldom dry and warm enough to allow of its being cultivated here. (Loudon's *Encyc. of Agriculture*.) 248,198 cwts. of millet were imported in 1865, chiefly from Turkey.

MILL-STONES (Ger. mühlsteine; Fr. pierres meulières: Ital. mole macine; Span. muelas de molino; Rus. schernowoi kamen). The large circular stones, which, when put in motion by machinery, grind corn and other articles. The diameter of common mill-stones is from 5 to 7 feet, and their thickness varies from 12 to 18 inches. These stones have been principally imported from Rouen and other parts of France, of which 5,734 were exported from France in 1864, valued at 83,830*l.*; the burr-stones of that country being supposed to be more durable than our own. Mill-stones are, however, found at Conway, in North Wales, and in some parts of Scotland, which have been said, though on no very good authority, to be equal to those imported. In 1867, 3,242 tons of burr-stones were imported into the United Kingdom, valued at 14,470*l.*

French burrs are found in masses in the

neighbourhood of Meaux (Seine and Marne) in calcareous rocks. The substance which is cemented into masses of sufficient dimensions is nearly pure silex, with a slight admixture of alumina and oxide of manganese.

The island of Milo in the Archipelago furnishes mill-stones of a very excellent quality. They are exported to Greece, Italy, and other countries on the Mediterranean, where they are employed in grinding the hard wheat, or *grano duro*, used in the manufacture of macaroni, vermicelli &c. The quarries are wrought on account of Government, and the stones sold at moderate prices, fixed by a tariff, which, however, leave a handsome profit to the state. (Tournefort, *Voyage au Levant*, letter iv.; Strong's *Greece*, p. 222.)

Whether it was owing, as was generally supposed, to the inferiority of the stones, or to some other cause, there can be no doubt of the fact that, down to a late period, our flour mills were less efficient than those of France and some other countries; and hence, in part at least, the late very large importations of French flour. But this inferiority is now all but wholly obviated. The English mills produce flour of a superior quality; and hard, as well as soft wheat is readily bought by our millers. The duties on mill and other stones have been repealed.

MINING COMPANIES. By this designation was formerly meant the associations formed in London, in 1825, for working mines in Mexico and South America; but at present it comprises all mining projects carried on by joint-stock associations.

The mania for mining concerns, which raged in London and the empire generally in 1824 and 1825, after the opening of Mexico and other parts of Spanish America to our intercourse, forms a remarkable and disgraceful era in our commercial history. Now that the delusion is long past, we have difficulty in conceiving how mercantile men could be led to entertain such visionary expectations, and to pay immense premiums for shares in distant and hazardous undertakings of which they knew little or nothing. We may, therefore, be excused for appropriating a page or two to the notice of an infatuation hardly second to that which led to the South Sea and Mississippi schemes.

The American mining companies formed at the outset had some sort of basis for favourable expectations, their directors having made contracts for a number of mines in Mexico, described by Humboldt as having enriched many families. This particularly applies to the Real del Monte Company, whose mines are situated in the mountainous district of that name; to the Anglo-Mexican Company, whose mines are at Guanaxuato, the principal mining quarter in Mexico; and to the United Mexican Company, whose contracts, though too widely spread, comprise several valuable mines at Zacatecas, Sombrerete, Guanaxuato, and other parts.

These associations were formed in London early in 1824, and during the spring and summer of that year their stock or shares bore only a small premium; but towards the winter it began progressively to rise; not because of any favourable intelligence from the mines (for the accounts from Mexico merely reported the arrival of the English agents), but from a blind ardour and spirit of speculation in the public, which really took *omne ignotum pro magnifico*, every rumour of a mine for a certain and inexhaustible source of profit and of wealth! It was supposed that our countrymen were about to reap an immediate harvest; to lay their hands on a treasure hid for ages. This was said to be the true discovery of America, the effectual access to her resources. Every new contract for a Mexican mine produced a rise in the shares of the other companies, as if the fresh undertaking must necessarily be a source of profit to the whole! And the result was, that in January, 1825, the premium on the shares of most of the companies exceeded cent. per cent.! It must not, however, be imagined that this rise of price was occasioned solely by the competition of individuals who intended to continue to hold stock and to trust to the dividends made by the companies for a return. That this was the case in the first instance, is, speaking generally, true. But a host of others, actuated by very different views, speedily entered the field. A peculiar combination of circumstances, at the head of which must be placed an almost incredible degree of ignorance and folly on the part of a considerable portion of the public, spread a spirit of gambling among all classes. Many who were most eager in the pursuit of shares, intended only to hold them for a few hours, days, or weeks, to profit by the rise which they anticipated would take place, by selling them to others more credulous or bold than themselves. The confidence of one set of speculators confirmed that of others. Meanwhile the public gullibility, or rather its indiscriminating rapacity, was liberally administered to. Company after company was formed without any previous contract; in other words, without any foundation whatever! The plan was, to fix on a district in America, understood to contain mines; to form a company bearing the name of such district; to obtain a first payment from the shareholders, and to send or pretend to send out agents, to survey the district and engage mines. Such was the case of most of those companies having the names of districts in South America; and such, also, was the case of the Hispaniola or St. Domingo Company, formed on the basis of accounts given by Robertson of mines wrought in that island some three centuries ago! And yet lawyers, clergymen, and even the nobles of the land, were candidates for shares in these miserable bubbles, in the hope of finding (in which, luckily, most of them were disappointed) some dupe to buy their shares at a premium. Those who may be desirous of seeing the extent which the public credulity was practised upon in 1824 and 1825, may consult a pamphlet published by H. English, broker, in 1827, which contains an account of all the joint-stock companies formed and projected in these memorable years. It presents a most extraordinary picture. There were in all 74 mining companies formed and projected! The number and quality of the other schemes were similar. It is due to Mr. Baring (the late Lord Ashburton) to say that he denounced the evil when in progress, and warned the unthinking multitude of the ruin they were bringing upon themselves; but to no purpose.

As the year 1825 proceeded, the mining mania gradually declined, not from any falling off in the prospects of the companies, for in truth they never had any, but in the supply of money in London. That redundancy of the currency in which the mining mania had partly originated, having brought about an adverse exchange, and a heavy drain for bullion on the Bank of England, the latter was obliged to pull up, and in a moment the bubble burst, and unreasonable suspicion took the place of blind unthinking confidence. Mining projects, from being in the highest favour, fell to the lowest point in the public estimation. The shares of the three principal companies, some

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of which had been at a premium of 500 per cent., fell to par: that is, 100*l.* in money, and no more, could be got for 100*l.* of the company's stock! They maintained this price for a considerable time, because most of the parties interested continued to have a favourable impression of the undertakings. Demands, however, continued to be made for additional sums to meet the expenditure abroad; and in 1826 and 1827 mining shares progressively declined, so that 100*l.* stock fetched only 20*l.* or 25*l.* in money. The bubble companies were entirely destroyed, and the few only remained that were founded by capitalists and had some foundation to stand upon.

Even these would have been relinquished, or have shrunk into very small dimensions, had not the directors been able to enforce further payments, by forfeiting, in default of such, whatever had been previously paid by the subscribers. The usage was, that on becoming a shareholder each person subscribed the deed of the company, engaging to pay, when called on, such instalments or sums to account (generally 10*l.* on each share) as should be required by the directors, until he had completed payment of the 100*l.* And many shareholders who had advanced 50*l.* or 60*l.* unwisely preferred paying 10*l.* from time to time, rather than incur the immediate forfeiture of all they had paid. Those who held only a few shares felt this in a less degree; but to the holders of a number of shares, the grievance was most serious. Numbers of them raised the money with great difficulty; often selling, at a heavy loss, their family property, or prevailing on relations to make them advances, to their great inconvenience, and, as far as can be seen, with almost no prospect of a return. Resentment would be excited against the directors, had they not been, in general, the heaviest sufferers; their regulations required them to hold a certain number of shares (perhaps 20 or 30); but in their blind confidence they frequently held 200 or 300, and drew on themselves a proportional sacrifice—in several cases, the loss of their whole property.

The managers of the companies formed in the outset were principally chargeable with ignorance, rashness, and overweening confidence. They had, in fact, but little information to go upon. The monopoly enforced by Old Spain had prevented any considerable communication between this country and her colonies. And of the Spaniards settled in Mexico, and driven from it by the civil wars and consequent emancipation of the country, few or none found their way hither, the great majority having repaired to Cuba, the south of France, and Spain. Nor were the published accounts of the country entitled to much confidence: Humboldt's Travels formed the chief authority, but their illustrious author, though generally cautious, seems, in this instance, to have placed too much confidence in vague, exaggerated statements. Our merchants knew, generally, that silver mines formed a main branch of the productive industry of Mexico, and had enriched very many families originally in humble circumstances; but they had no idea of the injury sustained by the mines during the civil war, nor of the amount of expenditure required to bring them into a working state; nor were they aware how little useful information could be expected from the natives; the working of the mines, like every operation requiring skill and intelligence, having been superintended by natives of Old Spain, who had either fallen in the civil war, or been expelled after the Mexicans succeeded in the contest. Hence, the agents of our companies found on the spot only native Mexicans, without education or experience in business, and, speaking generally, without candour or probity. They urged our countrymen to drain the mines, not by machinery, of which they had no idea, but by animal power, the use of which was of advantage to them, by employing their horses and mules, and creating a great consumption of maize, the principal grain of the country. Then, as to the last and most important stage in the business of mining—the mode of extracting the silver from the ore—the Mexicans, wholly unacquainted with the improvements made in Germany during the last half-century, recommended amalgamation, a process conducted by them in a very rude manner, and which in most qualities of silver ore, fails to extract the whole, or anything like the whole, of the metal. The object of the Mexicans, in short, was merely to make English capital be circulated among them; thus giving employment to their people for a time, and bringing the mines into an improved state; when they (the Mexicans) might hope to resume them after our countrymen had exhausted their resources, or had become weary of their contracts.

The expense of conveying the requisite machinery from the coast of Mexico to the mining districts, generally at a great distance in the interior, absorbed much capital. The country has few practicable roads, and these have latterly been allowed to fall into disrepair; draught carriages are almost unknown, and burdens are carried on the backs of mules and horses: add to this, that Mexico being under-peopled, labour is nearly as high in it as in the United States of North America; and the mechanical arts being in a manner unknown, all skilled workmen, such as carpenters, blacksmiths, and working engineers, had to be sent from England at a heavy expense. (For an account of the low state of the arts in Mexico, see the extracts from Chevalier's Letters in the *Geog. Dict.* art. 'Mexico.')

Such were the chief causes of the failure of the Mexican mining companies; and several of these may be referred to one radical disadvantage—the non-existence of silver mines in England. We have, in Cornwall, considerable mines of tin and copper, while in the northern counties we have mines of lead; but of silver we have none that deserve the name. How much better had it been had our countrymen set out with a consciousness that Germany is the only country in which the treatment of silver ore is conducted on scientific principles! The Saxons extract a profit from ore of very inferior quality, often worth only a fourth or fifth part of the ore raised by the Mexicans on account of our companies, but which, being wrought by their crude, inefficient, and expensive process, fails to afford anything like a satisfactory return. There seems no reason to doubt that the German process may be applied to silver ore in Mexico as in Europe: the difficulties arise, not from difference in the quality of the ore, but from the want of experienced smelters, and the general backwardness of the Mexicans in mechanics.

An English company, formed in 1865, has at length applied modern science to the reduction of the ores of the Guanaxuato district entirely by water-power.

But though the companies had been in all other respects successful, they had a serious drawback to contend with in the unsettled state of the country. No Government has as yet been established in Mexico, nor in any other of the newly constituted American states, with power, or perhaps, inclination, sufficient to put down disturbances, or to enforce the observance of contracts.

So long as the companies were struggling to put their mines into order, they sustained little inconvenience from the circumstances now mentioned; but the moment they had succeeded in bringing them once more into a productive state, and were beginning to have a reasonable prospect of obtaining some return for their enormous outlays, they were annoyed by questions as to title, and by the setting up of claims on the mines, of which they had never heard before. In some instances the claimants had recourse to violence, and the companies' servants were forcibly ejected from their works! Chevalier says that it required an armed force to transport any quantity of ore from the mine to the place of its destination; and he gives an account of a murderous attack made in 1835 on some miners belonging to the Real del Monte Company. (*Geog. Dict.* art. 'Mexico.') [PRECIOUS METALS; VERA CRUZ.]

Without, however, pretending to anticipate the final result of these remote speculations, we shall conclude with a brief notice of the considerations on both sides of the question. The circumstances adverse to the success of mining companies in America, conducted on account of parties in England or in any part of Europe, are—

1. The various disadvantages of distant management. These are so many and so serious, as to admit of only one corrective—selling the ore as soon as raised, and transferring to individuals, for their own account, the extraction of the metal, as is done in Cornwall, and, in a somewhat different manner, in Saxony. The ores also ought to be raised by paying the workmen, not fixed wages, but a tribute or portion of the proceeds.

2. The half-civilised state of the inhabitants, their unsettled political condition, and the want of power or disposition on the part of those in power to make contracts be observed; and to hinder the former proprietors of the mines, or those connected with them, from setting up fictitious claims, and enforcing them by violence.

3. The high price of labour; the ignorance of the natives as to mechanics, and still more as to science. Hence the necessity of having artisans and confidential superintendents from Europe at a heavy expense.

On the other hand, the circumstances in favour of such undertakings are—

1. The abundance of silver ore, which is far greater than in any part of Europe.

2. The former success of mining in Mexico, under a system extremely rude and expensive, compared to that which is now followed in Germany.

3. The probability of peace in Europe, and of an abundance of moneyed capital; so that the failure of the present companies may not involve a relinquishment of their enterprises, any more than the failure of the first New River Company, about two centuries ago, implied an abandonment of their project. There is surely, also, some probability that anarchy and disorder will ultimately cease; and that the security of property will, in the end, be established. We confess, however, that these are but problematical and contingent events; and that it may reasonably be doubted whether any considerable future success can be anticipated.

It seems, however, as if there were something in mining speculations that renders them exceedingly unsuitable for joint-stock associations. At all events, hardly one of the joint-stock associations formed in this country for the working of mines has been successful. The company for working the copper mines near Santiago in Cuba appears to be the only one that has in any degree realised the magnificent prospects that were held out in 1824 and 1825. (See Mr. Secretary Middleton's *Reports* of July 10, 1866, and November 29, 1867, *On the Silver-mines of Guanaxuato.*)

MINIUM or RED OXIDE OF LEAD. A tasteless powder of an intense red colour, often inclining to orange, and very heavy; its specific gravity being 8·94. It is extensively used in the arts.

MOBILE. [NEW ORLEANS ad finem.]

MOCHA or MOKHA. The principal port in the Red Sea frequented by Europeans, in that part of Arabia called Yemen, about 40 miles to the north of the Strait of Bab-el-mandeb, lat. 13° 19′ 30″ N., long. 43° 20′ E. Population variously estimated up to 7,000, but may, perhaps, amount to from 4,000 to 5,000. It is encircled with walls, and indifferently fortified. Its appearance from the sea is imposing. Mocha has greatly declined since the occupation of Aden.

Mocha is situated on the margin of a dry sandy plain. It is built close to the shore, between 2 points of land which project and form a bay. Vessels drawing from 10 to 12 feet water may anchor within this bay at about a mile from the town; but large ships anchor without the bay in the roads, in 5 or 7 fathoms water—the grand mosque bearing E.S.E., and the fort to the south of the town S. by E, distant about two miles from the shore. The great article of export from Mocha is coffee, which is universally admitted to be of the finest quality. It is not possible to form any very accurate estimate of the quantity exported; but we believe it may be taken at 10,000 tons, or perhaps more. The greater portion is sent to Djidda and Suez; but there is a pretty large export to Bombay and other parts of India, whence some is sent to Europe: occasionally, however, the exports from Mocha and Hodeida, direct to Europe, are very considerable. Besides coffee, the principal articles of export are dates, adjoue, or paste made of dates, myrrh, gum arabic, olibanum, senna (*cassia senna*), sharks' fins, tragacanth, horns, and hides of the rhinoceros, balm of Gilead, ivory, gold-dust, civet, aloes, sagapenum &c. The principal articles of import are rice, piece goods, iron, hardware &c. The ivory, gold-dust, and civet, met with at Mocha, are brought from the opposite coast of Abyssinia, whence are also brought slaves, ghee &c.

The greater part of the foreign trade of Mocha is transacted by the Banians; and it is much safer to deal with them than with either Turks or Arabs. Europeans pay a duty of 3 per cent. ad valorem on all goods imported by them from Europe, India, or China; the duty being levied on the amount of the sales. The buyer pays brokerage, cooley, and boat hire. All kinds of foreign goods are sold on credit, and the payment is made in 3 instalments, or at a certain day, according as may have been agreed on. Coffee is always paid for in ready money. On the sale of other goods, the produce of the country, a credit is given; or if ready money be paid, a discount is allowed at the rate of 9 per cent. When goods are discharging, the master must furnish the Custom-house officer with a manifest, or account of the marks, numbers, and contents of each package. He then opens two or three bales taken at random; and if they correspond with the account delivered, no further examination is made; but if they do not correspond, the whole bales are opened, and double duty is charged upon the excess. The quantities being thus ascertained, their value is learned from the account of sales rendered by the seller, and the duty charged accordingly. In this respect there is nothing to object to at

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Mocha; but a good deal of extortion is practised in the exaction of port charges, presents &c., which may, however, be defeated by proper firmness. The port charges on ships, or *three-mast* vessels, may amount to about 400 Mocha dollars, and those on brigs to about half as much. Provisions are plentiful and cheap; but water is dear: that in the vicinity being brackish and unwholesome, whatever is used for drinking, by all but the poorest persons, is brought from Mosa, about 20 miles off. Fish are abundant and cheap, but not very good.

Money.—The current coins of the country are carats and commassees; 7 carats = 1 commassee; 60 commassees = 1 Spanish dollar; 100 Spanish dollars = 12½ Mocha dollars.

Weights and Measures.—The commercial weights are—

15 Vakias = 1 Rottolo = 1 lb. 2 oz. avoird.
40 Vakias = 1 Maund = 3 lbs. avoird.
10 Maunds = 1 Frazel = 30 lbs. avoird.
15 Frazels = 1 Bahar = 450 lbs. avoird.

There is also a small maund of only 30 vakias: 1 Mocha bahar = 16½ Bombay maunds; 1 Mocha bahar = 13 Surat maunds = 15·123 seers. Grain is measured by the kellah, 40 of which = 1 tomand, about 170 lbs. avoirdupois. The liquid measures are 16 vakias = 1 musseah; 8 musseahs = 1 cuda, about 2 English wine gallons. The long measures are the guz = 25 English inches; the hand covid = 18 inches, and the long iron covid = 27 inches.

In compiling this article, we made use of Milburn's *Oriental Commerce*, and Elmore's *Directory*. Niebuhr has given a plan of the port of Mocha in his *Voyage en Arabie*, tome i. p. 348, ed. Amst. 1776. He has also given some details as to its trade in his *Description de l'Arabie*, p. 191. But the best account we have seen of Mocha is in Hamilton's *Account of the East Indies* (vol. i. pp. 40–52), an accurate and valuable work. Burckhardt did not visit Mocha; which is to be regretted.

MOGADORE or SUIRA. A sea-port town on the west coast of Morocco, lat. 31° 50′ N., long. 9° 20′ W. Population estimated at 20,000, including about 4,000 Jews. It is indifferently fortified; the country in the immediate vicinity is low, flat, sandy, and unproductive. Water is scarce and rather dear; being either rain water collected and preserved in cisterns, or brought from a river about 1½ mile distant. The port is formed by a small island lying to the southward of the town; but as there is not more than 10 or 12 feet water in it at ebb tide, large ships anchor without, the long battery bearing E. distant 1½ mile. The principal imports are, English woollen and cotton stuffs and hardware, German linens, tin, copper, earthenware, mirrors, glass, sugar, pepper, and paper. The *exports* principally consist of sweet and bitter almonds, gum arabic, and other gums, beeswax, cow and calf skins, ivory, ostrich feathers, gold-dust, olive oil, dates &c.

The city of Morocco, distant from Mogadore about 4 days' journey (caravan travelling), derives its principal supplies of European produce from the latter: but for a long period, the fiscal regulations and caprice of the Sultan put serious hindrances in the way of trade. Thus, for instance, it was part of the Government policy to absolutely prohibit the exportation of grain, even at a time when it was exceedingly plentiful in Morocco, and very scarce in the nearest parts of Europe. The export duties were, even when trade was permitted, commonly 30 per cent. on the value of the article, and the import duties were paid in kind one-fifth of the article imported. Under such a system trade languished, and, as was stated in a former edition, the exports to those regions averaged during the 10 years ending with 1862, only 61,712*l.* a-year.

Under these circumstances, the British Government entered into negotiations with the Sultan, and the result was a treaty of commerce signed on December 9, 1856, for the provisions of which, see TREATIES, COMMERCIAL.

Tonnage of Mogadore in the Years 1862–4.

	1862			1863			1864		
	Vessels	Tons	Value of Cargoes	Vessels	Tons	Value of Cargoes	Vessels	Tons	Value of Cargoes
			£			£			£
Entered - -	76	21,750	225,737	120	23,576	309,521	75	19,675	230,312
Cleared - -	71	20,172	215,231	91	20,641	355,184	72	18,801	228,822

More than half of these vessels were British. In ordinary years the most important export is olive oil, of which 94,854 cwts. were exported in 1866 and but 12,689 in 1867. Wool ranks next, then almonds, goat skins, slippers, wax, hides, and ostrich feathers. The principal imports are Manchester goods, specie, and sugar. Mr. Consul White, of Tangier, in his *Reports* of April 9, 1867 and May 23, 1868, on the Trade and Commerce of Morocco, gives the following particulars, which speak for themselves.

Shipping.—The following return of vessels which entered Moorish ports during the 4 years ending with 1867, shows that, although the number of vessels in 1867 was smaller than in the previous year and in 1864, the tonnage was greater:—

	Vessels	Tons
1864 - -	1,108	122,950
1865 - -	945	115,876
1866 - -	1,038	120,876
1867 - -	994	123,526

The value of the cargoes in 1866 being 1,037,986*l.* and in 1867, 936,780*l.*

British Shipping.—The number of British vessels entering ports of Morocco was greater, although the tonnage was less, in 1866 than in 1865, being in 1865, 447 vessels of 77,008 tons, and in 1866, 487 vessels of 69,752 tons, while there entered, in 1867, 517 British vessels of 73,208 tons.

Foreign Shipping.—A very considerable increase is observable in the number of French vessels trading with Morocco. In 1865 only 75 French vessels, of 16,441 tons, called at Moorish ports, whilst in 1867 as many as 139 vessels, of 39,946 tons, entered. This increase was caused by the establishment of a line of steamers belonging to the Messageries Impériales, which ran monthly, during 1866, and subsequently twice a month, between Tangier and Oran, in correspondence with Algiers and Marseilles.

Exports.—The export trade of Morocco, during the three years ending with 1866 was steadily increasing, the exports to France, during 1866, being greatly in excess of former years; but the general exports, and especially those to Great Britain and Gibraltar, during the year 1867, fell far short of those of the previous year, thus:—

	£	£
1864 - -	887,880	of which 574,373 to Great Britain.
1865 - -	1,014,031	„ 707,891 „
1866 - -	1,039,018	„ 657,607 „
1867 - -	616,986	„ 347,809 „

This falling off, says Mr. Consul White, may be accounted for in a great measure by the shortness of the crops.

Imports.—Compared with 1865 and 1866, the year 1867 shows a slight decrease, thus:

	value		value	
1865 -	£1,007,177	of which £	886,179	was from Great Britain
1866 -	926,028	"	741,680	"
1867 -	899,060	"	714,560	"

The following table represents the value of goods taken by different countries from Morocco during the year 1866:—

	£
Great Britain and Gibraltar - - -	657,407
France - - - - -	302,790
Spain - - - - -	35,532
Portugal - - - - -	32,186
Egypt - - - - -	4,620
Belgium - - - - -	3,658
Italy - - - - -	2,223

In the year 1866, according to M. St. Chaffray, Vice-Consul at Rabat, there was a great decline at that port. The causes are the loss of crops, and the general circulation of base money—a wrong for which it appears the Government is responsible. *Consular Reports* 1866, No. 6.

Trade of Rabat.

Years	No. of Ships	Tonnage	British Ships	Tonnage	Value of Imports	Value of Exports
					£	£
1863 -	44	3,662	12	880	115,806	74,838
1864 -	36	2,704	12	972	72,372	72,644
1865 -	29	2,476	8	499	56,684	46,295
1866 -	40	3,600	8	560	47,683	52,708

Money.—Accounts are kept in nutkeels of 10 ounces; the ounce being divided into 4 blankeels, and the blankeel into 24 fluce. From their proportion to the Spanish dollar, the blankeel may be valued at 1*d.*, the ounce at 4*d.*, and the nutkeel or ducat at 3*s.* 4*d.*

Weights and Measures.—The commercial pound is generally regulated by the weight of 20 Spanish dollars; and therefore 100 lbs. Mogadore weight, or the quintal, = 119 lbs. avoirdupois. The market pound for provisions is 50 per cent. heavier, or 1 lb. 12½ oz. avoirdupois.

The corn measures are for the most part similar to those of Spain, but there are considerable discrepancies.

The cubit, or canna, = 21 English inches, is the principal long measure.

The most ample details with respect to the trade of Mogadore, and the trade and productions of Morocco in general, may be found in Jackson's *Account of Morocco*, c. 6, 7, and 13; see also Kelly's *Cambist* for treaty with Morocco.

MOHAIR (Ger. mohr; Fr. moire; Ital. moerro; Span. mue, muer). The hair of a variety of the common goat, famous for being soft and fine as silk, and of a silvery whiteness. It is not produced anywhere but in the vicinity of Angora, in Asia Minor. The exportation of this valuable and beautiful article, unless in the shape of yarn, was formerly prohibited; but it may now be exported unspun. The production, preparation, and sale of Mohair have long engrossed the principal attention of the inhabitants of Angora; and it used to form an important article of Venetian commerce. It is manufactured into camlets and other expensive stuffs. In 1867, 2,648,360 lbs. of goat's hair, valued at 342,106*l.*, were imported into the United Kingdom, nearly the whole of which came from Turkey. It was reported worth 2*s.* 7*d.* per lb. The average annual produce of the goats from Asia Minor is about 15,000 bags; the average weight per fleece 5 lbs.; and the ordinary length of wool from 6 to 8 inches; average weight of each bale 180 lbs.

The British mohair fabrics are principally prepared in Bradford and its immediate neighbourhood. (See for further particulars, Tournefort, *Voyage du Levant*, ii. 463, where there is a figure of the goat; and Urquhart *On Turkey and its Resources*, p. 184.)

MOLASSES or MELASSES (Fr. sirop de sucre, melasses; Ger. syrup; Ital. mielazzo di zucchero; Span. miel de azucar, chancaca; Port. melasso, assucar liquido; Russ. patoka sacharnaja). The uncrystallisable part of the juice of the sugar cane, separated from the sugar during its manufacture. It is of a brown or black colour, thick and viscid; has a peculiar odour, and a sweet empyreumatic taste. Molasses is now charged with a duty of 3*s.* 6*d.* per cwt. in place of the old duties of 9*s.* for colonial, and 23*s.* 9*d.* for foreign. It is not, however, used in its original state, but is purchased by the sugar-bakers, who, when it is of an ordinary degree of strength, extract from it a coarse, soft species of sugar called bastards, and treacle. But it is obvious, inasmuch as the duty on molasses is fixed, that the duty on the sugar extracted from it will vary indirectly according to the quantity of saccharine matter which it contains; and we understand that, in consequence, molasses is frequently imported so rich as to yield good crystallised sugar. We do not know whether the practice has been carried to such an extent as materially to injure the revenue: but it seems pretty clear that the duty should depend, in part at least, on the quality of the molasses, or on the quantity of saccharine matter which it contains, as well as on the weight. It is difficult—unless advantage has been taken of the way in which the duty is assessed, to elude the sugar duties—to account for the fact of the imports of molasses from the West India Islands not having diminished in anything like the same proportion as the imports of sugar. [SUGAR.]

About 8 gallons of proof spirit may, it is said, be obtained from a cwt. of molasses, such as has recently been imported; but this depends, of course, wholly on the richness of the molasses.

Part of the refuse that remains after refining muscovado sugar, is a sweet syrup, which, as well as the syrup that remains after boiling molasses to obtain bastards, is called treacle. But the treacle obtained from the former is always preferred to that obtained from the latter, and fetches 2*s.* per cwt. more.

Molasses is sometimes used in preparing the coarser sort of preserves; and on the Continent it is extensively used in the manufacture of tobacco.

In 1867, 358,316 cwts. of molasses were imported; and 403,709 cwts. entered for consumption, of which 244,969 cwts. were brought from Cuba. The duty during the same year amounted to 56,119*l.*

MONEY. When the division of labour was first introduced, commodities were directly bartered for each other. Those, for example, who had a surplus of corn, and were in want of wine, endeavoured to find out those who were in the opposite circumstances, or who had a surplus of wine and wanted corn, and then exchanged the one for the other. It is obvious, however, that the power of changing, and, consequently, of dividing employments, must have been subjected to perpetual interruptions, so long as it was restricted to mere barter. A carries produce to market, and B is desirous to purchase; but the produce belonging to B is not suitable for A. C, again, would like to buy B's produce, but B is already fully supplied with the equivalent C has to offer. In such cases—and they must be of constant occurrence wherever money is not introduced—no direct exchange could take place between the parties; and

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it might be very difficult to bring it about indirectly. The difficulties that would arise on such occasions, and the devices that would be adopted to overcome them, have been very well illustrated by Colonel Torrens, in his work on the *Production of Wealth*, p. 291.

The extreme inconveniences attending such situations must early have forced themselves on the attention of everyone. Efforts would, in consequence, be made to avoid them; and it would speedily appear that the best or rather the only way in which this could be effected, was to exchange either the whole or a part of one's surplus produce for some commodity of known value, and in general demand; and which, consequently, few persons would be inclined to refuse to accept as an equivalent for whatever they had to dispose of. After this commodity had begun to be employed as a means of exchanging other commodities, individuals would become willing to purchase a greater quantity of it than might be required to pay for the products they were desirous of immediately obtaining; knowing that should they, at any future period, want a further supply either of these or other articles, they would be able readily to procure them in exchange for this universally desired commodity. Though at first circulating slowly and with difficulty, it would as the advantages arising from its use were better appreciated, begin to pass freely from hand to hand. Its value, as compared with other things, would thus come to be universally known; and it would at last be used, not only as the common medium of exchange, but as a standard by which to measure the value of other things.

Now this commodity, whatever it may be, is *money*.

An infinite variety of commodities have been used as money in different countries and periods. But none can be advantageously used as such, unless it possess several very peculiar qualities. The slightest reflection on the purposes to which it is applied, must, indeed, be sufficient to convince everyone that it is indispensable, or, at least, exceedingly desirable, that the commodity selected to serve as money should (1) be divisible into the smallest portions; (2) that it should admit of being kept for an indefinite period without deteriorating; (3) that it should, by possessing great value in small bulk, be capable of being easily transported from place to place; (4) that one piece of money, of a certain denomination, should always be equal, in magnitude and quality, to every other piece of money, of the same denomination; and (5) that its value should be comparatively steady, or as little subject to variation as possible. Without the *first* of these qualities, or the capacity of being divided into portions of every different magnitude and value, money, it is evident, would be almost useless, and could only be exchanged for the few commodities that might happen to be of the same value as its indivisible portions, or as whole multiples of them; without the *second*, or the capacity of being kept or hoarded without deteriorating, no one would choose to exchange commodities for money, except only when he expected to be able speedily to re-exchange that money for something else; without the *third*, or facility of transportation, money could not be conveniently used in transactions between places at any considerable distance; without the *fourth*, or perfect sameness, it would be extremely difficult to appreciate the value of different pieces of money; and without the *fifth* quality, or comparative steadiness of value, money could not serve as a standard by which to measure the value of other commodities; and no one would be disposed to exchange the produce of his industry for an article that might shortly decline considerably in its power of purchasing.

The union of the different qualities of comparative steadiness of value, divisibility, durability, facility of transportation, and perfect sameness, in the precious metals, doubtless, formed the irresistible reason that has induced every civilised community to employ them as money. The value of gold and silver is certainly not invariable, but, generally speaking, it changes only by slow degrees; they are divisible into any number of parts, and have the singular property of being easily reunited, by means of fusion, without loss; they do not deteriorate by being kept; and, from their firm and compact texture, they are very difficult to wear. Their cost of production, especially that of gold, is so considerable, that they possess great value in small bulk, and can, of course, be transported with comparative facility; and an ounce of pure gold or silver, taken from the mines in any quarter of the world, is precisely equal, in point of quality, to an ounce of pure gold or silver dug from the mines in any other quarter. No wonder, therefore, when all the qualities necessary to constitute money are possessed in so eminent a degree by the precious metals, that they have been used as such, in civilised societies, from a very remote era. 'They became universal money,' as Turgot has observed, 'not in consequence of any arbitrary agreement among men, or of the intervention of any law, but by the nature and force of things.'

When first used as money, the precious metals were in an unfashioned state, in bars or ingots. The parties having agreed about the quantity of metal to be given for a commodity, that quantity was then weighed off. But this, it is plain, must have been a tedious and troublesome process. Undoubtedly, however, the greatest obstacle that would be experienced, in early ages, to the use of gold and silver as money, would be found to consist in the difficulty of determining the degree of their purity with sufficient precision; and the discovery of some means by which their weight and fineness might be readily and correctly ascertained, would be felt to be indispensable to their extensive use as money. Fortunately, these means were not long in being discovered. The fabrication of coins, or the practice of impressing pieces of the precious metals with a stamp indicating their weight and purity, belongs to the remotest antiquity. (Goguet, *De l'Origine des Loix &c.* tome i. p. 269.) And it may safely be affirmed, that there have been very few inventions of greater utility, or that have done more to accelerate the progress of improvement.

It is material, however, to observe, that the introduction and use of coined money make no change whatever in the *principle* on which exchanges were previously conducted. The coinage saves the trouble of weighing and assaying gold and silver, but it does nothing more. It declares the weight and purity of the metal in a coin; but the *value* of that metal or coin is in all cases determined by precisely the same principles which determine the value of other commodities, and would be as little affected by being recoined with a new denomination, as the burden of a ship by a change of her name.

Inaccurate notions with respect to the influence of coinage seem to have given rise to the opinion, so long entertained, that coins were merely the *signs* of values! But it is clear they have no more claim to this designation than bars of iron or copper, sacks of wheat, or any other commodity. They exchange for other things, because they are

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desirable articles, and are possessed of real intrinsic value. A draft, check, or bill may not improperly, perhaps, be regarded as the sign of the money to be given for it. But that money is nothing but a commodity; it is not a sign—it is the thing signified.

Money, however, is not merely the universal equivalent, or *marchandise benale*, used by society: it is also the *standard* used to compare the values of all sorts of products; and the stipulations in the great bulk of contracts and deeds, as to the delivery and disposal of property, have all reference to, and are commonly expressed in, quantities of money. It is plainly, therefore, of the utmost importance that its value should be preserved as invariable as possible. Owing, however, to improvements in the arts, the exhaustion of old mines, and the discovery of new ones, the value of the precious metals is necessarily inconstant: though, if we except the effects produced in the 16th century by the discovery of the American mines, it does not appear to have varied so much at other times as might have been anticipated. Great mischief has, however, been repeatedly occasioned by the changes that have been made in most countries in the weight, and sometimes also in the purity, of coins; and since the impolicy of these changes has been recognised, similar, and perhaps still more extensive, disorders have sprung from the improper use of substitutes for coins. It is, indeed, quite obvious, that no change can take place in the value of money, without proportionally affecting the pecuniary conditions in all contracts and agreements. Much, however, of the influence of a change depends on its direction. An increase in the value of money is uniformly more prejudicial in a public point of view than its diminution: the latter, though injurious to individuals, may sometimes be productive of national advantage; but such can never be the case with the former. See *Principles of Political Economy*, by the author of this work, 3rd ed. pp. 510—515.)

No certain estimate can ever be formed of the quantity of money required to conduct the business of any country; this quantity being, in all cases, determined by the value of money itself, the services it has to perform, and the devices used for economising its employment. Generally, however, it is very considerable; and when it consists wholly of gold and silver, it occasions a very heavy expense. There can, indeed, be no doubt that the wish to lessen this expense has been one of the chief causes that have led all civilised and commercial nations to fabricate a portion of their money of some less valuable material. Of the various substitutes resorted to for this purpose, paper is, in all respects, the most eligible. Its employment seems to have grown naturally out of the circumstances incident to an advancing society. When Government becomes sufficiently powerful and intelligent to enforce the observance of contracts, individuals possessed of written promises from others, that they will pay certain sums at certain specified periods, begin to assign them to those to whom they are indebted; and when the subscribers are persons of fortune, and of whose solvency no doubt can be entertained, their obligations are readily accepted in payment of debts. But when the circulation of promises, or bills, in this way, has continued for a while, individuals begin to perceive that they may derive a profit by issuing them in such a form as to fit them for being readily used as a substitute for money in the ordinary transactions of life. Hence the origin of bank notes. An individual in whose wealth and discretion the public have confidence, being applied to for a loan, say of 5,000*l.*, grants the applicant his bill or note, payable on demand, for that sum. Now, as this note passes, in consequence of the confidence placed in the issuer, currently from hand to hand as cash, it is quite as useful to the borrower as if it had been gold; and supposing that the rate of interest is 5 per cent., it will yield, so long as it continues to circulate, a revenue of 250*l.* a-year to the issuer. A banker who issues notes, coins, as it were, his credit. He derives the same revenue from the loan of his written promise to pay a certain sum, that he could derive from the loan of the sum itself, or of an equivalent amount of produce! And while he thus increases his own income, he, at the same time, contributes to increase the wealth of the public. The cheapest species of currency being substituted in the place of that which is most expensive, the superfluous coins are either used in the arts, or are exported in exchange for raw materials or manufactured goods, by the use of which both wealth and enjoyments are increased. Ever since the introduction of bills, almost all great commercial transactions have been carried on by means of paper only. Notes are also used to a very great extent in the ordinary business of society: and while they are readily exchangeable at the pleasure of the holder for coins, or for the precise quantities of gold or silver they profess to represent, their value is maintained on a par with the value of these metals; and all injurious fluctuations in the value of money are as effectually avoided as if it consisted wholly of the precious metals.

In common mercantile language, the party who exchanges money for a commodity is said to buy; the party who exchanges a commodity for money being said to sell. Price, unless where the contrary is distinctly mentioned, always means the value of a commodity estimated or rated in money. (For a further account of metallic money, see the article Coin; and for an account of paper money, see the article Banks.)

MONOPOLY. By this term is usually meant a grant from the Crown, or other competent authority, conveying to some one individual, or number of individuals, the sole right of buying, selling, making, importing, exporting &c., some one commodity, or set of commodities. Such grants were very common previously to the accession of the House of Stuart, and were carried to a very oppressive and injurious extent during the reign of Queen Elizabeth. The grievance became at length so insupportable, that notwithstanding the opposition of Government, which looked upon the power of granting monopolies as a very valuable part of the prerogative, they were abolished by the famous Act of 1624, the 21 Jas. I. c. 3. This Act declares that all monopolies, grants, letters patent for the sole buying, selling, and making of goods and manufactures, shall be null and void. It excepts patents for *fourteen* years for the sole working or making of any new manufactures within the realm, to the true and first inventors of such manufactures, provided they be not contrary to law, nor mischievous to the State. It also excepts grants by Act of Parliament to any corporation, company, or society, for the enlargement of trade, and letters patent concerning the making of gunpowder &c. This Act effectually secured the freedom of industry in Great Britain; and has done more, perhaps, to excite the spirit of invention and industry, and to accelerate the progress of wealth, than any other in the statute book.

MONTEVIDEO. A seaport, and the capital of the republic of Uruguay, on the north bank of the Rio de la Plata, lat. of the lighthouse 34° 53′ 15″ S.,

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long. 56° 14′ 15″ W. Population 37,787 in 1862, and with Cordon and Aquada 45,765 in 1862 (Johnston's *Gazetteer*). The town is built in the form of an amphitheatre, on a regular plan, and is well fortified. It has suffered much from the various revolutions to which it has been subject during the last 30 years.

Montevideo is situated 2° 3′ 33″ W. of Cape St. Mary, the northern limit of the embouchure of the La Plata. Vessels from the north bound to Montevideo generally make this cape, entering the river between it and the small island of Lobos, in from 14 to 17 fathoms. The course is thence nearly W. to the Isle of Flores, on which is a lighthouse 112 feet above the level of the sea, with a revolving light. From Flores to Montevideo is 16 miles in a direct line, and the course W. by S. by compass. A lighthouse, 486 feet above the level of the sea, has been erected on the summit of the Montevideo, whence the town has its name. The light is visible for 25 miles in clear weather, and gives a flash every three minutes. Since 1862 the dial plate in the south tower of the Cathedral has been lighted with gas. The latter is built on a projecting tongue of land, the port being on its S. side. This, which is the best on the La Plata, is a large circular basin open to the S.W.; generally the water is shallow, not exceeding from 14 to 19 feet, but the bottom being soft mud, vessels are seldom damaged by grounding. It should, however, be observed that the depth of water in the harbour, as well as throughout the whole of the Rio de la Plata, depends very much on the direction and strength of the winds. The S.W. wind, called *pamperos*, blows right into the bay of Montevideo with much force, not unfrequently causing a rise of a fathom or more in depth of water! But it rarely occasions much damage to vessels properly moored with anchors to the S.W., S.E., and one to the N. (Blunt's *American Pilot*, pp. 542—555; Coulier *Sur les Phares &c.*)

Montevideo has a considerable commerce. The great articles of export consist of animal products, or of hides, beef, tallow, hair, bones, grease, wool &c. The imports principally consist of British cottons, woollens, and hardware, flour, wine and spirits, linens, sugar, tobacco, boots and shoes, salt &c. In 1867 the value of our *total* exports of British produce to Uruguay was 1,472,090*l.*, and of our imports therefrom 1,222,228*l.*

DUTIES ON IMPORTS.

In National or Foreign Vessels, at Montevideo.

1. Machinery, agricultural implements, instruments used in the arts and sciences, books, prints, and maps	free
2. Silk, raw and wrought, laces, blonde, gold, and silver embroidery, watches, jewellery, saltpetre, plaster of Paris, coal, timber, cotton fringe, and wooden hoops	8 per cent.
3. Powder, pitch, tar, resin, and naval stores	15 per cent.
4. All raw materials and manufactured articles, not included in the preceding enumeration	15 per cent.
5. Sugar, Paraguay and China teas, cocoa, cassia lignea and cinnamon, spices, drugs, and provisions in general	20 per cent.
6. Furniture, pictures, looking-glasses, musical instruments, all sorts of carriages, carts &c., and harness, saddles, horses' furniture (excepting horse cloths of the manufacture of the adjacent provinces, which pay 15 per cent.), ready made clothes, boots and shoes, liqueurs, brandy, wine, vinegar, ale and porter, cider, tobacco, and soap	25 per cent.
Salt, 2 reals the fanega, say 11d. per 220 lbs.	
7. Hides of all classes, hair, horns, tallow, silver and gold, in bullion or coin	free

Account of the Quantities and Values of the Principal Articles Imported into the United Kingdom from Montevideo in each of the 3 Years ending with 1867.

Principal Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Beef, salt	cwts.	11,718	11,950	4,810	25,526	24,503	13,195
fresh	,,	4,380	—	—	5,475	—	—
Bones of animals and fish (except whalefins)	tons	13,536	16,297	18,414	79,909	83,592	97,018
Cotton, raw	cwts.	—	19	1,360	—	146	6,959
Grease	,,	285	5,077	395	499	11,734	786
Guano	tons	197	128	347	1,576	832	2,776
Hair, horse	cwts.	5,889	5,547	2,496	29,919	30,014	14,456
Hides, not tanned	,,	111,932	240,045	182,753	275,427	587,416	478,831
Horns, horntips, and pieces of horns	tons	260	442	466	8,813	14,125	12,918
Skins, teal	no.	15,752	2,743	2,892	7,876	2,643	4,049
sheep	,,	90,759	200,009	435,245	7,110	20,552	34,587
Tallow	cwts.	264,852	216,303	141,034	589,982	501,975	313,512
Tobacco, unmanufactured	lbs.	325,731	9,414	—	9,850	304	—
Tongues	cwts.	115	481	21	473	1,935	82
Wool, sheep and lambs'	lbs.	4,843,033	6,942,375	7,452,627	191,457	242,572	222,053
All other articles	value	—	—	—	15,359	17,717	11,727
Total	—	—	—	—	1,249,211	1,540,250	1,222,228

Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture Exported from the United Kingdom to Montevideo in each of the 3 Years ending with 1867.

Principal Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Apparel and haberdashery	value	—	—	—	47,631	66,895	91,753
Beer and ale	barrels	3,848	7,688	11,918	20,194	34,618	50,521
Coals, culliers, and culm	tons	84,786	118,612	124,552	57,882	70,412	75,555
Cottons, entered by the yard	yards	12,273,404	21,067,067	20,105,797	284,395	531,942	418,395
at value	value	—	—	—	25,815	62,593	74,508
Earthenware and porcelain	,,	—	—	—	13,142	15,623	11,180
Hardwares and cutlery	cwts.	12,550	16,146	21,508	51,388	55,818	71,974
Iron, wrought and unwrought	tons	3,630	7,152	11,403	87,737	90,199	126,143
Leather, wrought and unwrought	value	—	—	—	8,782	11,853	19,879
Linens, entered by the yard	yards	1,669,308	2,299,508	3,232,663	49,042	73,907	87,604
Painters' colours, not otherwise described	value	—	—	—	5,282	4,911	13,403
Silk manufactures	,,	—	—	—	23,406	16,655	9,977
Tin plates	,,	—	—	—	4,101	10,703	9,822
Woollens, entered by the yard	yards	1,178,631	1,656,812	1,930,221	117,939	178,537	172,671
at value	value	—	—	—	10,436	28,683	26,804
All other articles	,,	—	—	—	87,689	144,014	197,879
Total	,,	—	—	—	819,861	1,392,903	1,451,503

A small charge is made for warehousing and porterage on passing through the custom-house. Goods may be bonded for an indefinite period, during which time they are subject to a moderate warehouse rent.

Foreign flour pays as follows:—

8 dollars per barrel, when wheat is worth 2 to 3 dollars per fanega, about 224 lbs.

6 dollars per barrel, when wheat is worth 3 to 5 dollars per fanega.

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4 dollars, when wheat is worth 5 to 7 dollars.
2 dollars, when wheat is worth 5 to 7 dollars.
1 dollar, when wheat is worth 7 to 9 dollars.
4 dollars, when wheat exceeds 9 dollars.
Wheat:—
3 dollars per fanega, when wheat is worth 2 to 3 dollars per fanega.
2 dollars, when wheat is worth 3 to 6 dollars.
1 dollar, when wheat is worth 6 to 10 dollars.
Nothing, when wheat is worth above 10 dollars per fanega.

Goods transhipped, or shipped out of bond, pay 2 per cent.

Foreign goods, shipped in vessels of less than 150 tons burden, for ports of the Uruguay and Paraguay, pay only 1 per cent.

8. All goods imported, paying duties, are subject to pay an additional 1 per cent. to the consulado; ½ per cent. to the hospital; and, for the extinction of copper money (this has, much to the honour of the authorities and people, been already accomplished; but the duty is maintained for general purposes), 1 per cent. additional on all goods that pay 5 per cent.

On all goods that pay 13, 15, and 20 per cent.	3 per cent.
On all goods that pay 25 per cent.	5 per cent.
On flour	10 per cent.
On wheat	5 per cent.

Duties on Exports in National or Foreign Vessels.

Ox and cow hides, 2 reals, 25 centesimos, for reconnidor valuations of 1 dollar, and 1 per cent. consulado.

Horse hides, 1 real for reconnidor, on valuations of 5 reals for reconnidor each, and 1 per cent. consulado.

All other produce of the country pays 4 per cent. on the market value, and 1 per cent. consulado.

Jerked and salt beef, pork &c.; also all foreign goods that have paid the import duty, free.

Gold and silver, coined or in bullion, 1 per cent.

	Vessels Foreign	National
Port Charges.—Tonnage from beyond sea	3 reals	2 reals
During loading and unloading both classes pay 1 dollar per day.		
Pratique, with pilot	8 dollars	4 dollars
Boat	2 „	2 „
Without pilot	4 „	2 „

National and foreign vessels, that neither discharge nor load cargo, and that do not remain more than 6 days, pay nothing; those that remain in the harbour more than 6 days pay one-third of the above tonnage dues.

National vessels, and vessels belonging to the provinces of Buenos Ayres, employed within the River Plate, called coasting, pay for a license for each voyage as follows:—

If 3 to 7 tons	4 reals		
8 15 „	10 „	or 1 dollar	2 cents
16 30 „	18 „	2 „	2 „
31 45 „	26 „	3 „	2 „
46 60 „	30 „	3 „	6 „
61 80 „	38 „	4 „	6 „
81 100 „	46 „	5 „	6 „
101 and above	54 „	6 „	6 „

Hospital dues.—National and foreign vessels, sailing for a foreign port beyond sea or in the River Plate, pay 2 dollars for the vessel, 4 reals for the captain, 2 reals for each seaman, 1 dollar for each passenger.

Pilotage from Montevideo to Buenos Ayres to be paid in Montevideo.

If the draft of water do not exceed

9 feet Burgos measure		50 dollars
9 to 10 feet		60 „
10	11	70 „
11	12	80 „
12	13	100 „
13	14	120 „
14	15	140 „
15	16	160 „
16	17	190 „
17	18	220 „

Moneys, Weights, and Measures.—Paper money there is none.

Current money, the Brazilian patacon and Spanish dollar; they pass for 960 centesimos.

100 cents make a real.

800 cents, or 8 reals, make a dollar.

960 cents, or 9 reals 60 cents, make 1½ current dollar, or 1 hard dollar or patacon.

Weights and measures same as those of Spain. [CADIZ.]

MOROCCO. [MOGADORE; TREATIES, COMMERCIAL.]

MOROCCO or MAROQUIN (Ger. saffiam; Fr. maroquin; Ital. marrocchino; Span. marroqui; Russ. safian). A fine kind of leather, prepared of the skins of goats, imported from the Levant, Barbary, Spain, France &c. It is of various colours, as red, green, black, yellow &c. When of the best quality, it is superior to every other material for the binding of books. And a volume that is bound in morocco by a first-rate artist, provided it be well preserved, and of an age to be properly toned down and mellowed, is justly deemed a prize, and always fetches a very high price. Morocco is, however, very extensively counterfeited, and books said to be in morocco are often done up in the vilest sheep-skin, dyed and prepared in imitation of the genuine article. The fraud is easily discovered by connoisseurs, but it is perpetrated to a great extent on the ignorant and unwary.

In 1867 we imported 762,442 undressed, and 2,106,208 tanned, tawed, or dressed goat skins of the total value of 317,364*l.*

MUNJEET. A species of madder (*Rubia munjesta*) produced in Nepaul and in other wild districts of India.

That which is brought to England is imported chiefly from Bombay and Sinde. The roots are long and slender, and when broken appear of a red colour. It is used in dyeing; the red which it produces being, though somewhat peculiar, nearly the same as that produced by European madder. Dr. Bancroft says that the colour which it imparts to cotton and linen is not so durable as that of madder, but that upon wool or woollen cloth its colour is brighter and livelier; and, when proper mordants are used, nearly, perhaps quite, as permanent. (*Permanent Colours*, vol. ii. p. 279.) The best munjeet is in pieces about the bigness of a small quill, clean and firm, breaking short, and not pipy or chaffy. Its smell somewhat resembles liquorice root.

Being a very bulky article, as compared with its value, the freight adds greatly to its cost. This seems to be the principal reason of its being so very little used in Great Britain, that the entire imports, during the 3 years ending with 1840, amounted to only 3,539 cwt., and in 1867 to only 360 cwt., valued at 504*l.* The brokers estimate that 4*l.* per ton of freight is equal to 11*s.* 1*d.* per cwt. on the value of the article; 5*l.* per ton being equal to 13*s.* 10*d.*; 6*l.* to 16*s.* 7*d.*; and 7*l.* to 19*s.* 4*d.*; and as the price of munjeet in bond varies from 12*s.* to 15*s.* per cwt. it is plain it cannot be imported in any considerable quantity, except when freights are very much depressed. It is mostly imported in small packets or bundles of 600 or 800 to the ton; but sometimes it is packed in bales like cotton. (Stevens *On Stowage.*) [MADDER.]

MUSCAT. A city and seaport situated on the east coast of Arabia, about 96 miles N.W. of Cape Rasselgate (Ras-el-mad), in lat. 23° 38′ N., long. 58° 37½′ E. It is the chief port of the kingdom of Oman, a slip of land running half-way down the Persian Gulf on its western side and the sea

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of Oman to Ras-el-mad, and thence along the S.E. coast of Arabia to Dofar.

In the 16th and 17th centuries, the town was in possession of the Portuguese, as was Oman and the adjoining island. After a century and a half the Dutch drove the Portuguese out. They were expelled, as were also the Persians, in the middle of the last century, when a line of native sovereigns succeeded. Of these Sa'aed, who commenced his reign at the beginning of the present century, was the most energetic and powerful. It was in the interest of this man's son Thomaynee, known, but incorrectly, under the name of the Iman of Muscat, that the English interposed (Palgrave's *Arabia*, ii. 285), and the trade of Muscat became so early known. Population uncertain: but estimated by Lieut. Wellsted at 40,000, which we incline to think beyond the mark. There are more Banians here than in any other city in Arabia. There are amongst them some very extensive merchants, who engross almost the whole pearl trade of the Persian Gulf, and the supply of corn from India. The negro slaves are numerous, and are generally stout, well made, and active.

The harbour, which is the best on this part of the Arabian coast, opens to the north, and is shaped like a horse-shoe. It is bounded on the W. and S. by the lofty projecting shores of the mainland, and on the E. by Muscat Island, a ridge of rocks from 200 to 300 feet high. The town stands on a sandy beach at the south end or bottom of the cove or harbour, about 1¼ mile from its mouth. The depth of water near the town varies from 3 to 4 and 5 fathoms. Ships at anchor are exposed to the north and north-west winds; but as the anchorage is everywhere good, accidents are of very rare occurrence. The harbour is protected by some pretty strong forts. Vessels are not allowed to enter after dusk, nor to leave before sunrise. If the usual signal be made for a pilot, one will come off, but not otherwise. It is best to make them attend till the vessel be secured, as they have excellent boats for carrying out warp anchors.

Muscat is a place of considerable importance, being at once the key to, and commanding the entrance of, the Persian Gulf. The government of the Sultan of Oman is more liberal and intelligent than any other in Arabia or Persia. The town, situated at the bottom of a high hill, is ill-built and filthy; and, during the months of July and August, is one of the hottest inhabited places in the world. The country in the immediate vicinity of the town is extremely barren; but it improves as it recedes from the shore. Dates and wheat, particularly the first, are the principal articles of produce. The dates of this part of Arabia are held in high estimation, and are largely exported, those of Bushire and Bussorah being imported in their stead. A date tree is valued at from 7 to 10 dollars, and its annual produce at from 1 to 1½ dollar. An estate is said to be worth 2,000, 3,000, or 4,000 date trees, according to the number it possesses.

But the place derives its whole importance from the commerce and navigation of which it is the centre. The Imaum has some large ships of war, and his subjects possess some of the finest trading vessels to be met with in the Indian seas. The part of Arabia adjoining to Muscat is too poor to have any very considerable direct trade; but, owing to its favourable situation, the backward state of the country round the Persian Gulf, and the superiority of its ships and seamen, Muscat has become an important entrepôt, and has an extensive transit and carrying trade. Most European ships bound for Bussorah and Bushire touch at it; and more than half the trade of the Persian Gulf is carried on in ships belonging to its merchants. [BUSHIRE.] But, exclusive of the ports on the Gulf, and the south and west coasts of Arabia, ships under the flag of the Imaum trade to all the ports of British India, to Singapore, Java, the Mauritius, the east coast of Africa &c. The pearl trade of the Persian Gulf is now, also, wholly centred at Muscat. All merchandise passing up the Gulf on Arab bottoms pays a duty of ½ per cent. to the Imaum. He also rents the islands of Ormuz and Kishmee, the port of Gombroon, and some sulphur mines from the Persian Government.

In the magazines of Muscat may be found every species of produce imported into or exported from the Persian Gulf. Various articles are also imported for the use of the surrounding country, and for the internal consumption of Arabia. Among these, the principal are rice, sugar, coffee from Mocha, cotton and cotton cloth, cocoa nuts, wood for building, slaves from Zanquebar, dates from Bushire and Bussorah &c. Payment for these is chiefly made in specie and pearls; but they also export drugs of various descriptions, ivory, gums, hides, ostrich feathers, horses, sharks' fins, a sort of earthen jars, called Martuban, to Tranquebar, dried fish, an esteemed sweetmeat called *halwah*, and a few other articles.

The markets of Muscat are abundantly supplied with all sorts of provision. Beef, mutton, and vegetables of good quality may be had at all times, and reasonably cheap. The bay literally swarms with the greatest variety of most excellent fish. Water is excellent, and is conveyed to the beach in such a manner that the casks of a vessel may be filled in her boats while afloat. Fire-wood is also abundant, and is cheaper than at Bombay.

No imports have reached the United Kingdom from Muscat during the last five years (1863-7), and the exports are merely a small amount of coal, the value of which, in 1866, was but 2,272*l.*, and the trade of Muscat with British India is on the decline.

The general rule in all the Government custom-houses on the sea line from Bahreyn to Sorr, is to exact a rial, i.e. 5*s.* for every full-sized bale disembarked, whatever its contents, a bale weighing on the average from 60 to 70 lb. avoirdupois. The duty is, of course, very unequal, being 12 or 15 per cent. on dates, 1 on cloth, about 4 or 5 on rice. The average daily disembarkations are 6; at the large havens of Linja, Sohar, Matzah, Muscat and the like, they are more, at smaller ports less. The medium quota of calls is 60, and thus the customs duties may be held to amount annually to 810,000*l.* The total revenue of the king of Oman is reckoned by Palgrave at 1,065,640*l.* a year. (Palgrave's *Arabia*, vol. ii. 384.)

Money, Weights, and Measures.—Accounts here are kept in goz and mamoodies: 20 goz = 1 mamoody; and 20 mamoodies = 1 dollar. All Persian, Turkish, and Indian coins, as well as French and German crowns, and Spanish dollars, are met with; their value fluctuating with the demand, and they are generally sold by weight.

The weights are, the cusha and maund; 24 cushas = 1 maund = 8 lb. 12 oz. avoirdupois.

Niebuhr thinks that Muscat occupies the site of the Mosca of Arrian and other Greek writers (*Voyage en Arabie*, vol. ii. p. 71 ed. Amst. 1780); a conjecture which seems to be confirmed, not merely by the resemblance of the name, but also by the terms applied by Arrian to Mosca being sufficiently descriptive of Muscat; and as the port is bounded on all sides by rocks, it must

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now present almost the same appearance as in antiquity. Dr. Vincent, however, though he speaks doubtfully on the subject, is inclined to place Mosca to the west of Cape Rasselgate. (*Commerce and Navigation of the Ancients*, vol. ii. pp. 344—347. For further particulars, besides the authorities above referred to, see Hamilton's *New Account of the East Indies*, vol. i. p. 63; Fraser's *Journey to Khorasan*, pp. 5—19; Wellsted's *Travels in Arabia*, i. pp. 14, 15; Palgrave's *Arabia*. The longitude given above is that of Arrowsmith's *Chart of the Persian Gulf*.)

MUSK (Fr. musc; Ger. bisam; Dutch, muskus; Ital. muschio; Span. almizele; Russ. muscus; Arab. and Pers. mishk). Is obtained from a species of deer (*Moschus moschiferus*) inhabiting the Alpine mountains of the east of Asia. The musk is found in a small bag under the belly. Musk is in grains concreted together, dry, yet slightly unctuous, and free from grittiness when rubbed between the fingers or chewed. It has a peculiar, aromatic, and extremely powerful, durable, and diffusible odour; the taste is bitterish and heavy; and the colour reddish black or deep brown, with a shade of red. It is imported into England from China in caddies containing from 60 to 100 oz. each; but an inferior kind is brought from Bengal, and a still baser sort from Russia. The best is that which is in the natural follicle or pod. Being a very high-prized article, it is often adulterated. That which is mixed with the animal's blood may be discovered by the largeness of the lumps or clots. It is sometimes mixed with a dark, highly coloured, friable earth; but this appears to the touch to be of a more crumbling texture, and is harder as well as heavier than genuine musk. 20 cwt. of musk are allowed to a ton. It was not permitted to be brought home in the China ships belonging to the East India Company. (British *Pharmacopœia*, 1867; Thomson's *Dispensatory*; Milburn's *Orient. Com.*) In 1867 the imports and exports of musk were respectively 14,158 and 10,280 oz., worth about 25*s.* an oz. After being reduced in 1832, the duty on musk was finally repealed in 1845.

MUSLIN (Ger. musselin, nesseltuch; Dutch, neteldoek; Fr. mousseline; Ital. moussolina; Span. moselina; Russ. kissea). Is derived from the word *mousale* or *mouseln*, a name given to it in India, where large quantities are made. It is a fine thin sort of cotton cloth, with a downy nap on the surface. Formerly all muslins were imported from the East; but now they are manufactured in immense quantities at Manchester, Glasgow &c. of a fineness and durability which rival those of India, at the same time that they are very considerably cheaper. [COTTON.]

MUSTARD (Ger. mustert, senf; Fr. moutarde; Ital. mostarda; Span. mostaza; Russ. gortschiza; Lat. sinapis; Arab. khirdal; Hin. rāi). A plant (*Sinapis*) of which there are several species, some of them indigenous to Great Britain. It was formerly extensively cultivated in Durham, but it is now seldom seen in that county. It is, however, raised in the neighbourhood of York, and throughout other parts of the North Riding; and being manufactured in the city of York, is afterwards sold under the name of Durham mustard. Mustard is of considerable importance in the materia medica, and is extensively used as a condiment. Its greenish-yellow hue, acrid taste, and pungent irritating odour when mixed, are familiar to all. It was not, however, known in its present form, at our tables, till 1720. The seed had previously been merely pounded in a mortar, and in that rude state separated from the integuments and prepared for use. But, at the period referred to, it occurred to a Mrs. Clements, of Durham, to grind the seed in a mill, and to treat the meal in the same way that flour is treated. Her mustard was, in consequence, very superior; and, being approved by George I., speedily came into general use. Mrs. Clements kept her secret for a considerable time, and acquired a competent fortune. In Bengal and other eastern countries, mustard is extensively cultivated, as rape is in Europe, for the purpose of yielding oil. (British *Pharmacopœia*; Bailey's *Survey of Durham*, p. 147; Loudon's *Encyc. of Agric.*)

Two varieties of mustard are extensively cultivated in England, both to supply a condiment and for forage, the white and black, or brown. The former is grown largely in Essex between the river Blackwater and Shoeburyness, the produce of this region being about 6,000 to 7,000 quarters; and in the few districts of Cambridge and Yorkshire, which supply about 3,000 quarters more, when this soil, naturally rich, is abundantly manured, the mustard will grow from 5 to 7 feet high, and become a dense mass of vegetation. The average yield is 36 bushels to the acre. For manufacture the seed is dried at a high temperature, then crushed to express the fixed oil, stamped fine and sifted, and finally mixed with flour and turmeric. The pure flour, it is said, would be too pungent and bitter for use.

The chief manufactory of mustard is at Norwich, and there are some considerable factories in London. About 5,000 tons of mustard are manufactured annually. (*Private information.*) 37,472 cwt. of mustard seed were imported in 1866, chiefly from India and Holland.

MYROBALANS. The dried fruits of different varieties of *terminalia*. The fruit, varying from the size of an olive to that of a gall-nut, consists of a white pentangular nut, covered by a substance about 2 lines in thickness. The latter, which is the only valuable part, is mucilaginous and highly astringent; and being separated from the nut is employed, with the best effect, both by dyers and tanners, especially the latter. It produces with iron a strong, durable, black dye and ink; and with alum, a very full, though dark, brownish yellow. The imports vary considerably. In 1849 they amounted to 851 tons. In 1865, they were 3,116 tons, of which 149 were re-exported. It is brought from India, where it has long been employed in calico-printing and in medicine. (Bancroft *On Permanent Colours*, i. 351 &c.)

MYRRH (Ger. myrrhen; Dutch, mirrhe; Fr. myrrhe; Ital. and Span. mirra; Lat. myrrha; Arab. murr). A resinous substance, the produce of the *Balsamodendron myrrha*, a tree growing in Arabia Felix and Abyssinia. Myrrh is imported from the East Indies in chests, each containing from 2 to 4 cwt. Formerly the finest myrrh was brought from Turkey, now the supplies come from Bombay, no doubt the produce of Arabia, carried thither in exchange for English goods. (Pereira's *Materia Medica*.)

112 cwt. of myrrh, worth 675*l.*, were imported in 1867, and 197 cwt. were exported.

It has a peculiar, rather fragrant odour, and a bitter aromatic taste. It is in small irregularly shaped pieces, which can hardly be called tears. Good myrrh is translucent, of a reddish yellow, or reddish brown colour, brittle, breaking with a resinous fracture, and easily pulverised. Its specific gravity is 1·36. When it is opaque, mixed with impurities, and either white, or of a dark colour approaching nearly to black, with a disagreeable odour, it should be rejected. (*British Pharmacopœia*; Thomson's *Dispensatory*; Pereira's *Materia Medica*.)

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NAGASAKI. A sea-port town on the south-west coast of the Island of Ximo, one of the Japanese islands, being, according to Krusenstern, in lat. 32° 43′ 40″ N., long. 103° 11′ 47″ E. The harbour is one of the finest in the world. It is about a mile in width, and three or four in length. When one is inside, it appears to be completely landlocked, and to be an inland lake. The hills around it are about 1,500 feet high. The town is supposed to contain about 70,000 inhabitants. (Fortune's *Japan*.) Ships lie in 5 or 6 fathoms water, within gunshot of the town, near the middle of the bay, where they are protected from all winds. A lighthouse is being built in the harbour.

The Japanese islands are situated within the temperate zone. They are believed to contain from 25,000,000 to 50,000,000 of people, superior in industry and civilisation to every other Eastern nation. They show more capacity in using European machinery than any other people in that part of the world (Fortune). Japan has some thousand miles of sea-coast, and at one time the inhabitants were much addicted to emigration, and carried on an extensive intercourse with the adjacent nations. But in consequence of the alarm occasioned by the attempts of the Jesuit missionaries to make converts to Christianity, the Government, in 1637, expelled the missionaries, put to death their converts, and to obviate the possibility of such attempts being made in future, they prohibited, under the severest penalties, their own people from resorting to foreign parts, and foreigners from entering into or trading with Japan. And singular as it may seem, these exclusive and anti-social regulations have been carried out almost to the letter down to our own times. So far, indeed, as respects the emigration of Japanese, they have not been in any degree modified; but the prohibition against foreigners trading with the empire was so far relaxed, that 1 or 2 ships from Java, and 10 or 12 junks from China, were allowed to enter certain Japanese harbours. But, besides being confined within the narrowest limits, those engaged in this intercourse were subjected to a vexatious surveillance, and had to suffer many indignities. 'The cargoes of the ships,' says Mr. Crawford, 'are landed by, and placed in charge of, the officers of the Japanese Government, and the Dutch have neither control over, nor access to them, except through *solicitation*. The island of Desima, to which they are confined, communicates with the town of Nagasaki by a bridge and a gate, and is palisaded all round, as well as surrounded by a guard. From this imprisonment they are allowed to peep twice or thrice a year, rather to be exhibited to the great as a curiosity, than out of indulgence. A corps of constables and interpreters are appointed to watch over their minutest actions; and the most degrading servilities are exacted from the highest among them, by the meanest officers of the Japanese Government.

'The Chinese trade with Japan is principally conducted from the port of *Ningpo*, in the province of Chekiang, which is so conveniently situated that two voyages may be performed in the year, even by the clumsy junks of China. The commodities with which the Chinese furnish the Japanese consist of raw sugar, cow and buffalo hides, wrought silks, consisting chiefly of satins and damasks, eagle and sandal wood, ginseng, tutenague or zinc, tin, lead, fine teas, and, for more than 100 years back, some European broad cloths and camlets. The exports consist of copper, limited to 15,000 piculs, or about 900 tons; camphor, sabre blades, pearls, some descriptions of paper and porcelain, and some Japan ware, which is either curious or handsome, but not so substantial as that of China.' (*Indian Archipelago*, iii. p. 297.)

The following are the qualities and value of goods exported and imported by the Dutch in their trade with Japan in 1825; the ships employed being 1 of 600 and 1 of 700 tons burden:—

Exports to Nagasaki.

	florins
Sandal wood, 100 piculs	..
Sapan wood, 1,167 ,,	..
Buffalo hides, 800 in number	..
Elephants' teeth, 1,658 lb.	3,847
Malay camphor, 67 lb.	3,224
Java mats, 225 in number	..
Cocoa-nut oil, 24 piculs	..
Cloves, 113 piculs	18,926
Sugar, 6,991 ,,	104,868
Tin, 338 piculs	18,936
Bengal piece goods	20,896
Hardware and porcelain	2,250
Jewellery	1,100
Glass ware	2,748
Netherlands broad cloths	75,209
Lead, 147 piculs	2,793
Netherlands cotton goods	61,332
Medicine and sundries	..
Total value of export cargoes	375,853
Or at 12 florins per £	£31,154 8 4

Imports from Nagasaki.

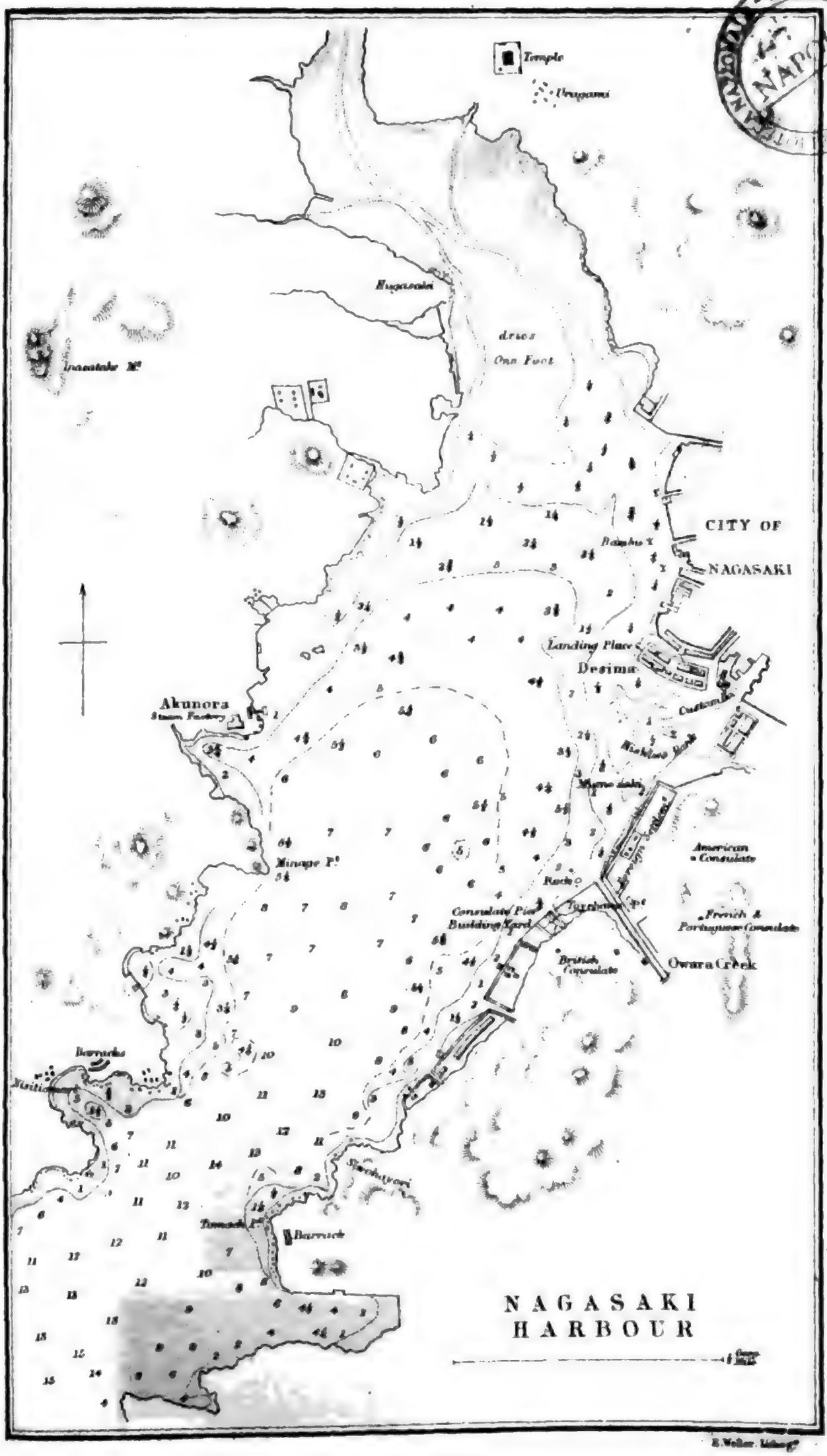
	florins
Camphor, 720 piculs	69,120
Copper,* 10,745 ,,	617,662
Crape, 426 pieces	17,718
Cotton cloth	13,978
Medicine	2,270
Provisions	3,387
Sakkie and soy	14,332
Wheat, 207 bags	2,156
Silks	31,600
Sundries	96,009
Total value of import cargoes	864,192
Or, at 12 florins per £	£72,373 10 0

* The imports of copper, in 1828, amounted to 11,631 piculs, worth 988,635 florins.

Products		1850	1851	1852	1853	1854
		florins	florins	florins	florins	florins
Camphor		113,100	13,100	11,750	17,350	13,960
Copper wares		293,972	207,512	323,979	187,703	203,015
Basket work		10,357	27,059	26,189	4,794	4,926
Other articles		13,069	19,674	19,193	40,097	25,809
Total	florins	430,198	263,345	381,111	249,974	247,610
	£	35,875	21,945	31,759	20,831	20,634

Opening of the Trade.—But after the trade to China had been thrown open, and the late events in that empire had brought English, French, and American squadrons to the gates, as it were, of Japan, it was not to be expected that its rulers would be able much longer to maintain their jealous, anti-social policy. The occurrences in China made them aware of the power, and in some degree, also, of the policy of those with whom they had now to deal. In 1853, when the Ameri-

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can squadron under Commodore Perry appeared in their waters, they were fain to allow them to take in water and other stores; and in the following year, when they revisited their shores, they concluded a treaty with them (called, from the place where it was signed, the treaty of Kanagawa), in the 7th Art. of which it is stipulated that citizens of the United States resorting to the ports of Japan opened to them by the treaty, and bringing with them gold and silver coins and goods, were to be permitted to exchange them for other goods under such regulations as the Japanese Government might think fit to establish. Soon after this treaty had been negotiated, Sir James Stirling, who then commanded the English naval forces in these parts, entered into a similar, though less liberal, arrangement with the Government of Japan. The concessions that had thus been made, coupled with the circumstances connected with the late proceedings of the English, French, and other foreigners in China, paved the way for others of a still more extensive character. And, at length, in 1858, the system of exclusion was wholly abandoned, and a free commercial policy established in its stead. This great change was effected by the British plenipotentiary, the Earl of Elgin. Having negotiated a new and comparatively liberal commercial treaty with China, this sagacious diplomatist proceeded to Japan, and there completed his mission, by inducing the Japanese Government to enter into the well-considered treaty, an abstract of which is subjoined. Similar treaties have since been concluded with the Americans and the Dutch. It is to be hoped that these remarkable events may be as advantageous to those whose markets are now open to the products of this and other countries as they can hardly fail to be to ourselves. But much circumspection will be necessary. And we would fain hope that the pioneers at least of British enterprise in this new and peculiar region may be distinguished by their good faith, and by their respect for the prejudices of the very singular and suspicious people with whom they will have to transact business.

We regret to observe that the importation of opium is prohibited by the new treaty. The taste for it is understood to have made considerable progress in Japan, and, if so, the prohibition will serve no good purpose, and will merely give a stimulus to smuggling.

The annexed tables exhibit the nature and extent of the trade carried on with the Japanese islands. Considerable quantities of silk and tea were exported from Japan, but our share in this part of the trade, which had fallen off between 1863 and 1867, is again increasing. The islanders import various textile fabrics. As is constantly the case when a new trade is opened with any country, particularly with a country where previous isolation was so singular, the probable profits of the trade have been exaggerated.

Some of the difficulties of Japanese trade are, to judge from the testimonies of Mr. Fortune and Sir R. Alcock, caused by the political system which prevails in the island. The empire of Japan has two sovereigns; one is the Mikado, reputed to be descended from the gods, who, in theory the emperor, has, for some centuries, been deprived of all real authority. The other is the Tycoon, who occupies much the same place as the mayors of the palace did to the ancient sovereigns of France. Even he, however, is greatly restrained in the exercise of his political powers, and the council, selected from the chief daimios or insular princes, is practically the government of the country. These daimios, however, are, besides being a House of Peers or privy councillors, resident compulsorily for a certain portion of the year in Yedo, a body of chieftains, who exercise an influence very like that of the feudal princes of mediæval France and Germany, and are haughty, contemptuous to foreigners, and suspicious of change. These daimios support great crowds of retainers, who are ready for every deed of violence. Below them are the merchants (held by the daimios and their dependants in great contempt), and the artisans and serfs. Partly from habit, and partly from a fear that the intercourse with foreigners would lead to serious political and social innovations, the daimios have been hitherto, as a rule, unfriendly to foreign trade. It appears, however, that latterly wiser counsels have prevailed, and some of the chief princes have been sending Japanese youths to Europe for the benefit of a foreign education and foreign experience.

Again, it does not appear that there is any great variety of products which the Japanese could offer for trade with the Old World. Silk and tea are plentiful, and small quantities of vegetable wax are exported. Though our trade with Japan as a whole does not seem to increase very rapidly, the value of our exports of British produce rose from 108,897*l.* in 1863 to 1,576,794*l.* in 1865, and that of our total exports exceeded a million and a half in each of the years 1866 and 1867.

According to Sir R. Alcock, the commercial character of the Japanese merchants is very low. They are, says this authority, the most dishonest and tricky of Easterns, and are continually attempting frauds. Thus they will sell bales of silk, the outer hanks of which are of good quality, the inner worthless or very inferior; casks which seem to be full of camphor, but are half full of rice, with a thin layer of the drug on the surface; tuns apparently full of oil, but nearly half full of water, and similarly fraudulent actions. They have, in short, hardly learnt the first principles of honesty in trade.

Summary of the Treaty between her Britannic Majesty and the Emperor of Japan. Signed at Yedo, August 26, 1858.

Art. I. Stipulates for peace and friendship.

Art. II. Stipulates for the reciprocal right to appoint a diplomatic agent at Yedo and London, and consular agents at the open ports. The British diplomatic agent and consul-general may travel to any part of Japan, and the Japanese diplomatic agent and consul-general to any part of Great Britain.

Art. III. The ports and towns of Hakodadi, Kanagawa, and Nagasaki to be open to British subjects on July 1, 1859. Neo-e-gata, or, if that is unsuitable as a harbour, some other port on the west coast of Nipon, on January 1, 1860. Hiogo on January 1, 1863. In all these places British subjects may permanently reside, and may lease ground and purchase and erect buildings, but shall not erect fortifications. They are not to be confined by any wall or gate, and their free ingress and egress not to be impeded. The limits within which British subjects may travel are defined. The general limit is ten *ri* (each *ri* being 4,275 yards) in any direction. After January 1, 1862, British subjects may reside at Yedo, and from January 1, 1863, in Osaca, for purposes of trade only. In each of these cities a suitable district for their residence, and the distance to which they may go, shall be arranged by the British diplomatic agent for the Japanese Government.

Art. IV. All questions arising between British

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subjects in the Japanese dominions shall be under the jurisdiction of the British authorities.

Art. V. Japanese guilty of any criminal act towards British subjects shall be punished by the Japanese authorities. British subjects who may commit any crime against Japanese, or other foreigners, shall be punished by the British authorities, according to British law.

Art. VI. Mode of settling complaints of British against Japanese, or of Japanese against British.

Art. VII. The authorities on either side are to do their best to enforce recovery of debts due by their own people to those of the other nation, without, however, being responsible for payment.

Art. VIII. The Japanese Government will place no restriction upon the lawful employment of Japanese by British subjects.

Art. IX. British subjects to have free exercise of their religion in Japan, and may erect places of worship.

Art. X. Foreign coin to be current in Japan; the value to be determined by weight. Coin (except Japanese copper coin), and foreign gold and silver, may be exported.

Art. XI. Supplies for the British navy may be landed and stored at Kanagawa, Hakodadi, and Nagasaki, free from duty; but, if any are sold, the purchaser must pay the proper duty.

Art. XII. If any British vessel be wrecked on the coast of Japan, the Japanese authorities shall render assistance to vessel and crew, and send the latter, if necessary, to the nearest consular station.

Art. XIII. British merchant-vessels may employ a pilot to take them in or out of port.

Art. XIV. At each of the open ports, British subjects may import and export, directly or indirectly, any lawful merchandise, paying the duties prescribed by the treaty. With the exception of munitions of war, which shall be sold to the Japanese Government alone, they may freely buy from, and sell to, Japanese any articles they may have for sale; and Japanese may buy and use the same.

Art. XV. Mode of determining the value of goods imported.

Art. XIV. All goods imported into Japan by British subjects, which have paid the import duty, may be transported by the Japanese to any part of the empire without any further duty.

Art. XVII. British merchants who have imported merchandise, and paid the duty, shall be entitled to a certificate of the payment, and may then re-export it, and land it in any other port without any additional duty.

Art. XVIII. The Japanese authorities at each port shall adopt proper means to prevent smuggling.

Art. XIX. All penalties and confiscations made under the treaty shall belong to the Tycoon of Japan.

Art. XX. The articles for regulation of trade appended to the treaty are to be considered as part of it, and equally binding. The British diplomatic agent, in conjunction with the Japanese Government, may make such rules as may be necessary for carrying out both treaty and articles.

Art. XXI. The treaty being signed in English, Japanese, and Dutch, the Dutch text shall be considered the original. All official communications from British diplomatic and consular agents to be written in English, but, for a period of five years, to be accompanied by a Dutch or Japanese translation.

Art. XXII. Either party may demand a revision of the treaty on or after July 1, 1872.

Art. XXIII. The British Government and British subjects shall be entitled to equal participation in all advantages granted, or hereafter granted, in Japan to the Government and subjects of any other nation.

Art. XXIV. Ratifications to be exchanged within a year.

Regulations for British Trade.

Regulation I. The captain of a vessel is to exhibit to the Japanese authorities, within 48 hours of his arrival (Sunday excepted), proof that he has deposited his ship's papers at the British consulate, and shall then make entry of his ship in writing, and deposit a written manifest of his cargo, stating who are the consignees, and adding a list of his stores. Any error may be corrected within 24 hours without fee; afterwards 15 dollars must be paid. Any goods not entered in the manifest will pay double duty. Any captain neglecting to enter his ship within the time prescribed shall pay a penalty of 60 dollars a day.

Reg. II. Japanese custom-house officers may be placed on board any ship in port, except ships of war. No goods to be unladen between sunset and sunrise. Hatches may be secured by the Japanese officers, and any person breaking the fastening shall pay a fine of 60 dollars for each offence. Any goods discharged from a ship without having been duly entered, shall be liable to confiscation. Packages with goods of value fraudulently concealed, and not mentioned in the invoice, shall be forfeited. If any British ship is engaged in smuggling, she shall pay a fine of 1,000 dollars, and the goods shall be forfeited. Vessels needing repairs may land their cargo without payment of duty, under supervision of the Japanese authorities. If any part be sold, duty to be paid thereon. Cargo may be transhipped from one vessel to another, under supervision, and on proof of bonâ fide nature of the transaction. Importation of opium being prohibited, if any British vessel has more than 3 catties weight on board, the surplus quantity may be seized and destroyed, and any person smuggling opium shall be liable to a fine of 15 dollars a catty.

Reg. III. Mode of entering goods by the owner or consignee. The entry is to state the name of the enterer, and of the ship, the marks, contents, and value of each package. The original invoices to be presented to the Japanese custom-house. The Japanese officers may examine the packages, but without expense or unreasonable delay. If the importer or owner should find that his goods have been damaged on the voyage, he may apprise the custom-house, and have the damage appraised, so as to make a deduction from the value in his entry. All goods intended for export must be entered at the Japanese custom-house before they are shipped. Any goods shipped without having been so entered, and all packages containing prohibited articles, shall be forfeited. No entry shall be required for supplies for ships and their passengers and crews, nor for passengers' clothing &c.

Reg. IV. Ships wishing to clear must give 24 hours' notice at the custom-house. If clearance be refused, the captain or consignee, and the British consul, must be informed of the reason. British ships of war shall not be required to enter or clear, nor shall they be visited by the customs or police. Mail steamers may enter and clear on the same day, and shall not be required to deliver a manifest, except or passengers and

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goods to be landed in Japan. Whale ships touching for supplies, and ships in distress, shall not be required to deliver a manifest, unless they wish to trade.

Reg. V. Any person signing a false declaration or certificate, with intent to defraud the revenue of Japan, shall pay a fine of 125 dollars for each offence.

Reg. VI. No tonnage duties shall be levied on British ships in the ports of Japan, but the following fees shall be paid to the Japanese custom-house authorities: For the entry of a ship, 15 dollars; for the clearance of a ship, 7 dollars; for each permit, 1½ dollar; for each bill of health, 1½ dollar; for any other document, 1½ dollar.

Reg. VII. Duties shall be paid to the Japanese Government, on all goods landed in the country, according to the following tariff:—

Class 1. All articles in this class shall be free of duty: gold and silver, coined or uncoined; wearing apparel, in actual use; household furniture and printed books, not intended for sale, but the property of persons who come to reside in Japan.

Class 2. A duty of 5 per cent. shall be paid on the following articles: all articles used for the purpose of building, rigging, repairing, or fitting out of ships; whaling gear of all kinds; salted provisions of all kinds; bread and bread stuffs; living animals of all kinds; coals; timber for building houses; rice; paddy; steam machinery; zinc, lead, tin, raw silk, cotton and woollen manufactured goods.

Class 3. A duty of 35 per cent. shall be paid on all intoxicating liquors.

Class 4. All goods not included in any of the preceding classes, shall pay a duty of 20 per cent. All articles of Japanese production, which are exported as cargo, shall pay a duty of 5 per cent., with the exception of gold and silver coin, and copper in bars. Rice and wheat, the produce of Japan, shall not be exported from Japan as cargo; but all British subjects resident in Japan, and British ships for their crews and passengers, shall be furnished with sufficient supplies of the same. Foreign grain brought into any open port of Japan in a British ship, if no part thereof has been landed, may be re-exported without hindrance. The Japanese Government will sell, from time to time, at public auction, any surplus quantity of copper that may be produced. Five years after the opening of Kanagawa, the import and export duties shall be subject to revision, if either the British or Japanese Government desires it.

The currency of Japan (*Parliamentary Report*, August 10, 1866) is in a very singular position. It consisted, before the admission of foreigners, of gold, silver, and copper. When the treaty was signed, the gold was a coin called kobang; this, from an assay made at our Mint, contained 565·1 parts of gold, 420·8 parts of silver, and 14·1 of copper in the 1,000. Its intrinsic worth was about 18*s*. The silver coin was called itzeboe or ichibu, and contained 1·5 gold, 874·0 silver, 125·5 copper in the 1,000 parts. The copper coin contained 81 parts of this metal, 9 of tin, and 10 of lead. It was called tempo, and its intrinsic worth was about $\frac{9}{10}$ of a halfpenny.

The itzeboe was reckoned as worth one-fourth of the kobang, i.e. about 4 6; but it contained only 1*s*. 4*d*. worth of silver, and thus the silver was overrated by more than three times its true worth, and the proportion of gold to silver, instead of being, as it is with the rest of the world, about 15 parts to 1, was less than 5 to 1. It is plain that these coins were merely tokens. The treaty, however, as will be seen, stipulated that all coin, except copper cash, might be exported, and that, pending the reorganisation of the currency, the Japanese Government would give equal weights of their coins for all foreign coin imported.

For a full account of the negotiations on the subject, and an exact description of the coins in circulation, we would refer to the very clear and elaborate *Report* of Mr. Sidney Locock of January 10, 1867, *On the Weights, Measures, and Currency of Japan*. (*Reports* of Secretaries of Legation, No. 5, of 1867.)

After several changes, productive of considerable inconvenience and derangement of money prices, the Japanese currency stood thus, previous to January 1, 1868:—

	s.	*d.*
The reduced gold kobang	= 5	6
The ichibu, or fourth of the above	= 1	4½
Iron cash = 1,500 to the itzeboe		

In consequence of further negotiations, it was arranged that a new Japanese coinage should be issued on January 1, 1868, and French machinery has been provided, that the minting may be carried out after the European fashion. It is understood that a new circular silver coin will be issued equal to 4 ichibus, and it will replace the gold rio or kobang which has already almost disappeared. (*Reports* of Secretaries of Legation, No. 5, of 1867.)

The following shipping entered the port of Nagasaki, in the years 1863, 1865, 1866, and 1867:—

	Entered				Cleared			
	1863	1865	1866	1867	1863	1865	1866	1867
Vessels -	264	202	216	294	243	197	190	265
Tonnage -	80,412	69,059	67,867	105,213	74,617	63,975	59,193	95,531

Of these by far the largest portion was of British origin.

Value of Exports and Imports in 1865, 1866, *and* 1867.

	1865	1866	1867
Exports -	£123,841	£448,948	£599,179
Imports -	255,466	899,250	1,181,022

Tables I.—IV. give an account of the general trade of Nagasaki in the year 1867, and of the trade between Japan and the United Kingdom in the 4 years ending with 1867. Nos. I. and II. are extracted from more detailed statements in Mr. Consul Flower's *Report* of April 15, 1868.

The value of our total exports to Japan in 1867 was 1,661,347*l*., and of our imports from it 317,853*l*.

Mr. Consul Myburgh, in his *Report* of April 3, 1867, states his inability to give accounts of the trade of the ports of Kanagawa and Yokohama, as the Records were destroyed in the great fire of Nov. 26, 1844. However Mr. Consul Fletcher states that, in 1867, 254 vessels of 174,030 tons entered Kanagawa, of which the British contributed 137 of 71,039 tons.

We borrow from Mr. Locock's *Report* the following statement as to Japanese weights and measures.

There is but one table of weights in Japan. It is a compound of the Chinese monetary and com-

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I.—*Quantities and Value of the Principal Articles (distinguishing those in British Vessels) Imported at the Port of Nagasaki, in the Year 1867, exclusive of ships sold to the Japanese.*

Principal Articles		In British Vessels		In Foreign Vessels		Total	
		Quantities	Value	Quantities	Value	Quantities	Value
			itzebus		itzebus		itzebus
Ammunition	piculs	..	515,000	..	45,000	..	560,000
Beans	,,	11,369	102,321	24,382	219,528	35,751	321,849
Camlets	pieces	7,607	456,420	1,570	94,200	8,637	550,620
Cannon, shot, shell		..	780,000	..	120,000	..	900,000
Chintz	pieces	22,690	272,280	1,420	16,040	24,110	288,320
Cloth	,,	2,396	71,880	567	17,010	2,963	88,890
Cotton, raw	piculs	10,634	957,060	4,240	381,600	14,874	1,338,660
Drills	pieces	8,388	176,148	343	7,203	8,731	183,351
Drugs	piculs	2,789	55,740	3,734	74,680	6,521	130,420
Fire-arms	stand	56,642	2,548,890	8,725	392,625	65,367	2,941,515
Iron	piculs	5,775	57,750	1,225	12,250	7,000	70,000
Lastings	pieces	1,546	139,140	..	..	1,546	139,140
Lawns	,,	17,500	97,250	1,700	9,350	19,200	106,600
Lead	piculs	2,369	63,963	700	5,400	2,369	69,363
Long ells	pieces	3,793	131,638	..	..	3,793	131,638
Machinery	packages	680	61,442	2	600	682	62,042
Nitre	piculs	4,291	102,984	2,980	71,520	7,271	174,504
Orleans	pieces	15,247	304,840	1,000	20,000	16,247	324,840
Rice	piculs	120,167	721,002	215,007	1,290,042	335,174	2,011,044
Safflower	,,	448	178,752	21	8,379	469	187,131
Shirtings	pieces	138,116	1,521,618	12,450	130,725	150,566	1,652,343
Silk stuff	,,	1,587	95,220	670	40,200	2,257	135,420
Sugar, white	piculs	5,966	161,082	6,503	175,581	12,469	336,663
brown	,,	22,845	411,210	14,973	269,514	37,818	680,724
candy	,,	2,591	77,730	1,174	35,220	3,765	112,950
Taffacheles	pieces	14,196	113,568	4,350	34,800	18,546	148,368
Velvet	pieces	5,462	163,860	150	4,500	5,612	168,360
Wines and spirits		..	46,800	..	10,600	..	57,400
Woollen mixtures	pieces	12,970	518,800	5,034	201,360	18,004	720,160
Other articles		..	1,054,160	..	300,494	..	1,354,654
Total value		..	11,758,542	..	3,988,421	..	15,674,963

300 itzebus=100 dollars.

II.—*Quantities and Value of the Principal Articles (distinguishing those in British Vessels) Exported at the Port of Nagasaki, in the Year 1867.*

Principal Articles		In British Vessels		In Foreign Vessels		Total	
		Quantities	Value	Quantities	Value	Quantities	Value
			itzebus		itzebus		itzebus
Camphor	piculs	3,541	223,083	1,092	68,796	4,633	291,879
Coal	tons	23,551	423,918	12,619	227,142	36,170	651,060
Copper	piculs	1,411	101,592	1,152	82,944	2,562	184,536
Cuttle fish	,,	4,070	134,310	2,469	81,477	6,539	215,787
Drugs	,,	2,787	55,740	3,734	74,680	6,521	130,420
Ginseng	,,	397	476,400	11	13,200	408	489,600
Jonglans	,,	1,819	218,280	114	13,680	1,933	231,960
Mushrooms	,,	1,531	183,720	1,031	123,720	2,562	307,440
Paper	,,	2,009	96,432	352	16,896	2,361	113,328
Planks	pieces	238,179	119,239	136,761	68,340	375,240	187,579
Seaweed	piculs	13,343	146,795	13,011	143,121	26,386	290,216
Silk	,,	194	232,800	24	28,800	218	261,600
Tea	piculs	15,575	794,325	5,150	262,650	20,725	1,057,175
Wax, vegetable	,,	5,116	271,370	2,484	119,180	7,900	343,750
Other articles	—	—	365,706	—	205,616	—	571,322
Total value	—	—	3,801,110	—	1,923,612	—	5,327,722

300 itzebus=100 dollars.

III.—*Account of the Quantities and computed Values of the Articles Imported into the United Kingdom from Japan in each of the 4 Years ending with 1867.*

Articles		Quantities				Computed Real Value			
		1864	1865	1866	1867	1864	1865	1866	1867
						£	£	£	£
Camphor	cwt.	..	3,636	2,157	2,161	..	17,403	12,942	13,127
China or porcelain ware or earthenware	,,	181	182	381	117	1,829	1,333	2,597	3,711
Copper, unwrought and part wrought	tons	5	..	..	131	496	..	..	9,038
Cotton, raw	cwt.	83,967	26,633	411	..	696,316	136,139	1,833	..
Galls	,,	1,804	1,843	2,751	5,377	5,778	5,663	8,591	15,479
Japanned or lacquered ware	,,	172	367	273	188	2,958	4,497	2,892	3,563
Oil, train or blubber	tons	159	52	..	..	7,247	2,347	..	..
Rags and other materials for making paper	tons	43	171	56	64	579	2,203	486	855
Silk, raw	lb.	428,474	43,267	18,295	3,285	467,584	62,590	27,508	4,928
Waste, knubs, or husks	cwt.	353	1,903	3,600	2,767	4,823	46,608	61,146	45,352
Tea	lb.	2,431,180	4,027,901	1,908,800	1,385,099	159,307	238,470	132,979	105,115
Tin	cwt.	2,271	2,469	..	..	12,129	11,536	..	..
Tobacco, unmanufactured	lb.	1,596,968	1,291,961	262,631	2,193,951	38,891	32,298	8,707	76,398
Wax, fiers	cwt.	..	1,635	..	112	..	15,461	..	840
Vegetable	,,	3,811	2,282	978	6,742	18,172	7,899	3,989	27,957
All other articles		..	..	..	..	13,796	10,494	10,035	9,476
Total value		..	..	..	..	1,423,819	614,763	273,745	317,799

mercial weights, the smaller weights being borrowed from the former, and the larger from the latter. It has been possible to effect this combination without confusion, in consequence of there being in the two Chinese scales a weight common to both, namely, the liang or tael, equal to 10 Japanese me or momme.

Table V. shows the weights expressed in their Japanese and Chinese names, with their corresponding values in English avoirdupois and troy weights.

IV.—*Account of the Quantities and Declared Values of the Articles of British Produce and Manufacture Exported from the United Kingdom to Japan in each of the 4 Years ending with 1867.*

Articles		Quantities				Declared Real Value			
		1864	1865	1866	1867	1864	1865	1866	1867
						£	£	£	£
Apparel and haberdashery	value	..	..	..	..	3,156	3,263	6,126	7,454
Arms and ammunition	,,	..	..	..	..	18,585	65,841	46,775	72,915
Beer and ale	barrels	1,463	1,153	1,158	1,992	5,846	4,556	5,537	8,473
Coals, cinders, and culm	tons	1,655	5,791	10,985	8,617	1,298	3,825	5,808	5,279
Cotton yarn	lb.	45,810	915,252	1,195,860	4,176,510	5,955	88,519	103,615	291,525
Cottons, entered by the yard	yards	6,232,348	26,590,018	26,967,407	30,976,866	197,752	614,187	660,005	619,739
Iron, wrought and unwrought	tons	2,006	4,891	1,574	3,027	17,617	45,233	19,194	22,087
Lead and shot	,,	851	441	423	231	18,538	11,632	12,756	7,079
Linens, entered by the yard	yards	25,724	87,250	78,407	92,614	1,542	3,616	2,921	3,218
Machinery and millwork	value	..	..	..	..	3,822	15,176	5,040	2,189
Soap	cwt.	1,026	2,045	501	231	1,281	2,797	397	256
Tin plates	value	..	..	..	..	21,741	4,665	700	456
Woollens, entered by the yard	yards	4,097,819	9,825,329	8,806,676	7,711,623	306,807	657,291	532,892	448,902
All other articles	value	..	..	..	..	33,963	58,193	42,113	56,014
Total		..	..	..	..	627,383	1,576,791	1,444,539	1,545,386

V.—*Japanese Weights, with English Equivalents.*

	Chinese Name	Avoirdupois	Troy
		drachms	grains
10 mo equal to 1 ring	Li or cash	·0213	·1824
10 ring equal to 1 fung	Fan or candareen	·213	1·824
10 fung equal to 1 momme	Tsien or mace	2·13	18·24
4 momme equal to 1 riome	None	8·52	72·96
(10 momme equal to	1 liang or tael	21·33)	
		lb.	
160 momme equal to 1 king	Kin or catty	1⅓	
(100 king equal to	1 tan or picul	133⅓)	

The two lines in parentheses express the equivalent in Japanese weights of certain well-known Chinese weights and measures which are much in use among foreigners in Japan. They have no existence as pure Japanese weights, any more than hiakume, quamme, and two or three others which appear in most foreign works containing Japanese tables of weights and measures. The only name by which the Japanese know the Chinese liang or tael is Jumme, literally 10 me or momme, in the same way as hiakume signifies 100 me, and quamme 1,000 me. To use them as individual weights sounds as absurd to a Japanese ear as it would appear to an Englishman if he heard the quantity 7,451 tons 3 cwt. 3 qr. expressed as 7 thousand-tons 4 hundred-tons 5 ten-tons 1 ton 3 cwt. 3 qr.

The riome is used exclusively for weighing drugs.

If we enquire into the value of the Chinese liang or tael (equal to 10 Japanese momme), we find that it is reckoned as equal to 2,400 shu, or grains of millet; it is thus to the millet seed that may be traced back the original unit of the Japanese weights, in the same manner as the barley-corn is the starting-point of the English long measure.

The following table shows the approximate value in Japanese weights of the various denominations of the English avoirdupois and troy scales:—

Avoirdupois.

1 drachm equal to	·4695	momme
1 ounce equal to	7·5117	,,
1 pound equal to	120·187	,,
1 hundredweight equal to	13161	,,
1 ton equal to	269240	,,

Troy.

1 grain equal to	·01717	momme
1 pennyweight equal to	·4121	,,
1 ounce equal to	8·242	,,
1 pound equal to	98·1	,,

Measures.

Long Measure.—From the nomenclature, as well as from some of the proportions of the Japanese ordinary measures of length, it is evident that it was originally derived from the Chinese. But as, according to Dr. Roudot, the Chinese unit of length, the chih, varies to such an extent in different parts of the empire that there are no less than eighty-four different values of it, varying from 9·92 to 15·769 inches, it is not to be wondered at that there is no one of them which exactly corresponds to the integer kaneshaku or metal foot of Japan.

The following is a table of the Japanese long measure, or carpenter's measure, as it is often called, with the English values of each division:—

		inches		feet
1 ring	=	·011954	or	·000996
10 ring = 1 bu	=	·11954	,,	·00996
10 bu = 1 sung	=	1·1954	,,	·09962
10 sung = 1 shaku	=	11·954	,,	·9962
6 shaku = 1 keng	=	—	—	5·9772
60 keng = 1 choo	=	—	—	358·636
36 choo = 1 ri	= 12910·9 feet	or		2·445·2168 miles

Below are the Japanese equivalents of the principal English measures.

		shakus	
1 inch	=	·08378	
1 foot	=	1·005562	
1 yard	=	3·016986	
1 pole	=	16·588473	
1 furlong	=	663·539	
1 mile	=	5308·312	
1 geographical mile	=	6119·304	
1 degree	=	367158	or 28·330111 ri.

The Japanese long measure is not arranged with any reference to the earth's axis or circumference, having existed in its present form previous to any precise knowledge on the subject having been arrived at. It was from the Dutch that the Japanese later acquired the idea of the division of the earth's circumference into degrees.

Cloth Measure.—Though this measure somewhat resembles at first sight the ordinary long measure, the two are not identical in any respect, inasmuch as the kudjiradjaku, or whalebone shaku, which is the unit of the former, is equal to 1¼ shaku of the latter.

The following are the divisions of this measure, with their English equivalents:—

10 bu = 1 sung	= very nearly	2½ inches
10 sung = 1 shaku	= ,,	1¼ foot
10 shaku = 1 djoo	= ,,	12½ yards

Superficial Measure.—The integer of this measure is the kanedjaku, or metal shaku, with which we have already had to deal. Its multiples, and the value of each, are as follow:—

		square feet
1 square shaku	=	·992214
36 shaku = 1 tsubo	=	35·72781
30 tsubo = 1 see	=	107·184
10 see = 1 tang	=	1071·84
10 tang = 1 choo	=	10718·4 or nearly ¼ acre

Below are given the values in Japanese measurement of the principal English measures.

		square shaku		tsubo
1 square foot	=	1·010748	or	·028076
1 square yard	=	9·09675	,,	·25269
1 square pole	=	295·6443	,,	8·2123
1 road	=	—	—	305·75
1 acre	=	—	—	1213
1 square mile	=	—	—	782625

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The Japanese occasionally make use of the mat as a mode of measurement; the mats are invariably of the same size, viz. six shaku (feet) long by three shaku wide. A Japanese house is generally so constructed that the floor of each room can be exactly covered by a larger or smaller number of these mats which serve as a carpet.

Solid or Liquid Measure.—The names and proportions of the various divisions of this measure are almost entirely derived from the Chinese. Their values, however, vary, nearly in the proportion of 10·6; while the smallest Japanese measure contains 1,000 grains of millet, the corresponding Chinese measure contains but 600 grains.

The following table gives all the Japanese measures of capacity with their corresponding Chinese names and their respective values in English cubic and imperial liquid measurement :—

10 sai	= 1 shiyaku (choh)	=	1·1075 cubic inches		
10 shiyaku	= 1 ngo6 (koh)	=	11·075	,,	or ·5195 pints
10 ngo6	= 1 sho6 (shang)	=	110·75	,,	,, 5·195 ,,
10 shoo	= 1 to (tau)	=	1107·5	,,	,, 5·0972 gallons
10 to	= 1 koku	=	6·409	cubic feet	,, 4·9928 bushels

The Japanese standard measures, as well as those in common use, are rectangular, the bases being square. The exact size of the shoo which is the unit of the scale is sung 4·9 × 4·9 × 2·7. Reckoning the sung at 1·1954 inch, the shoo contains 1·1075 cubic inch, as above.

NAILS (Ger. nägel, spiker; Dutch, spykers; Fr. clous; Ital. chiodi, chiovi, aguti; Span. clavos; Russ. gwosdi). Small spikes of iron, brass &c., which, being driven into wood, serve to bind several pieces together, or to fasten something upon them. Nails are made in many towns and villages throughout Great Britain; but the principal seats of this useful branch of the iron manufacture are at Birmingham, Bilston, Wolverhampton, Dudley, and a small district in Derbyshire. The consumption of nails is immense; and the aggregate value of those annually produced is very large. In 1867, of iron nails, screws, and rivets, we exported 15,111 tons of the value of 329,711*l.*

NANKEEN or NANKIN (Ger. nanking; Dutch, nankings linnen; Fr. toile de nankin; Ital. nanchino; Span. nanquin). A species of cotton cloth in extensive use in this country. It takes its name from Nanking, in China, a European corruption of Kyang-ning, the capital of the extensive province of Kyang-nan, where it is principally produced, and which also furnishes the greater part of the green teas. In the East, the manufacture is wholly confined to China. It was stated in the first edition of this work, on authority which should not have been trusted to, that the manufacture of nankeen was carried to great perfection in the East Indies; but, in point of fact, the manufacture is wholly unknown everywhere in the East except China. The cloth is usually of a yellowish, though occasionally it is of a blue colour, and of different degrees of fineness; the broad pieces called 'the Company's nankeens,' are generally of a better quality than the narrow ones, and are most esteemed. We produce imitation nankeens at Manchester and other places, but it must be admitted that they are inferior to the Chinese; neither lasting so long, nor holding their colour so well. The colour, whether yellow or blue, is given to the cloth by dyeing; for though yellow cotton wool be raised in the East, the cloth made from it is too glaring. The nankeens brought to England come under the general denomination of piece goods. They are mostly made into trousers and waistcoats for gentlemen's wear during summer, ladies' pelisses &c. In some of the more southern parts of Europe, the warmer parts of Asia and America, and the British settlements in Africa, nankeen is worn by both sexes all the year round, and constitutes the principal article of attire. Latterly, however, it has become unfashionable in this country, and its importation has, in consequence, all but ceased.

NANTES. A large commercial city and seaport of France, on the Loire, about 34 miles from its mouth, lat. 47° 13′ 6″ N., long. 1° 32′ 44″ W. Population, in 1862, 113,625. Vessels drawing 18 or 19 feet water come up to Paimbœuf, about 24 miles lower down the river; but no vessel, drawing more than 11 or 12 feet, can come up to the city, unless at high water a day or two before *full* and *change*.

Entrance to the Loire.—There are three entrances to the Loire. The first and most generally frequented is between the bank called *Le Four* and Point *Croisic*; there is a second between Le Four and the bank called *La Banche*; and a third, which in southerly winds is much resorted to, between the latter and the rocks called *La Couronne*. The navigation, which is naturally rather difficult, has been much facilitated by the erection of lighthouses and beacons. The depth of water on the bar at the mouth of the river varies from 2 to 2¾ fathoms. At springs the rise is 14, and at neaps 7 or 8 feet. High water at full and change 3¾ hours.

The following is the system of lighthouses in the Loire. One erected on the Tuse rock, lat. 47° 10′ 38″ N., long. 2° 27′ 15″ W., a red light, visible for ten miles. A second on the summit of Point l'Arc, lat. 47° 14′ 30″ N., long. 2° 16′ 5″ W., also red. One on Aiguillon tower, lat. 47° 14′ 31″ N., long. 2° 15′ 52″ W., called Feu d'uval. A fourth, called Feu d'amont, on Commerce tower, lat. 47° 15′ 27″ N., long. 2° 15′ 3″ W. This gives a flash every 2 minutes. A fifth on the Ville-es-Martin, lat. 47° 15′ 22″, long. 2° 13′ 27″, revolving every half minute, and red. A sixth on St. Nazaire new north head, lat. 47° 16′ 17″ N., long. 2° 11′ 54″ W. (The last four are on the N. side of the river.) A seventh on Paimbœuf, on the extremity of the mole, lat. 47° 17′ 25″ N., long. 2° 2′ 2″ W. Besides these, three new lights are proposed; one on the Pierre à l'œil; another (red) on St. Nicolas Ile; a third on Mindin point.

Trade &c.—Her situation renders Nantes the emporium of all the rich and extensive country traversed by the Loire, so that she has a pretty considerable import and export trade, particularly with the West Indies. The exports consist of all sorts of French produce, but principally of brandy, wine and vinegar, silk, woollen and linen goods, refined sugar, wheat, rye, and other kinds of grain, biscuits &c. The principal imports are sugar, coffee, and other colonial products, cotton, indigo, timber, hemp &c. Nantes is a considerable entrepôt for the commerce of salt, large quantities being made in the department, principally at Noirmutier and Croisic. It is the chief grain port of western France, for in 1865–6 an average of 145,000,000 kilos were exported. During the time that the slave trade was carried on, Nantes was more extensively engaged in it than any other French port.

The customs duties of Nantes, exclusive of those on salt, produced in 1851 10,817,000 francs, and in 1857, 29,676,000 francs, showing a greater increase of trade than any other port in France. There belonged to the port, ex river craft, coasters, and steamers, on December 31, 1865, 745 ships, of the aggregate burden of 134,962 tons. Nantes is the second port in France for commercial shipping.

The salt trade of Nantes consists chiefly in exports to Norway, 1,426,228 kilos having been sent thither in 1866 at 15 francs the 1,000 kilos free on board. In favourable seasons, the production of salt in the department of the river Loire amounts to more than 80,000,000 kilos. Another important industry of Nantes is that of sugar-refining, nearly all the sugar produced in the island of Réunion being sent to Nantes. In 1866, 38,169,243 kilos of sugar were shipped to Nantes from the French colonies of Réunion, Guadaloupe, Martinique and Mayotte, besides 17,791,745 kilos from Spanish and British colonies. But the refinement of beetroot sugar is also on the increase, 11,688,323 kilos having been imported, carried by land to this city, making a total of 67,649,311 kilos of unrefined sugar. The largest consumers of Nantes refined sugar are the English and Italians.

The following are the importations of coffee: —

Year	kilos	Year	kilos
1863	3,719,531	1865	2,140,057
1864	2,010,767	1866	3,011,895

The chief sources of this product are the Indian possessions of England and of Spain.

The following are the importations of British coal into Nantes:—

Year	kilos	Year	kilos
1863	248,010,400	1865	240,510,800
1864	190,316,168	1866	269,751,093

Exports.—The following table will show the principal exportations from Nantes, St. Nazaire, and Paimbœuf, during the year 1866, with the comparative figures of the preceding year:—

Exports.

Articles		1865	1866
Grain and flour	kilos	151,125,700	110,859,535
Sea biscuit	,,	56,815	67,513
Rice	,,	506,161	497,548
Potatoes	,,	818,759	1,435,117
Onions	,,	61,597	96,157
Dried vegetables	,,	675,105	841,776
Salt and preserved vegetables	,,	42,789	45,015
Refined sugar	,,	11,309,095	3,970,587
Treacle	,,	1,824,038	1,370,629
Salt meats	,,	1,745,050	1,591,555
Cheeses	,,	67,251	116,795
Butter	,,	105,722	260,854
Honey	,,	7,010	30,872
Tallow and lard	,,	192,539	284,011
Fish, preserved in oil	,,	117,046	417,592
Wines	litres	494,285	561,673
Choice wines	,,	—	8,115
Brandy	,,	16,450	22,231
Liqueurs	,,	—	20,205
Vinegar	,,	29,681	30,585
Beer	,,	62,397	24,437
Spermaceti	kilos	—	34,828
Wax candles	,,	13,124	13,910
Soap	,,	45,519	27,845
Oil seed	,,	125,454	168,741
Olive oil	,,	34,929	21,977
Linseed oil	,,	91,883	83,115
Oil cake	,,	2,007,485	2,218,080
All sorts of glass	,,	252,700	231,215
Coal	,,	29,088,200	41,465,700
Lime	,,	697,200	299,200
Slate	pieces	1,719,225	415,560
Bricks	,,	610,288	1,029,711
Mules	head	597	551
Hay, straw, and bran	kilos	758,563	980,672
Sheet iron	pieces	1,959,642	2,162,500
Hemp	kilos	15,875	2,755
Guano	,,	32,000	3,000
Charcoal for refineries	,,	537,935	777,059
Iron ore	,,	1,450,000	2,530,114
Iron	,,	368,120	514,235
Zinc in sheets	,,	9,781	75,321
Machinery &c.	,,	2,752,174	710,710
Metal works	,,	2,488,591	1,247,172
Firearms	,,	59,966	74,265
Cannon-balls, shells &c.	,,	556,577	581,694
Linen stuffs	,,	102,839	117,836
Woollen ,,	,,	519,843	655,392
Cotton ,,	,,	216,953	609,252
All sorts of paper	,,	46,910	73,855
Books	,,	32,865	65,273
Prepared skins	,,	40,132	56,089
Things in leather	,,	—	220,459
Furniture	,,	195,130	106 017
Cord	,,	125,625	69,938

The following table of the imports entered at the chief custom-houses of Nantes itself, and the branches at St. Nazaire and Paimbœuf is extracted from Mr. Consul Clipperton's *Report* of April 1867.

Imports.

Articles		1865	1866
Raw sugar	kilos	58,459,481	55,960,088
Beetroot	,,	—	170,499
Coffee	,,	2,140,057	3,011,895
Cacao	,,	1,720,877	3,507,867
Pepper	,,	230,734	428,006
Rice	,,	772,095	2,716,380
Vanille	,,	6,806	13,596
Tea	,,	645	447
Cloves	,,	21,741	9,328
Clove stalks	,,	—	1,019
Dried fruits	,,	101,691	506,413
Oranges and lemons	,,	169,710	211,316
Dutch cheese	,,	239,591	59,174
Codfish (French fishery)	,,	548,925	510,703
Salt fish from Norway	,,	—	71,815
Rum and taffia	litres	80,424	136,261
Wine and spirits	,,	58,314	107,598
Olive oil	kilos	1,389,586	1,114,248
Palm and cocoa oil	,,	557,257	402,777
Arachides	,,	2,884,764	3,653,884
Sesame seeds	,,	175,964	720,720
Linseed	,,	—	6,500
Tallow and lard	,,	465,760	761,048
Cotton	,,	197,310	711,936
Russian hemp	,,	495,963	117,360
flax	,,	675,780	190,980
Jute	,,	122,100	81,000
Reeds	,,	87,194	7,027
Building wood	,,	32,222,90	25,264, 94
Furniture	,,	187,340	76,027
Dyeing	,,	210,705	359,776
Hides, dried and salt	,,	168,047	193,580
Coal	,,	240,510,800	269,751,093
Iron	,,	5,870,004	4,078,045
Cast iron	,,	10,216,126	7,963,711
Iron ore	,,	2,839,720	884,00
Lead and lead ore	,,	1,790,657	3,984,529
Copper	,,	295,183	102,859
Tin	,,	193,207	86,981
Zinc	,,	—	150,342
Guano	,,	8,113,522	8,910,163
Refuse from refineries and manure	,,	9,118,092	7,092,405
Bones and head of cattle	,,	442,681	583,819
Tar and pitch	,,	5,115,342	8,153,249
Sulphate of soda	,,	451,110	149,717

The following were the importations of British iron into Nantes :—

Year	Wrought	Cast
	kilos	kilos
1863	5,616,000	9,521,000
1864	4,581,365	8,558,016
1865	5,824,301	10,216,126
1866	4,051,958	7,963,711

Her chief source of wrought iron is Sweden.

Pilotage.—Vessels under 80 tons (if French or assimilated by treaty) are not obliged to take a pilot at sea, but must have one for the river. The rates, which are fixed by law, are paid by the *foot* from the sea to Paimbœuf, and *thence* to Nantes for all vessels under 80 tons. Above 80 tons, they are per ton. The master of a vessel bound to Paimbœuf or Nantes has merely to give a note to the pilot, stating where the pilot boarded him, where he left him, the name and draught of water of his vessel in *English* feet. The note will be deposited at the pilot's office, and the pilotage be received from the ship's broker. No foreign vessel (however small) can be removed from one anchorage to another, or to or from a quay, but by a pilot.

Quarantine.—Every vessel is boarded at St. Nazaire, and if she has a foul bill of health, or disease on board, is instructed where to go.

River Dues on vessels ascending from Paimbœuf to Nantes are about 1¼*d.* per ton. At Paimbœuf, and below it, none are levied.

Averages in the River.—If a vessel under sail causes damage to another that is properly moored, she must pay all the expenses of repairs; if to a vessel at single anchor (unless intentionally done) or under sail, the expense of the repairs of both are added together, and each pays a moiety. The same rule is enforced if damage be caused by one vessel properly moored driving on board another in the same situation; but if either were riding at single anchor, the one properly moored is indemnified; if both were at single anchor, both bear the loss alike.

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Moneys, Weights, and *Measures* same as the rest of France. [BORDEAUX.]

Tariff. [TREATIES, COMMERCIAL (FRANCE).]

Tares.—2½ per cent. on coffee in bags; real on ditto in hhds., casks &c.; 6 per cent. on cottons; real on indigo; 17 per cent. on Brazil muscovado sugar, 12 per cent. on Martinique and Guadaloupe ditto, 13 per cent. on ditto clayed.

NAPLES. A large city and seaport in the south of the kingdom of Italy, and formerly the capital of the kingdom of the same name. Population in 1862, 418,968. Naples is well situated for commerce.

Harbour.—The bay of Naples is spacious, and is celebrated for its picturesque views. The harbour is formed by a mole, built nearly in the form of the letter L. Within the mole there are from 3 to 4 fathoms water, the ground being soft. The water in the bay is deep, and there is no bar; it is, however, a good deal exposed to the south-westerly winds; and to guard against their effects, vessels lying in the bay moor with open hawse in that direction. The new breakwater now (1868) being built to the west of the harbour, will add to its security. There is no obligation to take a pilot on board, but it is usual to take one the first time that a ship anchors within the mole. There are three lights and a light vessel in the bay; one at the extremity of the mole, lat. 40° 50′ 19″ N., long. 14° 15′ 36″ E.; another on the elbow of the mole, which is revolving every two minutes, and visible for 20 miles; a third on Porto Militaire east, at the extremity of the new mole, lat. 40° 50′ 2″ N., long. 14° 15′ 36″ E. The light vessel carries green lights. The light system of the gulf of Naples is very complete.

The decimal system of coins, weights, and measures has been introduced into Naples as into the rest of the kingdom of Italy.

Exports and Imports.—The exports principally consist of the products of the adjacent country. Of these, silk is the most important. Olive oil is also a most important article; but it is principally supplied by Gallipoli, a town in the Terra d'Otranto, whence it is commonly called Gallipoli oil. The entire exports of oil from the kingdom of Naples have been estimated at about 200,000 salme, or 36,333 tuns a-year, which, taking its mean value when exported at 21*l.* per tun, is equivalent to the annual sum of 762,993*l.* [OLIVE OIL.] The other articles of export are wool, wine, brandy, dried fruits, red and white argol, tallow, liquorice, gloves, madder, hemp, linseed, cream of tartar, bones, lamb and kid skins, oak and chestnut staves, rags, saffron &c. There is a great variety in the Neapolitan wines. The most esteemed is the *lacryma Christi*, a red luscious wine, better known in England by name than in reality, the first growths being confined to a small quantity only, which is chiefly reserved for the royal cellars. There are, however, large quantities of second-rate wines produced in the vicinity of Naples, such as those of Pozzuoli, Ischia, Nola &c., which are sold under the name of *lacryma Christi*, and are largely exported. Several parts of Calabria produce sweet wines of superior quality. (Henderson's *Ancient and Modern Wines*, p. 239.) The price of wine at Naples depends entirely on the abundance of the vintage; only a small quantity comes to England. The imports consist principally of English cottons and cotton twist, hardware, iron and tin, woollens, sugar, coffee, indigo, spices &c. Naples is a good market for pilchards, and it requires a large supply of dried and barreled cod.

Account of the Principal Articles of Domestic Produce and Manufacture Exported from the United Kingdom to the Two Sicilies, during each of the 3 Years ending with 1867.

Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Apparel and haberdashery	value	..	..	..	24,910	14,316	25,633
Coals, cinders, and culm	tons	164,768	223,268	172,527	79,148	114,722	88,451
Copper, wrought and unwrought	cwt.	6,133	19,445	4,539	29,962	108,032	18,679
Cotton yarn	lb.	7,240,109	7,620,554	7,243,855	562,510	642,892	605,195
Cottons, entered by the yard	yards	25,411,392	21,952,695	27,627,348	635,219	559,842	580,059
at value	value	..	..	..	19,075	13,889	14,713
Drugs and chemical products	,,	..	..	..	6,959	5,844	14,690
Earthenware and porcelain	,,	..	..	..	8,869	10,274	8,344
Fish, herrings	barrels	1,620	6,746	4,684	1,639	6,624	4,605
pilchards	hhds.	2,273	2,606	3,693	7,227	7,965	11,080
Hardwares and cutlery, unenumerated	cwt.	3,856	2,191	3,413	20,856	12,677	16,130
Iron, wrought and unwrought	tons	38,220	22,144	19,253	305,726	175,158	149,279
Linen yarn	lb.	1,415,877	769,250	865,949	105,353	55,878	59,785
Linens, entered by the yard	yards	2,069,583	1,175,456	1,504,334	95,973	51,922	52,691
Machinery: steam engines	value	..	..	..	31,506	6,146	6,192
all other sorts	,,	..	..	..	32,288	25,634	37,990
Saltpetre	cwt.	5,309	2,439	3,360	7,889	3,284	4,049
Silk manufactures	value	..	..	..	5,714	4,783	2,035
Sugar, refined	cwt.	2,327	2,009	2,894	3,253	2,588	4,209
Tin, unwrought	,,	1,074	1,702	863	5,351	7,671	3,351
Tin plates	value	..	..	..	11,131	9,790	10,574
Woollens, entered by the yard	yards	3,560,980	2,569,694	2,597,433	253,212	172,922	149,177
at value	value	..	..	..	5,589	14,766	2,447
All other articles	,,	..	..	..	90,588	87,258	98,676
Total		..	..	..	£2,343,828	£2,109,911	£1,867,058

We also exported to the Two Sicilies in the same period foreign and colonial produce of an average amount of 270,190*l.*

The value of our total exports to the Two Sicilies in 1867 was 2,039,437*l.*, and of our imports, 1,607,295*l.* In 1866 the value of the imports into Naples was 4,807,806*l.*, and of her exports 1,401,759*l.*

Since the last edition of this Dictionary was published, the trade with the Two Sicilies has considerably increased. The imports have not, it is true, shown so notable a growth as the exports, for the latter have nearly doubled. Nor do we doubt that as the more liberal policy adopted by the Italian Government bears its fruit and the southern part of the Italian peninsula becomes more settled, these fine regions will occupy a position of increasing importance in the commerce

Number and Tonnage of Vessels Entered and Cleared from the Port of Naples in 1863–5.

	Entered						Cleared					
	1863		1864		1865		1863		1864		1865	
	no.	tons	no.	tons	no.	tons	no.	tons	no.	tons	no.	tons
Foreign	1,596	487,726	1,668	475,547	1,581	395,692	1,156	302,554	1,552	409,176	1,229	317,879
Coasting	3,896	525,500	3,421	357,971	3,475	366,638	4,066	496,538	3,075	349,543	3,386	352,924

809 foreign vessels of 256,517 tons, and 3,105 Italian vessels of 421,355 tons, entered the port in 1866.

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of the world. In Mr. Consul Colnaghi's *Report* on the silk trade of Italy for 1867 it is stated that, exclusive of private sales, the quantities of cocoons registered as sold in the Naples market were 28,512 myriagrammes. See also Mr. Secretary Herries's *Report* on the industrial condition of Italy, No. 3 of 1868, and Mr. Consul-General Bonham's *Report* on the Trade of Naples, for 1866.

Shipping, Port Charges &c.—The charges of a public nature on a *national ship* of 300 tons burden entering and clearing out from the port of Naples, are as under:—

		D.	gr.
On entering: for expediting		1	60
(Equal to 6*s.* 8*d.* sterling)			
On clearing out: Expediting		1	60
Bill of health		1	20
Tonnage duty at 4 gr. per ton		12	0
(Equal to about 2*l.* 9*s.* 4*d.* sterling)		14	80
On entering: Visa		0	55
Expediting		6	60
Stamp		0	14
(Equal to about 1*l.* 4*s.* 4*d.* sterling)		7	29
On clearing out: Passport		1	0
Expediting		6	60
Stamp		0	14
Bill of health		2	40
Police		0	20
Port officers		0	60
Registering papers		0	20
Tonnage duty at 40 gr. per ton		120	0
(Equal to about 21*l.* 17*s.* 2*d.* sterling)		131	14

Custom-house Regulations.—Masters of merchantmen are bound, within 24 hours of their arrival, to furnish the custom-house with a general manifest of their cargoes, provisions, and stores; and the master, when consignee, or the consignees, are bound, within 48 hours after the arrival of the ship, to send in a declaration or manifest in detail, of all goods on board. Should the consignees omit to render the manifest in detail within 48 hours, they are subjected to a fine of 30 per cent. upon the non-specified articles.

This declaration or manifest cannot be corrected after the 48 hours are elapsed; and the master or consignee is liable to a fine of 30 ducats for every package erroneously declared. This, however, is usually remitted, unless there be suspicion of fraud, upon application to the director-general of the customs. The importation of gunpowder, tobacco, and salt, though they may be for the ship's use, is strictly prohibited. When such articles are on board, the exact quantity of each on hand must be specified in the manifest; and on the vessel receiving *pratique* they are taken to the custom-house, and kept till her departure, when they are restored to her. The slightest deviation from the rules with respect to these articles subjects them, and sometimes the vessel also, to confiscation, and the master to a heavy fine.

Quarantine Regulations.—The free admission, conditional reception, or absolute refusal of a vessel arriving at the port is determined by the wholesome or unwholesome character of the place from which she comes. The place may be, 1. Infected. 2. Suspicious. 3. Endangered. Or, 4. Secure. In the first case, the vessel is *refused altogether*; in the 2nd, she is admitted on a long quarantine: in the 3rd, she is received on a short quarantine; in the 4th, she is allowed free *pratique*. If the vessel be a ship of war, her quarantine is performed in the Bay of Naples; the days of her passage being allowed in the calculation: if a merchantman, quarantine is performed at Nisita, an island about 6 miles from Naples. It commences from the day of her arrival, if in ballast, or loaded with unsusceptible merchandise; if otherwise, from the day of the discharge of her cargo. Vessels from Great Britain or the N. of Europe are subject to a quarantine of 8 days; but if they touch by the way at any port in Spain or Barbary, the quarantine is lengthened to 14 days: provided, however, they have clean bills of health, they may wholly avoid the quarantine by touching at some Italian port, or at Malta, the latter being in free *pratique* with Naples. Vessels from the Ionian Islands are subject to a quarantine of 20 days. No foul lazaretto exists at Naples; but at Nisita there is a lazaretto of expurgation for vessels from suspicious or endangered districts or territories. Vessels from infected places usually go to Leghorn or Genoa, where they may unload in a *lazaretto sporco*. The fees charged on ships performing quarantine are heavy. No distinction is made between national and foreign bottoms.

Brokers, Commission &c.—No person can legally act as a broker unless authorised by Government. All patented brokers are obliged, by way of security, to hold funded property producing 500 ducats of 'rente,' or a dividend of 83*l.* 6*s.* 8*d.* sterling. Many persons, however, act as brokers without being *patented*, but no contract made by them is admitted in a court of law. Any person may set up as a merchant, by giving due notice to the *Camera di Commercio*.

Rates of Commission and Charges established by the Merchants at Naples.

	per cent.
Commission on sales of fish	3
manufactures of all kinds	3
all other goods	2
goods purchased	2
receiving and forwarding	½
attempting sales	1
re-sale of goods for the same account on which a purchasing commission has been charged	1½
chartering vessels or procuring charters	3
collecting freights on chartered ships	2
ships both inwards and outwards	4
advances on letters of credit	1
effecting insurances	¼
negotiating bills	¼
receiving and paying or remitting	½
Del credere on sales	2
purchase of oil, not exceeding 3 months	1
5 „	2
per underwriters	½

Tare usually allowed by the Custom-house at Naples on the leading Articles of Importation.

Sugar, in hogsheads	12 per cent.
boxes or barrels	14 „
Brazil chests	18 to 20 per cent.
bags	6 rottoli
Leaves, in casks	real tare
extra for paper and strings	5 per cent.
Indigo	real tare
Tin, in barrels, each	12 rottoli
Alum, in casks	10 per cent.
Wax, real tare and extra	2 to 3 per cent.
Cod and stock-fish	1 per cent.
Coffee, in casks	real tare
bags, each	3 rottoli
Pepper, „	„
Pimento, „	„
Cocoa, „	3 do. 2 ad. 5 per cent.
in casks	for dust, real tare
Cassia lignea, cochineal, and bark	real tare

Insurance.—There are 4 or 5 companies for the insurance of ships, and 1 for lives. Their terms are generally higher than those of similar establishments in London. Houses are never insured at Naples, their construction rendering fires very rare. The companies are established by royal authority, the shareholders being only liable for the amount of their shares.

Banking.—The principal merchants of Naples are all, more or less, bankers, inasmuch as they advance money on letters of credit, and deal in foreign exchanges, and other financial operations. But the only banking establishment at present in existence is the Bank of the Two Sicilies, founded by Government, and guaranteed by the possession of landed property. It is not a bank for the issue of notes on credit, like the Bank of England, but for their issue on deposits, somewhat on the principle of the Bank of Hamburg. Government makes all its payments by means of notes or orders on the bank; and they are issued to individuals

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for whatever sums they desire, on their paying an equivalent sum of money to the bank. These notes or orders form a considerable part of the circulating medium of Naples; they are paid in cash on demand.

Government has also established a discount office, where bills, indorsed by 2 persons of good credit, and not at more than 3 months' date, are discounted at 4 per cent.

So large a city as Naples, and so advantageously situated for the commerce with the Black Sea, the Levant, Greece, Spain, Northern Italy, Northern Africa &c., would, had it been allowed to avail itself of its natural advantages, have become a most important entrepôt. But in consequence of injudicious regulations no goods have been carried to it except those destined for home consumption. In this respect, however, a considerable change may now be anticipated.

Credit &c.—Goods are universally sold at long credits, mostly from 4 to 8 months; and for manufactured goods, sometimes longer. On sales of indigo, from 12 to 18 months' credit is given. Discount for ready money is at the rate of 6 per cent. per annum. Merchants are arranged by the Chamber of Commerce into 5 different classes; and a 6 months' credit is given at the custom-house for duties, to the extent of 60,000, 40,000, 30,000, 20,000, and 15,000 ducats, to individuals, according to the class in which they happen to be enrolled. But this is of little importance. Unless the transactions of a merchant be very limited indeed, the duties he has to pay amount to much more than the credit he is allowed.

NAVAL COURTS. Tribunals established as occasion may require, either on the high seas or in foreign parts, for enquiring into and dealing with various matters pertaining to maritime affairs. They were originally constituted by the 13 & 14 Vict. c. 93: but their constitution, duties, and procedure are now regulated by the clauses relating thereto in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104, which are as follow, viz.:—

Naval Courts may be summoned for hearing Complaints &c.—Any officer in command of any ship of H.M. on any foreign station, or, in the absence of such officer, any consular officer, may summon a Court, to be termed a 'Naval Court,' in the following cases, viz.:—

(1.) Whenever a complaint which appears to such officer to require immediate investigation is made to him by the master of any British ship, or by any certificated mate, or by one or more of the seamen belonging to any such ship.

(2.) Whenever the interest of the owner of any British ship or of the cargo of any such ship appears to such officer to require it.

(3.) Whenever any British ship is wrecked or abandoned or otherwise lost at or near the place where such officer may be, or whenever the crew or part of the crew of any British ship which has been wrecked, abandoned, or lost abroad, arrives at such place. (Sec. 260.)

Constitution of such Courts.—Every such naval court as aforesaid shall consist of not more than 5 and not less than 3 members, of whom, if possible, one shall be an officer in the naval service of H.M. not below the rank of lieutenant, one a consular officer, and one a master of a British merchant ship, and the rest shall be either officers in the naval service of H.M., masters of British merchant ships, or British merchants; and such court may include the naval or consular officer summoning the same, but shall not include the master or consignee of the ship to which the parties complaining or complained against may belong; and the naval or consular officer in such court, if there is only one such officer in the court, or, if there is more than one, the naval or consular officer who, according to any regulations for settling their respective ranks for the time being in force, is of the highest rank, shall be the president of such court. (Sec. 261.)

General Functions and Mode of Action of such Court.—Every such naval court shall hear and investigate the complaint brought before it, or the cause of the wreck or abandonment (as the case may be), and may for that purpose summon and compel the attendance of parties and witnesses, and administer oaths, and order the production of documents, and shall conduct the investigation in such manner as to give any person against whom any charge is made an opportunity of making a defence. (Sec. 262.)

Powers of such Courts.—Every such naval court may, after hearing the case, exercise the following powers, viz.:

(1.) It may, if unanimous that the safety of the ship or crew, or the interest of the owner, absolutely requires it, supersede the master, and may appoint another person to act in his stead; but no such appointment shall be made without the consent of the consignee of the ship, if then at the place.

(2.) It may discharge any seaman from his ship.

(3.) It may order the wages of any seaman so discharged or any part of such wages to be forfeited, and may direct the same either to be retained by way of compensation to the owner, or to be paid into the receipt of H.M.'s exchequer in the same manner as other penalties and forfeitures under this Act.

(4.) It may decide any questions as to wages, or fines, or forfeitures, arising between any of the parties to the proceedings.

(5.) It may direct that all or any of the costs incurred by the master or owner of any ship in procuring the imprisonment of any seaman or apprentice in a foreign port, or in his maintenance whilst so imprisoned, shall be paid out of and deducted from the wages of such seaman or apprentice, whether then or subsequently earned.

(6.) It may exercise the same powers with regard to persons charged before it with the commission of offences at sea or abroad as are by this Act given to British consular officers.

(7.) It may order the cost of the proceedings before it (if any), or any portion thereof, to be paid by any of the parties thereto, and may order any person making a frivolous or vexatious complaint to pay compensation for any loss or delay caused thereby; and any cost or compensation so ordered shall be paid by such person accordingly, and may be recovered in the same manner in which the wages of seamen are recoverable, or may, if the case admits, be deducted from his wages.

And all orders duly made by any such court under the powers hereby given to it shall in any subsequent legal proceedings be deemed conclusive as to the rights of the parties. (Sec. 263.)

Orders to be entered in Official Log.—All orders made by any such naval court shall, whenever practicable, be entered in the official log book of the ship to which the parties to the proceedings before it belong, and shall be signed by the president of the court. (Sec. 264.)

Report to be made of Proceedings of Naval Courts.—Every such naval court shall make a report to the Board of Trade, containing the following particulars, viz.:—

(1.) A statement of the proceedings, with the order made by the court, and a report of the evidence.

(2.) An account of the wages of any seaman or

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apprentice who is discharged from his ship by such court.

(3.) If summoned in order to enquire into a case of wreck or abandonment, a statement of the opinion of the court as to the cause of such wreck or abandonment, with such remarks on the conduct of the master and crew as the circumstances require.

And every such report shall be signed by the president of the court; and every document purporting to be such a report and to be so signed as aforesaid shall, if produced out of the custody of some officer of the Board of Trade, be deemed to be such report, unless the contrary is proved, and shall be received in evidence, subject to all just exceptions. (Sec. 265.)

Penalty for preventing Complaint &c.—Any person who wilfully and without due cause prevents or obstructs the making of any such complaint as last aforesaid, or the conduct of any case or investigation by any naval court, shall for each such offence incur a penalty not exceeding 50*l.*, or be liable to imprisonment with or without hard labour for any period not exceeding 12 weeks. (Sec. 266.) [ADMIRALTY COURT.]

The Admiralty Court Act of 1861 (24 Vict. c. 10) gives the High Court of Admiralty jurisdiction over claims as to building, equipping &c. of ships, claims for necessaries, for damage to cargo or ship, wages, disbursements by master, and for salvage of ship &c.

The Vice-Admiralty Courts Acts of 1863 and 1867 (26 Vict. c. 24 and 30 & 31 Vict. c. 45) were passed to facilitate the appointment of Vice-Admiralty Courts abroad, and to extend their jurisdiction over claims as to wages, pilotage, salvage, tonnage, necessaries, damage done by ships, and to bottomry and respondentia bonds. And the 31 & 32 Vict. c. 71 confers Admiralty jurisdiction on the county courts in England over claims of certain amounts for salvage, tonnage, necessaries, wages, damage to cargo or by collision &c.

NAVIGATION LAWS. These laws form an important branch of Maritime Law. In this country they are understood to comprise the various Acts that have been passed, defining British ships, the way in which such ships are to be registered, the peculiar privileges enjoyed by them, and the conditions under which foreign ships shall be allowed to engage in the trade of the country, either as importers or exporters of commodities, or as carriers of commodities from one part of the country to another.

Sketch of the History and Principles of the Navigation Laws.—The origin of the Navigation Laws of England may be traced to the reign of Richard II., or perhaps to a still more remote period. But, as no intelligible account of the varying and contradictory enactments framed at so distant an epoch could be compressed within any reasonable space, it is sufficient to observe, that, in the reign of Henry VII., two of the leading principles of the navigation law were distinctly recognised, in the prohibition of the importation of certain commodities, unless imported in ships belonging to English owners, and manned by English seamen. In the early part of the reign of Elizabeth (5 Eliz. c. 5), foreign ships were excluded from our fisheries and coasting trade. The republican Parliament gave a great extension to the navigation laws, by the Act of 1650, which prohibited all ships, of all foreign nations whatever, from trading with the plantations in America, without having previously obtained a license. These Acts were, however, rather intended to regulate the trade between the different ports and dependencies of the empire, than to regulate our intercourse with foreigners. But in the following year (9th of October, 1651) the republican Parliament passed the famous *Act of Navigation*. This Act had a double object. It was intended not only to promote our own navigation, but also to strike a decisive blow at the naval power of the Dutch, who then engrossed almost the whole *carrying trade* of the world, and against whom various circumstances had conspired to incense the English. The Act in question declared, that no goods or commodities whatever, of the growth, production, or manufacture of Asia, Africa, or America, should be imported either into England or Ireland, or any of the plantations, except in ships belonging to English subjects, and of which the master and the greater number of the crew were also English. Having thus secured the import trade of Asia, Africa, and America, to the English ship-owners, the Act went on to secure to them, as far as that was possible, the import trade of Europe. For this purpose, it further enacted that no goods of the growth, production, or manufacture of any country in Europe, should be imported into Great Britain, except in British ships, or *in such ships as were the real property of the people of the country or place in which the goods were produced, or from which they could only be, or most usually were, exported.* The latter part of the clause was entirely levelled against the Dutch, who had but little native produce to export, and whose ships were principally employed in carrying the produce of other countries to foreign markets. Such were the leading provisions of this famous Act. They were adopted by the regal Government which succeeded Cromwell, and form the basis of the Act 12 Ch. II. c. 18, which continued, to a very recent period, to be the rule by which our naval intercourse with other countries was mainly regulated, and which has been pompously designated the *Charta Maritima* of England!

In the statute 12 Ch. II. c. 18 the clause against importing foreign commodities, except in British ships, or in ships belonging to the country or place where the goods were produced, or from which they were exported, was so far modified, that the prohibition was made to apply only to the goods of Russia and Turkey, and to certain articles since well known in commerce by the name of *enumerated* articles, leave being at the same time given to import all other articles in ships of any description. But this modification was of very little importance; inasmuch as the enumerated articles comprised all those that were of most importance in commerce, as timber, grain, tar, hemp and flax, potash, wines, spirits, sugar &c. Parliament seems, however, to have very speedily come round to the opinion that too much had been done in the way of relaxation; and in the 14th of Charles II. a supplemental statute was passed, avowedly with the intention of obviating some evasions of the statute of the preceding year, which it was affirmed had been practised by the Hollanders and Germans. This, however, seems to have been a mere pretence, to excuse the desire to follow up the blow aimed, by the former statute, at the carrying trade of Holland. And such was our jealousy of the naval and commercial greatness of the Dutch, that, in order to cripple it we did not hesitate totally to proscribe all trade with them; and to prevent the possibility of fraud or of clandestine or indirect intercourse with Holland, we went so far as to include the commerce with the Netherlands and Germany in the same proscription. The statute of the 14th Ch. II. prohibited all importation from these countries of a long list of enumerated commodities under any

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circumstances, or in any vessels, whether British or foreign, under the penalty of seizure and confiscation of the ships and goods. So far as it depended on us, Holland, the Netherlands, and Germany were virtually placed without the pale of the commercial world! And though the extreme rigour of this statute was subsequently modified, its principal provisions remained in full force until the late alterations.

The policy, if not the motives, which dictated these statutes has met with very general eulogy. It has been said, and by no less an authority than Adam Smith, 'When the Act of Navigation was made, though England and Holland were not actually at war, the most violent animosity subsisted between the two nations. It had begun during the government of the Long Parliament, which first framed this Act, and it broke out soon after in the Dutch wars during that of the Protector and of Charles II. It is not impossible, therefore, that some of the regulations of this famous Act may have proceeded from national animosity. They are as wise, however, as if they had all been dictated by the most deliberate wisdom. National animosity at that particular time aimed at the very same object which the most deliberate wisdom would have recommended—the diminution of the naval power of Holland, the only naval power which could endanger the security of England. The Act of Navigation *is not favourable to foreign commerce, or to the growth of that opulence which can arise from it.* The interest of a nation in its commercial relations to foreign nations is, like that of a merchant with regard to the different people with whom he deals, to buy as cheap and to sell as dear as possible. But the Act of Navigation, by diminishing the number of sellers, must necessarily diminish that of buyers; and we are thus likely not only to buy foreign goods dearer, but to sell our own cheaper, than if there was a more perfect freedom of trade. As defence, however, is of much more importance than opulence, the Act of Navigation is, perhaps, the wisest of all the commercial regulations of England.' (Smith's *Wealth of Nations*, p. 204.)

It may, however, be very fairly doubted, whether, in point of fact, the navigation law had the effects here ascribed to it, of weakening the naval power of the Dutch, and of increasing that of this kingdom. The Dutch were very powerful at sea for a long period after the passing of this Act; and it seems natural to conclude, that the decline of their maritime preponderance was owing rather to the gradual increase of commerce and navigation in other countries, and to the disasters and burdens occasioned by the ruinous contests the Republic had to sustain with Cromwell, Charles II., and Louis XIV., than to the mere exclusion of their merchant vessels from the ports of England. It is not meant to say that this exclusion was altogether without effect. The efforts of the Dutch to procure a repeal of the English navigation law show that, in their apprehension, it operated injuriously on their commerce. In the treaty of Breda, agreed upon in 1667, between the States-General and Charles II., the latter undertook to procure the repeal of the navigation law. But the subject was never agitated in either House of Parliament. It is certain, however, that its influence in this respect has been greatly overrated in this country. *Excessive taxation*, and not our navigation law, was the principal cause of the fall of profits, and of the decline of manufactures, commerce, and navigation in Holland. 'Les guerres,' says the well-informed author of the *Commerce de la Hollande*, 'terminées par les traités de Nimègue, de Ryswick, d'Utrecht, et enfin la dernière par le traité d'Aix-la-Chapelle, ont successivement obligé la république de faire usage d'un grand crédit, et de faire des emprunts énormes pour en soutenir les frais. Les dettes ont surchargé l'Etat d'une somme immense d'intérêts, qui ne pouvoient être payés que par une *augmentation excessive d'impôts*, dont il a fallu faire porter la plus forte partie par les consommations dans un pays qui n'a qu'un territoire extrêmement borné, et par conséquent par l'industrie. Il a donc fallu faire enchérir infiniment la main-d'œuvre. Cette cherté de la main-d'œuvre a non-seulement restreint presque toute sorte de fabrique et d'industrie à la consommation intérieure, mais elle a encore porté un coup bien sensible au commerce de frêt, partie accessoire et la plus précieuse du commerce d'économie: car cette cherté a rendu la construction plus chère, et augmenté le prix de tous les ouvrages qui tiennent à la navigation, même de tous les ouvrages des ports et des magasins. Il n'étoit pas possible que l'augmentation du prix de la main-d'œuvre ne donnât, malgré tous les efforts de l'économie hollandoise, un avantage sensible aux autres nations qui voudroient se livrer au commerce d'économie et à celui de frêt.' (Tome ii. p. 211.)

This extract, which might, were it necessary, be corroborated by others to the same effect from all the best Dutch writers, shows that it is not to our navigation laws, nor to the restrictive legislations of other foreign Powers, but to the abuse of the funding system, and the excess of taxation, that the decline of the commercial greatness and maritime power of Holland was really owing. Neither does it appear that the opinion maintained by Dr. Smith and others, that the navigation law had a powerful influence in augmenting the naval power of this country, rests on any better foundation. The taste of the nation for naval enterprise had been awakened, the navy had become exceedingly formidable, and Blake had achieved his victories, before the enactment of this famous law. So far, indeed, is it from being certain that the Navigation Act had, in this respect, the effect commonly ascribed to it, that there are good grounds for thinking it had a precisely opposite effect, and that it operated rather to diminish than to increase our mercantile navy. It is stated in Roger Coke's *Treatise on Trade*, published in 1671 (p. 36), that this Act, by lessening the resort of strangers to our ports, had a most injurious effect on our commerce; and he further states, that we had lost, within two years of the passing of the Act of 1650, the greater part of the Baltic and Greenland trades (p. 48). Sir Josiah Child, whose treatise was published in 1691, corroborates Coke's statement; for while he decidedly approves of the navigation law, he admits that the English shipping employed in the Eastland and Baltic trades had decreased at least *two-thirds* since its enactment, and that the foreign shipping employed in these trades had proportionally increased. (*Treatise on Trade*, p. 89, Glasgow edit.) Exclusively of these contemporary authorities, it may be worth while to mention that Mr. Richardson, an extensive and extremely well-informed merchant, condemns the whole principle of the Navigation Act; and contends, that instead of increasing our shipping and seamen, it had diminished them both; and that, by rendering the freight of ships higher than it would otherwise have been, it had entailed a heavy burden on the public, and been one of the main causes that had prevented our carrying on the fishery so successfully as the Dutch. (*Essay on the Causes of the Decline of Foreign Trade*, p. 60, ed. 1756.)

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There do not seem to be any very good grounds on which to question these statements; and they are at all events sufficient to show, that the assertions of those who contend that the navigation laws had a prodigious effect in increasing the number of our ships and sailors, must be received with very great modification. But suppose that all that has been said by the apologists of these laws were true to the letter; suppose it were conceded, that, when first framed, the Act of Navigation was extremely politic and proper; that would afford but a very slender presumption in favour of the policy of supporting it in the present day. Human institutions are not made for immortality: they must be accommodated to the varying circumstances and exigencies of society. But the situation of Great Britain and the other countries of Europe has totally changed since 1650. The envied wealth and commercial greatness of Holland have passed away: we have no longer anything to fear from her hostility: and 'he must be, indeed, strangely influenced by antiquated prejudices and bygone apprehensions, who can entertain any of that jealousy from which the severity of this law principally originated.' London has become, what Amsterdam formerly was, the grand emporium of the commercial world—*universi orbis terrarum emporium*: and the real question which now presents itself for our consideration is, not what are the best means by which we may rise to naval greatness? but—what are the best means of preserving that undisputed pre-eminence in maritime affairs to which we have attained?

Now, it does not really seem that there can be much difficulty in deciding this question. Navigation and naval power are the children, not the parents—the effect, not the cause—of commerce. If the latter be increased, the increase of the former will follow as a matter of course. More ships and more sailors become necessary according as the commerce between different and distant countries is extended. A country in the condition of Great Britain in the reign of Charles II., when her shipping was comparatively limited, might perhaps be warranted in endeavouring to increase its amount, by excluding foreign ships from her harbours. But it is almost superfluous to add, that it is not by any such regulations, but solely by the aid of a flourishing and widely extended commerce, that the immense mercantile navy we have now accumulated can be supported.

It may be easily shown, that to have continued, in the present state of the world, to enforce the provisions of the old navigation law, would have been amongst the most efficient means that could have been devised for the destruction of our commerce. The wealth and power to which Britain has attained, have inspired other nations with the same feelings of envy and jealousy that the wealth of Holland formerly generated in our minds. Instead of ascribing our commercial and manufacturing superiority to its true causes, that is, to the comparative freedom of our constitution, the absence of all oppressive feudal privileges, the security of property, and the fairness of our system of taxation, our foreign rivals contended that it had been entirely owing to our exclusive system, and appealed to our example to stimulate their respective Governments to adopt retaliatory measures, and to protect them against British competition. These representations had the most injurious operation. In 1817, the American Legislature passed an Act, copied to the very letter from our statute book, with the avowed intention of its operating as a retaliatory measure against this country. The Northern Powers threatened to act on the same principle; and would have carried their threats into effect but for timely concessions on our part. The same engines by which we laboured to destroy the trade of Holland, were thus about to be brought, by what we could not have called an unjust retribution, to operate against ourselves. Nor can there be a doubt that, had we continued to maintain our exclusive system, and refused to set a better example to others, and to teach them the advantage of recurring to more liberal principles, we should have run a very great risk of falling a victim to the vindictive spirit which such short-sighted and selfish policy would have generated.

These statements are sufficient to show that a considerable relaxation of our navigation laws had become indispensable; and this was partly effected in 1821 and 1825, but principally in the latter, by the measures introduced with that view into Parliament by Mr. Wallace (afterwards Lord Wallace) and Mr. Huskisson. The effect of these was to place the intercourse of all European countries at amity with the United Kingdom on the same footing. The memorials of our former animosity, and of our jealousy of the prosperity of certain neighbouring states, being thus abolished, the same law has since continued to regulate our commerce with the Continent. This uniformity, besides giving greater scope to mercantile operations, and facilitating our traffic with some of our most opulent neighbours, removed a prolific source of embarrassment and litigation, at the same time that it detracted considerably from that selfish character which had been believed on the Continent, and not without considerable reason, to be the animating principle of our commercial policy.

The changes that were also made in 1821 and 1825, in regard to the importation of *enumerated* goods (these changes are specified in the former editions of this work), and of articles, the produce of Asia, Africa, and America, though of considerable importance, were very far from obviating the hardships arising out of the previous rules. The importation of European goods continued to be practicable only in British ships, or in ships of the country of which the goods were the produce, or of the country from which they were shipped. This regulation was kept up to hinder the Dutch, the Danes, or any other people, from becoming the carriers of the produce of other nations to our ports. But while this result was not very likely to occur, the rule imposed a serious hardship on foreigners, and also on ourselves. Suppose that a Dutch ship took in part of a cargo of Dutch produce, such as cheese, butter, and geneva at Rotterdam for England: what could be more vexatious, in the event of her not being able to complete her cargo with Dutch goods suitable for our markets, than to hinder her from making it up with the foreign goods suitable for them warehoused at Rotterdam, such as the wines and brandies of France, the corn of Poland, the hemp and tallow of Russia &c.? But its vexatious character was not the only thing to be objected to in a regulation of this sort. It really increased the cost of the butter, cheese &c. sent to us: for as these had to bear the whole charge on account of freight which, but for the regulation, would have been in part borne by other articles, their price was proportionally enhanced, at the same time that the Dutch were tempted to resort to retaliatory measures. And how injurious soever in other respects, it is sufficiently plain that this regulation could never, as has been alleged, occasion an increased demand for British shipping. It no doubt compelled the foreigners to sort their cargoes less advantageously than they might otherwise have

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done. But the burden of this fell upon the employers of the carriers and not on the carriers themselves; that is, it fell upon us and not on the foreigners; while in the event of their retaliating, our trade was subjected to the same difficulties. It is visionary to pretend that a system so prejudicial to commerce could be advantageous to shipping and navigation.

The measures introduced in 1825 left also untouched the regulation by which goods, the produce of Asia, Africa, and America, were prohibited from being imported from any European port (the only exception to this rule were articles from Asiatic and African Turkey imported from the Levant, and bullion), and could not be imported on foreign bottoms, except when they were imported direct in ships of the country of which the goods were the produce. It was proposed in 1821 to authorise British ships to import all non-prohibited articles from wherever they might find them; and though nothing apparently could be more reasonable than such a regulation, it was objected to, on the pretence that foreign ships being more cheaply navigated than ours, would take advantage of this circumstance to import Asiatic, African, and American products into the contiguous continental ports, and would thus confine the employment of our ships to their carriage thence! And upon this futile pretence, for which there was not so much as the shadow of a foundation in fact, the old rule was maintained; and in consequence, though the ports along the English Channel might have been glutted with the corn and cotton of America, the sugar of Brazil and Cuba, the coffee of Java, and the tea of China, and though all or some of these articles might at the time have been deficient here, not one of them could be imported in a foreign ship, unless, as was sometimes the case, it were carried back to the country whence it had been originally shipped, nor even in a British ship, unless it were first carried from Europe to some other continent! It is hardly possible to imagine any rule or regulation more extravagantly oppressive and absurd, and it is really astonishing that it should have been able to keep its place on the statute book for about two centuries. Luckily, however, this preposterous system, as well as the regulations affecting importation from Europe, ceased on January 1, 1850. The Act for their repeal, the 12 & 13 Vict. c. 29, went far to complete the free-trade measures adopted in 1842 and 1846, and had the most favourable influence over the commerce and navigation of the empire.

It did not, however, interfere with the monopoly of the coasting trade, which continued to be secured to British ships. But this last shred of the protective system has, also, been swept away by the Act of 1854, the 17 Vict. c. 5. [Coasting Trade.] Probably, however, few foreign ships will engage in this department; but their being at liberty to do so will insure freights being kept at their fair level.

The relaxations made in 1825 and 1826 in the regulations embodied in our old navigation laws in regard to the colonial trade, were perhaps the most valuable portion of the changes introduced by Mr. Huskisson. But though they did much to obviate the hardships growing out of the previous rules, and to give freedom to the colonial trade, they did not entirely effect that object; and some regulations were subsequently continued in force which, though irritating and mischievous in their bearing on the colonies, were of no real advantage to ourselves. These, however, wholly ceased on January 1, 1850. All varieties of goods may now be imported into the colonies from all countries at peace with Great Britain, and exported from the colonies to them, whether in British, colonial, or foreign shipping. The complaints of the colonists, in regard to the injuries they have sustained from the rules enforced by our navigation laws, are thus completely obviated, and on that ground, at all events, they have no further claim to prohibitory duties.

Besides the restrictive regulations already alluded to, it was a part of our former policy to encourage the employment of British shipping by imposing higher duties on commodities imported in foreign vessels than were imposed on them when imported in British vessels; and it was also customary to charge foreign vessels with higher port and lighthouse duties &c. This practice was always loudly complained of by foreigners; but we had little difficulty in maintaining it, so long as we could afford to disregard the retaliatory measures of other Powers. But the extraordinary increase that took place, since the commencement of the war terminated in 1815, in our manufactures for foreign consumption, and the necessity under which we were, in consequence, placed, of conciliating our customers abroad, led to the adoption of the *reciprocity system*. The latter was first introduced into the trade with the United States. After the North American colonies had succeeded in establishing their independence they set about framing rules for their navigation on the model of those of this country. Among other regulations of a restrictive character, it was enacted that all foreign vessels trading to the United States should pay 44 cents, which was afterwards raised to 94 cents (nearly a dollar), per ton duty, beyond what was paid by American ships; and further, that goods imported in foreign vessels should pay a duty of 10 per cent. over and above the duty payable on them when imported in American vessels.

This law was avowedly directed against the shipping of this country, though, as it was bottomed on the same principles as our navigation laws, we could not openly complain of its operation. Under these circumstances, it would have been sound policy to have at once proposed an accommodation; and, instead of attempting to meet retaliation by retaliation, to have offered to modify our navigation law, in so far as American shipping was concerned, on the Americans making reciprocal modifications in our favour. A different course was, however, followed. Various devices were fallen upon to counteract the navigation system of the Americans, without in any degree relaxing our own: but they all failed of their object; and at length it became obvious to every one that we had engaged in an unequal struggle, and that the real effect of our policy was, to give a bounty on the importation of the manufactured goods of other countries into the United States, and thus gradually to exclude both our manufactures and ships from the ports of the republic. In consequence, a conviction of the necessity of making concessions gained ground progressively; and it was ultimately fixed, by the commercial treaty agreed upon between Great Britain and the United States, in 1815, that in future equal charges should be imposed on the ships of either country in the ports of the other, and that equal duties should be laid upon all articles, the produce of the one country imported into the other, whether such importation were effected in the ships of the one or the other.

Brazil and the other States of South America were naturally anxious to establish a commercial marine; and, to forward their views in this respect, they contemplated enacting navigation laws.

But this intention was frustrated by the interference of the British Government, who, without stipulating for any particular advantage, wisely offered to admit their ships into our ports on a principle of reciprocity, or on their paying the same charges as our own ships, on condition of their admitting British ships into their ports on a similar footing. Commercial treaties, framed on this sound principle, were afterwards entered into with most of these States.

The reciprocity system having been thus adopted as the basis of the intercourse with the United States, whose commercial marine was second only to that of Great Britain, it was not possible to refuse adopting it in the case of such European countries as might choose to admit our ships into their ports on a footing of equality. By sec. 4 of the Act 6 Geo. IV. c. 1 it was enacted, that his Majesty might, by an order in council, admit the ships of foreign states into our ports, on payment of the like duties that are charged on British vessels, provided that British ships are admitted into the ports of such foreign states on payment of the like duties that are charged on their vessels. The first demand of this sort was made on the part of the Prussian Government, which on June 20, 1822, issued an order in council making large additions to the port dues previously charged on all ships belonging to those nations which did not admit Prussian ships on a principle of reciprocity. The real object of this order was to injure the navigation of this country; and it was speedily found that it had the desired effect, and that its operation on British shipping was most mischievous.

Under these circumstances, the British merchants and shipowners applied to our Government for relief.

'We were assailed,' said Mr. Huskisson, 'with representations from all quarters connected with the shipping and trade of the country, against the heavy charges imposed upon British ships in the ports of Prussia. In such circumstances, what course did his Majesty's Government take? We felt it to be our duty, in the first instance, to communicate with the Prussian minister in this country; and our minister at Berlin was, I believe, also directed to confer with the Prussian Government on the subject. I myself had a conference with the Prussian minister at this court, and I well recollect the substance of his reply to me. "You have," he said, "set us the example, by your port and light charges, and your discriminating duties on Prussian ships; and we have not gone beyond the limits of that example. Hitherto, we have confined the increase of our port and tonnage charges to ships only; but it is the intention of my Government next year" (and of this he showed me the written proof) "to imitate you still more closely, by imposing discriminating duties on the goods imported in your ships. Our object is, a just protection to our own navigation; and so long as the measure of our protection does not exceed that which is afforded in your ports to British ships, we cannot see with what reason you can complain."

'Against such a reply what remonstrance could we, in fairness, make to the Prussian Government? We might have addressed ourselves, it may be said by some, to the friendly feelings of that Government:—we might have pleaded long usage in support of our discriminating duties;—we might have urged the advantages which Prussia derived from her trade with England. Appeals like these were not forgotten in the discussion, but they were of little avail against the fact stated by the consul at Dantzic—that "the Prussian ship-owners were all going to ruin."

'By others it may be said, "your duty was to retaliate by increasing your own port charges and discriminating duties, on Prussian shipping." I have already stated generally my reasons against the policy of this latter course. We were not prepared to begin a system of commercial hostility, which, if followed up on both sides to its legitimate consequences, could only tend to reciprocal prohibition. In this state of things, more prudently, as I contend, we entered upon an amicable negotiation with the Prussian Government, upon the principle of our treaty with the United States,—that of abolishing, on both sides, all discriminating duties on the ships and goods of the respective countries in the ports of the other.

'Having concluded an arrangement with Prussia upon this basis, we soon found it necessary to do the same with some other of the northern states. Similar conventions were accordingly entered into with Denmark and Sweden. Reciprocity is the foundation of all those conventions; but it is only fair to add, that they contain other stipulations for giving facility to trade, and from which the commerce of this country, I am confident, will, in the result, derive considerable advantage.' (*Huskisson's Speech*, May 12, 1826, *on the State of the Shipping Interest.*

This statement shows that the establishment of the reciprocity system, with respect to which so violent a clamour was afterwards raised, was not a measure of choice but of necessity. We could not afford to hazard the exclusion of our manufactures from countries into which they were annually imported to a large amount. So long as the Prussians, Swedes, Danes, and other nations chose to submit, without attempting to retaliate, to our system of discriminating duties on foreign ships, and on the goods imported in them, it was no business of ours to tell them that that system was illiberal and unjust. But when they discovered that such was really the case, and declared that unless we modified our restrictions, they would retaliate on our commerce, and either entirely exclude our commodities from their markets, or load those that were imported in British ships with prohibitory duties, should we have been justified in refusing to come to an accommodation? Were we to sacrifice the substance to the shadow? To turn away some of our best customers because they chose to stipulate that the intercourse between them and us should be conducted either in their ships or in ours, as the merchants might think best? Government had only a choice of difficulties; and they wisely preferred adopting a system which has preserved the access to foreign markets for English goods, and has further secured an equal chance to English ships, with those of foreigners, of being employed in the trade with other countries. More could not have been obtained; nor would it have been really desirable. Had we endeavoured to enforce in the nineteenth century the rules and regulations that had been justly objected to and regarded as oppressive in the sixteenth and seventeenth centuries, we should have provoked a spirit of hostility and retaliation that must eventually, and at no distant period, have crippled alike the manufactures, the trade, and the navigation of the empire.

The reciprocity system is still wisely maintained, and is, indeed, embodied in the Act 12 & 13 Vict. c. 29. But we do not make its previously agreeing to this system a condition of a foreign country being entitled to participate in the advantages conferred by this Act. Such preliminary arrangements would have occasioned much embarrassment and difficulty, and we, therefore,

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have contented ourselves with reserving power to her Majesty in council, in the event of her thinking it expedient to interfere, to impose such prohibitions, restrictions, and discriminating duties on the ships of any foreign power frequenting our ports, as may be required to countervail any peculiar prohibitions, restrictions, or duties laid upon British ships in the ports of such foreign power.

Much difference of opinion has existed as to the practical effect on our shipping and navigation of the changes in the navigation law introduced by Mr. Huskisson. But there is really no ground for any such difference. This will be apparent from the following comparison between the shipping belonging to the empire in 1825, when Mr. Huskisson's reforms began, and in 1848 and 1867:—

Account of the Ships, their Tonnage, and their Crews, belonging to the British Empire in 1825, 1848, and 1867.

Year	United Kingdom and Possessions in Europe		Colonies		Total		Crews
	Ships	Tons	Ships	Tons	Ships	Tons	
1825	20,701	2,728,807	3,579	214,875	24,280	2,553,682	166,185
1848	25,638	3,400,809	8,031	651,351	33,672	4,052,160	236,069
Excess in 1848	4,937	1,072,002	4,455	436,476	9,392	1,498,478	69,886
1867	28,773	5,753,973	12,132	1,478,698	40,905	7,232,671	344,251
Excess in 1867	8,072	3,125,166	8,553	1,263,823	16,625	4,678,989	178,048

It is plain from this statement, that the number of our ships, the amount of their tonnage, and the number of our sailors, have all been vastly increased since 1825. And if this be not, we should like to know what can be, a conclusive proof of the wisdom of the changes effected in 1825. They have, in fact, been successful to a degree which the most sanguine could not previously have supposed possible.

Although, however, the fact of a vast increase of our mercantile navy having taken place since 1825, be too well established to admit of any doubt, it is contended by the apologists of the old restrictive system, that the share which foreigners have in the trade of the United Kingdom is notwithstanding greater now than in 1825. But this greater preponderance of foreign vessels in our trade, if such really be the case (which is doubtful), is admitted to be but inconsiderable; though, were it incomparably greater than it is alleged to be, it would afford no room or ground for objecting to the measures of 1825 and 1849. The shipping and foreign trade of most continental states were all but wholly destroyed during the war terminated in 1815, while our shipping and trade were then proportionally increased; and the influence of this depression on the one side, and of the unnatural stimulus on the other, was far from being exhausted in 1825. But in the lengthened interval that has since elapsed, the mercantile navies of the continental states have attained to their ordinary state. And while we have no longer had any peculiar advantages on our side, we have had to contend with them, and with the rapidly increasing marine of the United States. As respects the latter, we may observe, that while in 1825 our imports of cotton, principally from America, amounted to about 222,500,000 lbs., they amounted in 1854, to about 886,500,000 lbs.; at the same time that the imports of corn and flour from the United States, in the latter year, bore a still greater proportion to their amount in the former. Our imports of cotton in 1867 reached 1,262,536,912 lbs. Again, our intercourse with Holland, France, the Elbe &c., which was all but wholly suppressed during the war (ended 1815), is now become very extensive; and are we, under such circumstances, to be surprised that the proportion of foreign shipping frequenting our ports has increased? Had such increase been ten times greater, it could not have surprised any reasonable person; and the fair presumption is, that but for the reforms effected in 1825, such would have been the case. And experience has shown that the further reforms effected in 1849, which, like those of 1825, were imperatively required by the exigencies of the case, have been equally beneficial.

It may be said, perhaps, that the rapid extension of our mercantile navy during the last 12 or 15 years, and the extraordinary rise of freights, and of the profits of the ship-owners, were mainly a consequence of the gold discoveries in California and Australia, and of the prodigious impulse they have given to emigration and to the trade of the world. But, though the circumstances alluded to have undoubtedly had a very powerful influence, there is no room or ground for thinking that, under any circumstances, our ship-owners would not be able to maintain a successful competition with those of America, or any other country. The wages of seamen in the United States are usually higher than here, which, indeed, is a principal cause of our sailors engaging so very extensively as they are known to do in the American service. But, in most respects, the ship-owners of the two countries are nearly on a level. The rapid increase of population in the United States, the vast extent of their sea-coast, and the gigantic magnitude of the rivers and lakes by which the Union is intersected or bounded, by affording proportional means for the employment of shipping, will, there is little doubt, speedily render her commercial marine greater than that of this or any other nation. But there are no good grounds for supposing that in those departments which are equally open to the enterprise and ships of both nations, the British have anything to fear from the competition of the Americans. And they are the only people to whom, in a matter of this sort, it is necessary to allude.

Till very recently our shipping interest was subjected to sundry burdens and restrictions by which their energies were weighed down and fettered. These, however, are now either wholly abolished, or greatly modified. Formerly no ship could enjoy the peculiar privileges of a British ship, unless she were of the build of the United Kingdom or of the colonies, and unless the master and three-fourths of the crew were British subjects. But these restrictions have been repealed, the former by the 12 & 13 Vict. c. 29, and the latter by the 16 & 17 Vict. c. 131. In consequence of these judicious alterations, all the building yards and all the seamen of the world may be made subservient to the wants and the purposes of our merchants and ship-owners. It is probable, indeed, from our superior facilities for the building of ships, especially those of iron, which are now being largely introduced, and from the comparative density of our population, that neither foreign ships nor foreign seamen will be exten-

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sively introduced into our service. The prohibition against the registration of foreign-built ships was repealed in 1849; and in 1850, 1851, and 1852, only 57, 26, and 28 such ships were registered. But in consequence of the greatly increased demand for shipping, the number of foreign registrations for a time increased considerably. In 1854, they amounted to 267 ships of 97,641 tons burden, but in 1867 the number had fallen to 73 of 22,943 tons. But the fact that foreign seamen and foreign-built ships may be, and no doubt will always be to some extent introduced, is of immense importance; and will do more than anything else to give new energy to our ship-builders, and to improve the conduct and discipline of our seamen. The insubordination and desertion of the latter, especially in foreign parts, have often been attended with ruinous results. Now, however, that their place may be supplied by any description of foreign sailors, it may be fairly presumed that there will be a material amendment in this respect. The sailors will find that they will consult their own no less than their employer's interest, by paying more attention than hitherto to their engagements, and by their good conduct, and ready obedience to the reasonable commands of their superiors.

In addition to these important reforms, others of a subordinate but still very valuable description have been effected. The incompetence and ignorance of the masters, which was a most serious evil, has already partly been, and eventually will be all but wholly obviated by the examination to which they are now obliged to submit, and by the better education which it renders necessary. [MASTER.] The oppressive charges and proceedings which were sometimes made and carried on by the officers of ships of war on account of salvage have also been a good deal modified, though, perhaps, they ought to be wholly abolished. The same may be said of the privilege, which has recently been regulated, enjoyed by ships of war of taking men from on board merchant ships on distant voyages. The charges for lights and pilotage have also been enquired into, and will, most likely, be speedily reduced and placed on a less objectionable footing than at present. It is obvious, therefore, that a vast improvement has already been made, and that other changes for the better are in progress, in the situation of our mercantile marine. And taking their influence into account, and the many advantages we enjoy in our situation, the extent of our manufactures, and the character of our people, we run little risk in predicting a lengthened career of increase and properity to our mercantile navy.

The peculiar burdens, disadvantages, and drawbacks which recently affected our shipping, were set in a clear light in the treatise on 'Our Navigation Laws and Mercantile Marine,' by W. S. Lindsay, Esq., late M.P. for Sunderland. His practical acquaintance with the subject made his suggestions of more than ordinary value, and procured for them an extra degree of attention.

The existing law with regard to British shipping has been consolidated and embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104. It is divided into parts, which will be found distributed under their proper titles in this work. The distinguishing characteristics of British shipping, as described in this Act, may be shortly stated as follows:—

1. No ship can be a British ship unless she be registered as such.

2. All ships of whatever build, and however manned, may be registered as British ships, provided they be really and bonâ fide the property of British subjects.

The clauses in the Act having reference to this matter are as follows, viz.:—

Description and Ownership of British Ships.—No ship shall be deemed to be a British ship unless she belongs wholly to owners of the following description; viz.:—

1. Natural-born British subjects.

Provided that no natural-born subject who has taken the oath of allegiance to any foreign sovereign or state shall be entitled to be such owner as aforesaid, unless he has, subsequently to taking such last-mentioned oath, taken the oath of allegiance to her Majesty, and is and continues to be during the whole period of his so being an owner resident in some place within her Majesty's dominions, or if not so resident, member of a British factory, or partner in a house actually carrying on business in the United Kingdom or in some other place within her Majesty's dominions:

2. Persons made denizens by letter of denization, or naturalised by or pursuant to any Act of the imperial Legislature, or by or pursuant to any Act or ordinance of the proper legislative authority in any British possession.

Provided that such persons are and continue to be during the whole period of their so being owners resident in some place within her Majesty's dominions, or if not so resident, members of a British factory, or partners in a house actually carrying on business in the United Kingdom or in some other place within her Majesty's dominions, and have taken the oath of allegiance to her Majesty subsequently to the period of their being so made denizens or naturalised.

3. Bodies corporate established under, subject to the laws of, and having their principal place of business in the United Kingdom or some British possession. (Sec. 18.)

British Ships, with certain Exceptions, must be registered.—Every British ship must be registered in manner hereinafter mentioned, except—

1. Ships duly registered before this Act comes into operation:

2. Ships not exceeding 15 tons burden employed solely in navigation on the rivers or coasts of the United Kingdom, or on the rivers or coasts of some British possession within which the managing owners of such ships are resident:

3. Ships not exceeding 30 tons burden, and not having a whole or fixed deck, and employed solely in fishing or trading coastwise on the shores of Newfoundland or parts adjacent thereto, or in the Gulf of St. Lawrence, or on such portions of the coast of Canada, Nova Scotia, or New Brunswich as lie bordering on such Gulf:

And no ship hereby required to be registered shall, unless registered, be recognised as a British ship; and no officer of customs shall grant a clearance or transire to any ship hereby required to be registered for the purpose of enabling her to proceed to sea as a British ship, unless the master of such ship, upon being required so to do, produces to him such certificate of registry, as is after mentioned [REGISTRY]; and if such ship attempts to proceed to sea as a British ship without a clearance or transire, such officer may detain such ship until such certificate is produced to him. (Sec. 19.)

In another part the Act imposes the following penalties on the masters and owners of ships unduly assuming a British character, viz.:—

1. If any person uses the British flag and assumes the British national character on board any ship owned in whole or in part by any person not entitled by law to own British ships, for the purpose of making such ship appear to be a British ship, such ship shall be forfeited to her

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Majesty, unless such assumption has been made for the purpose of escaping capture by an enemy or by a foreign ship of war in exercise of some belligerent right; and in any proceeding for enforcing any such forfeiture the burden of proving a title to use the British flag, and assume the British national character shall lie upon the person using and assuming the same.

2. If the master or owner of any British ship does or permits to be done any matter or thing, or carries or permits to be carried any papers or documents, with intent to conceal the British character of such ship from any person entitled by British law to enquire into the same, or to assume foreign character, or with intent to deceive any such person as lastly hereinbefore mentioned, such ship shall be forfeited to her Majesty; and the master, if he commits or is privy to the commission of the offence, shall be guilty of a misdemeanor.

3. If any unqualified person, except in the case of such transmitted interests as are hereinbefore mentioned, acquires as owner any interest, either legal or beneficial, in a ship using a British flag, and assuming the British character, such interest shall be forfeited to her Majesty.

4. If any person, on behalf of himself or any other person or body of persons, wilfully makes a false declaration touching the qualification of himself or such other person or body of persons to own British ships or any shares therein, the declarant shall be guilty of a misdemeanor; and the ship or share in respect of which such declaration is made, if the same has not been forfeited under the foregoing provision, shall, to the extent of the interest therein of the person making the declaration, and, unless it is shown that he had no authority to make the same, of the parties on behalf of whom such declaration is made, be forfeited to her Majesty.

And in order that the above provisions as to forfeitures may be carried into effect, it shall be lawful for any commissioned officer on full pay in the military or naval service of her Majesty, or any British officer of customs, or any British consular officer, to seize and detain any ship which has, either wholly or as to any share therein, become subject to forfeiture as aforesaid, and to bring her for adjudication before the High Court of Admiralty in England or Ireland, or any court having Admiralty jurisdiction in her Majesty's dominions; and such court may thereupon make such order in the case as it may think fit, and may award to the officer bringing in the same for adjudication such portion of the proceeds of the sale of any forfeited ship or share as it may think right. (Sec. 103.)

Penalty for carrying improper Colours.—If any colours usually worn by her Majesty's ships, or any colours resembling those of her Majesty, or any distinctive national colours, except the red ensign usually worn by merchant ships, or except the union jack with a white border, or if the pendant usually carried by her Majesty's ships or any pendant in anywise resembling such pendant, are or is hoisted on board any ship or boat belonging to any subject of her Majesty, without warrant for so doing from her Majesty, or from the Admiralty, the master of such ship or boat, or the owner thereof, if on board the same, and every other person hoisting, or joining or assisting in hoisting the same, shall for every such offence incur a penalty not exceeding 500*l.*; and it shall be lawful for any officer on full pay in the military or naval service of her Majesty, or any British officer of the customs, or any British consular officer, to board any such ship or boat, and to take away any such jack, colours, or pendant; and such jack, colours, or pendant shall be forfeited to her Majesty. (Sec. 105.)

The monopoly of our coasting trade having been abolished by the 17 Vict. c. 5, the last fragment of the navigation laws was extinguished by the following notice in pursuance of 30 Vict. (1867) cap. 15:—

On and after August 1, 1867, all exemptions from harbour rates and dues, which have hitherto been allowed in the United Kingdom on account of any one or more of the reasons specified below, will, in pursuance of 'The Shipping Dues Exemption Act, 1867,' 30 Vict. c. 15, cease, and no such exemptions will on and after that date be allowed:—

1. On account of any ship being registered at or belonging to any particular country, port, or place, or trading between any particular parts or places:
2. On account of any ship or goods being the property of, or being consigned by or to any particular person or body corporate:
3. On account of any goods being destined for sale in any particular town, place, or market:
4. On account of any ship or goods being sent to or from, or anchoring or mooring at, or being laden or unladen at any particular place in any port, or in the neighbourhood of any port, except where a ship, in going to or from, or anchoring or mooring at, or being laden or unladen at such place, derives from the expenditure of the class of dues in question no benefit or less benefit than ships going to or from, or anchoring or mooring at, or being laden or unladen at, another place in the same port:
5. On account of any goods being the product of or being destined for use at any particular manufactory, place, or district, or any particular class of manufactories; provided that nothing in this Act contained shall effect any exemption from dues which has been granted by an Act of Parliament to the owner or occupier of some particular quay, manufactory, or place, as compensation for obstruction to his water frontage or access to his premises, or other injury caused to him by the works authorised by such Act.

Any person desirous of claiming compensation in respect of the abolition of any such exemption, may make application in the manner directed by the above-named Act; particulars of which may be obtained of the receiver of dues, or of the harbour or other local authority of the port or place.

NEUTRALITY (Fr. neutralité). In Politics, this term is employed to indicate the state of those nations who, when a war is being carried on, take no part in the contest, and evince no particular friendship for, or enmity to, any of the belligerent powers.

Neutral Ships. In Commerce, the ships belonging to neutral states, which are engaged in the trade with the ports of belligerents.

Inasmuch as the rights and duties of neutrals vary to a certain extent with the circumstances peculiar to each contest, they do not admit of being exactly defined. But they ought in all cases to conduct themselves in a spirit of perfect impartiality, and to do nothing that can be fairly considered as being especially favourable or hostile to either of the parties engaged in hostilities.

The questions that occur with regard to the proceedings of neutrals on land, seldom present much difficulty; but it is otherwise with those that sometimes grow out of their proceedings at

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sea, and to these we mean to confine the following remarks.

I. *Articles contraband of war.* When two nations are engaged in war, if there be any foreign article or articles necessary for the defence or subsistence of either of them, and without which it would be difficult for it to carry on the contest, the other may legitimately exert every means in its power to prevent its opponent being supplied with such article or articles. All writers of authority on international law admit this principle; and lay it down, that a nation which should furnish a belligerent with articles *contraband of war* —that is, with supplies of warlike stores or of any article required for the prosecution of the war— would forfeit her neutral character, and that the other belligerent would be warranted in preventing such succours from being sent, and confiscating them as lawful prize. And besides being consistent with the most obvious principles, approved by jurists, and enforced in every contest, this doctrine has been sanctioned by repeated treaties. The only difficulty, indeed, that has ever arisen in regard to it, has been in respect to the articles which should be reckoned contraband of war; and in the view of obviating such difficulty, these articles have sometimes been specified in treaties and conventions. (See the references in Lampredi, *Del Commercio de' Popoli Neutrali*, sec. 9.) But this classification has not always been respected during hostilities. And it is sufficiently evident that an article which may not be contraband at one time, or under certain circumstances, may become contraband at another time, or under different circumstances. It is admitted on all hands, even by Hubner, the great advocate for the freedom of neutral commerce (*De la Saisie des Bâtimens neutres*, tom. i. p. 193), that everything that may be made *directly available* for hostile purposes is contraband, as arms, ammunition, horses, timber for ship-building, and all sorts of naval stores. The greatest difficulty has occurred in deciding as to provisions (*munitions de bouche*), which have sometimes been held to be contraband, and sometimes not. Lord Stowell has shown that the *character of the port* for which the provisions are destined, is a principal circumstance to be attended to in deciding whether they are to be looked upon as contraband. A cargo of provisions intended for an enemy's port, in which it was known that a warlike armament was in preparation, would be liable to arrest and confiscation; while, if the same cargo were intended for a port where none but merchantmen were fitted out, the most that could be done, according to his lordship, would be to detain it, paying the neutral the same price for it he would have got from the enemy.

A good deal has lately been said as to whether coal should or should not be reckoned contraband. But it is evident, inasmuch as steam is now largely employed in the propulsion of ships of war, that the coal by which it is generated must be reckoned among the articles described as *munitions de guerre*. This does not seem to be a conclusion about which there is any real room for doubt or hesitation; and it shows very clearly how an article that has not been contraband, may, by a change of circumstances, become entitled to that character.

By the ancient law of Europe, a ship conveying any contraband article was liable to confiscation as well as the article. But in modern practice a milder rule has been adopted, and the carriage of contraband articles is attended only with loss of freight and expenses, unless when the ship belongs to the owner of the contraband cargo, or when the simple misconduct of conveying such cargo has been connected with other malignant and aggravating circumstances. Of these, a false destination and false papers are justly held to be the worst.

It appears pretty evident that the principle on which the doctrine of goods contraband of war has been established may justify, or rather require, its extension to various important articles not hitherto or usually reckoned as contraband. The right of belligerents to hinder neutrals from supplying their enemies with articles necessary to enable them to carry on the contest is alike clear and undoubted. But a foreign article which is indispensable or highly useful to a nation engaged in war, may not be of the class called *munitions de guerre*, and may not be directly available in the prosecution of hostilities. That, however, is really immaterial. It is enough to warrant the prevention of its importation, that without it the importers would be unable to continue the contest, or that the inconveniences resulting from the want of it would be so very considerable as to dispose them to sue for peace, or to accept reasonable terms if offered. The distinctive peculiarity of articles contraband of war is not that they belong to one class of products or another, but that *the want of them would inflict serious injury on the party by whom they are imported.*

Considered in this, its true light, the term 'contraband of war' becomes of the highest importance; and there are but few products which may not be fairly brought, at one period or another, within the list of contraband articles. Thus, supposing that we had the misfortune to be engaged in a contest either with a single power or a combination of powers, which had means to intercept, cut off, or materially obstruct our supplies of corn, cotton, and tea: can anyone doubt that our enemies would be justified, or that they would hesitate, in availing themselves of so powerful a means of annoyance? Neutrals might protest against such a proceeding, on the ground that the articles referred to had not hitherto been reckoned contraband of war, and they might also allege that their trade would be seriously prejudiced by so unusual and so illegal a proceeding. But these representations, supposing them to be made, would not go for much. Our enemies would say, that in defining contraband of war, everything depended on circumstances; and that as the want of the articles referred to would lay us under very considerable difficulties, they were, from that very circumstance, properly included in the prohibited list. They would no doubt express at the same time their regret that this conduct of theirs should be productive of injury or inconvenience to neutrals. That was not its purpose. They had resorted to it in the exercise of their undoubted rights as belligerents; and it was only indirectly and by accident that it affected neutrals. Une puissance belligérante ne peut voir avec indifférence que son ennemi se renforce par des marchandises qui servent directement et indubitablement à faire la guerre; et elle ne blesse pas le droit des gens si elle empêche que ses marchandises ne parviennent à l'ennemi en les détenant, soit pour en payer la valeur au propriétaire, soit pour les restituer quand le danger sera passé. On peut même imaginer des cas, où les circonstances extraordinaires justifiéraient une telle détention à l'égard des marchandises qui ne servent pas exclusivement à l'usage de la guerre, et sur lesquelles elle ne peut, dans la règle, s'arroger aucune disposition. (Martens, *Précis du Droit public*, lib. viii. cap. 7, sec. 315.) Heineccius says, 'Dans une guerre il ne s'agit pas même de demander s'il peut être permis à quelqu'un de porter à notre ennemi ce qui peut lui être nécessaire, puisque

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nous avons le droit de prendre les armes contre quiconque s'opposerait à notre défense ou la rendrait difficile ou incertaine.' (Quoted by Lampredi, p. 47, Paris 1802; see also Vattel, book iii. cap. 7, sec. 113, and a host of other authorities.) When great nations are at war, such contingencies can seldom be avoided; and when they occur, they should be ascribed to the necessity of the case, and afford no reasonable ground of complaint.

A wish to obviate the disputes that have so frequently arisen in regard to contraband articles and other matters having reference to the proceedings of neutrals, gave birth to the following very important document.

Declaration respecting Maritime Law, signed by the Plenipotentiaries of Great Britain, Austria, France, Prussia, Russia, Sardinia, and Turkey, assembled in Congress at Paris, April 16, 1856.

'The Plenipotentiaries who signed the Treaty of Paris of March 30, 1856, assembled in conference—

'Considering:

'That Maritime law, in time of war, has long been the subject of deplorable disputes;

'That the uncertainty of the law, and of the duties in such a matter, gives rise to differences of opinion between neutrals and belligerents which may occasion serious difficulties, and even conflicts;

'That it is consequently advantageous to establish a uniform doctrine on so important a point;

'That the Plenipotentiaries assembled in congress at Paris cannot better respond to the intentions by which their Governments are animated, than by seeking to introduce into international relations fixed principles in this respect;

'The above-mentioned Plenipotentiaries, being duly authorised, resolved to concert among themselves as to the means of attaining this object; and, having come to an agreement, have adopted the following solemn Declaration:—

'1. Privateering is, and remains, abolished;

'2. The neutral flag covers enemy's goods, with the exception of contraband of war.

'3. Neutral goods, with the exception of contraband of war, are not liable to capture under enemy's flag.

'4. Blockades, in order to be binding, must be effective; that is to say, maintained by a force sufficient really to prevent access to the coast of the enemy.

'The Governments of the undersigned Plenipotentiaries engage to bring the present Declaration to the knowledge of the States which have not taken part in the Congress of Paris, and to invite them to accede to it.

'Convinced that the maxims which they now proclaim cannot but be received with gratitude by the whole world, the undersigned Plenipotentiaries doubt not that the efforts of their Governments to obtain the general adoption thereof will be crowned with full success.

'The present Declaration is not and shall not be binding, except between those Powers who have acceded, or shall accede, to it.

'Done at Paris, April 16, 1856.'

But the 'uncertainty' complained of in the above Declaration is not of a kind that can be got rid of. It is inherent in the subject. Maritime laws of the class now under consideration do not rest on any fixed or immutable principles. They necessarily vary with the varying condition and exigencies of society. And those rules and regulations that may in the estimation of one country appear to be alike just and expedient, may in that of another be held, on quite as good grounds, to have exactly the opposite qualities. The above Declaration expressly excepts articles contraband of war from the privileges conceded to goods on board neutral ships; but it does not specify the articles which are to be considered contraband. And it was quite as well that this vexed, or rather insoluble question was left open; for it is most probable that the plenipotentiaries who subscribed the Declaration would not have agreed on any definition. And supposing they had subjoined a list of contraband articles to the Declaration, it would very speedily have ceased to be of any weight. Whether an article should or should not be deemed contraband depends on circumstances which it is impossible to foresee or appreciate beforehand. And such being the case, it is futile to attempt to prevent further disputes by making out lists of contraband articles. We have seen that this has been frequently attempted, and it has frequently failed. Such lists may be respected for a while; but as soon as any contracting party or great Power conceives that it would be for her interest or advantage to exclude some articles from, and to include others in, the list, there is an end of its influence and authority.

The principle that free ships make free goods, or that the flag covers the cargo (*que le pavillon couvre la marchandise*), and that consequently enemies' goods, not contraband of war, may be safely conveyed in neutral bottoms, after being long resisted by this and most maritime states, has been assented to in the above Declaration. In judging of the wisdom of this concession, everything depends on the interpretation of the phrase 'contraband of war.' If it were restricted, as has usually been the case, to warlike stores (*munitions de guerre*), or articles directly available for warlike purposes, it would be in many respects justly censurable. For it is plain, that under the limitation now supposed, the trade of a belligerent Power, with its colonies or other countries beyond sea, might be prosecuted in neutral ships nearly to the same extent, and with as much security, during war as during peace. But it is not easy to imagine that a principle having such consequences should be acted upon by any Power having a preponderating naval force, in the event of her engaging in hostilities. Such Power must then do one of two things; she must either consent to relinquish some of the most important advantages to be derived from her naval ascendency, or she must reject the principle in question. And there is little doubt that she would adopt the latter alternative; and she might do this directly, by resorting to her natural and indefeasible right to seize enemies' goods wherever they are to be met with; or indirectly, by extending the list of contraband articles, so as to make it include all those of any importance carried by sea into or from the enemy's ports. Either way would answer the purpose; and we may be pretty well assured, that, under the supposed circumstances, one or other of them would be followed.

II. *Blockade, Influence of.*—But it may perhaps be said, that though the right to carry enemies' goods not contraband of war be conceded to neutrals by the Declaration of Paris, that right is restricted and confined within proper limits by the maintenance of the system of blockade. But we take leave to doubt whether this restriction be good for much. It is distinctly laid down in the Declaration, that to be binding or legal, a blockade must be effective; that is, it must be 'maintained by a force sufficient really to prevent access to the coast of the enemy.' But though the blockade of one or of a few ports may perhaps

be made effective, it is abundantly certain that no such blockade can ever be made to apply to an extensive coast. Though our navy were doubled or trebled, it would not suffice to make an effective blockade of the coasts of France, of Spain, or of the United States. And why should a country with a powerful naval force bind herself beforehand to employ it only in one way? Why not employ it in any way, whatever it may be, which happens to be at the time most conducive to the ends she has in view?

But supposing that an impossibility may be realised, or that an extensive coast may be effectually blockaded, the circumstance would be of much less consequence now than formerly, or than is generally imagined. Suppose, for example, that we are at war with France, and that we effectively blockade every portion of her coast, whether on the ocean or the Mediterranean: the result would be, that the oversea produce suitable to her wants would be imported into the contiguous ports of Belgium, Spain, and Piedmont, and that it would be carried from them by railways and otherwise to every part of France; and that the produce she has to export would be disposed of in the same way.

It is plain, therefore, that these are not matters in which much dependence can be placed on the resource of blockades. These may be advantageously resorted to when the object is to reduce a town, to obstruct the trade of a port or a river, to prevent the sailing of a squadron, and so forth; but as measures directed against the trade of any great country, they must be nearly, if not wholly, impotent. In the case of France, it is quite clear that the strictest possible blockade would not inflict half the injury on her that its maintenance would entail upon ourselves. If the trade of neutrals in war is to be influenced by nothing but effective blockades, it may be held to be practically free from all obstruction. But it cannot be supposed that when the evil day comes it will be so dealt with. When the existence of nations is at stake, they will not be withheld by declarations like the above from availing themselves of every means by which they may hope either to promote their own security or to injure their enemies.

III. *Influence of the new System over the Trade of Belligerents.*—It is further obvious, were the rules laid down in the Declaration of 1856 to be carried into effect without large additions being made to the list of contraband articles, that neutrals would engross almost the entire oversea trade of countries engaged in war. Comparatively few of the articles which we export come under the description of warlike stores; and supposing that we were engaged in hostilities, neutral ships which did not take on board contraband articles would navigate with perfect security, while our ships would be exposed to the risk of capture. The magnitude of this risk would depend on various contingencies, and would be measured by the higher premium of insurance that would have to be paid on them and on articles embarked in them. But considering the close competition to which our ship-owners are already exposed, the additional premium they would have to pay, even though it were not very considerable, would most probably turn the scale in favour of the neutrals; and if they were once introduced and employed for any considerable period, it might not be an easy matter for our ship-owners to regain the ground they had lost, or to recover their former position, on hostilities being terminated. But in whatever way it may be defeated or eluded, it is not to be supposed that we should abide, in periods of war and difficulty, by a rule that would tie up our hands and consign the entire oversea trade of the empire to foreigners. This would be a degree of liberality to which we can hardly be expected ever to arrive, and which, were it realised, would be more injurious to our best interests than the most intense selfishness.

IV. *Project for exempting Private Property at sea from Attack during War.*—Some of the more recent opponents of the old system of maritime law do not deny these statements. But they allege that they are founded on false principles. Private property, say they, is now respected in all contests carried on by land; and it would be for the advantage of all nations, whether belligerent or neutral, were the same humane and generous policy extended to private property at sea. But this sort of reasoning is more specious than solid. On a little examination it will be found that the cases have no real analogy. Private property on land, and the treasures of art and learning, are respected so far, that they are sometimes unconditionally, but frequently also on the payment of a contribution or ransom, exempted from injury. This is done because experience has shown that, while the destruction of the articles referred to may be productive of much misery and loss, it has little or no influence over the decision of the contest. But we are not hence to infer that the destruction of private property at sea will be equally ineffectual. In our unfortunate contest with the United States in 1814, the destruction of the Capitol at Washington was an act disgraceful to our arms, and which had no effect except to inflame the hostile feelings of the Americans. But the severe check which the contest gave to the trade of the Union made the citizens generally averse to the war; and was, indeed, the main cause of its being so speedily terminated. No such result could, however, have happened had American merchant ships been exempted from capture or molestation.

Suppose we are at war, and that our enemy, having succeeded in landing a force in some part of the kingdom, such as Kent or Connaught, inflicts on the peasantry outrages similar to those which the troops of Louis XIV. inflicted on the defenceless inhabitants of the Palatinate; such proceedings, by not sensibly affecting either our wealth, or the sources of our power, would in no wise accelerate the termination of hostilities. On the contrary, they would tend to their prolongation, by inspiring us with a strong desire to avenge such wanton and unnecessary cruelty. But it would be quite another matter were our enemy able seriously to obstruct our trade, to prevent our exports, or to sink, burn, and destroy the ships that were conveying to us supplies of necessary articles. Such proceedings might lay us under the greatest difficulties, and would be the most likely means to make us listen to proposals for an accommodation.

Everybody knows that the unpopularity of the French rule in Germany and other parts of the Continent, in the latter part of the war against Napoleon, was in great measure occasioned by the destruction of their trade, which, on the one hand rendered their corn and other disposable produce a mere drug, while, on the other, it added enormously to the prices of cotton, sugar, coffee, and most foreign articles. But had the rules and regulations embodied in the Declaration of 1856 been then in force, no such result would have happened. We should have had the singular combination of maritime peace with territorial war. And the trade of Prussia, Holland, and the other countries subject to France, and,

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indeed, of France herself, would have been as securely and cheaply carried on in neutral bottoms as it would have been in a period of universal tranquillity. Nothing, therefore, can be more contradictory and illogical than to contend that we are bound to extend the same immunity during war to private property at sea that is extended to private property on land. The cases are in no degree parallel. In the one, private property is respected because its destruction is seldom injurious except to the individuals immediately interested, and has little or no general influence; in the other case, private property is seized or destroyed because those from whom it is taken, being the carriers or purveyors of necessary articles for the community, their loss must seriously affect the latter, and may reduce them to the greatest straits.

V. *Abolition of Privateering.*—The abolition of privateering by the Declaration of Paris is of the highest importance, and should give general satisfaction. This practice appears to be a remnant of that system of private war which is universally waged by individuals in early or barbarous ages, but which gradually disappears as society advances. Privateers rarely attack ships of war. They do not act in concert, or with any object in view other than their own private gains. They are, in truth, a sort of legalised robbers, and while they occasion much individual suffering, they have little or no influence over the result of the war. (L'armateur, indifférent au sort de la guerre et souvent de sa patrie, n'a d'autre amorce que l'avidité du gain, d'autre récompense que ses prises et les prix attachés par l'État à ses pirateries privilégiées. (Martens, *Essai sur les Armateurs*, c. i. s. 8.) This essay, which was translated into English, and published in 1801, contains the fullest details in regard to privateering. Valin, who defends and even eulogises privateering, admits that it is very apt *dégénérer en abus et en brigandage.* (*Traité des Prises*, i. c. 1, s. 7.) But their employment is principally objectionable from its having been found that, despite every precaution, it is not possible to hinder them from committing the greatest excesses. The desire to amass plunder is the ruling passion by which they are actuated; and being so, it would be childish to suppose that they should be scrupulous in their proceedings, or that they should endeavour to keep within the pale of the law when they think that their objects will be likely to be promoted by overstepping its limits. And hence their injurious treatment of the ships of neutral and friendly Powers. A system of this sort may perhaps be useful to a nation which has little trade, and may hope to acquire riches by fitting out privateers, without being exposed to the risk of retaliation. But except under very peculiar circumstances, it is difficult to suppose that it should be advantageous to a nation with an extensive oversea trade. A notion has, indeed, been long entertained, that while the interests of humanity would be promoted, the rights of belligerents would not be injuriously affected by the abolition of privateering. It was stipulated, for instance, in the treaty between Sweden and the United Provinces in 1675, that neither party should in any future war grant letters of marque against the other; and stipulations to the like effect have since been embodied in various treaties. These, however, being only isolated efforts, were insufficient materially to abate the nuisance, which could not be put down without an agreement to that effect by the great Powers, such as has been announced in the Declaration of 1856.

The United States, however, though possessed of a most extensive mercantile marine, have refused to consent to the abolition of privateering. But they have not done this capriciously; nor is it to be denied that there is a great deal of weight in the reasons given by the American Government for their refusal. (Letters of Mr. Marcy to the Count de Sartiges, July 28, 1865.) They grow out of circumstances peculiar to the United States—that is, of their warlike navy bearing but a very small proportion to their mercantile navy, which was at that time the largest in the world. And they contend, that were they to abolish privateering, their merchant ships would be captured in vast numbers by the numerous cruisers of their enemies; while the merchant ships of the latter, owing to the fewness of their own ships of war, would be comparatively little affected; and that to restore the balance, and place themselves on a level with their opponents, they have no resource but to appeal to the patriotism (selfishness) of their citizens by licensing privateers.

The Americans have, however, intimated their willingness to assent to the abolition of privateering, provided the other Powers agree not to attack or molest private ships at sea during war. Such an agreement would, no doubt, be very much for their advantage; but we have already seen that it is not one to which we can consent without at the same time, and by the same act, consenting to forego the use of some of the most powerful of our means of defence and attack. This, however, is about the very last thing that we either should or will do. No British statesman will ever agree to an arrangement that would diminish our powers and paralyse our energies at the very moment when, perhaps, our independence and security may depend on these being exerted to the utmost.

VI. *Right of Search.*—Nothing is said in the Declaration of 1856 in regard to the right of visitation and search, probably because it is obviously inherent in belligerents; for it would be contradictory to allow that they had a right to prevent the conveyance of contraband goods to an enemy, and to deny them the use of the only means by which such right can be made available. The object of the search is twofold: *first*, to ascertain whether the ship is neutral or an enemy, for everybody knows that the circumstance of its hoisting a neutral flag affords no security that it is really such: and, *secondly*, to ascertain whether it has contraband articles or enemies' property on board. All neutral ships that would navigate securely during war must consequently heave-to when summoned by the cruisers of either belligerent, and be provided with passports from their Government, and with all the papers or documents necessary to prove the property of the ship and cargo; and they must carefully avoid taking any contraband articles, and perhaps also belligerent property, on board. And hence it has been generally admitted that a merchant ship which seeks to avoid a search by crowding sail or by open force, may be justly captured and confiscated.

One of the most difficult questions in regard to the right of search has reference to merchantmen sailing under convoy. Is the allegation of the officer commanding the vessel of war convoying the merchantmen, that the latter have no contraband articles or belligerent property on board, to be held to be sufficient to nullify the right of search? or may the exercise of that right be notwithstanding insisted upon?

A case of this sort occurred in the early part of

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1798, when a fleet of merchantmen belonging to Sweden, a neutral Power, and sailing under convoy of a frigate, were detained by a British squadron. The Swedish captain, on the question being put to him, answered that the ships were destined for different ports of the Mediterranean, and that they were laden with hemp, iron, pitch, and tar. These articles were the produce of Sweden. Articles which form a considerable part of the produce of a country, though contraband of war, have sometimes been allowed to be conveyed in neutral ships. But even in that case belligerents have been accustomed to detain them, not for confiscation, but for pre-emption. (Robinson's *Admiralty Reports*, i. 244.) But as they have most commonly been reckoned contraband of war, and as France and her allies had many ports on the Mediterranean, there can be little or no doubt that we were warranted, despite the threatened but unattempted opposition of the Swedish captain, in detaining the ships. But besides being detained, they were condemned with their cargo as a lawful prize; a proceeding which gave rise to a great deal of discussion at the time, and which it is not easy to justify. For an account of this famous case, see Robinson's *Admiralty Reports*, i. pp. 340–379. In an elaborate argument Sir William Scott (afterwards Lord Stowell) states, with his usual ability, but with too sensible a bias, the reasons for his judgment. Its legality was questioned in a tract by Mr. J. F. W. Schlegel, professor at Copenhagen, translated into English, and published in London in 1801. Schlegel was answered by Dr. Croke in a tract entitled *Remarks on Mr. Schlegel's Work on the Visitation of Neutral Vessels under Convoy*, published in the course of the same year.

In the event of the captain of a ship of war convoying neutral merchantmen distinctly declaring that they have no contraband articles or enemies' property on board, their detention or search would be a very strong measure. It would, in truth, be an insult to the flag and honour of the neutral Power. And unless the presumptions that the captain had emitted a false declaration were exceedingly strong, to question his veracity would be an act contrary to the comity of nations, and one that a high-spirited people would be sure to resent. But except in the case of a *limited* number of vessels sailing to specified ports under convoy, and when there is a clear and explicit declaration by the officer in command that they have neither contraband articles nor belligerent property on board, the right of search, supposing it to be exercised without any unnecessary violence, is one that is essential to belligerents, and cannot be justly objected to.

VII. *Foreign Enlistment Act.*—It will be evident that in treating of this subject we have referred only to those general principles that prevail in international law. The laws of individual states in regard to neutrality harmonise for the most part with the public law respecting it. The only British statute to which it is necessary to refer is the Foreign Enlistment Act, the 59 Geo. III. c. 69. It prohibits the employment of British ships, without license, in the service of any foreign prince or state, and their employment as transports or store-ships by states with which we are not at war. But it is believed that all, or nearly all, that this Act prohibits being done directly, may be done indirectly with little difficulty. Inasmuch, however, as it can hardly fail, if maintained, to give rise to troublesome questions with foreign Governments, it were better were it repealed, and our merchants and ship-owners left to deal, as they think fit, with the ordinary risks that attach to those that carry contraband articles. The circumstances in which the Act originated have long since passed away (the struggle between Spain and her revolted colonies in South America); and as it can no longer be of any use, and may, or rather must, occasion difficulties, its abolition would be a judicious measure.

Unfortunately much correspondence and discussion arose during and after the close of the American Civil War between this country and the United States, as to our conduct as neutrals and the efficiency of our neutrality laws. One of the results was the issue, in July 1867, of a Royal Commission of Enquiry, and in May 1868 the Commissioners presented a Report, containing the following recommendations, viz.:—

I. That it is expedient to amend the Foreign Enlistment Act, by adding to its provisions a prohibition against the preparing or fitting out in any part of her Majesty's dominions of any naval or military expedition, to proceed thence against the territory or dominions of any foreign state with whom her Majesty shall not then be at war.

II. That the first paragraph of sec. 7 of the Foreign Enlistment Act should be amended, to the following effect:—

If any person shall within the limits of her Majesty's dominions—

a. Fit out, arm, despatch, or cause to be despatched, any ship with intent or knowledge that the same shall or will be employed in the military or naval service of any foreign Power in any war then being waged by such Power against the subjects or property of any foreign belligerent Power with whom her Majesty shall not then be at war:

b. Or shall within her Majesty's dominions build or equip any ship with the intent that the same shall, after being fitted out and armed either within or beyond her Majesty's dominions, be employed as aforesaid:

c. Or shall commence or attempt to do, or shall aid in doing, any of the acts aforesaid,—every person so offending shall be deemed guilty of a misdemeanor.

III. That in order to enable the executive Government more effectually to restrain and prevent attempted offences against sec. 7 of the Foreign Enlistment Act, additional provisions to the following effect should be inserted in the statute.

a. That if a Secretary of State shall be satisfied that there is a reasonable and probable cause for believing that a ship which is within the limits of her Majesty's dominions has been or is being built, equipped, fitted out, or armed contrary to the enactment, and is about to be taken beyond the limits, or that the ship is about to be despatched contrary to the enactment, such Secretary of State shall have power to issue a warrant, stating that there is such a reasonable and probable cause for believing as above aforesaid, and upon such warrant the Commissioners of Customs, or any other person or persons named in the warrant, shall have power to arrest and search such ship, and to detain the same, until it shall be either condemned or released by process of law, or in manner hereinafter mentioned.

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b. That the power hereinbefore given to a Secretary of State may, in parts of her Majesty's dominions beyond the seas, be exercised by the governor or other person having chief authority.

c. That power be given to the owner of the ship or his agent to apply to the Court of Admiralty of the place where the ship is detained, or, if there be no such Court there, to the nearest Court of Admiralty, for its release.

d. That the Court shall put the matter of such detention in course of trial between the applicant and the Crown, with usual Admiralty appeal to the Privy Council.

e. That if the owner shall establish to the satisfaction of the Court that the ship was not and is not being built, equipped, fitted out, or armed, or intended to be despatched, contrary to the enactment, the ship shall be released and restored.

f. That if the owner shall fail to establish to the satisfaction of the Court that the ship was not and is not being built, equipped, fitted out, or armed, or intended to be despatched, contrary to the enactment, then the ship shall be detained till released by order of the Secretary of State; nevertheless the Court may, if it shall think fit, order its release, provided the owner shall give security to the satisfaction of the Court that the ship shall not be employed contrary to the enactment, and provided that no proceedings are pending for its condemnation.

g. That if the Court shall be of opinion that there was not reasonable and probable cause for the detention, and if no such cause shall appear in the course of the proceedings, the Court shall have power to declare that the owner ought to be indemnified by the payment of costs and damages, which in that case shall be payable out of any moneys legally applicable by the Commissioners of the Treasury for that purpose.

h. That any warrant of the Secretary of State shall be laid before Parliament.

i. That the proceedings herein provided shall not affect the power of the Crown to proceed, if it thinks fit, to condemnation of the ship.

k. That the following exceptions be made from this Resolution:

1. Any foreign commissioned ship:
2. Any foreign non-commissioned ship despatched from this country after having come within it under stress of weather or in the course of a peaceful voyage, and upon which ship no fitting out or equipping of a warlike character shall have taken place in this country.

IV. That it is expedient to make the act of hiring, engaging, or procuring any person within her Majesty's dominions to go on board any ship, or to embark from any part of her Majesty's dominions by means of false representations as to the service in which such persons are intended to be employed, with intent on the part of the person so hiring, engaging, or procuring as aforesaid, that the persons so hired, engaged, or procured as aforesaid shall be employed in any land or sea service prohibited by sec. 2 of the Foreign Enlistment Act, a misdemeanor, punishable like other misdemeanors under the same section.

V. That the forms of pleading in informations and indictments under the Foreign Enlistment Act should be simplified.

VI. That if, during the continuance of any war in which her Majesty shall be neutral, any prize not being entitled to recognition as a commissioned ship of war, shall be brought within the jurisdiction of the Crown by any person acting on behalf of or under the authority of any belligerent Government, which prize shall have been captured by any vessel fitted out during the same war for the service of such Government, whether as a public or a private vessel of war, in violation of the laws for the protection of the neutrality of this realm, or if any such prize shall be brought within the jurisdiction as aforesaid by any subject of the Crown, or of such belligerent Government, having come into possession of such prize with notice of the unlawful fitting out of the capturing vessel, such prize should upon due proof in the Admiralty Courts, at the suit of the original owner of such prize or his agent, or of any person authorised in that behalf by the Government of the state to which such owner belongs, be restored.

VII. That in time of war no vessel employed in the military or naval service of any belligerent which shall have been built, equipped, fitted out, armed, or despatched contrary to the enactment, should be admitted into any port of her Majesty's dominions.

NEUTRALITY, WARRANT OF. [INSURANCE.]

NEWCHWANG or YINGTZE. This is the most northerly of the Chinese treaty ports, on the river Lias, and from November 15 to the end of March the river is closed by ice.

The exports of the town consist chiefly of pulse cakes, beans, and peas; the imports, of opium, sugar, and cotton cords. In 1864 and 1865, the imports were worth 709,738 and 1,686,176 taels respectively, and the exports 1,710,398 and 2,167,314 taels.

In the analysis of Chinese commerce for 1866, appended to the Foreign Commerce Reports published in 1868, the value of the total trade of this treaty port is set down for 1866 at 4,425,937 taels, showing an increase over that of 1865 of 557,764 taels. 327 vessels of 110,418 tons cleared the port in 1867, of which 112, of 43,267 tons, were British.

NEW ORLEANS. The capital of Louisiana, one of the United States, on the eastern bank of the Mississippi, about 105 miles from its mouth, lat. 29° 57′ 45″ N., long. 90° 9 W. Population, in 1860, 168,675. The new-built streets are broad, intersecting each other at right angles; and the houses are mostly of brick. It is the grand emporium of all the vast tracts traversed by the Mississippi, the Missouri, and their tributary streams, enjoying a greater command of internal navigation than any other city either of the Old or New World. Civilisation has hitherto struck its roots, and begun to flourish, only in some comparatively small portions of the immense territories of which New Orleans is the seaport; and yet its progress has been rapid beyond all precedent. It appears, from the accounts printed by order of Congress, that during the year ended June 30, 1858, the value of the native American produce exported from this city amounted to 88,270,224 dols., while the value of that exported from New York was 89,039,741. With respect to imports, the case is materially different; the

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value of those of New Orleans, in the year just mentioned, being only 19,586,033 dols., whereas those of New York amounted to 178,475,736. It is believed by many, seeing how rapidly settlements are forming in the 'West,' that New Orleans must, at no very distant period, exceed every other city of America, as well in the magnitude of its imports as of its exports; and, considering the boundless extent and extraordinary fertility of the uncultivated and unoccupied basins of the Mississippi and Missouri, the anticipations of those who contend that New Orleans is destined to become the greatest emporium, not of America only, but of the world, will not appear very unreasonable. Steam navigation has been of incalculable service to this port, and, indeed, to the whole of central America. The voyage up the Mississippi, formerly so difficult and tedious, is now performed in commodious steam packets with ease, celerity, and comfort. 'There have been counted,' says Mr. Flint, 'in the harbour, 1,500 flat boats at a time. Steam boats are arriving and departing every hour; and it is not uncommon to see 50 lying together in the harbour. A forest of masts is constantly seen along the levée, except in the sultry months. There are often 5,000 or 6,000 boatmen from the upper country here at a time; and we have known *thirty* vessels advertised together for Liverpool and Havre. The intercourse with the Havannah and Vera Cruz is great, and constantly increasing.' (*Geography and History of the Western States*, vol. i. p. 557.) As a shipping port, New Orleans was third in the Union; having been in this respect inferior only to New York and Boston. Vessels of the largest burden may navigate the river several hundreds of miles above the city. The aggregate burden of the shipping belonging to the port on June 30, 1858, amounted to 210,411 tons: of which 70,072 were employed in steam navigation. But the commercial importance of the city was completely suspended by the civil war, and cannot recover itself for a considerable time. In 1861, the year of the outbreak of war, only 130 vessels of 76,935 tons, chiefly American, cleared from the port. The depth of water in the river opposite to New Orleans is, at a medium, about 70 feet; and it maintains soundings of 30 feet till within a mile of its confluence with the sea. Besides 3 or 4 of inferior consequence, the Mississippi has 4 principal passes or outlets. In the south-east, or main-pass, at Balize, the water on the bar at ordinary tides does not exceed 12 feet; and as the rise of tides in the Gulf of Mexico is not more than 2 or 2½ feet, vessels drawing much water cannot make their way from the ocean to New Orleans. (Darby's *View of the United States*, p. 467.)

The unhealthiness of the climate is the great drawback on New Orleans. This probably arises from the low and marshy situation of the city and surrounding country, which is under the level of the Mississippi, being protected from inundation by an artificial levée or mound, varying from 5 to 80 feet in height, and extending along the bank of the river a distance of 100 miles. The unhealthy season includes July, August, and September; during which period the yellow fever often makes dreadful havoc, particularly among the poorer classes of emigrants from the North and from Europe. Great efforts have been made to improve the health of the city, by supplying it abundantly with water, paving the streets, removing wooden sewers, and replacing them with others of stone &c. Many places, where water used to stagnate, have been filled up; and large tracts of swampy ground contiguous to the town have been drained. And as such works will no doubt be prosecuted on a still larger scale, according to the increase of commerce and population, it is to be hoped that the ravages of fever may be materially abated, though the situation of the city excludes any very strong expectation of its ever being rendered quite free from this dreadful scourge. During the occupation of New Orleans by the northern army, sanitary precautions adopted in the first instance on behalf of the soldiers, had a marked beneficial effect on the general health of the town.

It has been proposed to bring earth from the upper parts of the Mississippi, and to employ it in forming a site for a new city raised some feet above the level of the river. It is believed that this would be the most likely means to guard against fever; and the object in view is of such paramount importance that the expense of the scheme should be reckoned a very inferior matter.

Account of the Quantities of the Principal Articles Imported from the Interior to New Orleans during the 3 Years ending August 31, 1866.

Articles		1863-64	1864-65	1865-66
Alcohol	barrels	1,780	956	854
Apples	,,	39,693	35,902	69,532
Bacon	asst. casks &c.	14,930	13,584	16,243
Bacon	barrels and boxes	4,152	4,942	2,299
hams	hogsheads	14,059	10,545	11,307
in bulk	lb.	17,361	..	17,740
Bagging	pieces	2,208	6,371	3,818
Bale rope	coils	14,194	17,876	43,940
Beans	barrels	11,555	12,381	6,312
Butter	kegs	30,983	21,880	16,909
Butter	barrels	62	179	610
Bran	sacks	44,095	113,314	191,474
Beef	barrels and tierces	53,082	26,511	9,288
dried	lb.	3,500	6,500	4,300
Cotton:				
Lake and Mississippi	bales	121,182	241,085	650,577
Lake	,,	1,091	4,333	254
North Alabama and Tennessee	,,	..	..	49,031
Arkansas	,,	..	229	11,967
Montgomery	,,	..	358	4,378
Mobile	,,	647	16,776	26,483
Florida	,,	..	630	12,785
Texas	,,	5,214	7,504	32,111
Corn, in ears	barrels	40,666	4,170	27,239
shelled	sacks	410,158	565,273	2,003,176
Cotton seed	,,	8,729	14,199	94,173
Cheese	boxes	30,741	26,781	55,273
Candles	,,	48,262	31,717	64,210
Coal, western	barrels	265,295	994,770	1,293,915
Dried apples &c.	,,	2,025	1,214	148
Flaxseed	tierces	55	425	10
Flour	barrels	399,897	790,324	993,351
Feathers	bags	..	5	5
Glassware	boxes	612	2,851	5,240
Hemp	bales	303	8,171	856
Hides	—	22,266	9,951	76,490
Hay	bales	170,956	226,764	129,151
Iron, pig	tons	60	..	1,963
Leather	bundles	3,358	5,573	7,529
Lard	tierces and barrels	18,097	11,245	21,272
Lard	kegs	9,655	7,303	27,018
Lime, western	barrels	14,641	14,029	63,926
Lead	pigs	30	5	370
bar	kegs	..	..	186
Molasses	barrels	143,460	18,725	27,403
Oats	barrels and sacks	735,502	278,938	621,432
Onions	barrels	15,324	17,552	38,513
Oil, linseed	,,	90	135	..
castor	,,	86	95	5
lard	,,	1,162	2,507	1,289
Pickles	kegs and barrels	2,178	3,468	819
Potatoes	barrels	150,615	144,723	255,713
Pork	tierces and barrels	67,022	41,795	75,847
Pork	boxes	..	..	5
Pork	hogsheads	580	..	716
in bulk	lb.	..	230,500	271,140
Porter and ale	barrels	8,405	11,604	19,881
Packing yarn	reels	83	789	665
Rice	sacks	25,816	13,443	20,978
Rosin	barrels	90	1,648	18,741
Skins, deer	packs	69	117	98
Shot	kegs	225	17	2,386
Spirits, turpentine	barrels	19	147	12,070
Sugar	hogsheads	75,185	9,978	17,895
Sugar	barrels	8,238	2,045	919
Soap	boxes	18,846	36,287	5,581
Shingles	m.	58	1,907	1,588
Staves	m.	346	1,064	2,510
Tallow	barrels	57	332	412
Tobacco, leaf	hogsheads	1,363	2,410	15,412
chew	boxes	14,184	13,959	38,411
Tobacco	bales	96	79	90
Twine	bundles	1,899	2,151	1,541
Wool	bags	220	573	3,083
Whisky	barrels	16,615	21,243	58,916
Wheat	barrels and sacks	..	2,024	636

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Imports of Specie for 12 Years, from September 1 to August 31.

	dols.		dols.
1846-47 -	6,680,050	1852-53 -	7,865,226
1847-48 -	1,845,808	1853-54 -	6,967,056
1848-49 -	2,501,250	1854-55 -	3,746,037
1849-50 -	3,792,662	1855-56 -	4,913,540
1850-51 -	7,937,119	1856-57 -	6,500,015
1851-52 -	6,278,523	1857-58 -	13,268,013

The two following statements contrast the value of the imports and exports of New Orleans, for the fiscal years ending June 30 each year, 1856–57–58, and 1867:—

	1856	1857	1858
	dols.	dols.	dols.
Dutiable - -	8,000,583	16,417,034	10,246,002
Free - -	6,417,596	6,637,076	4,818,015
Specie and bullion -	1,775,148	1,927,030	4,621,246
Total imports -	17,183,327	24,981,150	19,687,263
Exports -	80,547,965	91,514,286	88,382,438

Value of the Imports and Exports at the Port of New Orleans during the Year 1867.

Year	Imports		Exports	
	In American Vessels	In Foreign Vessels	In American Vessels	In Foreign Vessels
	dols.	dols.	dols.	dols.
1867	2,929,794	7,725,764	38,762,822	40,764,525

Comparative Statement of the British Shipping at the Port of New Orleans during the 5 Years ending with 1867.

Year	Entered			Cleared		
	Number of Vessels	Tonnage	Crews	Number of Vessels	Tonnage	Crews
1863	50	6,894	393	86	10,612	676
1864	112	14,892	934	139	19,135	1,215
1865	265	52,218	2,552	270	45,831	2,552
1866	295	96,703	5,860	284	92,078	5,547
1867	234	92,338	5,102	246	92,064	5,155

Total Amount of Shipping at New Orleans during the Year 1867.

	Number of Vessels	Tonnage	Crews
American vessels entered from foreign ports - - -	241	128,922	5,825
Foreign vessels entered from foreign ports - - - -	416	164,460	6,546
American vessels cleared to foreign ports - - - -	326	215,919	6,035
Foreign vessels cleared to foreign ports - - - -	421	166,729	6,484
Vessels in coasting trade, entered -	1,190	711,445	25,151
Vessels in coasting trade, cleared -	1,265	790,491	31,065

Rates for Bar Pilotage, fixed by Legislature of the State of Louisiana.

	dols. cts.
Vessels drawing 10 feet of water, or less, at per foot	3 50
over 10 feet, and under 18 ,, ,,	4 50
18 feet, and upwards ,, ,,	5 50

Draft	dols. cts.		Amount dols. cts.
4 feet, at 3	50 per foot - - -		14 00
4½	,, - - -		15 75
5	,, - - -		17 50
5½	,, - - -		19 25
6	,, - - -		21 00
6½	,, - - -		22 75
7	,, - - -		24 50
7½	,, - - -		26 25
8	,, - - -		28 00
8½	,, - - -		29 75
9	,, - - -		31 50
9½	,, - - -		33 25
10	,, - - -		35 00
10½	4 50 - - -		47 25
11	,, - - -		49 50
11½	,, - - -		51 75
12	,, - - -		54 00
12½	,, - - -		56 25
13	,, - - -		58 50
13½	,, - - -		60 75
14	,, - - -		63 00
14½	,, - - -		65 25
15	,, - - -		67 50
15½	,, - - -		69 75
16	,, - - -		72 00
16½	,, - - -		74 25
17	,, - - -		76 50
17½	,, - - -		78 75
18	5 50 - - -		99 00
18½	,, - - -		101 75
19	,, - - -		104 50
19½	,, - - -		107 25
20	,, - - -		110 00
20½	,, - - -		112 75

Quarantine.—A fee of 7½ dols. to 20 dols. according to tonnage is charged on all vessels entering the port of New Orleans, and a ten-day quarantine on vessels from Gulf and West India ports from May 1 to November 1.

Pilotage.—Sailing vessels do not pay river pilotage, steamers pay 60 dols.

Levée Dues.—Twenty cents per ton on all vessels. Harbour master's fee 5 dols. entrance, and 3 cents per ton.

Rates of Towages from Levée to Bar.

tons		tons		dols.
Vessels of 30 and under		40	- - -	40
40	,,	50	- - -	45
50	,,	60	- - -	50
60	,,	70	- - -	55
70	,,	80	- - -	60
80	,,	90	- - -	70
90	,,	100	- - -	75
100	,,	120	- - -	80
120	,,	150	- - -	85
150	,,	175	- - -	90
175	,,	200	- - -	100

200 and upwards, 50 cents per ton.

Rates of Towages from Bar to City.

Vessels under 30 tons per contract.

tons		tons		dols.
Vessels of 30 and under		40	- - -	90
40	,,	50	- - -	100
50	,,	60	- - -	110
60	,,	70	- - -	120
70	,,	80	- - -	130
80	,,	90	- - -	140
90	,,	100	- - -	150
100	,,	110	- - -	160
110	,,	120	- - -	170
120	,,	130	- - -	180
130	,,	140	- - -	190
140	,,	150	- - -	200

150 tons and upwards, 1 dollar 25 cents per ton.

All vessels from bar to quarantine, and from quarantine to city, half of the above rates.

All vessels below Fort Jackson to be charged the same as from bar.

All vessels of 100 tons and upwards from Fort Jackson to city, 1 dol. per ton.

tons		tons		dols.
Vessels of 75 and under		100	- - -	90
50	,,	75	- - -	80
40	,,	50	- - -	70

All vessels under 40 tons as per contract.

All vessels between quarantine and English Turn to city will be charged the same as from quarantine.

All vessels from English Turn to city, over 100 tons, 50 cents per ton.

All vessels from English Turn to city, under 100 tons, as per contracts.

All vessels requiring two boats on the bar, of 500 tons and upwards, will be charged 100 dols. for first trial and 75 dols. for each trial after. Under 500 tons, 100 dols. for first trial, and 50 dols. for each trial after.

Dock accommodations.—There are two now in use, and another under construction. One can take a vessel of 1,500 tons drawing 15 feet light. The one under construction is equally large. A smaller dock for vessels drawing 7 or 8 feet. The expenses of repairs are enormous, in consequence of combinations amongst the labourers.

State of bar at mouth of river.—The Mississippi has two principal passes; viz:—

The south-west pass, which has usually a depth of from 15 to 16 feet.

Pass à l'outre, which has a depth of from 12 to 14 feet.

Both these passes have a greater depth in particular winds. The other two passes, viz. the north-east and the south pass, have only from 5 to 6 feet of water on them, and are fast filling up.

Steps are being taken, an appropriation having been made by Congress for the purpose, to dredge out the south-west pass and pass à l'outre so as to give a greater depth of water.

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Tariff of Charges etc. agreed upon and adopted by the New Orleans Chamber of Commerce, in 1846 and 1848. Amended January 9, 1865.

Commissions on Sales.

	Per cent.
Sugar, cotton, tobacco, lead, flour, and other products of the soil	2½
Domestic manufactures and all foreign merchandise	5
Guarantee of sales on time	2½
Purchase and shipment of merchandise or produce	2½
Sales or purchases of stocks or bullion	1
Collecting and remitting dividends	1
Selling vessels or steamboats	2½
Purchasing vessels or steamboats	2½
Procuring freights	5
Collecting freights from foreign ports	5
Coastwise	5
Outfits and disbursements	2½
Effecting insurance	1
Adjusting or collecting insurance or other claims, without litigation	2½
With litigation	5
Purchasing and remitting drafts, or receiving or paying money on which no other commission has been charged	1
If bills remitted are guaranteed, in addition	1½
Bills and notes remitted for collection, protested and returned	1
Landing, custody, and re-shipping merchandise or produce from vessels in distress	2½
Do. bullion or specie	1
Adjusting and collecting general average	5
Consignments of merchandise withdrawn or reshipped per order, on amount of advances and responsibilities, full commission.	
On the surplus amount of invoices of such consignments, deducting advances and liabilities, half commission.	
Drawing, endorsing, or negotiating foreign bills of exchange	1½
Do. on domestic bills of exchange	1½
Receiving, entering, and re shipping merchandise to a foreign port, on amount of invoice	1
On amount of advances, charges and liabilities on same	2½
For drawing, accepting, negotiating, or endorsing notes or drafts, without funds, produce or bills of lading in hand	2½
On cash advances, in all cases	2½
For entering and bonding merchandise for the interior, on amount of duties, freight, and charges (besides the regular charge for forwarding)	2½
Agency for steamboats, according to special contract.	
The foregoing rates to be exclusive of brokerage and charges actually incurred.	
Commission on sales to be paid in the currency for which sales were made.	

Receiving and Forwarding Merchandise, exclusive of charges actually incurred.

	dols.	cts.
Sugar, molasses and tobacco - per hhd.	1	00
Cotton - per bale	2	50
Hemp ,,	0	50
Moss ,,	0	20
Provisions or bacon - per hhd.	0	50
,, per tierce	0	25
Pork, beef, lard, tallow - per bbl.	0	15
Box pork - per box	0	25
Flour, grain, and other dry barrels	0	8
Lard, nails and shot - per keg	0	5
Lead - per pig	0	5
Corn, wheat, beans, oats, and other grain - per bag	0	5

Liquids.

	dols.	cts.
Pipes and hogsheads	1	00
Half-pipes and tierces	0	50
Quarter-casks and barrels	0	25
Whisky - per bbl.	0	25
Oils ,,	0	25

Sundries.

		dols.	cts.
Boxes, bales, cases, trunks, and other packages of dry goods	25 cts. to	1	00
Earthen and hardware - per package,	25 cts. to	0	75
Bar iron and castings - per ton		1	25
Railroad iron and pig iron ,,		1	00
Hollow ware ,,		2	50
Soap, candles, wines &c. - per box		0	5
Coffee, spices &c. - per bag		0	10
Gunpowder - per keg		0	50
Salt - per sack		0	5

Storage and Labour per Month.

		dols.	cts.
Cotton and wool - per bale		0	25
Tobacco - per hhd.		0	50
Hemp - per bale, not exceeding	500 lb.	0	10
	450 ,,	0	15
	600 ,,	0	20
	800 ,,	0	25
Moss - per bale		0	10
Bagging, Kentucky	,,	0	5
India	,,	0	25
Rope, Kentucky		0	3
Gunny bags - per bale		0	15
Pelties ,,		0	10
Hides - each		0	1½
Lead - per pig		0	1
Hollow ware - per ton		1	25
Bar iron and castings	,,	0	75
Railroad iron and pig iron	,,	0	50
Bacon and provisions - per hhd.		0	25
Pork, beef, lard, tallow &c. - per bbl.		0	8
Molasses, oil, and whisky	,,	0	10
Flour	,,	0	5
Lard - per tierce		0	10
Lard - per bbl.		0	8
Lard - per keg		0	3
Sugar and molasses Havana - per hhd.		0	40
,, - per box		0	12½
Corn, wheat, oats, and other grain - per bag		0	4
Coffee, spices &c.	,,	0	5
Salt	,,	0	3
Candles, soap, wine, fish, raisins, oils, sweetmeats, segars &c. - per box or basket		0	4
Do in half boxes		0	2
Nails - per keg		0	3
Dry goods, not exceeding 10 feet		0	15
20 ,,		0	20
30 ,,		0	25
50 ,,		0	40
Crockery - per cask or crate		0	30
Crockery - per half-cask or half crate		0	15
Hardware - per cask		0	40
Hardware - per tierce		0	20
Hardware - per bbl.		0	10
Liquids - per pipe or hhd.		0	40
Liquids - per half pipe or tierce		0	25
Liquids - per quarter-cask or bbl.		0	10
Claret - per cask		0	20

Weight of Grain per Bushel.

		dols.	cts.
Wheat and rye - pounds		0	60
Corn ,,		0	56
Oats ,,		0	32

Tares.

Lard - actual tare	
Butter	,,
Cheese	,,
Tallow	,,
Stearine	,,
Sugar	,,
Coffee, in bags	,,
Rice, Georgia and Carolina - ten per cent	

Freights.

When vessels are chartered, or goods shipped by the ton, and no special agreement respecting the proportion of tonnage which each particular article shall be computed at, the following regulation shall be the standard:—

That the articles, the bulk of which shall compose a ton, to equal a ton of heavy materials shall in weight be as follows:

Coffee -	in casks	1,568 lb.	in bags	1,830 lb.	
Cocoa -	,,	1,120 ,,	,,	1,300 ,,	
Pimento	,,	950 ,,	,,	1,100 ,,	
Flour -	-	-	8 bbls. of	196 ,,	
Beef, pork, tallow, pickled fish, and naval stores -				6 bbls.	
Pig and bar iron, lead, and other metals or ore, heavy dye woods, sugar, rice, honey, or other heavy articles -				gross 2,000 lb.	
Ship bread -	in casks 672,	bags 784.		bulk 896 ,,	
Wines, brandy, spirits, and liquids generally, reckoning the full capacity of the casks, wine measure -				200 gals.	
Grain, peas and beans, in casks -				22 bbls.	
in bulk -				36 ,,	
Salt, European -				36 ,,	
West India -				31 ,,	
Stone coal -				28 ,,	
Timber, planks; furs, peltries, in bales or boxes; Cotton, wool, or other measurement goods -				40 c. ft.	
Dry hides -				1,120 lb.	

When molasses is shipped by the hogshead, without any special agreement, it shall be taken at 110 gallons, estimated on the full capacity of the cask.

Freights (and commission on them), when in sterling money, shall be settled at 4 dols. 84 cts. per pound sterling, and other foreign currency at the value fixed by Congress, adding thereto the current rate of exchange.

Mobile—at the mouth of the Alabama river in Mobile Bay—had, in 1860, 29,258 inhabitants, and is now the third port in the Union for the export of cotton, its shipments in the year ended August 31, 1867, having been 153,424 bales, while New Orleans exported 618,940, and New York 470,596. It has also an extensive and rapidly increasing trade in other things, being the entrepôt for nearly the whole of Alabama. The value of the domestic produce (principally cotton) exported from this state in the year 1857–58 amounted to 21,019,266 dollars, being more than that of any other state excepting New York and Louisiana. The imports are comparatively inconsiderable, not amounting to more than 500,000 or 600,000 dollars. The value of the aggregate business transacted in Mobile in the year ending June 30, 1867, as quoted by Messrs. Belding, Keith and Co. from the congressional edition of the *Report* of the Special Commissioners of Revenue, was 77,383,000 dollars. Mobile had on June 30, 1858, 47,444 tons shipping, of which nearly a half, or 21,958 tons, belonged to steamers.

The entrance to Mobile Bay is between Mobile point on the E., and Dauphin Island on the W.

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about 3¼ miles apart, the deepest channel having 15 feet water at low ebb; but vessels drawing more than 8 or 9 feet water cannot, owing to a shoal in the bay, reach the town except at high water. A lighthouse erected on the point, lat. 30° 16′ N., long. 88° 32′ W., exhibits a fixed light elevated 55 feet above the level of the sea.

Entries and Clearances of Vessels at Mobile (exclusive of Steamers and other Craft navigating the Rivers and Bay) for the Year ending June 30, 1858.

Entries	Arrivals			Clearances		
	Number of Vessels	Amount of Tonnage	Number of Crew	Number of Vessels	Amount of Tonnage	Number of Crew
American	125	80,778	2,010	179	114,907	2,851
Foreign	48	33,054	1,178	48	35,054	1,068
Coastwise	487	235,734	8,585	216	80,987	2,426
Total	660	351,566	11,773	443	230,948	6,345

The enormous difference which appears between the number of coastwise vessels entered and cleared, is owing to the fact that all the mail-line steamers and schooners, from New Orleans, enter at the Custom-house, and in no instance clear in returning.

Rates of Pilotage at the Lower Bar.

	dols. cts.
For vessels drawing from 1 to 10 feet	3 50 per foot
,, 10 to 14 ,,	4 00 ,,
,, 14 to 20 ,,	6 00 ,,

Rates of Pilotage at the Upper Bar.

	dols. cts.
For vessels of every draught	½ 50 per foot
United States tonnage dues	0 30 per ton
Harbour master's dues	0 3 ,,
Light charges, none.	
Quarantine, none.	

The following scale of charges was unanimously adopted at a meeting of the Mobile Chamber of Commerce, held at the Merchants' and Planters' Exchange, on November 22, 1865, viz.:—

	dols. cts.	
For purchasing and selling cotton	2½	per cent.
cotton on foreign orders when reimbursement is taken abroad	3	,,
Receiving and forwarding cotton, when no reimbursement is taken, as, for instance, to New Orleans when another party sells	1 50	per bale
When forwarded to New York, other northern or foreign ports	2 50	,,
Commissions on all disbursements	2½	per cent.
Shipment abroad, for account of planters, or others, when the entire management devolves upon the shipper	2½	,,
Brokerage on cotton for purchasing and shipmarking	1 00	per bale
closing and marking	50	,,
Weighing cotton	33	,,
Reweighing ,,	23	,,
Collecting and remitting or investing funds	½	per cent.
Receiving and forwarding merchandise	25	per bar'l.
Receiving and selling country produce, other than cotton	5	per cent.
Auctioneers' commissions	5	,,
Commissions on inward and outward freights	5	,,

We are indebted for the corrections in the above two articles to Mr. Consul Donohoe's published *Reports* and to valuable private information.

For United States Tariff, see NEW YORK.

NEWSPAPERS. Publications in numbers, consisting commonly of single sheets and published at short and stated intervals, conveying intelligence of passing events.

Importance and Value of Newspapers in a Commercial Point of View.—It is foreign to the purposes of this work to consider the moral and political effects produced by newspapers: of the extent of their influence there is no doubt, even among those who differ widely as to its effect. Their utility to commerce is, however, unquestionable. The advertisements or notices, which they circulate, the variety of facts and information they contain as to the supply and demand of commodities in all quarters of the world, their prices, and the regulations by which they are affected, render newspapers indispensable to commercial men, supersede a great mass of epistolary correspondence, raise merchants in remote places towards an equality, in point of information, with those in the great marts, and wonderfully quicken all the movements of commerce. Newspapers themselves have also become an important commercial article. In 1852 the nett produce of the stamp duty levied on newspapers in the United Kingdom was 412,956*l.*: the gross produce of the sale may be estimated at 4½ times this sum; so that on this hypothesis the newspapers produced in that year must have cost the public about 1,858,302*l.* sterling, exclusive of the sums paid for advertisements.

Newspapers, in London, are sold by the publishers to newsmen or newsvendors, by whom they are distributed to the purchasers in town and country. The newsmen, who are the retailers, receive, for their business of distribution, a regulated allowance. The papers sold to the public at 5*d.*, which, down to 1855, formed the great mass of London newspapers, are sold to the newsmen in quires. Each quire consists of 27 papers, and has been charged to the newsmen at 8*s.* 9*d.*; so that the newsman's gross profit on 27 papers was 2*s.* 6*d.* In some instances where newspapers are sent by the post, ½*d.* additional on each paper has been charged by the newsmen to their country customers. Some of the clerks of the post-office, called clerks of the road, used to be considerable newsagents; but this, we believe, is no longer the case. Previously to 1836 the stamp duty on a newspaper was rather under 3½*d.* (4*d.*—20 per cent.); but it was then reduced to 1*d.* nett.

Advertisements form a considerable source of profit to newspapers; and without them, some of those papers that are most widely circulated could not support their great expenditure. Down to 1853, all advertisements, without distinction of length, were charged with a duty of 1*s.* 6*d.* each, which produced, in 1852, 167,695*l.* 9*s.* 5*d.* nett in Great Britain, and 13,500*l.* 18*s.* in Ireland. But this duty being on various accounts highly objectionable, was then repealed. There are no means by which to learn the proportion of the advertisement duty which was paid by newspapers. Probably, however, we shall not be far wrong, if we take it at ⅓ of the entire sum. The charges of newspapers for advertising vary with the length of the advertisements and the circulation of the papers. It is obvious, indeed, that an advertisement in a journal which is widely circulated may do more to disseminate information in regard to the matter to which it refers, than its insertion in half a dozen papers of limited circulation.

Papers have been set on foot in different parts of the kingdom which contain advertisements only. They are not sold, but given away, and some of them are very extensively distributed. Their profits depend on their popularity with the advertising world, or on the number of advertisements sent them.

Inasmuch, however, as but little attention is paid to what is given gratis, we doubt whether

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the above be really advantageous engines for advertising. It has sometimes been tried, with a view to lessen the expense of advertisements, to confine certain descriptions of them, such, for example, as notices of books, to some one journal, or class of journals. But the experiment has had no great degree of success.

The London newspapers have become remarkable for the great mass and variety of matter which they contain, the ability of their leading articles, the rapidity with which they are printed and circulated, and the accuracy and copiousness of their reports of debates. These results are obtained by a large expenditure and considerable division of labour. The reports of parliamentary proceedings are obtained by a succession of able and intelligent reporters, who relieve each other at intervals of ¾ of an hour, or occasionally less. A newspaper cannot aim at copious and correct reports with less than 10 reporters for the House of Commons; and the expense of that particular part of a morning newspaper establishment exceeds 3,000*l.* per annum.

Regulations as to Newspapers.—The Act 6 & 7 Wm. IV. c. 76 introduced several new regulations with regard to newspapers. Among other things, it imposed a duty of 1*d.* on every sheet of paper printed as a newspaper, provided its superficies did not exceed 1,530 square inches; of 1½*d.* if it exceeded 1,530 square inches, and did not exceed 2,295 square inches; and of 2*d.* if it exceeded 2,295 square inches. When supplements were published with newspapers, they were each charged with a duty of ½*d.*, provided their superficies did not exceed 795 square inches.

This was neither more nor less than a device to limit the size of newspapers by imposing a peculiar tax on those publishers who might be disposed, by increasing the size of their journals, to lay the greatest supply of information or amusement before their readers. But this ingenious scheme for making a small be substituted for a large measure of intelligence has since been, if not abolished, at least materially modified. The Stamp Act of 1853, the 16 & 17 Vict. c. 63, has the following clauses; viz:—

As to Duties on Newspapers and Supplements.—No higher stamp duty than 1*d.* shall be chargeable on any newspaper printed on one sheet of paper containing superficies not exceeding 2,295 inches.

A supplement published with any newspaper duly stamped with the duty of 1*d.*, such supplement being printed on one sheet of paper only, and together with such newspaper containing in the aggregate a superficies not exceeding 2,295 inches, shall be free from stamp duty.

Any other supplement to any such duly stamped newspaper shall not be chargeable with any higher stamp duty than ½*d.*, provided it does not contain a superficies exceeding 1,148 inches.

And any two supplements to any such duly stamped newspaper shall not be chargeable with any higher stamp duty than ½*d.* on each, provided each of such supplements be printed and published on one sheet of paper only, and that they contain together a superficies not exceeding in the aggregate 2,295 inches.

The superficies in all the cases aforesaid to be one side only of the sheet of paper, and exclusive of the margin of the letter-press.

The Act 6 & 7 Wm. IV. c. 76 exempts from the duties on newspapers 'any paper called *Police Gazette* or *Hue and Cry*,' published in Great Britain by authority of the Secretary of State, or in Ireland by the authority of the Lord Lieutenant (the three Government *Gazettes* published in London, Edinburgh, and Dublin, ceased in 1868 to bear stamps); daily accounts or bills of goods imported and exported, or warrants or certificates for the delivery of goods, and the weekly bills of mortality: and also papers containing any list of price current, or of the state of the markets, or any account of the arrival, sailing, or other circumstances relating to merchant ships or vessels, or any other matter wholly of a commercial nature: provided such bills, lists, or accounts do not contain any other matter than what hath been usually comprised therein.

And the same Act lays down the following rules; viz. a discount of 25 per cent. is to be allowed on the above duties on newspapers printed in Ireland. (Sec. 2.)

In order to prevent fraud in the returns as to newspapers, it is enacted that from December 31, 1836, a separate or distinctive stamp or die shall be used for each newspaper. (Sec. 3.)

No person is to print or publish a newspaper until after a declaration has been made and lodged at the Stamp Office, containing certain particulars (specified in the Act), as to the names and addresses of the printer, and certain of the proprietors of such paper &c., under a penalty of 50*l.* Persons wilfully making a false or defective declaration are, upon conviction, to be deemed guilty of a misdemeanor. (Secs. 6, 7.)

There are a number of regulations intended to provide for the discovery and liability of the printer and proprietors, the security of the duties, and the prevention of the sale of unstamped papers. A penalty of 20*l.* is imposed on any person printing, publishing, selling &c. newspapers not duly stamped; and it is declared to be lawful for any officer of stamps, or any person authorised by the commissioners in that behalf, to seize any such offender, and take him before any justice having jurisdiction where the offence is committed, who shall summarily determine the matter, and upon conviction and default of payment, shall commit such offender to prison for some term not exceeding 3 calendar months, nor less than 1 calendar month. (Sec. 17.)

Penalty for sending abroad newspapers not duly stamped, 50*l.* (Sec. 18.)

Justices may grant warrants to search for unstamped newspapers, and to seize presses &c. used in printing the same; and on refusal of admittance, officers may break open doors &c. Persons resisting officers, liable to a penalty of 20*l.* (Secs. 22 23.)

Influence of the Reduction of the Duty in 1836.—The reduction of the price of newspapers from 7*d.* to 5*d.* occasioned a great increase in the demand for the old or established papers; and a considerable number of new weekly papers also started into existence after the reduction of the duty in the metropolis and throughout the country. Down to 1855, however, with one exception, no new daily paper was established in the metropolis.

Newspaper Act of 1855.—But a still further and most important change in the regulations as to newspapers was effected by the Act of 1855, 18 Vict. c. 27. It exempts newspapers or periodical publications, not transmitted by post, from all charge for duty; but the existing duty, and the other arrangements referred to above, are still kept up in the case of newspapers sent by post. Inasmuch, however, as newspapers may be readily transmitted between the principal places in the United Kingdom through private channels, it is probable that the post will be but little resorted to in time to come, except in the case of newspapers sent to the country, or to places out of the way of

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the great lines of communication. And hence, no doubt, the abolition of the duty on the great majority of newspapers will be the principal immediate effect of the new system. We beg to annex the following abstract of the Act referred to.

Not compulsory to print Newspapers on Stamps.—From and after 14 days from the passing of this Act, it shall not be compulsory (except for the purpose of free transmission by the post) to print any newspaper on paper stamped for denoting the duties imposed by law on newspapers, and no person shall be subject or liable to any penalty or forfeiture for printing, publishing, selling, or having in his possession any unstamped newspaper. (Sec. 1.)

Periodical Publications printed on Stamps to be transmitted by Post free of Postage.—Every periodical publication hereinafter mentioned which shall be printed within the United Kingdom on paper stamped for denoting the rate of duty now imposed by law on newspapers, shall be entitled to the like privileges of transmission and re-transmission by the post between places in the United Kingdom, either postage-free or otherwise, on the same terms and conditions and under and subject to the like rules and regulations, as newspapers duly stamped are now entitled and subject to under any Act or Acts in force, but under and subject nevertheless to the terms and conditions contained in this Act. (Sec. 2.)

Periodical Publications entitled to free Transmission by Post to be printed under specified Limitations and Conditions.—Every periodical publication, to be entitled to any such privilege as aforesaid, shall be printed and published at intervals not exceeding 31 days between any two consecutive parts or numbers of such publication, and shall be subject to the same limitations and restrictions with respect to the number of sheets or pieces of paper whereon the same shall be printed, and with respect to the superficies or dimensions of the letter-press thereof, as by any Act or Acts now in force are enacted or imposed with respect to newspapers and supplements thereto; and every such periodical publication shall be entitled to such privilege only on the terms and conditions following; viz. one of the sheets or pieces of paper on which the same shall be printed, shall be stamped with an appropriate die, denoting the stamp duty imposed by law on a newspaper printed on the like number of sheets or pieces of paper and of the like dimensions with respect to the superficies of the letter-press thereof; and on the top of every page of such publication shall be printed the title thereof, and the date of publishing the same, and such periodical publication, at the time when the same shall be posted, shall be folded in such manner that the whole of the stamp denoting the said duty shall be exposed to view, and be distinctly visible on the outside thereof; also such periodical publication shall not be printed on pasteboard or cardboard, or on two or more pieces or thicknesses of paper pasted together, nor shall any pasteboard, cardboard, or such pasted paper be transmitted by post with any such periodical publication either as a back cover thereto, or otherwise. (Sec. 3.)

Paper to be stamped for such Periodical Publications &c.—It shall be lawful for the proprietor or printer of any such periodical publication to send to the Commissioners of Inland Revenue, or to such officer as they shall appoint or direct in that behalf, any quantity of paper to be stamped with an appropriate die, to be provided in the manner directed by the Act 6 & 7 Wm. IV. c. 76 s. 3, for denoting the rate of stamp duty chargeable on newspapers; and upon payment to the proper officer of the full amount of the stamps required to be impressed on such paper, the said Commissioners shall cause the same to be stamped accordingly: provided always, that there shall be allowed in Ireland, in respect of such appropriated stamps as aforesaid for any periodical publication which shall be printed and published only in Ireland, the same rate of discount as by the said Act is directed to be allowed on the purchase of stamps for the printing of newspapers in Ireland. (Sec. 4.)

Periodical Publications to be posted within 15 Days after Publication.—Every periodical publication posted in the United Kingdom, to be entitled to the privilege of transmission by the post between places in the United Kingdom, under the provisions of this Act, shall be put into a post office within 15 days next after the day on which the same shall be published; the day of publication to be determined by the date of such publication. (Sec. 5.)

Questions as to Periodical Publications, how determined.—In all cases in which a question shall arise whether a printed paper is entitled to the privilege of a periodical publication, so far as respects the transmission thereof by the post under the provisions of this Act, the question shall be referred to the determination of the Postmaster-General, whose decision, with the consent of the Commissioners of the Treasury, shall be final. (Sec. 6.)

Newspapers may be registered at the General Post Office.—Upon the Postmaster-General being satisfied that any printed publication is a newspaper, or entitled to the privileges of a newspaper, within the meaning of the treaties and arrangements with foreign powers and colonial governments, it shall be lawful for the proprietor or printer of such newspaper or publication, if he think fit, to register the same at the General Post Office in London, in such form and with such particulars relating to the same, and subject to the payment of such fees, not exceeding 5s. respectively, as well on registration as afterwards periodically for being continued on the register, as the Postmaster-General, with consent of the Treasury, shall from time to time direct or require in that behalf; and thereupon such newspaper or publication, being printed on paper duly stamped with an appropriate die under the provisions of this Act, shall be entitled to all the privileges and advantages secured to newspapers by any such treaties and arrangements. (Sec. 7.)

Transmission by Post of printed Papers to Foreign Countries.—It shall be lawful for the Treasury, by warrant under their hands, to allow any printed newspaper (British, colonial, or foreign) to be transmitted by the post between places in the United Kingdom and colonies or foreign countries, or between any ports or places beyond the sea (whether through the United Kingdom or not), either free of postage or subject to such rates of postage not exceeding 2*d.* for each newspaper, irrespective of any foreign or colonial postage, as the Treasury, or Postmaster-General with their consent, shall from time to time think fit; and as a condition to any British newspaper being transmitted by the post to any place out of the United Kingdom, the same shall be printed on paper duly stamped with an appropriate die under the provisions of this Act, and the Treasury or Postmaster-General may require such newspaper to be registered at the General Post Office in London, in the form and with the particulars and subject to the payment of the fees mentioned in last section. (Sec. 8.)

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Power to the Postmaster-General and Treasury to make Regulations for carrying the Act into effect.—It shall be lawful for the Postmaster-General, with the consent of the Treasury, at any time or times hereafter to make and issue such orders, regulations, conditions, and restrictions as he shall deem to be necessary or expedient for the purpose of regulating the receipt, transmission, and delivery by post of periodical publications under the provisions of this Act, or for preventing or detecting frauds or abuses in relation thereto, and for giving effect to the purposes of this Act; and it shall also be lawful for the said Postmaster-General, with the like consent, from time to time to rescind or revoke all or any such orders, regulations, conditions, and restrictions, and to make and issue any new ones in lieu thereof. (Sec. 9.)

Periodical Publications sent by Post not in conformity with this Act to be charged Letter Rates of Postage.—Periodical publications sent by post otherwise than in conformity with the terms, conditions, and regulations established under the authority of this Act, may be detained by the Postmaster-General, and any officer of the Post Office; and after being opened, the same shall be either returned to the senders thereof, or forwarded to the place of their destination, charged with the like rates of postage as if the same were letters transmitted by the post: provided always, that it shall be lawful for the Treasury, by warrant under their hands, to authorise the Postmaster-General to charge, in any such case, any such less rate of postage as to him shall seem fit. (Sec. 10.)

London Gazette to be Evidence of the issuing of Warrants or Orders.—Any printed copy of the *London Gazette* in which any warrant or order issued or made under or by virtue of this Act, or purporting so to be, shall be published, shall be admitted as evidence by all courts, judges, justices, and others, of such warrant or order, and of the due making and issuing thereof, and of the contents thereof, without any further or other proof of such warrant or order, or of the matters therein contained. (Sec. 11.)

Interpretation of Terms.—The term 'periodical publication' used in this Act, shall be construed to mean and include a newspaper as defined by the Acts in force relating to the stamp duties on newspapers, and every printed literary work or paper, printed and published periodically, or in parts or numbers, at intervals not exceeding 31 days between any two consecutive papers, parts, or numbers of such literary work or paper; and for all the purposes of this Act the islands of Guernsey, Jersey, Alderney, Sark, and the Isle of Man shall respectively be deemed to be parts of the United Kingdom. (Sec. 12.)

It would be premature to speculate with much confidence in regard to the results of this important measure. But we doubt whether it will have the beneficial influence which many have anticipated. It was contended in 1836, when the duty on newspapers was reduced from 3½*d.* to 1*d.*, that various advantages would result from this reduction; that the clandestine circulation of cheap journals advocating dangerous doctrines would cease; and that the stigma attached to low-priced journals in the public estimation being removed, men of ability and attainments would find it as much for their advantage to write in them as in the higher-priced journals. These expectations have not been realised; and we much doubt whether the circulation of low-priced political journals can ever be of advantage. Such papers are, speaking generally, addressed to the lower and poorer classes of the community; and their writers usually find it more for their advantage to flatter the prejudices entertained by their readers, and to espouse their peculiar views, how inconsistent soever these may be with the interests of society in general, than to inculcate sounder though less popular principles. Hence the questionable character of the greater number of the low-priced papers, or, at least, of such of them as are read by the lower orders. This, perhaps, may be a necessary evil in a highly advanced country like this; but whether it be so or not, there can be no doubt of its existence, and of its magnitude.

It has sometimes been thought singular that that division of subjects which has been introduced into most other things has not been introduced amongst newspapers. Instead of having all sorts of matter crammed into the same journal, it might be presumed that the better plan would be to have all topics of considerable interest separately treated in papers appropriated to them only, and conducted by persons fully conversant with their principles and details. Under the present omnivorous system, individuals who care nothing for the theatre, are, notwithstanding, unable to procure a paper in which it does not occupy a prominent place; and those who cannot distinguish one tune from another have daily served up to them long dissertations on concerts, operas, oratorios, and so forth. But, how desirable soever, in some respects, the plan of appropriating particular papers to particular subjects does not appear to be at all suited to the public taste. In a well-conducted daily paper, like the *Times*, ably written articles on all subjects of interest are brought together under the reader's notice, who may read them all, or such only as he pleases. This is incomparably more convenient than to have to hunt for different articles among a variety of journals; and is, in fact, the only plan calculated to meet the wants and exigencies of the public.

Impolicy of imposing a Postage on Newspapers.—The duties now substantially repealed, produced, in 1853, 412,220*l.* nett, no inconsiderable sum in a period of war. In point of fact, however, they could hardly be called duties, and ought rather to have been regarded as a payment for the trouble and expense attending the conveyance and distribution of newspapers by post. But supposing such to be the case, it was argued that the duty should be so limited, that is, that it should only be imposed on papers carried by the post. Matters of this sort are not, however, to be decided by mere logical considerations. The effect of the new plan is to confine, in a greater or less degree, according to circumstances, the circulation of newspapers to the districts within which they are published; and this certainly is not a desirable object. Hitherto the *Times* and other London journals displaying the greatest talent, and embracing the most varied information, had been distributed all over the country at about the same price as the local and inferior journals. But under the new plan the charge for conveyance, or it may be postage, being added to the price, of the metropolitan journals, they become dearer than the local papers, and people in many, or rather perhaps in the majority of instances, will be disposed to prefer the low-priced though inferior journal published at their door, to the superior but higher priced journal of the capital. If this should turn out to be the case, it will be a serious disadvantage; and by depreciating the quality of the journals circulating over the country, and fostering local prejudices, will far more than neutralise the advantages which it is presumed will result, under

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the new plan, from the establishment of low-priced papers. These advantages are, indeed, of a very doubtful description. It is true that many of the inferior papers formerly to be met with inculcated pernicious doctrines. But it is by no means clear that their influence will be in any degree lessened by the new system. On the contrary, it may not improbably be increased. The late duty affected them to the same extent that it affected other descriptions of papers; and as they circulated when charged with this burden, it appears reasonable to suppose that they will circulate still more extensively when relieved from it. On the whole, therefore, we anticipate little or no advantage from the new plan. But we are, at the same time, ready to admit that no system of this sort can be safely judged à priori; and that the results of experience may differ very widely from those of theory.

In the Post Office returns, the free and chargeable newspapers are mixed with book packets, the number of each not being distinguished, but the whole numbering in 1867, 102,273,301.

Piracy in Newspapers.—The great difficulty under which the leading journals are at present placed, is the want of any available copyright in the news or in the articles which they supply. The important information collected by the agents for the *Times* in all parts of the world, and the able disquisitions in that and other journals, may be (and no doubt will be) published, in an hour or two after their first edition in London, in low-priced journals in Manchester, Liverpool, Glasgow, and so forth. This is a gross abuse. And though it be difficult to deal with, it seems pretty evident that if it be not put down, it can hardly fail, by robbing the metropolitan journals of great part of the advantages derived from their extensive connections and vast expenditure, to make them less anxious to cater for their readers, and so to degrade the quality as well as the character of the press.

Notices of Newspapers.—The history of newspapers, and of periodical literature in general, remains to be written; and were the task executed by an individual of competent ability, and with due care, it would be a most interesting and important work. It appears, from the researches of Mr. Chalmers, that the first newspaper published in modern Europe, made its appearance at Venice in 1536; but the jealousy of the Government would not allow of its being printed; so that, for many years, it was circulated in manuscript! It was called *Gazetta*, from a small Venetian coin of that name, for which it was usually exchanged. (Camusat, *Histoire des Journaux*, i. 119.) Newspapers were first issued in England by authority during the alarm occasioned by the approach of the Armada to our shores; in order, as was stated, by giving real information, to allay the general anxiety, and to hinder the dissemination of false and exaggerated statements. From this era, newspapers of one sort or other, have, with a few intermissions, generally appeared in London; sometimes at regular, and sometimes at irregular intervals. During the civil wars, both parties had their newspapers. A newspaper was published in Scotland, under the auspices of Cromwell, in 1652. The *Caledonian Mercury* was, however, the earliest of the Scotch newspapers of native manufacture; it first appeared at Edinburgh, under the title of *Mercurius Caledonius*, in 1660; but its publication was soon afterwards interrupted. In 1715, a newspaper was, for the first time, attempted in Glasgow.

The *Daily Courant*, the first of the daily newspapers published in Great Britain, made its appearance in London in the early part of the reign of Queen Anne. (*Life of Ruddiman*, pp. 102–21.)

From the Stamp Office accounts, it appears that the number of newspapers sold annually in England, during the three years ending with 1753, was 7,411,757; in 1760, 9,464,790; in 1790, 14,033,589; in 1792, 15,005,760.

An Account of the Gross Produce of the Duties on Newspapers and Advertisements during each of the Undermentioned Years, in England, Scotland, and Ireland.

Year ending January 5	Newspapers			Advertisements		
	England	Scotland	Ireland	England	Scotland	Ireland
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1811	328,413 10 11	21,285 7 8	In those years there was no separate account kept of stamps issued to newspapers in Ireland.	113,546 19 1	15,041 8 0	15,723 11 7
1812	335,095 6 0	21,054 13 9		114,195 11 5	14,597 9 0	20,479 5 3
1813	345,902 1 8	22,948 6 8		115,879 18 3	14,448 6 0	20,915 5 10
1814	362,441 4 4	21,921 19 7		114,111 12 10	14,625 7 0	21,253 3 11½
1815	363,500 0 0	20,158 7 7		106,575 9 8	13,410 5 0	19,759 17 6
1816	363,414 5 5	20,281 12 10½		110,941 6 6	14,017 7 0	20,475 14 1½
1817	360,893 15 8	16,612 2 4		118,202 3 4	13,353 8 6	18,498 7 5
1818	349,104 4 0	14,180 5 4		116,352 4 11	16,666 13 0	18,191 12 7
1819	350,257 3 0	17,481 13 4		119,788 19 4	17,240 6 0	18,536 12 6
1820	365,060 11 4	19,060 5 0		121,227 3 3	16,911 9 6	16,721 1 8½
1821	419,616 15 8	20,609 6 8		122,772 15 6	16,416 15 0	15,491 0 0
1822	394,995 17 4	19,573 18 0		123,965 17 5	16,095 2 0	15,102 5 0½
1823	378,185 19 8	20,367 8 0		131,286 12 0	17,050 16 6	13,708 7 3½
1824	390,375 8 8	20,795 13 0		125,475 5 7	16,020 11 0	14,524 5 8½
1825	409,291 0 0	22,347 9 4		134,633 19 3½	17,825 17 0	16,426 10 9
1826	425,154 10 8	24,419 17 0		144,751 2 6½	18,708 18 0	15,907 15 0
1827	429,662 15 2	22,013 6 4		135,687 7 2	17,779 13 0	16,720 0 0
1828	428,649 9 8	23,929 10 4		153,978 16 11	18,400 14 6	14,379 17 6
1829	439,798 8 0	23,556 2 8		156,368 17 10	18,939 12 8	15,631 15 0
1830	438,867 10 8	24,301 6 0		156,032 18 10	17,592 5 7	14,985 6 0
1831	455,972 10 6	29,466 10 0		137,915 19 4	19,566 8 0	16,337 14 0
1832	502,697 19 4	32,020 15 2		137,836 12 3	19,080 0 0	18,672 10 2
1833	490,451 6 8	31,465 14 8		137,122 10 0	18,878 6 0	15,748 17 4
1834	461,437 3 0	28,100 14 0		114,506 2 2	16,191 4 4	12,710 2 4
1835	458,053 16 5	29,338 19 8		73,908 1 6	10,114 16 2	8,130 14 8
1836	473,810 12 6	27,999 4 8		77,853 9 9	10,887 17 0	8,468 12 2
1837	561,413 14 4	37,453 5 0		87,985 4 8	10,351 6 0	8,339 6 0
1838	182,990 3 2	18,671 13 3		90,501 0 7	11,455 18 0	8,679 4 8
1839	184,077 1 2	20,559 17 9½		98,648 11 5	13,230 16 6	8,910 12 0
1840	198,092 9 8	22,400 5 7		101,556 19 2	13,927 18 0	9,741 12 4
1841	202,737 1 8	22,963 18 7		106,904 1 11	14,518 8 0	10,167 10 4
1842	204,733 6 6	24,430 2 0		107,597 5 1	14,817 4 0	9,859 13 10
1843	211,792 18 11	24,027 13 9½		103,386 7 2	13,671 15 0	8,530 14 0
1844	219,182 15 6	24,836 18 11		105,172 16 3	13,668 13 6	8,390 5 2
1845	235,216 9 7	26,278 12 11		111,296 6 0	14,317 0 6	9,457 3 0
1846	270,500 7 6½	27,941 18 9		129,359 15 6	18,011 11 6	10,910 14 0
1847	287,858 17 10	29,337 15 3½		131,116 10 8	17,736 5 6	11,088 7 0
1848	284,338 1 11½	31,428 5 10½		133,967 1 0	18,105 0 0	11,088 13 0
1849	299,267 0 6	31,818 15 2		129,568 9 10	17,810 8 6	10,342 17 0
1850	297,342 3 3½	31,107 6 7		133,758 15 10	18,496 1 6	11,088 4 0
1851	302,886 10 3½	32,284 16 5		137,140 0 11	19,216 10 0	11,886 8 4

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An Account of the Aggregate Number of Stamps Issued for Newspapers in each of the Undermentioned Years, Distinguishing the Numbers in England, Scotland, and Ireland.

Year	England	Scotland	Great Britain	Year	England	Scotland	Great Britain	Ireland*
1801	15,090,805	994,280	16,085,085	1820	23,177,127	1,236,560	26,413,687	2,974,156
1805	17,610,069	1,172,200	18,782,269	1825	25,485,503	1,465,191	26,950,694	3,500,182
1810	21,519,786	1,459,775	23,979,561	1830	27,370,092	3,133,988	30,504,080	4,035,314
1815	23,075,983	1,509,523	24,585,508	1835	28,508,569	3,024,454	31,533,023	4,290,856
				1840	48,896,570	5,663,943	54,560,513	6,057,795

* Until 1817 no distinct account was kept of the Stamps issued for Newspapers in Ireland.

Account of the Aggregate Number of Stamps of One Penny and One Halfpenny Issued for Newspapers in each of the Undermentioned Years, Distinguishing the Numbers in England, Scotland, and Ireland.

Year	England		Scotland		Ireland	
	at 1d.	at ½d.	at 1d.	at ½d.	at 1d.	at ½d.
1842	50,088,175	1,481,521	5,540,424	440,400	6,063,906	35,750
1843	51,612,193	1,956,832	5,831,671	257,150	6,454,072	149,380
1844	54,084,761	3,724,378	6,050,465	325,620	6,769,067	249,550
1845	59,651,024	10,382,491	6,450,529	508,750	6,921,888	235,178
1846	64,452,379	9,110,430	6,885,306	510,671	6,960,440	131,925
1847	64,138,660	8,197,467	7,421,032	234,175	6,574,607	57,510
1848	67,476,768	8,704,236	7,497,064	176,854	7,028,956	41,702
1849	66,139,502	10,309,233	6,988,705	205,000	6,345,227	38,843
1850	65,741,271	11,684,123	7,613,045	241,264	6,302,728	45,308

A Return of the Number of Stamps Issued to the under-mentioned Newspapers in England, Ireland, Scotland, and Wales, during each of the 6 Years ending with 1850, and in the Year ending June 30, 1867.

ENGLAND

London Papers	Newspaper Stamps					
	1846	1847	1848	1849	1850	1867
Atlas	72,000	83,250	85,500	90,668	98,000	4,250
Athenæum	117,000	117,500	123,500	127,500	144,158	72,000
Anti-Slavery Reporter	12,150	13,000	12,125	12,000	12,000	..
Allen's Indian Mail	28,750	26,750	24,000	28,725	23,500	39,262
Australian Gazette	..	..	..	..	3,500	..
Architect and Building Gazette	..	..	..	17,700	16,200	..
Bible Society Reporter	10,350	11,500	11,000	12,250	11,850	..
Bell's Literary Advertiser	12,250	13,000	13,500	11,087	13,500	..
Bell's New Weekly Messenger	54,000	44,450	51,500	27,500	20,250	..
Bell's Life in London	1,250,000	1,311,000	1,256,500	1,176,500	1,285,500	126,575
Bell's Weekly Messenger	733,000	760,000	745,000	709,500	705,500	367,946
Britannia	254,331	216,000	205,500	182,562	165,875	..
British Banner	..	..	568,000	305,750	229,000	..
Course of the Exchange	13,900	9,600	9,600	7,800	7,800	9,000
County Herald	37,000	36,000	27,500	30,500	26,500	..
County Chronicle	68,940	79,000	74,500	77,000	72,000	65,000
Court Journal	41,500	37,697	26,097	18,559	17,543	75,500
Circular to Bankers	21,500	21,200	26,000	23,200	23,448	..
Commercial Daily List	26,200	29,000	27,000	25,200	27,000	26,000
Critic	50,975	52,600	16,000	13,050	20,500	..
Church and State Gazette	53,250	48,000	43,000	44,000	44,000	..
Christian Spectator	31,000	21,000	20,000	25,050	25,200	..
Commercial Review	1,700	1,055	2,200	2,200	2,500	..
Christian Times	..	..	25,500	131,171	94,000	..
Cottage Gardener	..	..	9,000	27,000	24,000	..
Catholic Standard	..	..	..	20,950	80,950	..
Daily News	3,520,500	3,477,009	3,530,634	1,375,000	1,152,000	99,646
Evening Mail	530,000	550,000	600,000	675,000	690,000	235,000
Examiner	250,500	222,000	276,000	218,825	228,228	33,245
Ecclesiastical Gazette	134,200	159,000	137,350	144,600	144,300	131,450
Economist	178,475	253,100	225,000	200,500	199,000	26,950
Express	160,000	778,714	808,480	964,000	766,950	138,170
Era	169,551	228,000	230,500	191,500	221,600	27,000
English Review	..	..	..	..	19,450	..
Gardeners' and Farmers' Journal	..	69,770	118,250	91,500	60,500	1,000
Gardeners' Gazette	75,600	84,500	111,000	121,250	121,600	..
Gardener's Chronicle	410,000	406,000	382,800	385,019	338,000	148,166
Guardian	60,000	82,350	116,250	131,000	187,875	259,593
Globe	764,000	690,000	720,000	650,000	585,000	100,000
Historic Times	..	..	..	248,500	85,503	..
Illustrated London News	2,367,467	2,267,601	2,261,658	3,600,169	3,467,007	764,346
Indian News	36,995	31,650	29,750	34,000	36,400	..
John Bull	132,000	118,000	118,500	122,000	110,000	38,000
Jurist	85,650	83,200	84,887	84,800	85,325	..
Justice of the Peace	99,600	95,050	99,275	89,000	86,075	71,240
Literary Gazette	29,500	25,350	25,700	29,850	26,200	..
Le Courrier de l'Europe	87,000	48,000	77,100	70,500	67,000	..
London Gazette	410,000	170,000	245,000	210,000	180,000	650,000
London Price Current	4,950	4,700	4,325	3,420	3,147	..
Lloyd's Weekly London	2,665,500	1,691,500	1,776,527	2,431,450	2,559,000	62,500
Ladies' Companion	..	..	..	24,000	14,500	..
Leader	..	..	..	..	116,375	..
Mark Lane Express	345,000	317,000	250,750	237,350	218,000	222,000
Mining Journal	91,500	109,500	96,500	106,500	107,000	..
Morning Advertiser	1,480,000	1,500,000	1,558,000	1,528,250	1,549,943	30,000
Morning Chronicle	1,350,000	1,235,000	1,150,504	957,500	912,547	..
Morning Herald	1,740,500	1,510,000	1,535,000	1,147,000	1,139,000	23,788
Morning Post	1,450,500	990,100	964,500	905,000	828,000	220,000
Magnet	215,175	249,000	260,958	237,000	216,050	190,000
Medical Times	82,150	76,320	81,615	82,150	70,853	..
Musical World	14,680	16,446	15,652	15,432	14,712	..
Money Market Examiner	..	..	6,000	35,725	17,200	..
Nautical Standard	36,500	55,000	52,918	44,000	40,000	..
New Zealand Journal	10,000	7,500	9,925	10,000	7,850	..
Nonconformist	118,500	118,550	145,850	146,500	134,175	66,000
Naval and Military Gazette	95,000	88,000	80,724	75,800	60,320	5,250
Northern Star	322,000	441,000	666,500	361,500	246,000	..
News of the World	1,878,500	1,981,853	2,478,955	2,806,767	2,926,269	187,500
Notes and Queries	..	..	..	4,000	12,500	13,000
Observer	177,500	212,000	231,000	260,500	324,000	..

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Number of Stamps issued to Newspapers—continued

ENGLAND—*continued.*

London Papers	Newspaper Stamps					
	1846	1847	1848	1849	1850	1867
Perry's Bankrupt Gazette	29,650	28,971	48,853	65,413	88,726	..
Patriot	225,000	210,000	174,076	155,000	139,000	24,000
Patron Ledger	140,000	131,000	140,080	130,000	150,000	50,000
Publishers' Circular	54,500	65,500	64,332	58,500	60,000	..
Pawnbrokers' Gazette	40,200	41,300	40,020	39,050	39,900	31,104
Record	399,192	409,110	390,385	345,854	345,050	92,000
Railway Times	368,500	361,500	361,300	366,000	390,500	410,000
Reynolds' Weekly	242,500	195,500	137,250	113,200	86,700	13,000
Standard of Freedom	..	..	..	..	273,250	2,000
Sunday Times	..	..	185,000	208,500	168,500	..
Shipping Gazette	932,500	785,000	757,000	735,000	675,000	12,248
Standard	497,112	422,500	444,000	475,000	459,500	240,000
St. James's Chronicle	780,000	650,500	561,500	539,000	492,000	419,826
Sun	593,500	550,000	496,000	467,000	431,000	..
	1,104,000	969,000	895,512	873,000	834,500	38,500
Spectator	194,000	174,100	174,000	161,000	132,500	{ 38,775 at 1d.; 800 at 1½d.
Times	8,950,000	9,205,250	11,025,500	11,300,000	11,900,000	{ 865,477 at 1d.; 1,493,475 at 1½d.; 111,134 at 2d.
Tablet	190,000	199,716	212,550	190,600	..	64,250
The Lady's	20,000	300,166	282,365	237,025	256,000	..
The Country Gentleman	..	..	..	..	2,000	..
United Service Gazette	72,000	68,000	63,072	66,550	72,700	21,000
Weekly News	..	..	..	53,250	74,600	..
Weekly Dispatch	2,427,500	2,005,500	2,112,790	2,050,000	1,950,000	40,000
Weekly Chronicle	260,000	171,000	152,000	116,500	85,000	..
Watchman	175,000	175,000	158,000	180,000	200,000	66,000
Weekly Tribune	..	..	..	20,050	20,000	..
Wesleyan Notices	21,000	21,775	14,075	8,500	14,600	101,811
Weekly Times	..	805,580	1,077,035	1,808,190	2,037,703	23,750
Wesleyan Times	..	..	..	308,000	466,900	
Provincial Papers						
Albion, Liverpool	159,500	141,000	153,000	160,250	176,000	52,800
Bath Herald	42,000	41,000	36,000	34,000	37,000	..
Bath Chronicle	75,500	74,500	74,000	74,500	81,000	55,000
Bath Journal	51,000	58,500	52,015	50,000	50,000	..
Bath and Cheltenham Gazette	49,000	40,500	49,000	45,000	44,000	25,000
Berwick Advertiser	40,000	44,000	43,500	45,000	43,000	22,150
Berwick Warder	27,000	24,000	26,000	23,025	25,000	14,000
Bradshaw's Railway Guide	7,586	6,950	27,000	34,750	27,100	..
Brighton Gazette	68,000	55,000	65,500	55,000	62,000	22,000
Brighton Guardian	50,000	50,000	50,000	45,000	48,000	13,000
Brighton Herald	44,000	52,000	65,000	53,000	65,000	15,000
Barbour's Circular	33,157	2,740	3,150	3,560	3,400	..
Bedford Times	21,000	23,000	22,500	28,000	26,000	21,500
Bedford Mercury	16,100	14,000	12,000	12,037	16,000	10,000
Bristol Journal	69,000	56,000	69,500	77,000	59,500	..
Bristol Temperance Herald	12,000	18,000	15,000	29,000	12,000	..
Berkshire Chronicle	39,500	33,000	37,350	37,000	40,500	24,550
Birmingham Gazette (Aris's)	120,500	114,000	132,000	106,000	120,000	35,000
Bucks Advertiser and Aylesbury News	..	37,000	36,000	48,000	36,000	17,500
Birmingham Journal	260,000	358,500	421,500	400,250	390,000	29,000
Bristol Mercury	272,000	260,300	275,000	277,500	267,000	50,000
Bristol Mirror	127,000	136,000	143,000	143,000	137,000	..
Bucks Herald	29,000	37,000	30,000	31,000	38,500	20,500
Bury and Norwich Post	91,000	99,500	82,000	86,000	103,000	44,000
Bristol Gazette	30,000	32,000	40,000	30,000	40,000	6,000
Boston Herald	25,000	27,000	25,000	25,000	31,500	..
Bradford Observer	54,000	54,000	55,595	39,435	55,000	18,000
Bradford Examiner	..	..	..	3,000	54,750	..
Bucks Chronicle	..	..	..	37,500	30,000	3,000
Buxton Herald	7,000	6,000	6,500	8,000	4,000	..
Blackburn Standard	33,500	44,500	28,350	31,000	28,000	4,500
Bolton Chronicle	67,709	60,000	66,000	71,250	77,000	8,000
Banbury Guardian	32,000	36,000	34,000	40,000	36,000	16,000
Bridgewater Times	26,153	32,000	30,000	18,000	16,950	..
Birmingham Mercury	..	..	23,500	193,000	150,000	..
Cambridge Chronicle	85,250	87,000	80,700	96,550	105,100	70,500
Canterbury Weekly Journal	9,000	18,000	9,000	13,000	13,000	..
Carlisle Journal	156,000	117,000	166,000	168,000	168,000	106,000
Carlisle Patriot	45,000	38,685	60,900	58,000	64,000	25,000
Cheltenham Chronicle	58,685	60,900	58,000	64,000	56,000	2,000
Cheltenham Journal	25,000	30,000	23,500	35,000	30,000	5,000
Cheltenham Free Press	36,000	36,000	45,000	29,000	31,400	..
Cheltenham Looker On	25,000	30,258	22,000	31,000	27,200	..
Chester Chronicle	80,000	72,000	66,000	55,500	66,000	..
Chester Courant	58,000	60,000	54,000	55,500	58,000	27,800
Chelmsford Chronicle	108,750	117,000	137,750	114,000	110,300	42,000
Cornwall Royal Gazette	53,500	54,000	50,000	52,500	65,000	66,000
Coventry Herald	42,000	42,000	42,500	46,000	42,000	..
Coventry Standard	44,000	42,000	37,500	42,500	42,000	10,000
Cumberland Pacquet	41,500	40,000	40,000	40,000	40,000	13,000
Cambridge Advertiser	36,500	36,550	35,000	25,000	8,150	..
Cambridge Independent Press	121,000	127,500	126,000	138,000	121,000	56,500
Dorset County Chronicle	76,000	58,800	69,000	65,500	62,900	65,000
Durham Chronicle	50,000	59,500	66,000	59,000	56,500	23,000
Durham Advertiser	25,000	30,000	29,000	40,000	29,000	23,500
Devonport Telegraph	31,500	31,900	26,000	36,125	26,500	..
Devonport Independent	40,600	44,000	34,700	37,000	30,750	2,000
Derbyshire Advertiser	35,000	25,420	24,000	23,000	20,500	29,000
Devonshire Chronicle	16,500	21,000	20,000	18,000	12,000	..
Derby Mercury	79,000	75,000	75,000	65,750	70,000	55,000
Derby Reporter	110,000	115,000	105,000	105,000	110,000	..
Derbyshire Courier	36,150	44,000	39,500	44,500	25,100	10,800
Dover Telegraph	29,250	27,945	26,455	26,475	21,100	14,000
Dover Chronicle	30,000	24,000	22,000	17,000	21,500	..
Doncaster Gazette	111,000	109,000	109,000	107,700	109,000	30,000
Doncaster Chronicle	64,000	55,000	57,000	60,000	55,000	15,500
Devizes and Wiltshire Gazette	54,500	53,000	53,250	57,000	54,000	40,000
Darlington and Stockton Times	..	16,500	44,100	46,000	34,000	14,000
Exeter Flying Post	85,000	88,000	81,000	100,000	99,500	..
Exeter and Plymouth Gazette	98,000	99,150	18,500	117,000	120,000	36,000
Essex Standard	71,400	74,300	171,440	71,400	70,000	64,000
Eastern Counties Herald	98,000	87,000	87,000	77,000	96,730	..
Essex Herald	74,000	79,000	83,000	90,500	85,500	45,000
Eddowes Journal	88,500	96,000	88,000	109,000	109,000	28,000
Westwood Chronicle	10,560	13,504	9,440	10,500	8,960	..

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Number of Stamps issued to Newspapers—continued.

ENGLAND—*continued.*

Provincial Papers	Newspaper Stamps					
	1846	1847	1848	1849	1850	1867
Farmers' Herald	9,500	9,960	9,288	8,275	10,000	...
Gloucester Journal	117,000	115,000	120,000	125,592	108,000	40,000
Gloucestershire Chronicle	65,500	55,000	55,000	56,000	69,500	45,000
Gateshead Observer	120,000	110,000	102,000	65,000	101,000	9,500
Hereford Journal	70,500	69,000	65,000	56,000	60,000	26,000
Hereford Times	148,800	174,000	176,000	180,550	205,000	102,000 at 1½d.
Hampshire Guardian	16,500	27,200	29,500	28,000	1,100	...
Hampshire Chronicle	65,000	70,000	74,000	40,711	56,750	31,000
Hampshire Advertiser	135,000	136,500	135,500	135,500	140,500	55,000
Hampshire Independent	70,250	74,000	78,000	78,000	69,000	21,500
Hertford County Press	32,500	39,000	38,000	39,000	32,000	...
Halifax Guardian	82,000	117,450	100,000	102,000	124,000	10,000
Herts Reformer	31,000	31,000	32,000	33,732	35,500	...
Hull Advertiser	106,000	108,000	104,000	130,000	90,000	9,000
Hull Packet	85,500	96,000	123,000	80,425	92,500	15,000
Hampshire Telegraph	166,200	164,500	164,500	173,000	135,500	43,000
Harrogate Advertiser	14,250	16,250	15,500	18,750	18,500	7,000
Hastings and St. Leonard's News	...	...	14,400	28,000	29,250	10,995
Ipswich Journal	112,000	101,000	108,000	111,000	109,350	80,500
Ipswich Express	59,100	48,000	52,000	49,800	14,000	27,000
Jones, Gibson, and Orde's Wool wich Mercury	11,500	1,400	17,500	17,000	15,000	...
Kent Herald	55,000	55,000	55,000	50,000	50,000	15,000
Kentish Independent	24,000	24,500	22,500	23,500	22,000	...
Kendal Mercury	56,500	50,000	51,000	48,000	44,000	16,000
Kentish Gazette	54,000	49,500	51,500	52,850	50,000	35,750
Kentish Observer	24,000	24,000	15,000	20,000	21,000	21,000
Lancaster Gazette	26,004	22,501	26,250	38,250	37,000	17,000
Lancaster Guardian	31,000	35,000	47,500	41,000	25,500	26,000
Leamington Spa Courier	51,500	52,000	51,500	54,000	50,000	30,000
Leeds Intelligencer	208,500	201,480	220,174	200,000	180,000	...
Leeds Mercury	500,000	500,000	521,000	450,000	459,000	{ 114,000 at 1d.; { 25,500 at 1½d.
Leeds Times	284,550	254,000	281,500	250,000	251,000	14,000
Leicester Chronicle	41,000	37,000	35,150	35,000	33,000	20,500
Leicester Journal	65,500	60,500	55,000	47,000	51,500	40,000
Leicestershire Mercury	39,250	41,875	40,500	56,000	59,175	...
Lincolnshire Chronicle	70,000	56,000	70,000	...	77,875	26,000
Lincolnshire Times	...	29,500	...	...	39,500	...
Liverpool European Times and Chronicle	...	10,000	14,650	...	205,350	3,000
Liverpool Courier	120,000	133,000	102,200	154,000	113,000	36,000
Liverpool Journal	140,500	389,000	393,000	434,000	357,000	8,500
Liverpool Mail	165,000	189,000	171,000	168,000	135,000	15,000
Liverpool Mercury	467,000	161,500	728,000	643,648	544,750	127,000
Liverpool Standard	113,000	145,000	123,400	140,000	60,000	...
Liverpool Telegraph	3,840	6,940	8,000	8,000	6,000	...
Liverpool Times	53,000	151,000	90,000	68,440	78,600	...
Liverpool Mercantile Gazette	48,600	47,000	48,000	36,000	41,000	11,000
Liverpool Advertiser (Gore's)	70,000	66,000	41,000	60,500	25,000	18,000
Lynn Advertiser	35,000	30,000	30,000	39,000	32,750	21,000
Macclesfield Courier and Herald	60,000	41,000	55,000	72,500	66,000	22,000
Maidstone Gazette	102,000	113,000	109,000	113,500	106,250	48,250
Maidstone Journal	57,000	62,500	55,000	64,750	53,000	30,000
Manchester Courier	278,000	276,748	235,000	215,000	276,250	71,000
Manchester Guardian	1,032,000	1,009,000	968,000	940,000	108,500	...
Manchester Spectator	...	...	...	130,450	108,500	...
Manchester Gazette	...	...	...	1,000	3,440	...
Manchester Examiner	288,970	353,000	483,700	609,850	553,560	63,000
Midland Counties Herald	296,000	305,143	506,000	312,000	314,000	260,000
New Cambridge Advertiser	...	...	...	...	8,470	...
North Devon Advertiser	14,000	1,500	14,500	...	52,100	...
Northampton Herald	107,000	100,000	93,000	...	93,000	62,000
Nuneaton Mercury	85,500	88,000	80,000	88,000	89,000	33,000
Nottingham Guardian	37,750	55,000	41,788	46,000	17,000	55,000
Nottingham Journal	118,000	70,000	72,400	95,000	71,000	28,000
Nottingham and Newark Mercury	66,000	34,000	45,000	48,000	32,500	...
Nottingham Review	104,000	100,000	90,000	81,000	85,000	4,800
Norwich Mercury	130,000	117,000	92,000	107,762	105,000	82,000
Norfolk Chronicle	151,000	146,000	118,500	158,000	144,000	60,000
North Devon Journal	36,500	42,500	28,000	52,650	51,200	22,000
Newcastle Guardian	59,000	67,800	106,444	136,500	135,500	...
Newcastle Journal	138,500	132,500	117,500	110,500	119,815	...
Newcastle Courant	154,000	149,000	164,000	260,000	250,000	45,000
Newcastle Chronicle	145,500	164,000	151,750	151,023	148,000	...
Norfolk News	100,000	...	...	222,960	50,000	105,000
North and South Shields Gazette	...	105,000	105,000	27,475	11,000	...
Oxford Journal	110,000	65,000	60,000	102,500	102,500	...
Oxford City and County Chronicle	69,000	50,000	38,000	60,000	64,400	28,500
Oxford Herald	40,000	27,000	30,000	15,000	31,000	6,500
Poole and South Western Herald	26,000	...	...	...	20,000	15,000
Port of Portsmouth Guardian	...	...	...	...	31,500	...
Portsmouth Times and Naval Gazette	...	...	...	...	35,000	7,500
Payne's Leicester Advertiser	93,000	101,000	96,000	88,000	71,975	...
Preston Chronicle	63,500	74,500	65,500	66,000	63,000	11,000
Preston Pilot	36,500	47,000	48,750	45,000	47,875	...
Preston Guardian	169,580	199,750	194,500	241,000	261,000	6,000 at 1d.; 12,000 at 1½d.
Plymouth Herald	60,000	64,000	56,000	61,050	64,000	...
Plymouth and Devonport Journal	40,000	35,000	46,200	61,801	68,705	...
Plymouth Times	24,000	24,000	27,000	14,000	19,000	...
Penzance Gazette	22,000	16,375	10,000	8,191	9,347	...
Penzance Journal	...	15,500	20,775	21,175	14,975	...
Poole and Dorsetshire Herald	25,000	30,000	30,000	30,000	8,450	...
Provincial Medical Journal	75,000	43,100	54,300	28,500	41,500	...
Reading Mercury	181,750	187,500	190,740	188,000	206,700	50,000
Rochester Gazette	6,000	5,000	5,000	5,000	5,500	2,000
Sherbourne Journal	81,050	79,500	78,500	76,000	84,000	20,000
Stamford Mercury	388,000	371,000	372,700	598,000	581,500	...
Somerset County Gazette	34,000	45,000	33,000	33,000	38,500	{ 26,500 at 1d.; { 1,000 at ½d.
Sheffield Independent	174,000	168,500	170,000	190,000	207,000	35,000
Staffordshire Advertiser	271,750	299,000	325,000	327,500	333,500	{ 114,500 at 1d.; { 2,250 at 1½d.
Shrewsbury Chronicle	125,500	132,000	123,000	124,425	107,000	82,500
Suffolk Chronicle	120,000	110,000	110,000	111,000	110,000	32,000
Sherbourne Mercury	36,000	30,000	30,000	23,000	32,000	...
Salisbury and Wiltshire Herald	27,000	27,000	25,500	18,500	20,000	...
Sunderland Herald	82,000	77,000	100,500	100,000	104,000	16,000
Stockport Advertiser	28,100	27,500	29,000	27,500	28,500	2,000

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Number of Stamps issued to Newspapers—continued.

ENGLAND—*continued.*

Provincial Papers	Newspaper Stamps					
	1846	1847	1848	1849	1850	1867
Somerset County Herald	26,000	27,000	30,000	32,000	28,000	30,500
Sheffield Free Press	...	...	...	...	5,000	...
Sheffield Times	47,000	87,000	141,500	155,000	132,000	6,000
Shields Gazette	...	...	...	...	40,500	...
Shropshire Conservative	21,000	20,000	21,000	20,000	20,000	...
Shropshire Times	14,000	15,000	17,000	14,200	12,000	7,000
Standard and Manchester Journal	139,000	134,500	136,000	132,000	120,000	80,000
Southport Visitor	12,000	12,000	13,500	14,850	17,000	...
Sussex Advertiser and Surrey Gazette	43,200	49,140	50,500	56,500	57,000	50,500
Scarborough Gazette	21,593	35,580	17,500	28,850	33,750	11,500
Sussex Express and Surrey Standard	148,000	168,000	192,000	184,000	192,000	320,000
Stockport Mercury	...	18,250	13,000	12,500	14,250	...
Torquay and Tor Directory	11,000	25,000	23,000	28,000	28,100	12,000
Taunton Courier	21,000	22,000	18,000	15,754	14,000	6,000
Ten Towns Messenger	30,500	26,500	29,000	10,500	10,500	...
Teignmouth Gazette	...	...	...	2,850	5,000	1,000
Ulverstone Advertiser	...	...	...	...	48,000	...
Wigan Times	...	...	...	...	27,375	...
Wakefield Examiner	...	...	...	...	40,800	...
Warwick Advertiser	60,000	61,500	55,000	55,000	57,000	16,000
West Briton and Cornwall Advertiser	135,500	132,500	124,000	110,000	132,500	51,500
West of England Conservative	29,500	33,087	27,500	33,800	40,000	...
Western Luminary	30,000	30,000	27,000	33,000	27,000	...
Western Times	148,500	171,000	183,000	185,500	191,000	36,000
Westmoreland Gazette	43,500	36,000	36,000	37,200	39,350	19,000
Whitehaven Herald	30,000	31,000	25,000	25,000	27,000	5,000
Windsor and Eton Express	40,000	38,000	37,750	36,000	38,000	15,000
Wiltshire Independent	41,000	35,000	33,000	30,000	33,000	9,000
Wilts and Gloucestershire Standard	29,100	28,000	26,500	26,465	25,500	45,000
Wolverhampton Chronicle	79,000	85,825	88,986	89,194	89,500	39,000
Worcester Herald	111,000	132,500	125,375	141,975	144,000	63,000
Worcester Journal (Berrow's)	101,500	72,500	101,000	104,000	80,000	43,000
Wrexham Advertiser	39,000	41,000	29,000	27,500	24,000	...
Westmoreland Mail Gazette	6,000	6,000	6,000	8,000	6,000	...
Worcester Chronicle	77,875	85,000	88,000	85,000	87,480	18,000
Weekly Register	...	137,000	169,000	105,000	82,000	37,126
Woolwich Gazette	5,500	500	18,000	3,992	8,595	...
Wisbeach Advertiser	11,000	15,000	12,000	10,000	10,000	...
Yorkshire Gazette	143,000	156,000	156,000	143,000	143,000	77,000
Yorkshire Racing Calendar	2,000	4,500	2,000	2,960	2,950	...
York Herald	161,000	165,000	177,500	221,000	196,000	109,000
Yorkshireman	110,000	129,000	145,000	181,000	161,000	...
Yeovil Times	...	15,000	33,000	26,400	27,250	...

WALES

Welsh Papers	Newspaper Stamps					
	1846	1847	1848	1849	1850	1867
Cambrian	40,475	68,000	66,000	72,000	61,000	29,000
Carmarthen Journal	77,000	40,180	40,700	39,000	36,435	21,000
Carnarvon and Denbigh Herald	48,000	51,450	57,900	66,300	77,500	47,000
Merthyr Guardian	51,600	62,000	70,000	63,000	62,998	...
Monmouthshire Merlin	66,000	72,000	75,000	75,000	83,500	...
Monmouthshire Beacon	27,000	27,000	26,000	25,500	27,500	...
North Wales Chronicle	22,250	21,500	18,000	15,400	38,600	35,000
Pembrokeshire Herald	42,000	36,700	36,000	42,700	36,000	17,000
Silurian	24,072	23,000	20,036	22,000	19,000	...
Swansea and Glamorgan Herald	...	20,000	48,500	44,000	48,000	...
Welshman	48,000	49,000	41,000	39,000	36,000	36,000
Yr Amserau	64,000	50,240	40,600	101,480	86,975	...
Y Cymro	...	2,000	28,884	19,137	22,000	...

SCOTLAND

Scotch Papers	Newspaper Stamps					
	1846	1847	1848	1849	1850	1867
Aberdeen Herald	103,000	98,500	99,500	123,000	78,000	44,000
Aberdeen Journal	139,250	138,000	148,000	175,240	161,000	66,000
Aberdeen Banner	28,500	27,870	22,000	27,000	15,500	...
Aberdeen North of Scotland Gazette	97,000	76,500	69,500	42,000	22,750	...
Ayr Advertiser	80,000	80,000	80,000	88,000	88,000	48,000
Ayr Observer	41,000	40,000	44,000	44,000	39,400	28,500
Arbroath Guide	20,000	21,770	20,750	22,000	18,000	6,500
Alloa Advertiser	3,840	4,800	4,800	4,064	13,772	11,000
Banffshire Journal	17,050	21,000	22,000	26,000	26,150	62,000
Brechin Advertiser	17,000	15,500	15,500	16,000	16,000	...
Dumfries Courier	106,000	106,000	106,500	110,000	104,000	74,000
Dumfries Herald	40,000	34,500	34,500	32,000	32,000	16,500
Dumfries Standard	35,000	30,000	29,500	35,250	34,000	19,500
Dundee Courier	18,000	20,150	24,000	29,250	30,000	12,000
Dundee Northern Warder	67,775	74,500	70,000	67,500	78,000	...
Dundee Advertiser	145,000	143,000	150,000	136,000	132,000	37,500
Edinburgh Courant	217,000	210,000	215,000	241,000	225,000	219,500
Edinburgh Mercury	103,000	106,000	107,500	110,500	106,512	...
Edinburgh Advertiser	149,000	141,000	145,000	150,000	131,000	...
Edinburgh Gazette	14,000	15,000	16,500	22,370	26,000	27,000
Edinburgh Scotsman	272,000	284,500	302,000	299,000	301,000	310,000
Edinburgh North British Advertiser	611,150	617,850	638,500	649,000	689,000	445,000
Edinburgh Ladies' Own Journal	27,000	27,000	31,500	31,000	47,000	26,100
Edinburgh Saturday Post	124,500	108,000	102,000	99,600	86,700	...
Edinburgh Missionary Record, Church of Scotland	34,994	37,113	34,550	27,980	32,610	...
Edinburgh Witness	268,000	267,000	251,000	265,000	266,000	...
Edinburgh Missionary Record	29,700	33,500	27,004	34,400	34,780	...
Edinburgh Free Church Magazine	7,680	7,940	10,300	8,100	9,680	...
Edinburgh Railway Gazette	49,500	40,000	29,250	30,500	16,000	...

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Number of Stamps issued to Newspapers—continued.

SCOTLAND—*continued.*

Scotch Papers	Newspaper Stamps					
	1846	1847	1848	1849	1850	1867
Edinburgh Christian Treasury	2,448	1,680	3,360	7,450	11,000	..
Edinburgh Scottish Express	..	..	132,000	111,425	110,000	..
Edinburgh United Presbyterian Magazine	..	800	2,100	2,150	2,785	..
Edinburgh United Presbyterian Record	..	10,000	25,360	21,760	10,300	..
Edinburgh Juvenile Magazine	..	700	4,000	4,000	5,000	..
Edinburgh Chambers' Journal	15,000	12,000	9,600	9,600	9,600	..
Edinburgh Midlothian Advertiser	..	..	..	..	149,000	..
Edinburgh North British Agriculturist	..	..	..	..	70,300	131,449
Elgin Courant	28,000	25,000	30,000	26,000	30,000	27,500
Elgin Courier	17,000	23,000	16,150	15,100	19,350	10,465
Fife Herald	48,820	38,500	34,000	36,500	37,500	15,000
Fife Journal	31,500	38,500	30,000	27,000	28,500	20,000
Fife Advertiser	2,000	4,840	12,710	9,725	11,000	10,000
Forres Gazette	5,500	5,800	5,500	4,998	5,250	4,500
Falkirk Herald	6,000	7,500	8,000	8,500	15,500	8,000
Glasgow Courier	140,000	135,000	110,000	100,000	100,000	..
Glasgow North British Mail	..	455,580	558,000	243,350	229,000	12,000
Glasgow Chronicle	79,950	76,500	68,000	78,000	78,000	..
Glasgow Herald	397,931	390,000	390,000	390,000	391,000	..
Glasgow Saturday Evening Post	248,200	271,000	374,000	409,000	458,000	9,000
Glasgow Scottish Guardian	110,000	113,000	107,000	110,400	110,000	..
Glasgow Constitutional	80,000	90,000	79,850	62,900	73,000	..
Glasgow Scottish Reformers' Gazette	131,000	160,000	129,000	121,000	122,000	..
Glasgow Christian News	72,640	79,840	75,680	79,624	81,000	24,000
Glasgow British Friend	22,000	63,000	16,000	18,000	19,500	15,500
Glasgow Examiner	129,500	112,800	150,000	138,000	150,000	..
Glasgow Railway and Shipping Journal	39,000	36,000	26,000	19,500	17,500	..
Glasgow North British Telegraph	..	..	2,500	7,460	17,720	..
Glasgow Sentinel	..	..	..	..	78,000	..
Glasgow Citizen	116,000	126,000	121,000	113,500	110,000	..
Greenock Advertiser	58,000	58,000	60,000	62,500	65,450	17,000
Greenock Record	..	..	..	..	8,540	..
Galashiels Border Advertiser	26,000	24,240	23,175	19,170	22,000	12,156
Inverness Courier	88,000	93,525	94,000	96,000	90,000	120,500
Inverness Advertiser	18,500	17,000	11,000	48,000	80,000	20,000
Kelso Mail	44,000	43,000	40,000	44,000	41,000	24,000
Kelso Chronicle	27,250	22,000	26,000	27,000	28,000	22,994
Kirross Advertiser	..	..	1,750	1,450	3,650	7,400
Kilmarnock Journal	20,700	11,000	17,000	16,000	19,000	..
Montrose Review	67,000	72,000	67,000	71,000	65,500	18,000
Montrose Standard	16,700	19,000	36,000	44,500	50,000	32,000
Nairn Mirror	8,000	9,000	9,500	8,500	8,000	..
Peebles Advertiser	2,900	3,642	3,968	2,138	4,272	9,000
Perth Courier	21,000	15,000	13,875	15,000	65,000	11,595
Perth Advertiser	52,000	56,000	60,000	68,000	65,000	50,000
Perth Constitutional	24,000	23,000	17,000	17,000	16,000	..
Renfrew Advertiser	28,000	28,500	36,500	..	7,000	..
Stirling Journal	36,000	30,000	30,000	31,050	28,000	15,000
Stirling Observer	30,000	30,000	30,000	37,500	32,500	8,500
Stonehaven Journal	10,000	11,500	8,450	8,800	7,750	3,000
Wigtonshire Free Press	28,000	28,000	30,000	33,000	35,000	..
Wick John O'Groat's Journal	37,000	41,000	43,500	41,000	36,150	22,500

IRELAND

Dublin Papers	Newspaper Stamps					
	1846	1847	1848	1849	1850	1867
Saunders' News Letter	790,000	768,000	796,000	705,000	756,000	144,000
Freeman's Journal	416,500	426,000	424,000	475,000	412,000	84,000
Evening Mail	396,000	408,000	414,000	346,000	315,000	368,000
Evening Post	260,000	234,500	240,000	184,500	162,000	122,500
Evening Freeman	81,000	66,000	71,000	72,000	54,000	90,000
Gazette	6,000	18,500	14,000	16,000	30,000	24,000
Weekly Freeman	210,000	237,000	235,500	168,000	120,000	26,500
Warder	116,500	108,000	108,500	118,000	114,000	38,000
General Advertiser	481,750	495,500	474,000	320,500	530,000	861,500
Medical Press	26,500	22,000	26,792	24,750	24,562	57,500
Christian Examiner	20,000	10,100	12,000	12,500	12,500	5,000
Ecclesiastical Journal	16,000	11,500	11,500	12,400	12,500	..
The World	30,913	30,893	60,790	37,650	31,400	..
Nation	299,500	267,000	153,000	155,800	108,000	32,950
Advocate Industrial Journal	..	..	..	45,100	42,000	..
Nation Advertiser	..	..	..	..	61,000	..
Tablet	..	..	..	..	162,300	..
Commercial Journal	..	..	..	46,950	60,500	841
Constitutional and Church Sentinel	..	..	..	..	7,695	..
Inspector	..	..	..	..	6,700	..
Missionary Herald	..	..	..	..	6,000	..
Farmers' Gazette	127,500	123,000	94,775	80,425	96,625	..
Irish Country Papers						
Belfast News Letter	70,000	66,000	70,000	75,500	72,500	102,500
Belfast Vindicator	234,000	242,000	272,500	244,500	285,500	57,500
Belfast Banner of Ulster	88,000	51,500	40,000	18,000	54,750	..
Athlone Sentinel	100,000	86,500	92,000	90,000	123,400	18,000
Anglo Celt	2,500	5,000	5,000	5,000	2,500	..
Armagh Guardian	22,500	18,000	17,500	17,500	20,000	10,000
Achill Missionary Herald	25,927	29,500	32,500	32,500	34,750	10,500
Ballina Chronicle	31,500	24,500	47,000	36,500	32,000	14,000
Ballyshannon Herald	..	..	..	5,100	2,500	..
Clonmel Chronicle	7,500	7,750	6,700	5,500	2,500	..
Cork Constitution	..	..	..	..	10,000	58,500
Cork Southern Reporter	208,000	223,000	216,025	204,000	180,000	96,000
Cork Examiner	178,000	145,000	167,000	141,500	168,000	39,000
Coleraine Chronicle	167,000	199,500	210,025	103,000	161,500	102,500
Carlow Sentinel	39,000	35,000	32,500	30,000	42,000	17,500
Clare Journal	17,000	17,500	15,000	17,500	15,000	12,500
Downpatrick Recorder	15,500	16,500	17,500	18,000	19,000	8,000
Drogheda Conservative	34,500	25,000	30,000	25,000	20,000	10,000
Drogheda Argus	12,500	17,500	17,500	5,000	7,500	3,000
	41,500	31,500	30,000	29,000	25,000	22,500

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***Number of Stamps issued to Newspapers*—continued.**

IRELAND—*continued.*

Irish Newspapers	Newspaper Stamps					
	1846	1847	1848	1849	1850	1851
Dundalk Democrat	..	..	..	6,000	22,500	..
Fermanagh Impartial Reporter	32,500	29,500	27,500	25,000	22,500	15,000
Galway Vindicator	35,000	32,500	27,500	32,500	34,000	27,500
Galway Mercury	18,250	16,125	12,725	14,425	12,500	..
Kerry Evening Post	22,000	18,500	17,500	17,500	17,500	22,500
King's County Chronicle	20,000	18,525	20,000	17,500	17,500	10,000
Kilkenny Journal	25,000	23,500	23,500	17,500	20,000	12,500
Kilkenny Moderator	27,500	22,500	27,500	25,000	25,000	20,000
Lurgan Chronicle	..	..	..	..	11,875	..
Leinster Express	30,000	32,000	34,176	37,500	31,500	30,000
Limerick Chronicle	195,000	205,000	250,000	193,500	165,000	107,500
Limerick Reporter	50,000	40,500	39,500	39,000	37,000	39,500
Limerick Examiner	110,000	55,000	65,000	60,500	60,000	..
Londonderry Journal	38,000	26,500	32,500	30,000	26,500	17,500
Londonderry Sentinel	65,000	56,000	49,125	50,675	60,000	40,000
Londonderry Standard	51,500	90,000	105,000	102,000	97,000	37,500
Longford Journal	9,000	9,000	12,000	9,000	9,000	6,000
Meath Herald	12,000	5,000	2,500	5,400	12,500	500
Mayo Constitution	15,000	14,500	11,000	10,500	10,500	22,500
Mayo Telegraph	28,500	15,000	15,000	15,000	15,000	9,000
Nenagh Guardian	24,750	22,500	20,000	20,000	20,000	22,500
Nenagh Chronicle	..	..	..	..	18,000	..
Newry Telegraph	130,500	107,500	120,000	107,500	110,000	30,000
Newry Examiner	50,000	34,000	32,000	30,250	27,500	7,500
Northern Standard	17,500	17,500	17,500	17,500	15,000	5,000
Roscommon Gazette	18,500	10,625	5,250	6,000	5,625	2,500
Roscommon Messenger	..	..	..	10,000	9,375	7,500
Rebiew of Munster	..	..	..	..	45,000	..
Sligo Chronicle	..	..	..	..	16,000	12,500
Sligo Champion	10,000	12,500	7,500	7,500	7,500	5,000
Tipperary Free Press	32,000	32,000	32,000	24,000	24,000	25,000
Tipperary Vindicator	66,000	50,000	62,500	50,000	17,000	2,500
Tuam Herald	18,750	12,000	15,000	12,500	12,500	15,000
Tyrawley Herald	11,250	13,750	12,750	10,000	10,000	10,000
Tyrone Constitutional	12,000	8,000	10,000	20,000	18,000	4,750
Tralee Chronicle	17,250	18,500	14,000	15,000	16,250	20,000
Ulster Gazette	31,500	22,500	18,000	15,000	11,500	1,500
Westmeath Guardian	15,500	15,500	15,000	12,500	12,000	1,000
Western Star	13,000	13,000	13,500	10,500	12,500	1,500
Waterford Chronicle and Weekly Star	18,000	30,500	27,000	5,000	10,000	..
Waterford Mail	25,000	25,000	27,000	30,000	30,000	..
Waterford News	9,000	9,000	14,372	2,000	10,000	17,500
Wexford Independent	46,000	37,500	69,000	47,000	46,500	22,500
Wexford Guardian	..	5,000	12,500	17,500	18,000	..

American Newspapers.—The increase of newspapers in the United States has been a good deal more rapid than in England; a consequence, partly, no doubt, of the greater increase of population in the Union, but more, probably, of their freedom from taxation, and of the violence of party contests.

The whole number of newspapers and periodical publications in the United States on June 1, 1850, amounted, according to the official returns, to about 2,800. Of these 2,494 were fully reported upon, while the particulars with respect to the others were in part estimated.

From these returns &c. it appears that the aggregate circulation of papers and other publications was about 5,000,000; and that the entire number of copies printed annually in the United States, amounted to about 422,600,000. The following table shows the number of daily, weekly, monthly, and other issues, with the aggregate circulation of each class:—

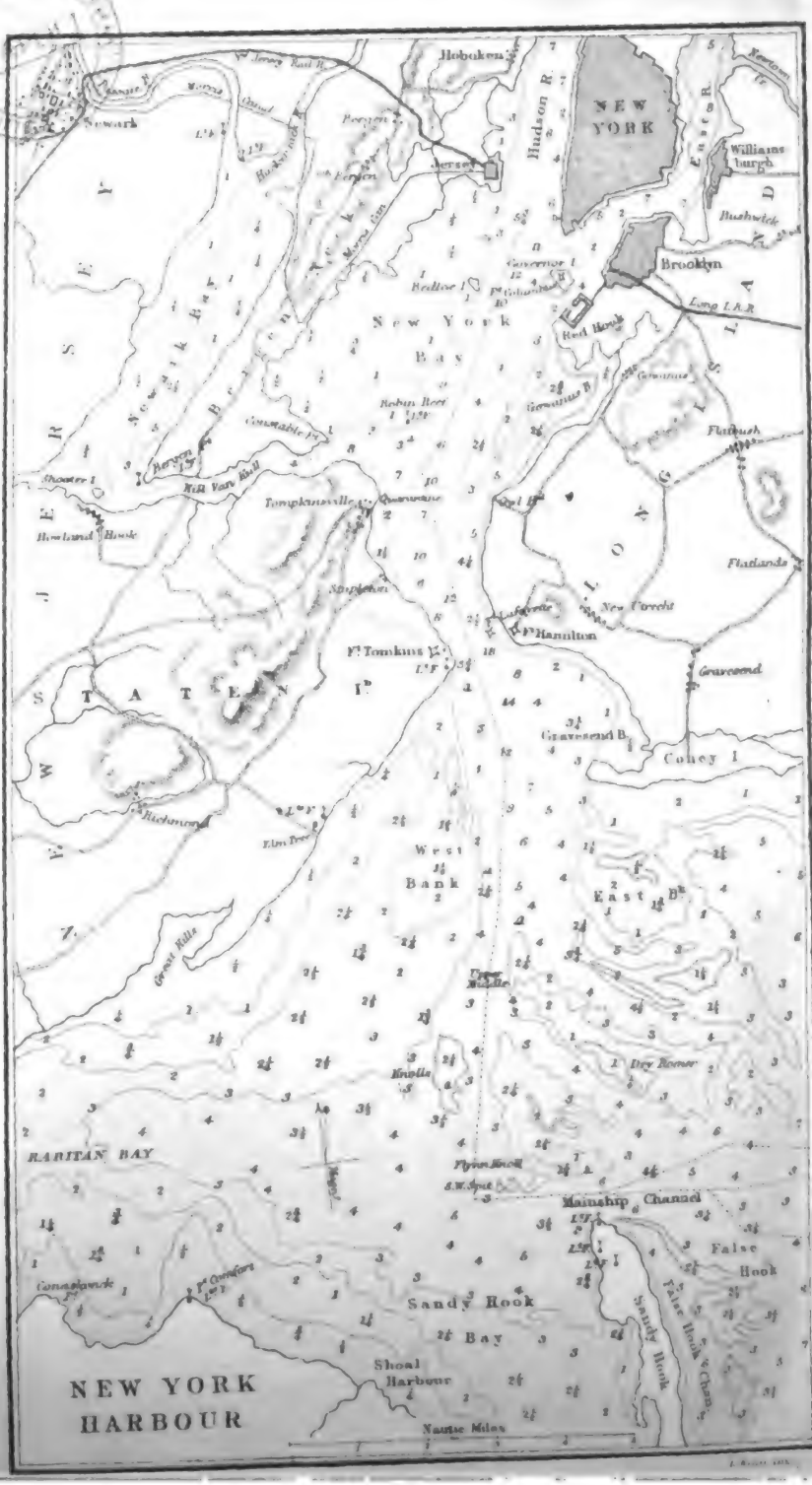
	No.	Circulation	No. of Copies printed annually
Daily Journals	250	750,000	235,000,000
Tri-weekly	150	75,000	11,700,000
Semi-weekly	125	80,000	8,320,000
Weekly	2,000	2,875,000	149,500,000
Semi-monthly	80	300,000	7,200,000
Monthly	100	900,000	10,800,000
Quarterly	25	20,000	80,000
Total	2,900	5,000,000	422,600,000

No official statement of the number of journals in 1860 has yet been published, but there is reason to believe that the total did not much exceed that of 1850. Had the circulation increased *pari passu* with the population, we should, taking the rate of 21·81 copies to each person (the average of 1850), and taking the population of 1868 at 37,000,000, have an aggregate number of copies annually printed in the United States of nearly 807,000,000.

We are not, however, to estimate the influence of newspaper literature by its quantity only, but must have regard also to its *quality*. The latter is, indeed, the principal thing to be attended to; and in whatever degree the Americans may exceed us in the number, they certainly are much below us in the quality, of their newspapers. Speaking generally, we do not hesitate to say that the newspaper press is discreditable to the Union. The journals indulge, with comparatively few exceptions, in offensive personalities. Instead of examining the principles of the measures brought forward, they assail the character and misrepresent the motives of those by whom they are introduced. It is impossible, we believe, to name an individual who has attained to any high office in the United States, or to consideration in Congress, who has not been libelled, traduced, and calumniated by a large portion of the press, to a degree that can hardly be imagined. The magnitude of the evil will, probably, lead to its cure. No people, with any pretensions to instruction and morality, can patronise a press whose principal features are misrepresentation, exaggeration, and abuse.

NEW YORK. The capital of the state of that name, the commercial metropolis of the United States, and one of the greatest cities of modern times, on the southern extremity of Manhattan Island, at the point of confluence of the Hudson River, which separates Manhattan from New Jersey, with East River, which separates it from Long Island, lat. 40° 42′ N., long. 74° 8′ W. New York bay, or inner harbour, is one of the finest and most capacious in the world; it is completely land-locked, and affords the best anchorage. The entrance to the bay through the Narrows is extremely beautiful. On each side, the shore, though wooded down to the water's edge, is thickly studded with farms, villages, and

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country seats. At the upper end are seen the spires of the city; and in the distance the bold precipitous banks of the Hudson. From New York to the bar between Sandy Hook Point and Schryer's Island (the division between the outer bay or harbour and the Atlantic) is about 17 miles. Fortifications have been erected at the Narrows, Governor's Island, and other places, for the defence of the city and shipping. The accompanying plan represents the city and bay of New York, and the surrounding country.

The Hudson river was first explored in 1609, by the famous English navigator whose name it bears, then in the service of the West India Company of Holland. In 1612, New Amsterdam, now New York, was founded by the Dutch, as a convenient station for the fur trade. In 1664, it was taken by the English. The Dutch again recovered possession of it in 1673; but it was retaken by the English in the following year, and continued in their occupation till the termination of the revolutionary war.

New York has increased faster than any other city of the United States. In 1699 it contained 6,000 inhabitants. In 1774, previously to the commencement of the War of Independence, the population amounted to 22,750. During the war the population continued stationary; but since 1783, its increase has been quite extraordinary. In 1790, the population amounted to 33,131; in 1800, to 60,489; in 1820, to 123,706; in 1830, to above 213,000; in 1840, to 312,710; and in 1850, to 515,507. This, however, was exclusive of the population of Brooklyn, which, in 1850, amounted to 96,838, and is as much a part of New York as Birkenhead is of Liverpool. In 1860 the population of the city proper was 805,551, and of the metropolis (including Brooklyn 266,667), 1,072,312. At present (1869) the population of New York and its suburbs is said to be little short of 1,300,000. Originally the houses were mostly of wood, and the streets narrow and confined. In these particulars, however, a vast improvement has taken place during this century, most of the old houses having been pulled down and rebuilt with brick. The new streets, which are broad, and intersect each other at right angles, are well paved and lighted. Broadway, the principal street, is one of the largest and finest in the world. Many of the public buildings are commodious and elegant. The pools, that were formerly abundant in the city and its vicinity, have been completely filled up; a measure that has done much to improve the health of the population. In respect of cleanliness, however, New York, though much improved, is still rather deficient. Formerly there was hardly such a thing as a sink or common sewer in the whole city; the night-soil and filth were collected in pits, of which there was one in every house, and being conveyed to the nearest quays, were thrown into the water; and as these are made of timber, with many projections, a great deal of filth was retained about them, producing, in hot weather, an abominable stench. But in these respects a great amendment has been effected; and the deficiency of water, under which the city formerly laboured, has been completely obviated by the construction of the Croton aqueduct, about 40½ miles in length, a work worthy of being ranked with the noblest of the old Roman aqueducts. It is carried over the Haarlem river (separating Manhattan Island from the continent), on a bridge of stone of 14 arches, 1,450 feet in length. The yellow fever, by which New York has sometimes been visited, uniformly breaks out in the lower and dirtiest part of the town; and seldom, indeed, extends to the new and more elevated streets. It is now much less prevalent than formerly; and the general opinion seems to be, that were stone substituted for timber in the quays, sewers generally constructed, and proper regulations enforced as to cleanliness, the scourge would entirely disappear.

New York is indebted, for her wonderful increase, to her admirable situation, which has rendered her the greatest emporium of the New World. The rise of the tide is about 6 feet: and even at ebb, there is 21 feet water on the bar; and the water in the outer and inner bays, and in the river, is so deep, that ships of the largest burden lie close to the quays, and may proceed to a great distance up the river. The navigation of the bay is rarely impeded by ice. The great strength of the tide, and the vicinity of the ocean, keep it generally open, even when the Chesapeake and Delaware bays are frozen over. The influence of the tides is felt in the Hudson as far as Troy, 160 miles above New York, affording peculiar facilities for its navigation. These natural advantages have been vastly extended by a system of canals, which has connected the Hudson not merely with Lake Ontario and Lake Erie, but with the Ohio river, and consequently with the Mississippi and the Gulf of Mexico. So prodigious a command of internal navigation is not enjoyed by any other city, with the exception of New Orleans; but the readier access to the port of New York, the greater salubrity of the climate, and her situation in the most industrious part of the Union, where slavery is abolished, give her advantages over her southern rival, which, it is most probable, will secure her continued preponderance.

Entrance to Harbour, Lighthouses &c.—The course in entering the harbour of New York is nearly due west from the outermost white buoy on the bar, till the buoy on the south-west point of the east bank be passed, and then nearly due north. The navigation is extremely easy. Pilots generally board vessels without the bar; for, otherwise, they are only entitled to half fees. Were it not for fear of vitiating insurances, their services would seldom be required. (*Rates of Pilotage*, post.)

The lights and lighthouses in New York Bay are as follow: first, the Sandy Hook light vessel, 6 miles from Sandy Hook, having a fog bell and horn, lat. 40° 27′ 39″ N., long. 73° 52′ W. Then south of Sandy Hook are the 2 Navesink lighthouses, standing 76 yards apart, each 258 feet above high water, and visible, in clear weather, for 25 miles. Next, on Sandy Hook, at the south point of the entrance to New York Bay, lat. 40° 27′ 39″ N., long. 73° 59′ 49″ W., is a white tower, exhibiting, at 90 feet above the sea, a fixed white light, visible 15 miles. Here is also a fog bell, which strikes seven times a minute. On Sandy Hook, northward of the lighthouse, are 2 white beacons, exhibiting fixed white lights, each 35 feet above the sea, and visible for 10 miles. There are 2 more beacon lights; one near the beach, and one on Chapel Hill, in the main channel; another, ¾ mile south-eastward of Point Comfort; another, ¾ mile southerly from the above; one near Elm Tree Station on Staten Island, and another at New Dorp, 1½ mile N.W. of it; another on Staten Island; another, which flashes every two minutes, near the south-east end of Staten Island; another on Staten Island, west side of the Narrows; and lastly, one on Robbin's reef. Here is also a fog bell.

Trade &c.—The commerce of New York is of vast extent. The value of the merchandise

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annually loaded and unloaded in the port is estimated at from 450 to 500 millions of dollars; and in the busy season the number of vessels in it varies from 1,000 to 1,500, exclusive of about 250 steamers. The number of arrivals from foreign ports amounted, in 1858, to 8,957, and the coasting arrivals exceed 8,000. The total value of the imports into the United States in the year ending June 30, 1858, amounted to 282,613,150 dols. of which no less than 178,476,736 dols. were imported into New York. The total imports for 1866 amounted to the large sum of 306,000,000 dols., at the gold value. If the freight and duty be added to this, and the whole be then converted into United States paper currency, the total will fall very little short of 600,000,000 dols. This amount of imports is without precedent in the history of any port. The imports comprise an infinite variety of articles. The principal are cottons, woollens, linens, iron, hardware and cutlery, earthenware, brass, and copper manufactures, salt &c. from Great Britain; silk, wine, brandy &c. from France and Spain; sugar and coffee from the Havannah and Brazil; tea from China; with spices, indigo, cochineal, dye woods &c. The value of the exports from the State of New York, and mostly from this city, in the year ending June 30, 1858, amounted to 108,340,924 dols., being one-third of the total exports from the United States. In 1866, the value of the exports from New York was 192,329,554 dols. The exports principally consist of wheat and wheat flour, corn, rice and cotton; bullion; beef, pork, butter, dried fish, and all sorts of provisions; furs, tobacco, lard, petroleum, coarse cottons, and other manufactured goods, lumber &c. The great excess of imports into New York over the exports is accounted for by the fact, that while by far the larger portion of the articles of export from the Western states are sent down the Mississippi, to be shipped at New Orleans, the greater part of the more valuable articles brought from abroad, and destined for the consumption of the same states, is imported into New York.

Statement Classifying the Imports at New York from 1863 *to* 1867.

	1863	1864	1865	1866	1867
	dollars	dollars	dollars	dollars	dollars
Dry goods - - -	67,274,547	71,589,752	91,963,138	126,222,855	86,263,643
General merchandise -	118,814,219	144,270,366	130,654,000	170,812,300	163,078,493
Specie - - -	1,525,811	2,265,622	2,125,281	9,578,029	3,306,339
Total - -	187,614,577	218,125,760	224,742,419	306,613,184	252,648,475

The total value of the exports from New York to foreign ports (ex specie) in 1867 was 186,790,025 dollars.

The shipping of New York is far greater than that of any other port, London not excepted. The total tonnage belonging to the port on September 30, 1838, amounted to 400,971 tons; and on June 30, 1844, it had increased to 2,328,884 tons, being about ½ of the entire tonnage of the United States, and incomparably the greatest amount of shipping that has ever belonged to any single port. Subjoined are some statements respecting the navigation &c. of New York, in some recent years:—

Return showing the Value in Dollars of Imports and Exports from New York in American and Foreign Vessels respectively for 5 Years, to 1866 *inclusive.*

Year	Imports		Exports	
	American Vessels	Foreign Vessels	American Vessels	Foreign Vessels
1862	69,199,104	113,645,659	79,430,179	120,235,873
1863	38,113,376	145,902,984	44,587,978	174,868,325
1864	51,777,560	177,191,522	42,239,046	227,999,561
1865	53,230,088	245,690,584	53,398,524	159,895,670
1866	55,185,903	247,469,613	58,965,553	190,989,001

N.B.—The Customs returns do not show the value of imports and exports in the vessels of the respective foreign nations.

The imports are valued in gold dollars, the exports in currency dollars, from which should be deducted the average premium of the year on gold, in order to reduce them to their equivalent in gold dollars.

Table exhibiting the Values of Exports from New York to Foreign Ports, exclusive of Specie, from 1864 *to* 1867.

Quarter	1864	1865	1866	1867
	dollars	dollars	dollars	dollars
First - -	41,429,756	46,710,118	60,972,531	49,576,379
Second -	48,446,686	74,216,567	46,766,586	46,970,261
Third -	79,519,134	40,571,495	38,581,202	38,928,663
Fourth -	52,126,966	67,178,421	46,309,135	52,314,922
Total -	221,522,542	178,676,599	192,329,554	186,790,025

In 1868 the total exports of specie from New York to foreign ports was 70,793,594 dollars' worth. These exports are mostly at their counted or tale value, but shipments of merchandise are reckoned at their market price in depreciated paper currency.

Comparative Statement of the Increase of British Trade and Shipping at the Port of New York for 5 *Years, from* 1862 *to* 1866 *inclusive.*

Year	Entered			Cleared		
	Number of Vessels	Tonnage	Crews	Number of Vessels	Tonnage	Crews
1862	1,962	636,712	27,572	2,018	647,013	27,772
1863	2,360	854,906	34,761	2,554	1,014,049	37,607
1864	2,411	950,454	38,440	2,594	1,038,906	42,232
1865	2,713	1,015,998	42,514	2,690	1,014,096	42,234
1866	2,126	1,201,541	45,751	2,461	1,205,805	45,666

In 1867, 4,676 foreign vessels, 2,053 being British, including 350 steamers, entered the port of New York; and in 1868, 4,861 arrived, of which 2,032 were British.

The Receipts for Cash Duties at the port of New York, for 1857, were 10,000,000 dollars less than for the previous year, owing to the change in the tariff, and the great falling off in the quantity of goods thrown upon the market—for, while the total value of foreign goods imported in 1857 (exclusive of specie), was about 218,000,000, the value of those that were sold was only about 185,000,000 dollars. In 1858, the sales exceeded the imports; but as these were comparatively small, the duties were about 9,000,000 dollars less than in 1857. In 1863 the Customs receipts were 58,886,054, and in 1867 about 114,000,000 dollars. In 1866 and 1867 the customs receipts did not increase in the same proportion as the total imports, for the duties collected applied only to the goods thrown on the market, and not to those which remained in the Government warehouses or were transferred to the interior in bond.

Coastwise Arrivals and Clearances.—Inasmuch as vessels engaged in this trade are not obliged to record their entry or clearance, except they have foreign goods or spirits on board, the official entries and clearances afford no test of, and are far from indicating the actual amount of the trade. But as the coasting vessels which leave New

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York have much more frequently foreign goods on board than those by which it is entered, the official clearances are much more numerous than the entries. Altogether the arrivals coastwise amounted to upwards of 8,900 in 1867. The coasting trade of New York is, in fact, immense.

In their very useful publication, Messrs. Belding, Keith and Co., of 80 Lombard Street, give, from the Congressional Report of the Special Commissioner of Revenue, the value of the aggregate business of New York, in the year ending June 30, 1867, as 3,313,618,000 dollars, exclusive of sales by cattle-brokers, butchers, apothecaries, plumbers &c.; and of other large cities and towns of the Union, as follows:—

	dollars		dollars
Boston -	928,173,000	Providence -	91,876,000
Philadelphia -	662,097,000	Buffalo -	81,330,000
New Orleans -	526,795,000	Pittsburg -	80,939,000
Chicago -	342,182,000	Mobile -	77,383,000
Baltimore -	321,066,000	Brooklyn -	69,676,000
Cincinnati -	213,253,000	Detroit -	62,757,000
St. Louis -	213,034,000	Cleveland -	55,302,000
San Francisco -	151,367,000	Charleston -	46,769,000
Louisville -	116,216,000	Newark -	36,128,000
Milwaukee -	110,675,000		

The sales by cattle-brokers, apothecaries, butchers, plumbers &c., in the whole country, in the year named, were as follow:—

	dollars
By Cattle-brokers - - -	336,898,150
Butchers - - -	196,941,750
Apothecaries - - -	69,309,275
Confectioners - - -	11,332,537
Plumbers, Gas-fitters &c. -	16,273,648
	630,755,160

The aggregate business in the United States, exclusive of sales of gold, stock, securities &c., amounted to the large sum of 12,486,546,975 dols.

Immigrants.—Of the vast number of immigrants that arrive in the United States, fully ⅓ land at New York; and they constitute the most valuable by far of all the imports into that city.

The following statement shows the number of immigrants who arrived in different years:—

Year	Immigrants	Year	Immigrants
1835	35,303	1848	191,909
1836	60,541	1849	220,503
1837	57,975	1850	212,796
1838	25,581	1851	289,601
1839	48,152	1852	299,504
1840	62,797	1853	284,945
1841	57,337	1854	319,223
1842	74,949	1855	136,233
1843	46,302	1856	141,672
1844	61,022	1857	185,186
1845	82,960	1865	200,031
1846	115,230	1866	256,611
1847	166,110	1868	282,959

Regulations as to Passengers arriving at New York.—On the arrival of passengers, an entry must be made at the Custom-house, of their names, clothes, implements of trade or profession (all of which are exempt from duty), and an oath taken respecting them; the form of which, and the entry, may be had at the office gratis. Cabin passengers make this entry themselves, and pay 20 cents each for a permit; on exhibiting which to the officer on board, they are allowed to remove their baggage after it has been inspected. Only 1 entry and permit is necessary for a *family*, and only 20 cents demanded, whatever may be the number of the family. Remains of sea stores, such as tea, sugar, foreign spirits and wines, are liable to pay duties; but unless these are of great bulk or quantity, they are generally allowed to pass free.

An entry is usually made by the master of the vessel of steerage passengers and their baggage; they pay each 20 cents for a permit. When entry is made by any person not the owner, he gives bond for payment of the duties, if any; and if, after entry is made at the Custom-house, and the oath taken, any article is found belonging to a passenger, liable to pay duty, *not specified in the entry*, it is forfeited, and the person in whose baggage the article is found subjected in treble the value.

Besides making entry at the Custom-house, it is provided by a law of the State, that every master of a vessel arriving from a foreign country, or from any other port of the United States, 'shall within 24 hours after entering his vessel at the Custom-house, make a report in writing, on oath to the mayor, and in case of his sickness or absence, to the recorder of the said city, of the name, age, and occupation of every person who shall have been brought as passenger in such ship or vessel on her last voyage, upon pain of forfeiting, for every neglect or omission to make such report, the sum of 75 dollars for every alien, and the sum of 50 dollars for every other person neglected to be so reported as aforesaid.'

The stamp duty or tax on passage tickets is, not exceeding 35 dollars, 50 cents, exceeding 35 and under 50 dollars, 1 dollar, and for every additional dollar or fraction of a dollar, 1 cent.

Masters of ships bringing passengers to New York must also pay a dollar on account of each passenger to the corporation, as commutation money, or give bond that none of them shall become chargeable on the city poor rates for the space of two years. They almost uniformly prefer paying the commutation.

Lines of Packets.—The establishment of regular lines of packets from New York to the principal foreign and domestic ports produced a new era in the commerce of the city, and has redounded equally to the benefit of the enterprising individuals by whom they were projected, and the public. They consist chiefly of steam ships, and belong sometimes to the merchants of New York and sometimes to those of the ports with which she is connected. Her principal intercourse is carried on with Liverpool; but, as the reader will find ample information with respect to it in the article on Liverpool in this work (ante, Docks, Liverpool), its repetition here would be worse than useless. New York is also connected by lines of packet ships with London, Southampton, Havre, Hamburg, Bremen, Marseilles, and other European ports; with Rio de Janeiro and Bahia in South America; and with Boston, Philadelphia, New Orleans, and all the principal ports of the United States. And in addition to the regular traders, the ships of New York, which are mostly admirably built and fitted out, are to be found in every port and on every sea—wherever, in fact, it is possible for skill and enterprise to obtain a footing. In this respect, at all events, the Americans have not degenerated. They continue to manifest, in a great degree, all the perseverance, sagacity, and hardihood, in mercantile and naval matters, which have so long and so honourably distinguished their ancestors.

The Banks of New York (309 in 1863) were almost all organised on the security system; that is, they were obliged to deposit security in the hands of a Government officer, proportioned to the amount of the notes they were empowered to issue. At first sight this plan appears to be well-fitted to prevent over-issue and abuse: but such is not really the case, and nowhere in the Union has the abuse of banking been carried to a greater extent or been more injurious than in this city. Some salutary regulations as to the inspection and audit of the books of these banks have lately been introduced under a new system. This, however, is a subject that has been fully discussed in its proper place in this work. (See Banks in the United States, art. Banking.)

Sales by Auction.—The practice of selling goods, particularly those imported from abroad,

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by auction, is of long standing in New York, and is carried to a very great extent. Auctioneers are appointed by the Senate, on the nomination of the governor.

Abstract of the principal Provisions of the Law, concerning Auctions.

The duties are—

1. On wines and ardent spirits, foreign or domestic, 2 per cent.

2. On goods imported from beyond the Cape of Good Hope, and sold in packages, bales &c., as imported, 1 per cent.

3. On all other articles, subject to duties, 1½ per cent.

The following articles are not subject to duties:—

1. Ships and vessels.

2. Utensils of husbandry, horses, neat cattle, hogs, and sheep.

3. Articles grown, produced, or manufactured in this state, except distilled spirits.

4. All fabrics of cotton, wool, hemp, and flax, manufactured within the jurisdiction of the United States.

Goods are exempted from auction duties—

1. When they belong to the United States, or this state.

2. When sold by the authority of a court, or when seized by a public officer on account of any forfeiture or penalty, or under a distress for rent.

3. The effects of a deceased person sold by executors or administrators, or by a person authorised by a surrogate.

4. The effects of a bankrupt or insolvent sold by his assignees, appointed pursuant to law, or by a general assignment for the benefit of all his creditors.

5. Goods damaged at sea and sold within 20 days after being landed, for the owners or insurers.

Any citizen of this state may sell at auction (except in the city of New York) all such goods as are not subject to duties. But in the city of New York, or where the goods pay duties, the sale must be by an authorised auctioneer, his partner, or clerk. And any person selling contrary to the said provisions is guilty of a misdemeanor.

When an auctioneer cannot attend an auction by *sickness*, by *duty as a fireman*, by *military orders*, or *necessary attendance in a court of justice*, or when he is *temporarily* absent from the place for which he is appointed, he may employ a partner to attend in his behalf.

He must give bond to the people of this state, with 2 freehold sureties, conditioned in the penalty of 5,000 dollars, for the payment of the duties imposed by law and accruing on the sales. The penalty of selling without the bond is 125 dollars for each article offered for sale.

No auctioneer in any city shall at the same time have more than 1 house or store for holding his auctions, and shall, before entering on his office, designate in a writing, to be filed with the clerk of the city, such house or store, and his partner or partners. But goods sold in the packages in which they were imported, furniture, and such bulky articles as have usually been sold in warehouses, in the streets, or on the wharfs, need not be sold in the house or store designated in such writing, if such sales be advertised at least 2 days previously, in 1 or more newspapers.

Auctioneers are to receive 2½ per cent. on the amount of all sales, unless by previous agreement in writing; and for *demanding* and receiving an unlawful commission, shall forfeit 250 dollars, and refund the moneys so received.

No auctioneer, on the same day and at the same place where his public auction shall be held, nor any other person at the same time and place, shall sell at private sale any goods liable to auction duties, under penalty of forfeiting their price.

Every auctioneer shall make out in writing a quarterly account dated on April 1, July 1, October 1, and January 1, in the year for which he is appointed, stating minutely—

1. The sum for which any goods shall have been sold at every auction held by or for him, from the time of his giving bond, or from the date of his last quarterly account.

2. The days on which sales were so made, and the amount of each day's sale, designating the sales made by himself, or in his presence, and those made in his absence, by his partner or clerk, and the causes of his absence.

3. The amount of all private sales made by himself or his partner, and the times thereof.

4. The amount of duties chargeable on all sales made.

Every such account shall, within 20 days after its date, be exhibited, by auctioneers for a city, to the mayor or recorder; and if by an auctioneer for a county, to a county judge, and be verified by oath. Every partner of an auctioneer, and every clerk who has made any sales, shall also swear to his belief in the truth and justice of every particular of such account.

The State duties (together with the addition of 2½ per cent. on the whole amount of them) are to be paid within 10 days after exhibiting such account.

Any deceit or fraud in violating any provision of the law respecting auctioneers, is made a misdemeanor, and subjects the offending party to the payment of *treble* damages to the party injured.

Coins.—*Gold eagle.*—This, with its subdivisions, is the only American gold coin. By the Mint regulations of the United States, the eagle, which is the equivalent of 10 dollars, contained, previously to July 31, 1834, 270 grains of standard gold, viz. 246 grains pure, and 24 grains alloy. But, by an Act of Congress, which came into operation at the above date, the weight of the eagle was reduced to 258 grains, of which 232 are pure, and 26 grains alloy. In consequence of this alteration, the sovereign that was formerly worth 4 dollars 57 cents, is now worth 4 dollars 87 cents, and is received by the Americans at this rate.

We do not know whether it was the object of the American Government, in enacting this law, to substitute a gold in the place of a silver currency; but it has, concurrently with the discovery of the Californian gold-fields, had that effect. Under the former system, silver was over-valued in the American mint as compared with gold; and, as it consequently became everybody's interest to pay his debts in silver rather than in gold, the latter was nearly banished from circulation, precisely in the same way that the over-valuation of gold in the British mint banished all silver coins of full weight from this country, and that the over-valuation of silver in the French mint banished gold. (Ante, Coins.) Under the present American system, gold is said to be over-valued from 1¼ to 1½ per cent., so that an individual who has to pay a debt of 100*l.*, and who employs metallic money for that purpose, will save from 25*s.* to 30*s.* by using gold rather than silver.

Value of Foreign Gold Coins in the (Metallic) Currency of the United States.—It was ordered by an Act of Congress, passed at the same time with

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the New Mint Act, that there 'shall pass current as money, and be receivable in all payments, by weight, for the payment of all debts and demands, from and after July 31, 1834,' viz. 1. The gold coins of Great Britain, Portugal, and Brazil, of not less than 22 carats fine, at the rate of 93$\frac{8}{10}$ cents per pennyweight; 2. The gold coins of France, $\frac{9}{10}$ fine, at the rate of 93$\frac{1}{10}$ cents per pennyweight; and 3. The gold coins of Spain, of the fineness of 20 carats 3$\frac{7}{10}$ grains, at the rate of 89$\frac{8}{10}$ cents per pennyweight. On this principle the following table has been calculated:—

Gold Coins of Great Britain, Portugal, and Brazil, 22 Carats fine.

	Weight			Contents in pure gold	Value in United States currency, at 94 8-10 cts. per dwt.			Value estimated by the quantity of pure gold compared with the eagle of 232 grs.		
Great Britain.	dwt.		gr.	grs.	d.	c.	m.	d.	c.	m.
Guinea (half and 7s. piece in proportion) - -	5	9	39·89	118·6	5	11	0	5	11	2
Sovereign (half in proportion) - -	5	3	171·623	113	4	86	9	4	87	*0
Portugal.										
Dobraon of 21,000 rees (half in proportion) -	34	12		759	32	70	6	32	17	9
Dobra of 12,800 rees -	18	6		401·5	17	30	1	17	30	6
Moidore - -	6	22		152·2	6	55	7	6	64	2
Millree, 1735 - -		19	3·4	18·1	0	78	0	0	78	0
Brazil.										
Dobraon - -	34	12		759	32	70	6	32	71	9
Dobra - - -	18	6		401·5	17	30	1	17	30	6
Moidore - -	6	22		152·2	6	55	7	6	64	2

* To those who wish perfect accuracy, it may be observed that the quantity of pure gold in the sovereign is 113 18-11, 214 grains, and that the true value of the sovereign, compared with the new eagle of 232 grains, is 4 dols. 87·7 100. This is also the true par of exchange between the United States and London, and is equal to a premium of 9 7-10 per cent., as near as can be calculated, on the nominal par of 4 44 or 109 7-10 for 100.

Previously to 1837 standard silver in the United States was 1,485 parts pure to 179 parts alloy. But it was then determined to make the standard of silver as well as of gold 9 parts pure to 1 part alloy; and this was effected by reducing the copper or alloy in the dollar 3½ grains, making its weight 412·5 instead of 416 grains. In consequence of the over-valuation of gold with respect to silver previously referred to, no silver coins of the full weight would latterly remain in circulation. To obviate the inconveniences thence arising, Congress, in 1853, issued half dollars which contain only 192 grains standard silver, being a reduction of very near 7 per cent., and ½ and ¼ dollars in the same proportion. But as these coins are legal tender to the extent of only 5 dollars, and as the weight of the dollar itself has not been diminished, there is no degradation of the standard. And provided the Treasury do not issue the new coins in excess, they will most likely remain in circulation, and serve as a subsidiary currency.

Silver Coins, 1853.

					s.	d.	
Dollar, val.	10 dimes, wt.	412½ grs. stand.	silver	=	4	3·75	sterling.
Half dollar	5 „	192 „	„	=	2	4·87	„
Quarter	2½ „	96 „	„	=	1	0·93	„
Dime	10 cents	38·40 „	„	=	0	0·346	„

Gold Coins of France, $\frac{9}{10}$ fine.

	Weight			Contents in pure gold	Value in United States currency, at 93 1-10 cts. per dwt.			Value estimated by the quantity of pure gold compared with the eagle of 232 grs.		
	dwt.		gr.	grs.	d.	c.	m.	d.	c.	m.
Double louis, coined since 1786 (single in proportion) - -	9	0		212·6	9	15	4	9	16	3
Double napoleon (single in proportion) -	8	7		179	7	71	6	7	71	5
New louis - -	4	3	1·2	82·5	3	85	9	3	85	7

Note.—The double louis, louis, and demi-louis, coined before 1786, not being 9-10ths fine, are not included in the table, because they are not legal tenders. Neither are the double and single napoleon, or the new louis, exactly 9-10ths fine, but the deficiency is so very small that it is believed it is covered by what is called the remedy of the mint.

The following tables, showing the weight and fineness of the principal gold and silver coins of foreign countries, and their values in the existing metallic currency of the United States, are at present of the highest authority. They have been computed by Mr. Snowden, the intelligent director of the Mint of the United States, and were issued on November 9, 1858. Silver is taken in them at 121 cents per oz., instead of 122½ cents per oz., at which it was formerly estimated.

Statement of the Names, Weight, Fineness, and Value in Federal Metallic Currency of the Principal Foreign Gold Coins.

Country	Denomination	Weight	Fineness	Value			Received at Mint		
		oz. dec.	thousand	dols.	c.	m.	dols.	c.	m.
Australia - - -	Pound of 1852 - - -	0 281	916·5	5	32	0	5	29	3
Ditto - - -	Ditto of 1855 - - -	0 256	916·5	4	85	0	4	82	6
Austria - - -	Ducat - - -	0 112	986	2	28	0	2	26	9
Ditto - - -	Souvereign - - -	0 363	900	6	77	0	6	73	6
Belgium - - -	Twenty-five francs - - -	0 254	899	4	72	0	4	69	7
Bolivia - - -	Doubloon - - -	0 867	870	15	58	0	15	50	2
Brazil - - -	20,000 rels - - -	0 375	917·5	10	90	5	10	85	1
Central America - - -	Two Escudors - - -	0 209	853·5	3	68	0	3	66	2
Chili - - -	Old doubloon - - -	0 867	870	15	57	0	15	49	3
Ditto - - -	Ten pesos - - -	0 492	900	9	15	3	9	10	7
Denmark - - -	Ten Dalers - - -	0 427	893	7	90	0	7	86	1
Ecuador - - -	Four Escudors - - -	0 433	844	7	60	0	7	56	2
England - - -	Pound or sovereign, new -	0 256·7	916·5	4	86	3	4	83	9
Ditto - - -	Ditto, average - - -	0 256	914·5	4	84	8	4	82	4
France - - -	Twenty francs, new - - -	0 207·5	899·5	3	86	0	3	84	1
Ditto - - -	Ditto, average - - -	0 207	899	3	84	5	3	82	6
Germany, North - - -	Ten thalers - - -	0 427	893	7	90	0	7	86	1
Ditto - - -	Ditto, Prussian - - -	0 427	903	8	00	0	7	96	0
Ditto, South - - -	Ducat - - -	0 112	986	2	28	3	2	27	2
Greece - - -	Twenty drachms - - -	0 185	900	3	45	0	3	43	3
Hindustan - - -	Mohur - - -	0 374	916	7	08	0	7	03	4
Mexico - - -	Doubloon, average - - -	0 867·5	868	15	53	4	15	45	6
Naples - - -	Six ducat, new - - -	0 245	996	5	04	0	5	01	5
Netherlands - - -	Ten guilders - - -	0 215	899	3	99	0	3	97	0
New Granada - - -	Old doubloon, Bagota - - -	0 868	870	15	61	7	15	53	9
Ditto - - -	Ditto Popayan - - -	0 867	858	15	39	0	15	31	3
Ditto - - -	Ten pesos, new - - -	0 525	891·5	9	67	5	9	62	7
Peru - - -	Old doubloon - - -	0 867	868	15	56	0	15	48	2
Ditto - - -	New, unt ascertained - - -								
Portugal - - -	Gold crown - - -	0 508	912	5	81	3	5	78	4
Rome - - -	Pi scudi, new - - -	0 140	900	2	60	0	2	58	7
Russia - - -	Five roubles - - -	0 210	916	3	97	6	3	95	7
Sardinia - - -	Same as France - - -								
Spain - - -	100 reals - - -	0 868	896	4	96	3	4	93	9
Sweden - - -	Ducat - - -	0 111	975	2	26	7	2	25	6
Turkey - - -	100 piastres - - -	0 231	913	4	37	4	4	35	2
Tuscany - - -	Sequin - - -	0 112	999	2	30	0	2	28	9

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Statement of the Names, Weight, Fineness, and Value in Federal Metallic Currency of the Principal Foreign Silver Coins.

Country	Denomination	Weight	Fineness	Value
		oz. dec.	thousand	dols. c. m.
Austria	Rix dollar	0 902	833	1 01 5
Ditto	Scudo of six lire	0 836	902	1 01 5
Ditto	20 kreutzer	0 215	583	0 16 8
Belgium	Five francs	0 803	897	0 86 5
Bolivia	Dollar	0 871	900·5	1 05 4
Ditto	Half dollar, 1830	0 433	870	0 50 5
Ditto	Quarter dollar, 1830	0 216	870	0 12 2
Brazil	2,000 reis	0 820	918·5	1 01 5
Central America	Dollar	0 866	850	0 97 3
Chili	Old dollar	0 864	908	1 04 7
Ditto	New dollar	0 801	900·5	0 97 0
Denmark	Two rigsdaler	0 997	877	1 09 4
England	Shilling, new	0 182·5	924·5	0 22 7
Ditto	Shilling, average	0 178	925	0 22 2
France	Five francs, average	0 800	900	0 96 8
Germany, North	Thaler	0 712	750	0 71 7
Ditto, South	Gulden or florin	0 340	900	0 41 2
Ditto, North and South	2 thaler, or 3½ gulden	0 796	900	1 44 3
Greece	Five drachms	0 719	900	0 86 9
Hindustan	Rupee	0 374	916	0 46 0
Japan	Itzebu	0 279	991	0 37 0
Mexico	Dollar, average	0 866	901	1 04 9
Naples	Scudo	0 884	830	0 98 8
Netherlands	2½ guilder	0 806	944	1 02 3
Norway	Specie daler	0 927	877	1 09 4
New Granada	Dollar of 1857	0 803	896	0 96 8
Peru	Old dollar	0 866	901	1 01 9
Ditto	Old dollar of 1855	0 766	909	0 93 6
Ditto	Half dollar, 1855–58	0 433	650	0 37 7
Portugal	Silver crown	0 959	912	1 16 6
Rome	Scudo	0 864	900	1 04 7
Russia	Rouble	0 667	875	0 78 4
Sardinia	Five lire	0 800	900	0 96 8
Spain	New pistareen	0 166	899	0 20 1
Sweden	Rixdollar	1 092	750	1 10 1
Switzerland	Two francs	0 323	899	0 39 0
Turkey	Twenty piastres	0 770	830	0 86 5
Tuscany	Francesco	0 220	925	0 27 4

Gold Coins of Spain, 20 Carats $8\frac{7}{12}$ Grains fine.

	Weight			Contents in pure gold	Value in United States currency at 89 0-10 cts. per dwt.			Value in United States currency, estimated by the quantity of pure gold &c.		
	dwt.	gr.		grms.	d.	c.	m.	d.	c.	m.
Quadruple pistole or doubloon, coined before 1772 (double, single, and half in proportion)	17	8	1-2	375·3	15	59	0	16	17	6
Quarter pistole, or gold dollar, coined before 1772	1	3		24·2	1	01	1	1	04	3
Doubloon of 1772 (double and single in proportion)	17	8	1-2	372	15	59	0	16	03	4
Half pistole of 1772	2	4		46·3	1	94	7	1	99	5
Quarter pistole of 1772	1	3		23·9	1	01	1	1	03	0

N.B.—An Act of Congress, approved February 21, 1857, directs that the pieces known as the $\frac{1}{4}$, $\frac{1}{8}$, and $\frac{1}{16}$ of the Spanish pillar dollar and the Mexican dollar shall be receivable at the Treasury of the United States at 20, 10, and 5 cents respectively; and that they shall not be reissued, but recoined at the Mint.

It would be impossible to give any reliable or lasting information as to the value of foreign coins in the paper currency of the United States.

CUSTOM-HOUSE REGULATIONS.—Vessels must be reported to the collector by the master 24 hours after arrival; must come to a full entry 48 hours after arrival, at which time the commander swears to a detailed account of his cargo, stores, and passengers, and that he has deposited all letters in the post-office, except such as are for his ship's husband, at which time he must also deposit the register, clearance, and cockets in the Custom-house.

Warehousing.—There is no warehousing system, but goods are received into the public stores, where they are allowed to remain 9 months at the risk and expense (for fees of cartage, labourage, and stowage, as fixed by the Chamber of Commerce, see post) of the owner, without any duties being demandable. Woollens are the only exception to this rule; since 1833, interest is charged upon the amount of duty payable on their account from the time of their importation.

Port Charges.—For American vessels, or those of States having reciprocity treaties:—

	dols.	cts.		£	s.	d.
Fees on entering	3	70	or	1	5	7½
Fees on clearing	3	70	or	0	12	1½

The Commercial Treaty between the United States and Great Britain expired on March 17, 1866, and has not yet (January 1869) been renewed.

Custom-house fees and taxes payable on entry of vessels.

Tonnage tax.—The burdens on shipping have been heavily increased by the Internal Revenue Act, under which the tonnage duty, since April 1865, has been increased from 10 to 30 cents per ton. This tax is payable every voyage on ships of all nations, except on vessels from British Colonial ports.

	dols.	cts.	
Entry fee	5	50	each vessel
Harbour master		1½	cent for ton register
Health officer	8	50	each vessel
Permits to land passengers and luggage	1	0	

United States hospital money 20 cents each man. Not paid by British vessels generally, but the authorities assert they are liable for the fees.

	dols.
Inward entry of ship stamp tax	5
Outward	5

No charge for lights in New York, Baltimore, or Philadelphia.

Passengers.—Commutation or head money, 2 dollars each steerage passenger, being an alien.

2. *Fees payable to the Surveyor.*—Admeasuring and certifying the same, of every ship or vessel of 100 tons and under, per ton, 1 cent.; admeasurement of every ship or vessel above 100 tons, and not exceeding 200 tons, 1 dollar and 50 cents; above 200 tons, 2 dollars; for all other services on board any ship or vessel of 100 tons and upwards, having on board goods, wares, or merchandise subject to duty, 3 dollars; for like services on board any ship or vessel of less than 100 tons, 1 dollar and 50 cents; on all vessels not having on board goods, wares, or merchandise subject to duty, 66⅔ cents. Certificate of registry of

vessels, 2 dollars. Endorsement of registry or record, 1 dollar. Every bond required by this Act, 25 cents; every bond for a Mediterranean passport, 40 cents; every seaman's protection, 25 cents.

Fees payable at the several Custom-houses.

	dols.	cts.
Admeasuring any vessel in order to the registering, enrolment, licensing, or recording the same, of 5 tons and upwards, and less than 20	0	50
Ditto, 20 and not exceeding 70 tons	0	75
Ditto, 70 and not over 100 tons	1	0
Ditto, above 100 tons	0	150
For every certificate of enrolment	0	50
Every endorsement of ditto	0	20
Every license, including the bond, not exceeding 20 tons	0	25
Ditto, above 20 and not more than 100 tons	0	50
Ditto, more than 100 tons	1	0
Endorsement on a license	0	20
Certifying or receiving certified manifest, and granting permit for licensed vessels to go from district to district, under 50 tons	0	25
Ditto, above 50 tons	0	50
For certifying a manifest, and granting permit for registered vessels	0	150
For receiving certified manifest, and granting permit on arrival of such registered vessels	0	150
Granting permit for a vessel not belonging to a citizen, on arrival, to proceed from district to district, and receiving a manifest	2	0
Receiving manifest and granting permit to unload, as above	2	0
Granting permit for a vessel to carry on fishery in a foreign port	0	25
For report and entry of any foreign goods imported in such last-mentioned vessel	0	25
For entry of vessel of 100 tons and more	2	50
For clearance of ditto	2	50
For entry of vessel under 100 tons	1	50
For clearance of ditto	1	50
For post entry	2	0
For permit to land or deliver goods	0	20
For bond taken officially	0	40
For permit to load goods for exportation entitled to drawback	0	50
For debenture or other official certificate	0	20
For bill of health	0	20
For official documents, except register, required by any merchant, owner, or master of any vessel not before enumerated	0	20
For admeasurement and certifying vessels of 100 tons and under, per ton	0	1
Ditto, over 100 and not over 200 tons	1	50
Ditto, over 200 tons	2	0
For other services to be performed by the surveyor, in vessels of 100 tons and more, having on board merchandise subject to duty	3	0
For like services in vessels under 100 tons, having similar merchandise	1	50
For all vessels not having merchandise subject to duty	0	66⅔
For protection	0	25
For crew list	0	6
For certificate of registry and bond	2	25
For endorsement on register	1	0
For general permit to ship to land passengers' baggage	0	20

Weighing: 1¼ cent per 112 pounds.
Gauging: Casks, 12 cents each; cases and baskets, 4½ cents each. Ale, porter &c., 1½ cent per dozen bottles.
Measuring: Coal, 90 cents per 100 bushels; chalk, brimstone &c., 90 cents per 100 bushels; salt, 75 cents per 100 bushels; potatoes, seeds, grain, and all other measurable articles, 45 cents per 100 bushels. Marble, mahogany, cedar-wood &c., the actual expense incurred.

When invoice does not contain the weight, measure, or gauge of merchandise, required to be weighed, measured or gauged, and when goods are withdrawn from warehouse in less quantity than the entire importation, as per article 541 of these regulations.

For licenses to steamers, as a compensation for the inspections and examinations made for the year, under the steamboat law approved August 30, 1852, in addition to the fees above mentioned for issuing enrolments and licenses to vessels:

	dols.	cts.
For each vessel of 1,000 tons and over	35	0
For each of 500 tons and over, but less than 1,000	30	0
For each under 500 tons and over 125 tons	25	0
For each under 125 tons	20	0
For the first certificate granted by any inspector or inspectors to each engineer and pilot	1	0
For each subsequent certificate	1	0
For recording all bills of sale, mortgages, hypothecations, or conveyance of vessels, under Act of July 29, 1850	0	50
For recording all certificates for discharging and cancelling any such conveyance	0	50
For furnishing a certificate setting forth the names of the owners of any registered or enrolled vessel, the parts or proportions owned by each, and also the material facts of any existing bill of sale, mortgage, hypothecation, or other incumbrance, the date, amount of such incumbrance, and from and to whom made	1	0
For furnishing copies of such records for each bill of sale, mortgage, or other conveyance	0	50

Rates of Wharfage, 1865.—Vessels up to 200 tons, 1 cent per ton per day; and ¼ cent per ton on the excess over 200 tons whilst lying alongside, and half these rates whilst lying outside any vessel.

N.B.—The wharfs are all the property of the corporation, and are all wooden.

Expense of loading a vessel of 500 tons, in the port of New York, with the usual cargo exported from thence	dols.	£	s.	d.
Ditto of discharging	160	36	0	0
For discharging—	80	18	0	0
Coals, per chaldron	cents 25	0	1	1
For loading—				
Tobacco, per hhd.	25	0	1	1
Cotton, per bale	25	0	1	1
Flour, per barrel	3½	0	0	10
Flax-seed, do.	7	0	0	3½

Rates of Cartage, issued 1864.

	cts.
All gaugeable goods in packages of 25 gallons, or less, per load of six packages	66
All gaugeable goods in packages of over 25 gallons, not more than 50 gallons, per load of 3 packages	66
All gaugeable goods in packages of over 50 gallons, not more than 100 gallons, per load of 2 packages	66
All gaugeable goods in packages of over 100 gallons, per gallon	4
All dry casks, such as sugar, tobacco &c., per load of 1,200 lb.	75
All dry casks - every additional 100 lb. over 1,200 lb.	9
Coal, per ton	93
per half chaldron	72
Cotton, per load of 3 bales, American	60
East Indian	45
Salt, per load of 70 bushels	66
Earthenware, per load	75
Iron and steel, per load	75
All goods, wares, and merchandise not enumerated above	66

The foregoing rates are to be paid for all distances not exceeding one half of a mile, and for each additional half mile, one third of these rates shall be added.

Rates of Commission, revised in 1857, *and recommended by the Chamber of Commerce, to be charged where no express agreement to the contrary exists.*

Banking.

	per cent.
On purchase of stocks, bonds, and all kinds of securities, including the drawing of bills for payment of same	1
On sale of stocks, bonds, and all kinds of securities, including remittances in bills and guaranty	½
On purchase or sale of specie and bullion	⅛
Remittances in bills of exchange	⅛
Remittances in bills of exchange, with guaranty	1
Drawing or indorsing bills of exchange	1
Collecting dividends on stocks, bonds, or other securities	½
Collecting interest on bonds and mortgages	1
Receiving and paying moneys on which no other commission is received	½
Procuring acceptance of bills of exchange payable in foreign countries	½
On issuing letters of credit to travellers, exclusive of foreign bankers' charge	1

Where bills of exchange are remitted for collection, and returned under protest for non-acceptance or non-payment, the same commissions are to be charged as though they were duly accepted and paid.

General Business.

On sales of sugar, coffee, tea, and general merchandise, usually sold in large quantities and on credit under 6 months	5
On sales of manufactured goods and other articles, usually sold on long credits, for 6 months and guaranty	7½
Ditto, ditto, for cash	5
On purchase and shipment of merchandise, with funds in hand, on cost and charges	2½
Collecting delayed and litigated accounts	5
Effecting marine insurance, on amount insured	½

No amount to be charged for effecting insurance on property consigned.

Landing and reshipping goods from vessels in distress, on value of invoice	5
on specie and bullion	½
Receiving and forwarding merchandise entered at custom-house, on invoice value 1 per cent., and on expenses incurred	2½
On consignments of merchandise withdrawn or reshipped, full commissions are to be charged to the extent of advances or responsibilities incurred, and one-half commission on the residue of the value.	
On giving bonds that passengers will not become a burden on the city, on the amount of the bonds	2½

The risk of loss by robbery, fire (unless insurance be ordered), theft, popular tumult, and all other unavoidable occurrences, is in all cases to be borne by the owners of the goods, provided due diligence has been exercised in the care of them.

Shipping.

On purchase or sale of vessels	2½
Disbursements and outfit of vessels	2½
Procuring freight and passengers for Europe, East Indies, and domestic ports	2½
For West Indies, South America, and other places	5
For foreign vessels, in all cases	5
Collecting freight	2½
Collecting insurance losses of all kinds	2½
Chartering vessels on amount of freight, actual or estimated, to be considered as due when the charter parties are signed	2½

But no charter to be considered binding, till a memorandum, or one of the copies of the charter, has been signed.

On giving bonds for vessels under attachment in litigated cases, on amount of liability	2½

The foregoing commissions to be exclusive of brokerage, and every charge actually incurred.

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Rates of Storage, chargeable per month, as established by the New York Chamber of Commerce.

	cents.
Almonds, in frails or packages, cwt.	6
Alum, in casks or bags, per ton	40
Ashes, pot and pearl, bbl.	8
Beef, bbl.	6
Bottles, quart, in mats, cr. or hmp. gr.	8
Bark, quercitron, in casks, ton	60
Bagging, cotton, loose or in bales, p.c.	3
Butter in firkins of 60 lb., per fir.	2
Brandy. *See* Liquors.	
Candles, in boxes of 50 or 60 lb., box	2
Chocolate, in boxes of 50 lb., box	2
Cocoa, in bags, per cwt.	2½
in casks, ditto	3
Coffee, in casks, ditto	2½
in bags, ditto	2
Copperas, in casks, per ton	40
Copper, in pigs, ditto	20
in sheets or bolts, ton	50
brazier's bottoms, ton	75
Cordage, per ton	50
Cassia, in mats or boxes, per cwt.	10
Cotton, American, in square bales, 300 lb.	12½
ditto in round bales, ditto	16
West Indian, in proportion to round.	
East Indian, in bales, per 300 lb.	9
Cheese, casks, boxes, or loose, cwt.	3
Duck, heavy, per bolt	1½
Ravens or Russia sheeting, piece	0½
Dry goods, in boxes or bales, 40 cubic feet	40
Fish, pickled, per bbl.	6
dry, in casks or boxes, cwt.	4
in bulk, per cwt.	2½
Figs, in frails, boxes, or drums, cwt.	2½
Flax, per ton	60
Flax-seed, or other dry articles, in tierces of 7 bushels per tierce	10
Flour, or other dry articles in bbl.	4
Earthenware, in crates of 25 to 30 feet	15
in hhds. of 40 to 50 feet	30
Grain, in bulk, per bushel	1
Ginger, in bags, per cwt.	2
Glass, window, in boxes of 50 feet	1½
Gin. *See* Liquors.	
Hemp, per ton	75
Hides, dried or salted, per hide	1½
Hardware, in casks of 40 cubic feet	40
Indigo, in serons or boxes, per cwt.	4
Iron, in bars, or bolts, per ton	20
in hoops, sheets, or nailrods, ton	20
Lard, in firkins of 60 lb.	2
Lead, pig or sheet, per ton	20
dry, or gr. in oil, ditto	20
Leather, per side	1
Liquors, in puncheons of 120 gallons, per puncheon	30
in ½ casks	6½
in pipes or casks, 120 gallons	30
bottled, in casks, or boxes, doz. bottles	1½
Molasses, per hhd. of 110 gallons (other casks in proportion)	30
Nails, in casks, per cwt.	2
Oil, in hhd. or casks, 110 gallons	30
in chests of 30 flasks, per chest	4
bottled, in boxes or baskets, doz.	1½
Paints, in casks or kegs, per ton	40
Pork, per bbl.	6
Porter. *See* Liquors.	
Pepper, in bast, per cwt.	2½
Pimento, in casks, or bags, cwt.	2½
Rice, in tierces, per tierce	12
in ½ ditto, per ½ ditto	8
Rags, in bales, per cwt.	6
Raisins, Malaga, in casks	3
ditto, in boxes	1
In other packages, per cwt.	2
Rum. *See* Liquors.	
Saltpetre, in bags, per cwt.	2
in casks, ditto	2½
Salt, in bags, or bulk, per bushel	1
Shot, in casks, per ton	37½
Soap, in boxes of 50 to 60 lb.	2
Steel, in bars or bundles, per ton	30
in boxes or tubs, ditto	40
Sugar, raw, in bags or boxes, per cwt	2
ditto, in casks, ditto	2½
refined, in casks or packages	3
Tallow, in casks or serons, cwt.	2
Tea, bohea, in whole chests	15
ditto, in ½ chests	8
green or black, in ½ chests	4½
in boxes, in proportion to ½ chests.	
Tin, block, per ton	20
in boxes of usual size, per box	1½
Tobacco, in hhds., per hhd.	37½
in bales or serons, per cwt.	4
Tobacco, manufactured in kegs of 100 lb.	2
Wines. *See* Liquors.	
Woods, for dyeing, under cover, per ton	50
ditto, in yards	25
Whiting, in hhds., per ton	37½

On articles on which the rate is fixed by weight, it is understood to be on the gross weight; and on liquors, oil &c. on which the rate refers to gallons, it is understood to be on the whole capacity of the casks, whether full or not. The proprietor of goods to be at the expense of putting them in store, stowing away, and turning out of store. All goods taken on storage, to be subject to 1 month's storage; if taken out within 15 days after the expiration of the month, to pay ½ a month's storage; if after 15 days, a whole month's storage.

Harbour Master.—The office of harbour master was created in 1808, by legislative enactment, with power to regulate and station all vessels in the harbour, or at the wharfs, to accommodate vessels wishing to discharge their cargoes, and to decide promptly all disputes connected with the foregoing subjects. Resisting his authority subjects to a fine of 50 dollars and costs, for the benefit of the New York hospital.

Fees.—There is a fee payable to the harbour master of from 3 to 24 dollars, according to the size of vessels. For adjusting any difference respecting situation, 2 dollars.

Pilotage.—Pilots must register their vessels, names, and places of abode, in his office; and are obliged to put to sea whenever ordered by him. The penalty for refusing is 5 dollars and loss of license.

Pilot boats are numbered and designated by a square burgee with white centre and blue border, the number being in the centre.

Wardens of the Port.

Vessels and goods arriving in a damaged state, and required to be sold by auction for the benefit of underwriters out of the city of New York, must be under the inspection of the wardens, who may be required to certify the cause of the damage, and amount of sale and charges.

Fees.—1½ per cent. on gross amount of sales; and for each survey on board of any vessel, at any store, or along the dock, or wharfs, 3 dols. on damaged goods; each survey on hulls, spars, rigging &c., 5 dols.; each certificate, 1 dol. 25 cents; ditto of distress of said vessel, 2 dols. 50 cents; same services for vessels paying foreign duties and tonnage, *double*.

Quantity of Goods to compose a Ton.

Determined by the New York Chamber of Commerce.

1,568 lb. of coffee in casks, 1,830 ditto in bags; 1,120 lb. cocoa in casks, 1,307 ditto in bags.

952 lbs. of pimento in casks, 1,110 ditto in bags.

8 barrels of flour of 196 lb. each.

6 barrels of beef, pork, tallow, pickled fish, pitch, tar, and turpentine.

20 cwt. of pig and bar iron, potashes, sugar, logwood, fustic, Nicaragua wood, and all heavy dye woods, rice, honey, copper ore, and all other heavy goods.

16 cwt. of coffee, cocoa, and dried codfish, in bulk, and 12 cwt. of dried codfish in casks of any size.

6 cwt. ship bread in casks, 7 cwt. in bags, and 8 cwt. in bulk.

200 gallons (wine measure), reckoning the full contents of the casks, of oil, wine, brandy, or any kind of liquors.

22 bushels of grain, peas, or beans, in casks.

36 bushels of ditto in bulk.

36 bushels of European salt.

31 bushels of salt from the West Indies.

29 bushels of sea-coal.

40 feet (cubic measure) of mahogany, square timber, oak plank, pine, and other boards, beaver, furs, peltry, bees-wax, cotton, wool, and bale goods of all kinds.

1 hogshead of tobacco, and 10 cwt. of dry hides.

8 cwt. of China raw silk, 10 cwt. nett bohea, and 8 cwt. green tea.

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Table of Pilotage, as established by an Act of Legislature of the State of New York, passed March 17, 1865.

Measurement	From April 1 to November 1						From November 1 to April 1, 4 dols. additional				
	Inward					Outward					Outward
	Rate	Cost	Off Shore	Total		Rate	Cost	Cost	Off Shore	Total	Cost
ft. in.	dols. cts.	dols. cts.	dols. cts.	dols. cts.		dols. cts.	dols. cts.	dols. cts.	dols. cts.	dols. cts.	dols. cts.
6 0	3 75	22 50	5 62	28 12		2 70	16 20	26 50	5 62	32 12	20 20
6 6	3 75	24 37	6 09	30 46		2 70	17 55	28 37	6 09	34 46	21 55
7 0	3 75	26 25	6 56	32 81		2 70	18 90	30 25	6 56	36 81	22 90
7 6	3 75	28 12	7 03	35 15		2 70	20 25	32 12	7 03	39 15	24 25
8 0	3 75	30 00	7 50	37 50		2 70	21 60	34 00	7 50	41 50	25 60
8 6	3 75	31 87	7 96	39 83		2 70	22 95	35 87	7 96	43 83	26 95
9 0	3 75	33 75	8 44	42 19		2 70	24 30	37 75	8 44	46 19	28 30
9 6	3 75	35 62	8 90	44 52		2 70	25 65	39 62	8 90	48 52	29 65
10 0	3 75	37 50	9 37	46 87		2 70	27 00	41 50	9 37	50 87	31 00
10 6	3 75	39 37	9 84	49 21		2 70	28 35	43 37	9 84	53 21	32 35
11 0	3 75	41 25	10 31	51 56		2 70	29 70	45 25	10 31	55 56	33 70
11 6	3 75	43 12	10 78	53 90		2 70	31 5	47 12	10 78	57 90	35 05
12 0	3 75	45 00	11 25	56 25		2 70	32 40	49 00	11 25	60 25	36 40
12 6	3 75	46 87	11 72	58 59		2 70	33 75	50 87	11 72	62 59	37 75
13 0	3 75	48 75	12 19	60 94		2 70	35 10	52 75	12 19	64 94	39 10
13 6	3 75	50 62	12 65	63 27		2 70	36 45	54 62	12 65	67 27	40 45
14 0	4 50	63 00	15 75	78 75		3 10	43 40	67 00	15 75	82 75	47 40
14 6	4 50	65 25	16 31	81 56		3 10	44 95	69 25	16 31	85 56	48 95
15 0	4 50	67 50	16 87	84 37		3 10	46 50	71 50	16 87	88 37	50 50
15 6	4 50	69 75	17 43	87 18		3 10	48 5	73 75	17 43	91 18	52 5
16 0	4 50	72 00	18 00	90 00		3 10	49 60	76 00	18 00	94 00	53 60
16 6	4 50	74 25	18 56	92 81		3 10	51 15	78 25	18 56	96 81	55 15
17 0	4 50	76 50	19 12	95 62		3 10	52 70	80 50	19 12	99 62	56 70
17 6	4 50	78 75	19 69	98 44		3 10	54 25	82 75	19 69	102 44	58 25
18 0	5 50	99 00	24 75	123 75		4 10	75 80	103 00	24 75	127 75	77 80
18 6	5 50	101 75	25 44	127 19		4 10	77 85	105 75	25 44	131 19	79 85
19 0	5 50	104 50	26 12	130 62		4 10	77 90	108 50	26 12	134 62	81 90
19 6	5 50	107 25	26 81	134 6		4 10	79 95	111 25	26 81	138 6	83 95
20 0	5 50	110 00	27 50	137 50		4 10	82 00	114 00	27 50	141 50	86 00
20 6	5 50	112 75	28 19	140 94		4 10	84 5	116 75	28 19	144 94	88 5
21 0	6 50	136 50	34 12	170 62		4 75	99 75	140 50	34 12	174 62	103 75
21 6	6 50	139 75	34 94	174 69		4 75	102 12	143 75	34 94	178 69	106 12
22 0	6 50	143 00	35 75	178 75		4 75	104 50	147 00	35 75	182 75	108 50
22 6	6 50	146 25	36 56	182 81		4 75	106 87	150 25	36 56	186 81	110 87
23 0	6 50	149 50	37 37	186 87		4 75	109 25	153 50	37 37	190 87	113 25
23 6	6 50	152 75	38 19	190 94		4 75	111 62	156 75	38 19	194 94	115 62
24 0	6 50	156 00	39 00	195 00		4 75	114 00	160 00	39 00	199 00	118 00
24 6	6 0	159 25	39 81	199 6		4 75	116 37	163 25	39 81	203 6	120 37
25 0	6 50	162 50	40 62	203 12		4 75	118 75	166 50	40 62	207 12	122 74

All national armed vessels, 7·50 dols. per foot, inward and outward, with off shore, if so boarded, and winter charge.

The following Rates of Tare were adopted, under Act of Congress, July 14, 1862.

Almonds	bales	2½ per cent.
Ditto	bags	2 "
Ditto	frails	8 "
Alum	casks	10 "
coarse or ground	sacks	2 pounds per sack
Barytes		3 per cent.
Cheese	casks or tubs	10 "
Cassia	mats	9 "
Coffee, Rio	single bags	1 "
Ditto	double bags	2 "
Ditto all other, actual tare		
Cinnamon	bales	6 "
Cocoa	bags	2 "
Ditto	cerroons	8 "
Chicory	bags	2 "
Copperas	casks	10 "
Currants	casks	10 "
Hemp, Manilla	bales	4 pounds per bale
Hamburg, Leghorn, Trieste		5 "
Indigo	cerroons	10 per cent.
Metallic		11 "
Nails	bags	2 "
Ditto	casks	8 "
Ochre, dry		8 "
oil		12 "
Peruvian bark	cerroons	10 "
Paris white	casks	10 "
Pepper	bags	2 "
Ditto	double bags	4 "
Pimento	bags	2 "
Rassins	casks	12 "
Ditto	boxes	25 "
Ditto	half boxes	27 "
Ditto	quarter boxes	29 "
Ditto	frails	4 "
Rice	bags	2 "
Spanish brown, dry	casks	10 "
oil		12 "
Sugar	hhds.	12½ "
Ditto	tierces	12 "
Ditto	bbls.	10 "
Ditto	boxes	14 "
Ditto	bags	2 "
Ditto	mats	24 "
Salt, fine	sacks	5 pounds per sack
Teas, China or Japan	invoice weight	
Ditto all others, actual tare		
Tobacco, leaf	bales	10 pounds per bale
Ditto	bales, ex covers	12 "
Whiting	casks	10 per cent.

Extracts from Act, July 14, 1862.—Sec. 16. *And be it further enacted*, That from and after the passage of this Act, in estimating the allowance for tare on all chests, boxes, cases, casks, bags, or other envelope or covering of all articles imported liable to pay any duty, where the original invoice is produced at the time of making entry thereof, and the tare shall be specified therein, it shall be lawful for the collector, if he shall see fit, or for the collector and naval officer, if such officer there be, if they shall see fit, with the consent of the consignees, to estimate the said tare according to such invoice; but in all other cases the real tare shall be allowed, and may be ascertained under such regulations as the Secretary of the Treasury may from time to time prescribe; but in no case shall there be any allowance for draft.

Quarantine Regulations for the Port of New York.

The following 'Act concerning Quarantine, and Regulations in the nature of Quarantine,' was passed May 13, 1846:—

Sec. 1. The anchorage ground for vessels at quarantine shall be near the Marine Hospital, on Staten Island, and be designated by buoys, to be anchored under the direction of the health officer; and every vessel subject to quarantine shall, immediately on her arrival, anchor within them, and there remain, with all persons arriving in her, subject to the examinations and regulations imposed by law.

Sec. 2. Vessels arriving at the port of New York shall be subject to quarantine as follows:—

1. All vessels direct from any place where yellow, bilious-malignant, or other pestilential or infectious fever existed at the time of their departure, or which shall have arrived at any place, and proceeded thence to New York, or on board of which during the voyage any case of such fever shall have occurred, arriving between the thirty-first day of May and the first day of October, shall remain at quarantine for at least 30 days after their arrival, and at least 20 days after their cargo shall have been discharged, and shall perform such further quarantine as the health officer may prescribe.

2. All vessels embraced in the foregoing subdivision arriving between the first day of April

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and the first day of November, exclusive of the time in said subdivision mentioned; all vessels from a foreign port, on board of which during the voyage, or while at the port of departure, any person shall have been sick, or from any place in the ordinary passage from which they pass south of Cape Henlopen, arriving between the thirty-first day of May and the sixteenth day of October; and all vessels from any place (including islands) in Asia, Africa, or the Mediterranean, or from any of the West India, Bahama, Bermuda, or Western Islands, or from any place in America, in the ordinary passage from which they pass south of Georgia, arriving between the first day of April and the first day of November, shall be subject to such quarantine and other regulations as the health officer shall prescribe.

Sec. 3. It shall be the duty of the health officer to board every vessel subject to quarantine or visitation by him immediately on her arrival; to enquire as to the health of all persons on board, and the condition of the vessel and cargo, by inspection of the bill of health, manifest, log book, or otherwise; to examine on oath as many and such persons on board of vessels suspected of coming from a sickly port, or having had sickness on board during the voyage, as he may judge expedient, and to report the facts and his conclusions to the mayor and commissioners of health in writing.

Sec. 4. The health officer shall have power—

1. To remove from the quarantine anchorage ground any vessel he may think unsafe, to any place south of the quarantine buoys, and inside of Sandy Hook.

2. To cause any vessel under quarantine, when he shall judge it necessary for the purification of the vessel or her cargo, to discharge her cargo at the quarantine grounds, or some other suitable place out of the city.

3. To cause any such vessel, her cargo, bedding, and the clothing of persons on board, to be ventilated, cleansed, and purified in such manner and during such time as he shall direct; and if he shall judge it necessary to prevent infection or contagion, to destroy any portion of such cargo, bedding, or clothing which he may deem incapable of purification.

4. To prohibit and prevent all persons arriving in vessels subject to quarantine, from leaving quarantine until 15 days after the sailing of their vessel from the port of her departure, and 15 days after the last case of pestilential or infectious fever that shall have occurred on board, and 10 days after her arrival at quarantine, unless sooner discharged by him.

5. To permit the cargo of any vessel under quarantine, or any portion thereof, whenever he shall judge the same free from infection and contagion, to be conveyed to the city of New York, or such place as may be designated by the mayor and commissioners of health, after having reported in writing to the mayor and commissioners of health of said city the condition of said cargo, and his intention to grant such permission; such permission, however, to be inoperative without the written approval of the mayor and commissioners of health.

Sec. 5. The health officer, the board of health, or the mayor and commissioners of health may, if in their opinion it will not be dangerous to the public health, permit the cargo of any vessel under quarantine, or any part therof, to be shipped for exportation by sea, or transportation up the North or East rivers; but if the vessel receiving the same shall approach nearer than three hundred yards to the wharfs of this city, such cargo may be seized and sold by the commissioners of health for the use of the Marine Hospital.

Sec. 6. Every vessel during her quarantine shall be designated by colours, to be fixed in a conspicuous part of her main shrouds.

Sec. 7. No vessel or boat shall pass through the range of vessels lying at quarantine, or land at the quarantine ground after sunset, without the permission of the health officer.

Sec. 8. No lighters shall be employed to load or unload vessels at quarantine without permission of the health officer, and subject to such restrictions as he shall impose.

Sec. 9. All passengers under quarantine who shall be unable to maintain themselves, shall be provided for by the master of the vessel in which they shall have arrived; and if the master shall omit to provide for them, they shall be maintained on shore at the expense of such vessel, and such vessel shall not be permitted to leave the quarantine until such expense shall have been repaid.

Sec. 10. The health officer, upon the application of the master of any vessel under quarantine, may confine in any suitable place on shore, any person on board of such vessel charged with having committed an offence punishable by the laws of this State, or the United States, and who cannot be secured on board such vessel, and such confinement may continue during the quarantine of such person, or until he shall be proceeded against in due course of law, and the expenses thereof shall be charged and collected, as in the last preceding section.

Sec. 11. All vessels and persons remaining at quarantine on the first day of October, shall hereafter be subject to such quarantine and restrictions as vessels and persons arriving on and after that day.

Sec. 12. The board of health, or the board and commissioners of health, whenever in their judgment the public health shall require it, may order any vessel at the wharfs of the city, or in their vicinity, to the quarantine ground, or other place of safety, and may require all persons, articles, or things introduced into the city from such vessel to be seized, returned on board, or removed to the quarantine ground. In case the master, owner, or consignee of the vessel cannot be found, or shall refuse or neglect to obey the order of removal, the board of health, or the mayor and commissioners of health, shall have power to cause such removal at the expense of such master, owner, or consignee; and such vessel or persons shall not return to the city without the written permission of the board of health, or the mayor and commissioners of health.

Sec. 13. If any vessel arriving at the quarantine ground, subject to quarantine, shall be bound to some port east of the city of New York, the health officer, after having duly visited and examined her, may permit her to pass on her voyage through the Sound; but no such vessel shall be brought to anchor off the city, nor shall any of the crew or passengers land in, or hold any communication with, the city, or any person therefrom.

Sec. 14. No vessel, found on examination of the health officer to be infected with the yellow fever, or to have been so infected after sailing from her port of departure, shall be permitted to approach within 300 yards of the city of New York, between the first day of May and the first day of October in the same year. But the health officer, with the permission of the board of health of the cities of New York and Brooklyn, may permit any vessel arriving at the port of New York to proceed to some wharf desig-

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nated by the board of health of either of the cities of New York or Brooklyn, and discharge its cargo; provided satisfactory proof be given to the health officer that the port or ports from which said vessel sailed was free from contagious or infectious disease at the time of her sailing therefrom, and that no sickness of a contagious or infectious type had existed on board the vessel during her entire voyage.

Sec. 15. The master of every vessel released from quarantine, and arriving at the city of New York, shall, within 24 hours after such arrival, deliver the permit of the health officer at the office of the mayor and commissioners of health, or to such person as they shall direct, but such vessel shall not approach within 300 yards of the city of New York, without the written permission of the mayor and commissioners of health.

Sec. 16. Every vessel having had during the voyage a case of small-pox, or infectious or contagious disease, and every vessel from a foreign port having passengers, and not hereinbefore declared subject to quarantine, shall, on her arrival at the quarantine ground, be subject to visitation by the health officer, but shall not be detained beyond the time requisite for due examination, unless she shall have had on board during the voyage some case of small-pox, or infectious or contagious disease, in which case she shall be subject to such quarantine as the health officer shall prescribe; and it shall be the duty of the health officer, whenever he thinks it is necessary for the preservation of the public health, to cause the persons on board of any vessel to be vaccinated.

Sec. 17. Nothing in this Act contained shall prevent any vessel arriving at the quarantine from again going to sea before breaking bulk.

Sec. 18. The commissioners of health shall admit into the Marine Hospital any passenger who shall have paid hospital moneys, during any temporary sickness, within one year after such payment. The mayor of the city of New York, the resident physician, and the commissioners of health of said city, shall constitute a board of appeal from any direction or regulation of the health officer, with power to grant such and so much relief as may appear to the board thus constituted, or a majority of them, expedient and proper; the decision of the board of health, however, to be paramount.

Sec. 19. Every appeal from a decision of the health officer shall be made by serving upon him a written notice of such appeal, within 12 hours after such decision (Sundays excepted), and the health officer shall make a return in writing, including the facts on which the decision is founded, within 12 hours after the receipt of such notice (Sundays excepted), to the mayor, who shall immediately call a meeting of the board of appeal, and shall be president of said board, and said appeal shall be heard and decided within 24 hours thereafter (Sundays excepted), and the execution of the decision appealed from shall be suspended until the determination of the appeal.

Sec. 20. Every master of a vessel subject to quarantine or visitation, arriving in the port of New York, who shall refuse or neglect either—

1. To proceed with and anchor his vessel at the place assigned for quarantine, at the time of his arrival;

2. To submit his vessel, cargo, and passengers to the examination of the health officer, and to furnish all necessary information to enable that officer to determine to what length of quarantine and other regulations they ought respectively to be subject; or,

3. To remain with his vessel at quarantine during the period assigned for her quarantine; and while at quarantine, to comply with the directions and regulations prescribed by law, and with such as any of the officers of health, by virtue of the authority given to them by law, shall prescribe in relation to his vessel, his cargo, himself, or his crew;

Shall be guilty of a misdemeanor, and be punished by a fine not exceeding 2,000 dollars, or by imprisonment not exceeding 12 months, or by both such fine and imprisonment.

Account of the Value of the Exports and Imports of the United States for the following Years, ending till 1842 inclusive on September 30, and since then on June 30, with a Column showing the Population as ascertained at the different Periods when a Census was taken.

Year	Articles, the Growth, Produce, or Manufacture of the United States	Articles, the Growth, Produce, or Manufacture of Foreign Countries re-exported	Total Value of Exports from the United States	Total Value of Imports into the United States from Foreign Countries	Population of the United States according to the Official Census
	dols.	dols.	dols.	dols.	
1820	59,462,029	14,337,479	73,899,508	70,876,920	12,788,742
1821	61,277,057	20,023,526	81,310,583	62,204,435	
1822	64,781,470	24,039,173	87,176,943	83,241,106	
1823	70,317,698	19,877,755	90,140,453	77,579,732	
1824	81,924,162	25,312,811	104,336,973	79,484,487	
1825	101,189,982	20,503,495	121,693,577	96,340,252	
1826	106,916,680	21,748,360	128,665,040	84,974,651	
1827	95,561,414	21,854,962	117,416,376	79,484,487	
1828	96,033,821	18,455,795	109,186,616	88,480,928	
1829	103,535,891	17,491,525	121,028,416	74,422,715	
1830	113,895,534	18,190,312	132,085,946	70,876,920	12,866,020
1831	108,382,772	15,469,081	123,851,805	103,762,264	
1832	92,969,996	11,721,538	104,691,534	101,029,078	
1833			Nine months only		
1834	99,715,178	11,484,867	111,200,045	108,435,035	
1835	99,390,776	15,346,150	114,646,606	126,521,332	
1836	102,141,893	11,346,723	113,488,616	149,895,742	
1837	150,657,164	8,011,158	158,618,672	189,980,035	
1838	132,901,121	21,132,315	154,036,436	113,717,404	
1839	178,666,955	13,088,865	145,755,820	162,092,132	
1840	136,916,912	14,951,808	151,868,720	107,141,519	17,069,566
1841	106,699,718	21,698,293	128,388,011	127,946,177	
1842	102,308,984	17,599,382	119,653,768	100,162,087	
1843	113,417,697	17,558,460	130,976,157	64,753,001	
1844	153,390,870	24,850,194	178,241,064	108,435,035	
1845	116,788,553	28,448,293	145,166,846	117,254,564	
1846	110,586,330	16,378,578	126,964,908	121,691,797	
1847	154,995,065	23,975,617	162,960,682	146,545,638	
1848	132,248,279	20,886,142	154,614,421	154,997,998	
1849	135,891,585	20,896,977	56,789,426	147,857,139	
1850	178,189,274	26,933,922	100,122,296	178,138,318	23,263,000
1851	189,711,291	21,145,427	210,856,818	216,224,332	
1852	212,929,539	16,869,641	229,799,280	267,978,647	
1853	205,810,211	25,969,948	231,809,459	304,567,381	
1854	239,033,199	20,456,940	310,292,139	261,468,940	
1855	206,328,228	30,390,365	236,697,123	314,639,942	
1856	250,054,277	14,717,177	265,126,391	360,890,141	
1857	274,486,408	19,255,742	293,742,150	282,613,150	
1858	218,993,348	15,211,782	234,205,130	338,768,130	
1859	256,172,329	15,463,891	271,636,220	362,163,941	
1860	316,242,303	16,252,003	333,576,306	353,616,405	31,443,790
1861	192,322,251	15,604,442	207,926,693	249,464,594	
1862	174,377,888	12,252,635	186,630,523	252,054,895	
1863	210,776,829	13,174,763	223,951,592	328,164,057	
1864	259,472,000	13,000,000	272,472,000	329,000,000	
1865	192,000,000	12,000,000	204,000,000	249,000,000	
1866	377,000,000	14,000,000	391,000,000	433,000,000	
1867	357,000,000	13,000,000	370,000,000	463,000,000	
1868	315,000,000	12,000,000	327,000,000	437,000,000	
1869	346,000,000	12,000,000	358,000,000	482,000,000	
1870	393,000,000	13,000,000	406,000,000	436,000,000	38,558,371
1871	462,000,000	14,000,000	476,000,000	520,000,000	
1872	523,000,000	15,000,000	538,000,000	626,000,000	
1873	522,000,000	15,000,000	537,000,000	642,000,000	
1874	567,000,000	15,000,000	582,000,000	567,000,000	
1875	513,000,000	15,000,000	528,000,000	533,000,000	
1876	540,000,000	15,000,000	555,000,000	460,000,000	
1877	602,000,000	15,000,000	617,000,000	451,000,000	
1878	680,000,000	15,000,000	695,000,000	457,000,000	
1879	698,000,000	15,000,000	713,000,000	502,000,000	
1880	823,000,000	16,000,000	839,000,000	667,000,000	50,155,783
1881	883,000,000	16,000,000	899,000,000	642,000,000	
1882	733,000,000	16,000,000	749,000,000	724,000,000	
1883	733,000,000	16,000,000	749,000,000	723,000,000	
1884	724,000,000	16,000,000	740,000,000	670,000,000	
1885	703,000,000	16,000,000	719,000,000	577,000,000	
1886	665,000,000	16,000,000	681,000,000	635,000,000	
1887	703,000,000	16,000,000	719,000,000	692,000,000	
1888	679,000,000	16,000,000	695,000,000	723,000,000	
1889	742,000,000	16,000,000	758,000,000	745,000,000	
1890	845,000,000	16,000,000	861,000,000	789,000,000	62,622,250
1891	872,000,000	16,000,000	888,000,000	844,000,000	
1892	827,000,000	16,000,000	843,000,000	866,000,000	
1893	847,000,000	16,000,000	863,000,000	827,000,000	
1894	698,000,000	16,000,000	714,000,000	654,000,000	
1895	807,000,000	16,000,000	823,000,000	731,000,000	
1896	882,000,000	16,000,000	898,000,000	779,000,000	
1897	1,031,000,000	16,000,000	1,047,000,000	764,000,000	
1898	1,231,000,000	16,000,000	1,247,000,000	616,000,000	
1899	1,227,000,000	16,000,000	1,243,000,000	697,000,000	
1900	1,371,000,000	17,000,000	1,388,000,000	850,000,000	75,994,575
1901	1,383,000,000	17,000,000	1,400,000,000	823,000,000	
1902	1,382,000,000	17,000,000	1,399,000,000	903,000,000	
1903	1,420,000,000	17,000,000	1,437,000,000	1,025,000,000	
1904	1,460,000,000	17,000,000	1,477,000,000	1,117,000,000	
1905	1,518,000,000	17,000,000	1,535,000,000	1,226,000,000	
1906	1,717,000,000	17,000,000	1,734,000,000	1,226,000,000	
1907	1,882,000,000	17,000,000	1,899,000,000	1,434,000,000	
1908	1,728,000,000	17,000,000	1,745,000,000	1,116,000,000	
1909	1,663,000,000	17,000,000	1,680,000,000	1,311,000,000	
1910	1,745,000,000	17,000,000	1,762,000,000	1,557,000,000	91,972,266
1911	2,049,000,000	17,000,000	2,066,000,000	1,527,000,000	
1912	2,204,000,000	17,000,000	2,221,000,000	1,653,000,000	
1913	2,465,000,000	17,000,000	2,482,000,000	1,813,000,000	
1914	2,364,000,000	17,000,000	2,381,000,000	1,893,000,000	
1915	3,554,000,000	17,000,000	3,571,000,000	1,674,000,000	
1916	5,482,000,000	17,000,000	5,499,000,000	2,391,000,000	
1917	6,227,000,000	17,000,000	6,244,000,000	2,952,000,000	
1918	6,149,000,000	17,000,000	6,166,000,000	3,031,000,000	
1919	7,920,000,000	17,000,000	7,937,000,000	3,904,000,000	
1920	8,228,000,000	17,000,000	8,245,000,000	5,278,000,000	105,710,620
1921	4,485,000,000	17,000,000	4,502,000,000	2,509,000,000	
1922	3,832,000,000	17,000,000	3,849,000,000	3,113,000,000	
1923	4,167,000,000	17,000,000	4,184,000,000	3,792,000,000	
1924	4,591,000,000	17,000,000	4,608,000,000	3,610,000,000	
1925	4,909,000,000	17,000,000	4,926,000,000	4,227,000,000	
1926	4,808,000,000	17,000,000	4,825,000,000	4,430,000,000	
1927	4,865,000,000	17,000,000	4,882,000,000	4,185,000,000	
1928	5,128,000,000	17,000,000	5,145,000,000	4,091,000,000	
1929	5,241,000,000	17,000,000	5,258,000,000	4,399,000,000	
1930	3,843,000,000	17,000,000	3,860,000,000	3,060,000,000	122,775,046
1931	2,424,000,000	17,000,000	2,441,000,000	2,091,000,000	
1932	1,611,000,000	17,000,000	1,628,000,000	1,323,000,000	
1933	1,676,000,000	17,000,000	1,693,000,000	1,450,000,000	
1934	2,128,000,000	17,000,000	2,145,000,000	1,655,000,000	
1935	2,283,000,000	17,000,000	2,300,000,000	2,003,000,000	
1936	2,250,000,000	17,000,000	2,267,000,000	2,303,000,000	
1937	2,766,000,000	17,000,000	2,783,000,000	3,084,000,000	
1938	2,529,000,000	17,000,000	2,546,000,000	2,342,000,000	
1939	3,177,000,000	17,000,000	3,194,000,000	2,318,000,000	
1940	4,030,000,000	17,000,000	4,047,000,000	2,625,000,000	131,669,275
1941	5,148,000,000	17,000,000	5,165,000,000	3,781,000,000	
1942	8,030,000,000	17,000,000	8,047,000,000	4,370,000,000	
1943	13,000,000,000	17,000,000	13,017,000,000	5,000,000,000	
1944	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1945	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1946	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1947	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1948	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1949	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1950	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	151,325,798
1951	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1952	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1953	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1954	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1955	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1956	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1957	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1958	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1959	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1960	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	179,323,175
1961	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1962	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1963	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1964	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1965	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1966	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1967	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1968	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1969	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1970	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	203,302,031
1971	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1972	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1973	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1974	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1975	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1976	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1977	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1978	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1979	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1980	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	226,542,199
1981	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1982	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1983	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1984	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1985	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1986	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1987	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1988	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1989	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1990	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	248,709,873
1991	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1992	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1993	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1994	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1995	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1996	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1997	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1998	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
1999	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	
2000	9,000,000,000	17,000,000	9,017,000,000	5,000,000,000	281,421,906

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Sec. 21. Every master of a vessel hailed by a pilot, who shall either—

1. Give false information to such pilot relative to the condition of his vessel, crew, passengers, or cargo, or the health of the place or places whence he came, or refuse to give such information as shall be lawfully required;

2. Or land any person from his vessel, or permit any person except a pilot to come on board his vessel, or unlade or tranship any portion of his cargo, before his vessel shall have been visited and examined by the health officer;

3. Or shall approach with his vessel nearer the city of New York than the place of quarantine to which he shall be directed;

Shall be guilty of the like offence, and be subject to the like punishment. And every person who shall land from any such vessel, or unlade or tranship any portion of her cargo, under like circumstances, shall be guilty of the like offence, and be subject to the like punishment.

Sec. 22. Every person who shall violate any provision of this Act, or neglect or refuse to comply with the directions and regulations which any of the officers of health may prescribe, shall be guilty of the like offence, and be subject, for each offence, to the like punishment.

Sec. 23. Every person who shall oppose or obstruct the health officer in performing the duties required of him, shall be guilty of the like offence, and be punished by fine not exceeding 500 dollars, or by imprisonment not exceeding 3 months, or by both such fine and imprisonment.

Sec. 24. Every person who, without authority of the health officer, commissioners of health, or board of health, shall go within the enclosure of the quarantine ground, shall be guilty of the like offence, and be punished by fine not exceeding 100 dollars, or by imprisonment not exceeding 30 days, or by both such fine and imprisonment.

Sec. 25. Every person who shall go on board of, or have any communication, intercourse, or dealing with any vessel at quarantine, without the permission of the health officer, shall be guilty of the like offence, and be subject to the like punishment. And such offender shall be detained at quarantine so long as the health officer shall direct, not exceeding 20 days, unless he shall be taken sick of some pestilential or infectious disease.

Sec. 26. Every person who shall violate the provisions of the 5th article of title 2nd of chapter 14th of part 1st of the Revised Statutes, by refusing or neglecting to obey or comply with any order, prohibition, or regulation made by the board of health, in the exercise of the powers therein conferred, shall be guilty of a misdemeanor, punishable by fine and imprisonment, at the discretion of the court by which the offender shall be tried.

Sec. 27. Articles 1st, 3rd, 4th, and 6th, of title 2nd of chapter 14th of part 1st of the Revised Statutes; an Act entitled, 'An Act to amend title 2nd, chapter 14th, part 1st, of the Revised Statutes, relating to the Quarantine Regulations of the Port of New York,' passed May 2, 1836; an Act entitled, 'An Act relative to the Quarantine Laws, passed May 7, 1839; an Act entitled, 'An Act to amend the Revised Statutes relating to the Public Health,' passed April 12, 1842, and all other laws inconsistent with this Act, are hereby repealed.

We have derived these statements from the *New York Annual Register*; *The Picture of New York*; Hunt's *Commercial Magazine*; the latest Consular *Reports and official accounts*; and valuable *private communications*.

The following is an account of the registered, enrolled and licensed tonnage of the United States from 1818:—

Year	Registered Tonnage	Enrolled and Licensed Tonnage	Total Tonnage
	tons	tons	tons
1818	606,088	609,295	1,215,184
1820	619,047	661,118	1,280,166
1825	700,787	792,323	1,493,111
1830	576,475	619,301	1,195,776
1835	585,941	939,118	1,521,940
1840	999,764	1,280,999	2,180,764
1845	1,095,172	1,321,829	2,417,002
1850	1,585,711	1,949,743	3,535,454
1851	1,726,307	2,048,132	3,774,439
1852	1,899,446	2,238,992	4,138,140
1853	2,103,674	2,303,336	4,407,010
1854	2,353,819	2,469,083	4,822,902
1855	2,535,136	2,676,865	5,212,001
1856	2,491,107	2,380,250	4,871,357
1857	2,463,967	2,476,875	4,940,842
1858	2,577,769	2,801,430	5,379,199
1859	2,597,401	2,637,635	5,235,037
1860	2,546,237	2,807,851	5,353,868
1861	2,642,628	2,897,185	5,539,813
1862	2,291,251	2,820,914	5,112,165
1865	2,026,114	3,099,967	5,126,081
1864	1,581,895	3,404,506	4,986,401
1865	1,602,383	3,491,198	5,093,781
1866	1,194,926	3,817,852	5,010,778

Account showing the Value of the Exports of Home Products from the United States to, and of the Imports into the same from, the various Countries undermentioned, in the Year ending June 30, 1866.

	Exports of Home Products	Imports	Total
	dollars	dollars	dollars
Russia	2,547,135	830,753	3,377,888
Russia in Asia	3,300	300,359	303,659
Russian possessions in America	81,609	39,514	121,123
Prussia	67,340	189,279	256,619
Sweden and Norway	158,982	464,640	623,622
Denmark	1,288,799	462,541	1,751,340
Hamburg	13,140,087	13,256,407	26,396,494
Bremen	12,891,073	12,701,533	25,592,606
Holland	2,807,149	2,775,514	5,582,663
Dutch West Indies	641,103	429,253	1,070,356
Dutch Guiana	490,674	297,486	788,160
Dutch East Indies	161,003	776,255	937,258
Belgium	6,431,855	9,287,363	15,719,218
England	387,268,760	196,320,624	583,589,384
Newfoundland	4,181,920	6,345,325	10,527,245
Ireland	5,975,991	74,396	6,048,387
Gibraltar	1,155,588	2,864	1,158,452
Malta	283,714	99	283,813
Canada	15,533,502	46,199,470	61,732,972
Other British possessions in America &c.	11,581,336	8,505,489	20,086,825
British West Indies	7,505,812	3,519,607	10,925,419
Honduras	407,708	201,428	609,136
British Guiana	1,814,201	984,797	2,799,000
Falkland Islands	4,892	—	4,892
British colonies in Africa	1,012,721	1,840,407	2,853,128
East Indies	347,264	6,141,664	6,488,928
Australia	6,200,536	474,018	6,674,554
France	61,183,505	22,930,289	84,113,794
French possessions in America	251,250	58,427	309,677
French West Indies	619,944	351,319	971,263
French Guiana	78,551	12,814	91,365
French possessions in Africa	272,269	92,058	364,327
Spain	5,718,745	2,675,009	8,393,755
Canaries	185,806	7,603	193,409
Philippines	215,079	3,667,994	3,883,073
Cuba	14,994,346	37,795,872	52,790,218
Porto Rico	2,092,253	6,165,013	8,257,266
St. Domingo	96,624	77,482	173,906
Portugal	698,728	237,015	745,743
Madeira	14,474	23,289	37,763
Azores	66,748	144,552	211,300
Cape Verde Islands	29,172	34,156	63,328
Italy	4,749,597	2,447,990	7,196,587
Sicily	114,561	1,698,512	1,813,063
Austria	322,156	636,158	958,314
Austrian Italy	167,892	—	167,892
Turkey in Europe	201,202	16,174	217,376
Turkey in Asia	364,346	313,270	677,716
Siberia	85,519	36,175	121,694
Other African ports	736,899	574,964	1,311,863
Hayti	3,269,711	1,161,749	4,431,460
Mexico	3,716,599	4,155,503	7,872,102
Central America	573,114	744,588	1,317,702
New Granada	3,723,047	1,692,067	5,415,114
Venezuela	1,267,934	2,076,449	3,344,383
Brazil	5,679,913	10,811,423	16,491,336
Uruguay	303,496	1,613,953	1,917,449
Buenos Ayres	1,739,977	6,878,461	8,618,438
Chile	1,134,653	740,050	1,874,703
Peru	1,144,265	807,238	1,951,503
Bolivia	15,917	—	15,917
Sandwich Islands	1,051,629	1,593,105	2,644,734
Other islands of the Pacific	121,569	68,771	190,339
China	8,659,068	10,139,903	18,798,771
Japan	472,551	1,313,564	1,786,115
Whale Fisheries	1,387	1,660,580	1,661,967
Greenland	—	44,598	44,598
Greece	—	76,378	76,378
Ionian Islands	—	7,388	7,388
Egypt	—	12,222	12,222
Equador	—	32	32
Total	640,884,277	437,660,584	1,078,544,861

Tariff of the United States.—Notwithstanding the unprecedented progress of the United States in wealth and population, their foreign trade was nearly stationary for the 10 years ending with 1830. And yet, considering the spirit of commercial enterprise by which the people, particularly in the New England States and New York, are animated, and their skill in navigation, it might have been fairly presumed that the growth of their foreign trade would, at least, have kept pace with the development of the internal resources of the country. That it did not do so, is wholly owing to the policy of Government. Not satisfied with the extraordinary advances which their constituents had made in numbers and wealth, Congress seems to have believed that their career might be accelerated by means of custom-house regulations—by giving an artificial direction to a portion of the public capital and industry, and turning it into channels into which it would not naturally flow.

No one who has the slightest acquaintance with the condition of America—who knows that she is possessed of boundless tracts of fertile and unappropriated land—that her population is comparatively thin, and wages high—can doubt for a moment that agriculture *must*, for a long series of years, be the most profitable species of employment in which her citizens can engage. There can be no question, indeed, that such branches of manufacture as are naturally adapted to her peculiar situation will gradually grow up and flourish in America, without any artificial encouragement, according as her population becomes denser, and as the advantage which now exists on the side of agriculture becomes less decided. And the imposition of moderate duties on foreign articles for the sake of revenue would certainly give these branches all the protection to which they are justly entitled, or more. But to force, by means of duties and prohibitions, imposed not for the sake of revenue, but of protection, the premature growth of manufactures, is plainly to force a portion of the industry and capital of the country into businesses in which it will be *least* productive.

Such, however, was for a lengthened period the policy of the American Legislature. The exploded sophisms of the mercantile system, though renounced by every statesman in Europe, acquired a noxious influence in Congress, and were put forth with as much confidence as if their soundness neither had been nor could be questioned. From 1816 down to 1846, the object of the American Legislature was, for the most part, to bolster up a manufacturing interest, by imposing oppressive duties on most manufactured articles imported from abroad. Now, it is obvious, even had the articles produced in America through the agency of this plan been nearly as cheap as those they superseded, that nothing would have been gained by it; for, to whatever extent the importation of foreign articles might be diminished, there must have been a corresponding diminution in the exportation of native American products; so that the only result would have been the raising up of one species of industry at the expense of some other species entitled to an equality of protection. But the 'American system' was not so innocuous. Instead of the goods manufactured in the States being as cheap as similar ones manufactured in Europe, they were admitted to be, at an average, from 30 to 50 or 60 per cent. dearer. The extent of the pecuniary sacrifice thus imposed on the Union by the tariff modified in 1832 has been variously estimated by American writers; and we have been assured by those who have the best means of knowing, that it may be taken as amounting to from 50,000,000 to 60,000,000 dollars, or from about 11,000,000*l.* to 13,000,000*l.* a-year. And this immense burden —a burden more than twice as great as the whole public expenditure of the United States at that period—was incurred for no purpose of public utility, and was productive of nothing but mischief. The whole effect of the scheme was to divert a certain amount of the national capital from the production of cotton, wheat, rice, tobacco &c., the equivalents sent to foreigners in payment of manufactured goods, to the direct production of these goods themselves. And as the latter species of industry is less suitable for America, a tax of 13,000,000*l.* a-year was imposed on the Union, that the manufacturers might be enabled to continue a losing business. We leave it to others to determine whether the absurdity of the system, or its costliness, was its more prominent feature. That its influence was not more injurious is solely owing to the smuggling it occasioned. With a frontier like that of America, it would be worse than absurd to suppose that an oppressive tariff could be carried into full effect. But it had enough of influence to render it highly prejudicial—to occasion a great rise in the price of many important articles—to cripple the trade and navigation of the country—and to throw a considerable part of it into the hands of smugglers, who carried it on in defiance of the law.

It is difficult, however, to say how long the system of imposing high duties on most foreign products might have been maintained without so much as a check, but for its political effects. It was principally patronised by the Northern States; and though it would be difficult to show that they derived any benefit from it, it is, at all events, pretty certain that it was most injurious to the Southern States. Their staple products are cotton, tobacco, and rice, of which by far the largest portion is exported to foreign countries; and the planters speedily found that every restriction on importation from abroad occasioned a corresponding difficulty of exportation. This led to a disunion of interests and to strong remonstrances against the tariff by the Southern States. These, however, were disregarded. Provoked at this treatment, South Carolina took the decisive step of refusing to enforce the customs acts; and threatened, if coercion were attempted, to repel force by force, and to recede from the Union. This was a death-blow to the high duties of the old tariff. Congress then saw, what all sensible men had seen long before, that it was necessary to recede; that, in fact, either the tariff must be modified, or the integrity of the Union be brought into jeopardy. A law, commonly called the 'Compromise Act,' was in consequence passed on July 14, 1832, which provided that certain reductions should be progressively made on the then existing duties on most descriptions of foreign goods, at certain specified periods between 1833 and 1842, when they were, in most instances, to be reduced to 20 per cent. ad valorem.

This Act was allowed to take effect for a few years; but as the reduction specified in it began to come into practical operation, the manufacturers, also, began to set up fresh claims for additional protection. Probably, however, the latter might not have been able to carry their point had not the Southern States been apprehensive that if they made any resolute stand against the proposal to increase the duties, and still more if they threatened to secede from the Union in the event of its being carried, they might be brought into serious difficulties by the

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agitation of the question as to the emancipation of their slaves. The latter, therefore, having to choose between two evils, preferred, of course, that which they believed to be the lesser; and purchased a truce for the emancipation question by agreeing to the Tariff Act passed in 1842, by which comparatively high duties were again imposed on most descriptions of imported articles.

This system, however, was not so permanent as was expected. The Western and Southern States, being those most directly interested in a low tariff, had for some years before the civil war a majority in Congress; and the apprehensions with regard to negro emancipation, excited by the proceedings in our islands, having subsided, sounder opinions, with regard to commercial matters, began again to prevail in Congress. Perhaps, however, the majority now referred to, or the party of Mr. Polk, might not have endeavoured to act on these principles without the example set by England; but the great commercial reforms effected in this country during the administration of Sir Robert Peel, and more especially the last and greatest of all, the change in the corn laws, had a powerful influence in the United States; and Mr. Polk's Government having profited by these and other circumstances, which it is needless to specify, succeeded in carrying a comparatively liberal tariff, which took effect from December 1, 1846. And this tariff kept its ground till 1857, when it was superseded by a still more liberal one. But the downfall of the party by which it was carried was quickly followed by a reimposition of high duties by Act of Congress of March 2, 1861, and this again by the outbreak of the Civil War. But the bulk of the American people have never been supposed to be blind or indifferent to their own interests; and these, they may be assured, will be best promoted by reverting to as soon as possible, and maintaining, a system which enables them to sell in the dearest and to buy in the cheapest markets. If they retain high duties, they will fall wholly on themselves, and on no one else; and the less they buy from foreigners, the less will they be able to export to them.

In addition to the duties noted below, a discriminating duty of 10 per cent. ad valorem is levied on all imports under flags that have no reciprocal treaties with the United States.

On all goods, wares, and merchandise of the growth or produce of countries east of the Cape of Good Hope, when imported from places this side of the Cape, a duty of 10 per cent. ad valorem is levied, in addition to the duties imposed on any such articles when imported indirectly from the place or places of their growth or production, raw cotton and raw silk excepted.

The annexed is the tariff in a condensed shape.

Abridged United States Tariff, or Rates of Duties imposed by the Act of Congress of March 2, 1861, with Addenda of August 5, 1861, December 24, 1861, July 14, 1862, March 3, 1863, June 30, 1864, March 3, 1865, March 14, 1866, May 16, 1866, July 28, 1866, and March 2, 1867, with relative clauses.

Absynth, 50° and under, 2d. 50c. per gal.
Absynth, under 50° in strength, and costing over 5 dol. per gal., 50 per cent. ad val.
oil of, or wormwood, 50 per cent.
Accordions, 30 per cent.
Acid, chromic, 15 per cent.
Acetate of lead, or sugar of lead, 20c. per lb.
potasse, 75c. per lb.
baryta, 40c. per lb.
iron, strontian, zinc, magnesia, soda, 50c. per lb.
lime, 25 per cent.
Acid, acetic, acetous or concentrated vinegar, or pyroligneous, exceeding the specific gravity of 1010°, 80c. per lb.
not over 1040°, called No. 8, 25c. per lb.
Acid, benzoic, 10 per cent.
boracic, 5c. per lb.
citric, white or yellow, 10c. per lb.
gallic (med.), 1d. 50c. per lb.
muriatic, nitric, or nitric fort, 10 per cent.
oxalic, 4c. per lb.
tannic, 2 dol. per lb.
tartaric, in crystals or powder, 20c. per lb.
sulphuric, or oil of vitriol, 1c. per lb.
Acids used in the fine arts, not otherwise provided for, 10c. per lb.
Acorns, 5c. per lb.
Acorn coffee and dandelion root, raw or prepared, and other articles for similar use, not provided for, 5c. per lb.
Adhesive plaister, salve, 40 per cent.
Adzes, 45 per cent.
Agaric (spunk), 10 per cent.
Agates, 10 per cent.
bookbinders', 20 per cent.
Alabata, in sheets, 35 per cent.
Alabaster and spar ornaments, 30 p.c.
Albumen, prepared white of an egg, 25 p.c.
Ale, in bottles, 35c. per gal.
otherwise than in bottles, 20c. per gal.
Aluminum, a crude metal, 10 per cent.
Almonds, 6c. per lb.
shelled, 10c per lb.
paste, 50 per cent.
Aloes, 6c. per lb.
Alum, patent, and substitute, 60c. per 100 lb.
Alumina, sulphate of, 60c. per lb.
Aluminous cake, 60c. per lb.
Alizarine (extract of madder), 10 per cent.
Amber, gum, 20 per cent.
beads, 50 per cent.
Amylic alcohol, 2 dol. per gal.
Amethyst, 10 per cent.
Ammonia, 20 per cent.
Ammonia, sulphate of, carbonate of, or refined, 20 per cent.
acetate, or pyroligneate of, 70c. per lb.
salts, and muriate of, 10 per cent.
Aniline, 20 per cent.
Anchovies, in oil or salt, 50 per cent.
Animals, all alive, 20 per cent.
Annatto, extract or seed, 20 per cent.
Anise seed, 3c. per lb.
star, 10c. per lb.
Anise seed, oil of, 50c. per lb.
Anthos, oil of, 50 per cent.
Antimony, crude, or regulus of, 10 per cent.
Antique oil, 50 per cent.
Apothecaries' vials and bottles exceeding the capacity of 6, and not exceeding the capacity of 16 oz. each, not cut, 35 p.c.
cut, 40 per cent.
Apparatus, philosophical, or instruments, 15 per cent.
philosophical, not specially imported, 40 p.c.
Apples, 10 per cent.
Apple butter, 35 per cent.
Aqua fortis, 10 per cent.
Argentophile, 20 per cent.
Arrack, 50°, 2d. 50c. per gal
under 50° in strength and costing over 5 dol. per gal., 50 per cent.
Argentine, or flowers of antimony, 20 p.c.
Arms, fire or side, 35 per cent.
Arrow root, 20 per cent.
Arsenic, and sulphate of, 20 per cent.
Articles not in a crude state, used in dyeing or tanning, not otherwise provided for, 20 p.c.
Articles, all manufactures of, and not subject to any other rate of duty, 30 per cent.
Articles, raw or unmanufactured, not provided for, 10 per cent.
Asbestos, a crude mineral substance, 25 p.c.
Asphaltum, 25 per cent.
Assafœtida, 20 per cent.
Asses' skin or parchment, and imitation of, 30 per cent.
Ava root, 20 per cent.
Augers, 45 per cent.
Awls, 45 per cent.
Axes, 45 per cent.
Ayr-stones, 10 per cent.

Bacon, 2c. per lb.
Bags, grass or hemp, 30 per cent.
gunny. (See Cotton Bagging.)
Baizes, 7½c. per sq. yd. and 35 per cent.
Balls, billiard, 35 per cent.
Balmoral's, composed wholly or in part of worsted, the hair of the Alpaca goat, or other like animals, value not over 40 cts. per lb., 20c. per lb. and 35 per cent.
value over 40 cts. and not over 60 cts. per lb., 30c. per lb. and 35 per cent.
value over 60c., and not over 80c. per lb., 40c. per lb and 35 per cent.
value over 80c. per lb., 50c. per lb. and 35 per cent.
composed wholly or in part of wool, 50c. per lb. and 35 per cent.
Balmoral skirts and skirtings, and goods of similar description, or used for like purposes, composed wholly or in part of wool, worsted, the hair of the Alpaca goat, or other like animals, made up or manufactured wholly or in part by the tailor, seamstress or manufacturer, except knit goods, 50c. per lb. and 40 per cent.
Balm of Gilead, 10 per cent.
Balsam, copaiva, 20c. per lb.
of Tulu, 30c. per lb.
Peruvian, 50c. per lb.
medicinal, not otherwise provided for, 30 per cent.
all kinds of cosmetic, 50 per cent.
Bamboos, unmanufactured, 10 per cent.
Bananas, 20 per cent.
Bark of cork trees, unmanufactured, 20 p.c.
Peruvian, 20 per cent.
flat cararaya (Peruvian), and all medicinal, 20 per cent
all not specially mentioned, 10 per cent.
Barley, 15c. per bbl.
pearl, or hulled, 1c. per lb
Barytes, sulphate of, crude or refined, 1c. p.lb.
nitrate of, 20c. per lb.
and acid combined, 3c. per lb.
Bass (the inner bark of a tree), 20 per cent.
Bassoons, 30 per cent.
Baskets, wood or osier, palm leaf, straw, grass or whalebone, 35 per cent.
Battledores, 35 per cent.
Bay rum, essence of, 2 dol. per oz.
ditto, of which spirits is a component part of chief value, to pay duty as spirits
Bay water, or rum, distilled from the leaf, 1d. 50c. per gal.
Bay wax, or myrtle wax, 20 per cent.
Bay cones, 45 per cent.
Bdellium, crude or refined (gum), 20 p.c.
Beads, of precious stones or gold and silver, and not otherwise enumerated, 50 per cent.
Bead ornaments, 50 per cent.
Beans for seed, 30 per cent.
tonqua, 20 per cent.
vanilla, 3 dol. per lb.
all other not specially mentioned, 10 p.c.
Beam knives, 45 per cent.
Beams, scale, 35 per cent.
Bed feathers, 30 per cent.
caps, 35 per cent.
screws, 2½c. per lb.
sides, as carpeting. (See Mats.)
Beef, 1c. per lb.
Beer, in bottles, 35c. per gal.
otherwise than in bottles, 20c. per gal.
Bellows pipes, 35c.
Bell cranks, or levers, or pulls, of iron, 35c.
Bellows, 35c.
Belts, sword leather, 35c.
Benzine, or benzole oil, refined, 10c. per gal
Benzoates, 30 per cent.
Beds, feather, 20 per cent.
Bed spreads, or covers, made of the scraps or waste ends of printed calicoes, sewed together, 35 per cent.
Bell metal, manufactured, 35 per cent.
Bells, silver or gold, 40 per cent.
Berlin blue, 25 per cent.
Berries, not otherwise provided for, 10 p.c.
Bezoar stones, 10 per cent.
Bicarbonate of soda, or saleratus, 1½c. per lb.
Bick irons, 35 per cent.
Binding, cotton, 35 per cent.

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Binding, silk, 60 per cent.
leather, 35 per cent.
linen, 40 per cent.
Birds, 20 per cent.
Bismuth, oxide of, 20 per cent.
Bitts, carpenters', 45 per cent.
Bitter apple, 10c. per lb.
Bitumen, 20 per cent.
Black, lamp, 20 per cent.
Blacking, 30 per cent.
Bladders, 20 per cent.
Blanc fixe, 3c. per lb.
Blankets, composed wholly or in part of worsted, the hair of the Alpaca goat, or other like animals, from 20c. per lb. and 35 per cent. up to 40c. per lb., and 35 p.c. value over 80c. per lb., 50c. per lb. and 35 per cent.
composed wholly or in part of wool, 50c. per lb. and 35 per cent.
Bleaching powders, 35c. per 100 lb.
Boards, planed or rough, 20 per cent.
Bobbin or braid cotton, 35 per cent.
Bocking, all, 25c. per sq. yd. and 35 p.c.
Bologna sausages, 30 per cent.
Bole, Armenian, 30 per cent.
Bone, black, 20 per cent.
Bone, dice, draughts, chessmen, chess and bagatelle balls, 30 per cent.
Bone alphabets, 35 per cent.
whale, tip and bones, 10 per cent.
other manufactures of, 35 per cent.
whale, not of the American fisheries, 20 p.c.
Bonnets, Leghorn, chip, or grass, straw, or muslin, 40 per cent.
fur leather, 35 per cent.
Boots and bootees, 35 per cent.
Bookbinders' agates ferrules, 20 per cent.
Books, 25 per cent.
Books and instruments, professional, of persons arriving in the United States, free
Books, specially imported for the use of schools &c., free
Boot web, linen, 35 per cent.
Borax, or tincal, crude, 5c. per lb.
refined, 10c. per lb.
Bottles, black glass, 1 quart, 35 per cent.
perfumery and fancy, not exceeding 16 oz. (cut), 40 per cent.
Bougies, 35 per cent.
Boucho leaves, 10c. per lb.
Brooms, carpenters' without bitts, 35 per cent.
Braces and bitts, carpenters', 45 per cent.
Brace bitts, 45 per cent.
Brackets, 35 per cent.
Brandy, 50° and under, 3 dol. per gal.
all imitations of, to pay same as genuine.
Brass, manufactures of, not otherwise enumerated, 35 per cent.
in bars, in pigs, or old, only fit to be remanufactured, 15 per cent.
Brazil paste, or pasta de Brazil, 10 per cent.
Bricks, fire or roofing, 20 per cent.
Britannia ware, 35 per cent.
Brimstone, crude, 6 dol. per ton.
in rolls, 10 dol. per ton.
Bristol stones, 10 per cent.
boards, perforated &c. 35 per cent.
Bristles, 15c. per lb.
Bronze casts, and manufactures of, 35 p.c.
Bronze metal, in leaf, 10 per cent.
Bronze powder, 20 per cent.
liquid, gold, or bronze colour, 10 per cent.
Brown, Spanish dry, or in oil, 25 per cent.
smalts, 20 per cent.
Brooms, all kinds, 35 per cent.
Brucine (medical prep.), 40 per cent.
Brushes, of all kinds, 40 per cent.
Bugles, glass, cut or not cut, 50 per cent.
Building stones, not provided for, 20 per cent.
Bullets, 35 per cent.
Bullrushes, 10 per cent.
Bulbs, or bulbous roots, 20 per cent.
Burning, 20c. per sq. yd. and 35 per cent.
Burning fluid, 50c. per gal.
Burr stones, bound up in mill stones, 20 p.c.
Buttons, all (not otherwise provided for), 30 per cent.
Button moulds, of whatever material, 30 p.c.
Butter, 4c. per lb.
Butchers' knives, 35 per cent.

Cabinet wares, 35 per cent.
Cables, tarred, 3c. per lb.
untarred, 3½c. per lb.
made of grass, 3½c. per lb.
untarred Manilla, 2½c. per lb.
Cajeput, or cajeputa, oil of, 25c. per lb.
Calomel, 30 per cent.
Cameos, real, 10 per cent.
imitation of, 40 per cent.
real, set, 25 per cent.
imitation, set, 35 per cent.
Camomile flowers, 20 per cent.
Camphor, refined, 40c. per lb.
crude, 30c. per lb.
Canella, alba, 20 per cent.
Candlesticks, alabaster, 30 per cent.
bone, 35 per cent.
earthenware, white or coloured, 40 per cent.
Candles, adamantine or stearine, 5c. per lb.
wax, pure or mixed, spermaceti, pure or mixed, paraffine, pure or mixed, 8c. pr. lb.
tallow, all others, 2½c. per lb.
Canes, walking, finished or not, 35 per cent.
Cantharides, 50c. per lb.
Capers, 35 per cent.
Capsules, 40 per cent.
Carboys, of the capacity of ½ gal., and not exceeding 10 gal., 35 per cent.
Carbuncles, 10 per cent.
Cards, playing, value 25c. or less per pack, 25c. per pack.
playing, over 25c. per pack, 35c. per pack.
visiting, 35 per cent.
blank, 35 per cent.
wool, if steel pins, 45 per cent.
if iron pins, 35 per cent.
cotton, if steel pins, 45 per cent.
if iron pins, 35 per cent.
Carmine, dry, 25 per cent.
a liquid dye, 20 per cent.
Carpetuse, Aubusson and Axminster, or woven whole for rooms, 50 p.c. ad val.
Saxony, Wilton and Tournay velvet, wrought by the Jacquard machine, 70c. per sq. yd. and 35 per cent. ad val.
Brussels, wrought by the Jacquard machine, 41c. per sq. yd. and 35 p.c. ad val.
patent velvet and tapestry velvet, printed on the warp or otherwise, 10c. per sq. yd. and 35 per cent. ad val.
tapestry Brussels, printed on the warp or otherwise, 28c. per sq. yd. and 35 per cent. ad val.
treble ingrain, three-ply, and worsted chain Venetian, 17c. per sq. yd. and 35 per cent. ad val.
yarn, Venetian, and two ply ingrain, 12c. per sq. yd. and 35 p.c. ad val.
hemp or jute, 8c. per sq. yd.
wool, flax, or cotton or parts of either, or other material, not otherwise provided for, 40 per cent. ad val.
mats, all other (not exclusively of vegetable material), screens, hassocks and rugs, 45 per cent. ad val.
Carriages of all descriptions, and parts thereof, 35 per cent.
Carvers, 35 per cent.
Casks, empty, 35 per cent.
Cassada, or meal of, 20 per cent.
Cassia, Chinese, Calcutta, and Sumatra, 20c. per lb.
Cassia, ground or buds, 25c. per lb.
fistula, 20 per cent.
Castanas, or castinai (a nut), 2c. per lb.
Catechu, as cutch, 10 per cent.
Catgut, 50 per cent.
Catsup, 40 per cent.
Caulking mallets, 35 per cent.
Cement, Roman, 20 per cent.
Chalk, French, 20 per cent.
white, 10 dol. per ton.
all not otherwise provided for, 25 per cent.
Cheese, 4c. per lb.
Chemical preparations and salts, not otherwise enumerated, 20 per cent.
Chickory root, 4c. per lb.
ground, burnt or prepared, 5c. per lb.
China ware, plain white, 45 per cent.
China, ornamented in any manner, 50 p.c.
China root, 20 per cent.
Chinese blue, 25 per cent.
Chloride of lime, 30c. per 100 lb.
Chloroform (medic.), 1 dol. per lb.
Chocolate, 7c. per lb.
Chromic, yellow, 25 per cent.
acid, 15 per cent.
Chronometers, and parts of box or skin, 10 p.c.
Cider, 20 per cent.
Cinnamon, 50c. per lb.
Citron, in its natural state, 10 per cent.
Citron, preserved, 35 per cent.
oil of, 50 per cent.
Civet, oil of, 50 per cent.
Clay, ground or prepared, 5 dol. per ton.
unwrought, pipe and fire clay, 5 dol. per ton.
Cliff stone, 10 dol. per ton.
Clocks, and parts of, 35 per cent.
Clothing, ready-made, and wearing apparel of every description, composed wholly or in part of wool, worsted, hair of the Alpaca goat, or other like animals, made up or manufactured wholly or in part by the tailor, seamstress or manufacturer, (except knit goods,) 50c. per lb. and 40 per cent. ad val.
Clothing, all articles worn by men, women, or children, not otherwise provided for, 35 p.c.
Cloves, 20c. per lb.
Clove stems, 10c. per lb.
Clum of coal, 25 per cent.
Coal, bituminous, 28 bbl. to the ton, 80 lb. per bbl., 1d. 2½c. per ton.
Coal, all other, 40c. per ton.
Cobalt, and oxide of, 20 per cent.
ores, 10 per cent.
Cocculus indicus, 10c. per lb.
Cocks, 35 per cent.
Cocoa, 3c. per lb.
Cocoa, leaves, 2c. per lb.
prepared or manufactured, 9c. per lb.
matting, 25 per cent.
shells, 2c. per lb.
Cocoanuts, 25 per cent.
Coir, unmanufactured, 15 dol. per ton.
matting, 25 per cent.
Coke, 25 per cent.
Colcothar, and other of all kinds, not otherwise provided for, fluid, 1 dol. per lb.
Colocynth, 10c. per lb.
Cologne water and other perfumery, of which alcohol is the principal ingredient, 3 dol. per gal. and 50 per cent.
Colombo root, 20 per cent.
Coloquintida, 10c. per lb.
Colouring for brandy, if containing spirits, as spirits.
Colouring for brandy, 50 per cent.
Colours, water, 35 per cent.
Combs, curry, or for the hair, of whatever material, 35 per cent.
Composition table tops, 35 per cent.
Composition, of glass or paste, set, 35 per cent.
for jewellers, not set, 40 per cent.
Confectionery, all valued at 30c. per lb. or less, 15c. per lb.
Confectionery, all not otherwise provided for, of sugar, valued over 30c. per lb., or not sold by the lb., 30 per cent.
Copper, in plates or sheets, called braziers' copper, and other in sheets, not otherwise provided for, 35 per cent.
Copper bottoms, 35 per cent.
still bottoms, and parts thereof, 35 per cent.
plates, engraved, 25 per cent.
manufactures of, not otherwise specified, 30 per cent.
Copper wire and vessels, 35 per cent.
sheathing, 48 in. long, 14 in. wide, weight from 11 to 34 oz. per square foot, 3 c. p. lb.
Copper rods, bottoms, bolts, spikes and nails, 35 per cent.
Copper, pigs, ingots and bars, 2½c. per lb.
old, fit only to be remanufactured, 1½c. p. lb.
Copper ore, 5 per cent.
Copperas, ½c. per lb.
Coral, cut or manufactured, 30 per cent.
Cordage, tarred, 3c. per lb.
untarred, 3½c. per lb.
Manilla, untarred, 2½c. per lb.
all other, 3½c. per lb.
Cordials, of all kinds, sweet, 2d. 50c. per gal.
Corks, and manufactures of, 30 per cent.
Cornelian stone, 10 per cent.
rings, 20 per cent.
Corn fans, 35 per cent.
Corn, Indian, or maize, 10c. per bbl.
Corn meal, 10 per cent.
Corsets, 35 per cent.
Cosmetics, 50 per cent.
Cotton, easy embroidery, or floss, 40 per cent.
Cotton, 3c. per lb.
braids, cord, gimps and galloons, braces, or suspenders, 35 per cent.
Cottons, (except jeans, denims, drillings, bed tickings, ginghams, plaids, cottonades, pantaloon stuff and goods of like description,) not bleached, coloured, stained, painted or printed, and not exceeding 100 threads to the square inch, counting the warp and filling, and exceeding in weight five ounces per sq. yd., 3c. per sq. yd.
Cotton, as above, if bleached, 3½c. per sq. yd.
Cotton, as above, if coloured, stained, painted or printed, 5½ cents per sq. yd. and 10 p.c.
Cotton, finer or lighter, unbleached, not over 200 threads to the sq. in., counting the warp and filling, 5c. per sq. yd.
Cotton, as above, bleached, 5½c. per sq. yd.
Cotton, as above, coloured, stained, painted or printed, 5½c. per sq. yd. and 20 per cent.
Cotton, unbleached, over 200 threads to the sq. in. counting the warp and filling, 5c. per sq. yd.
Cotton, as above, if bleached, 5½c. per sq. yd.
Cotton, as above, if coloured, stained, painted, or printed, 5½c. per sq. yd. and 20 per cent.
Cottons, jeans, denims, drillings, bed tickings, ginghams, plaids, cottonades, pantaloon stuffs and goods of like description, or for similar use, not over 100 threads to the sq. in., counting the warp and filling, and exceeding five oz. to the sq. yd., if unbleached, 6c. per sq. yd.
Cottons, as above, if bleached, 6½c. per sq. yd.
Cottons, as above, if coloured, stained, painted, or printed, 6½c. per sq. yd. and 10 per cent.
Cottons, finer or lighter, not over 200 threads to the sq. in., counting the warp and filling, if unbleached, 6c. per sq. yd.
Cottons, as above, if bleached, 6½c. per sq. yd.
Cottons, as above, if coloured, stained, painted or printed, 6½c. per sq. yd. and 15 per cent.
Cottons, as above, over 200 threads to the sq. in., counting the warp and filling, unbleached, 7c. per sq. yd.
Cottons, as above, if bleached, 7½c. per sq. yd.
Cottons, as above, if coloured, stained, painted or printed, 7½c. per sq. yd. and 15 p.c.
Cottons, provided that all plain woven cotton goods, not included in the foregoing schedules, over 16c. per sq. yd., unbleached, shall pay 35 per cent.
Cottons, as above, if bleached, and valued over 20c. per sq. yd., 35 per cent.
Cottons, as above, if coloured, valued over 25c. per sq. yd., 35 per cent.
Cottons, or cotton jeans, denims, and drillings, valued over 20c. per sq. yd. unbleached, 35 per cent.
Cottons, on all other cotton goods, valued over 25c. per sq. yd., 35 per cent.
Cotton shirts or drawers, woven, or made on frames, 35 per cent.
Cotton spool, containing each not over 100 yds., 6c. per doz. and 30 per cent.
Cotton spool, over 100 yds., in addition for every 100 yds. or fractional part thereof, 6c. per doz. and 35 per cent.
Cotton thread or yarn, when advanced beyond single yarn, by twisting two or more strands together, if not on spools, 4c. per skein or hank of 840 yds. and 30 per cent.
Cotton thread, other, 40 per cent.
velvet, 35 per cent.
bagging, or other manufactures, not otherwise provided for, suitable for the uses to which cotton bagging is applied, composed in whole or in part of hemp, jute, flax, gunny bags, gunny cloth, or other material, and valued less than 10c. per sq. yd., 3c. per lb.

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Cotton, as above, valued over 10c. per sq. yd., 4c. per sq. yd.
Cotton caps, gloves, leggings, mitts, socks, stockings, made on frames, bleached or coloured, 35 per cent.
Cotton hose, unbleached, 35 per cent.
Cotton insertings, lace known as trimming or bobbinet, coloured, and stockings, 35 p.c.
Court-plaister, 35 per cent.
Cowage or cowitch, 20 per cent.
Crayons, 30 per cent.
Cream of tartar, 10c. per lb.
Crocus Colcottra (polish powder), 25 p.c.
powder (polishing), 25 per cent.
Crucibles, black lead, 20 per cent.
sand, 25 per cent.
Culleba, 10c. per lb.
Cudbear, 10 per cent.
Currants, 3c. per lb.
Cuttle fish bone (sepia), 5c. per lb.
Cuttasses, 35 per cent.
Cutlery, of all kinds, except pocket, pen and jack-knives, 35 per cent.

Daguerreotype plates, 35 per cent.
Dates, green, ripe, or dried, 2c. per lb.
preserved in sugar or molasses, 35 per cent.
Dentrifice, 50 per cent.
Diamonds, 10 per cent.
set, 25 per cent.
glaziers', 10 per cent.
Dolls of every description, 35 per cent.
Dominoes, 35 per cent.
If toys, 50 per cent.
Down, all kinds, 30 per cent.
Dragons' blood, 10c. per lb.
Drawing pencils, 50c. per gross, and 30 p.c.
Drawings, 20 per cent.
Drawing knives, 45 per cent.
Dress goods, for women and children, composed wholly or in part of wool, worsted, hair of the Alpaca goat, or other like animals, value not over 20c. per sq. yd., 6c. per sq. yd. and 35 per cent.
value over 20c. per sq. yd., 8c. per sq. yd. and 40 per cent.
Provided, that all goods weighing 4 oz. over per sq. yd. shall pay 50c. per lb. and 35 per cent.
Dried pulp, 20 per cent.
Druggets, all, 25c. per sq. yd. and 35 p.c.
Drugs, medicinal or dyeing, not otherwise enumerated, not crude, 20 per cent.
Duck sail, of cotton, 30 per cent.
ravens, of hemp, 30 per cent.
of flax, 30 per cent.
Dulce (seaweed), 5 del. per ton and 10 p.c.
Dutch metal, in leaf, 10 per cent.
Dutch pink, 25 per cent.

Earth, in oil, 1d. 50c. per 100 lb.,
brown, red, blue, yellow, dry, as ochre 50c. per 100 lb.
Earthenware (brown or common), 25 p.c.
all other, stone or crockery ware, 40 p.c.
Ebony, manufactures of, 35 per cent.
Eggs, 10 per cent.
Embroideries, all in gold or silver, fine or half fine, or other metal, and others, except wool, 35 per cent.
Emeralds, 10 per cent.
Emery, ore or rock, 6 del. per ton
manfctrd., ground or pulverised, 1c. per lb.
cloth, cotton, 35 per cent.
Enamelled white, 5c. per lb.
Encaustic tiles, 35 per cent.
Engravers' copper, prepared or polished, 35 per cent.
Engravers' scrapers and burnishers, 45 p.c.
Engravings, books of, bound or not, 25 p.c.
Epaulets, plated, glit, ml. fin., cotton, of gold and silver, 35 per cent.
Ergot, 20c. per lb.
Escutcheons, silver, 40 per cent.
brass, iron, gilt, or plated, 35 per cent.
Essence of almonds, 1d. 50c. per lb.
aspic, or d'aspic, 50 per cent.
bergamot, 1 del. per lb.
juniper, 25c. per lb.
cajeput, 25c. per lb.
cloves, 2 del. per lb.
caraway, 50c. per lb.
cassia, 1 del. per lb.
cinnamon, 2 del. per lb.
citronella, 50c. per lb.
cognac, 4 del. per oz.
cubebs, 1 del. per lb.
fennel, 50c. per lb.
valerian, 1d. 50c. per lb.
fruit, 2d. 50c. per lb.
lavender, 50 per cent.
lemons, 50c. per lb.
muscade, or nutmegs, 50 per cent.
mustard salad, 1 del. per gal.
oranges, 50c. per lb.
origanum, or thyme, red, 25c. per lb.
rosemary, 50 per cent.
rose, 50c. per oz.
rue, sabine, spruce, tyre, ginger or peppermint, 50 per cent.
thyme, white, 50c. per lb.
Essences, extracts, toilet waters, cosmetics, hair oils, pomades, hair restoratives, hair dressings, hair dyes, tooth washes, dentrifices, tooth pastes, aromatic cachous, or other perfumes, cosmetics, by whatever name or names known, used, or applied as perfumes or applications to the hair, mouth, or skin, 50 per cent.
Ethers, preparations or extracts, fluid, all not provided for, 1 del. per lb.
Extract of belladonna, cicuta, colocynth, elaterium, rhatania, rhubarb, stramonium, gentian, nux vomica, and hyoscyamus, 40 per cent.
of Campeachy wood, indigo, logwood, and madder, 10 per cent.
of opium, 100 per cent.
Extracts and decoctions of dye-woods, not otherwise provided for, 10 per cent.
Extract, all other medicinal, 40 per cent.

False collars, 35 per cent.
Fans, palm leaf, 1c. each.
all others, 35 per cent.
Feathers, ostrich, cock, or other, ornamental, manufactured, 50 per cent.
ornamental, crude, 25 per cent.
Felt, roofing, 20 per cent.
Fiddles, 30 per cent.
Fids, 30 per cent.
Files, bone, ivory, or wood, 30 per cent.
Figs, green, ripe, or dried 3c. per lb.
preserved in sugar or molasses, 35 p.c.
Fig blue, 25 per cent.
Filberts, 3c. per lb.
Files and file blanks, all not over 10 in. long, 10c. per lb. and 30 per cent.
File and file blanks, over 10 in. long, 6c. per lb. and 30 per cent.
Filtering stones, 20 per cent.
unmanufactured, 10 per cent.
Finishing powders (polishing), 25 per cent.
Firearms, other than muskets and rifles, 35 per cent.
Fire crackers, per box of 40 packs, 80 to each pack (and in same proportion for greater numbers), 1 del. per box.
Fish, mackerel, 2 del. per brl.
herring, pickled or salted, 1 del. per brl.
salmon, 3 del. per brl.
all other, pickled, 1d. 50c. per brl.
all not in barrels, and not otherwise provided for, 1c. per lb.
Fish, all, in oil, not otherwise provided for, 30 per cent.
Flannels, composed wholly or in part of worsted, the hair of the Alpaca goat, or other like animals, value not over 40c. per lb. 20c. per lb. and 35 per cent.
value over 40c. and not over 60c. per lb., 30c. per lb. and 35 per cent.
value over 60c. and not over 80c. per lb., 40c. per lb. and 35 per cent.
value over 80c. per lb., 50c. per lb. and 35 per cent.
composed wholly or in part of wool, 50c. per lb. and 35 per cent.
Flasks, entirely of horn, 35 per cent.
Flat irons, 11c. per lb.
Flax, manufactures of, or of which flax is a component part of chief value; value not over 30c. per sq. yd., 35 per cent.
Flax, manufactures of, or of which flax is a component part of chief value; value over 30c. per sq. yd. or not otherwise provided for, 40 per cent.
Flax, thread, packed thread, twine, 40 p.c.
unmanufactured, 15 del. per ton.
tow of, 5 del. per ton.
Flaxseed (52 lb. per bhl.), 16c. per bhl.
Fleams, 35 per cent.
Flies, Spanish, or cantharides, 50c. per lb.
Flints, stone or ground, 10 per cent.
Flocks, wool, 12c. per lb.
Floss silk, and other similar silks, purified from the gum, 35 per cent.
Flowers, artificial, 50 per cent.
all medicinal, 20 per cent.
all not otherwise provided for, 10 per cent.
Foodia, 10 per cent.
Frames, or sticks for umbrellas or parasols, finished or not, 35 per cent.
Frankfort black, 25 per cent.
French green, 30 per cent.
Frosts (glass), 20 per cent.
Fruit ethers, 2d. 50c. per lb.
juice, 25 per cent.
Fruits preserved in brandy or sugar, or pickled, 35 per cent.
Fruits, preserved in their own juice, 25 p.c.
Fruits, green, ripe, or dried, not otherwise provided for, 10 per cent.
Fullers' boards, 35 per cent.
earth, 3 del. per ton.
Fulminates, or fulminating powders, 30 p.c.
Furniture, household, 35 per cent.
Furs, undressed, all kinds of, on the skin, 10 per cent.
Fur, dressed, all on the skin, 20 per cent.
Fur muffs or tippets, or other manufactures, not specified, 35 per cent.
Furs, hatters', not on the skin, 20 per cent.
Fusil oil, or amylic alcohol, 2 del. per gal.

Galbngal, or galbngal root, 20 per cent.
Gamboge, medicinal gum, refined, 10 p.c.
Garancene (extract of madder), 10 per cent.
Garnets, a precious stone, 10 per cent.
imitation of, a composition, 40 per cent.
Garters, elastic, made of wire, covered with leather, with or without metal clasps, or India-rubber, with clasps, 35 per cent.
Gelatine, 35 per cent.
Gems, 10 per cent.
set, 25 per cent.
Gentian, or gentian root, 20 per cent.
German silver, manufactured, 40 per cent.
Gilt bands, 35 per cent.
capitals, 35 per cent.
chains, pins, rings, or studs, 35 per cent.
if mock jewellery, 25 per cent.
Gilt ear-rings, 25 per cent.
paper, 35 per cent.
ware, silver or gold, 40 per cent.
ware, of other metals, 35 per cent.
wire, 35 per cent.
watch chains or watchcases, 25 per cent.
watch keys and wood, 35 per cent.
Gin, 50° and under, 2d. 50c. per gal.
70°, 3d. 50c. per gal.
under 50° in strength, and costing over 3 dols. per gal., 50 per cent.
all imitations of, to pay as genuine.
Gin cases, with bottles in them, the cases pay 35 per cent. and the bottles 35 per cent.
Ginger, ground, 8c. per lb.
preserved and pickled, 50 per cent.
root, 5c. per lb.
essence of, 50 per cent.
Ginseng, 20 per cent.
Girandoles, 40 per cent.
Glass, of antimony, 20 per cent.
Glass wares, of cut glass, 40 per cent.
all others not specially mentioned, not cut, 35 per cent.
Glass, apothecaries' vials and bottles, not exceeding the capacity of 16 oz. each, 35 p.c.
Glass bottles, black, not filled, 35 per cent.
filled with preserves, 40 p.c.
Glass, buttons, cut, entirely of, 30 per cent.
Glass jars, filled with preserves, 40 per cent.
plain, not filled, 35 per cent.
Glass, all fluted, rolled, or rough plate glass, not including crown, cylinder, broad or common window glass, not over 10 by 15 in., 1c. per sq. ft.
over 10 by 15, and not over 16 by 24 in., 1c. per sq. ft.
over 16 by 24 in. and not over 24 by 30 in., 1½c. per sq. ft.
above 24 by 30 in., 2c. per sq. ft.
all as above, weighing over 1 lb. per sq. ft., pay an additional duty on the excess at the same rates herein imposed.
all cast polished plate glass, unsilvered, not over 10 by 15 in., 3c. per sq. ft.
over 10 by 15, but not over 16 by 24 in., 5c. per sq. ft.
over 16 by 24, but not over 24 by 30 in., 8c. per sq. ft.
above 24 by 30, but not over 24 by 60 in., 25c. per sq. ft.
above 24 by 60 in., 50c. per sq. ft.
all cast polished plate glass, silvered, or looking glass plates, not over 10 by 15 in., 4c. per sq. ft.
over 10 by 15, but not over 16 by 24 in., 6c. per sq. ft.
over 16 by 24, but not over 24 by 30 in., 10c. per sq. ft.
over 24 by 30, but not over 24 by 60 in., 35c. per sq. ft.
over 24 by 60 in., 60c. per sq. ft.
Provided, that no looking glass plates, or plate glass silvered when framed, shall pay a less rate of duty than that imposed on similar glass of like description not framed, but shall pay in addition thereto 30 per cent. for the frames.
Glasses, hour, 35 per cent.
Glass, paintings on, not otherwise specified, 40 per cent.
plates, or disks, unwrought, for optical instruments, 10 per cent.
shades, for time-pieces or mantil ornaments, 35 per cent.
cut, all wares of, 40 per cent.
all articles of, not specified, plain or moulded, 35 per cent.
plain or moulded, weighing under 8 oz., except tumblers, 35 per cent.
cut, ornaments for chandeliers &c., 40 p.c.
tumblers, articles, plain and moulded, 35 per cent.
watch, or watch crystals, 40 per cent.
pressed, 35 per cent.
coloured, engraved, painted, printed, gilt, stained, silvered, Bohemian, porcelain, spectacles, pebbles for spectacles, 40 p.c.
all manufactures of, or of which glass is a component material, not otherwise provided for, 40 per cent.
bottles and jars, filled with preserves, 40 p.c.
all articles not specified, connected with other materials so as to prevent being weighed, 40 per cent.
Globes, 35 per cent.
Gloves, angora, worn on frames, cotton, or linen, 35 per cent.
men's leather, 50 per cent.
women's leather habit, or children's extra demi length, 50 per cent.
hair, 30 per cent.
Glue, 20 per cent.
Goats' skins, raw, 10 per cent.
angora, raw, 30 per cent.
tanned, 25 per cent.
Gold, all articles composed wholly or in part of, not otherwise specified, 40 per cent.
Gold beaters' moulds or skins, 10 per cent.
Gold embroideries, 35 per cent.
or silver lace, even if mi. fin., 35 per cent.
leaf, 1d. 50c. per package of 500 leaves.
oxide of, and muriate of (chem. prep., 20 per cent.
ornaments made by spreading gold leaf on very thin paper, and gold paper in sheets, strips, or other forms, 40 per cent.
size, 20 per cent.
shell, for painting, 35 per cent.
or gilt bracelets and studs, 25 per cent.
Gold shoes or clogs, wood, 35 per cent.

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Gouges, 45 per cent.
Gowns, not wool, worsted, or silk, 35 p.c.
Grains, tawed or tanned (See Leather), 25 p.c.
of Paradise, 20 per cent.
Grapes, 20 per cent.
Grass bags, or cloth, 30 per cent.
cable or cordage, untarred, 3½c. per lb.
and cotton cloth, 35 per cent.
flats, braids or plaits, for making hats or bonnets, 30 per cent.
Grasshopper springs, 35 per cent.
Grass, Sisal, 15 dol. per ton.
Grease, 10 per cent.
Grindst nes, finished, 20 per cent.
rough or unfinished, 10 per cent.
Guava jelly, or paste, 30 per cent.
Guinea grains, 20 per cent.
Guitars and gut strings, 30 per cent.
Gum benzoin, or Benjamin, 10c. per lb.
Senegal, Arabic, tragacanth, Barbary, East India, Jedda, amber, 20 per cent.
mastic, 50c. per lb.
copal and other gums and resinous substances, used for the same or similar purposes as copal, and shellac, 10c. per lb.
all other resinous substances not specified, crude or not crude, 20 per cent.
Gum substitute, burnt flour and starch, 20 p.c.
Gum sandrac, kowrie and damar, 10c. per lb.
Gum elastic bougies, catheters, injection bags, nipple shields, pessaries, setons, stomach tubes, 35 per cent.
Guns, 35 per cent.
Gun locks, 45 per cent.
Gunpowder, value less than 20c. per lb., 6c. per lb. and 20 per cent.
over 20c. per lb., 10c. per lb. and 20 p.c.
Gun wadding of paper, 35 per cent.
Gutta percha, manufactured, 40 per cent.
unmanufactured, 10 per cent.
Guts, sharps', salted, 20 per cent.

Hackles, flax, 45 per cent.
hemp, 45 per cent.
Hair, all manufactures of, not provided for, 30 per cent.
made up for head-dresses, 40 per cent.
prepared for head-dresses, 35 per cent.
cloth, 30 per cent.
curled, for beds, 20 per cent.
braids for the head, belts, brooms, bracelets, chains, ringlets, and curls, 35 per cent.
hogs, 1c. per lb.
human, prepared for use, 30 per cent.
manufactured, 40 per cent.
cleaned, 30 per cent.
gloves, 30 per cent.
unmanufactured, human, 20 per cent.
cleaned, not otherwise provided for, 20 p.c.
horse, cleaned, 10 per cent.
pins, 35 per cent.
powder, perfumed, not perfumed, and all others not specified, 30 per cent.
seating, 30 per cent.
pencils, 35 per cent.
Halter rings (See Saddlery), 35 per cent.
Hammers, blacksmiths, 2½c. per lb.
all others, if no steel, 35 per cent.
Hams, bacon, 2c. per lb.
Hangers, 35 per cent.
Hare skins, undressed, 10 per cent.
dressed, 20 per cent.
Harness and its furniture, 35 per cent.
Hartshorn, spirits of, 40 per cent.
Hats of Leghorn, chip, straw, or grass, 40 p.c.
cotton cloth, complete, with the exception of the lining and band, 40 per cent.
wool, value not over 40c. per lb., 20c. per lb. and 35 per cent. ad val.
wool, value over 40c. per lb. and not over 60c. per lb., 30c. per lb. and 35 p.c. ad val.
wool, value over 60c. per lb. and not over 80c. per lb., 40c. per lb. and 35 per cent. ad val.
wool, value over 80c. per lb., 50c. per lb. and 35 per cent. ad val.
Hay, 20c. per cent.
Head-dresses, ornaments for, 35 per cent.
Hellebore root, 20 per cent.
Hemlock, 20 per cent.
Hemp seed, 4c. per lb.
oil, 25c. per gal.
manufactures of, or of which hemp is a component part of chief value, valued not over 30 cents per square yard, 35 per cent.
manufactures of, or of which hemp is a component part of chief value, value over 30c. per square yard, 40 per cent.
Hemp, unmanufactured, 40 dol. per ton.
Manilla, unmanufactured, 25 dol. per ton.
sun, " 15 "
Indian, " 25 "
manufactures all of, or of which hemp is a component material of chief value, not otherwise provided for, 30 per cent.
Hemp, codilla, or tow of hemp, 10 dol. per ton.
Indian (crude drug), 20 per cent.
Henbane, 20 per cent.
Hobby horses, wood or paper, 50 per cent.
Hoffman's anodyne, 50c. per lb.
Hones, 20 per cent.
Honey, 20c. per gal.
water, 50 per cent.
Hooks, fish, 45 per cent.
and eyes, all, 35 per cent.
reaping, 45 per cent.
Hoops, iron, fit for use, 35 per cent.
Hops, 8c. per lb.
Horn combs, 35 per cent.
tips, 10 per cent.
Horns, 10 per cent.
Hosiery, wool, 50c. per lb. and 35 per cent.
Household furniture, 35 per cent.

India-rubber in bottles, or sheets, or otherwise unmanufactured, 10 per cent.
India-rubber, milk of, 20 per cent.
oil cloth or other manufactured articles, composed wholly or in part of India-rubber, not otherwise provided for, 35 per cent.
India-rubber and silk, or silk and other material combined, except wool, 50 per cent.
India-rubber suspenders and webbing, 35 p.c.
Indian meal, 10 per cent.
Indian red, 25 per cent.
Indigo, carmined, 20 per cent.
Ink, and ink powder, 35 per cent.
Iodine (crude), 50c. per lb.
salts of, 15 per cent.
resublimed, 75c. per lb.
Ipecac, Ipecacuanha, 50c. per lb.
Iron and irons, cast, 1½c. per lb.
anvils, anchors, and parts of, and axles, 2½c. per lb.
band, hoop and scroll, from ¼ to 6 in. wide, and not less than ⅛ inch thick, 1½c. per lb.
as above, from ¼ to 6 in. wide, under ⅛ in. thick, and not under No. 20 wire gauge 1½c. per lb.
as above, thinner than No. 20 wire gauge, 1¾c. per lb.
bars, rolled or hammered, comprising flats not less than ½ or more than 6 in. wide, nor less than ⅛ or more than 2 in. thick, 1c. per lb.
round, not less than ¼ or more than 2 inches in diameter, 1c. per lb.
square, not less than ¼ or more than 2 inches square, 1c. per lb.
rolled or hammered, comprising flats, less than ⅛ or more than 2 in. thick, or less than ⅛in. or more than 6 in. wide, 1¼c. p.lb.
round, less than ¼ or more than 2 inches in diameter, 1¼c. per lb.
square, less than ¼ or more than 2 inches square, 1¼c. per lb.
all iron in slabs, blooms, loops, or other forms, less finished than bars and more advanced than pig iron, except castings, to pay as iron in bars.
none of the above iron to pay a less rate of duty than 35 per cent.
bars, for railroads, or inclined planes, made to pattern, ready to lay down, 7/8c. per 100 lb.
boiler plates or other plate iron, not less than 3-16 in. thick, 1c. per lb.
butts, cast, bolts, wrought, bed-screws, 2½c. per lb.
brads, cut, not over 16 oz. per 1,000, 2½c. per 1,000.
cables, or chains, or parts of, 2c. per lb.
castings, all not enumerated, 30 per cent.
chains, trace, halter, fence of wire, or rods, not less than ⅜ in. in diameter 2c. per lb.
chains, as above, less than ¼ in. diameter, and not under No. 9 wire gauge, 3c. per lb.
chains, as above, under No. 9 wire gauge, 35 per cent.
coated with zinc or any metal by electric batteries, 2½c. per lb.
flues, wrought, 2½c. per lb.
gas pipe, cast, 1½c. per lb.
gas tubes, wrought, 3½c. per lb.
galvanized, 2½c. per lb.
hatters', 1½c. per lb.
hinges, cast, 2½c. per lb.
hollow ware, glazed, tinned, 3½c. per lb.
cast, 1c. per lb.
hinges, wrought, 2½c. per lb.
hammers, blacksmith, 2½c. per lb.
malleable, casting, not otherwise provided for, 2½c. per lb.
malleable, 2½c. per lb.
mill wrought, and crank wrought, 2½c. per lb.
manufactures of all kinds not otherwise enumerated, 35 per cent.
nails, cut, 1½c. per lb.
wrought, (board), 2½c. per lb.
horse-shoe, 5c. per lb.
nuts, wrought, 2c. per lb.
old scrap, fit only to be re-manufactured, 8 dol per ton.
pig, 9½ dol. per ton.
rivets, wrought, 2½c. per lb.
railroad chairs, wrought, 2c. per lb.
sad, stores, stove-plates, and steam pipes, cast, 1½c. per lb.
slit rods, not otherwise provided for, 1½c. per lb.
spikes, cut, 1½c. per lb.
wrought, 2½c. per lb.
sledges, 2½c. per lb.
steam tubes, wrought, 3½c. per lb.
sprigs, cut, not over 16 oz. per 1,000, 2½c. per 1,000.
sprigs, cut, over 16 oz. per 1,000 3c. per lb.
sheets, smoothed or polished, 3c. per lb.
common or black, not thinner than No. 20 wire gauge, 1½c. per lb.
common or black, less than 20, not less than No. 25 wire gauge, 1¾c. per lb.
common or black, less than No. 25 wire gauge, 1½c. per lb.
screws, wood, 2 inches or over in length, 8c. per lb.
wood, less than 2 in. in length, 11c. per lb.
except wood, 35 per cent.
tailors' irons, 1½c. per lb.
tacks, cut, not over 16 oz. per 1,000, 2½c. per 1,000.
Iron tacks, cut, over 16 oz. per 1,000, 3c. p. lb.
vessels cast, not otherwise provided for, 1c. per lb.
wire, bright, coppered, or tinned, drawn and finished, not more than ½ inch in diameter, nor less than No. 16 wire gauge, 2c. per lb. and 15 per cent.
as above, over 16 and not over 25 wire gauge, 3c. per lb. and 15 per cent.
over 25 wire gauge, 4c. per lb. and 15 p.c.
spiral furniture springs, 2c. per lb. and 15 per cent.
covered with cotton, silk, or other material, to pay 5c. per lb. in addition.
water pipe, cast, 1c. per lb.
tubes, wrought, 3½c. per lb.
washers, wrought, ready punched, 2c. per lb
wrought, for ships' (weight) of each 25 pounds or more, 2c. per lb.
for locomotive tire, parts of, 3c. per lb.
for steam engine and parts of, each 25 pounds or more, 2c. per lb.
Iron, all rolled or hammered, not otherwise provided for, 1½c. per lb.
castors and curry combs, 35 per cent.
cutting knives, for cutting hay or straw, 35 per cent.
ferrules, plano, 35 per cent.
filings, 35 per cent.
hoops, made fit for use, 35 per cent.
liquor, 10 per cent.
mails, 35 per cent.
manufactures of, partly finished, pay the same rate of duty as if entirely finished, 35 per cent.
scythes, part steel, 45 per cent.
shot, 30 per cent.
shovels, sickles, and spades, part steel, 45 per cent.
squares, marked on one side, 3c. per lb. and 30 per cent.
squares, all other, 6c. per lb. and 30 p.c.
square wire, used for the manufacture of streichers for umbrellas, and cut in pieces not exceeding the length used therefor, 35 per cent.
taggers', 30 per cent.
sulphate of, 4c. per lb.
wire, annealed, to pay duty the same as other iron wire.
manufactures of, not otherwise provided for, 35 per cent.
Isinglass, 30 per cent.
Issue peas, 40 per cent.
plaster, 40 per cent.
Isile, or tampico fibre, 1c. per lb.
Italian cloths, real or imitation, composed wholly or in part of wool, worsted, the hair of the Alpaca goat, or other like animals, value not over 20c. per square yard, 6c. per sq. yd. and 35 per cent.
value over 20c. per square yard, 8c. per sq. yd. and 40 per cent.
Provided, that all goods weighing 4 ozs. and over per square yard, shall pay 50s. per lb. and 35 per cent.
Ivory, unmanufactured, 10 per cent.
chessmen, dice, draughts, chess, and bagatelle balls, 50 per cent.
combs, 35 per cent.
manufactured, not provided for, 35 p.c.
black, 25 per cent.
parallel rules (not mounted), protractors, scales, and sectors, 35 per cent.
nuts, 10 per cent.
vegetable, manufactures of, 35 per cent.

Jacks, a part of pianofortes, 35 per cent.
Jacks, clothiers', 35 per cent.
Jalap, 50c. per lb.
Japanned wares, of all kinds, not provided for, 40 per cent.
Jellies, and all other similar preparations, 50 per cent.
Jerk beef, 1c. per lb.
Jet, real, composition, and stones, 35 p.c.
Jet bead, 50 per cent.
Jewellery, false so called, 25 per cent.
Joints, India, 35 per cent.
Jostic or jos light, 20 per cent.
Juniper berries, 10 per cent.
plants, 30 per cent.
Jute, manufactured, or of which jute is a component material of chief value, value 30c. per sq. yd. or less, 35 per cent.
If value over 30c. per sq. yd., 40 per cent.
Jute, butts, 6 dol. per ton.
manufactures of, not otherwise provided for, 30 per cent.
unmanufactured, 15 dol. per ton.
carpeting, 8c. per sq. yd.

Kaleidoscopes, 40 per cent.
Kaoline, 5 dol. per ton.
King's yellow, 25 per cent.
Knit goods, composed wholly or in part of worsted, the hair of the Alpaca goat, or other like animals, with no wool combined, value not over 40c. per lb., 20c. per lb. and 35 per cent.
value over 40c. and not over 60c. per lb., 30c. per lb. and 35 per cent.
value over 60c. and not over 80c. per lb., 40c. per lb. and 35 per cent.
value over 80c. per lb., 50c. per lb. and 35 per cent.
composed wholly or in part of wool, 60c. per lb. and 35 per cent.
Knitting needles, 25 per cent.
Knives, cutting (meaning those for hay or straw), curriers', drawing, and flesh, 45 p.c

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Knives, pen, jack, and pocket, 30 per cent.
Kreasote, 40 per cent.

Labels, printed, 25 per cent.
Lampblack, 20 per cent.
Lantern leaves or horn plates, 10 per cent.
Lapis infernalis (nitrate of silver), 40 p.c.
tutia, oxide of zinc, 1½c. per lb.
Lard, 2c. per lb.
Larding pins, 35 per cent.
Lasting, fit for buttons exclusively, 10 p.c.
Lath, 20 per cent.
Laudanum, 40 per cent.
Lavender, dry, flowers of, 20 per cent.
flower, 20 per cent.
oil of, water, 50 per cent.
Lead, all manufactures of, not otherwise specified, 35 per cent.
in bars, 2c. per lb.
black, 10 dol. per ton.
powder of black, 20 per cent.
pots, black, of sand and clay, 25 per cent.
in pigs, 2c. per lb.
old, fit only to be remanufactured, 1½c. per lb.
sugar of, 20c. per lb.
red, dry or ground in oil, nitrate of, red, 3c. per lb.
in sheets, 2½c. per lb.
shot, 2½c. per lb.
toys, 50 per cent.
white, dry or ground in oil, 3c. per lb.
pipes, 2½c. per lb.
ore, 1½c. per lb.
in any other form not specified, 35 per cent.
Leaf, Dutch metal, 10 per cent.
Leather bracelets, elastic, and garters, elastic, 35 per cent.
mitts, 50 per cent.
and all manufactures thereof, or of which it is the material of chief value, not otherwise specified, 35 per cent.
bend, and caps of, 35 per cent.
hats of, 40 per cent.
bottles, braces or suspenders, and sole, 35 per cent.
upper (tan ned calf skins), 30 per cent.
upper not otherwise specified, 25 per cent.
patent (or japanned) or enamelled, 35 p.c.
Leaves not used in dyeing, not otherwise provided for, 20 per cent.
boucho, 10c. per lb.
Leeches, 20 per cent.
Leghorn flats, braids, crowns or brims, and plaits, 30 per cent.
Lemons, in bulk, 25 per cent.
in boxes, barrels, or casks, 25 per cent.
Lemon juice and peel, 10 per cent.
oil of, and essence of, 50c. per lb.
Leopard skins, raw, 10 per cent.
dressed, 20 per cent.
Lime, 10 per cent.
borate of, 3c. per lb.
chloride of, 50c. per 100 lb.
white, 2c. per lb.
Limes, 20 per cent.
Lime juice, 10 per cent.
Limets, oil of, 50 per cent.
Lime, citrate (chemical preparation), 20 p.c.
Lines, fishing, of twine, 40 per cent.
complete, 40 per cent.
Linen thread, twine, and pack thread, 40 p.c.
Linens, all manufactures of, not otherwise specified, 40 per cent.
Linen bags, 40 per cent.
canvas, black, woven, or made in form or patterns, of such size and shape exclusively for shoes, or bootees, as linens.
for buttons only, 10 per cent
mitts, wove on frames, 35 per cent.
tape, 40 per cent.
Linens, brown, bleached, burlaps, canvas, padding, cot bottoms, crash, ducks, diaper, huckabucks, handkerchiefs, lawns, value 30c. or under per sq. yd., 35 per cent.
Linens, as above, value over 30c. per sq. yd., 40 per cent.
Linens, brown hollands, bluy, coatings, drills and damasks, value 30c. or under per sq. yd., 30 per cent.
Linens, as above, value over 30c. per sq. yd., 35 per cent.
Linen, all manufactures of, or of which flax, jute, or hemp shall be component material of chief value, valued at over 30c. per sq yd., not otherwise provided for, 40 per cent.
Linseed, 16c. per bbl.
cakes or meal, 20 per cent.
oil, 25c. per gal.
Lint, linen, 40 per cent.
cotton, 35 per cent.
Liqueurs or cordials, all sweet, 2d. 50c. per gal.
Liquor, iron, purple, red, tin, 20 per cent.
Liquor, cases, 35 per cent.
bottles, if cut, 40 per cent.
If not cut, 35 per cent.
Liquorice paste or in rolls, 10c. per lb.
root, 2c. per lb.
Litharge, 3c. per lb.
Lithographic stones, 20 per cent.
Lithontriptons, 35 per cent.
Litmus, 20 per cent.
Loadstones, 20 per cent.
Logwood, extracts of, 10 per cent.
Looking glass frames, if gilt on metal, 35 p.c.
Looking glass frames, if wood, or gilt on wood, or if metal, 35 per cent.
Lunar caustic, 40 per cent.

Macaroni, 35 per cent.
Mace, 40c. per lb.
Magic lanterns, and similar articles, composed of tin, glass, wood, brass, copper &c., 40 per cent.
Magnesia, calcined, 12c. per lb.
carbonate of, 6c. per lb.
sulphate of, or Epsom salts, 1c. per lb.
Malt, 20 per cent.
Manganese, 10 per cent.
Mangoes, 10 per cent.
Mangroves, or shells of, 20 per cent.
Manna (med. gum), 25c. per lb.
Manufactures of bark of cork tree, except corks, 30 per cent.
Manufactures of bladders, 30 per cent.
cotton and linen, not otherwise enumerated, flax chief value, 40 per cent.
Manufactures of cotton and silk, not otherwise enumerated, silk not chief value, 35 per cent.
Manufactures not otherwise provided for, composed of mixed materials, in part of cotton, silk, flax, hemp or jute, not otherwise provided for, 35 per cent.
Manufactures of India rubber and silk, or of silk and other materials, except wool, 30 per cent.
Manufactures of jute, or Nisal grass, not otherwise provided for, 30 per cent.
Manufactures of mohair cloth, silk twist, and other cloth woven or made in patterns of such size and form, or cut in such manner as to be fit for shoes, boots and bootees, exclusively, and not combined with India-rubber, pay according to the material of which composed.
fit for buttons only, 10 per cent.
Manufactures of wool, worsted, mohair, or of which wool, worsted or mohair is a component material, viz. belting, binding, braids, (buttons or barrel buttons, buttons for tassels or ornaments, wrought by hand or braided by machinery), cords and tassels, dress trimmings, fringes, galloons, gimps, head-nets, and webbings, 50c. per lb. and 30 per cent.
Manufactures of wool, embroidered or tambour ed, not otherwise provided for, 50c. per lb. and 35 per cent.
Manufactures of combed wool or worsted, embroidered or tambour ed, not otherwise provided for, 35 per cent.
Maps and charts, 25 per cent.
Marble, manufactures of, 30 per cent.
busts, 10 per cent.
Marbles, for children's play (baked), 30 p.c.
Marble table tops, 50 per cent.
Marble, white statuary, brocatella, sienna and antique, in slab or block, rough or squared, 1 dol. per cub. ft. and 25 per cent.
Marble, all other, in slab or block, rough or square, 50c. per cub. ft. and 20 per cent.
Marmalade, a sweatmeat, 35 per cent.
Marrow, 10 per cent.
Matches, for pocket lights, 35 per cent.
Mathematical instruments, especially imported for any college, academy, school, or seminary, 15 per cent.
Mathematical instruments, of brass, or all of bone, gilt or plated, iron, ivory, or wood, 35 per cent.
Mathematical instruments, of gold, or of silver, 40 per cent.
Matico (medicinal leaf), 20 per cent.
Mats, cocoanut, 30 per cent.
screen, hassocks and rugs, all other (not exclusively of vegetable material), 45 p.c.
Mats, tow, 45 per cent.
table, wood, 45 per cent.
of flag, jute, straw or grass, 30 per cent.
sheepskins, 45 per cent.
Matting, all floor, of flags, jute, or grass, 30 per cent.
Meal, cassada and linseed, 20 per cent.
oat, 10 per cent.
Meats, prepared, 35 per cent.
Medicinal preparations or patent medicines, 50 per cent.
Medicinal preparations, not otherwise specified, 40 per cent.
Medicinal roots and leaves, barks, flowers, plants, seeds, not otherwise specified, 20 p.c.
Melado, concentrated, 2½c. per lb.
Metal, plated, 35 per cent.
Metallic slates, paper or tin, 35 per cent.
Metals, unmanufactured, not otherwise provided for, 20 per cent.
Melting pots, if earthen, 25 per cent.
or glue pots, 35 per cent.
Mercury, or quicksilver, 15 per cent.
all preparations of, 20 per cent.
Merino shawls (so called), body worsted or combed wool, not otherwise provided for, 50c. per lb. and 40 per cent.
Millinery of all kinds, not otherwise provided for, 35 per cent.
Miniatures, 10 per cent.
Mineral and bituminous substances in a crude state, not otherwise provided for, 20 p.c.
Mineral green, or blue, 30 per cent.
berines, 10 per cent.
or medicinal water, in bottles or jugs, containing not over 1 qt., 5c. each, and 25 p.c.
Mohair in strips or patterns of the size exclusively for buttons, 10 per cent.
Molasses, 6c. per gal.
concentrated, 2½c. per lb.
Mops, 35 per cent.
Morphine, and salts of, 2d. 50c. per oz.
Moss, Iceland, 10 per cent.
for beds, 20 per cent.
Mosaics, real, not set, 10 per cent.
set, 25 per cent.
Mother of pearl buttons with metal eyes or shanks, 30 per cent.
Mother of pearl, articles made of, not otherwise enumerated, 35 per cent.
Muriate, 25 per cent.
Muriate of baryte, gold and strontium, 20 p.c.
Muriate of tin, 30 per cent.
Music in sheets, as pamphlets, or bound, as books, 20 per cent.
Musical instruments, 30 per cent.
Musical instrument strings, of gut, 30 p.c.
strings, part of metal, 35 per cent.
Mushrooms, prepared, and sauce, 35 per cent.
Musk, 50 per cent.
crude, 20 per cent.
Muskets, 35 per cent.
Musket barrels, if any steel, 45 per cent.
Musket bullets, rods and stocks, 35 per cent.
Muslin handkerchiefs, chemisettes, collars, bands, and cancaus, 35 per cent.
Mustard, ground, in glass or tin, 16c. per lb.
ground, in bulk, 12c. per lb.
seed oil, not salad, 25c. per gal.
oild salad, 1 dol. per gal.

Nails, ornamental, with brass, gilt, or polished heads, 35 per cent.
Nankeen shoes or slippers, 35 per cent.
Naphtha, refined, 40c. per gal.
Needles, and crochet do., 25 per cent.
for knitting or sewing machines, 1 dol. per million, and 35 per cent.
Nests, birds', 20 per cent.
Nets, fishing, seines, 6½c. per lb.
fishing, dip or scoop nets, 35 per cent.
Newspapers, 25 per cent.
Nickel, 15 per cent.
Nitric ether, spirits of, 50c. per lb.
Norfolk latches, 35 per cent.
Noyeau, 2d. 50c. per gal.
Nutmegs, 50c. per lb.
Nuts, all not otherwise provided for, 3c. per lb
Nux vomica, 20 per cent.

Oats, 10c. per bush.
Oatmeal, 10 per cent.
Ochres, or ochrey earths, dry, not otherwise provided for, 50c. per 100 lb.
Ochres, or ochrey earths, ground in oil, 1d. 50c. per 100 lb.
Ochres, all, or ochrey earths, in oil, 1d. 50c. per 100 lb.
brown, blue, red, and yellow earth, to be considered as ochre, 50c. per 100 lb.
Oil cakes, 20 per cent.
cloth, table mats, 45 per cent.
table mats, lined with woollen, 45 per cent.
Oil cloth, silk, 40 per cent.
Oil cloths, such as hat covers, over garments, not silk, are usually made of, 45 per cent.
Oil cloth, floor, stamped, painted or printed, value 50c. or under per sq. yd., 35 per cent
Oil cloth, floor, stamped, painted, value over 50c. per sq. yd., 45 per cent.
Oil cloth, all other, except silk, 45 per cent.
Oil, Harlem, allspice and absynthe, or wormwood, 50 per cent.
Oil of almonds, fixed or expressed, 10c. per lb.
Oil of almonds, essential or essence of, 1d. 50c. per lb.
Oil of amber, or amber crude, 10c. per lb.
of amber, rectified, 20c. per lb.
animal, 20 per cent.
of aniseed, essential or essence of, 80c. per lb.
bears', 50 per cent.
bay, fixed or expressed, 20c. per lb.
cajaput, or cajeputa, 25c. per lb.
chamomile, 50 per cent.
cassia, 1 dol. per lb.
caryophil (oil of cloves), 2 dol. per lb.
caraway, 50c. per lb.
cinnamon or cloves, 2 dol. per lb.
cocoanuts, 10 per cent.
croton, fixed or expressed, 1 dol. per lb.
citronella, 50c. per lb.
cubeba, 1 dol. per lb.
fennel, 50c. per lb.
hartshorn and jugglandene, 50 per cent.
juniper, 25c. per lb.
laurel, fixed or expressed, 20c. per lb.
mace, fixed or expressed, 50c. per lb.
mirth or mint, 50 per cent.
nuts, 50 per cent.
palm bean or palm, 10 per cent.
poppies, 20 per cent.
Oils, all essential, not otherwise provided for, 30 per cent.
Oil of copniacu, or ananthic ether, 4 dol. per oz.
Oil of petroleum, crude, 20c. per gal.
refined 40c. per gal.
rue, 50 per cent.
rock, crude, 10c. per gal.
sage, savin, sassafras, spruce, spike, and spurge, 50 per cent.
valerian, 1d. 50c. per lb.
seal, 10 per cent.
allspice, 50 per cent.
ambergris, 50 per cent.
almonds, essential, 1d. 50c. per lb.
bay leaves, 17d. 50c. per lb.
bergamot, 1 dol. per lb.
cedrat, 50 per cent.
Oils of apple, pear, peach, apricot, strawberry and raspberry, 1d. 50c. per lb.
Oil of jasmine, jessamin, or lavender, 50 p.c.
Oil of lemon, 50c. per lb.
limets, limette, macassar, neroi, or orange flower, and nutmegs, 50 per cent.
neats' foot, 20 per cent.

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Oil of oranges, 50c. per lb.
organum, or thyme, red, 25c. per lb.
pimento or rhodium, 50 per cent.
roses, or otto of roses, 1d. 50c. per oz.
rosemary, or anthos, 50 per cent.
sweet marjorum, 50 per cent.
thyme, or origanum, white, 30c. per lb.
tuberos, vanilla beans, and violets, 50 p.c.
ricini, or palma christi, 1d. 5c. per gal.
Oil, coal, crude, 10c. per gal.
refined, 40c. per gal.
castor, 1 dol. per gal.
olive, in casks, not salad, 25c. per gal.
in bottles or flasks, 1 dol. per gal.
flaxseed and hempseed, 25c. per gal.
illuminating, from coal, shale, asphaltum, peat, petroleum, or rock oil, or other bituminous substances, used for like purposes, 40c. per gal.
kerosene, 40c. per gal.
linseed or rapeseed, 25c. per gal.
salad, 1 dol. per gal.
spermaceti, of foreign fishing, 20 per cent.
of vitriol, 1c. per lb.
whale and other (not sperm), of foreign fishing, 20 per cent.
Olives, and do. in oil or salt, 30 per cent.
Onions, 10 per cent.
Opium, 2d. 50c. per lb.
prepared for smoking, extract of, 100 p.c.
Orange crystals, 20 per cent.
flowers, 10 per cent.
Oranges, in boxes, barrels, or casks, 25 p.c.
Orange peel, 10 per cent.
issue peas, 40 per cent.
flower water, 50 per cent.
Orchilla, or orchella, 10 per cent.
Ore, specimens of, not otherwise provided for, 10 per cent.
Organs, 30 per cent.
Ornaments, gilt wood, 35 per cent.
gold paper, 40 per cent.
Orpiment, 20 per cent.
Osier, for basket makers' use, 30 per cent.
Ostrich plumes and feathers, manufactured, 50 per cent.
Ostrich plumes and feathers, unmanufactured or raw, 25 per cent.
Otto, or oil of roses, 1d. 50c. per oz.
Oxymuriate of lime, 20 per cent.

Pack thread, 40 per cent.
Paddy, 1½c. per lb.
Pad screws (See Saddlery), 35 per cent.
Paint brushes, 40 per cent.
Painting brushes, 40 per cent.
Paintings (To constitute a painting in the meaning of the law, it must be an object of taste or vertu, and not paintings on plates, goblets, vases, or any utensil for use, or capable of being converted to breastpins, ear-drops, or other ornaments to be worn), 10 per cent.
Paintings, other, imported as objects of taste, and not as merchandise, 10 per cent.
Paintings on glass, porcelain or canvas, 10 p.c.
Paintings, all, not otherwise provided for, 10 per cent.
Paints, dry or ground in oil, not otherwise provided for, 25 per cent.
Paints (water colours), 35 per cent.
water colours for paper hangings, 25 p.c.
Painters' colours, all not otherwise provided for, 25 per cent.
Paints, Dutch pink, desenna, Frankford black, ivory black, king's yellow, lake, lamp black, olympian green, patent yellow, chalk, rose pink, if not water colours, and Spanish brown, dry or in oil, 25 per cent.
Paints, French green, and mineral green, 30 per cent.
terra umbra, 50c. per 100 lb.
white lead, 3c. per lb.
Palm leaf hats, 40 per cent.
baskets, 35 per cent.
oil, 10 per cent.
Paper, printing, unsized, used for books and newspapers exclusively, 20 per cent.
Paraffine, 10c. per lb.
Parasols, silk, 60 per cent.
of other material, 50 per cent.
Parasol sticks or frames, 35 per cent.
Paving tiles, 20 per cent.
Parchment, 30 per cent.
Paris white, in oil, 1d. 50c. per 100 lb.
dry, 1 dol. per 100 lb.
Paris green, 30 per cent.
Parts of stills, viz.:—
Sheets made by rolling, intended for the sides; globes and heads, made by hammering; thick sheet copper; and shoulders, made out of sheet copper, by hammering, 35 per cent.
Pasteboard, 35 per cent.
Paste giggers, 35 per cent.
or pasta de lirazil (ground Nicaragua wood, a dye), 10 per cent.
work that is set in gold or silver jewellery, 35 per cent.
imitation of precious stones, 40 per cent.
Patent yellow, 25 per cent.
Paving stones, 10 per cent.
Pearls, set, 25 per cent.
all, not set, 10 per cent.
composition, set, 35 per cent.
mock pearls, 40 per cent.
Peas, for seed, 30 per cent.
dried (not for seed), and green, as vegetables, 10 per cent.
Peanuts (or ground beans), 1c. per lb.
shelled, 1½c. per lb.
Pellitory root, 20 per cent.
Pelts, salted, 10 per cent.
Pencils, wood, filled with lead or other material, 50c. per gross, and 30 per cent.
Pencils, camels' hair, 35 per cent.
chalk, 50c. per gross, and 35 per cent.
slate, 40 per cent.
Pen holders, 35 per cent.
Pens metallic, 10c. per gross, and 25 per cent.
Pen holder tips, and parts of, 35 per cent.
Pen, quills, 30 per cent.
Pepper, black, white, Cayenne, and red, 15c. per lb.
Pepper, ground, 18c. per lb.
Percussion caps, 40 per cent.
Perfumes, 50 per cent.
Perfumery, of which alcohol forms the principal ingredient, 3 dol. per gal., and 40 p.c.
Pewter, old, fit only to be remanufactured, 2c. per lb.
Pewter, articles of, not enumerated, manufactured from, or of which pewter is a component part, 35 per cent.
Phosphate of lime, 20 per cent.
soda, 20 per cent.
Philosophical apparatus and instruments, 40 per cent.
Phosphorus lights, in glass bottles, with paper cases, 35 per cent.
Phosphorus, 20 per cent.
Phosphuret of lime, 20 per cent.
Pianofortes, 30 per cent.
Pickles, 35 per cent.
Picrotoxine, an extract, 40 per cent.
Pills, or other proprietary medicines, or prepared according to some private formula or secret art, as remedies or specifics for any disease or diseases, or affections whatever, affecting the human or animal body, 50 p.c.
Pimento, 15c. per lb.
ground, 18c. per lb.
Pine apples, 25 per cent.
Pink, Dutch or rose, 25 per cent.
root, 20 per cent.
saucers, 40 per cent.
Pipe clay, unwrought, 5 dol. per ton.
Pipes, clay, smoking, 35 per cent.
meerschaums and other tobacco smoking and pipe bowls, not otherwise provided for, 1d. 50c. per gross, and 75 per cent.
Pipe cases, stems, mountings and all parts of pipes and pipe hatures, and all smokers' articles, 75 per cent.
Pistols, 35 per cent.
Pitch, Burgundy, 20 per cent.
Pitch, 20 per cent.
Plaster of Paris, calcined or ground, 20 p.c.
Plaster, busts, casts, statues, castings, or ornaments of, 40 per cent.
Plaitings of straw for hats or bonnets, 30 p.c.
Planks, wrought or rough, 20 per cent.
Plants, medicinal, 20 per cent.
other, 30 per cent.
Plantains, 25 per cent.
Plane irons, 45 per cent.
Planes, 45 per cent.
Plate, silver, 40 per cent.
Plated carriage and harness furniture, 35 p.c.
Plated epaulets, metal, of copper, moulding, saddlery, slides, wire and wares of all kinds, not otherwise specified, 35 per cent.
Plates, copper, suitable for sheathing ships, that is, 14 by 48 in. and weighing from 14 to 34 oz. per sq. ft., 3c. per lb.
Plates, nail, 35 per cent. (See Iron.)
copper, engraved, 25 per cent.
prepared for engravers, steel, 45 per cent.
Platina, manufactures of, not otherwise provided for, 40 per cent.
Plumbago, 10 dol. per ton.
Plums, 3c. per lb.
Plush, wool, not otherwise provided for, 50c. per lb. and 35 per cent.
Pocket books, leather, or if leather is the article of chief value, or if of paper, 35 p.c.
Pocket lights, phosphorus, 35 per cent.
Pole caps, 35 per cent.
carriage hooks, 35 per cent.
Polishing powders, 25 per cent.
Polished or scraped brass, 35 per cent.
Pomatum, 50 per cent.
Pomegranates, 10 per cent.
Pomegranate peel, 20 per cent.
Poppy heads, oil or seed, 20 per cent.
Porcelain and Parian ware, not ornamented, 45 per cent.
ornamented, 50 per cent.
Porcelain glass, 40 per cent.
slates, 45 per cent.
Pork, 1c. per lb.
Porphyry, 45 per cent.
Portable desks, 35 per cent.
Porter, in bottles, 35c. per gal. (per gal.
in casks, or otherwise than in bottles, 20c.
Potasse, or potash, prussiate of, red, 10c. p. lb.
Potassium, 20 per cent.
Potash, bichromate or chromate of, 3c. p. lb.
Potash, chlorate of, 6c. per lb.
hydriodate of, 75c. per lb.
prussiate of, yellow, 5c. per lb.
pure, 20 per cent.
iodate of, iodide of, and acetate of, 75c. p. lb.
Potatoes, 25c. per bbl.
Pots, black lead (sand and clay), 25 per cent.
Pots, cast iron, 1½c. per lb.
melting earthen, common, 25 per cent.
Poultry, dressed, 10 per cent.
or game, prepared, 35 per cent.
Pounce, 20 per cent.
Powder, black lead, blue, of brass or of bronze, 20 per cent.
Powder, gun, and all explosive substances for blasting, and of value less than 20c. per lb., 6c. per lb. and 20 per cent.
gun, and all explosive substances for blasting, and of value over 20c. per lb., 10c. per lb. and 20 per cent.
hair, plain or not perfumed, and perfumed, 30 per cent.
ink, 35 per cent.
puffs, 35 per cent.
tooth, for the skin, and tooth, 50 per cent.
Precious stones, of all kinds, not set, 10 p.c.
imitations of, 40 per cent.
Prepared clay, 5 dol per ton.
Pressing boards, 35 per cent.
Prepared vegetables, meats, poultry, game and fish, all, in any form, 35 per cent.
Preparations, chemical, not otherwise enumerated, 20 per cent.
Preserves, in molasses, and all others except ginger, 35 per cent.
Protractors, ivory, mounted, 35 per cent.
Prunella, for buttons only, 10 per cent.
Prunes, 3c. per lb.
Prussian blue, 50 per cent.
Pumpkins, 10 per cent.
Purple brown, 25 per cent.
Purple tin liquor, 20 per cent.
Putty, 1½c. per lb.

Quadrants, frames, and sextants, 35 p.c.
Quassia wood, 20 per cent.
Quill baskets, 30 per cent.
Quilla bark, 20 per cent.
Quills, prepared or manufactured, or unprepared, 30 per cent.
Quiltings, or bed quilts, cotton, 35 per cent.
Quinine, sulphate of, or salts of, 45 per cent.

Rag stones, 10 per cent.
Rags, wool, 12c. per lb.
Raisins, sultana, in boxes or jars, Muscatelle, bloom, and all other, 5c. per lb.
Rasp, cornu cervi, 20 per cent.
Rasps, not over 10 in. long, 10c. per lb. and 30 per cent.
Rasps, over 10 in. long, 6c. p. lb. and 30 p.c.
Rattans, split or manufactured, 25 per cent.
Ravens duck, if hemp or flax, 30 per cent.
Reeds, manufactured, 25 per cent.
weavers', 35 per cent.
Reindeer skins, dressed, 20 per cent.
undressed, 10 per cent.
tanned, 25 per cent.
tongues, 20 per cent.
Rennets, raw, 10 per cent.
Reps, natural silk and cotton, 50 per cent.
Resin, 20 per cent.
Rhubarb, 50c. per lb.
Rice, clean, 2½c. per lb.
unclean, 2c. per lb.
Rifles, 35 per cent.
Rock moss, 10 per cent.
Rope, made of hides cut in strips, 20 p.c.
Rope or cordage of cocoanut hulls, 3½c. p. lb.
Roofing slates, 35 per cent.
Roots, all bulbous, not otherwise enumerated, 30 per cent.
Rose leaves, 50c. per lb.
pink (whiting and logwood), 25 per cent.
water, 50 per cent.
Rouge, 50 per cent.
Rubarum, bark acer, 20 per cent.
Rubies, 10 per cent.
set, 25 per cent.
Rum, essence or oil of, and bay, essence or oil of, 2 dol. per oz.
Russia sheetings, brown or white, 35 p.c.
Rust of iron, 20 per cent.
Rye, 15c. per bbl.
Rye flour, 10 per cent.

Saddlery, all not otherwise specified, 35 p.c.
Safflour, 10 per cent.
extract of, 20 per cent.
Saffron, and cake, 10 per cent.
Sago, and flour, 1½c. per lb.
Sail duck, 30 per cent.
Salacine, a medicinal preparation, 40 p.c.
Sal ammoniac, 10 per cent.
diuretic and succinic, 20 per cent.
Salep (vegetable substance), 20 per cent.
Saleratus, 1½c. per lb.
Salt, 18c. per 100 lb.
not in bulk, 24c. per 100 lb.
crude mineral, and fossil, mineral, in bulk, 18c. per 100 lb.
Salts, brown, 20 per cent.
Epsom, 1c. per lb.
glauber, ½c. per lb.
Rochelle, 15c. per lb. (20 p.c.
all other chemical salts not enumerated,
Salted skivers, roans, and pelts, 10 per cent.
Saltpetre, or sal nitre, or nitrate of potash, crude, 2½c. per lb.
Saltpetre, refined, 3c. per lb.
partially refined, 2c. per lb.
Sand, 10 per cent.
Sandarach, refined, 10c. per lb.
Sand stones, 10 per cent.
Santonin, 5 dol. per lb.
Sarcocolla, crude, 20 per cent.
Sardines, in oil, in barrels (in salt or oil), or in kegs, 50 per cent.
Sarsaparilla, 20 per cent.
Sassafras, 20 per cent.
Satin, white, 3c. per lb.
Satins, figured, when in shape and size exclusively for buttons, 10 per cent.
Sauces, all kinds not otherwise enumerated, 35 per cent.

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Sausages, except Bologna, 35 per cent.
Saws, cross cut, 10c. per lin. ft.
mill pit, not over 9 in. wide, 12½c. per lin. ft. over 9 in. wide, 20c. per lin. ft.
drag, not over 9 in. wide, 12½c. per lin. ft. over 9 in. wide, 20c. per lin. ft.
hand, not over 24 in. long, 75c. per doz. and 30 per cent.
hand, over 24 in. long, 1 dol. per doz. and 30 per cent.
back, not over 10 in. long, 75c. per doz. and 30 per cent.
back, over 10 in. long, 1 dol. per doz. and 30 per cent.
Saw sets (steel), 45 per cent.
Scagliola tables, or slabs, 35 per cent.
Scoop nets, 35 per cent.
Seaweed, and all other vegetable substances used for beds or mattresses, 20 per cent.
Seeds, anise, 5c. per lb.
anise, star, 10c. per lb.
canary, 60 lb. to bbl., 1 dol. per bbl.
caraway, 3c. per lb.
cardamom, 90c. per lb.
cumin, 3c. per lb.
coriander, 3c. per lb.
fennel, 2c. per lb.
fenugreek, 2c. per lb.
hemp, ½c. per lb.
mustard, (brown or white) 3c. per lb.
rape, 1c. per lb.
castor, 50 lb. to bbl., 60c. per bbl.
for agricultural and horticultural purposes, 30 per cent.
medicinal, 20 per cent.
Seed and stick lac, 10c. per lb.
Seines, 6½c. per lb.
Segars, cigarettes and cheroots, of all kinds, 3 dol. per lb. and 50 per cent.
Senna, 20 per cent.
Sepia (or cuttle fish), 5c. per lb.
Sextants, 35 per cent.
Shaddocks, 10 per cent.
Shale, per ton, of 28 bbl., 80 lb. per bbl., 1d. 25c. per ton.
Shears, 35 per cent.
Sheathing metal, patent, composed in part of copper, not in part iron, ungalvanized, in sheets of 14 by 48 in. weighing from 14 to 34 oz. per sq. foot, 3c. per lb.
Sheathing paper, 10 per cent.
Sheep and angora goat skins, raw; with the wool on, washed and unwashed, 30 p.c.
Shell baskets, 35 per cent.
Shellac, 10c. per lb.
Shells, cocoa, 1c. per lb.
Shingles, 35 per cent.
Shirts, not otherwise provided for, 35 p.c.
Shovels, with or without handles, iron and steel, to dig with, 45 per cent.
Shovels, wood, 35 per cent.
and tongs, or fire irons (iron), 35 per cent.
Shrubs, 30 per cent.
Shumac or sumac, 10 per cent.
Shuttle-cocks and battle-doors, 35 per cent. (if toys), 50 per cent.
Sieves, lawn, wire, or hair, 35 per cent.
Silks in the gum, not more advanced than singles, tram, or organzine, 35 per cent.
Silk, spun, for filling in skeins or cops, or flos, 35 per cent.
Silk, sewing, in the gum or purified, 40 p.c.
Silk, all dress and piece, 60 per cent.
velvet, or of which silk is chief value, 60 per cent.
Silk aprons, bonnets, braids, caps, chemisettes, cords, drawers, fringes, gloves, galloons handkerchiefs, hats, hose, laces, and mantillas, 60 per cent.
Silk mits, pongees, peterines, ribbons, shawls, scarfs, shirts, stockings, suspenders, turbans, tassels, trimmings, vestings, veils, watch chains, webbing, 60 per cent.
Silk buttons and button cloth, 40 per cent.
Silk, ready-made clothing, or of which silk shall be the component material of chief value, 60 per cent.
Silk, manufactures all of, or of which silk shall be a component material of chief value, not otherwise provided for, 50 per cent.
Silk and cotton vesting, bobbin, and hat bands, 50 per cent.
Silk garters, with wire and clasps, ornaments for head dresses, oil cloth, stocks, and all other articles, not otherwise specified, made up by hand in whole or part, if no wool or worsted, to be worn, 60 per cent.
Silver epaulettes and wings, 35 per cent.
leaf, of 500 leaves per package, 75c. per pk.
nitrate of, 40 per cent.
all manufactures of, not otherwise specified, 40 per cent.
German, in sheets, 35 per cent.
manufactures of, 40 per cent.
Silvered wire, 35 per cent.
Sisal grass, unmanufactured, 15 dol. per ton.
manufactures of, not provided for, 30 p.c.
Size, gold and patent, 20 per cent.
Skates, costing 20 cents per pair and under, 8c. per pair.
costing over 20 cents per pair, 35 p.c.
Skeletons, 20 per cent.
Skivers, tanned, not otherwise provided for, 25 per cent.
pickled, 10 per cent.
Skins, pickled, in casks, 10 per cent.
of all kinds in the hair, dried, raw, or unmanufactured, not otherwise provided for, 10 per cent.
calf, tanned and dressed, 30 per cent.
glazed, as patent leather, 35 per cent.
Skins, fish, for saddlers, &c., 20 per cent.
fur, raw or undressed, 10 per cent.
fur, dressed, 20 per cent.
white, for druggists, dressed with alum only, sheep, tanned or dressed, goat or morocco, tanned and dressed, 25 per cent.
kid, tanned and dressed, goat and sheep, 25 p.c.
tanned and not dressed, 25 per cent.
kid and lamb, tanned and not dressed, tanned and dressed, otherwise than in colours, viz. fawn, kid, and lamb, known as chamois, 25 per cent.
Slates of all kinds, except roofing, 40 p.c.
Slate pencils, 45 per cent.
Sledges, blacksmiths' and other, 2½c. per lb.
Slippers, 35 per cent.
Smalts, 20 per cent.
Snails, 10 per cent.
Snake root, 20 per cent.
Snaps, a clasp or fetch, or snap bits, for bridles, 35 per cent.
Soap, Castile, hard, all other, soft, all, turpentine, or common 1c. per lb. and 30 per cent.
fancy, all, Naples, perfumed, all, shaving, wash-balls, Windsor, 10c. per lb. and 25 per cent.
paint, cast iron, whole or in parts, 30 p.c.
Soap stocks and stuffs, 10 per cent.
Socket chisels, 45 per cent.
Soda, ash, ¼c. per lb.
bi carbonate of, 1½c. per lb.
carbonate of, ¼c. per lb.
iodate of, 20 per cent.
caustic, 1½c. per lb.
hydriodate of, hyposulphate of, 1½c, powders, 20 per cent.
sal, ¼c. per lb.
salts of, ¼c. per lb.
all carbonate of, except soda ash, barilla, and kelp, 20 per cent.
Solamine (med. prep.), 40 per cent.
Souvenirs, 35 per cent.
Soy, 35 per cent.
Spanish brown, dry, ground in oil, 25 p.c.
Spanish flies, or cantharides, 50c. per lb.
Spa, or spaware, 50 per cent.
Specimens of anatomical preparations, 35 p.c.
Specie of all kinds, not otherwise provided for, 20 per cent.
Spirituous liquors, not otherwise provided for, 100 per cent.
Spirits, yellow, 20 per cent.
Spirits of turpentine, 30c. per gal.
Sponges, 20 per cent.
Spunk, 10 per cent.
Spy glasses, 40 per cent.
Squills, or scilla, 10 per cent.
Starch, made of potatoes or corn, 1c. per lb and 20 per cent.
Starch, other, 3c per lb. and 20 per cent.
Statuary, not otherwise provided for, of marble, 10 per cent.
Statues and specimens of statuary, specially imported in good faith as objects of taste, and not merchandise, of marble or stone, 10 per cent.
Statues of alabaster, 10 per cent.
brass or bronze, 35 per cent.
marble, 10 per cent.
metal, 35 per cent.
plaster, cast, 40 per cent.
wood, carved, 10 per cent.
Staves for pipes, hogsheads, and casks, 10 per cent.
Staves, other, 20 per cent.
Stavesacre, 20 per cent.
Steel, in bars, ingots, sheets, or coils, value 7c. or less per lb., 2½c. per lb.
in bars, ingots, sheets, or coils, value over 7c. and not over 11c. per lb., 3c. per lb.
in bars, ingots, sheets, or coils, value over 11c. per lb., 3½c. per lb. and 10 per cent.
Steel wire, not less than ½ in. in diameter, and value 7c. per lb. or less, 2½c. per lb.
not less than ½ in. in diameter, and value over 7c. per lb. and not over 11c. per lb., 3c. per lb.
as above, value over 11c. per lb., 3½c. per lb. and 10 per cent.
less than ½ in. in diameter, and not less than No. 16 wire gauge, 2½c. per lb. and 20 per cent.
less than No. 16 wire gauge, 3c. per lb. and 20 per cent.
Steel, in any form not otherwise provided for, 30 per cent.
Steel plates, engraved, 25 per cent.
chains, cutting knives, scythes, sickles, reaping hooks, spades, and shovels, 45 p.c.
all articles not enumerated, manufactured from steel or of which steel is a component part, 45 per cent.
Steelyards, 35 per cent.
Stereotype plates, 25 per cent.
Stick lac, 10c. per lb.
Sticks, walking, finished or not, or frames for umbrellas or parasols, 35 p.c.
Stiffeners for cravats, 35 per cent.
Still bottoms or worms, 35 per cent.
Stock locks, if any steel, 45 per cent.
Stockings and half stockings, worsted, wove on frames, 35 per cent.
Stockings, silk, 60 per cent.
Stomach pumps, 35 per cent.
Stoneware, common, 25 per cent.
all other, composed of earth or mineral substances, whether gilt, painted, printed, or glazed, 40 per cent.
Stoneware, exceeding the capacity of 10 gallons, not ornamented, 25 per cent.
Stones, Bristol, 10 per cent.
building, 20 per cent.
cornelian and garnet, 10 per cent.
grind, 10 per cent.
lithographic, 20 per cent.
load, 20 per cent.
marbles, 30 per cent.
mill (burr), bound up, or fit for immediate use, 20 per cent.
not merchantable, for ballast, 10 per cent.
oil, 20 per cent.
paving, 10 per cent.
precious, 10 per cent.
rag and sand, 10 per cent.
touch and whet, 20 per cent.
Storax or styrax, a balsam, 30 per cent.
Straw baskets, 35 per cent.
for hats, in its natural state, 10 per cent.
Stretchers for umbrellas and parasols, 35 p.c.
Strings of musical instruments, if gut, low, if gut, and hatters', if gut, 30 per cent.
Strontian (chem. prep.), muriate of and nitrate of, 20 per cent.
Strychnine and its salts, 1d. 50c. per oz.
Studs, gold, silver, gilt, as jewellery, 25 p.c.
Succory root, 4c. per lb.
ground, burnt, or prepared, 5c. per lb.
Sugars, all not above No. 12 Dutch standard in colour, 3c. per lb.
all above No. 12 Dutch standard, and not above No. 15 Dutch standard in colour, 3½c. per lb.
all above No. 15, not stove dried, and not above No. 20 Dutch standard in colour, 4c. per lb.
all refined, in form of loaf, lump, crushed, powdered, pulverised, or granulated, 5c. per lb.
all stove-dried, or other sugars above No. 20 Dutch standard in colour, 5c. per lb.
refined, when tinctured, coloured, or adulterated, valued at 30 cents per lb. or less, 15c. per lb.
as above, valued over 30 cents per lb. (candy), 50 per cent.
syrup of, 2½c. per lb.
syrup of cane, 2½c. per lb.
Sulphate of rhubarb, 20 per cent.
iron, ¼c. per lb.
Sulphur, flor, flour of sulphur, 20 dol. per ton and 15 per cent.
Swans, down of, 30 per cent.
skins, undressed and dressed, 20 per cent.
Sweetmeats, all not otherwise provided for, 35 per cent.
Sword blades for canes, 45 per cent.
knots, lace, gold and silver, fine and half fine, 35 per cent.
Swords, 35 per cent.

Table fasteners, 35 per cent.
knives and forks, 35 per cent.
tops, composition, 35 per cent.
Tables with marble tops, slabs, or ornaments, 35 per cent.
Table tops, scagliola, and tables, wood, 35 p.c.
Tacks, brads, or sprigs, not exceeding 16 oz. per 1,000, 2½c. per 1,000.
Tacks, brads, or sprigs, exceeding ditto, 3c. per lb.
Tacks, steel, 45 per cent.
tinned, 35 per cent.
Taggers' iron, 30 per cent.
Talc, a mineral, 20 per cent.
Tallow, 1c. per lb.
Tamarinds, 10 per cent.
preserved in sugar or brandy, 35 per cent.
Tannin and tannic acid, 2 dol. per lb.
Tapioca, 20 per cent.
Tares, 10 per cent.
Tar, Barbadoes, crude, or coal, 20 per cent.
Tarpaulings, 20 per cent.
Tartar, crude (argol), 6c. per lb.
emetic, 15c. per lb.
Teas, of all kinds, imported direct from China or other places of their growth, in vessels entitled so to do, 25c. per lb.
Teazles, 10 per cent.
Teeth, manufactured, 20 per cent.
Telescopes, 40 per cent.
Terra alba, 20 per cent.
de sienna, dry, 50c. per 100 lb.
in oil, 1d. 50c. per 100 lb.
umbra, 50c. per 100 lb.
Terne, tin plates or sheets, 25 per cent.
Tentanague, in sheets, 2½c. per lb.
blocks, pigs, unmanufactured, in blocks or pigs, 1½c. per lb.
boxes, 35 per cent.
Thermometers, telescopes, magic and other lanterns, and similar articles, composed of tin, glass, wood, brass, or copper, 40 p.c.
Thor marine, a small fish, ½c per lb.
Thread, escutcheons and stockings, 35 p.c.
Thread, flax, pack and shoe (linen), 40 p.c.
Thread insertings, lace, bottons (flax), 30 p.c.
Thridace, 20 per cent.
Tiles, encaustic, 35 per cent.
marble, 50 per cent.
paving and roofing, 20 per cent.
Timber, hewn or sawn, for wharfs, 20 p.c.
Tin, in bars, banca, and block, 15 per cent.
Tin boxes, 35 per cent.
crystals of, and foil, 20 per cent.
granulated and grain, 10 per cent.
liquor, 20 per cent.
muriate of and oxide of, 30 per cent.
in pigs, 15 per cent.
plates, 25 per cent.

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Tin plates, galvanised by electric batteries, 2½c. per lb.
in sheets, and tagger, 25 per cent.
salts of, 30 per cent.
all manufactures of, not enumerated, or of which tin is a component part, 35 p.c.
Tinctures, odoriferous, 50 per cent.
bark, and other medicinal, 40 per cent.
Tips of horns and of bone, 10 per cent.
and runners for parasols and umbrellas, metal, 35 per cent.
Tobacco, manufactured, not provided for, 50c. per lb.
Tobacco leaves, unmanufactured and not stemmed, 35c. per lb.
Tobacco leaves, stemmed, 50c. per lb.
stems, 15c. per lb.
Toilet vials or bottles, not exceeding the capacity of 4 oz. each, cut, 40 per cent.
Toilet vials or bottles, exceeding 4 oz. and not exceeding 16 oz. each, cut, 40 per cent.
Tongues, reindeer, sounds (fish), neats, smoked, 20 per cent.
Tongs (shovels and tongs), iron, 35 per cent.
Tonca, tonga, tongua, or tonqua beans, 20 p.c.
Tooth brushes, 40 per cent.
powder, 50 per cent.
Topaz, real, 10 per cent.
imitation, 40 per cent.
Touchstones, 20 per cent.
Toys, of every description, except dolls, 30 p.c.
Trees, all, 30 per cent.
Tripoli, 25 per cent.
Trowels, 45 per cent.
Truffles (vegetable), preserved, 35 per cent.
Truffles, earthen, common, 25 per cent.
Trusses with iron or steel springs of more value than the leather, 45 per cent.
Trusses, if leather and iron be the material, 35 per cent.
Turquoises, 10 per cent.
Turpentine, spirits of, 30c. per gal.
Turtles, 20 per cent.
Twine, flax or linen, 40 per cent.
all other, 35 per cent.
Twist, cotton and silk, 40 per cent.
Types, new and metal, 25 per cent.

Ultra marine, 25 per cent.
Umber, ½c. per lb.
Umbrellas, not silk, 50 per cent.
silk, 60 per cent.
sticks or frames for, and brass tips, runners &c. for, 35 per cent.
square wire, used in the manufacture of stretchers, if cut in the usual lengths, 35 per cent.
Umbrella furniture, silver, 40 per cent.
bone or ivory, 35 per cent.

Vandyke, brown, 20 per cent.
Valenciennes (thread lace), 30 per cent.
Vanilla, plants of, 30 per cent.
beans, 3 dol. per lb.
Varnishes of all kinds, value not over 1d. 50c. per gal., 50c. per gal. and 20 per cent.
Varnishes of all kinds, value over 1d. 50c. per gal., 50c. per gal. and 25 per cent.
Vases, porcelain, ornamented, containing flowers, with stands and shades, 30 per cent.
Vegetable substances, unmanufactured, used for beds, 20 per cent.
Vegetable substances, unmanufactured, used for cordage, 15 dol. per ton.
Vegetables, prepared, 35 per cent.
not otherwise provided for, 10 per cent.
Vegetable substances, not otherwise provided for, 5 dol. per ton, and 10 per cent.
Vellum, 30 per cent.
Velvet cotton, printed or painted, silk and cotton, silk not chief value, 35 per cent.
Velvet, binding, cotton, 35 per cent.
binding, silk, 60 per cent.
Veneering rods, 35 per cent.
Venetian red, dry, and in oil, 25 per cent.
Venison hams, 2c. per lb.
Veratrine (medical prep.), 40 per cent.
Verdigris, 6c. per lb.
Verditure, 20 per cent.
Vermicelli, 35 per cent.
Vermillion, 25 per cent.
Vermuth (wine bitters), 100 per cent.
Vials, all perfumery and fancy, not cut, not exceeding the capacity of 16 oz. each, 35 p.c.
Vials, all perfumery and fancy, cut, 40 p.c.
Vinegar, 10c. per gal.
Violins and strings, gut, 30 per cent.
Violin, wire strings, 35 per cent.
Vitches, dried for feed, 10 per cent.
for seed, 30 per cent.
Vitriol, oil of, sulphuric acid, 1c. per lb.
blue or Roman, or sulphate of copper, 25 p.c.
Vitriol, green, &c. per lb.
white, or sulphate of zinc, 20 per cent.

Wafers, 35 per cent.
Wagon boxes, 35 per cent.
Walnuts, all, 3c. per lb.
Waste or shoddy, wool, 12c. per lb.
Watches, gold and silver, 25 per cent.
and parts of, other, 20 per cent.
Watch crystals, 40 per cent.
materials and unfinished parts of, 20 p.c.
Water proof cloth, not otherwise provided for, 45 per cent.
Wax beads, 50 per cent.
bees, bleached or unbleached, 20 per cent.
Wax, sealing, 35 per cent.
shoemakers', 20 per cent.
tapers, &c. per lb.
Wedgewood ware (white), 40 per cent.
Weights, brass, copper, or lead, 35 per cent.
Wet blue, 25 per cent.
Whalebone, the product of foreign fishing, 20 per cent.
Whale oil, of foreign fishing, 20 per cent.
Wheat, 20c. per bbl.
flour, 20 per cent.
Whetstones, 20 per cent.
Whiting, dry, 1c. per lb.
ground in oil, 2c. per lb.
Wigs, 35 per cent.
Window glass, crown and common cylinder, unpolished, not above 10 by 15 in., 1½c. per lb.
over 10 by 15, not over 16 by 24, 2c. per lb.
16 by 24, not over 24 by 30, 2½c. per lb.
all above 24 by 30 in., 3c. per lb.
Window glass, polished, cylinder and crown, not over 10 by 15 in., 2½c. per sq. ft.
over 10 by 15 in., not over 16 by 24 in., 4c. per sq. ft.
over 16 by 24, and not over 24 by 30 in., 6c. per sq. ft.
all over 24 by 30 in., but not above 24 by 60 in., 20c. per sq. ft.
over 24 by 60 in., 40c. per sq. ft.
Wines of all countries, in bottles or casks, unless specially enumerated, valued not over 50c. per gal., 20c. per gal. and 25 p.c.
valued over 50c. and not over 1 dol. per gal., 50c. per gal. and 25 per cent.
valued over 1 dol. per gal., 1 dol. per gal. and 25 per cent.
no champagne or sparkling wines, in bottles, to pay less duty than 6 dol. per doz. bottles, each bottle containing not more than 1 qt. and more than 1 pt., or 6 dol. per 2 doz. bottles, each bottle containing not more than 1 pt.
Wine lees, liquid, 20 per cent.
bottles containing wine, 2c. each.
lees, crystallised, or crude tartar, 6c. per lb.
Winter bark, or cannella alba, 20 per cent.
Wood balls, gilt or not, backgammon and chess men, 35 per cent.
Wood castors, 35 per cent.
fire, 20 per cent.
goncallo, 20 per cent.
Jacks, 35 per cent.
lake, 25 per cent.
ornaments, gilt, 35 per cent.
rules, 35 per cent.
unmanufactured, of any kind not enumerated, 20 per cent.
quassia, crude (drug), 20 p.c. [35 p.c.
manufactures of, not otherwise specified,
Wool, unmanufactured, class first, clothing wools, 10c. per lb. and 11 p.c. ad val.
exceeding 31c., the value thereof at the last port whence exported into the United States, excluding charges in such port, shall be 32c. per lb., or less, 10c. per lb. and 11 p.c. ad val.
Wool, unmanufactured, exceeding 32c. per lb., 12c. per lb. and 10 per cent. ad val.
Wool, third class, carpet wools and other similar wools, the value thereof at the last port whence exported to the United States, excluding charges in such port, shall be 12c. or less per lb., 3c. per lb.
exceeding 12c. per lb., 6c. per lb.
Wool, all manufactures of, or of which wool shall be a component material, not otherwise provided for in this Act, 30c. per lb and 35 per cent.
Woollen bags, cloth, or cassimere, 50c. per lb. and 35 per cent.
Woollen cloths and cassimeres, if value over 2 dols. per sq. yd., 50c. per lb. and 35 p.c
Wool embroideries, 50c. per lb. and 35 p.c.
Provided, that goods of like description, composed of worsted, the hair of the Alpaca goat, or other like animals, and weighing over 4 oz. per sq. yd., shall pay the same duty as on woollen cloths.
Woollen hosiery, all shawls and listings, 50c. per lb. and 35 per cent.
Woollen flocks, 12c. per lb.
Wool, mingo, 12c. per lb.
Woollen shawls, if valued over 2 dols. per sq. yd., 50c. per lb. and 35 per cent.
Woollen clothing, ready made, and wearing apparel of every description, in whole or in part of wool, made up in whole or part (except knit goods), 50c. per lb. and 40 p.c.
Woollen endless belts, for paper machines, and blanketing for printing machines, 30c. per lb. and 35 per cent.
Wool, on the skin, raw, 30 per cent.
Woollen dippers, wove, 50c. per lb. and 35 p.c.
Worsted shawls, hemmed, not otherwise provided for, 50c. per lb. and 40 per cent.
Worsted, all manufactures of, composed wholly or in part of worsted, the hair of the Alpaca goat, or other like animals, (except wool being a component part,) not otherwise provided for, value not over 40c. per lb., 20c. per lb. and 35 p.c.
value over 40c. and not over 60c. per lb., 30c. per lb. and 35 per cent.
value over 60c. and not over 80c. per lb., 40c. per lb. and 35 per cent.
value over 80c. per lb., 50c. per lb. and 35 per cent.
Worsted bags, caps (not wove), table covers, plains, tollinets, twist, will pay duty as above.
Worsted caps, wove on frames, hose, drawers, gloves, mitts, shirts, 35 per cent.
As above, composed in part of wool, 50c. per lb. and 35 per cent.

Yams, 10 per cent
Yarn, coir, 1½c. per lb.
cotton, 35 per cent.
flax or linen, for carpeting, not over No 6 lea., and valued at 24c. or less per lb. 30 p.c.
valued over 24 cts. per lb., 35 p.c.
jute, 25 per cent.
Yarns, hemp, 3c. per lb.
worsted and woollen, value not over 40c. per lb., 20c. per lb. and 35 p.c. ad val.
value over 40c. and not over 60c. per lb., 30c. per lb. and 35 p.c. ad val.
value over 60c. and not over 80c. per lb., 40c. per lb. and 35 per cent. ad val.
value over 80c. per lb., 50c. per lb. and 35 per cent. ad val.
Yarn, untarred, hemp, 5c. per lb.
Yellow, king's patent, 25 per cent.
chromate of potash, 3c. per lb.
citric acid, 10c. per lb.
ochre, dry, 50c. per 100 lb.
ochre in oil, 1d. 50c. per cent.
salt of chrome, 20 per cent.
spirits, 20 per cent.

Zaffre, 20 per cent.
Zinc, nails, 35 per cent.
in pigs, or otherwise unwrought, 1½c. per lb
Zinc, in sheets, 2½c. per lb.
sulphate of, 20 per cent.
oxide of, dry, or ground in oil, 1½c. per lb.
manufactures of, 35 per cent.
valerianate of (chemical), 20 per cent.

An Act for establishing a Warehousing System in the United States.

The following is an official copy of an Act passed by both Houses of Congress, July 1846, and signed by the President of the United States on August 6, 1846:—

An Act establishing a Warehousing System, and to amend an Act entitled 'An Act to provide Revenue from Imports, and to change and modify existing Laws imposing Duties on Imports, and for other Purposes.'

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, that the twelfth section of the Act entitled 'An Act to provide Revenue from Imports, and to change and modify existing Laws imposing Duties on Imports, and for other Purposes,' approved August 30, 1842, is hereby amended so as hereafter to read as follows: [Sec. 12] And be it further enacted, that on and after the day this Act goes into operation, the duties on all imported goods, wares, or merchandise, shall be paid in cash: Provided, that in all cases of failure or neglect to pay the duties within the period allowed by law to the importer to make entry thereof, or whenever the owner, importer, or consignee shall make entry for warehousing the same in writing, in such form and supported by such proof as shall be prescribed by the Secretary of the Treasury, the said goods, wares, or merchandise shall be taken possession of by the collector, and deposited in the public stores, or in other stores to be agreed on by the collector or chief revenue officer of the port and the importer

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owner, or consignee, the said stores to be secured in the manner provided for by the first section of the Act April 20, 1818, entitled 'An Act providing for the Deposit of Wines and Distilled Spirits in Public Warehouses, and for other Purposes,' there to be kept with due and reasonable care, at the charge and risk of the owner, importer, consignee, or agent, and subject at all times to their order, upon payment of the proper duties and expenses, to be ascertained on due entry thereof for warehousing, and to be secured by bond of the owner, importer, or consignee, with surety or sureties, to the satisfaction of the collector in double the amount of the said duties, and in such form as the Secretary of the Treasury shall prescribe: provided that no merchandise shall be withdrawn from any warehouse in which it may be deposited in a less quantity than in an entire package, bale, cask, or box, unless in bulk; nor shall merchandise so imported in bulk be delivered, except in the whole quantity of each parcel, or in a quantity not less than 1 ton weight, unless by special authority of the Secretary of the Treasury. And in case the owner, importer, consignee, or agent of any goods on which the duties have not been paid, shall give to the collector satisfactory security that the said goods shall be landed out of the jurisdiction of the United States, in the manner now required by existing laws relating to exportations for the benefit of drawback, the collector and naval officer, if any, on an entry to re-export the same, shall, upon payment of the appropriate expenses, permit the said goods, under the inspection of the proper officers, to be shipped without payment of any duties thereon. And in case any goods, wares, or merchandise, deposited as aforesaid, shall remain in public store beyond one year, without payment of the duties and charges thereon, then said goods, wares, or merchandise shall be appraised by the appraiser of the United States, if there be any at such port, and if none, then by two merchants, to be designated and sworn by the collector for that purpose, and sold by the collector at public auction, on due public notice thereof being first given in the manner and for the time to be prescribed by a general regulation of the Treasury Department; and at said public sale, distinct and printed catalogues descriptive of said goods with the appraised value affixed thereto, shall be distributed among the persons present at said sale; and a reasonable opportunity shall be given before such sale, to persons desirous of purchasing, to inspect the quality of such goods; and the proceeds of said sales, after deducting the usual rate of storage at the port in question, with all other charges and expenses, including duties, shall be paid over to the owner, importer, consignee, or agent, and proper receipts taken for the same: provided that the overplus, if any there be, of the proceeds of such sales, after the payment of storage, charges, expenses, and duties as aforesaid, remaining unclaimed for the space of 10 days after such sales, shall be paid by the collector into the Treasury of the United States; and the said collector shall transmit to the Treasury Department, with the said overplus, a copy of the inventory, appraisement, and account of sales, specifying the marks, numbers, and descriptions of the packages sold, their contents, and appraised value, the name of the vessel and master in which, and of the port or place whence they were imported, and the time when, and the name of the person or persons to whom, said goods were consigned in the manifest, and the duties and charges to which the several consignments were respectively subject, and the receipt or certificate of the collector shall exonerate the master or person having charge or command of any ship or vessel in which said goods, wares, or merchandise were imported, from all claims of the owner or owners thereof, who shall, nevertheless, on due proof of their interest, be entitled to receive from the Treasury the amount of any overplus paid into the same under the provisions of this Act: provided, that so much of the 56th section of the general collection law of March 2, 1799, and the 13th section of the Act of August 30, 1842, to provide revenue from imports, and to change and modify existing laws imposing duties on imports, and for other purposes, as conflicts with the provisions of this Act, shall be, and is hereby repealed, excepting that nothing contained in this Act shall be construed to extend the time now prescribed by law for selling unclaimed goods: provided, also, that all goods of a perishable nature, and all gunpowder, firecrackers, and explosive substances, deposited as aforesaid, shall be sold forthwith.

Sec. 2. Any goods when deposited in the public stores in the manner provided for in the foregoing section, may be withdrawn therefrom and transported to any other port of entry, under the restrictions provided for in the Act of March 2, 1799, in respect to the transportation of goods, wares, and merchandise from one collection district to another, to be exported with the benefit of drawback; and the owner of such goods so to be withdrawn for transportation, shall give his bond with sufficient sureties, in double the amount of the duties chargeable on them, for the deposit of such goods in store in the port of entry to which they shall be destined, such bond to be cancelled when the goods shall be re-deposited in store in the collection district to which they shall be transported: provided, that nothing contained in this section shall be construed to extend the time during which goods may be kept in store after their original importation and entry, beyond the term of one year.

Sec. 3. If any warehoused goods shall be fraudulently concealed in or removed from any public or private warehouse, the same shall be forfeited to the United States; and all persons convicted of fraudulently concealing or removing such goods, or of aiding or abetting such concealment or removal, shall be liable to the same penalties which are now imposed for the fraudulent introduction of goods into the United States; and if any importer or proprietor of any warehoused goods, or any person in his employ, shall by any contrivance fraudulently open the warehouse, or shall gain access to the goods, except in the presence of the proper officer of the customs, acting in the execution of his duty, such importer or proprietor shall forfeit and pay, for every such offence, 1,000 dollars. And any person convicted of altering, defacing, or obliterating any mark or marks which have been placed by any officer of the revenue on any package or packages of warehoused goods, shall forfeit and pay, for every such offence, 500 dollars.

Sec. 4. The collectors of the several ports of the United States shall make quarterly reports to the Secretary of the Treasury, according to such general instructions as the said Secretary may give, of all goods which remain in the warehouses of their respective ports, specifying the quantity and description of the same; which returns, or tables formed thereon, the Secretary of the Treasury shall forthwith cause to be published in the principal papers of the city of Washington.

Sec. 5. The Secretary of the Treasury shall, and he is hereby authorised to make, from time to time, such regulations, not inconsistent with the laws of the United States, as may be necessary to

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give full effect to the provisions of this Act, and secure a just accountability under the same. And it shall be the duty of the Secretary to report such regulations to each succeeding session of Congress.

The following section (17) of the Act of Congress of July 14, 1862, will be found of great importance to merchants who consign or otherwise ship goods to the United States :—

SEC. 17. And be it further enacted, That from and after November 1, 1862, no goods, wares, or merchandise, subject to ad valorem or specific duty, whether belonging to a person or persons residing in the United States or otherwise, or whether acquired by the ordinary process of bargain and sale, or otherwise, shall be admitted to entry, unless the invoice of such goods, wares, or merchandise be verified by the oath of the owner, or one of the owners, or, in the absence of the owner, one of the party who is authorised by the owner to make the shipment and sign the invoice of the same, certifying that the invoice annexed contains a true and faithful account, if subject to ad valorem duty and obtained by purchase, of the actual cost thereof, and of all charges thereon, and that no discounts, bounties, or drawbacks are contained in the said invoice but such as have actually been allowed on the same; and when consigned or obtained in any manner other than by purchase, the actual market value thereof, and if subject to specific duty, of the actual quantity thereof, which said oath shall be administered by the consul or commercial agent of the United States in the district where the goods are manufactured, or from which they are sent; and if there be no consul or commercial agent of the

Account of the Quantities and Computed Values of the Principal Articles Imported from the United States (including California) into the United Kingdom, in each of the 4 Years ending with 1867.

Articles		Quantities				Computed Real Value			
		1864	1865	1866	1867	1864	1865	1866	1867
						£	£	£	£
Arms: Cannon, muskets, swords &c.	value	..	..	..	..	9,477	6,413	20,010	27,406
Ashes, pearl and pot	cwt.	32,130	24,107	31,213	18,512	51,302	35,950	54,297	34,406
Bacon (*See also* Hams)	"	742,230	318,899	347,221	294,361	1,474,825	874,015	940,012	656,419
Bark, for tanners' or dyers' use	"	63,087	23,592	39,966	37,172	90,733	7,963	14,057	18,718
Beef, salted	"	267,072	197,402	143,260	142,816	396,619	325,385	324,081	336,993
Butter	"	142,672	83,216	16,059	39,033	720,021	437,703	77,754	113,290
Caoutchouc	"	1,459	7	3,172	3,844	12,941	61	42,682	37,671
Cheese	"	466,988	442,913	415,726	521,740	1,213,890	1,296,204	1,386,447	1,470,017
Clocks	no.	228,437	139,801	134,510	123,800	71,249	45,331	54,358	52,247
Coffee	lb.	3,562,453	55,774	1,875,366	302,108	109,611	1,700	57,185	8,828
Copper, ore	tons	6,101	9,033	5,679	6,754	109,818	118,256	80,369	77,334
unwrought and part wrought	"	77	298	316	172	7,188	25,173	24,000	11,487
Corn: Wheat	cwt.	7,895,015	1,177,618	635,259	4,188,013	3,685,134	566,672	375,029	3,254,213
Barley	"	5	8	346,527	591,818	2	3	177,444	256,781
Oats	"	..	2,629	582,136	284,890	..	908	155,319	125,803
Peas	"	121,076	30,071	105,859	478,256	44,627	11,985	42,901	217,244
Maize or Indian corn	"	294,263	1,766,305	6,985,811	4,789,385	97,745	568,881	2,188,219	2,162,689
Wheatmeal and flour	"	1,745,933	256,769	280,792	722,976	1,035,903	160,411	209,261	727,233
Cotton, raw	"	126,322	1,212,190	4,643,370	4,715,733	1,711,890	12,035,484	34,927,986	25,721,079
Fish	"	6,152	8,125	14,105	7,619	17,078	17,502	24,516	19,569
Fruit: Apples, raw	bushels	50,606	11,358	18,909	12,174	38,500	11,620	19,975	15,256
Grease	cwt.	7,271	8,089	4,993	14,562	13,286	14,359	11,522	27,041
Guano	tons	4,448	1,082	867	2,182	24,294	6,492	4,809	8,728
Hams (*See also* Bacon)	cwt.	161,026	69,900	29,933	30,152	349,576	177,745	85,879	70,808
Hemp	"	41,582	5,570	25,193	18,760	59,081	4,158	28,947	20,230
Hides, not tanned	"	34,481	21,105	4,078	1,015	73,449	40,893	8,753	2,168
tanned, tawed, curried, or dressed	lb.	934,653	1,122,357	852,852	804,236	35,048	39,436	30,856	28,784
Hops	cwt.	47,621	22,416	6,057	6,526	267,584	127,970	47,013	58,353
Iron or steel, wrought or manufactured	value	..	..	..	..	83,192	65,462	111,578	109,685
Lard	cwt.	208,641	74,577	97,011	233,129	464,948	236,149	334,068	586,324
Logwood	tons	6,933	4,946	2,926	914	49,454	30,838	19,019	6,436
Oil: Spermaceti or head matter	tuns	4,141	1,600	1,700	2,832	301,721	160,986	210,416	326,683
Train or blubber	"	706	151	237	1,211	38,170	10,044	11,510	50,501
Lard	cwt.	12,984	..	97	16,164	29,501	..	340	48,090
or spirit, of turpentine	"	22	478	48,510	93,256	88	1,506	92,188	142,475
peppermint	lb.	18,046	18,544	22,529	29,929	11,233	12,323	16,224	30,885
Naphtha	gallons	119,140	206,202	981,037	471,210	16,382	28,951	138,980	58,793
Oil seed cake	tons	35,572	35,419	40,314	44,508	319,986	328,321	419,310	473,609
Petroleum	tuns	19,012	10,318	29,633	22,236	415,863	349,006	676,006	364,675
Pork, salted	cwt.	106,142	44,485	47,444	55,048	208,509	92,332	118,411	114,804
Quicksilver	lb.	..	451,852	764,821	329,663	..	46,906	71,063	29,171
Rice, not in the husk	cwt.	8	42,537	3,102	9,503	13	72,314	5,502	18,783
Rosin	"	1,429	14,615	586,508	477,296	2,072	15,446	271,376	256,769
Seed, clover	"	27,654	6,790	46,136	12,075	73,812	23,238	146,014	41,337
Skins and furs:									
Beaver	no.	15,101	4,536	16,891	18,969	6,446	2,031	7,950	7,883
Deer	"	48,051	12,169	3,055	7,486	8,409	2,130	458	1,134
Fox	"	40,147	25,812	52,400	84,365	18,566	16,186	26,209	28,431
Marten	"	6,175	4,194	11,743	7,709	3,524	2,512	8,787	4,822
Musquash	"	1,513,136	804,094	1,608,091	2,289,321	53,875	22,888	91,751	116,107
Otter	"	2,611	976	876	4,369	2,861	811	1,424	3,559
Racoon	"	549,529	236,050	357,162	378,151	64,102	21,579	42,970	29,201
Other sorts	value	..	..	..	..	30,427	39,529	41,741	42,500
Spermaceti, fine	"	..	..	..	..	14,428	5,911	8,168	20,320
Sugar, unrefined	cwt.	251,717	9,486	6,876	58,191	329,474	9,456	5,548	65,776
Tallow	"	234,275	130,156	138,099	146,988	519,549	273,895	327,159	321,095
Tar	lasts	3	494	1,370	218	31	4,823	13,518	1,637
Tea	lb.	1,981,899	109,577	237,513	11,687	172,511	8,160	17,621	922
Tin	cwt.	..	8	8,162	3,572	..	35	31,667	14,768
Tobacco, unmanufactured	"	59,741,834	46,849,765	29,320,894	37,547,166	1,555,164	1,837,592	997,115	1079,005
manufactured, and cigars	"	1,252,967	840,387	1,462,820	2,281,219	79,611	55,744	49,605	66,495
Turpentine	"	1,702	12,868	52,668	28,233	2,132	9,592	26,440	13,297
Wax, Bees'	"	2,075	1,102	1,539	1,888	17,978	10,492	13,120	15,250
Whale fins	"	1,300	662	1,800	1,684	26,177	12,429	38,982	30,586
Wood and timber:									
Not sawn or split	loads	20,280	16,700	39,398	45,700	116,654	87,614	166,288	174,056
Deals, battens &c., sawn or split	"	38,504	23,527	14,676	14,020	177,125	102,640	59,746	52,661
Staves	"	7,532	5,737	7,499	6,081	44,101	34,115	63,510	47,441
Furniture and hardwoods	"	3,504	6,827	3,383	2,430	32,552	67,569	28,759	18,498
Wool, sheep and lambs'	lb.	891,741	45,552	1,256,023	655,945	65,283	3,050	88,967	39,437
Woollen rags, torn up to be used as wool	"	1,498,336	1,283,520	1,936,032	1,917,104	32,777	26,218	51,229	24,930
Woollen manufactures	value	..	..	..	..	15,567	50,965	29,163	25,211
All other articles	"	..	..	..	..	845,276	504,008	834,583	602,712
Total		..	..	..	..	17,923,678	21,614,210	46,854,503	41,045,379

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United States in the said district, the verification hereby required shall be made by the consul or commercial agent of the United States at the nearest point, or at the port from which the goods are shipped, in which case the oath shall be administered by some public officer, duly authorised to administer oaths, and transmitted, with a copy of the invoice, to the consul or commercial agent for his authentication; and this Act shall be construed only to modify, and not repeal, the Act of March 1, 1823, entitled 'An Act supplementary to, and to amend an Act entitled "An Act to regulate the Collection of Duties on Imports and Tonnage," passed March 2, 1799, and for other Purposes,' and the forms of the oaths therein set forth shall be modified accordingly. And there shall be paid to the said consul, vice-consul, or commercial agent, by the person or persons by or in behalf of whom the said invoices are presented and deposited, one dollar for each and every invoice verified, which shall be accounted for by the officers receiving the same, in such manner as is now required by the laws regulating the fees and salaries of consuls and commercial agents. And provided, further, That the provisions of this section shall not apply to invoices of goods, wares, and merchandise, imported into the United States from beyond Cape Horn and the Cape of Good Hope, until April 1, 1863. And provided further, That the provisions of this section shall not apply to countries where there is no consul, vice-consul, or commercial agent of the United States.

Trade of the United Kingdom with the United States.

Account of the Declared Value of the Total Exports of British Produce and Manufactures to the United States of America, during each of the 35 Years ending with 1867.

Years	Declared Value	Years	Declared Value
	£		£
1833	7,479,699	1851	14,362,978
1834	6,844,989	1852	16,561,737
1835	10,568,455	1853	23,658,427
1836	12,125,605	1854	21,410,369
1837	4,695,825	1855	17,318,086
1838	7,585,750	1856	21,918,105
1839	8,839,804	1857	18,948,939
1840	5,187,020	1858	14,491,448
1841	7,098,842	1859	21,353,055
1842	3,528,807	1860	21,667,065
1843	5,013,504	1861	9,064,304
1844	7,938,079	1862	14,327,870
1845	7,147,663	1863	15,341,392
1846	6,830,460	1864	16,708,505
1847	10,874,161	1865	21,727,956
1848	9,564,909	1866	28,899,514
1849	11,971,028	1867	21,811,786
1850	14,891,961		

Quantities and Values of the Principal Articles of Foreign and Colonial Produce and Manufacture Exported from the United Kingdom to the United States during each of the 4 Years ending with 1867.

Articles		Quantities				Computed Real Value			
		1864	1865	1866	1867	1864	1865	1866	1867
						£	£	£	£
Bacon	cwt.	7,231	550	58,040	..	13,469	1,563	170,609	..
Bark, Peruvian	,,	2,277	4,971	2,433	3,149	14,212	33,513	19,169	26,599
Beads and bugles of glass	lb.	224,167	321,859	133,863	337,719	11,573	17,300	7,593	19,000
Bristles	,,	50,210	93,401	148,310	75,917	3,902	17,963	19,551	11,405
Cowrie shells	cwt.	4,825	6,112	2,797	594	34,137	45,433	21,193	5,109
Cochineal	,,	1,779	3,056	4,079	4,957	30,459	53,734	77,807	92,894
Coffee	lb.	1,855,877	1,779,851	296,774	490,877	56,531	54,151	9,157	13,211
Copper unwrought and part wrought	cwt.	8,569	..	9,503	60	61,651	..	58,509	707
Cotton, raw	,,	105,996	13,435	7,166	2,913	1,171,046	103,455	54,429	16,719
Cream of tartar	,,	1,357	4,108	4,669	2,481	7,576	19,228	20,369	9,624
Currants	,,	6,641	8,270	5,591	3,464	6,256	7,964	5,571	3,147
Cutch	tons	..	537	343	63	..	13,395	10,991	2,185
Drugs, unenumerated	cwt.	1,197	2,279	8,008	3,458	3,512	8,614	21,833	17,374
Flax, dressed and undressed	,,	1,337	2,984	1,235	713	4,054	9,433	3,193	2,069
Gambier	tons	786	1,454	65	1	19,745	39,091	1,578	40
Gums: Animi and copal	cwt.	155	1,809	1,510	1,249	665	8,441	4,708	4,593
Arabic	,,	4,674	13,676	12,847	15,699	14,294	47,638	62,416	66,841
Other kinds	,,	25,134	35,301	25,661	27,099	61,212	89,631	68,431	65,219
Hair, horse	,,	355	4,119	701	741	1,880	20,841	3,797	4,396
Hemp, dressed	,,	430	5,340	609	169	1,035	12,668	1,461	413
undressed	,,	13,382	56,758	87,808	6,986	21,852	89,776	148,780	12,080
jute	,,	5,994	15,491	27,577	2,059	6,433	13,030	25,808	1,819
Hides, not tanned	,,	2,266	15,633	26,927	24,025	8,231	38,467	71,356	64,857
Hops	,,	1,173	905	8,858	5,954	6,806	5,027	58,561	32,756
Indigo	,,	6,860	9,932	4,010	3,990	209,312	299,243	118,214	134,294
Iron in bars	tons	5,096	2,987	5,648	3,567	59,093	33,303	58,488	34,414
Lard	,,	..	52	3,126	..	..	17	1,218	..
Linen manufactures, unenumerated	value	..	..	..	..	2,257	24,605	11,098	2,685
Liquorice juice and paste	cwt.	19,415	11,354	10,778	10,781	30,377	22,557	21,871	25,567
Nitre, cubic	,,	53,166	24,576	29,820	9,840	25,890	15,974	17,178	5,299
Nutmegs	lb.	364,163	349,937	157,939	65,779	21,440	19,955	9,641	3,191
Oil: Chemical, essential, and perfumed	,,	35,186	79,255	102,916	45,616	20,784	46,409	59,696	21,019
Olive	tuns	53	473	296	7	3,155	24,909	16,912	435
Turpentine	cwt.	8,552	117	..	73	23,043	294	..	115
Opium	lb.	49,064	82,217	70,065	67,496	40,478	58,933	50,388	55,173
Pepper	,,	2,466,031	1,116,880	77,311	247,983	41,797	16,498	1,178	3,583
Plumbago	tons	1,379	1,443	433	1,158	18,126	15,512	5,055	12,547
Quicksilver	lb.	187,676	44,555	209,581	31,881	20,131	4,374	19,911	2,917
Quinine, sulphate of	oz.	80,090	78,960	23,800	5,640	5,913	19,760	5,693	1,222
Rags for making paper	tons	920	1,457	2,940	3,981	14,938	25,264	77,693	49,967
Raisins	cwt.	1,017	17,599	3,082	3,660	1,487	19,479	4,999	8,151
Rhubarb	lb.	963	44,145	40,884	33,879	241	10,794	10,208	9,176
Rice, not in the husk	cwt.	135,515	148,361	131,119	94,805	75,545	101,708	89,731	67,470
Seeds: Linseed	qrs.	14,187	15,378	2,550	100	38,778	42,561	7,358	298
Shumach	tons	11	2,099	1,143	387	151	30,646	21,980	7,602
Silk manufactures of Europe, unenumerated	value	..	..	..	..	3,110	16,217	157,383	194,413
Silk, raw	lb.	151,345	337,171	237,911	199,541	147,916	463,942	316,923	243,440
Manufactures: Broad stuffs and ribbons	,,	4,692	1,558	10,195	..	11,559	3,837	27,940	..
Skins, goat	no.	186,163	277,302	274,657	72,581	16,386	32,975	28,771	6,288
Otter	,,	..	6,349	4,414	1,030	..	8,799	19,414	704
Spelter	tons	1,528	836	1,279	544	53,933	18,561	28,491	7,708
Sugar, unrefined	cwt.	22	20,125	347	48	37	33,493	416	69
Tar	barls.	12,845	20	67	155	13,905	19	57	117
Tea	lb.	5,248,125	7,889,111	3,228,653	2,552,795	399,076	657,196	259,281	209,097
Teeth, elephants'	cwt.	663	1,661	1,106	619	14,731	51,114	41,203	21,402
Tin, unwrought	,,	782	90,[illegible]	4,980	5,055	3,966	93,468	20,063	22,593
Tobacco, unmanufactured	lb.	4,066	546,184	1,096,512	14,699	168	19,344	41,118	667
Wine	gals.	29,980	76,540	73,243	37,781	9,151	21,[illegible]	23,967	11,894
Wool, sheep and lambs'	lb.	4,810,656	7,541,263	4,519,704	3,941,353	243,367	459,122	243,703	210,028
All other articles	value	..	..	..	..	336,331	563,667	515,[illegible]	450,[illegible]
Total	,,	..	..	..	..	5,463,[illegible]	5,[illegible]	5,[illegible]	4,[illegible]
Total of British and foreign produce	,,	..	..	..	..	20,171,[illegible]	25,170,787	31,[illegible]	26,[illegible]

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Account of the Quantities and Declared Values of the Exports of British and Irish Produce from the United Kingdom to the United States (including California) during each of the 3 Years ending with 1867.

Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Alkali, soda	cwt.	1,125,472	1,783,243	1,462,022	498,997	995,530	801,716
Apparel and haberdashery	value	..	..	..	1,028,722	1,268,780	972,245
Arms and ammunition:							
Fire-arms (small)	no.	4,000	22,943	15,320	2,794	45,916	36,331
Bags, empty	dozens	159,175	231,510	483,565	80,613	116,801	170,722
Beer and ale	barrels	11,841	16,642	19,860	56,524	81,405	93,516
Bleaching materials	cwt.	152,011	220,085	217,080	75,872	147,461	149,601
Books, printed	,,	8,419	14,922	14,410	93,484	176,183	160,311
Caoutchouc manufactures of all sorts	value	..	..	..	85,063	76,135	98,870
Coals, cinders, and culm	tons	197,401	151,113	123,392	178,430	85,901	86,059
Copper, wrought and unwrought	cwt.	10,063	16,782	3,961	42,688	78,748	16,408
Cottons, entered by the yard	yards	122,583,811	14,744,971	88,489,362	5,011,432	3,995,496	2,238,664
at value	value	..	..	..	615,338	1,116,369	927,939
Drugs and chemical products	,,	..	..	..	135,141	202,037	165,369
Earthenware and porcelain	,,	..	..	..	454,452	790,568	711,349
Glass manufactures	,,	..	..	..	62,199	104,435	120,103
Hardwares and cutlery, unenumerated	cwt.	60,678	140,618	95,997	537,848	1,032,407	719,269
Iron, wrought and unwrought	tons	185,339	348,095	432,384	1,621,744	3,190,341	3,298,289
Lead and shot	,,	8,279	8,276	7,081	167,439	173,069	147,179
Leather, wrought and unwrought	value	..	..	..	111,238	140,574	109,455
Linens, entered by the yard	yards	112,092,775	119,442,507	84,735,006	3,635,362	4,171,989	2,748,329
at value	value	..	..	..	161,600	240,095	170,201
Machinery and mill work	,,	..	..	..	127,132	334,442	336,484
Oil, seed	gallons	490,916	2,330,697	1,296,658	72,038	364,994	199,575
Painters' colours	value	..	..	..	87,314	101,776	85,496
Paper of all sorts	cwt.	6,870	67,613	27,405	23,224	170,004	76,069
Plate, plated ware, jewellery and watches	value	..	..	..	22,558	45,264	29,023
Rags of all sorts, and other materials for making paper	tons	3,779	12,528	12,639	105,471	319,607	311,321
Salt	,,	139,810	161,277	161,299	70,273	101,618	103,647
Silk manufactures	value	...	..	..	292,737	367,128	217,316
Skins and furs of all sorts	,,	..	..	..	286,090	315,818	195,187
Spirits, British and Irish	gallons	133,825	147,843	95,582	16,741	18,480	11,932
Stationery, other than paper	value	..	..	..	44,737	68,486	43,520
Tin, unwrought	cwt.	38,564	17,458	16,943	182,697	79,704	87,586
plates	value	..	..	..	975,406	1,434,055	1,390,064
Wool, coney and hares'	lb.	317,289	301,357	190,260	95,516	80,122	57,438
sheep and lambs'	,,	352,932	180,610	15,142	31,410	13,700	1,484
Woollen and worsted yarn	,,	52,762	49,763	18,843	8,142	8,406	2,437
Woollens, entered by the yard	yards	97,325,389	86,777,535	58,190,280	5,031,089	5,429,829	3,467,929
at value	value	..	..	..	120,583	196,123	124,752
All other articles	,,	..	..	..	1,063,418	1,622,264	1,250,690
Total	..	..	..	..	21,227,936	28,499,514	21,895,703

NICARAGUA (SAN JUAN DE). A seaport town at the mouth of the river of the same name, state of Costa Rica, on the W. shore of the Caribbean Sea, lat. 10° 55′ N.; long. 83° 43′ W. The port is excellent, and is considered the best on this side of the coast. Till lately the town was quite inconsiderable, and consisted of little else than a cluster of huts; but latterly it has no doubt been improved.

This place has risen into importance from its being at the W. extremity of a proposed line of water communication between the Caribbean Sea and the Pacific Ocean. This line is to consist, partly of the river San Juan, flowing from the Lake of Nicaragua E. to the sea at San Juan, partly of the lake, and partly of a canal to be constructed from the latter to the Pacific Ocean. This project has been often mooted; but the discovery of the extraordinary mineral riches of California, and the consequent emigration to and intercourse with that country, have given it an incomparably greater interest than it formerly possessed. The country appears to present greater facilities for effecting this great work than any other part of Central America, except the Isthmus of Darien or Panama. The river San Juan, about 90 miles in length, is said to have been occasionally navigable throughout its entire course for sea-going vessels, till the Spaniards, to protect themselves from the attacks of the buccaneers, sunk vessels loaded with stone in its bed. In consequence of the interruption thus given to the stream, a considerable portion of the water was carried off by a new channel called the Rio Colorado. (Chevalier, *L'Isthme de Panama* &c. p. 84.) The San Juan is still, however, navigated, though with much difficulty, in the rainy season, by steamers and other vessels drawing little water.

The lake itself has deep water throughout, and is adapted for ships of the largest burden. The distance between its S.W. shore and the Gulf of Papagayo, on the Pacific, is only 29,880 yards, or 16¾ miles; and though the intervening country be laid down in many maps as mountainous, the greatest actual height of any part of it above the level of the lake is only 19 feet; at least, such is the result given by a series of 347 levels, about 100 yards apart, taken in 1781. (Thompson's *Guatemala, Append.* pp. 512—520.) The surface of the lake is 128 ft. 3 in. (English) above the level of the Pacific; an ascent which might be overcome by a succession of locks. The difference in the level of the two oceans, formerly supposed to be so serious an obstacle to the undertaking, is said by Humboldt not to exceed 20, or, at most, 22 ft. (*Nouv. Espagne*, i. 223, ed. 1815.) At its western extremity, the Lake of Nicaragua is connected by a small river, the Tipitapa, with the Lake of Leon or Managua. The latter, 55 miles in length by nearly 30 in breadth, is also said to have deep water throughout. And the plan which appears to be at present preferred is, to make the channel uniting these two lakes navigable, and to excavate a canal from the latter to the port of Realejo on the Pacific. Mr. Squier, formerly chargé d'affaires for the United States at Nicaragua, published the following statements in regard to this route.

Length of the route by Lake Nicaragua &c. across the American Continent from the Atlantic to the Pacific Ocean:—

	miles
River San Juan	90
Lake Nicaragua, necessary to be traversed	110
River Tipitapa	18
Lake Managua or Leon	55
From Lake Managua to Realejo	40
	303

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Height of the various lakes to be passed, and the elevation of land :—

	Above Atlantic ft.	in.	Above Pacific ft.	in.
Height of Lake Nicaragua	147	9	128	3
Managua	176	5	156	11
Highest point of land to be passed	231	11	212	5

But great doubts are entertained whether this or any other route by the Lake of Nicaragua can be made practicable for moderate-sized vessels, that is, for vessels of from 400 to 500 tons and upwards. The river San Juan runs from end to end through a dense and unhealthy jungle. No labourers are to be had in the country, and it affords nothing for the subsistence of those who may be imported from a distance. And though, one should think, it would be no very difficult matter to clear it of the obstructions made to oppose the buccaneers, it is plain from the difference of level between the Lake of Nicaragua and the Atlantic, that others of a much more formidable character must be in the way, and that a great deal of lockage would be required to enable vessels of any considerable burden to reach the lake; and after it has been reached, many difficulties have to be surmounted. That they may be surmounted, and a navigable channel formed between the two oceans, is not, certainly, impracticable; but we are persuaded that it is visionary to imagine that ships of 1,000 or 1,200 tons should ever, as has been stated, get across the Continent by its means; and on whatever scale it may be made, the anticipations of advantage to result from it will, we apprehend, be found to be greatly exaggerated.

The communication hitherto effected is as follows.

The Central American Transit Company commencing at San Juan del Norte, conveying by river and lake navigation, and by steam to Virgin Bay; thence by land carriage for about 14 miles to San Juan del Sur. Here Californian steamers convey to San Francisco; while, on the other side, New York steamers convey from San Juan del Norte.

On April 19, 1850, the British and American Governments entered into a treaty, binding themselves to promote the construction of a ship canal between the Caribbean Sea and the Pacific Ocean, by way of the Lake of Nicaragua; and renouncing at the same time any exclusive right to or control over such canal.

The port of REALEJO, on the Pacific, lat. 12° 34′ N., long. 87° 4′ W., to which it is proposed to bring the canal from Lake Leon, is said to be one of the best that is anywhere to be met with. It is protected by a long narrow island, which forms a natural breakwater. We borrow from the *Times* the following notice of this harbour, derived from a former resident there :—

'I may confidently say that the port of Realejo is, at least, as good a port as any in the known world. I have seen Portsmouth, Rio de Janeiro, Port Jackson, Talcujana, Callao, and Guayaquil, and to all these I consider it decidedly superior. It is a salt-water creek, into which several small streams of water empty themselves. The entrance is protected by an island about two miles long, which leaves at each end a channel where ships can enter the harbour, but extending opposite the mainland, forming the port in such a manner as to protect it entirely from any wind that could possibly blow, and also entirely breaking the swell which enters the outer bay of Conchagua from the ocean. The north entrance is about a quarter of a mile wide, and that at the south of the island rather narrower, both being entirely free from rocks or hidden dangers, and having in no part less than five fathoms depth of water. At one of these openings vessels can at all times enter with a leading wind, from whatever quarter it may blow. The inside consists of a noble basin of water, nowhere less than four fathoms deep, with a bottom of mud, where two hundred ships of the line might lie at all times in the most perfect security. One of the branches of the creek extends inland to within three leagues of the Lake of Leon or Managua. The intermediate country is a gentle slope, where undoubtedly should enter one of the ends of the canal to connect the Pacific and Atlantic Oceans. The difficulties to be encountered in crossing the chain of hills between the Lake of Nicaragua and San Juan del Sur would be entirely avoided by bringing the canal through the Lake of Leon (connected as it is with that of Nicaragua by a river that might be rendered navigable at a moderate cost) into the above-named branch of the Realejo harbour, thus securing the great advantage of an excellent harbour at each end of the canal, besides many others which are certainly not to be met with either at Panama, Tehuantepec, or any other place.

'The town of Realejo is about two leagues distant from the part of the creek where vessels lie; but there is sufficient depth for small vessels to come within a mile of the town, and a very little labour would make it accessible to large ships; but an enlightened Government would probably prefer moving the town to the opposite side of the reach, where vessels lie, where there is a site extremely suitable for the purpose, and where a quay might easily be erected capable of accommodating any number of ships. In the time of the Spanish Government several vessels, some of 300 to 400 tons, were built at Realejo, where the wood is very superior and durable.

'The port of San Juan del Sur, to which place it was proposed to bring the canal, seems inferior to Realejo in most respects. The Gulf of Papagayo, where the port is situated, is very difficult to enter for a sailing vessel for five months in the year.'

Port charges, 10 cents per ton; lighterages, 1 dollar per ton; pilotage, 1½ dollar per foot.

Pilotage is charged both in and out.

NICARAGUA OR PEACH WOOD (Ger. Nicaraguaholz, blutholz; Dutch, bloedhout; Fr. bois de sang, bois de Nicaragua; Ital. legno sanguigno; Span. palo de sangre; Port. pao sanguinho). A tree of the same genus (*Cæsalpinia*) as the Brazil and sapan wood; but the species has not been exactly ascertained. It grows principally in the vicinity of the Lake of Nicaragua, whence its name.

It is said by Dr. Bancroft to be almost as red and heavy as the true Brazil wood, but it does not commonly afford more than a third part, in quantity, of the colour of the latter; and even this is rather less durable and less beautiful, though dyed with the same mordants. Nicaragua or peach woods differ greatly in their quality as well as price; one sort being so deficient in colouring matter, that 6 pounds of it will only dye as much wool or cloth as 1 pound of Brazil wood: while another variety of it will produce nearly half the effect of an equal quantity of Brazil wood, and will sell proportionally dear. (Bancroft *On Colours*, vol. ii. p. 332.)

The London dealers distinguish Nicaragua wood into three sorts, viz. *large*, *middling*, and *small*; the price of the 1st sort being from 15*l.* to 18*l.* per ton; of the 2nd, from 7*l.* to 10*l.* per do.; and of the 3rd, from 6*l.* to 7*l.* per do. The duty, after being reduced in 1831 from 15*s.* to 5*s.* per ton, and in 1842 to 2*s.* per do., was wholly

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abolished in 1844. The imports of Nicaragua wood amounted in 1865 to 342 tons, and in 1867 to 411 tons, valued at 6,769*l.*

NICKEL. A scarce metal, which occurs always in combination with other metals, from which it is exceedingly difficult to separate it. When pure, it is of a fine white colour, resembling silver. It is rather softer than iron: its specific gravity, when cast, is 8·279; when hammered, 8·932. It is malleable, and may without difficulty be hammered into plates not exceeding $\frac{1}{100}$ inch in thickness. It is attracted by the magnet; and is not altered by exposure to the air, nor by being kept under water. It is employed in potteries, and in the manufacture of porcelain. (Thomson's *Chemistry*; Watt's *Dictionary of Chemistry*.)

This metal is the foundation of 'German silver;' it is also employed, either pure or in combination with copper, as a form of currency. Coins containing 20 parts of nickel, and 80 of copper, are circulated in Belgium. The weight of a nickel Belgian penny is little more than a dram. In 1867, nickel in the metallic form, or in that of refined oxide, was imported into the United Kingdom to the value of 1,900*l.*

NINGPO, one of the five ports thrown open to commerce by the treaty of Nankin, is situated in the province of Che-Kiang, on the river Yung, lat. 29° 55′ 12″ N., long. 121° 22′ E. The port of Ningpo commences at the river's mouth; three islets, called the Triangles or Yew Islands, forming three passages to the river. The port is 11 miles up the stream, which is about 600 yards wide at this point, with depths varying from 5 to 2 fathoms. Vessels of 17 feet draught can proceed to the city at half tide at springs. European pilots procured at Chin Hai. The rates of pilotage are 8 dols. from and to Square Island, and 10 dols. from and to Chusan Island.

Lighthouses.—The access to the river Yung was facilitated by the construction of two lighthouses on the Islands off its mouth. The first is built on Square Island, and is 186 feet above the sea coast, lat. 29° 59′ 22″ N., long. 121° 45′ 6″ E. The second lighthouse, 154 feet above the sea level, is on Tiger's Island, about half a mile from the entrance of the river, lat. 29° 57′ 43″ N., long. 121° 43′ 51″ E.

The chief exports of Ningpo are tea, silk, and cotton; the imports, textile fabrics, opium, and rice. The export of tea from Ningpo has increased from 4,846,254 lb. in 1863, to 15,444,816 lb., valued at 1,312,110*l.*, in 1867; and Mr. Consul Fittock states that Ningpo is now asserting her natural right to be the tea depôt of the province of Che-Kiang.

In 1867, vessels of in all 185,082 tons entered the port; while, in 1866, 654 vessels of 191,083 tons; and in 1865, 910 vessels of 258,247 tons, entered.

	1864	1865	1866	1867
Imports - taels	10,264,616	6,484,599	5,408,091	6,985,550
Exports - „	6,250,306	5,085,255	6,435,818	7,280,403

Ningpo was seriously injured by the Taeping rebellion, and its commercial importance has declined since Shanghai has risen to the eminence of a great commercial city. (Consular *Reports*; &c.)

NITRE. [SALTPETRE.]

NOTE, PROMISSORY. [BANK—BANKING.]

NUT or HAZEL NUT (Ger. haselnüsse; Fr. noisettes, avelines; Ital. nocciuole, avellane; Span. avellanas; Port. avelãas: Lat. avellanæ). The fruit of different species of *Coryli*, or hazels. The kernels have a mild, farinaceous, oily taste, agreeable to most palates. A kind of chocolate has been prepared from them; and they have sometimes been made into bread. The expressed oil of hazel nuts is little inferior to that of almonds. Besides those raised at home, we import nuts from different parts of France, Portugal, and Spain, but principally from the latter. The Spanish nuts in the highest estimation, though sold under the name of Barcelona nuts, are not really shipped at that city, but at Tarragona, a little more to the south. The annual average export of nuts from Tarragona is from 25,000 to 30,000 bags, of 4 to the ton. The average price here in 1867 was 15*s.* per bushel. In 1867, 279,991 bushels of hazel nuts, valued at 196,998*l.*, were imported. The duty, which was reduced in 1853 to 1*s.* per bushel, was abolished in 1862.

NUTS (GROUND) (*Arachis hypogæa*), known in French commerce as *arachides*, in America as *pea-nuts*, and in Africa as *mandubin*, the fruit of a papilionaceous plant, rising to the height of about 15 inches, being very like the field pea, with yellow flowers. The branches after flowering bend down till they touch the ground, into which they work themselves, and upon them grow the pods that contain the nuts. When the nuts are ripe, the plant dies. It is then pulled up, and the nuts which adhere to the twigs are collected. The pods, which are of an elongated figure, about ¾ inch in length, and ¼ inch in circumference, and brittle, usually contain 2 nuts, but sometimes only 1, and very rarely 3. They are elliptical at one end and flattened at the other.

Ground nuts are grown in light sandy soils in most tropical countries. They have been used as food from time immemorial in Africa, India, Brazil, and other parts both of South and North America. The best are raised on the banks of the river Gambia, where they are extensively grown in large fields, the ground being prepared for their reception by the natives after the rude fashion of the country. The plant is very prolific; it is also said to be highly exhaustive of the soil, though this is, perhaps, questionable.

Ground nuts yield large quantities of oil; and since 1840 they have been grown in Africa as an article of commerce, and are now largely exported for crushing. A mill for expressing oil from them was constructed in London in 1835. But the French Government having a few years after imposed high duties on most descriptions of oil seeds, the oil crushers of Marseilles and other towns endeavoured to find out seeds not included in the tariff, or less heavily taxed than the others. They were thus led to import *arachides* or ground nuts, which they found to answer extremely well. France has, in consequence, become the great market for this peculiar product. The exports from the Gambia, which in 1835 did not exceed 47 tons, had increased in 1851 to not less than about 12,000 tons. Of this quantity about 800 tons went to the United States (where they are eaten at dessert, roasted, as are chestnuts elsewhere), 700 to England, and the rest to France, principally to Marseilles. In the year 1866, 1,309,097 bushels of ground nuts, valued at 130,910*l.*, were exported from the Gambia; of these by far the largest portion (1,067,716 bushels) was shipped to France, 143,227 to the United Kingdom, and 77,839 to the United States. The ground nuts of the Gambia are now (1868) subject to an export duty of ¼*d.* per bushel. The total imports of *arachides* into France in 1863 amounted, according to the official returns, to 44,713,486 kilogrammes or 44,668 tons, while our imports of ground nuts in 1867 were 1,620 tons, valued at 26,446*l.*, and we also received other nuts and

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kernels, commonly used for expressing oil, to the extent of 9,570 tons, valued at 121,019*l.*

Nuts are also exported from the Rio Grande, Madras, the Rio Nunez, and from Sierra Leone, and the adjoining rivers. And though there are no accounts of the exact quantities sent from each, it is believed that their aggregate amount is fully equal to the exports from the Gambia. Within the last 3 or 4 years considerable quantities have been shipped from the Senegal river.

The oil expressed from the nuts differs in quality and price according to the care with which it is refined. That made in London is equal to fine olive oil. In France the oil is principally used in the manufacture of soap; and being inferior to that made here, is worth from 45*l.* to 48*l.* per tun.

Besides being used for the like purposes as other oil in food, in the woollen manufacture, and in lamps, the oil of ground nuts is said to be especially well fitted for lubricating heavy machinery, including the locomotive engines on railways. The Belgians use it for this latter purpose in preference to all other oils.

Ground nuts were worth upwards of 16*l.* per ton in London in 1867. (*Parliamentary Papers*, and *private information*.) [Cocoa Nuts.]

NUTMEG (Ger. muskatennüsse; Dutch, muskaat; Fr. muscades, noix muscades; Ital. noce moscada; Span. moscada; Arab. jowzalteib; Sansc. jātiphala; Malay, buah-pala). The fruit of the genuine nutmeg tree (*Myristica moschata*), a native of the Moluccas, but which has been transplanted to Sumatra, Penang &c. An inferior and long-shaped nutmeg is common in Borneo: but the fruit nowhere attains to the same perfection as in the Moluccas.

Of the several varieties of the tree, that denominated the queen nutmeg, which bears a small round fruit, is the best. The kernel, or proper nutmeg, is of a roundish oval form, marked on the outside with reticulated furrows, internally greyish red, with dark brownish veins, and of a fleshy farinaceous substance. Nutmegs are frequently punctured and boiled, in order to obtain the essential oil; the orifice being afterwards closed; but the fraud is easily detected by the lightness of the nutmeg. (*British Pharmacopœia*; Thomson's *Dispensatory*; Ainslie's *Materia Indica*.)

In 1867, 370,193 lb. of nutmegs, valued at 23,417*l.*, were imported into the United Kingdom. Of these the largest quantity was derived from the Straits Settlements, the quality of the Singapore nuts being superior to that of the Java and Madras produce. Nutmegs exported from Java are liable to duties. 9½ gulden (15*s.* 10*d.*) are levied on the picul when the export is in Dutch vessels and to Holland; 19 gulden (31*s.* 8*d.*) on the same quantity, exported direct to foreign countries or to Holland in foreign vessels. For the 3 years 1861–3, the average amount received by the Dutch Custom-houses in the above-named colonies was 73,797 gulden, i.e. 6,149*l.* 18*s.* The full export duty amounts to 25 per cent. of the gross value; and it seems unlikely that the Dutch colonies will long preserve their ascendency in the nutmeg trade in the face of so exorbitant a tax.

Nutmegs should be chosen large, round, heavy, and firm, of a lightish grey colour on the outside, and the inside beautifully marbled, of a strong fragrant smell, warm aromatic taste, and a flat oily body. They are very subject to be worm-eaten. The best preservative is said to be, leaving them in their natural shells. The Dutch lime them, but the practice is said to injure their flavour. The oblong kind, and the smaller ones, should be rejected. 15 cwt. are allowed to a ton. (Milburn's *Orient. Com.*)

The dried produce of a nutmeg tree consists of Nutmeg, Mace and shell. Supposing the whole produce to be divided into 100 parts, there are 13½ of mace, 33⅓ of shell, and 53⅓ of nutmeg. In the ancient commerce, and down to the establishment of the Dutch monopoly, nutmegs were always sold and exported in the shell. The natives, whenever the commerce is left to their management, continue the practice, which is strongly recommended by Mr. Crawfurd. (*Eastern Archipelago*, vol. iii. p. 396.)

The jealous policy of the Dutch has reduced the trade in nutmegs to a mere trifle, compared to what it would otherwise have been. They have, in so far at least as it was possible, exerted themselves to exterminate the nutmeg plants everywhere except in Banda. The aboriginal inhabitants of this island have been expatriated, and the land parcelled among settlers from Holland, under the name *park keepers*. These persons have about 2,000 slaves, who cultivate and prepare the nutmegs. The prices paid by the cultivator are all fixed by Government: and it deserves to be mentioned, as affording one of the most striking illustrations of the ruinous effects of monopoly, that the fixed price which the Government is now obliged to pay for nutmegs is FIVE *times greater than the price at which they bought them when the trade was free!* We cannot conceive how so enlightened and liberal a Government as that of Holland should continue to tolerate such scandalous abuses, more especially since it has established a free system in Amboyna, Java, and its other possessions.

M. Temminck estimates the produce of the Banda Islands at about 600,000 lb. of nutmegs, and 160,000 lb. of mace. (*Possessions néerlandaises dans l'Inde archipelagique*, iii. 283.)

During the period that the English had possession of the Spice Islands, nutmeg plants were carried to Penang, Bencoolen, and some of the West India islands. In the latter they have altogether failed, at least as far as respects any useful purpose; but very good nutmegs, and in considerable quantities, are now raised at Penang and Bencoolen. Mr. Crawfurd, however, alleges that the cost of bringing them to market is there so high, that the restoration of a free culture in the native country of the nutmeg would instantly destroy this unstable and factitious branch of industry. (*Eastern Archipelago*, vol. iii. p. 409.)

The duty on nutmegs was reduced, in 1819, from 5*s.* 5*d.* to 2*s.* 6*d.* per lb.; and the quantities entered for home consumption have since rapidly increased. In 1857, 181,061 lb. nutmegs were entered for consumption. In 1853 the duty was reduced to 1*s.* per lb., and to 3*d.* and 5*d.* per lb. respectively on wild nutmegs in the shell and not in the shell. It was repealed in 1862.

NUTRIA or NEUTRIA. The commercial names for the skins of *Myopotamus Bonariensis* (Commerson), the *Coypou* of Molina, and the *Quoiya* of D'Azara. In France, the skins were, and perhaps still are, sold under the name of *ragondas*; but in England they are imported as *nutria* skins—deriving their appellation, most probably, from some supposed similarity of the animal which produces them, in appearance and habits, to the otter, the Spanish name for which is nutria. Indeed, Molina speaks of the *coypou* as a species of water rat, of the size and colour of the otter.

Nutria fur is largely used in the hat manufacture; and has become, within the last 20 or 30 years, an article of very considerable commercial importance. The imports fluctuate considerably. In 1841 they amounted to 1,125,212 skins; but in some years they are much less; in 1840, they

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amounted to 242,738. In 1867 they were only 6,110 from Italy and the Argentine Confederation. Those entered for home consumption formerly paid a duty of 1*s.* per 100 skins. This has been repealed since 1862. [FUR TRADE.]

The *coypou* or *quoiya* is a native of South America, very common in the provinces of Chili, Buenos Ayres, and Tucuman, but more rare in Paraguay. In size it is less than the beaver, which it resembles in many points. The head is large and depressed, the ears small and rounded, the neck stout and short, the muzzle sharper than that of the beaver, and the whiskers very long and stiff. There are, as in the beaver, 2 incisor teeth, and 18 molar, above and below—20 teeth in all. The limbs are short. The fore feet have each 5 fingers not webbed, the thumb being very small: the hind feet have the same number of toes; the great toe and 3 next toes being joined by a web which extends to their ends, and the little toe being free, but edged with a membrane on its inner side. The nails are compressed, long, crooked, and sharp. The tail, unlike that of the beaver, is long, round, and hairy; but the hairs are not numerous, and permit the scaly texture of the skin in this part to be seen. The back is of a brownish red, which becomes redder on the flanks: the belly is of a dirty red. The edges of the lips and extremity of the muzzle are white.

Like the beaver, the coypou is furnished with two kinds of fur; viz. the long ruddy hair which gives the tone of colour, and the brownish ash-coloured fur at its base, which, like the down of the beaver, is of much importance in hat-making, and the cause of the animal's commercial value.

The habits of the coypou are much like those of most of the other aquatic rodent animals. Its principal food, in a state of nature, is vegetable. It affects the neighbourhood of water, swims perfectly well, and burrows in the ground. The female brings forth from 5 to 7 at a time; and the young always accompany her.

The coypou is easily domesticated, and its manners in captivity are very mild.

We are indebted for this account of nutria—the first, we believe, that appeared in any English work—to the late W. J. Broderip, Esq., F.R.S. &c.

NUX VOMICA (Fr. noix vomique; Ger. krähenaugen, brechnüsse; Hin. kaachla). The fruit of a species of *Strychnos*, growing in various places in the East Indies.

The fruit is about the size of an orange, covered with a smooth crustaceous yellow bark, and filled with a fleshy pulp, in which are imbedded several orbicular flatted seeds, about ¾ inch in diameter. Nux vomica is inodorous, and its taste, intensely bitter, remains long on the palate. It is known as a very virulent poison, its properties depending on a peculiar alkaloid, called strychnia. A suspicion has, however, been entertained, that it has been used in porter breweries; but its introduction into them is prohibited under heavy penalties. In 1865, 9,033 cwt. were imported, and 1,147 cwt. in 1867. (*British Pharmacopœia*, 1867; &c.)

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OAK (Ger. eiche; Dutch, eik; Dan. eeg; Swed. ek; Fr. chêne; Ital. quercia; Span. roble, carballo; Port. roble, carvalho; Russ. dub; Pol. dab; Lat. quercus; Arab. baalut). There are several varieties of this valuable tree; but the common English oak (*Quercus robur*) claims precedence of every other. The oak timber imported from America is very inferior to that of this country: the oak from the central parts of Europe is also inferior, especially in compactness and resistance of cleavage. The knotty oak of England, the 'unwedgeable and gnarled oak,' as Shakespeare called it, when cut down at a proper age, is the best timber known. Some timber is harder, some more difficult to rend, and some less capable of being broken across, but none contains all the three qualities in so great and equal proportions; and thus, for at once supporting a weight, resisting a strain, and not splintering by a cannon shot, the timber of the oak is superior to every other.

A fine oak is one of the most picturesque of trees; it conveys to the mind associations of great strength, and of all but endless duration. It stands up against the blast, and does not take, like other trees, a twisted form from the action of the winds. Except the cedar of Lebanon, no tree is so remarkable for the stoutness of its limbs; they do not exactly spring from the trunk, but divide from it; and thus it is sometimes difficult to know which is stem and which is branch. The twisted branches of the oak, too, add greatly to its beauty; and the horizontal direction of its boughs, spreading over a large surface, completes the idea of its sovereignty over all the trees of the forest. Even a decayed oak, such as that described by Spenser—

> — dry and dead,
> Still clad with reliques of its trophies old,
> Lifting to heaven its aged, hoary head,
> Whose foot on earth has got but feeble hold,

is strikingly beautiful.

The oak is raised from acorns, sown either where the oak is to stand, or in a nursery, whence the young trees are transplanted.

The colour of oak wood is a fine brown, and is familiar to everyone; it is of different shades; that inclined to red is the most inferior. The larger transverse septa are in general very distinct, producing beautiful flowers when cut obliquely. Where the septa are small, and not very distinct, the wood is much the strongest. The texture is alternately compact and porous; the compact part of the annual ring being of the darkest colour, and in irregular dots surrounded by open pores, producing beautiful dark veins in some kinds, particularly pollard oaks. Oak timber has a particular smell, and the taste is slightly astringent. It contains gallic acid, and is blackened by contact with iron when it is damp. The young wood of English oak is very tough, often cross-grained, and difficult to work. Foreign wood and that of old trees are more brittle and workable. Oak warps and twists much in drying; and, in seasoning, shrinks about $\frac{1}{32}$ of its width.

Oak of a good quality is more durable than any other wood that attains a like size. Vitruvius says it is of eternal duration when driven into the earth: it is extremely durable in water; and in a dry state it has been known to last nearly 1,000 years. The more compact it is, and the smaller the pores are, the longer it will last; but the open, porous, and foxy coloured oak, which grows in Lincolnshire and some other places, is not near so durable.

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Besides the common British oak (*Quercus robur*), the sessile-fruited bay oak (*Quercus sessiliflora*) is pretty abundant in several parts of England, particularly in the north. The wood of this species is said by Tredgold to be darker, heavier, harder, and more elastic than the common oak; tough and difficult to work; and very subject to warp and split in seasoning. Mr. Tredgold seems disposed to regard this species as superior to the common oak for ship-building. But other, and also very high authorities, are opposed to him on this point; and, on the whole, we should think that it is sufficiently well established, that for all the great practical purposes to which oak timber is applied, and especially for ship-building, the wood of the common oak deserves to be preferred to every other species. A well-informed writer in the *Quarterly Review* has the following remarks on the point in question:—

'We may here notice a fact long known to botanists, but of which our planters and purveyors of timber appear to have had no suspicion—that there are two distinct species of oak in England—the *Quercus robur*, and the *Quercus sessiliflora*; the former of which affords a close-grained, firm, solid timber, rarely subject to rot; the other more loose and sappy, very liable to rot, and not half so durable. This difference was noted so early as the time of Ray; and Martyn in his *Flora Rustica*, and Sir James Smith in his *Flora Britannica*, have added their testimonies to the fact. The second species is supposed to have been introduced some two or three ages ago, from the Continent, where the oaks are chiefly of this latter species, especially in the German forests, the timber of which is known to be very worthless. But what is of more importance to us is, that de facto the imposture abounds, and is propagated vigorously in the New Forest and other parts of Hampshire; in Norfolk and the northern counties, and about London; and there is but too much reason to believe that the numerous complaints that were heard about our ships being infected with what was called, improperly enough, *dry rot*, were owing to the introduction of this species of oak into the naval dock-yards, where, we understand, the distinction was not even suspected. It may thus be discriminated from the true old English oak: The acorn stalks of the *robur* are *long*, and its leaves *short*; whereas the *sessiliflora* has the acorn stalks *short*, and the leaves *long*: the acorns of the former grow singly, or seldom 2 on the same footstalk; those of the latter, in clusters of 2 or 3 close to the stem of the branch. We believe the Russian ships of the Baltic, that are not of larch or fir, are built of this species of oak; but if this were not the case, their exposure on the stocks, without cover, to the heat of summer, which, though short, is excessive, and the rifts and chinks which fill up with ice and snow in the long winter, are enough to destroy the stoutest oak, and quite sufficient to account for their short-lived duration.'

A great deal of enquiry and discussion has taken place at different periods as to the supply and consumption of oak timber; but the results have not been very satisfactory. In a *Report of the Commissioners of Land Revenue*, printed in 1812, it is stated that, taking the tonnage of the navy in 1806 at 776,087 tons, it would require, at 1½ load to a ton, 1,164,085 loads to build such a navy, and supposing the average duration of a ship to be 14 years, the annual quantity of timber required would be 83,149 loads, exclusive of repairs, which they calculate would be about 27,000 loads; making the whole about 110,000 loads: of which, however, the commissioners reckon may be furnished 21,341 loads as the annual average of the prizes; and of the remaining 88,659 loads, they think it not unreasonable to calculate on 28,659 from other sources than British oak. 'This,' they observe, 'leaves 60,000 loads of such oak, as the quantity which would be sufficient annually to support, at its present unexampled magnitude, the whole British navy, including ships of war of all sorts; but which may be taken as equivalent together to 20 14-gun ships, each of which, one with another, contains about 2,000 tons, or would require, at the rate of 7½ loads to the ton, 3,000 loads; making just 60,000 loads for 20 such ships.'

Now, it has been supposed that not more than 40 oak trees can stand on an acre of ground, so as to grow to a full size fit for ships of the line, or to contain each 1½ load of timber; 50 acres, therefore, would be required to produce a sufficient quantity of timber to build a 74-gun ship, and 1,000 acres for 20 such ships; and as the oak requires at least 100 years to arrive at maturity, 100,000 acres would be required to keep up a successive supply, for maintaining a navy of 700,000 or 800,000 tons. The commissioners further observe, that as there are 20,000,000 acres of waste lands in the kingdom, a 200th part set aside for planting would at once furnish the whole quantity wanted for the use of the navy.

According to Mr. Barrow, this calculation is over-rated by about a half. 'In the first place,' says he, 'it supposed a state of perpetual war, during which the tonnage of the whole navy is considered as more than double of what it now actually is: and, in the second place, it reckons the average duration of the navy at 14 years only; which, from the improvements that have taken place in the construction and preservation of ships of war, with the resources of teak ships built in India, we should not hesitate in assuming at an average of twice that number of years; and if so, the quantity of oak required for the navy will be nothing like that which the commissioners have stated.

'The fact, however, is certain, that long before the conclusion of the late war, a scarcity began to be felt, especially of the larger kind of timber fit for ships of the line; and so great was this scarcity, that if Sir Robert Seppings had not contrived the means of substituting straight timber for that of different forms and dimensions, before considered to be indispensable, the building of new ships must entirely have ceased.

'If, however, the growth of oak for ship timber was greatly diminished during the war, so as to threaten an alarming scarcity, there is little doubt that, from the increased attention paid by individuals to their young plantations, and their great extension, as well as from the measure of allotting off portions of the royal forests to those who had claims on them, and enclosing the remainder for the use of the public, this country will, in future times, be fully adequate to the production of oak timber equal to the demand for the naval and mercantile marine.' (*Ency. Brit.* art. 'Navy.')

The bark of the oak tree is very valuable. It is preferred to all other substances for the purpose of tanning, and brings a high price. [BARK.]

Formerly, Prussian oak was much more valuable than Canadian, in the proportion of 9 to 6; but of late years the value of Prussian oak has fallen, and Canadian timber is worth much more than Prussian. In 1865, the last year throughout which the timber duties prevailed, the following imports of oak were fixed at the prices annexed:—

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Countries	Loads	Prices £	s.	d.
Russia - - -	4,443	10	11	9
Prussia - - -	34,962	4	9	10
France - - -	19,814	4	13	10
Italy - - -	1,066	7	0	0
United States - -	8,591	4	16	10
Canada - - -	51,024	5	4	7
Other parts - - -	1,991	5	8	6
Total - -	109,305	..		

The imports of oak timber have greatly increased of late years. During the 6 years 1836–1841, the imports were only, on an average, 3,583 loads. In 1867 our imports of oak were 67,885 loads, of which Prussia contributed 25,421, and Canada 32,109.

For further details with respect to the importation of oak, its price &c., see TIMBER. See, also, Tredgold's *Principles of Carpentry*; art. 'Navy,' in the *Encyc. Brit.*; the very interesting work on *Timber Trees and Fruits*, in the Library of Entertaining Knowledge; Rees's *Cyclopædia*; &c.

OATS (Ger. hafer; Dutch, haver; Dan. havre; Swed. hafre; Fr. avoine; Ital. vena, avena; Span. avena; Port. avêa; Russ. owes; Pol. owies). A species of grain, the *Avena sativa* of botanists. There are innumerable varieties of this grain, some of which are said to be indigenous to Britain. It is the hardiest of all the cereal grasses, growing luxuriantly in cold northern climates, and in coarse mountainous districts, where neither wheat nor barley can be advantageously cultivated. It thrives best, and is, indeed, chiefly raised, in latitudes north of Paris; being but little known in the south of France, Spain, or Portugal. It is, however, cultivated in Bengal, so low as the 25th degree of latitude, and, it is said, with considerable success. In Scotland, where it has long formed a principal part of the food of the people, it is far more generally cultivated than any other species of grain. It is also very extensively cultivated in Ireland. In England it is grown principally in the northern counties, and in the fens of Lincoln, Huntingdon, Cambridge, and Norfolk; but the oats of Northumberland and Scotland are reckoned superior to those raised farther south.

There are 4 leading varieties of this grain cultivated in England, viz. white, black, grey, and brown or red oats. The sub-varieties of the white are numerous. That denominated the potato oat is at present almost the only one raised on land in a good state of cultivation in the north of England and the south of Scotland, and usually brings a higher price in the London market than any other variety. It was accidentally discovered growing in a field of potatoes in Cumberland in 1788; and from the produce of that single stalk has been produced the stock now in general cultivation. Black and grey oats are little cultivated, except in some places in the north of Scotland. The red oat is chiefly confined to Cheshire, Derbyshire, and Staffordshire. A species of naked oats provincially called *pillar* is raised in Cornwall. (Loudon's *Encyc. of Agriculture*; Brown's *Rural Economy*, vol. ii. pp. 47–52.)

In 1765, Mr. Charles Smith estimated the number of consumers of oats in England and Wales at 623,000. (*Tracts on the Corn Trade*, 2nd edit. p. 140.) But at present we believe they are very considerably fewer. The feeding of horses has at all times occasioned the greatest consumption of oats in this part of the kingdom; and as the number of horses kept for business and pleasure has been vastly increased within the last 30 or 40 years, the culture of oats has been considerably extended, notwithstanding the increasing imports from Ireland. Perhaps the produce of no species of grain varies more than that of oats. Where the ground is foul and exhausted, not more than 20 bushels an acre are obtained; but on rich soils, well managed, 64, 72, and sometimes 80 bushels and upwards have been reaped. Oats weigh from 35 to 45 lb. per bushel, yielding at an average, 8 lb. meal for 14 lb. corn; but the proportion of meal increases as the oats become heavier.

In 1867 we imported 9,407,136 cwt. of oats, chiefly from Sweden and Russia, and 9,373,625 cwt. were entered for home consumption, valued at 4,319,908*l.*, and paying duty to the extent of 117,493*l.*

For information as to the laws regulating the importation and exportation of oats, their prices, the quantities imported and exported &c., for a series of years, see CORN LAWS AND CORN TRADE.

ODESSA. A seaport of Southern Russia, on the north-west coast of the Black Sea, between the rivers Dneister and Bug, in lat. 46° 28′ 54″ N., long. 30° 43′ 22″ E. Population, in 1865, about 120,000. The foundations of Odessa were laid so lately as 1792, by order of the Empress Catharine, after the peace of Jassy. It was intended to serve as an entrepôt for the commerce of the Russian dominions on the Black Sea and the Sea of Azoff. But being on the verge of an arid plain at a very considerable distance from the entrance to the Sea of Azoff, and even from the mouths of the great rivers between which it is situated, we doubt whether much judgment was displayed in its selection. It has, indeed, the important advantage of having an extensive bay or roadstead with deep water and good anchorage. The bay is, however, exposed to the south-easterly wind, which renders it less safe in winter. The port, which is artificial, being formed by two moles, one of which projects to a considerable distance into the sea, is fitted to contain about 300 ships. It has the advantage of deep water, but is said to be gradually filling up. There is a convenient lazaretto, on the model of that of Marseilles. The want of fresh water is a great disadvantage. There are no trees in the vicinity, which has, in consequence, a bleak and arid appearance.

Mr. Matthew, formerly consul for the Russian ports on the Black Sea, made the following statement with respect to Odessa:—

'The neglected condition of the city, and of its harbour, and the bad state of the roads leading to the interior, must ultimately affect (unless timely remedies are applied) the commerce it now enjoys, as the natural outlet of the great grain-growing provinces of Russia.

'The town is unpaved, undrained, and inefficiently lighted by a few oil lamps; the mud in the winter, and the clouds of dust created by it in the summer, render the streets almost impassable.

'The supply of water, which each must buy, is wholly inadequate and bad, although an aqueduct and canal over 30 miles of level plain would bring the waters of the Dneister to Odessa, and would pay for itself in three years by the carriage of Bessarabian produce.

'The harbour is gradually filling up, without any efforts to prevent it, and it is impossible to avoid the conviction that the Government must desire, by the neglect of Odessa, to promote the prosperity of Theodosia, which, for reasons of military policy, has been preferred to Odessa for the terminus of the great Moscow Railway.'

But though this state of things be sufficiently discreditable to the Government and the municipality, there is not, we believe, any ground for the surmise that Odessa is being intentionally neglected. Its position is not, in truth, very favourable, either in a military or commercial point of view; and an emporium at or near the Straits of

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Yenikale would be at once more secure from hostile attack, and better situated for the trade of the southern provinces of the empire. Odessa has, since December 1865, been connected by a railway of 200 verstes with Balta in Podolia; there is another between Odessa and Tiraspol; and it is probable that her connection by rail with St. Petersburg may be completed in 1870.

There is a lighthouse on Cape Fontana, about 2 leagues south of the town, lat. 46° 22′ 29″ N., long. 30° 45′ 28″ E. It was newly built in 1861. And a second on the end of the Quarantine mole, lat. 46° 29′ 23″ N., long. 30° 44′ 56″ E. The latter gives a red flash every minute, and during the day a yellow flag is hoisted.

Not being at the mouth of any great river, nor having any considerable manufactures, Odessa is not a port for the exportation of what may be called articles of native growth; but in consequence of her situation, excellent port, and the privileges she enjoyed down to a late period, she has become the emporium where a large part of the produce of Southern Russia destined for foreign countries is collected for exportation, and where most part of the foreign articles required for home consumption are primarily imported. The shallowness of the water at Taganrog, and the short period during which the Sea of Azoff is navigable, tend to hinder foreign vessels of considerable burden from entering the Strait of Yenikale, and occasion the shipment of a considerable portion of the produce brought down the Don in lighters to Caffa and Odessa, especially the latter. All the products brought down the Dneister, the Bug, and the Dnieper, are exported from Odessa; but owing to the difficult navigation of the first and last mentioned rivers, by far the greater part of the corn brought to Odessa from Podolia, Ukraine &c., was, prior to the formation of the railway to Balta, conveyed to the town in carts drawn by oxen. The post roads are very bad; and nothing would contribute so much to increase the commerce of the port, and the prosperity of South Russia, as the opening of improved communications with the interior; whether by removing obstructions in the channels of the rivers, constructing canals, or railways, or good common roads.

Moneys, *Weights*, and *Measures*, and *Tariff*, same as at Petersburg.

The privilege of a free port conferred upon Odessa in 1817, was permitted to expire in 1856. But the change in the tariff in 1857, and the abolition which has taken place of the quarantine system, might, had they been accompanied by other necessary changes, have compensated or more for the abolition of the peculiar privileges enjoyed by the city. Mr. Consul-General Grenville Murray, in his *Report* of April 2, 1866, says that 'the administration of the law excites constant, serious, and well-founded complaints.' But he adds that 'it is impossible to avoid remarking the constantly increasing civilisation and general prosperity of this country.' The paving of Odessa with granite progresses, though slowly, the city has been lighted with gas; and a canal is projected between Odessa and the Dnieper. The new tariff, which came into operation in January 1869, though still illiberal, is a decided improvement on its predecessor, and will no doubt give an impetus to the trade of Russia.

The great Articles of Export from Odessa consist, as everyone knows, of the raw products of the soil, especially of wheat, and other varieties of corn. But cattle, wool, tallow, hides, and linens are also important articles; and to these have to be added potash, copper, caviare, cordage, wax, sail-cloth, tar, butter furs, isinglass &c.

We subjoin an account of the quantity of the principal articles exported from Odessa in 1864.

Articles		Quantity	Value
			£
Wheat	qr.	1,395,332	2,161,663
Rye	,,	10,244	8,110
Indian corn	,,	399,384	364,000
Barley	,,	161,856	106,205
Oats	,,	62,280	68,110
Peas	,,	21,120	29,016
Linseed	,,	278,760	501,023
Rape seed	,,	36,720	39,483
Flour	,,	75,140	123,150
Wool	cwt.	139,562	656,470
Tallow	,,	61,256	118,111
Hides and skins	,,	1,523	1,295
Total	..	..	4,147,345

Value of imports at the port of Odessa in 1865, 1,827,866*l*. These consisted principally of coffee, oil, wines, fruit, tobacco, iron and iron plates, cotton, silk, and woollen goods. The exports in 1865 were valued at 5,075,498*l*., and in that year 1,362 vessels, of 583,210 tons, entered the port.

The value of the imports and exports from Great Britain in 1864 was 1,196,465*l*., or upwards of one-fifth of the whole.

Regular lines of steamers ply between Odessa and Galacz and Constantinople, the latter being, of course, connected with all the leading ports of Europe.

The exports of wheat from Odessa in 1847 amounted to 2,016,692 quarters. This immense exportation, the greatest ever previously made in any one year from any one port, was a consequence partly of the abundant harvest of the previous year, and partly, and perhaps principally, of the scarcity and high prices which then prevailed in this country and other parts of West Europe, which made every bushel be shipped that could possibly be spared. But in 1853, the year before the late war, the exports were still greater, having amounted to 2,160,000 quarters. There is here, in truth, the greatest possible variation in the harvests. Everything depends on the seasons. In proof of this allegation we may refer to a statement by Tegoborski, who says, that in the estates of the Duke of Anhalt Koethen, in Taurida, in the 10 years from 1832 to 1841, some harvests returned 15 times the seed, others barely the seed, and that one entirely failed. (*Forces productives de la Russie*, i. 380.) Nature does all, man little or nothing. Agriculture is in the most backward state imaginable. No effort is made to obviate the effect of droughts and rains. And owing to the badness of the roads or paths, and the difficulty of river carriage, a considerable portion of the produce of a luxuriant crop is not brought to market or warehoused, but is allowed to go to waste. Some improvements have, no doubt, been effected, and others are in progress; but they are inconsiderable compared with what they should have been, and with what they would have been were the policy pursued by Government calculated to develop the resources of the vast and fruitful countries of which Odessa is the emporium.

Observations on the Trade of Odessa in 1851.—'The exportation of rye from this port has at no time been otherwise than very limited. It is raised for local consumption, being the chief article of food of the people, and not like wheat, which is grown with the sole view of exportation. The quantity of rye shipped last year was 73,773 quarters, the whole of which went to the northern ports of continental Europe. The prices varied from 10*s*. 5*d*. to 17*s*. 5*d*. per imperial quarter, and it was the highest quotation that prevailed at the end of the year. Indian corn is become an article of exportation from Odessa only within a few years. It is the produce of Bessarabia, where its cultiva-

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tion has of late been much extended in consequence of its demand for Ireland. The quantity shipped in the year was 98,252 quarters, all directed to Cork or Falmouth for orders. The prices varied from 13*s.* 7*d.* to 17*s.* 4*d.* per imperial quarter; and 16*s.* 2*d.* was the last quotation. The quantity remaining in granary was, after revision, found to be 32,000 quarters, all in the hands of exporters.

'The supplies of barley and oats have as usual been limited to local consumption.

'The exportation of linseed is stated in the Custom-house report to be 47,875 quarters; whereas I find that 51,369 quarters were shipped for England, and 17,004 for continental ports. The last crops having been good, and grown on the near steppe lands, a large supply of the new seed has been already brought to market, and the quantity on the spot is estimated to be about 30,000 quarters, all in the hands of shippers. The prices ranged from 28*s.* 4*d.* to 35*s.* 11*d.* per imperial quarter. Large purchases were made last autumn by the crushers of Hull, for delivery next summer from the Sea of Azoff and this port; and under present circumstances both buyers and sellers are menaced by loss, for in England prices are declining, whilst on this side anticipations of extraordinary abundance have been disappointed.

'The tallow trade of these ports has not revived, nor is it likely to do so for some time, or till the country recovers from the immense loss of cattle carried away of late years by the distemper.

'The exportation of wool suffered a considerable decrease, having amounted only to 50,748 cwt. of all kinds, instead of 75,581 cwt. in the preceding year. To England were shipped 14,378 cwt.; to the northern continental ports 18,492 cwt.; and the remainder to the Mediterranean. The sheep flocks have been thinned by consecutive seasons of drought and deficient pasturage; and the trade has of late been more influenced by the demand for the manufactures of Moscow. The prices are kept up at their highest quotations, and they are further affected by the anticipated disturbance of labour in Australia.

'The amount of shipping did not much differ from that of 1850; 698 vessels arrived, measuring 196,218 tons, of which 126 were British, burden 37,531 tons; and 729 vessels measuring 203,842 tons departed, of which 130 were British, burden 38,830 tons. Of the 242 vessels bound to England with cargoes, 110 were British. The preference is still given to our flag, particularly in the boisterous seasons. The Austrian ships of the Adriatic are, however, in great favour, especially for grain cargoes. The rates of freights to England varied from 1*l.* 15*s.* to 3*l.* 5*s.* per ton, or from 5*s.* 5*d.* to 10*s.* per imperial quarter; and the highest rates prevailed during the last three months, offering a fair remuneration to shipowners. The average exchange on London was 6·30rs. for the pound sterling. The money market was generally easy, with limited operations; and credit is at present sound, though restricted in consequence of the great losses incurred in the grain trade by the Greek houses. It is worthy of remark, that not one of these houses has failed, notwithstanding their severe trials.'

A tribunal of commerce was established at Odessa in 1824, whose jurisdiction extends over all disputes connected with trade. There is no appeal from its decisions except to the Senate. There are 12 sworn brokers, approved and licensed by the Tribunal of Commerce, who have deputies appointed by themselves. They register all transactions, and receive ½ per cent. from each party as commission. There is a discount or loan bank, established in 1828, and marine and fire insurance societies. Most articles of provision are cheap; and fish, which costs next to nothing, is excellent. Fuel, however, is scarce and dear.

Within the last 40 years the Merino breed of sheep has been extensively introduced into the governments of Taurida, Cherson, and Ekaterinoslav; so that there has been not only a great increase in the quantity, but also a very decided improvement in the quality, of the wool exported.

Corn Trade.—The principal trade of Odessa is with Constantinople, Smyrna, and other towns in the Levant, Naples, Leghorn, Genoa, Marseilles &c. 'It is generally stated,' says Mr. Jacob (*Memoir on the Trade of the Black Sea*, in the Appendix to the 8vo. edition of *Tracts on the Corn Trade*), 'that the supply of Constantinople requires annually 100,000 quarters of Black Sea wheat. The Greek islands scarcely, on the average of years, produce sufficient wheat for their own consumption, and, in some years, require a large supply, which is furnished partly from the neighbouring continent, and partly from the Black Sea.

'The Asiatic coasts of the Turkish Empire, especially in Anatolia, are nearly in the same predicament. At times, the market of Smyrna is very favourable for the sale of the corn of Southern Russia. The islands of Malta and Gozo produce only about half as much corn as the 120,000 inhabitants require.

'Sicily, though it has greatly declined from its ancient productiveness, has still a quantity of grain to spare for the less fruitful parts of Italy, in most years; and its wheat enters into competition with that of the Black Sea, in the ports of Naples, Genoa, and Leghorn.'

The warehouse rent of corn at Odessa is from 8 to 10 copecks per chetwert per month. M. de Hagemeister supposes that Turkey and the different ports of the Mediterranean require, at an average, an annual supply of 1,400,000 chetwerts, or about 1,050,000 quarters, of which 1,000,000 chetwerts, or 750,000 quarters, are furnished by Southern Russia, and principally shipped from Odessa. Wallachia and Moldavia are both very fertile in corn; and were tranquillity and good order introduced into them, and the free navigation of the Danube secured, Galacz and Brailoff would be two of the principal European grain shipping ports. (See the excellent *Report* of Hagemeister on the Trade of the Black Sea, pp. 96—114, Eng. trans.)

Exclusive of corn, the other articles mentioned as being exported from Odessa find their way to the different markets in the Mediterranean. Those shipped for Turkey are iron, tallow, sailcloth, cordage, anchors for ships of war, butter &c. The exports to Italy and other European countries are similar.

The importation of foreign articles into the Russian dominions on the Black Sea and the Sea of Azoff is almost confined to Odessa, Theodosia or Kaffa, and Taganrog. The value of the import trade of Russia by these two seas in 1865 was 2,402,053*l.* It is, however, of inferior importance when compared with the export trade, valued in 1865 at 10,287,651*l.* The principal articles of import are sugar and coffee, dye woods, wine and brandy, cotton stuffs and yarn, woollen and silk manufactures, spices, cutlery; oranges, lemons, figs, and other fruit; lemon-juice, oil, tin and tin plates, dried fruits, paper, silk, specie &c.

Odessa, in addition to its great and rapidly increasing trade with Constantinople and the

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countries on the Mediterranean, has a considerable trade with Redout-kalé at the mouth of the Phasis, and with Trebisond and several ports on the south coast of the Black Sea. Georgian and Armenian merchants are considerable purchasers at the Leipsic and other German fairs; and civilisation is beginning to strike its roots throughout all the extensive countries between the Black Sea and the Caspian. It is probable that, at no very remote period, the Phasis will be frequented by British ships; and that our merchants, without any enchantress to aid them, and depending only on the superior cheapness and excellence of their goods, will be hospitably received in the ancient Colchis, and bear away a richer prize than fell to the lot of Jason and his compeers.

Epochs in the Trade of the Black Sea.—Depth of Water.—Difficulty of Navigation &c.—The trade of the Black or Euxine Sea was of great importance in antiquity. The shores of the Crimea, or Taurica Chersonesus, were settled by Milesian adventurers, who founded Panticapæum and Theodosia. The exports thence to Athens were nearly the same as those which are now sent from Odessa and Taganrog to Constantinople, Leghorn &c.; viz. corn, timber, and naval stores; leather, wax, honey, salt fish, caviare &c., with great numbers of slaves, the best and most serviceable that were anywhere to be met with. The Athenians set a very high value upon this trade, which supplied them annually with about 400,000 *medimni of corn*; and to preserve it they carefully cultivated the alliance of the Thracian princes, and kept a garrison at Sestus, on the Hellespont. (See the authorities in Anacharsis's *Travels*, c. 55; and in Clarke's *Connection of the Saxon and English Coins*, pp. 54—64.) During the Middle Ages the Genoese acquired an ascendency on this sea, and laboured with pretty considerable success to monopolise its trade. Their principal establishment was at Caffa, which was the centre of an extensive commerce. But the conquest of Constantinople by the Turks, in 1453, was soon after followed by the conquest of Caffa, and the total exclusion of European vessels from the Black Sea, which became in a great measure unknown. This exclusion was maintained for about 300 years, or till it was opened to the ships of Russia by the treaty of Kainardgi in 1774. The Austrians obtained a similar equality of privileges in 1784; and British, French &c., ships were admitted by the treaty of Amiens. There were, however, some restraints still kept up; but these were abolished by the treaty between the Turks and Russians in 1829; and for commercial purposes, at least, the Black Sea is now as free as the Mediterranean.

Notwithstanding the number of English and other European ships that have visited this sea since the beginning of this century, its geography is still very imperfectly known. A notion seems to have been long prevalent, that it was not only stormy, but also infested with numerous shoals. Polybius, indeed, contends that, owing to the vast quantities of alluvial deposit brought down by the Danube and other large rivers that fall into the Black Sea, it was gradually filling up, and would become, at no very remote period, an immense morass. Dr. Clarke seems to have espoused the same theory. But, how probable soever it may appear, extremely little progress has hitherto been made towards the consummation described by Polybius. Instead of being shallow, the water is for the most part remarkably deep; with a bottom, where soundings have been obtained, of gravel, sand, and shells. A strong current sets from the Black Sea, through the Bosporus, or Canal of Constantinople, into the Sea of Marmora, and from the latter, through the Dardanelles, which it requires a fresh breeze to stem. This current is said to be sensibly felt in the Black Sea, 10 or 12 miles from the Bosporus; and it may probably carry off some of the mud brought down by the rivers. (Tournefort's *Voyage du Levant*, lett. 15, 16; art. 9 in No. 1 of the *Journal of the Geographical Society*; Macgill's *Travels in Turkey*, vol. i. p. 245; *Parliamentary Papers*; &c.)

The navigation of the Black Sea has been represented by most modern and all ancient writers as exceedingly dangerous. We believe, however, that there is very little foundation for the greater number of the statements on this subject. It is said to be particularly subject to dense fogs, and to currents; but the former are prevalent only at particular seasons, and the influence of the latter is not greater than in many other seas which are not reputed dangerous. Tournefort, one of the best and most accurate of travellers, considers the navigation of the Black Sea as safe as that of the Mediterranean: 'Il n'a rien de noir, pour ainsi dire, que le nom: les vents n'y soufflent pas avec plus de furie, et les orages ne sont guères plus fréquents que sur les autres mers.' (Tome ii. p. 164, 4to. ed.) Dr. Clarke (*Travels*, vol. ii. p. 387, 8vo. ed.) affects to doubt this: but he assigns no grounds for his opinion; and who would think of putting his authority in competition with that of Tournefort? Indeed the accuracy of the statements of the latter has been fully established by the recent reports of Captain Middleton and other able officers who have navigated this sea. But, though without 'a hidden danger,' any sea would be dangerous to the Greek and Turkish pilots, by whom the Black Sea has been principally navigated. If the progress of navigation were to be estimated by its state amongst them, we should have to conclude that it had been stationary from the era of the Argonauts. They seldom venture out of sight of the coasts; they have neither charts nor quadrants; and hardly even know that one of the points of the needle turns towards the North. (Tournefort in loc. cit.) There is not, certainly, much room for wonder at shipwrecks being frequent among vessels so navigated. On leaving the Black Sea, the greatest difficulty is in making the Bosporus. 'The mountains,' says Mr. Macgill, 'are all so much alike, that it is difficult to determine which of them is at the entrance, until you are within a very few miles of the coast: then, with a fair wind, you are on a lee shore with a lee current; and if you make a mistake, destruction is almost inevitable. The Turks have two light-houses at the entrance; but unless you see them before sunset, they are of little use: in the forests on its borders, great quantities of charcoal are made, and the lights from it bewilder, and often mislead, the unhappy mariner.' (i. 245.)

From the vast quantity of fresh water poured into the Black Sea, the saline particles are so much diluted, that, with a slight frost, the surface becomes covered with ice; hence, during a great part of the year, hardly any navigation is attempted. The vessels that resort to Odessa seldom arrive at that port before the latter end of May; and those whose cargoes are not completed before the end of October, more frequently wait the return of spring, than adventure to encounter the dangers of an autumnal or winter voyage.

At Taganrog the frost commences earlier, and continues longer, than at Odessa; so that there are scarcely more than 4 or 5 months in the year

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during which the Sea of Azoff can be safely navigated.

OIL (Fr. huile; Ger. öl; Ital. olio; Lat. oleum; Russ. maslo; Span. aceite). The term *oil* is applied to designate a number of unctuous liquors, which, when dropped upon paper, sink into it and make it seem semi-transparent, or give it what is called a greasy stain. These bodies are very numerous, and have been in common use from time immemorial. Chemists have divided them into two classes; namely, *volatile* and *fixed* oils. We borrow from Dr. Thomas Thomson the following statement with respect to these bodies:—

I. VOLATILE OILS, called also *essential oils*, are distinguished by the following properties:—1. Liquid, often almost as liquid as water, sometimes viscid; 2. Very combustible; 3. An acrid taste and a strong fragrant odour; 4. Volatilised at a temperature not higher than 212°; 5. Soluble in alcohol, and imperfectly in water; 6. Evaporate without leaving any stain on paper.

By this last test it is easy to discover whether they have been adulterated with any of the fixed oils. Let a drop of the volatile oil fall upon a sheet of writing paper, and then apply a gentle heat to it: if it evaporates without leaving any stain upon the paper, the oil is pure; but if it leaves a stain upon the paper, it has been contaminated with some fixed oil or other.

Volatile oils are almost all obtained from vegetables, and they exist in every part of plants—the root, the bark, the wood, the leaves, the flower, and even the fruit; though they are never found in the substance of the cotyledons; whereas the fixed oils, on the contrary, are almost always contained in these bodies.

When the volatile oils are contained in great abundance in plants, they are sometimes obtained by simple expression. This is the case with oil of oranges, of lemons, and bergamotte; but in general they can only be obtained by distillation. The part of the plant containing the oil is put into a still with a quantity of water which is distilled off by the application of a moderate heat. The oil comes over along with the water, and swims upon its surface in the receiver. By this process are obtained the oils of peppermint, thyme, lavender, and a great many others, which are prepared and employed by the perfumer: others are procured by the distillation of resinous bodies. This is the case in particular with oil of turpentine, which is obtained by distilling a kind of resinous juice, called turpentine, that exudes from the juniper.

Volatile oils are exceedingly numerous. They have been long known; but as their use in chemistry is but limited, they have not, hitherto, been subjected to an accurate chemical investigation. They differ greatly in their properties from each other; but it is impossible at present to give a detailed account of each.

1. The greater number of volatile oils are *liquid*; many, indeed, are as limpid as water, and have none of that appearance which we usually consider oily. This is the case with the following: namely, oil of turpentine, oranges, lemons, bergamotte, roses. Others have the oily viscidity. It varies in them in all degrees. This is the case with the oils of mace, cardamom, sassafras, cloves, cinnamon. Others have the property of becoming solid. This is the case with the oils of parsley, fennel, aniseed, balm. Others crystallise by slow evaporation. This is the case with oil of thyme, peppermint, marjoram. The oil of nutmegs has usually the consistence of butter. This is the case also with the oils of hops and of pepper.

2. The colour of the volatile oils is as various as their other properties. A great number are limpid and colourless; as oil of turpentine, lavender, rosemary, savine, aniseed: some are yellow; as spike, bergamotte: some are brown; as thyme, savory, wormwood: others blue; as camomile, motherwort: others green; as milfoil, pepper, hops, parsley, wormwood, cajeput, juniper, sage, valerian: others, though at first colourless, become yellow or brown by age: as cloves, cinnamon, sassafras.

3. The odours are so various as to defy all description. It is sufficient to say that all the fragrance of the vegetable kingdom resides in volatile oils. Their taste is acrid, hot, and exceedingly unpleasant.

4. Their specific gravity varies very considerably, not only in different oils, but even in the same oil in different circumstances.

When the volatile oils are heated in the open air, they evaporate readily, and without alteration diffuse their peculiar odours all around; but there is a considerable difference between the different oils in this respect. When distilled in close vessels, they do not so readily assume the form of vapour. Hence, they lose their odour, become darker in colour, and are partly decomposed. Oils do not seem very susceptible of assuming the gaseous form, unless some other substance, as water, be present.

II. FIXED OILS are distinguished by the following characters: 1. Liquid, or easily become so when exposed to a gentle heat; 2. Unctuous to the touch; 3. Very combustible; 4. A mild taste; 5. Boiling point not under 600°; 6. Insoluble in water, and nearly so in alcohol; 7. Leave a greasy stain upon paper.

These oils, which are called fat or expressed oils, are numerous, and are obtained partly from animals, and partly from vegetables, by simple expression. As instances may be mentioned whale oil or train oil obtained from the blubber of the whale and from cod; olive oil, obtained from the fruit of the olive; linseed oil and almond oil, obtained from linseed and almond kernels. Fixed oils may also be extracted from poppy seeds, hemp seeds, beech mast, and many other vegetable substances.

All these oils differ from each other in several particulars, but have also many particulars in common.

1. Fixed oil is usually a liquid with a certain degree of viscidity, adhering to the sides of the glass vessels in which it is contained, and forming streaks. It is never perfectly transparent; has always a certain degree of colour, most usually yellowish or greenish; its taste is sweet, or nearly insipid. When fresh it has little or no smell.

There exist also in the vegetable kingdom a considerable number of bodies which, at the ordinary temperature of the atmosphere, are solid, and have hitherto been considered as fixed oils. Palm oil may be mentioned as an example. The various substances used in India and Africa as substitutes for butter, and as unguents, may likewise be mentioned.

2. All the fixed oils hitherto examined are lighter than water; but they differ greatly from one another in specific gravity. The same difference is observable in different samples of the same oil.

Fixed oil, when in the state of vapour, takes fire on the approach of an ignited body, and burns with a yellowish white flame. It is upon this principle that candles and lamps burn. The tallow or oil is first converted into a state of vapour in the wick; it then takes fire, and supplies a sufficient quantity of heat to convert more oil into

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vapour: and this process goes on while any oil remains. The wick is necessary to present a sufficiently small quantity of oil at once for the heat to act upon. If the heat were great enough to keep the whole oil at a temperature of 600°, no wick would be necessary, as is obvious from oil catching fire spontaneously when it has been raised to that temperature. When oil is used in this manner, either in the open air or in contact with oxygen gas, the only new products obtained are *water* and *carbonic* acid.

The drying oils are used as the vehicle of paints and varnishes. Linseed, nut, poppy, and hempseed oils belong to this class. These oils in their natural state possess the property of drying oils, but imperfectly. To prepare them for the use of the painter and varnish-maker, they are boiled for some time in an iron pot, and sometimes burnt till they become viscid. When they burn for some time, their unctuous quality is much more completely destroyed than by any method that has been practised. Hence it is followed frequently in preparing the drying oils for varnishes, and always for printer's ink, which requires to be as free as possible from all unctuosity.

Nut oil has been found preferable to all other oils for printer's ink; though the dark colour which it acquires during boiling renders it not so proper for red ink as for black. Linseed oil is considered as next after nut oil in this respect. Other oils cannot be employed, because they cannot be sufficiently freed from their unctuosity. Ink made with them would be apt to come off and smear the paper while in the hands of the bookbinder, or even to spread beyond the mark of the types and stain the paper yellow.

The principal oils, in a commercial point of view, with the exception of ground-nut oil [NUTS, GROUND], are enumerated in the following statements. [OLIVE OIL, PETROLEUM.]

Account of the Quantities and Value of the different Varieties of Oil Imported into the United Kingdom in 1867.

Articles		Quantities	Price					
			£	s.	d.	£	s.	d.
Castor	cwt.	21,073	3	2	0 to	3	12	8
Cod liver	tuns	818	61	10	0	69	7	0
Train	,,	11,901	58	14	5	45	0	0
Spermaceti	,,	3,776	113	16	0	116	0	0
Cocoa nut	cwt.	124,314		2	4	6	2	16	7
Olive	tuns	19,913	56	12	0	70	7	0
Palm	,,	812,080	1	18	4	1	18	9
Seed	,,	16,872	38	12	10	60	4	10
Rock, or Petroleum, unrefined	,,	1,166	10	10	0	12	4	11
refined	gallons	5,374,532	0	1	2¾	0	1	5½
Turpentine	cwt.	151,464	1	18	9	1	16	11

OLIBANUM (Fr. encens; Ger. weihrauch; Ital. olibano; Arab. looban). A gum-resin, the produce of a large tree (*Boswellia thurifera*, or *serrata*), growing in Arabia and India. It is imported in chests containing each about 4 cwt., from the Levant and India; the best comes from the former, and is the produce of Arabia. Good olibanum is in semi-transparent tears, of a pink colour, brittle, and adhesive when warm; when burnt, the odour is very agreeable; its taste is bitterish, and somewhat pungent and aromatic; it flames for a long time with a steady, clear light, which is not easily extinguished, leaving behind a *black* (not, as has been said, a whitish) ash. Olibanum is the frankincense (*thus*) of the ancients; and was extensively used by them in sacrifices. (Plin. *Hist. Nat.* lib. xii. c. 14.) It has also been used in the ceremonies of the Greek and Roman churches. (Pereira's *Mat. Indica*; Thomson's *Chemistry*; Kippingii *Antiq. Rom.* lib. i. c. 11.)

In 1867, 8,537 cwt. of olibanum were imported into England, valued at 25,915*l.* or 3*l.* 0*s.* 8*d.* per cwt., and chiefly from British India. In the same year 13,103 cwt. were exported, chiefly to Russia and Turkey.

OLIVE, OLIVES (Ger. oliven; Fr. olives; Ital. ulive; Span. aceitunas; Port. azeitonas; Lat. olivæ). A fruit yielding a large quantity of oil, the produce of the *Olea*, or olive tree. The wild olive is indigenous to Syria, Greece, and Africa, on the lower slopes of Mount Atlas. The species cultivated in Europe grows spontaneously in Syria, and is easily reared in Spain, Italy, and the South of France. It has even been raised in the open air in England, but its fruit is said not to have ripened. The fruit is a smooth oval plum, about ¾ inch in length, and ½ inch in diameter; of a deep violet colour when ripe, whitish and fleshy within, bitter and nauseous, but replete with a bland oil; covering an oblong, pointed, rough nut. Olives intended for preservation are gathered before they are ripe. In pickling, the object is to remove their bitterness, and to preserve them green, by impregnating them with a brine of aromatised sea salt; for this purpose various methods are employed. The wood of the olive tree is beautifully veined, and has an agreeable smell. It is in great esteem with cabinet-makers, on account of the fine polish of which it is susceptible. 17,538 gallons of olives were imported in 1867, valued at 3,868*l.*

OLIVE OIL (Ger. baumöl; Fr. huile d'olives; Ital. olio d' uliva; Span. aceite de aceitunas; Lat. oleum olivarum). The olive tree is principally cultivated for the sake of its oil. This is an inodorous, pale greenish-yellow coloured, viscid fluid, with a bland oleaginous taste, unctuous to the touch, inflammable, incapable of combining with water, and nearly insoluble in alcohol. It is the lightest of all the fixed oils; and is largely used, particularly in Greece, Italy, Spain, and France, as an article of food, and in medicine and the arts. It is also very extensively used in this country, particularly in the woollen manufacture.

The ripe fruit is gathered in November, and immediately bruised in a mill, the stones of which are set so wide as not to crush the kernel. The pulp is then subjected to the press in bags made of rushes: and by means of a gentle pressure, the best, or *virgin* oil, flows first; a second, and afterwards a third, quality of oil is obtained by moistening the residuum, breaking the kernels &c., and increasing the pressure. When the fruit is not sufficiently ripe, the recent oil has a bitterish taste; and when too ripe, it is fatty. After the oil has been drawn, it deposits a white, fibrous, and albuminous matter; but when this deposition has taken place, if it be put into clean glass flasks, it undergoes no further alteration; the common oil cannot, however, be preserved in casks above 1½ or 2 years. (*British Pharmacopœia*, 1867.)

The finest oils are said to be produced in Tuscany, but occasionally that of Bari is equal to the Tuscan oil. The finest kind of the latter is called 'white sublime oil.' It chiefly goes to France. Tuscany oil is shipped from Leghorn in various measures, from pipes of about 110 gallons to the flask of oil with its straw covering weighing about 14 oz. It is adulterated with poppy seed oil, and probably with other bland vegetable oils. A plan for detecting these impostures has been suggested by Mr. Tomlinson, *Journal of the Society of Arts*, March 4, 1864.

Olive oil is the principal article of export from the Neapolitan portion of the Italian Kingdom.

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[Naples.] Apulia and Calabria are the provinces most celebrated for its production. The Apulian is the best, and is preferred by the woollen manufacturers, by whom it is extensively used. By far the largest portion of the olive oil brought to England is in general imported from Italy; principally from Gallipoli, on the east coast of the Gulf of Taranto, whence it is commonly known by the name of Gallipoli oil. But besides Italy, Spain, Portugal, the Ionian Islands &c. send us large quantities.

The duty on olive oil was for a lengthened period most exorbitant. In 1834 it was fixed at 10*l.* 10*s.* per tun if imported in a Neapolitan, and 8*l.* 8*s.* if imported in a British or other vessel. But as olive oil is of essential importance in the arts, being extensively used in the manufacture of woollens, in the preparation of the best species of soaps and other departments of industry, this duty was much and justly objected to. In consequence it was reduced, in 1841, to 4*l.* 4*s.* per tun if imported directly and not in a Neapolitan ship, and in 1842 the duty was further reduced to 2*l.* and 4*l.* per tun according to the vessels in which it was imported. 'At present,' therefore, we observed in 1843, 'the amount of the duty cannot be justly objected to, but the differential principle on which it has been and is imposed is most objectionable. It imitates, and (in so far as copying can do) justifies the worst part of the commercial policy of the Neapolitan Government, and prompts them to keep up high discriminating duties on articles imported into Naples and Sicily in British ships. So wretched an attempt at retaliation is quite unworthy of an enlightened nation, and deserves to be universally scouted. It is, in fact, injurious only to ourselves.'

The justice of this reasoning has been admitted; the duty on olive oil has been repealed, and its importation freely permitted.

An Account of the Quantities and Value of the Olive Oil Imported into the United Kingdom in 1867, *specifying the Countries from which it was imported.*

Countries	Imports	Value of Import	Price per Tun		
	tuns	£	£	s.	d.
France - -	586	35,449	60	10	0
Portugal - -	3,496	203,760	58	5	0
Spain - -	5,223	329,737	63	2	6
Italy: Sardinian States -	357	20,208	56	12	0
Tuscany - -	1,706	120,024	70	7	0
Naples and Sicily -	5,257	335,285	63	15	6
Malta - -	567	35,202	59	19	6
Ionian Islands - -	2,189	129,976	59	7	6
Tunis - - -	110	6,325	57	10	0
Morocco - -	401	23,363	58	0	0
Other parts - -	81	5,067	62	11	0
Total - -	19,993	1,244,296			

The olive is extensively cultivated in Austria. The value of the oil exported from Ragusa in 1865 was 44,055*l.*, but in consequence of the bad oil harvest of 1866, the value of the exports fell to 15,440*l.* (Mr. Consul Paton's *Report* of May 1, 1867.)

Oil Trade of Naples.—The oils of the kingdom of Naples are produced in Apulia, from Bari to its southern extremity, the Capo di Leuca; a district comprising the territories which export from Gallipoli and Taranto; and in Calabria from Rossano, on the Gulf of Taranto, across to Gioja. The whole coast from Gioja as far as Gaeta is covered with olive trees. They are also abundant in the Abruzzi and the Terra di Lavoro; but Apulia and Calabria furnish by far the greatest quantity of oil. The principal magazines, or *caricatori*, for oil, are at Gallipoli and Gioja.

Gallipoli supplies England, Holland, the north of Europe, and, in short, all those countries that require the most perfectly purified oil. It is clarified to the highest degree by merely keeping it in cisterns hollowed out of the rock on which the town is built. The voyages it has to perform being long, it is put into casks so well constructed, that it frequently arrives at Petersburg in the heat of summer without the least waste or leakage—an advantage attributed to the seasoning of the staves, which, before they are put together, are well soaked in sea-water.

We borrow the following details with respect to the preparation of oil at Gallipoli from a very interesting paper, by an English gentleman who had resided in the town.

'The rock on which the town is built is easily excavated; and in caverns thus constructed oil clarifies sooner, and keeps without rancidity much longer, than in any other place. Hence numerous oil-houses are established at Gallipoli, and a very considerable portion of the rock is cut into cisterns. A Gallipolitan oil warehouse generally occupies the ground floor of a dwelling-house, and has a low arched roof. Some are more extensive, but on an average they are about 30 feet square. In the stone floor you see 4, 6, or more holes, which are circular, about 2 feet in diameter, and like the mouths of wells. Each of these holes gives access to a separate cistern beneath your feet; and when the oil is poured into them care is taken not to mix different qualities, or oils at different stages, in the same reservoir. One cistern is set apart for *oglio mosto*, or oil that is not clarified, another for pure oil of the season, another for old oil, &c. I have seen oil that had thus been preserved for 7 years in a perfect state, or, as the Gallipoli merchants have it, *chiaro, giallo e lampante*—words which, during some months, I have heard at least 100 times a day. I also many times verified the fact: the *mosto*, or oil in its turbid state, which arrived almost as black and thick as pitch, soon became bright and yellow in these excellent reservoirs, without any help from man.

'All the oil, whatever may be its quality, is brought to the magazine in sheep or goat skins, which are generally carried on mules—there being but few *strade rotabili*, or roads fit for wheeled carriages, in these parts. In a good year, and at the proper season, I have counted, in the course of an afternoon's ride, as many as 100 mules returning from Gallipoli, where they had been to deposit their unctuous burdens, to different towns and villages in the Terra d'Otranto, or the more distant province of Bari. The quantity of oil required may be conceived, when I state that at one time (in the year 1816) I saw 9 English, 3 American, 2 French, and 6 Genoese vessels (not to mention some small craft from the Adriatic), all waiting in the port of Gallipoli for entire or partial cargoes of it. When the oil is to be shipped, it is drawn off the cistern into *uteri*, or skins, and so carried on men's shoulders down to a small house on the seashore. In that house there is a large open basin, capable of containing a given quantity, and of measuring the oil; and into that the porters empty their skins as they arrive. A tube communicates from the basin to a large cock at the outside of the house. When the basin is full, well-made casks, of various sizes for the convenience of stowage, are placed under the cock, which is then turned, and the casks are filled. As the casks are closed up by the cooper, the porters roll them down to the brink of the sea, where the sailors secure several of them together with a rope, and taking the end of the cord into the boat, they row off to the vessel,

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towing the oil casks through the water after them.

'I first became acquainted with the Gallipolitans shortly after the fall of Napoleon, whose system, whatever good parts of it may have done in the rest of Italy, was certainly most ruinous to the provinces of Lecce and Bari. Unable to export, or find any market for their produce, the proprietors in many parts of those provinces let the olives lie and rot upon the ground. For some years, indeed, the price of oil scarcely paid the cost of its preparation, to say nothing of transport and other necessary expenses. During the Continental system, the best *chiaro giallo e lampante* oil was sold at Gallipoli for 8 Neapolitan ducats the salma; in 1816 and 1817 it found a ready market at from 60 to 70 ducats per salma.

'Those who, during the evil time, had penetration enough to foresee better days, and that a system opposed to the general commercial prosperity of Europe could not last; and who had, at the same time, money enough for such objects; by annually making their oil as usual, and buying up the oil of others at the low current prices of the day, realised enormous profits when peace threw open the port of Gallipoli, and ships of all nations flocked thither as before.

'The olives of which the Gallipoli oil is made are never gathered, but allowed to drop in their maturity from the tree on the ground, where they are picked up chiefly by women and children, and carried to the mill.

'The machinery employed in expressing the oil is of the rudest kind, and, no doubt, numerous improvements might be introduced, not only into this branch, but into that of cultivating the olive tree. The peasantry, however, and, in the kingdom of Naples, those who stand higher in the scale of fortune and rank, are too often but boors in intellect, are obstinate in their attachment to old practices, and are apt, when any of these are reprehended, to stop discussion by saying—"*Faccio come faceva la buon' anima di mio padre, e ciò basta*" ("I do as my father of blessed memory before me, and that's enough").

'The poor people of the country make culinary uses of the same oil that is exported, and which in England is only used in manufactures, or burnt in lamps; but in the houses of the gentry I have often tasted oil prepared with more care, which was truly delicious, being equal to that of Sorrento, Vico, and Massa, or even to the best oils of Tuscany or Provence.'

The oil received into the cisterns in Gallipoli either belongs to the proprietor who buys it of the planter, or is received in *deposit* on account of some other party who gets a receipt (*biglietto di magazzino*) specifying the quantity of the oil received on his account, its quality &c. Depositors pay at the rate of 20 grani a-year for every salma of oil to the party holding it in deposit, and who is bound to account for it.

The *caricatori* of Bari and Monopoli furnish oils for the consumption of Upper Italy and Germany, through the medium of Venice and Trieste. They also draw supplies from Brindisi and Otranto.

The *caricatori* of Taranto, of Eastern Calabria or Retromarina, and of Western Calabria, the principal of which is Gioja, furnish supplies for Marseilles &c. But the *caricatori* now mentioned, having no conveniences for clarification, produce only the thick oils used for soap-making.

The oils of Sicily, like those of Tunis, are too thin to be used singly in the making of soap; and being used only for mixing, are less valuable than most others.

In 1838 a full crop of oil in the province of Terra d'Otranto was supposed to yield about 300,000 salme, or 41,666 tuns. To facilitate transactions, orders or *cedules* are circulated, representing quantities of oil deposited in the provincial *caricatori*. These orders are negotiable, like bills of exchange, and are endorsed by the intermediate holder, who receives their value in cash, without, however, becoming liable for their due satisfaction. The only responsible parties are the drawer and drawee. The latter is obliged to deliver the oil at sight of the order, or to hold it, at the bearer's disposal, till November 10 for the *caricatori* of Apulia, and till December 31 for those of Calabria. If the contract be for time, that is, from one year to another, the oil is usually placed at the purchaser's command on March 1. Purchases for time are effected by means of a contract, wherein the vendor undertakes to deliver the oil by the end of January, on receiving payment of the money; but the oil, as observed above, is not really at the purchaser's disposal before the beginning of March. Hence, in time bargains, the payment of the money precedes the delivery of the oil more than a month: scarce an instance is on record of an engagement of this sort having been broken, and the order is as readily negotiable as any other security.

In purchases of oil at command, payment likewise precedes the delivery of the article; but in this case the advance is confined to the 5 days necessary to transmit the order to the *caricatore* where the oil is kept for delivery.

The oil remains in the *caricatore* under the care and responsibility of the vendor, to be delivered on demand to the bearer of the order, free of all costs and charges whatever for the first year; but for every successive year from 25 to 30 grains per salma are charged for keeping, and for renewal of warranty.

The annexed table will show the quantities and values of the exports of olive oil in two unfavourable years, 1865 and 1866, from 5 of the oil shipping ports of Naples.

	1865		1866	
	Tuns	Value	Tuns	Value
		£		£
Bari - -	9,419	406,885	7,926	419,995
Castellamare -	61	2,651	35	1,644
Gallipoli - -	4,805	218,725	6,989	370,756
Gioja - -	7,142	395,570	4,215	223,457
Taranto - -	2,973	117,000	1,227	109,590
Total - -	24,428	1,130,239	23,392	1,180,456

The olive harvest of 1867 proved more of a failure than either of its two immediate predecessors, and the export of oil from the 5 shipping ports fell from 23,000 tuns in 1866 to 15,000 tuns in 1867.

We are indebted for these details to very valuable *Reports* by Mr. Steel, vice-consul at Gallipoli for 1866, and by Consul-General Bonham for 1866 and 1867, and to a brochure of M. Millenet, entitled *Coup d'œil sur le Royaume de Naples*, Naples, 1832.

OMNIUM. A term used at the Stock Exchange, to express the aggregate value of the different stocks in which a loan is now usually funded.

Thus, in the loan of 36,000,000*l.* contracted for in June 1815, the omnium consisted of 130*l.* 3 per cent. reduced annuities, 44*l.* 3 per cent. consols, and 10*l.* 4 per cent. annuities, for each 100*l.* subscribed.

The loan was contracted for on June 14, when the prices of the above stocks were—3 per cent. reduced, 54; 3 per cent. consols, 55; 4 per cents., 70: hence the parcels of stock given for 100*l.* advanced were worth—

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	£	s.	d.
130*l.* reduced at 54	70	4	0
44*l.* consols, at 55	24	4	0
10*l.* 4 per cents., at 70	7	0	0
Together	101	8	0

which would be the value of the omnium, or 1*l.* 8*s.* per cent. premium, independently of any discount for prompt payment.

ONION (Ger. zwiebel; Fr. oignon; Ital. cipolla; Span. cebolla; Russ. luk). A well-known bulbous plant (*Allium cepa*, Linn.), cultivated all over Europe for culinary purposes. The Strasburg, Spanish, and Portuguese varieties are the most esteemed.

The imports of onions are now very considerable. They amounted in 1867 to 845,214 bushels, of which more than four-fifths were from Northern Europe, at 4*s.* 6*d.* the bushel; the rest from Southern, at 7*s.* 5*d.*

ONYX (Ger. onyx; Fr. onyx; Ital. onice; Span. onix; Lat. onyx). 'Any stone exhibiting layers of 2 or more colours strongly contrasted is called an *onyx*; as banded jasper, chalcedony &c., but more particularly the latter, when it is marked with white, and stratified with opaque and translucent lines. But the Oriental onyx is considered a substance consisting of 2 or more layers or bands of distinct and different colours. A sard, or sardoine, having a layer of white upon it, would be called an onyx; and according to the number of layers it would be distinguished as an onyx with 3 or more bands. Some of the antique engravings are upon onyxes of 4 bands.' (Mawe's *Treatise on Diamonds &c.*) The German onyxes are very cheap, but the finest onyxes are brought from India; and the more concentric rings or layers a stone possesses, the more valuable it becomes. (Emanuel *On Precious Stones.*) Some Oriental onyxes have sold for as much as 200*l.*

OPAL (Ger. opal; Fr. opale; Ital. opale; Span. ópalo, piedra iris; Port. opala; Lat. opalus). A stone, of which there are several varieties, found in different parts of Europe, particularly in Hungary, and in the East Indies, Mexico, Honduras, the Faroe Islands &c. When first dug out of the earth it is soft, but it hardens and diminishes in bulk by exposure to the air. The opal is always amorphous; fracture conchoidal; commonly somewhat transparent. Hardness varies considerably, but less than quartz. Specific gravity from 1·958 to 2·54. The lowness of its specific gravity in some cases is to be ascribed to accidental cavities which the stone contains. These are sometimes filled with drops of water. Some specimens of opal have the property of emitting various coloured rays, with a particular effulgency, when placed between the eye and the light. The opals which possess this property are distinguished by lapidaries by the epithet *Oriental*; and often, by mineralogists, by the epithet *nobilis*. This property rendered the stone much esteemed by the ancients. (Thomson's *Chemistry*; see also Plin. *Hist. Nat.* lib. xxxvii. c. 6, where there are some very curious details as to this stone.)

Mr. Emanuel (*Diamonds and Precious Stones*) says of the opal, 'that it is one of the most beautiful gems in existence: when held between the eye and the light, it appears of a pale milky, reddish hue, but when seen by reflected light it displays all the colours of the rainbow, in flakes, flashes, and sparks; in fact, all the colours of the most beautiful gems are here united in one. When the colours are in small flakes, distributed over the surface, it is termed by jewellers 'harlequin.' This marvellous play of colours is supposed to be occasioned by nearly invisible fissures. Opals are always cut en cabochon, on both sides. They are very brittle, and are always much more brilliant on a warm day. A dealer in precious stones, aware of this peculiarity, invariably holds an opal in his hand before showing it, in order to impart warmth to the gem. Fine stones of large size are seldom found; they rarely exceed an inch in diameter.'

The opal is the only precious stone which defies imitation. It has always been highly prized in the East.

For large fine gems as much as 1,000*l.* has been paid. Fine ring or brooch stones bring from 40*l.* to 100*l.* Smaller stones are worth from 5*s.* to 20*l.* They are rarely sold by the carat.

There is a story in Pliny, that Annius, a Roman senator, preferred exile to the loss of an opal, which he valued at 20,000 sesterces. There are two fine opals among the French Crown jewels; but the finest, which is in the Museum of Vienna, was found at Czernowitza, where a mine has been worked nearly 500 years. It is said that 50,000*l.* has been refused for this specimen.

OPIUM (Ger. mohnsaft; Fr. opium; Ital. oppio; Span. and Port. opio; Lat. opium; Arab. ufyoon; Hin. ufeem; Turk. madjoon). The concrete juice of the white poppy (*Papaver somniferum*), which is most probably a native of Asia, though now found growing wild in the southern parts of Europe, and even in England. Opium is chiefly prepared in India, Turkey, and Persia; but the white poppy is extensively cultivated in France, and other parts of Europe, on account of its capsules, and of the useful bland oil obtained from its seeds. It has also been cultivated, and opium made, in England; but there is very little probability of its ever being raised here to any considerable extent.

The poppy is an annual plant, with a stalk rising to the height of 3 or 4 feet; its leaves resemble those of the lettuce, and its flower has the appearance of a tulip. When at its full growth, an incision is made in the top of the plant, from which there issues a white milky juice, which soon hardens, and is scraped off the plants, and wrought into cakes. In India, these are covered with the petals of the plant to prevent their sticking together, and in this situation are dried, and packed in chests lined with hides and covered with gunny, each containing 40 cakes, and weighing 2 maunds or 149½ lb.; they are exported in this state to the places where the opium is consumed. Turkey opium is in flat pieces, covered with leaves, and the reddish capsules of some species of *rumex*; which is considered an indication of its goodness, as the inferior kinds have none of these capsules adhering to them.

According to Dr. A. T. Thomson, Turkey opium has a peculiar, strong, heavy, narcotic odour, and a bitter taste, accompanied by a sensation of acrid heat, or biting on the tongue and lips, if it be well chewed. Its colour when good is a reddish brown, or fawn colour; its texture compact and uniform. Its specific gravity is 1·336. When soft, it is tenacious; but when long exposed to the air, it becomes hard, breaks with a uniform shining fracture, is pulverulent, and affords a yellowish brown powder.

East Indian opium has a strong empyreumatic smell; but not much of the peculiar narcotic, heavy odour of the Turkey opium; the taste is more bitter, and equally nauseous, but it has less acrimony. It agrees with the Turkey opium in other sensible qualities, except that its colour is blacker, and its texture less plastic, although it is as tenacious. Good Turkey opium has been found to yield nearly 3 times the quantity of *morphia*, or of the peculiar principle of the drug, that is yielded by East Indian opium.

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Opium is regarded as bad when it is very soft, greasy, light, friable, of an intensely black colour, or mixed with many impurities. A weak or empyreumatic odour, a slightly bitter or acrid, or a sweetish taste, or the power of marking a brown or black continuous streak when drawn across paper, are all symptoms of inferior opium. (*Dispensatory.*)

The raising of opium is a very hazardous business; the poppy being a delicate plant, peculiarly liable to injury from insects, wind, hail, or unseasonable rain. The produce seldom agrees with the true average, but commonly runs in extremes; while one cultivator is disappointed another reaps immense gain: one season does not pay the labour of the culture; another, peculiarly fortunate, enriches all the cultivators. This circumstance is well suited to allure man, ever confident of good fortune. (Colebrooke's *Husbandry of Bengal*, p. 119.)

In England, opium is principally used as a medicine. It has been said, however, with some show of evidence, that its use as a narcotic stimulant is on the increase. In 1867 we imported 273,522 lb. By far the largest part of our supply is brought from Turkey. Opium from the latter was worth, in the London market, in 1867, from 16*s.* to 17*s.* per lb.

Cultivation of Opium in India—Monopoly &c.—Opium is produced in Bengal, principally in the provinces of Bahar and Benares, in parts of Bombay, and in Malwa, in Central India. The opium of Bahar is known in commerce by the name of Patna opium. In Bengal the production of opium is a monopoly, no person being allowed to grow the poppy except on account of Government. The latter make advances to the cultivators, who deliver the entire produce into their hands at a fixed price of about 3*s.* 6*d.* per lb. It is afterwards sold by the Government for about 11*s.* per lb., so that the profit of the latter amounts to about 7*s.* 6*d.* per lb.

Opium may be grown and manufactured in Bombay; but it is subjected to the same high duty that is imposed on opium imported into the Presidency. The object of this high duty is to 'discourage its production.' Government purchase what little is produced in Bombay, supplying through licensed dealers all that is required for home consumption.

The poppy being extensively cultivated in India, yields a large revenue. Down to 1831 it was produced under a monopoly; but in that year the business was thrown open to the public, and the revenue collected by imposing a duty on the opium when passing through the Company's territories to Bombay. The capture of Scinde, by closing the route for the smuggling of opium through Kurrachee to the Portuguese settlements of Demaun &c., enabled a large addition to be made to the transit duty on Malwa opium, which was raised in 1847 to 400 rup. per chest, affording a revenue to Government of about 5*s.* 8*d.* per lb. (We have borrowed these authentic details from the Official Papers relative to India, pp. 73–75, published in 1853.)

No one doubts that opium is an excellent subject for taxation; and the higher the rate to which the duty on it can be raised without encouraging smuggling, so much the better. But a great deal has been said for and against the system under which the opium revenue is raised in Bengal and other parts of India; and, perhaps, it might be the better policy to open the culture of the plant to the unfettered competition of the public, imposing a high duty on the drug when grown or when exported. Without, however, entering on the discussion of this difficult question, we may shortly observe that the monopoly does not appear to have the consequences stated by Mr. Colebrooke, who tells us (*Husb. Bengal*, p. 118) that, except in a few localities peculiarly favourable, its culture is unprofitable; and that the peasants engage in it with reluctance, being tempted thereto only by the advances made by the Government agents. But if such were the case formerly, it would seem that circumstances have changed in the interval; for it appears from the official accounts, that the exports of Bengal opium, which amounted to 18,827 chests of 160 lb. each in 1840–41, had increased to 53,321 chests in 1854–55. The number of chests of Malwa opium (140 lb. each) exported from Bombay during the same period advanced from about 15,000 to 25,000 a-year. The total value of the opium exported from British India in 1866 was 11,122,746*l.* In 1867 there was exported from the United Kingdom 148,519 lb. of opium, valued at 121,291*l.*

Consumption and Trade of Opium in China.—Opium is pretty extensively used, both as a masticatory and in smoking, in Turkey and India; but its great consumption is in China and the surrounding countries, where the habit of smoking it has become almost universal. The Chinese boil or seethe the crude opium; and by this process the impurities, resinous and gummy matter, are separated, and the remaining extract only is reserved for use. Thus prepared, the drug loses its ordinary strong and offensive aromatic odour, and has even a fragrant and agreeable perfume. A small ball of it, inserted in a large wooden pipe with some combustible matter, is lighted, and the amateur proceeds to inhale four or five whiffs, when he lies down and resigns himself to his dreams, which are said to have no inconsiderable resemblance to the sensations produced by inhaling the oxide of azote. Those who do not carry the indulgence to excess, do not, it is said, experience any bad effects from it.

It is a curious fact that both the poppy and its produce appear to have been unknown, till a comparatively recent period, to the Hindus. And it has been conjectured, apparently on good grounds, that the plant, the method of extracting its juice, and its use, were introduced into India and China by Mohammedan traders, probably in the 9th or 10th century. And if such be really the case, the disciples of the Arabian prophet will not only be entitled to the credit, whatever it may be, of having introduced the art of distillation and the use of ardent spirits into the Western world, but also of having introduced its favourite luxury into the East. At all events, it is certain that opium had been introduced into China in the early part of the 16th century; a century and a half before the English had anything whatever to do with its cultivation. (See the tract entitled *China and its Trade*, p. 14, by the late John Crawfurd, Esq., the most eminent authority to whom reference can be made in a matter of this sort.)

Nine-tenths of the supplies of opium for the consumption of China have always been derived from India, a comparatively small quantity only being derived from Turkey. The trade has till recently been contraband, the introduction of the drug having been prohibited by the Chinese Government. Until about 1810 the trade did not attract much attention, or become of any very great importance, but it has since been very greatly extended, and has been since 1829 of first-rate consequence. It was at first carried on at Whampoa, about 15 miles below Canton; next at Macao, whence it was driven by the exactions of the Portuguese; and thereafter in the bay of

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Lintin. Here the opium was kept on board ships, commonly called receiving ships, of which there are often 10 or 12 lying together at anchor. Latterly, however, the opening of the ports on the Yang Tze, and of Chefoo, Tientsin, and Mow Chung, in the North of China, has greatly altered the opium trade at Shanghai. The chief kinds imported are Patna and Malwa. That of Benares will, however, it seems, soon command attention.

The export of opium into the province of Canton is said to be 1,800 piculs (240,000 lb.) a month, of which about 700 piculs pass through the customs, the rest being smuggled. In May 1863, the Government imposed a war tax of 16 taels per picul, and immediately the receipts began to drop, at from 175 to 200 piculs a month. The import at Ningpo was in 1864, 3,807 chests, and in 1866, less re-exports, 4,321 piculs. At Chefoo the consumption is about 100 chests a month. At Kir kiang 2,100 chests annually.

The sales have been mostly effected by English and American agents, who give orders for the delivery of the opium; which, on producing the order, is handed over to the Chinese smuggler, who comes alongside at night to receive it. Frequently, however, the smuggler purchases the opium on his own account, paying for it on the spot in silver; it being a rule of the trade, never departed from, to receive the money before the drug is delivered.

During the first 10 years of the present century the exports of opium from India to China averaged about 2,500 chests, of 149½ lb. each. But after the introduction of Malwa opium into the markets of Bombay and Calcutta, the exports began rapidly to increase. We subjoin—

An Account of the Quantities and Value of the Exports of Opium from India, from 1851 *to* 1866.

Years	Chests	Value	Years	Chests	Value
		£			£
1851	55,009	5,459,135	1859	75,522	10,827,642
1852	61,803	6,515,214	1860	58,681	9,054,394
1853	61,379	7,034,075	1861	65,490	10,184,713
1854	68,175	6,437,098	1862	65,369	10,533,912
1855	77,597	6,231,378	1863	82,216	12,494,128
1856	67,160	6,200,871	1864	70,839	10,756,093
1857	72,383	7,056,550	1865	84,492	9,911,894
1858	76,966	9,106,633	1866	—	11,122,746

It is necessary, however, to observe that the whole of the opium shipped from India does not go to China. That, indeed, is the destination of by far the largest portion of the exports, but about one-seventh of the total exports goes to the Straits Settlements.

The following is the amount of opium imported into the undermentioned 11 Chinese ports in 1864 and 1865 as given by the foreign Commissioners of Inspection in China.

	Quantities		Value	
	1864	1865	1864	1865
	piculs	piculs	taels	taels
Shanghai -	30,521	36,580	4,293,079	16,376,089
Ningpo -	3,295	3,470	1,604,991	1,745,400
Canton -	2,490	2,376	1,322,566	1,305,141
Foochow -	6,971	5,863	4,347,335	3,506,412
Swatow -	4,390	4,050	2,919 090	2,411,451
Amoy - -	4,771	5,245	2,699,074	3,114,280
Hankow -	1,999	3,485	1,078,385	1,868,056
Kin tiang -	2,201	2,490	1,111,340	1,566,985
Chefoo -	1,589	2,683	840,328	1,621,391
Tientsin -	2,839	5,557	1,571,225	3,399,796
Newchwang -	506	1,518	295,186	1 7,882
Total -	61,412	73,517	32,060,845	37,5 2,913

The total imports (less re-exports) at these and three other ports in 1866, as given in the last *Report* of the Commissioners, were 64,516 piculs.

The occasional diminution in quantity and value of the imports of opium into China cannot be ascribed to any other cause than the export and import duties, and the impossibility of preventing smuggling, both out and in.

Confiscation of Opium in 1839. — We have already seen [CANTON] that opium has till very lately been prohibited in China, and that consequently its importation has always been looked upon as a smuggling speculation. There would seem, however, to be good grounds for thinking that the prohibition of the importation of opium was all along intended to be more apparent than real. At all events, it is certain that the trade grew gradually up, from a small beginning, to be one of great extent and value; and it is nugatory to suppose that this should have been the case, had it encountered any considerable opposition from the Chinese authorities. But the truth is, that these functionaries, instead of opposing the trade, or even merely conniving at it, were parties to its being openly carried on; and received certain regulated and large fees on all the opium that was imported. It has even been alleged that a part of these fees found its way into the Imperial treasury at Pekin, though that is more doubtful. The appetite for the drug increased with the increasing means of gratifying it; and there appeared to be no assignable limits to the quantity that might be disposed of in the empire.

The rapid extension of the trade seems at length to have drawn the attention of the court of Pekin to the subject. We doubt, notwithstanding what has been alleged to the contrary, whether a sense of the injurious consequences of the use of the drug had much to do in the matter. The alarm of the Chinese Government was not so much about the health or morals of its subjects, as about their bullion. They are still haunted by the same visionary fears of being drained of a due supply of gold and silver, that formerly haunted the people of this country. The imports of opium having increased so rapidly as to be no longer balanced by the exports of tea and silk, sycee silver began also to be exported. The paternal Government of Pekin might have tolerated what are called the demoralising effects of opium with stoical indifference, but the exportation of silver was not a thing to be endured. It is, however, only fair to state that the Chinese statesmen were not all of the school of Mun and Gee; and that some of them appear to have taken an enlightened view of the question, and to have emancipated themselves from the prejudices that influenced the majority of their colleagues. The statesmen in question contended, that whether the use of the drug were injurious or not, the taste for it was too deeply seated and too widely diffused to admit of its effectual prohibition; and they, therefore, proposed that its importation should be legalised, subjecting it, at the same time, to a heavy duty. There cannot be a doubt that this was the proper mode of dealing with the subject. In the end, the Government of Pekin, influenced by unfounded theories as to the mischievous effect of the export of the precious metals, came to a different conclusion, and resolved to put a stop to the traffic.

After this resolution had been come to, the Chinese appear to have acted with more than their usual vigour; and having proceeded to extremities, they confiscated and destroyed about 20,000 chests of opium. The reader does not require to be told that this violent conduct on the part of the Chinese led to a war with this country. This contest was terminated in 1842, when the Chinese agreed, among other things, to pay 21,000,000 dols. towards the expenses of the war, and as an indemnity to the owners of the con-

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fiscated opium, to whom 1,250,000*l.* was ultimately awarded.

A good deal of discussion took place at the time in regard to the propriety of our conduct in compelling the Chinese to indemnify the opium holders. It was contended, that as the introduction of opium into China was prohibited, the Chinese in destroying it had done nothing but what they were entitled to do, and what we should have done had we been in their place; that the only parties to blame were those who violated the law, and smuggled the opium into the empire; and that we acted unjustly, and abused our power, in obtaining an indemnity for those in whose punishment we should have assisted.

But though specious, these objections are not really entitled to much weight. And though the interest in the subject be now gone by, it may be worth while to show that we had good grounds for what we did.

That the Chinese have the same right to exclude opium from their empire, that we have to prohibit the importation of beef, or ammunition, or to lay a duty on corn, does not admit of any question. But in endeavouring to suppress a trade that had been carried on under the sanction of the authorities at Canton, all of whom had largely participated in its profits, justice required that notice should have been given to the parties concerned of the intentions of Government. It is necessary to bear in mind that the Chinese were in the habit of frequently issuing proclamations against the importation of opium; but as no attempt was ever made to give any real effect to these proclamations, the parties engaged in the trade were naturally led to conclude that such would always be the case. Hence the necessity for a distinct intimation being made, that the laws against the importation of opium were, in future, to be bonâ fide and truly carried into effect, and for fixing some period after which all parties found engaged in the trade would be subject to certain penalties. No valid objection could have been made to such a course of proceeding. The Chinese are clearly entitled to prohibit the importation of opium; but neither the Chinese nor any other nation are entitled, after having, by long connivance at and participation in a trade, induced foreigners to import a large amount of valuable property into their territories, to pounce upon and seize such property on pretence of its being contraband. The Chinese are a remarkably clever people; and it is impossible that they should not see that, in this instance, their Government was guilty of gross injustice; and that it consequently rendered itself liable for the value of the property it so unwarrantably seized upon and destroyed.

Suppose the British Parliament had, in 1796, passed an Act prohibiting the importation of tea; and suppose, further, that the collector of customs and other authorities in Liverpool had paid no attention whatever to this Act, but that, from 1796 down to the present day, they had openly countenanced the trade; that it had rapidly increased; and that every year scores of Chinese ships laden with tea had arrived in the Mersey, safely unloaded their cargoes, and sailed either with silver or other British produce on board; what, under these circumstances, would the Chinese have said, had the British Government suddenly turned round and declared, 'You are engaged in an illegal trade;' and, without further intimation, have proceeded to seize and destroy all the tea belonging to them in England? Would not the Chinese, the Russians, French, and, in short, the whole world, have declared such an act to be flagrantly unjust? And would not every honest man in England have said that the Chinese had been swindled; and that the Government of China did not deserve to be treated with ordinary respect, if it did not endeavour to procure redress for its subjects?

Now, this was precisely the case of England against the Chinese. The morality or immorality of the opium trade was wholly beside the question. Though the use of opium were ten times more injurious than has ever been represented, that would not alter the fact that the trade in it had been openly countenanced by the Chinese authorities for a period of more than forty years; and such being the case, foreigners were certainly entitled to infer that that countenance would not suddenly be withdrawn: and that, at all events, their property would be respected. This, in fact, is not a question about which there is any real room for doubt or difference of opinion. The conduct of the Chinese was most unwarrantable; and the Government of this country had not only a well-founded claim for redress, but was called upon to enforce it by a just regard for the national honour and the interests of the British subjects whose rights had been so outrageously violated.

But we may further observe, in reference to this matter, that though it be laid down by all writers on public law, that it depends wholly on the will of a nation to carry on commerce with another, or not to carry it on, and to regulate the manner in which it shall be carried on (*Vattel*, book i. s. 8), we incline to think that this rule must be interpreted as applying only to such commercial States as recognise the general principles of public or international law. If a State possessed of a rich and extensive territory, and abounding with products suited for the use and accommodation of the people of other countries, insulates itself by its institutions, and adopts a system of policy that is plainly inconsistent with the interests of every other nation, it appears to us that such nation may be justly compelled to adopt a course of policy more consistent with the general well-being of mankind. No doubt the right of interference, in cases of this sort, is one that should be exercised with extreme caution, and requires strong grounds for its vindication. But that this right does exist, seems sufficiently clear. We admit that a slight degree of inconvenience, experienced from one nation refusing to enter into commercial transactions with another, or from its insisting that these transactions should be carried on in a troublesome and vexatious manner, would not warrant any interference with its internal affairs: but this, like all other questions of the same kind, is one of degree. Should the inconvenience resulting from such anti-social vexatious conduct become very oppressive on others, the parties so oppressed would have as good a right to interfere to enforce a change of conduct, as if the State that has adopted this anti-social offensive policy had openly attacked their territory or their citizens. A State has a *perfect* right to enact such rules and regulations for its internal government and the conduct of its trade as it pleases, provided they do not exercise any very injurious influence over others. But should such be the case—should the domestic or commercial policy of any particular State involve principles or regulations that trench on the rights or seriously injure the interest of other parties, none can doubt that these others have a right to complain; and, if the injury be of a grave character, and redress be not obtained on complaint being made—no reasonable doubt can be entertained that the aggrieved party is justified in resorting to force.

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These principles appear to apply with peculiar force in the case of China. Tea, a peculiar product of that country, has become a necessary of life in England; and no one can doubt that a most serious injury would be inflicted on the people of Britain were any considerable impediment thrown in the way of its importation; and as the arbitrary policy of the Chinese Government, which is not influenced by the maxims, and is regardless of the forms, that prevail among civilised States, has on various occasions interrupted this trade, and constantly exposed it to great dangers, it certainly appears that this was a case for forcible intervention—*dignus vindice nodus*—and that we were entitled to demand that the trade should be placed on a solid footing, that the import and export duties should be rendered intelligible and moderate, and that an end should be put to the extortion and interference of the Chinese authorities. And these desirable results appear to be secured by the treaty of 1858.

The prohibition against the importation of opium into China was not suppressed as it should have been by the treaty of 1842. But since that period the trade has been openly carried on at most places along the coast, and has met with little or no interruption. Since 1841–42, the imports into China have a good deal more than doubled. And, as already seen, the trade has attained to a magnitude that a few years ago the most sanguine would hardly have anticipated.

Repeal of the Prohibition.—Under the circumstances stated above, combined with the increasing cultivation of the drug in China, the continuance of the prohibition was out of the question. Its repeal was assented to by the Chinese in 1858; and among the trade regulations subjoined to the treaty of that year, is one legalising the importation of opium at a duty of 30 taels the picul. It may, however, be doubted whether this duty be not too high to stop the smuggling of the drug; but if so, its reduction will be an easy matter.

Alleged injurious Influence of Opium.—The objections that have been made to the trade in opium, because of its supposed injurious influence over those by whom it is used, do not seem to be entitled to much weight. There are no good grounds for thinking that it is at all worse than brandy, gin, wine, or other stimulants. All of them are mischievous, as are most things, when taken in excess, but not otherwise. We do not anathematise the growers of barley, or distillers, or the importers of wines or spirits, and why should we adopt a different course in dealing with the cultivators and sellers of opium? The late Sir Benjamin Brodie, P.R.S., than whom there could be no higher authority, contended that the use of opium is not so injurious as indulgence in spirits. 'The effect of opium,' said he, 'when taken into the stomach, is not to stimulate, but to soothe the nervous system. It may be otherwise in some instances, but these are exceptions to the general rule. The opium-taker is in a passive state, satisfied with his own dreamy condition, while under the influence of the drug. He is useless, but not mischievous. It is quite otherwise with alcoholic liquors. When Bishop and his partners murdered the Italian boy that they might sell his body, it appeared in evidence that they prepared themselves by a plentiful libation of gin. The same course is pursued by housebreakers and others who engage in desperate criminal undertakings. It is worthy of notice, also, that opium is much less destructive to the understanding than gin or brandy. Many opium-takers live to a great age, while dram drinking induces diseases of the liver, with their attendant bodily suffering, ill-temper, wretchedness, and premature death.' (*Physiological Inquiries.*)

It would be useless or worse to attempt to add anything to this conclusive statement. It disposes satisfactorily of the moral part of this question.

Opium as a Source of Revenue.—It is not easy to imagine a more unexceptionable source of revenue than the tax laid by the Government of India on opium when exported. It is no part of their duty to look beyond the interests of their own subjects; but it is evident that in raising the duty on opium to the point at which it will yield the greatest amount of revenue, they are consulting, at one and the same time, the best interests of their own people and those of the Chinese. A large amount of revenue is produced for the service of the former by a tax laid on an article consumed by the latter. But as the abuse of opium, which, like the abuse of spirits, would be highly prejudicial, is checked and in part prevented by the duty, it is plain that the well-being, as well of the buyers as the sellers of the drug is promoted by its imposition. The tax is, in truth, one of the very best that has ever been imposed; and its productiveness is not one of the least of its good qualities. Of the entire nett revenue of India, amounting in 1865–6 to 48,514,749*l.*, no less than 8,518,252*l.* was derived from opium; and in 1866–67, 6,803,413*l.* was received—that is, from a tax paid by the Chinese and Malays. [CANTON; EAST INDIES.]

OPOBALSAM. [BALSAM.]

OPOPONAX (Ger. opoponax; Fr. opoponax; Ital. oppoponaco; Span. opoponaco; Arab. jawesheer). A gum-resin obtained from the *Opoponax Chironium*, a species of parsnip. It is a native of the south of Europe and Asia Minor. The stem rises to the height of 6 or 7 feet, with a thick branched yellow-coloured root. The roots being wounded, a milky juice flows from them, which, being dried in the sun, is the opoponax of the shops. It is in lumps of a reddish yellow colour and white within. Smell peculiar. Taste bitter and acrid. Specific gravity 1·622. It is imported from Turkey. Being used only to a small extent in medicine, the consumption is inconsiderable. (Thomson's *Chemistry*; Ainslie's *Materia Indica*; Pereira's *Materia Medica*.)

OPORTO or PORTO. A large city and seaport of Portugal, on the north bank of the Douro, about 2 miles from its mouth, lat. 41° 10′ 30″ N., long. 80° 37′ 18″ W. It is a beautifully situated, well-built city; and contained in 1864, including the suburbs of Villanova and Gaya, on the opposite bank of the river, a population of 89,321.

Harbour.—The harbour of Oporto is a bar harbour, and can only be entered, at least by vessels of considerable burden, at high water; and it is seldom at any time practicable for vessels drawing more than 16 feet. On the north side of the entrance is the castle of St. João de Foz, whence a ledge of rocks, some of which are at all times above water, extends in a south-west direction. The outermost of these rocks, named Filgueira, which is always visible, is on the left or larboard side on entering. Cabedelo Point, forming the southern extremity of the entrance, is low and sandy. The bar being liable, from the action of the tides, and of sudden *freshes* in the river, to perpetual alterations, it is exceedingly dangerous for any vessel to attempt crossing it without a pilot. Pilots are always on the alert, and ready to offer their services when a vessel comes in sight, unless the weather be so bad that they cannot go off. On some few occasions of this sort, vessels have been detained for three weeks off the port, without having an opportunity of

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entering. The chapel of St. Catherine, in a line with that of St. Michael, leads over the bar. The ordinary rise of spring tides is from 10 to 12 feet, and of neaps from 6 to 8 feet. The Oporto light-house on the Nossa Senhora da Luz is fixed, and 218 feet above high-water mark. It is visible for 20 miles, but is described in the Admiralty list as a very bad light.

The swellings of the river, already referred to, most commonly occur in spring, and are caused by heavy rains, and by the melting of the snow on the mountains. The rise of water at such times is frequently as much as 40 feet; and the rapidity and force of the current are so very great that no dependence can be placed on anchors in the stream. Fortunately a *fresh* never occurs without previous warning; and it is then the practice to moor with a cable made fast to trees, or stone pillars, erected on the shore for that purpose. (For further information as to the harbour of Oporto, see Purday's *Sailing Directions for the Bay of Biscay*.)

Trade.—Oporto is the emporium of a large portion of the kingdom of Portugal, and enjoys a pretty considerable foreign commerce. The well-known red wine, denominated Port, from its being exclusively shipped at this city, forms by far the largest article of export. The exports vary in different years, from about 20,000 to above 40,000 pipes. England is much the largest consumer of port. The high discriminating duties on French wine originally introduced port into the British markets, and gave it a preference to which, though an excellent wine, it had no just title: this preference first generated, and its long continuance has since so confirmed, the taste for port among the great bulk of the population, that until 1860 it bade fair to maintain its ascendency as an after-dinner wine, notwithstanding the equalisation of the duties. At an average of the 7 years ending with 1858, there were shipped from Oporto for England 27,294 pipes a-year. In 1866 we imported of the red wines of Portugal 3,573,744 gals. of which 2,976,817 were entered for consumption. It is remarkable, that while the entries of port for consumption have increased but little since 1851, those of sherry and Rhenish have more than doubled since 1860, and those of French wines have more than trebled in the interval, 1860–67. And though the scarcity and dearness of port consequent on the vine disease may account to a great extent for its decreased consumption, it is not at all likely again to supersede the lighter French and Spanish wines, now that they have so firm and extensive a hold on the public taste in this country.

Next to England, Brazil, Russia, and the north of Europe are the principal consumers of port; but it appears, from the subjoined account, that the total exports to them do not amount to a half of those sent to England. The other exports are oil, oranges and other fruits, wool, refined sugar, cream of tartar, shumac, leather, cork &c. The imports are corn, rice, beef, salt fish, and other articles of provision; sugar, coffee &c. from Brazil; cotton and woollen goods, hardware, tin plates &c. from England; hemp, flax, and deals, from the Baltic &c.

Besides the British manufactured goods imported into Portugal for the use of the natives, a considerable quantity is destined for the consumption of Spain; being smuggled into that country through Braganza and other towns on the frontier.

The vintages in the Upper Douro fluctuate very greatly, but previously to the breaking out of the *oidium* or vine disease, in 1853, they might, at an average, be taken at from 70,000 to 80,000 pipes, of which about 33,000 were exported. The production and exportation of wine would, however, have been much greater but for the policy adopted by the Oporto Wine Company, to which Government conceded a monopoly of the trade. They divided all wine produced on the Douro into three qualities, viz. 1st, 2nd, 3rd, and refuse. But the merchants engaged in the wine trade affirmed that the distinction between the 1st and 2nd qualities was quite imaginary; and that they were, in fact, 'precisely the same.' (*Report of Commons' Com. on Wine Duties*, 1852, part i. p. 65.) Delusive though it were, the classification was not without an object. No wine, other than the 1st quality, was allowed to be shipped for any port in Europe, and it was charged, on being exported, with a duty of 3*l.* 10*s.* a pipe; whereas what is called the 2nd quality, though it were really as good as the 1st, was only charged, on being shipped for America, or any country out of Europe, with a nominal duty of 6*d.* a pipe. This extraordinary regulation, besides being injurious to the Portuguese, was offensive and unjust to others, and especially to us who are the great consumers of port. It had not, however, all the success which its contrivers anticipated; for it led to an indirect importation of port wine from the United States, which would, no doubt, have continued till the duties on the wines shipped from Oporto had been equalised or abolished.

The British Government did not fail strongly to remonstrate against this system, which, indeed, was in direct contradiction to the engagements in our treaties with Portugal. And in the end the Portuguese authorities appear to have become satisfied that by raising the cost of their wines, limiting their consumption, and substituting other nations as exporters of Portuguese wine, their system was a great deal more injurious to themselves than to any one else.

In consequence a decree was issued on October 13, 1852, which effected some very important reforms. Instead, for example, of being divided into 1st, 2nd, and 3rd qualities, wine was thenceforth to be divided into wine fit and unfit for exportation. The latter was to be retained in the country either for home consumption or conversion into brandy; while the former, or the wine fit for exportation, might be sent to all parts of the world, on paying a reasonable duty of about 14*s.* a pipe. The Douro Wine Company was then abolished, and other changes effected.

These were great improvements. Still the trade was far from being free. Power was given to a 'Regulating Commission,' or Committee of Taste, to say how much wine should be exported, so as to prevent a glut of the foreign markets. It would be but an equivocal compliment to the intelligence of the reader were we to dwell on the folly of such a regulation. Neither could there be any legitimate excuse for prohibiting the export of inferior wine. It would either be bought, under a free system, by the foreigner, or it would not. If it would not be bought, the prohibition was superfluous; and if it would be bought, then it was mischievous, and hindered the Portuguese from sending an important product to the best market. On the whole, however, a great change for the better was effected, and it paved the way for others.

It was soon found in practice, that if the Committee of Taste made any difficulty about the export of any wine, a permit or 'bilhete' could be readily purchased. Our treaty of 1860 with France too had some effect in enlightening the Portuguese Cortes, and at length, in 1865, they

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passed an Act, declaring the export of port wine, of whatever quality, free and unfettered. One thing is certain—that port wine now reaches us in a much more genuine state than it did under the auspices of the Oporto Wine Company or the Committee of Taste. See a curious discussion on the alleged blending and adulteration of port wines in the *Reports* of Mr. Secretary of Legation Lytton and Mr. Consul Crawford, presented to Parliament in 1867 and 1868.

Sometimes wine is purchased from the farmer in the wine country. In this case the casks are sent about 60 miles up the river, in boats, to be filled. Owing to the miserable state of the roads, the expense of carriage is very considerable; the cartage from and to the river side frequently costing from 1*l.* to 2*l.* per pipe. The freight from the upper country down the river to Oporto is about equal to that from the latter to England. There is also an internal duty on all wine brought down the river. Inasmuch, however, as these charges are perpetually varying, it is not possible to lay before the reader any pro formâ account of the cost of wine bought in the Upper Douro.

Shipments of Wine from Oporto from 1858 *to* 1867.

	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867
United Kingdom	11,592	14,531	22,417	22,945	21,853	30,044	29,942	33,492	30,546	25,105
Brazil	3,888	1,909	2,128	1,734	2,078	2,746	3,531	3,082	5,661	6,449
British Colonies	61	744	982	1,013	1,359	588	769	613	884	—
Hanse Towns	228	719	685	215	560	476	621	554	646	933
United States	194	424	399	57	151	143	132	410	726	139
Portugal and Colonies	290	299	387	256	254	314	266	287	439	499
Sweden and Norway	116	474	330	281	139	79	190	186	181	152
Denmark	95	94	158	101	190	223	87	277	305	218
Russia	155	315	256	176	50	68	83	—	—	259
Holland	48	—	81	68	70	101	138	124	131	184
Prussia	—	—	—	11	—	—	—	—	—	—
Other Ports	25	38	38	21	27	143	61	183	966	761
Total Pipes	16,691	19,547	27,861	26,908	29,711	34,905	35,620	39,208	40,183	34,679

Mr. Consul Crawford says, in his *Report* of January 30, 1867, that the new wine is brought down the river Douro in the early spring months, the river transport costing about 8*s.* 10*d.* for each pipe, and is lodged in the warehouses of the merchants at Oporto. It is here kept till ready for shipment to England, seldom being fit for that purpose for at least 18 months. [WINE.]

The *oïdium* or disease, which attacked the vines here and elsewhere, first appeared in Portugal in 1853, and has continued more or less every year since. It has greatly diminished the production. There can indeed be no doubt that the application of sulphur has given it a decided check. But this is an expensive remedy, and unless it be judiciously applied it is apt to spoil the wine.

The port charges, including tonnage duties, on a vessel of 300 tons, amount to about 50 dollars. Vessels sailing without a cargo pay for lights 200 reis per cent., instead of 50 reis, in order to encourage the export trade. Commission 2½ per cent., and *del credere* 2½ per cent.

PILOT REGULATIONS.—These were published at Oporto in 1841. They declare that the navigation over the bar of the Douro must be conducted by pilots regularly appointed, and their number shall be nineteen of the first and second classes, besides supernumerary pilots.

The outward and inward pilotage of every vessel over the bar to be confined to the nineteen pilots of the first and second classes; the pilotage in the river by the supernumerary pilots.

Pilots are prohibited to stipulate for the sum to be received when they board vessels in distress, and are bound to give immediate assistance, under pain, in case of the slightest delay, of suspension from their functions; or, in case of misconduct, to more severe punishment.

The pilots are obliged to reside at St. João de Foz; and all vessels except small craft are bound to take over the bar a supernumerary pilot.

When a supernumerary pilot is on board a vessel exercising his functions, and cannot bring it into port, he must remain on board such vessel; the master or owner of which to pay him the whole of his due, and a ration per day, until he is landed at Oporto. In case of dispute, the Portuguese consuls are required to make the foreign master fulfil the above regulation.

The pilotage rates for the entrance or the departure of vessels, in ordinary cases, are fixed as follow:—

	reis.	dols.	cts.
Small craft	800 =	0	90
Fishing boats	1,200 =	1	36
Steam vessels	2,[illegible] =	2	71
Sloops	3,500 =	3	96
Three masted schooners and brigs	4,000 =	4	52
Each pilot boat (including the crew)	2,400 =	2	71
To each supernumerary pilot boat	1,200 =	1	36
To each pilot, per day, outside the bar	800 =	0	90

Any extra fee to pilots is optional. The remuneration due in extraordinary cases, to pilot boats outside the bar, to be rated in accordance to the difficulty of the pilotage and the danger incurred.

The first pilot, and in his absence the second, will be charged to hold council with the others as to the possibility of the entrance or departure of the vessels, and decide by the majority of voices. A pilot who, in the execution of the decision of the council, does not conform to such decision, will immediately be suspended from his functions, and be responsible for all indemnifications, and subject also to corporal punishment.

When an accident happens on account of a pilot refusing to conform to the above results, the pilot cannot demand, for his defence, the opposition of the captains or proprietors of vessels to the free exercise of his functions, except this opposition was manifested with violence; in which case the pilot must immediately protest, so as to cover his responsibility.

The first pilot is bound to sound the bar at least every fourteen days, and to make known the result to the intendant of the marine, as well as any change that may take place in the river.

Any pilot losing a vessel in consequence either of intemperance or incapacity will be punished according to the full extent of the law. Every pilot is bound to have by him the regulations of signals appropriated for the service of the Douro. (*Parliamentary Reports already referred to, and valuable private information.*)

ORANGES (Ger. pomeranzen; Dutch, oranjen; Fr. oranges; Ital. melarancie; Span. naranjas; Russ. pomeranezü; Hin. narunge; Malay, simaomanis). The fruit of the orange tree. The common or sweet orange (*Citrus sinensis* or *Citrus nobilis*), and the Seville or bitter orange (*Citrus aurantium*), are natives of China: and the Portuguese are entitled to the honour of having trans-

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ferred the plant to other countries. Particular species of *Citrus* seem to be indigenous to various Eastern countries; but the birth-place of the proper orange may be distinctly traced to China. It is now to be found in our green-houses. Oranges are imported in chests and boxes, packed separately in paper. The best come from the Azores and Spain; very good ones are also brought from Portugal, Italy, Malta, and other places.

The orange trade carried on by this country is of considerable value and importance. Oranges are not much more expensive than most of our superior domestic fruits, while they are, perhaps, the most refreshing and wholesome of those of warmer climates. The entries for home consumption amounted, at an average of the years 1850 and 1851, to 359,142 boxes a-year. The duty produced, at an average of the above years, 73,246*l.* a-year. The number of persons employed in the importation and sale of oranges must be very considerable. The duty was reduced in 1853, from about 2*s.* 8*d.* to 8*d.* the bushel. It was repealed in 1862. In 1867 we imported no fewer than 1,453,566 bushels of oranges and lemons, valued at 744,732*l.* There were imported in the same year, 2,281 pipes of orange and lemon peel in brine, and 22,302 lb., dried or candied, of the total value of 14,217*l.*

ORCHILLA WEED, ORCHELLA, ORCHAL or ARCHIL (Ger. orseille; Fr. orseille; Ital. oricello, orcella; Span. orchilla). A whitish lichen (*Lichen orcella*), found in the Isle of Portland; but that which is used is imported from the Canary and Cape de Verd Islands, Madeira, Barbary, and the Levant. From it is obtained the archil, or orchal, of commerce, which yields a rich purple tincture, fugitive, indeed, but extremely beautiful. The preparation of orchilla was long a secret, known only to the Florentines and Hollanders; but it is now extensively manufactured in this country. Orchal is generally sold in the form of cake, but sometimes in that of moist pulp; it is extensively used by dyers; and in times of scarcity the weed or lichen has sold as high as 1,000*l.* per ton. (Thomson's *Dispensatory.*) The Portuguese orchal was valued at 30*s.*; that from the Eastern coast of Africa at 30*s.* 10*d.*; the imports from New Granada at 39*s.* 6*d.*; and those from Ecuador at 40*s.* 11*d.* per cwt. The entries for consumption amounted, at an average of the 3 years ending with 1842, to 6,050 cwt. 3 qr. 10 lb. The duty, which had been 3*s.* per cwt., was reduced in 1842 to 1*s.* per cwt., and was wholly repealed in 1846. In 1867 the imports amounted to 24,443 cwt. valued at 45,454*l.*, and the exports to 5,608 cwt.

ORGOL. [ARGOL.]

ORPIMENT (Ger. operment; Fr. orpiment; Ital. orpimento; Span. oropimente; Lat. auripigmentum). The name usually given to sulphuret of arsenic.

When artificially prepared, it is in the form of a fine yellow-coloured powder; but it is found native in many parts of the world, particularly in Bohemia, Turkey, China, and Ava. It is exported from the last two in considerable quantities; and is known in the East by the name of hartal. Native orpiment is composed of thin plates of a lively gold colour, intermixed with pieces of a vermilion red, of a shattery foliaceous texture, flexible, soft to the touch like talc, and sparkling when broken. Specific gravity 3·45. The inferior kinds are of a dead yellow, inclining to green, and want the bright appearance of the best specimens. Its principal use is as a colouring drug among painters, bookbinders &c. (Thomson's *Chemistry*; Milburn's *Orient. Com.*) Only 4 cwt., of the value of 16*l.*, were imported in 1867.

OSTRICH FEATHERS (Lat. plumæ struthionis; Fr. plumes d'autruche). The feathers of the ostrich, but more especially the long feathers of the wings and tail. These feathers have been highly prized from the remotest antiquity; and have been employed, either singly or intermixed with others (those of the swan, heron, peacock &c.), to heighten the magnificence of processions, the splendour of warriors, and the beauty of the fair.

The ostrich, as every one knows, is chiefly found in the sandy deserts of Arabia and Africa. Dr. Livingston, in his Travels into the Interior of the latter, says that, 'notwithstanding the difficulty of their capture, the quantity of feathers collected annually shows that the numbers slain must be considerable, as each bird has only a few in the wings and tail. The male bird is of a jet-black glossy colour, with the single exception of the white feathers, which are objects of trade. Nothing can be finer than the adaptation of these glossy feathers for the climate of the Kalahari, where these birds abound; for they afford a perfect shade to the body, with free ventilation beneath them. The hen-ostrich is of a dark brownish-grey colour, and so are the half-grown cocks' (p. 155).

The emu, or cassowary, a variety of the ostrich, is a native of Malacca, the Islands of the Asiatic Archipelago, and Australia. There is, also, a variety of the ostrich in South America. But the feathers of these varieties have hardly as yet become articles of commerce; and are very inferior to those of the Arabian and African ostriches.

One of the earliest as well as the most celebrated notices of ostrich feathers in modern times refers to those which adorned the helmet of the king of Bohemia, who fell at Cressy in 1346. These, with the motto *Ich dien* (I serve), having been assumed by the Black Prince, whose gallantry greatly contributed to the success of the English, have since formed the insignia of the Princes of Wales, and have been borne by them on state occasions. Henry VIII. is represented with an ostrich plume in his velvet cap, in a portrait by Holbein; and a portrait of his contemporary Francis I. is similarly decorated. In more recent times, these feathers, or substitutes for them, have been, and continue to be, used in the bonnets of the Scottish Highland regiments. At present they are extensively used in the decoration of ladies' bonnets and head-dresses; in children's hats, in artificial flower-making; funeral plumes; military plumes, and in various kinds of fancy trimmings and ornaments.

'Leghorn, after the decline of its commerce with the Levant, remained the great entrepôt of ostrich feathers, and did business in that article to the amount of about 1,200,000 francs annually. But since the establishment of steam navigation, London has gradually become the principal centre of that branch of trade, and Leghorn now only does business to about half the preceding amount: a part of the diminution is, however, owing to the decline which has taken place in prices. Seven-eighths of the ostrich feathers which Leghorn receives come from Egypt, and the rest from Tripoli and Aleppo.' (*Annales du Commerce extérieur.*) The Cape of Good Hope supplies the most valuable feathers, chiefly on account of their *white* colour. *Black* feathers come principally from Mogadore and Aleppo. A good black feather comes from the Cape, but in small quantities. White and grey feathers may be dyed to suit the prevailing taste; but black feathers are always dyed to a darker shade before they are made into plumes by the manufacturer. It is estimated that,

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at present prices, the value of the annual consumption of the rough undressed article may amount to from 30,000*l.* to 35,000*l.*; of which ½ may come from the Cape, ¼ from Mogadore, and the remaining ¼ from Egypt and Aleppo, by way of France.

In the estimation of the value of ostrich feathers, dealers, as a rule, consider the *whitest* and most perfect to be the best. The best *whites* vary from 15*l.* to 30*l.* per lb. avoirdupois, and the whites of all qualities mixed together, from 10*l.* to 17*l.* per lb. *Blacks* vary from 15*s.* to 5*l.* per lb., according to their length and quality, the longest being the most valuable. The ostrich feather is esteemed of the greatest value of all other feathers, if we except the Marabouts or feathers from the White Paddybird, which are worth from 25*s.* to 5*l.* per ounce.

The French have for many years past obtained supplies of Cape feathers and Marabouts from London, and they often purchase Mogadore feathers in the same market. They export to most of the cities in Europe both the manufactured and undressed article.

Since 1859, the fashion of Continental Europe, guided chiefly by the Imperial Court of France, has shown a decided preference for feathers as ornaments for ladies and children's hats and bonnets, and as trimmings for dresses and mantles, not exclusively confined to ostrich feathers. Tropical birds of rare and brilliant plumage contribute a large share to the prevailing fashion, such as the bird of Paradise, the Himalaya or Imphian pheasant, the Argus pheasant, the parrot, the trogon from India, the vulture, the cassowary, various specimens of humming birds, from South America, the emu or Australian ostrich, the grebe duck from European Turkey, the golden and silver pheasant, the common pheasant, and the heron from the British Isles. These are the most important among the birds whose plumage is now used for ornament and trimmings, and the value of many of them has greatly increased. The manufacturers of London and Paris supply nearly the whole civilised world with these productions in their finished state, London having the largest trade in ostrich feathers, and Paris in those of a fancy character. A leading manufacturer of great experience (Mr. Da Costa Andrade) estimates that in London alone at the present time the number of young women employed must exceed one thousand, whose wages vary from 5*s.* to 20*s.* per week, and that the value of ostrich and other feathers imported into the United Kingdom for this branch of commerce may amount to 215,000*l.* per annum.

Experiments are now being made in South Africa to domesticate the ostrich on large farms. At a meeting of the Colesberg Agricultural Society's Committee on October 8, 1864 (*Grahamstown Journal*, January 24), a Mr. Von Mallitz stated, from his own experience, 'The opinion I have formed with reference to the extent of ground requisite for their grazing is, that 35 birds can be carried, year in and year out, upon 300 acres of good grazing land, I mean land rather superior to the common run. At the end of last April, I had the wings of the birds plucked where the feathers of commerce grow. In consequence of the youth of the birds, those feathers then obtained were valueless. I now find, by recent examination, that the birds will be fit to pluck again at the end of the present month, verifying the statement made at the last Swellendam show by one of its members, who was, like myself, experimenting in this novel description of farming, that he obtained feathers fully grown from his ostriches every six months. The general opinion is, that the largest feathers, of which there are 24 on the wing of each male bird, are worth 25*l.* per lb., and that the yield of the whole plucking, the majority of the birds being males, will not fall short of 10*l.* each on the average. The original cost of the young birds was about 5*l.* each.'

As yet no definite results have been published to show the success of these experiments in South Africa. An attempt has been made by the 'Acclimatisation Society' of Paris to obtain feathers from ostriches reared there, but it is found that such feathers are far inferior to those imported, having more of the downy character of the swan, than the rich flue of the ostrich.

The imports in 1867 were as under:—

	Quantities	Declared Value
	lb.	£
White.		
From Hamburg	516	1,150
France	6,163	17,317
Morocco	601	3,238
Argentine Confederation	4,131	260
British Possessions in South Africa	7,192	50,851
Other parts	354	703
Total	18,957	73,519
Black.		
From France	16,352	24,877
Portugal	849	2,925
Egypt	1,982	2,020
Brazil	1,876	81
Argentine Confederation	735	200
British Possessions in South Africa	10,508	32,064
Other parts	160	479
Total	32,462	62,645
Grand total	51,419	136,164

In the same year we exported 2,247 lb. of white and 2,069 lb. of black feathers. No duty is now paid on feathers.

[We are indebted for this curious and valuable article to Robert Slater, Esq., of Fore Street.]

OWNERS OF SHIPS. Property in ships is acquired, like other personal property, by fabricating them, or by inheritance, purchase &c.

No ship is entitled to any of the privileges of a British ship until she be duly registered as such, and all the provisions connected therewith, embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104, be complied with. [REGISTRY.]

A British ship may belong either to one individual, or to several individuals. It is ordered by the Act just cited, that the property of every vessel of which there are more owners than one, shall be divided into 64th shares; that no person shall be entitled to be registered as an owner who does not, at least, hold one 64th share; but that any number of persons not exceeding five may be registered as joint owners of a share. It is further provided by the same statute, that not more than *thirty-two* persons shall be owners of any one ship at any one time. Companies or associations may hold property in ships on a special declaration in regard to the ownership of such body being made by their secretary or other authorised functionary in the terms prescribed by the statute.

Neither the property of an entire ship, nor any share or shares in such ship, can be transferred from one individual to another, except by bill of sale or other instrument in writing; and before the sale is valid, such bill or instrument must be produced to the registrar of the port at which the ship is registered, who is to enter the names, residences &c., of the seller and buyer, the number of shares sold &c. in the book of registry of such vessel, and to indorse the particulars on

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the bill of sale. [Secs. 57 and 58 of statute, art. [REGISTRY.]

But, though compliance with the directions in the statute accomplishes a complete transference of the property when the transaction is not in its nature illegal, it gives no sort of security to a transference that is otherwise bad. The purchaser should in all cases endeavour to get *possession* of the ship, or of his share in her, as soon as his title to her or it is acquired, by the registration of the particulars of the bill of sale; for though all the formalities of sale have been completed, yet, if the sellers continue as apparent owners in possession of the ship, their creditors may, in the event of their becoming bankrupt, acquire a right to it, to the exclusion of the purchasers. In the case of a sale or agreement for a part only, it is enough if, the sale being completed, the seller ceases to act as a part owner. (Lord Tenterden *On the Law of Shipping*, part i. c. 1.)

Property in ships is sometimes acquired by capture. During war, her Majesty's ships, and private ships having letters of marque, are entitled to make prizes. But before the captors acquire a legal title to such prizes, they must be condemned in the Admiralty or other court constituted for that purpose. When this is done, the captors are considered to be in the same situation, with respect to them, as if they had built or purchased them.

No person having the mortgage of a ship, or a share of a ship, made over to him as a security for a debt, shall be deemed an owner, or part owner, of such ship. And when such mortgage has been duly registered according to the provisions of the Act, the right and interest of the mortgagee are not to be affected by the bankruptcy of the mortgagor, though he be the reputed owner, or part owner, of such ship. [Secs. 70–72 of statute, art. REGISTRY.]

In the article MASTERS OF SHIPS is given an account of the liabilities incurred by the owners of ships for the acts of the masters. But it has been attempted to encourage navigation by limiting the responsibility of the owners, without, however, depriving the freighter of a ship of an adequate security for the faithful performance of the contract. To effect this desirable object, it has been enacted, that the owner or owners shall not be liable to make good any loss or damage happening, *without their fault or privity*, to any goods put on board any ship or vessel belonging to such owner or owners, further than the value of such ship or vessel, with all its appurtenances, and the freight due, or growing due, during the voyage that may be in prosecution, or contracted for, at the time when the loss or damage has taken place. (17 & 18 Vict. c. 104 s. 504.)

This limitation was first introduced into our law by the 7 Geo. II. c. 15. But it had previously been adopted in the law of Holland, and in the justly celebrated French Ordinance of 1681. In the Ordinance of Rotterdam, issued in 1721, it is expressly declared that 'the owners shall not be answerable for any act of the master, done without their order, any further than their part of the ship amounts to.' Independently, however, of this general agreement, the expediency of the limitation appears, for the reasons already stated, sufficiently obvious.

It was also enacted in 1786 (26 Geo. III. c. 60) that neither the master nor owners of any ship or vessel shall be liable to answer for or make good any gold or silver, diamonds, watches, jewels, or precious stones, lost or embezzled during the course of the voyage, unless the shipper thereof insert in his bill of lading, or declare in writing to the master or owners, the true nature, quality, and value of such articles. This restriction is embodied in the Mercantile Shipping Act (sec. 503); with the further condition that the owners shall not be liable for any damage done to goods on board by fire. We subjoin the clauses in the statute having reference to the liability of the owners.

Owner not liable in respect of certain Articles.—No owner of any sea-going ship or share therein shall be liable to make good any loss or damage that may happen without his actual fault or privity of or to any of the following things, viz.:—

1. Of or to any goods, merchandise, or other things whatsoever taken in or put on board any such ship, by reason of any fire happening on board such ship.

2. Of or to any gold, silver, diamonds, watches, jewels, or precious stones taken in or put on board any such ship, by reason of any robbery, embezzlement, making away with or secreting thereof, unless the owner or shipper thereof has, at the time of shipping the same, inserted in his bills of lading, or otherwise declared in writing to the master or owner of such ship, the true nature and value of such articles, to any extent whatever. (17 & 18 Vict. s. 503.)

Measure of Owner's Liability.—By the Merchant Shipping Act of 1854 this liability was limited to the value of the ship and freight due, but the 25 & 26 Vict. c. 63 further limited the liability as follows:—

Ship-owners' Liability limited.—The owners of any ship, whether *British* or foreign, shall not, in cases where all or any of the following events occur without their actual fault or privity, that is to say,

1. Where any loss of life or personal injury is caused to any person being carried in such ship;

2. Where any damage or loss is caused to any goods, merchandise, or other things whatsoever on board any such ship;

3. Where any loss of life or personal injury is by reason of the improper navigation of such ship as aforesaid caused to any person carried in any other ship or boat;

4. Where any loss or damage is by reason of the improper navigation of such ship as aforesaid caused to any other ship or boat, or to any goods, merchandise, or other things whatsoever on board any other ship or boat;

be answerable in damages in respect of loss of life or personal injury, either alone or together with loss or damage to ships, boats, goods, merchandise, or other things, to an aggregate amount exceeding 15*l.* for each ton of their ship's tonnage; nor in respect of loss or damage to ships, goods, merchandise, or other things, whether there be in addition loss of life or personal injury or not, to an aggregate amount exceeding 8*l.* for each ton of the ship's tonnage; such tonnage to be the registered tonnage in the case of sailing ships, and in the case of steam ships the gross tonnage without deduction on account of engine room:

In the case of any foreign ship which has been or can be measured according to *British* law, the tonnage as ascertained by such measurement shall, for the purposes of this section, be deemed to be the tonnage of such ship:

In the case of any foreign ship which has not been and cannot be measured under *British* law, the surveyor-general of tonnage in the United Kingdom, and the chief measuring officer in any

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British possession abroad, shall, on receiving from or by direction of the court hearing the case such evidence concerning the dimensions of the ship as it may be found practicable to furnish, give a certificate under his hand, stating what would in his opinion have been the tonnage of such ship if she had been duly measured according to *British* law, and the tonnage so stated in such certificate shall, for the purposes of this section, be deemed to be the tonnage of such ship. (25 & 26 Vict. c. 63 s. 54.)

Limitation of Invalidity of Insurances.—Insurances effected against any or all of the events enumerated in the section last preceding, and occurring without such actual fault or privity as therein mentioned, shall not be invalid by reason of the nature of the risk. (Sec. 55.)

Proof of Passengers on board lost Ship.—In any proceeding under the 506th section of the principal Act or any Act amending the same against the owner of any ship or share therein in respect of loss of life, the master's list or the duplicate list of passengers delivered to the proper officer of customs under the 16th section of 'The Passengers Act, 1855,' shall, in the absence of proof to the contrary, be sufficient proof that the persons in respect of whose death any such prosecution or proceeding is instituted were passengers on board such ship at the time of their deaths. (Sec. 56.)

Provision for separate Losses.—The owner of every sea-going ship or share therein shall be liable in respect of every such loss of life, personal injury, loss of or damage to goods as aforesaid, arising on distinct occasions to the same extent as if no other loss, injury, or damage had arisen. (17 & 18 Vict. s. 506.)

When several freighters sustain losses exceeding in the whole the value of the ship and freight, they are to receive compensation thereout in proportion to their respective losses; and any one freighter, on behalf of himself and the other freighters, or any part owner, on behalf of himself and the other part owners, may file a bill in a court of equity for the discovery of the total amount of the losses, and of the value of the ship, and for an equal distribution and payment. If the bill be filed by or on behalf of the part owners, the plaintiff must make affidavit that he does not collude with the defendants, and must offer to pay the value of the ship and freight, as the court shall direct.

It is usual in most countries, where the part-owners of a ship disagree as to her employment, to give those possessed of the greater number of shares power to bind the whole. But in this country, while the majority of the owners in value have authority to employ the ship as they please, the interests of the minority are secured from being prejudiced by having their property engaged in an adventure of which they disapprove. For this purpose it has been the practice of the Court of Admiralty to take an obligation from those who desire to send the ship on a voyage, in a sum equal to the value of the shares of those who object to it, either to bring back and restore to them the ship, or to pay them the value of their shares. When this is done, the dissentient part owners bear no portion of the expense of the outfit, and are not entitled to a share in the profits of the voyage; the ship sails wholly at the charge and risk, and for the profit, of the others. (Abbott, part i. c. 3.)

For the statutory enactments as to the sale and transfer of ships, see REGISTRY.

OYSTER (*Ostrea edulis*), OYSTERS (Lat. ostreæ; Fr. huîtres). A well-known and highly valued shell-fish, found in great abundance and in the greatest perfection in many places along our shores. In antiquity, as in modern times, the oysters of Britain were held in the highest estimation. Juvenal, in illustration of the fastidious taste of the Roman epicures, says:—

> Circæis nata forent, an
> Lucrinum ad saxum, Rutupinove * edita fundo
> Ostrea, callebat primo deprendere morsu.
> Sat. iv. 140.
>
> (* Richborough in Kent.)

Oysters differ in size and quality, according to the different nature of the grounds or beds on which they are found. They are particularly abundant in the creeks and rivers of Essex and Kent, and in various parts along the south coast and the coast of Wales. Ireland is also well supplied with oysters; those of Carlingford being the greatest favourites. The beds in the Frith of Forth, adjacent to Edinburgh, are very valuable. And those of the Channel Islands, especially Jersey, furnish large supplies.

Oysters are not always carried direct from the places where they are found to market, but are frequently conveyed to artificial beds, where they are fattened, and where their flavour is said to be improved. This sort of industry has been long practised by the traders who supply the London market. The small, ovate, deep-shelled oysters, called *natives*, which are here most esteemed, are all brought from artificial beds at Whitstable, Rochester, Milton, Colchester, Burnham &c.; those from Burnham being reckoned the best. Inasmuch as the oyster does not breed freely, and often not at all on these beds, they would require, even though they were not dredged, constant re-stocking.

The consumption of oysters in London is immense; for, notwithstanding their high price, they are largely consumed by the middle and lower classes. It has been variously estimated, but may, perhaps, annually amount to from 25,000 to 30,000 bushels of natives, and to 100,000 bushels of other varieties. The consumption of oysters in Edinburgh and Leith has been estimated at 7,350 a day. The export of oysters from Jersey amounted, at an average of the 4 years ending with 1822, to 208,023 bushels a-year: of these a large portion came to London; but in the accounts for 1863–67 the total exports of fish from the Channel Islands are given in cwts. without distinction of varieties.

Oysters are very abundant on many parts of the shores of the United States; and their consumption in New York and other great cities is very large, though some of the statements that have been put forth with respect to it appear to be extremely exaggerated. Baltimore is the grand seat of the American oyster trade. Supplies of oysters are sent from the feeding grounds and beds belonging to that city to most parts of the Union. (For further information with respect to this curious and interesting subject, see the excellent article on the Oyster in the work of Forbes and Hanley *On British Mollusca*, ii. pp. 305—329; Eyton *On the Oyster*, passim; Pennant's *British Zoology*; *The Oyster, when, how, and where to Find &c.* 1863; *Oyster Fishery: the Laws which regulate it in Ireland, being chiefly a reprint of Articles from various sources*, Dublin 1864; &c.)

The disposition of the English and French, as of all other fishermen, to encroach, in pursuing their business, on the grounds belonging to the others, gave rise to many disputes and collisions. To terminate these a convention was agreed to in 1839, by which commissioners were appointed to ascertain and fix the limits of the fishing grounds

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belonging to each nation. These, which were laid down in a chart affixed to the award of the commissioners, were fixed, speaking generally, at 3 miles' distance from low-water mark along the shores of both countries; and the fishing boats of either were prohibited from coming within these limits of the coasts of the other, except from stress of weather, the influence of the tides, or other specified cause. The regulations laid down by the commissioners were carried into effect by the Act 6 & 7 Vict. c. 79, to which they were appended; and it further provided that the oyster fisheries should open on September 1, and close on April 30. It was afterwards enacted by the 18 & 19 Vict. c. 101, that all oysters and dredges found on board fishing vessels between May 1 and August 31 might be seized, and that oysters landed between the above dates might also be seized.

A deficiency in the ordinary supply of oysters, and the risk of their permanent decline, led the Legislature in 1866 (29 & 30 Vict. c. 85) to make provision for the maintenance of oyster and mussel fisheries; and to attain the same end certain rules are laid down in the Sea Fisheries Act of 1868, 31 & 32 Vict. c. 45, which repeals the previous Acts already referred to and confirms the Fishery Convention with France of November 11, 1867.

The following is an abstract of Part III. of the last-mentioned Act, which refers to oysters.

The Board of Trade, on memorial, can make an order for the establishment or improvement, and for the maintenance and regulation of these beds. (Sec. 29.)

If on consideration the Board of Trade approve, the promoters must cause printed copies of the draft of the order to be circulated among all persons having interests in the land adjoining, who may make objections within one month. (Secs. 30, 31.)

After this interval, the Board shall appoint some fit person to act as inspector, who is to hold a sitting or sittings concerning the subject matter of the said order, and receive evidence (sec. 32); the inspector must report (sec. 33), and as soon as convenient the Board of Trade shall settle and make the order (sec. 34), after which it must be published by the promoters (sec. 35), who shall defray all expenses. (Sec. 36.)

The confirmation of the orders must be made by Act of Parliament (sec. 37); if petition be presented against Bill confirming order, the Bill shall be treated as a private one (sec. 38). The Board of Trade may amend the order. (Sec. 39.)

Those who obtain an order shall have the exclusive right of depositing, propagating, dredging, and fishing for and taking oysters and mussels within the limits of their fishery (sec. 40).

The limits of the fishery to be marked. (Sec. 42.) The portion of the seashore shall be held to be within the county. (Sec. 43.)

No grant can be conferred for more than 60 years. (Sec. 44.)

If the fishery is mismanaged, the grant may be resumed. (Sec. 45.) Consent of the Crown needed when the seashore is adjacent to Crown lands. (Sec. 46.)

Compensation, if needed, to be made to the owners of the shore under the Lands Clauses Consolidation Act. (Sec. 47.) The order must not be made against rights conferred by special Act of Parliament or royal charter, prescription, or immemorial usage, without the consent of the parties interested. (Sec. 48.) Copies of the order and Acts must be kept for sale, under a penalty of 5*l.* and 1*l.* per diem. (Sec. 49.) Annual Report to Parliament to be made by the Board of Trade (sec. 50). The fishery shall be protected against the use of any fishing tackle, other than for floating fish, against dredging, deposit of ballast or rubbish, placing any implement &c. likely to be prejudicial to the beds, under penalties varying from 2*l.* to 10*l.* besides damages. (Sec. 53.) Then follow certain additional regulations for protection of oyster beds. The Act does not extend to Ireland or the Channel Islands and Man. The execution of this Act is committed to certain sea fishery officers, viz. commissioned officers of her Majesty's ships on full pay, officers of the coast guard and customs, and persons appointed by the French Government to superintend the fisheries referred to in the convention with France, s. 8. An order in council of February 4, 1869, contains a series of regulations for lettering, numbering, and registering sea fishing boats under the Sea Fisheries Act of 1868. The 31 & 32 Vict. c. 53 continues in force the Act 2 Geo. II. c. 19 for regulating the Oyster Fishery in the Medway.

Irish Oyster Fisheries.—Licenses had been granted under 5 & 6 Vict. c. 106, and 13 & 14 Vict. c. 88, for the purpose of establishing oyster beds in Ireland. By 29 & 30 Vict. c. 88, the license is granted by commissioners; the fisheries are protected by the same provisions as are quoted above, and the commissioners may revoke the license, if no proper steps are taken to use the license after the lapse of three years. The powers of the Irish Fishery Commissioners, and the process by which the fisheries shall be developed, are carried out by another Act of the same session, 29 & 30 Vict. c. 97, the particulars of which, mutatis mutandis, are the same as those of the Act for Great Britain; and by 31 & 32 Vict. c. 45 s. 67, the Irish Fishery Commissioners are authorised to lay before her Majesty in council by-laws for restricting or regulating the dredging in any oyster beds near the Irish coast, but outside the exclusive fishery limits of the British Isles.

P

PACKAGE, SCAVAGE, BAILLAGE, AND PORTAGE. Duties formerly charged in the port of London on the goods imported and exported by aliens, or by denizens being the sons of aliens.

During the dark ages, it was usual to lay higher duties upon goods imported or exported by aliens, whether in British or foreign ships, than were laid on similar goods when imported or exported by natives. But according as sounder and more enlarged principles prevailed, this illiberal distinction was gradually modified, and was at length wholly abolished, in so far at least as it was of a public character, by the 24 Geo. III. c. 16. This Act, after reciting that 'the several duties and restrictions imposed by various Acts of Parliament upon merchandise are, by the alterations of the trade now carried on between this

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kingdom and foreign States, in some cases become an unnecessary burden upon commerce, without producing any real advantage to the public revenue, and that it is expedient they should no longer continue,' enacts, that the duty commonly called 'the petty customs,' imposed by the 12 Ch. II., and all other additional duties imposed by any Act upon the goods of aliens above those payable by natural-born subjects, should be no longer payable. The Act then goes on to provide, that nothing contained in it shall 'alter the duties due and payable upon goods imported into or exported from this kingdom in any *foreign* ship, nor the duties of *package* and *scavage*, or any duties granted by charter to the city of London;' and then follow provisions to prevent the city being defrauded of such duties by false entries of aliens' goods in the name of a British subject. (Chitty's *Commercial Law*, vol. i. p. 160.)

The duties thus preserved to the city were not very heavy; but the principle on which they were imposed was exceedingly objectionable, and their collection was attended with a great deal of trouble and inconvenience. Not being levied in other places, they operated to the prejudice of the trade of the metropolis. For these reasons, we observed, in the first edition of this work, that 'if the funds of the corporation will not admit of their following the liberal example of the Legislature, by voluntarily abandoning this vexatious impost, it would be good policy to give them a compensation for relinquishing it.' And this suggestion has since been carried into effect. The Act 3 & 4 Wm. IV. c. 66 authorised the Lords of the Treasury to purchase up the duties in question from the city. This was done, at an expense of about 140,000*l.*, and the duties were abolished. There is a table of the duties in the first edition of this work.

PACKETS. [Docks (Southampton, Liverpool &c.); New York; Passengers; Post-office.]

PALERMO (anciently Panormus). A large city and seaport, the capital of the noble island of Sicily, on the north coast of which it is situated, the lighthouse being in lat. 38° 8′ 15″ N., long. 13° 22′ 50″ E. Population, in 1862, 167,625.

The bay of Palermo is about 5 miles in breadth, the city being situated on its south-west shore. A fine mole, fully ¼ mile in length, having a lighthouse and battery at its extremity, projects in a southerly direction from the arsenal into 9 or 10 fathoms water, forming a convenient port, capable of containing a great number of vessels. This immense work cost about 1,000,000*l.* sterling in its construction; the lighthouse was improved in 1853. It gives a flash every 2 minutes, and is visible at from 11 to 14 miles. It is 92 feet above high water. There is an inner port, which is reserved for the use of the arsenal. Ships that do not mean to go within the mole may anchor about ¼ mile from it, in from 16 to 23 fathoms, the mole light bearing N.W. ¾ W. A heavy sea sometimes rolls into the bay, but no danger need be apprehended by ships properly found in anchors and chain cables. In going into the bay, it is necessary to keep clear of the nets of the tunny fishery, for these are so strong and well moored as to be capable of arresting a ship under sail. (Smyth's *Sicily*, p. 70, and Appen. p. 4.)

Money.—Since 1818, the coins of Sicily have been the same as those of Naples, their names only differing. [Naples.] The ducat, = 3*s.* 5·2*d.* sterling, is subdivided into 100 *bajocchi* and 10 *picciuli*; but accounts are still generally kept in *oncie*, *tari*, and *grani*: 20 grani = 1 taro; 30 tari = 1 oncia. The oncia = 3 ducats; and 1 carlino of Naples = 1 taro of Sicily. The Spanish dollar is current at 12 tari 8 grani. For money of the Kingdom of Italy, see Coins; Genoa; &c.

Weights.—These are the *cantaro grosso*, subdivided into 100 *rottoli grossi* of 33 oncie, or into 110 rottoli sottili of 30 oncie; and the *cantaro sottile*, subdivided into 100 rottoli sottili of 30 oncie, or 250 lb. of 12 oncie. The rottolo of 33 ounces = 1·93 lb. avoirdupois = 2·34 lb. Troy = 8·73 hectogrammes = 1·77 lb. of Amsterdam = 1·8 lb. of Hamburg. The rottolo of 30 ounces = 1·75 lb. avoirdupois = 2·13 lb. Troy = 7·94 hectogrammes = 1·6 lb. of Amsterdam = 1·64 lb. of Hamburg.

100 Sicilian pounds of 12 ounces = 70 lb. avoirdupois = 85·11 lb. troy = 31·76 kilog. = 64·23 lb. of Amsterdam = 65·58 lb. of Hamburg.

Measures.—The *salma grossa* = 9·48 Winch. bush.: the *salma generale* = 7·62 Winch. bush.

The principal liquid measure is the tonna, divided into 4 barili, each equivalent to 9⅔ wine gallons. 1 barile = 2 quartare; 1 quartara = 20 quartucci. The caffiso of oil = 4⅘ Eng. gallons.

The yard or *canna* = 8 *palmi*; 2½ palms = 1 yard Eng. (Nelkenbrecher; Smyth, p. 62 App.) These local measures are now, however, superseded in great measure by the adoption of the metrical system, which is legalised throughout the kingdom of Italy.

Tares.—Coffee, indigo, pepper, and dye woods, 2 per cent. and weight of package. Cinnamon, 6 rottoli per seron, with 1 wrapper, or 8 rottoli, with 2 wrappers; cocoa, 2 per cent., weight of package, and 3 per cent. for dust; cod-fish, 3 per cent.; herrings, 12 per cent.; tin, 13 rottoli per barrel; wax, weight of package, and 3 to 4 per cent. extra allowance; Havannah sugars, 16 per cent.; Brazil do., in short cases, 18 per cent., and in long cases, 20 per cent.; crushed sugar, weight of cask, and 5 per cent., or 13 per cent. in all, at the option of the buyer; East India do. in bags, 8 rot. to 10 rot. per bag. 1 rottolo taken as weight of bag, for coffee and cocoa in bags.

Charges on Goods.—The regular charges on the sale of goods consigned to Palermo are—commission, 3 per cent.; brokerage, ⅛ per cent.; warehouse rent, ½ per cent.; and porterage and boat hire; with 2 per cent. *del credere*—imports being almost always sold on credit. The charges may occasionally vary ¼ to 1 per cent., and imports are frequently sold duty paid; the prices, however, so obtained, fully compensate for the trifling increase of charges.

The charges on goods exported are—3 per cent. commission; brokerage, so much per *cantaro*, *salma* &c., generally amounting to about ½ per cent., except on fruit, on which equivalent to from 2 to 3 per cent.

Trade of Sicily.—The shipping rose from 7,340 vessels, 935,000 tons, in 1865, to 8,970 vessels, 1,331,769 tons in 1866; 290,000 tons were British, 450,300 tons French, 440,000 tons Italian, in the latter year. In 1867 the number of vessels fell to 8,170, but the tonnage rose to 1,584,179, the British tonnage having decreased, while that of the French, Italians, and Americans increased.

The following is the summary of Sicilian trade in 1867:—

Countries	Imports	Exports	Total
	£	£	£
America, United States	35,450	425,430	461,880
Italy, Belgium, Germany	351,076	364,500	715,576
France	398,960	509,100	908,060
Great Britain and Colonies	757,610	930,259	1,687,869
Italian States	165,177	244,530	407,707
Other countries	598,970	311,500	907,470
Total	2,297,243	2,821,319	5,118,562

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The rate of exchange during the year 1867 was 26·60 livres per pound sterling.

Imports and Exports.—During the years 1862—1864 the imports and exports of Sicily were entered at 3,267,679*l.* and 2,851,954*l.* 1,733,624*l.*, and 2,702,805*l.*, 2,004,194*l.* and 2,892,575*l.*

The great articles of export from Sicily are—olive oil, grain, particularly wheat and barley; silk, brimstone, wine and brandy, barilla, lemons and oranges, lemon juice, manna, shumac, linseed, fruit, salted fish and salt; with argol, liquorice, pumice stone, rags, skins, honey, cotton wool, saffron &c. Wheat is largely exported. It is of a mixed quality, hard, and is generally sold from the public magazines, *or caricatori* (post), by measure, without weight. But the best hard wheat grown in the neighbourhood of Palermo is sold by the salma of 272 rottoli=476 lb. Eng.; the difference between weight and measure being made good by the seller or buyer, as the case may be. Wine is principally shipped from Marsala; lemons, oranges, and lemon juice, from Messina; salt, from Trapani; and barilla, from the southern coast. But all the articles to be found on the coast may, for the most part, be had at Palermo; unless, however, the quantity required be small, it is usually best to ship them from the outports, the expense of their conveyance to Palermo being very heavy. The crops of barilla and shumac come to market in August; but brimstone, salt, oil, wine, rags &c. may generally be had all the year round. The first shipments of lemons and oranges may be made in the beginning of November. Purchases of produce are always paid for in cash, generally ½ on making the purchase, and the other ½ on delivery, when in Palermo, and on receiving order for delivery on the coast.

The imports consist of cotton stuffs, linens, and woollens; sugar, coffee, cocoa, dye stuffs, iron, earthenware, spices, coal, tin, hides, Newfoundland cod, timber for building &c. The best of the old accounts of the trade of Sicily that we have met with is contained in Swinburne's *Travels in the Two Sicilies*, 4to. ed. vol. ii. pp. 401—413. We have, also, derived much valuable information from the elaborate *Reports* of Mr. Consul Goodwin, one of the most intelligent of that class of functionaries.

The value of the imports into Sicily from the United Kingdom amounted in 1856 to 451,000*l.*, in 1857 to 399,000*l.*, and in 1867, as we see above, to 757,610*l.* The principal articles are cotton stuffs and yarn, linens and woollens, iron, coal, hardware and earthenware, colonial produce &c.

Remarks on the Trade &c. of Sicily.—This noble island contains about 10,500 square miles, being the largest in the Mediterranean, and one of the most fertile and best situated in the world. Its population in 1862 was 2,391,802. In ancient times, Sicily was celebrated for the number, magnitude, and opulence of its cities. Notwithstanding that its population was then probably treble its present amount, it obtained, from its furnishing vast supplies of corn and other articles of provision for the use of Rome, the appropriate epithet of 'horreum Romanorum,' and is said by Livy to have been 'Populo Romano, pace ac bello, fidissimum annonæ subsidium.' (Lib. xxvii. cap. 5.) But ('quantum mutatus!') there are now few countries in which agriculture and the arts are in so degraded a state. It does not, however, appear very difficult to account for this melancholy change. After the overthrow of the Roman power, Sicily was occupied successively by the Greeks, Saracens, Normans, and French, till at length it became a dependency, first of the Crown of Spain, and more recently of that of Naples. It is to this dependence, and to the introduction of the feudal system by the Normans, that its backward state is principally to be ascribed. The multiplied abuses which grew up in Spain under the reign of Ferdinand and his successors of the Austrian line, flourished with equal luxuriance in Sicily, and have proved no less destructive of the industry and civilisation of its inhabitants than those of Spain. Misgovernment, the abuses of the feudal system, insecurity, and unequal and arbitrary taxes, have here, as everywhere else, paralysed industry, and impoverished the people.

But the grand curse of Sicilian, as of Sardinian industry, will probably be found in the oppressive restrictions that were for a long time laid on the exportation of corn. Down to a late period no corn could be exported without leave being obtained from the *Real Patrimonia*, a body that pretended to take an account of the crops, and which determined whether there were to be any exportation; and in the event of its being allowed, it issued, or rather sold, licenses to a few favoured individuals, authorising them to export certain specified quantities. Even had Sicily been ten times more productive than she really is, it is quite impossible that agriculture could have flourished under such discouragements. Luckily, these oppressive restraints have been abolished, and there are no longer any obstacles to the free exportation of corn. Oppressive taxes, the want of leases of a reasonable length, and of practicable roads, are still, perhaps, the greatest obstacles to agriculture.

At the present time (1869) the union of nearly all Italy, with the chief islands adjoining, under one and that a responsible Government, leads us to hope that at no very remote date the commercial prosperity of Sicily will progress with its social and political liberties. At present, as might be expected, this progress is slow. The development of the kingdom of Italy has been checked by the great cost of the wars undertaken for the purpose of securing Italian unity, by the expenses which a popular Government invariably entails at and for some time after its establishment, by the fact that political changes do unsettle and derange trade, and by the delays which timidity and reaction have put in the way of those changes which must be accepted before any great progress is possible. These difficulties and hindrances have been felt most fully in the outlying parts of the Italian kingdom. Thus, during the year 1866, there was an insurrection in Sicily; and Mr. Consul Goodwin has been justified in affirming that the industry of Sicily has been checked by this event, as well as by the severe visitation of the cholera in that year and 1867.

The property of the island was valued in 1811, when the English garrison and fleet occasioned a great demand, and high prices for produce of all kinds; and this valuation has been continued to this day, as the basis on which the land and house tax (*fondiaria*) is levied. A rate of 7½ per cent. on the valuation was first charged, which was subsequently raised to 12½ per cent., at which it is now fixed. Owing, as is stated, to the fall in the price of agricultural produce since 1811, this tax has been alleged to be more than equivalent to a duty of 25 per cent. on the produce of the soil taken at its present value, and to be a very great obstacle to improvement. We believe, however, that its influence in this respect, though considerable, has been much overrated; and that the backward state of Sicily is principally owing to other and different causes.

Though there be in Sicily a very considerable

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number of small proprietors, by far the greater part of the land belongs to the Crown, the Church, and the nobility, some of whom have very extensive and valuable estates. Down to a recent period these were held under a system of strict entail, and their occupiers, as well as those of the estates of the Crown and the Church, usually held under triennial leases, and were in a state of feudal bondage, and subject to numerous exactions on the part of their lords. Under such circumstances, even though there had been neither restrictions on exportation nor a land tax, the depressed condition of the peasantry, and the low state of agriculture, need not be wondered at.

But the dawn of a better day had arisen, even before the establishment of the Kingdom of Italy; several important changes having been introduced anterior to the expulsion of the Bourbons. We have already noticed the removal of the restrictions on exportation; and in 1812 and 1838 laws were passed for the abolition of the feudal system, and the complete emancipation of the peasantry. And, notwithstanding the poverty and ignorance of the latter will hinder them from speedily profiting to the extent that might be anticipated from the passing of these laws, this cannot fail, in the end, to be productive of the best effects. It was also enacted in 1819, that in future, on the death of any individual possessed of an estate in land, and having more than one son, the half only of the estate should descend to the eldest son, and that the other half should be divided in equal shares among the other children. This law, which appears to have been framed on the model of that which regulates the succession to property in France, will probably have nearly similar effects. In both countries, the abuses of entails might have been obviated without running into the opposite extreme, and establishing a system that can hardly fail in the end to occasion the too great division of landed property.

Exclusive of wheat and barley, hemp, flax, and cotton are raised without much labour. The culture of the last is said to be extending of late years, especially in the neighbourhood of Mazzara. It is mostly short-stapled, and but little is exported, and that only to Naples and Trieste. It is probable, however, that by attention to its culture, and the introduction of improved varieties, its quality might be improved, and it might become an article of some importance. The sugar-cane was formerly a staple product of the south shore of Sicily. But owing to the introduction of cheaper sugar from the West Indies and Brazil, the culture of the cane is now restricted to some small plantations near Avola, and will probably at no distant period be wholly abandoned. The culture of wheat is now to a great extent abandoned for that of rice, flax, and cotton.

The district round Marsala is the principal seat of the vine culture; and, thanks to the exertions of some English capitalists established in that city, the production of wine is become an important branch of industry, and it forms a principal article of export. [Wine.] But, except in the English establishments, little care is in general bestowed on the vintage. Along the north coast, the mountain slopes and valleys are almost wholly covered with olive groves; though elsewhere they are rare, and do not furnish sufficient oil for the inhabitants. But for the imperfections in the mode of its preparation, the oil of Sicily would be excellent. The olives are permitted to hang on the tree till they come off with shaking, or beating with light canes; and they are then kept in vats till they get quite black, so that the oil becomes pungent and rancid, and, though fit for the lamp, is totally unfit for the table. It is only near the capital and in a few other places that a more improved process is followed. Lemons and oranges, which grow luxuriantly, are of excellent quality, well adapted for long voyages, and, when intended for exportation, are collected with more care than any other agricultural product. They are largely exported, and are altogether highly important. Almonds, pistachios, dates, madder, the barilla plant, hazel-nuts, the *Ricinus palma*, or castor oil plant, saffron, tobacco &c., might all be raised in any quantity; but their culture is for the most part neglected, or ill-conducted. The mulberry is grown in the vicinity of Messina, and in the north-east part of the island; but the produce of silk does not exceed 400,000 lb. a-year; and the seasons of 1866 and 1867 have been so unfavourable that it is feared Sicily will become permanently the least productive of the silk districts of the Italian Kingdom. The manna ash is grown near the capital, and, manna not being monopolised by the Government in Sicily, it might be a much more extensive and profitable article of trade than it really is, if there were any public enterprise. Liquorice is found growing wild in several parts of the island, and considerable quantities of juice are exported. The culture of shumac is a good deal attended to, and it forms a principal article of export.

Formerly there were only certain ports from which corn could be exported; a limitation which gave rise to the establishment at these ports of public magazines or *caricatori*, where the corn may be deposited till an opportunity occurs of shipping it off. Provided it be of good quality (*mercantibile* or *recetibile*), and provided it be brought in immediately after harvest, or, at furthest, in August, it is warehoused free of expense; what it gains in bulk after that period (about 5 per cent.) being sufficient to defray all expenses. The receipt of the *caricator*, or keeper of the magazine, is negotiable like a bill of exchange, and is the object of speculative purchases on the exchange at Palermo, Messina &c., according to the expected rise or fall in the price of corn. The depositor of a quantity sells it in such portions as he pleases, the whole being faithfully accounted for. The public magazines, in some parts of the island, are either excavations into calcareous rocks, or holes in the ground shaped like a bottle, walled up, and made waterproof, containing each about 200 salme of corn, or about 1,600 English bushels. The neck of the bottle is hermetically closed with a stone fastened with gypsum. Corn may be thus preserved for an indefinite length of time; at least, it has been found in perfectly good order after the lapse of a century. (Simond, p. 540; Swinburne, vol. ii. p. 405. For an account of the oil *caricatori* of Naples, see Olive Oil.)

The fisheries are chiefly conducted by corporations of fishermen, or moneyed individuals. That at Palermo employs, during the season, from 900 to 1,000 boats, and 3,500 fishermen; and the produce is valued at from 20,000*l.* to 25,000*l.* a-year. Tunnies, the fish principally caught on the Sicilian coasts, and which were in great request in antiquity, as well as in modern times, are of large dimensions, being generally from 4 to 8 feet in length, with a nearly equal girth. Their flesh is highly nutritious. The shoals of tunny enter the Mediterranean early in the year. The *tonnare*, or fishing establishments, on the Sicilian coast, are more extensive and valuable than those

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of any other part of the Mediterranean. The fishery of the sword-fish is confined chiefly to the Straits of Messina, and the anchovy and pilchard fisheries to Siculania. Lentini has some trade in *botarga*, made of the roe of the mullet. The coral fishery, near Bona, in Africa, is principally frequented by fishermen from Trapani, at which city the coral is polished, and brought for exportation to Catania, Naples, Leghorn &c.

The minerals of Sicily are important and valuable. Sulphur ranks first; it is found in great quantities imbedded in blue marl, or in gypsum and limestone, over most of the central and south parts of the island. The sulphur mines have been wrought for upwards of 300 years; but it is only since 1820 that any extraordinary quantity has been prepared for exportation. Subsequently to 1833, the trade with this country increased so much that the export of sulphur to the United Kingdom rose from 19,122 tons in the above year, to 38,654 tons in 1838. In this year, however, the Neapolitan Government granted to a French company the monopoly of the trade in sulphur, the production of which was to be limited to 600,000 quintals, to be supplied to the company by the proprietors of the mines at certain fixed prices, on condition of the latter paying to the Government a bonus of 400,000 Neapolitan ducats a-year. It is needless to dwell on the impolicy and absurdity of such a project. Instead of attempting to limit the export of sulphur, Government should have given it every possible facility; and taking the export under a free system at only 1,000,000 quintals, it would have yielded, at the low duty of 2*s.* per cwt. on export, a larger sum than was to be paid by the company for their monopoly. Luckily, a firm remonstrance by England occasioned the suppression of the monopoly, and the sulphur trade is again restored to its former state. In 1863, 152,762,615 kilos were exported. The total export of sulphur from Italy (almost entirely from Sicily) in 1865 was 145,316,635 kilos. Some sulphur mines are wrought by English speculators, with machinery brought from England, and workmen from Wales, Cornwall, and Scotland; but in most of the other mines the processes are very rude, and, in melting, a great part of the sulphur is allowed to escape in gas, to the destruction of the surrounding vegetation. Sicily furnishes saltpetre of excellent quality in sufficient quantity for her own consumption, but from want of enterprise little if any is produced for exportation. Rock salt, bitumen, gypsum, and marble of different kinds, are found in various places; and good salt is made at Trapani, and other coast towns. There are also ores of copper, lead, mercury, and iron, but very few of these are wrought. There are no iron foundries in the island, and iron and tin goods are principally imported from England, lead from Spain, and steel from Germany.

Had not the bounty of nature towards Sicily been counteracted by vicious laws and institutions, she would undoubtedly have been one of the richest and finest of European countries. All that she requires is security of property and freedom of industry. Let but these be given to her, and a few years will develop her gigantic resources, and elevate Girgenti, Termini, and Sciacca to a very high rank among corn-shipping ports, though so late as 1866 Eastern Sicily was dependent on foreign countries for corn. A railway 58 miles long has been opened between Messina and Catania with good prospects of success.

PALM OIL (Ger. palmöl; Fr. *huile de palme, huile du Sénégal*; Ital. olio di palma; Span. aceite de palma) is obtained from the fruit of several species of palms, but especially from that of the *Elais Guineensis*, growing on the west coasts of Africa, south of Fernando Po, for some distance inland, and in Brazil.

The oil palm reaches a height of from 15 to 40 feet. Its fruit consists of a nut or kernel, surrounded by an arillus or pulp, and when full grown is about the size of a chestnut, the pulp being about ¼ of the whole bulk. The fruit grows in clusters, much after the manner of clusters of grapes, only a great deal larger, some clusters weighing as much as a cwt. When fully ripe, the fruit, which has a very thin skin, is of a beautiful bright orange colour; in taste, the pulp has a slight approach to sweetness, and is both wholesome and agreeable to eat.

The oil season on the west coast of Africa is from February to September. When ripe, the fruit is collected in troughs or reservoirs of the most primitive description—occasionally even in holes dug in the ground, paved at the bottom with stones—where it is exposed to the heat of the sun, which in a short while partially separates the pulp from the kernels or nuts, the separation being completed by beating or bruising the fruit with pieces of wood or stones. The kernels and stems having been removed by hand, the pulp is put into earthen pots and boiled; the oil being in this way separated from a fibrous substance which pervades the pulp, and from other impurities. The whole of this process is so rudely performed, that there is necessarily great waste. When the oil has cooled down, it concretes to about the consistence of butter, and is then ready for the cask. It retains nearly the same consistence upon importation into this country; it has no particular taste, but has a pleasant aromatic smell, and is of a yellowish to a deep orange colour. The finest oil is generally of the deepest shade. By keeping it loses its bright colour, fades into a dirty white, and becomes rancid, in which state it is rejected.

The natives on the coast use it for the same purpose that we use butter. In this country, and on the continent of Europe, it is made into soap, candles &c.; and it is employed, in conjunction with other materials, to lubricate the axles of railway carriages. By far the greatest consumption of palm oil, however, is in soap making, for which purpose, as well as for candles, it requires to undergo the somewhat expensive process of bleaching. It is sometimes imitated with hog's lard, coloured with turmeric, and scented with Florentine iris root.

Hitherto our supplies of palm oil have been derived almost entirely, if not exclusively, from the Bights of Biafra and Benin, and other parts of the west coast of Africa, of which it is the staple article of export. It is occasionally brought in small quantities from the Cape de Verde Islands, the West Indies, and Brazil; but it is nevertheless the produce of the coast of Africa indirectly imported.

The trade in palm oil, which took its rise about the beginning of the present century, is now of great magnitude and value. In 1806 the oil imported into England was estimated at only 150 tons, received from the Bight of Biafra; whereas, in 1857, the whole importations amounted, according to the official returns, to 42,740 tons, worth, at the market price of 40*l.* per ton, over 1,700,000*l.*, and affording employment to a large amount of shipping. Since 1858, and down to 1867, the imports have been nearly stationary, at a little over 40,000 tons per annum. The re-exports of palm oil in 1867 were 13,645 tons, valued at 526,468*l.*

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Of late years an oil has to some small extent been abstracted from the kernel or nut of the oil palm; but it is essentially different in character from that known as palm oil, and, probably from the unskilful manner in which the natives extract it, is of considerably less value. It is hardly necessary to observe that the trade in palm oil promises to do more than anything to introduce a taste for commercial pursuits, and consequently for civilisation, among the natives of Africa. [Oil.]

PAMPHLET. A small book, usually printed in the octavo form, and stitched, popularly understood to comprise from 1 to 10 sheets.

It is enacted by 10 Anne c. 19 s. 113, that no person shall sell, or expose to sale, any pamphlet without the name and place of abode of some known person, by and for whom it was printed or published, written or printed, thereon, under a penalty of 20*l.* and costs.

It is enacted by the 55 Geo. III. c. 185, that every book containing 1 whole sheet, and not exceeding 8 sheets in 8vo. or any lesser size; or not exceeding 12 sheets in 4to. or 20 sheets in folio, shall be deemed a pamphlet. The same Act imposed a duty of 3*s.* upon each sheet of *one* copy of all pamphlets published. This duty, which was at once vexatious and unproductive, hardly ever yielding more than 1,000*l.* or 1,100*l.* a-year, was repealed in 1833.

In the 1859 edition of this work was given (under Books) an account of the number and selling price of the pamphlets published in 1850, 1851, and 1852. Some pamphlets have a very large sale; but, speaking generally, their publication is quite as hazardous as that of books. The establishment of Quarterly and other Reviews has lessened the occasions and the demand for pamphlets.

PANAMA. A city and seaport of New Granada, on the Pacific, 38 miles S.E. of Chagres, lat. 8° 56′ N., long. 79° 13′ 2″ W. Population about 12,000? It stands on a rocky peninsula, projecting into the Bay of Panama, and has an imposing aspect from the sea. Its streets are well ventilated, and it is said to be cleaner than most Spanish American cities. It is encircled by irregular and not very strong fortifications, constructed at different periods. The houses are partly of wood, straw, and other fragile materials; but many are substantially built of stone, the larger having courtyards, or *patios*, in the old Spanish style; and no doubt it has been much improved within the last two or three years. Its roadstead is one of the finest in the world. There are a number of islands a short distance from the main land, which afford secure anchorage for ships of any burden, and from which supplies of provisions, including excellent water, may easily be obtained. The tides daily rise and fall from 20 to 27 ft., so that it is peculiarly well fitted for the repair and building of ships.

Previously to 1740, when the trade with the Pacific first began to be carried on round Cape Horn, Panama was the principal entrepôt of trade between Europe and West America. From that period, however, it fell off; and its decay was peculiarly rapid after the independence of South America, and the opening of the other ports of the Pacific. But since the occupation of California by the Americans, and especially since the discovery of the auriferous deposits in that country, it has again rapidly increased. And now that a railway is carried across the isthmus, it will, in all probability, attain to greater commercial distinction than ever. Great numbers of steamers are now (1869) employed in the trade between Panama and San Francisco, Vancouver's Island &c.

Passage across the Isthmus of Panama or Darien.—Latterly, or since the discovery of the mineral riches of California, the isthmus has become a great thoroughfare, vast numbers of individuals having crossed from the port of Chagres on the Caribbean Sea to Panama on the Pacific Ocean, and conversely.

The port of Chagres is within the mouth of the river of that name, in lat. 9° 18′ 6″ N., long. 79° 59′ 2″ W. A bar at the mouth of the river has only from 10 ft. to 12 ft. water, though within the bar the river deepens to from 4 to 6 fathoms. It is probable that the bar might be deepened without much difficulty, and a canal might be cut from the bottom of the bay of Manzanilla to the river, from which it is only 3 miles distant. A short while ago the town (if so it might be called) was a mere cluster of huts, unhealthy, and without any accommodation for passengers. But having latterly become one of the starting points in the nearest and shortest route from the east to California, it has been greatly improved.

A railway from Aspinwall to Panama, a distance of upwards of 47 miles (completed in 1864), has been constructed by a joint-stock company of New York, and reflects great credit on American enterprise and perseverance. (See Mr. Bidwell's description of it, furnished in M'Culloch's *Geographical Dictionary*, ed. 1866.) The difficulties to be overcome were of a very formidable description, partly from the nature of the ground, which not unfrequently consisted of deep marshes, but more from the luxuriance and strength of the vegetation through which it was necessary to penetrate, and the heat, moisture, and unhealthiness of the climate. Unluckily, the desire to accomplish their task in the shortest time and at the least expense, tempted the engineers to execute the work in a superficial manner, substituting, in many instances, bridges, viaducts, pillars &c., of wood, for those of stone, mortar, and iron. In a country where the decomposition of vegetable matter is so very rapid, this was as false and spurious a species of economy as can well be imagined. Already many miles of the railway have had to be repaired or rather reconstructed, by the substitution of *lignum vitæ* and other hard woods for the softer ones that were first used. This, however, will do little more than palliate the evil; and there can be no doubt that eventually stone and iron bridges and viaducts will have to be used instead of wooden ones everywhere along the line.

Trains take about 3 hours in passing from sea to sea; but supposing (which is not the case) that this railway were everything that could be desired, still it is plain that the grand desideratum is the carrying across the isthmus of a water communication between the Atlantic and Pacific Oceans. We do not mean by this a canal suitable only for coasters, or vessels of comparatively small burden. Such a channel would be of little use, except to the countries contiguous to its termini. What is really wanted is a canal that will admit ships of the largest burden, and bound on the longest voyages. The advantages that would result from having the isthmus perforated by such a channel cannot be easily exaggerated. No other project that appears to be within the limits of possibility, perhaps not even the carrying of a ship canal across the Isthmus of Suez, would give so great a stimulus to commerce and navigation. It would remove the barrier which renders the navigation between the eastern and western coasts of America so tedious and difficult. And, by doing this, it would enable ships from Europe to reach the latter and the Pacific in less than half the

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time they do at present, while it would greatly facilitate the voyage to Australia and China.

A grand project of this sort is on foot. It is proposed to cut a canal that shall admit ships, of 1,000 tons burden and upwards, between Porto Escoces (lat. 8° 5′ N., long. 77° 21′ W.), near Point Caledonia, in the Gulf of Darien, on the Caribbean Sea, and the Rio Savana, which falls into the Gulf of San Miguel, on the Pacific. The intervening space (about 38 or 40 miles) is said to be comparatively flat; the ports at each extremity are easy of access, and have deep water; and it is proposed that the canal should be constructed throughout on the same level, and have no locks. The cost of the project is estimated at from 12 to 15 millions sterling. Considering the vast importance of such a work to the United States, to this country, and, indeed, to all maritime nations, this expense, heavy as it may appear, should be reckoned a subordinate matter. Were the country through which it is to pass in the possession of England or the United States, it would, most probably, have been undertaken. But the unsettled state of Central America, and the knotty questions that might eventually arise as to the property and management of the canal, are serious obstacles to its being proceeded with. (See for ample details on this interesting subject the work of Dr. Cullen, entitled *Isthmus of Darien Ship Canal.* The learned doctor is, probably, a little too sanguine in favour of the project, but despite this excusable bias, his work is instructive and valuable.)

PAPAL DOMINIONS (Trade with). The *Gazette* of January 6, 1853, contained the following declaration on the part of Great Britain, establishing a system of perfect reciprocity in trade and navigation with the Papal States. The declared value of our exports to these States amounted in 1858 to 409,475*l.*, and in 1867, these States having in the interval been seriously reduced in extent by recent annexations to the Kingdom of Italy, took from us British produce to the extent only of 15,801*l.*

Declaration.—The undersigned, her Britannic Majesty's Chargé d'Affaires at the Court of Tuscany, having received from his Eminence the Cardinal Antonelli, Secretary of State to his Holiness Pope Pius IX., the assurance that no other or higher duties or charges are levied in the ports of the Papal States on British vessels than are payable on national vessels, nor on goods imported or exported in British vessels than are payable on the like goods imported or exported in national vessels, has received the commands of her Majesty to declare:

1. That no duties of tonnage, harbour, lighthouse, pilotage, quarantine, or other similar or corresponding duties, of whatever nature or under whatever denomination, levied in the name or for the profit of the Government, public functionaries, corporations, or establishments of whatever kind, shall be imposed in British ports upon Papal vessels, from whatever port or place arriving, which shall not be equally imposed in the like cases on national vessels, and that no duty, charge, restriction, or prohibition shall be imposed upon, nor any drawback, bounty, exemption, or allowance withheld from, goods imported into or exported from British ports in Papal vessels, which shall not be equally imposed upon or withheld from such goods, when so imported or exported in national vessels.

2. That no other or higher duties shall be imposed on the importation into the dominions of her Britannic Majesty of any article the growth, produce, or manufacture of the Papal States, than are or shall be payable on the like article being the growth, produce, or manufacture of any other foreign country. That no other or higher duties or charges shall be imposed in the British dominions on the exportation of any article to the Papal States, than such as are or may be payable on the exportation of the like article to any other foreign country; and that no prohibition shall be imposed upon the importation of any article the growth, produce, or manufacture of the Papal States into the British dominions, nor upon the exportation of any article from the British dominions to the Papal States, unless such prohibition shall extend to all other nations.

3. That Papal vessels shall be at liberty to import into British ports any article legally importable, and to export from British ports any article legally exportable, on payment of the same duties, and with a right to the same bounties and drawbacks as are or may be payable or allowable in respect of the same articles if imported or exported in national vessels.

4. That all vessels which, according to the laws of the Papal States, are to be deemed Papal vessels, shall, for the purposes of this declaration, be deemed Papal vessels.

5. That the following stipulations shall not apply to the coasting trade, which is reserved exclusively to national vessels.

6. That if any ship of war or merchant vessel of the Papal States shall be wrecked on the coasts of the British dominions, such ship or vessel, or any parts thereof, and all furniture and appurtenances belonging thereunto, and all goods and merchandise which shall be saved therefrom, or the produce thereof, if sold, shall be faithfully restored to the owners, upon being claimed by them or by their duly authorised agents. If there are no such owners or agents on the spot, then the said ships or parts of ships, furniture, appurtenances, goods, and merchandise, or the proceeds thereof, if sold, as well as all papers found on board such wrecked ships or vessels, shall be delivered to the Papal consul or vice-consul in whose district the wreck may have taken place, upon being claimed by him; and such consul, vice-consul, owners, or agents shall pay only the expenses incurred in the preservation of the property, together with the salvage, or other expenses which would have been payable in the like cases of a wreck of a national vessel. The charge for such salvage and other expenses shall be made and settled immediately, subject to such right of appeal on the part of the person paying the same, as may exist in the British dominions. The goods and merchandise saved from the wreck shall not be subject to duties unless cleared for consumption, in which case they shall be liable to the same duties as if they had been imported in a British ship.

7. That the foregoing concessions are granted on condition of a perfect and entire reciprocity in favour of British vessels in the ports of the Papal States. They shall come into operation from and after the date of the present declaration, and shall remain in force for seven years, and further until the expiration of 12 months after notice shall have been given by the British Government, or by the Papal Government, for terminating such reciprocal arrangement.

In witness whereof the undersigned has signed the present declaration, destined to be exchanged against a similar declaration, on the part of his Eminence the Cardinal Secretary of State, and has affixed thereto the seal of his arms.

Done at Florence, the 17th day of November, 1853. P. Campbell Scarlett.

The 'similar declaration' of Cardinal Antonelli

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is given with the foregoing in the *Gazette*. It is the exact counterpart of that made by Mr. Scarlett. [CIVITA VECCHIA.]

PAPER (Ger. and Dutch, papier; Fr. papier; Ital. carta; Span. papel; Russ. bumaga; Lat. charta; Arab. kartas; Pers. kaghas). This highly useful substance is, as everyone knows, thin, flexible, of different colours, but most commonly white, being used for writing and printing upon, and for various other purposes. It is manufactured of vegetable matter reduced to a sort of pulp. The term paper is derived from the Greek πάπυρος (*papyrus*, see post), the name of the plant on the inner bark of which (*liber*, βίβλος, whence our word *book*) the ancients used to write. Paper is made up into *sheets*, *quires*, and *reams*; each quire consisting of 24 sheets, and each ream of 20 quires.

Historical Sketch of Paper. Difference between Ancient and Modern Paper.—Some of those learned and ingenious persons who have investigated the arts of the ancient world, have expressed their surprise that the Greeks and Romans, though they possessed an immense number of books, and approached very near to printing in the stamping of words and letters, and similar devices, should not have discovered the art: the first rude attempts at typography being sufficiently obvious, though much time and contrivance have been required to bring the process to its present state of perfection. But they should rather, perhaps, have wondered that the more civilised nations of antiquity did not invent paper, an invention which, it may easily be shown, necessarily preceded that of printing. But this was an exceedingly difficult task; the more so, that the vast importance of paper could not be appreciated, or even imagined, till after it had been generally introduced. At first, the memory of important events appears to have been handed down by inscriptions cut on rocks, pillars of stone or marble, and the walls of edifices; and this primitive usage is still retained in the monuments in our churches and cemeteries. In a later, though still very remote age, men were accustomed to write upon portable surfaces of various kinds. Everybody knows that the Decalogue was written upon tables of stone; and Joshua wrote a copy of the law upon the like materials. (Josh. viii. 32.) The Greeks and Romans engraved laws, treaties, contracts, and other important documents, on plates of brass; and it is stated, that a fire which broke out in the capitol, in the reign of Vespasian, consumed above 3,000 such bronze muniments. (*Nouveau Traité de Diplomatique*, i. 451.) But exclusive of plates of this sort, which were necessarily inconvenient, costly, and quite unfit for ordinary use, thin and flexible plates of lead and other metals (Job xix. 23, 24), thin pieces of wood, skins, parchment, linen, and a variety of similar substances, were used in writing. Cheaper materials, such as the leaves and bark of trees, palms &c., were also used from a very remote period for the same purpose; but leaves (χάρται, *chartæ*) being, when dry, apt to split in the direction of the fibres, it was found to be necessary, in preparing them for writing, to glue them together, so that the fibres might cross each other in opposite directions. The texture of the leaf, or sheet, if we may so call it, is thus greatly strengthened; and when it has been smoothed, polished, and fitted for use, it is less inconvenient and better looking than might be supposed. Such, in fact, is the principle on which the paper of the ancients was formed. This, however, which was called *charta Egyptiaca*, from the place of its manufacture, did not consist of leaves, but of the inner bark of the famous reed or rush, the *Cyperus papyrus*, found along the banks of the Nile, or rather in the pools and ditches which communicate with the river. The ancients applied this useful plant to an immense variety of purposes; but here we shall only notice that from which it has acquired an immortality of renown. The inner bark having been divided by a needle or other sharp instrument into very thin and broad layers or filaments, portions of these were placed side by side longitudinally, and glued together at the ends; another portion being glued crosswise on the backs of the latter, to give the page the requisite strength. Pliny and other writers have described the process (*Hist. Nat.* lib. xiii. c. 11, 12, 13), which has been further elucidated by Hardouin and other commentators. But the fullest and ablest discussion of this curious subject is contained in the very learned and elaborate work, the *Nouveau Traité de Diplomatique* (i. pp. 448—524), where the most interesting particulars respecting the history and manufacture of papyrus, as well as of the greatest number of the other writing materials used in antiquity, have been collected and set in the clearest point of view. (*Dictionnaire Diplomatique* of De Vaines, art. 'Papier,' ii. pp. 165—174.) Bruce has given a summary of the authorities in the seventh volume of the 8vo. edition of his Travels; and, not satisfied with this, he attempted to make paper from the papyrus, in which, not being very successful, he imputes his failure to errors in the statements of Pliny; not reflecting that, had he endeavoured, trusting to written directions, without experience and traditional art, to make modern paper, or even a pair of shoes, he would, most probably, have been equally infelicitous. Egypt enjoyed for a lengthened period a natural monopoly of this valuable article; and even attempted, in anticipation of a later policy, by prohibiting the growth of the papyrus, except in certain localities, and limiting its supply, to sell its produce at an artificially enhanced price. (Ameilhon, *Commerce des Egyptiens*, p. 238.) But this policy ceased on the conquest of Egypt by the Romans, who, having imported the plant into Rome, succeeded in preparing from it a very superior article. Pliny enumerates the various kinds of paper, from the coarsest, which was used, like our brown paper, for packing, to the most expensive and finest. The latter, which was made of the innermost filaments, was of a snowy whiteness; and when properly dressed and polished, was easily written upon. The consumption was very considerable; and being, after the foundation of Alexandria, principally made in that city, it formed an important article in her commerce, and furnished employment for many workmen and much capital. Flavius Vopiscus relates, that in the third century, the tyrant Firmus used to say there was so much paper there, and so large a quantity of the glue or size used in its preparation, that he could maintain an army with it: 'Tantum habuisse de chartis, ut publicè sæpe diceret, exercitum se alere posse papyro et glutino.' We may doubt whether the value of the paper at present belonging to any single city would do the like. *Charta Egyptiaca* is very ancient, having, notwithstanding the assertion of Varro and Pliny to the contrary (*Hist. Nat.* lib. xiii. cap. 11), been in common use long before the age of Alexander. This is evident from the statement of Herodotus, who, though he lived about a century before that

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conqueror, tells us, that in former times, when papyrus was scarce, the Ionians wrote on the skins of goats and sheep: and that that practice continued to be customary among several barbarous nations. (Lib. v. cap. 58.)

Though white, smooth, durable, and not ill-adapted for writing, ancient paper was not suited for the printer: by reason of the closeness of the grain, it would not have received the ink from types more kindly than shavings of wood, and such like materials; and its texture was so very brittle, that it would have shivered to pieces under the press. It was, in truth, an inartificial mass ('viscera nivea virentium herbarum'), no great invention or ingenuity being discovered in its preparation. Modern paper, on the other hand, is wholly artificial; and the contrivances for its manufacture are marvellous alike for the sagacity evinced in their design and their practical efficiency. Like the paper of antiquity, it is formed of the filaments of various sorts of vegetable substances, derived principally from the tearing to pieces or pounding cotton and linen rags, and similar materials, mixed with water. This process is called beating them into pulp; and when examined with a microscope, the floating filaments are found to be well fitted for adhering together, being jagged and rough, and mixed in every possible way. A portion of this mixture or pulp being, when properly prepared, poured upon moulds or sieves of fine woven wire, the water is drained off, and the suspended fibres, falling to the bottom, form a layer or sheet, which, being consolidated by pressure and dried, becomes paper, its strength and goodness depending, of course, in a great measure, on the quality of the rag or other material of which it is made. Paper used to be manufactured by dipping sieves or frames into the pulp; the portion of filaments so lifted up forming the sheet of paper. But the application of rotary motion to the manufacture has effected a total change in the mode in which it was carried on: instead of dipping the sieves or frames into the cistern of pulp, a circular web, or round towel of woven wire, revolves horizontally under the vessel (technically called the vat), receives the deposit, conveys it away, and, by an adjustment of extraordinary delicacy, transfers it uninjured, though as fragile as a wet cobweb, to a similar revolving towel of felt; thus an endless web of paper is spun, as long, at least, as the machine continues to move, and pulp is supplied.

The pervious and spongy texture of paper make it readily imbibe and retain the ink impressed on it by types in printing, and by the pen in writing; its toughness hinders it from being easily torn; and, in a well-bound book, under favourable circumstances, its duration is indefinite, and, for all practical purposes, eternal. It is true that legal documents are sometimes written or printed on parchment, which is less liable to be torn, or injured by rubbing; the luxury of typography occasionally, also, exhibits a few impressions of a splendid work upon vellum; and, it is further true, that these substances were used for writing upon by the ancients; but they are necessarily expensive, and the cost of either far exceeds the means of the great majority of book buyers: so that it would be altogether unprofitable to cast types, to construct presses, and to incur the various and heavy charges of an establishment for printing, unless we possessed a cheaper material on which to print.

Almost all the more ancient and valuable existing Greek and Latin manuscripts are written either on parchment or vellum, but generally on the latter. It is singular, however, that while such is the case, all or almost all the very old charters and diplomas are written on papyrus. Indeed the learned authors of the *Nouveau Traité de Diplomatique* affirm that no parchment charter has been discovered anterior to the 6th century. (i. 479.)

It appears to be sufficiently established that paper, fabricated like that now in use, of cotton and other vegetable materials, and of silk, has been manufactured in China from a very remote epoch. (*Nouveau Traité de Diplomatique*, i. 519.) The Arab historians state that similar paper was manufactured in Mecca about the beginning of the 8th century (Andres, *Origine e Progressi d'Ogni Letteratura*, i. 202, ed. Rom. 1808, and Gibbon, ix. 379); and most probably the mode of its production was then, also, known to the Greeks. It appears to have been soon after introduced into Europe; but it is doubtful whether this were done by the Arabians or Greeks. The mode of fabricating paper from cotton and other vegetable materials being once discovered, its fabrication from linen rags was a comparatively easy, and in Europe, where cotton was then extremely scarce, an all but necessary step. It is singular, however, that we have no positive information either as to the country where, or the epoch when, paper from rags began to be manufactured in Europe. 'Mais on ne peut reculer son invention plus tard qu'au treizième siècle, ni son usage ordinaire au-delà du quatorzième.' (*Nouveau Traité &c.* i. 524.) In fact, Egyptian paper, or paper made of papyrus, in the manner described above, continued to be partially employed down to the middle of the 11th century, though parchment was then the principal material used in writing.

It is curious to observe how very shortly the introduction of paper preceded the invention of printing, to which, indeed, as already seen, it was an indispensable preliminary. Muratori attributes the ignorance of the barbarous ages principally to the scarcity and high price of paper, and the superior intelligence of modern times to its abundance and cheapness. (Andres, i. 200.) And whatever opinion may be entertained as to the first part of this statement, there can be no question that the latter is perfectly well founded.

Not only are we in the dark as to the history of modern paper, but we are unable to make any very satisfactory conjectural estimate of the mode in which it was invented. It is, however, all but certain that the invention must have been suggested by accident, or by observing the effects produced by the accidental drying of triturated vegetable matter, or in some such way; and that the hint thus afforded was gradually improved upon. It is not possible to imagine that the invention should have been wholly the result of design; for we cannot conceive how anyone, without any previous knowledge, should have proposed to himself to produce paper by pounding rags, or other vegetable matter, mixing the mass in water, and then pressing and drying the deposit. But, without indulging in unprofitable conjectures, it is at all events certain, that however and by whomsoever discovered, no invention has been of greater importance. 'Cùm chartæ usu maximè humanitas vitæ constet et memoria.' (Plin. *Hist. Nat.* lib. xiii. cap. 21.) The processes by which the most worthless and vilest materials are converted into such admirable substances as paper and glass, are probably the greatest triumphs of human talent and ingenuity. They have more

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than realised the dreams of the alchemists; and have been incomparably more advantageous than if we had become acquainted with a means of transmuting the inferior metals into gold.

Manufacture of Paper in England.—The application of paper to the purposes of writing and printing, and the fact of its being indispensable to the prosecution of the latter, render its manufacture of the highest utility and importance. But, even in a commercial point of view, its value is very considerable. France, Holland, and Genoa had, for a lengthened period, a decided superiority in this department. The finest and best paper being made of linen rags, its quality may be supposed to depend, in a considerable degree, on the sort of linen usually worn in the country where it is manufactured; and this circumstance is said to account for the greater whiteness of the Dutch and Belgian papers, as compared with those of the French and Italians, and still more the Germans. The rags used in the manufacture of writing paper in Great Britain are collected at home; but those used in the manufacture of the best printing paper are imported, principally, from Italy, Hamburg, and the Austrian States, by way of Trieste. [RAGS.] We believe, however, that it was owing rather to the want of skill, than, as has sometimes been supposed, to the inferior quality of the linen of this country, that the manufacture of paper was not carried on with much success in England till a comparatively recent period. During the 17th century, most part of our supply was imported from the Continent, especially from France. The manufacture is said to have been considerably improved by the French refugees who fled to this country in 1685. But it is distinctly stated in *The British Merchant* (vol. ii. p. 266), that hardly any sort of paper, except brown, was made here previous to the Revolution. In 1690, however, the manufacture of white paper was attempted; and within a few years, most branches were much improved. In 1721, it is supposed that there were about 300,000 reams of paper annually produced in Great Britain, which was equal to about two-thirds of the whole consumption. In 1783, the value of the paper annually manufactured was estimated at 780,000*l.* In 1867, besides making a sufficient quantity of most sorts of paper for our own use, and for exportation, we exported upwards of 600,000*l.* worth of books. The importation of foreign paper for British consumption had nearly ceased prior to the abolition of the paper duty; but since then the importation has gradually increased, and in 1867 we imported (deducting re-exports) 561,959*l.* worth, chiefly printing paper, from Belgium, Germany, and France, while we exported British-made paper of about the same value, 569,438*l.* A small quantity of French paper was used in this country for copper-plate printing till within these few years; but, in this respect, we now surpass the French, and there is no artist of either country who does not consider English paper, manufactured according to the latest improvements, best adapted for prints. The French have, however, always excelled in the manufacture of very thin letter paper; and we obtain from them a small portion of this article, and some paper hangings, and printing paper.

In 1813, Dr. Colquhoun estimated the value of paper annually produced in Great Britain at 2,000,000*l.*; but Mr. Stevenson, an incomparably better authority upon such subjects, estimated it at only half this sum. From information obtained from those engaged in the trade, we incline to think that the total annual value of the paper manufactured in the United Kingdom, may at present (1869) amount to about 5,000,000*l.* There were, in 1868, 272 paper-mills in working order in England, and 57 in Scotland. The number in Ireland is but inconsiderable. So that, while the quantity of paper manufactured has greatly increased since the abolition of the paper duty, the number of mills in working order has been reduced. That is, while the large mills have been increased in size and power and employment, the small ones have been well nigh abolished.

Many of the mills make a variety of papers, but the following statement from the *Paper Mills Directory* for 1869 shows how the different classes of manufacture are divided among the English mills:—

	Mills.
Making Writing Papers, Hand-made	21
,, ,, Machine-made	22
,, Printing, News, and Long Elephants or Paper Hangings	96
,, Cartridges	29
,, Grocery Papers, White and Coloured	48
,, Small Hands and Caps	50
,, Browns	108

In 1861, 18,067 individuals were directly engaged in the trade, viz. 13,357 in England, 4,421 in Scotland, and 289 in Ireland: and, besides the workmen employed in the mills, the paper manufacture creates a considerable demand for the labour of millwrights, machinists, smiths, carpenters, iron and brass founders, wire-workers, woollen manufacturers, and others, in the machinery and apparatus of the mills. Some parts of these are very powerful, and subject to severe strain; and other parts are complicated and delicate, and require continual renovation. Owing to this, the manufacture is of much greater importance, as a source of employment, than might at first be supposed, or than it would seem to have been formerly considered by Government, who loaded it, down to a very recent period, with an excise duty amounting to more than *three times as much as the total wages of the workpeople employed.*

It was formerly customary to collect the rags used in the manufacture into large heaps, in order that, by their heating and fermentation, they might be the more easily reduced to filaments. But this injured the rags; and it is now the practice to tear them to pieces, without any such preparation, by powerful machines, constructed for the purpose.

During the present century this manufacture has been signally promoted by the combined influence of science, ingenuity, and mechanical skill. These have been successfully exerted in the preparation of the pulp; the conversion of the pulp into paper; and the provision of materials: and in none has their influence been more remarkable than in the last. This is evident from the fact, that while the manufacture has been more than quadrupled since 1820, the demand for continental rags and other foreign materials has actually been reduced within that time, in consequence of the immense supply we derive from substances previously regarded as worthless, and treated as refuse. The sweepings of cotton and flax mills, owing to the grease and dirt with which they are mixed up, were, until within these few years, of no value whatever, except as manure. But means having been discovered of rendering them clean and white, they are now made into very good paper; and the neighbourhood of Manchester has, in consequence, become a principal seat of the manufacture. The chemical and mechanical processes by which these materials are purified, whitened, and made available for the production of paper, without their strength being impaired, are not only exceedingly interesting in themselves, but are of great national importance; and, by reducing

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the cost of paper, have done ten times more to lower the price of books, and diffuse literature, than all the efforts of all the societies that ever existed.

But our paper-makers, after the repeal of the paper duty, found much difficulty in competing with foreign manufacturers, inasmuch as the trade in rags was not free, and the latter had greater facilities for getting them at a cheaper rate. This led our paper makers to search diligently for good substitutes for rags, and their choice seems to have fallen chiefly on Esparto. In the ten months ended October 31, 1868, we imported no less than 74,618 tons of it, and but 14,096 tons of rags. Esparto is used chiefly in the manufacture of printing and wrapping, and second-class writing papers. [ESPARTO.]

The first idea of a machine for converting pulp into paper originated in France, the inventor being an ingenious workman of the name of Louis Robert. A model of this machine was brought to England by M. Leger Didot; and though at first it was far from giving an assurance of success, it sufficed to induce English capitalists and engineers, particularly Mr. Donkin, to follow up the scheme; and in the course of a few years they brought it to a high degree of perfection. The late Mr. Dickinson, of Hertfordshire, one of the most intelligent mechanists and extensive paper manufacturers in England, invented a machine of a different construction for the same purpose, and introduced also various subsidiary improvements into the manufacture. One of these consists in the application of air pumps to the process, by the action of which he produces a partial vacuum under a portion of the wire on which the pulp is in the act of settling, and thus very much accelerates its consolidation; in fact, prepares it almost instantaneously for the first mechanical pressure. The result is all but miraculous. By the agency of a great deal of complicated machinery, so admirably contrived as to produce the intended effect with unerring precision and in the very best manner, a process, which in the old system of paper-making occupied about *three weeks*, is performed in as many minutes. A continuous stream of fluid pulp is, within this brief space of time, and the short distance of 80 feet, not only made into paper, but actually dried, polished, and every separate sheet cut round the edges, and rendered completely ready for use. The paper manufactured by this wonderful combination of intelligence and power is, at once, moderate in price, and, for most purposes, superior in quality to what was formerly made by hand. The sample before the reader, though not the finest that is made, will warrant what is now stated. Mr. Dickinson also made an important improvement in the paper manufacture, on the principle of veneering in cabinet work. By making two webs of paper, each by a separate process; and by laying them together while in an early stage, they are rendered inseparable by the pressure to which they are subjected. This paper is used in copper-plate printing; and by adopting a peculiar method of preparing the pulp, and selecting a finer rag for the web which forms the face of the paper, it is much better calculated for taking a fine impression. Its introduction has put a total stop to the importation of that species of French paper, which was formerly used in considerable quantities by copper-plate printers. Probably, however, the most ingenious of the modern inventions in the manufacture is that by which Mr. Dickinson contrived, without increasing the thickness of paper, to embody parallel coloured threads in its fabric. This novel description of paper is now used in the printing of exchequer bills and postage envelopes, for which it is admirably fitted, inasmuch as it cannot be counterfeited, except by employing similar machinery, which it would cost a great deal to construct, and be all but impossible to conceal.

The same gentleman introduced the use of magnets for removing any iron that might be present in the pulp, so as to prevent the appearance of iron-mould in the paper.

Duty on Paper.—Previously to 1836, all writing, coloured, or wrapping papers, cardboards and pasteboards, were denominated first-class paper, and paid 3*d.* per lb. duty (28*s.* per cwt.); unless *manufactured wholly of tarred ropes, without the tar being previously extracted*, in which case the paper was denominated 2nd class, and paid 1½*d.* per lb. (14*s.* per cwt.). Millboards and scaleboards, made of the same materials as 2nd class paper, paid 2¼*d.* per lb. (21*s.* per cwt.) duty.

This duty varied on the different descriptions of 1st class paper from about 25 or 30 per cent. on the finest, to about 200 per cent. on the coarsest. A duty so oppressive led to the commission of very great frauds, which all the vigilance of the officers, and the endless multiplication of checks and penalties, were unable to prevent; the real effect of such devices being to injure the honest manufacturers, and to give those of a different character greater facilities for carrying on their fraudulent schemes. But, laying out of view for a moment the oppressiveness of the duty, could anything be more absurd than to interdict the manufacturer of third-class wrapping paper (for it is to him that the regulation applied) from using any other material than *tarred ropes*? After the peace of 1815, and the very general introduction of iron cables, tarred ropes advanced considerably in price; but as the use of *any other material whatever* would have occasioned an increase of 14*s.* per cwt. of duty, advantage could not be taken of this circumstance; so that the excise regulation, without putting one sixpence into the pockets of Government, obliged the public to pay an increased price for an inferior article. Neither was this its only effect: a good deal of the refuse thrown out in sorting rags, which might have been used in the manufacture of coarse wrapping paper, was sold by the manufacturers for about 3*s.* per cwt.; while a good deal that might have been used in the same way, could not be sold at all, but was absolutely lost. It is plain, therefore, that this regulation had a twofold operation: first, in adding to the cost of wrapping paper, by compelling it to be made from a comparatively expensive article; and secondly, in adding to the expense of fine paper, by preventing the refuse of the rags used in its manufacture from being beneficially employed.

It may, perhaps, be doubted, considering the purposes to which paper is applied, whether it should have been subject to any duty whatever. Printers, stationers, bookbinders, type-founders, artists, copper-plate and lithographic printers, card-makers, paper-stainers and paper-hangers &c., are all affected by a duty on it. And if it be not kept within reasonable bounds, it increases the price, and hinders the publication of books. 'This places a great obstacle in the way of the progress of knowledge, of useful and necessary arts, and of sober, industrious habits. Books carry the productions of the human mind over the whole world, and may be truly called the raw materials of every kind of science and art, and of all social improvement.' (Sir H. Parnell *On Financial Reform*, 3rd ed. p. 30.)

But though, in 1836, the exigencies of the

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public service did not permit the total repeal of the duties on paper, they were then materially lowered. The duty on first-class papers was reduced to the same level as that on papers of the second class, or from 3*d.* per lb. to 1½*d.* per lb.; the manufacturers of the coarser descriptions of paper being at the same time relieved from the restraints under which they had previously laboured, and allowed to use any material in the manufacture which they may judge best. The duty of 1½*d.* per square yard laid on paper when printed or stained, over and above the ordinary duty on paper, was then also repealed, and the various Acts relating to paper were combined into a single statute.

The influence of this wise and judicious measure in reducing the price of paper used in printing and writing was decidedly manifested. The abolition of the discriminating duty on stained or printed paper, was also of material importance. The reduction of price it occasioned enabled a much larger class of persons to get their apartments papered; and it was in this way productive, not only of an additional demand for paper and labour, but of an increase of comfort and cleanliness.

This measure also in great part obviated the injustice done to authors and publishers, by compelling them to pay a duty on the paper used in printing books previously to their publication; and, consequently, before it could be known whether the books would sell. When they did not sell, the tax had obviously to be paid out of the capital of the authors or publishers, and the loss arising from an unsuccessful publishing speculation was increased by its amount. [Ante, Books.] It is true that every duty on paper, how limited soever, operates in this way, and is therefore objectionable on principle; but the practical hardship inflicted on authors by the last paper duty was not very material.

As respects revenue, too, the measure was completely successful. In 1835, the nett produce of the old duties on paper, in the United Kingdom, amounted to 796,305*l.* In 1840, the reduced duties produced 581,429*l.*; and in 1858 they produced 1,119,433*l.*, being 323,128*l.* more than their produce when the rate of charge was double. This statement, however, gives but an imperfect view of the progress of the manufacture: for, owing to the premium (for so it may be called) which the present postage regulations give on the use of thin and light paper, the increase in its production was, no doubt, a good deal greater than we might infer from the mere increase of weight.

After an unsuccessful attempt in 1860, the paper duty was totally repealed in 1861. In the last year of its existence, the receipts were 1,350,000*l.*

PAPER HANGINGS. In 1867, we exported 43,411 cwt. of paper hangings of our own manufacture, valued at 123,042*l.*, chiefly to North America and Australia, and we imported 7,753 cwt., chiefly from France, valued at 32,563*l.* [Paper.]

PARA or GRAM PARA. A port of Brazil, situate about 80 miles from the mouth of the Amazon. Population 35,000.

Shipping.—In 1865, the total number of ships which entered the port of Para was 96, with 39,709 tonnage; in 1866, 139, with 52,168 tonnage, and in 1867, 160 of 58,798 tons. There also entered in 1866, 96 vessels of 61,752 tonnage, and in 1867, 80 vessels of 59,927 tons, all engaged in the coasting trade. These were chiefly Brazilian.

The trade of Para is of great and increasing importance, the exports having risen during the five years 1863–7 from about 525,000*l.* to upwards of 900,000*l.* in value. The principal exports are India-rubber, cacao, Brazil nuts, and hides. Of these articles the first is by far the most important, the export in the year 1867 having been 9,324,912 lb., worth about 570,000*l.* It is collected in large quantities throughout the swamp on the banks of the Amazon. The exports of cacao and Brazil nuts, having declined, are again increasing.

The neighbourhood of Para also produces annatto, isinglass, sarsaparilla, and a little sugar. The imports of Para, on an average of the three years 1864–6, amounted in value to 510,000*l.*, and in 1867 to 599,416*l.*

Weights and Measures.—1 Brazilian lb. = 1·012 lb. avoirdupois; 1 arroba = 32·38 lb.; 1 quintal = 129·517 lb.; 1·00 alquieres = 1 bushel; 17 canadas = 16 imperial gallons; 1 vara = 1·198 yard; 1 corado = 0·714 yard. The depreciation of the currency of the country consequent on the war with Paraguay has created alarm among capitalists, and caused embarrassment in business transactions.

The rates of freight to England in 1866 were for India-rubber, 30*s.* to 45*s.* per ton; cacao, 50*s.*; Brazil nuts, from 35*s.*

Para is already a growing town, and will become more important, from its position on the Amazon, and from the fact that it therefore is on the road to the interior and Peru, since the navigation of the Amazon was opened to the shipping of all nations in September 1867. (The above information is chiefly obtained from Mr. Consul Hay's *Reports* of March 9, 1867, and February 1868.)

PARCEL. A term indifferently applied to small packages of wares, and to large lots of goods. In this latter sense, 20 hogsheads of sugar or more, if bought at one price, or in a single lot, are denominated *a parcel of sugar.*

PARCELS, BILL OF. An account of the items composing a parcel.

PARCHMENT AND VELLUM. The former consists of the skins of sheep, and the latter of those of calves, prepared in such a manner as to render them suitable for being written upon, for covering books, and other purposes. The consumption of these articles is very considerable. In this and most other countries, it is customary to use them instead of paper in the drawing up of a great variety of deeds and other legal instruments. They are also extensively used, especially in Italy, in the binding of books. The finest copies of the magnificent classics which issued from the Dutch presses, in the 17th century and the early part of the 18th, were all bound in vellum.

Parchment is coarser than vellum, and not so well adapted for writing upon. The qualities of both articles differ very widely; so much so, that the best parchment is preferable to inferior or even middling vellum. The goodness of each depends partly on the quality of the skins of which they are made, and partly, and indeed in a very high degree, on the care and skill with which they are manufactured.

Historical Notice.—The history of these articles is involved in some obscurity. Varro and Pliny (*Hist. Nat.* lib. xiii. cap. 11), who have been generally followed, state that they were originally manufactured at Pergamus, in Asia Minor, the capital city of Eumenes II., one of Alexander's successors, but who must not be confounded with Eumenes, the secretary and general of the conqueror, during the reign of that prince; and that parchment owes to this circumstance its classical name of *charta Pergamena.* But there

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seems to be little if any foundation for this statement. We have seen, in the preceding article on PAPER, that Herodotus, who flourished rather more than a century before Alexander the Great, states distinctly, that previously to his era, when paper (*charta Egyptiaca*) was scarce, the Ionians were accustomed to write on the skins of sheep and goats, and that that practice was then followed (viz. in his time) by several barbarous nations. (Lib. v. cap. 58.) And it is all but certain, seeing that the practice of writing on skins had been in use for at least 2½ centuries, and probably much more, previously to the era of Eumenes, that their preparation would, in the course of that lengthened period, be so much improved as to render them little different from parchment. It is probable, indeed, that their manufacture may have been improved in Pergamus; but we incline to think that parchment owes its name rather to the extensive demand for it in that city, in consequence of Eumenes having amassed a large and valuable library, than to anything else. He was, in fact, compelled to use parchment and vellum in the copying of books, as his contemporary Ptolemy Philadelphus had prohibited the exportation of paper. (Plin. ubi supra.)

The scarcity of parchment during the middle ages, and in antecedent times, led to the practice of obliterating the writing on old parchments, by rubbing them with pumice stone, immersing them in boiling water, and such like devices; and there can be no manner of doubt that the prevalence of this practice has been most injurious to literature, and that it has most probably occasioned the total destruction of some of the noblest chefs-d'œuvre of antiquity. In the middle ages these were erased, that room might be made for some worthless treatise on scholastic theology or logic. Sometimes, however, it happens that the ancient writing is not so much obliterated, but that it may still be read; and to that circumstance the recent discovery of a portion of Cicero's treatise *De Republicâ* is to be ascribed. It had been effaced to make room for a commentary of St. Augustine on the Psalms. (See the preface of Mai, the ingenious discoverer of this lost treatise.)

Parchments from which the writing has been erased in this way are called *palimpsests* (from πάλιν, *again*, and ψάω, *to efface* or *clean*), or repeatedly cleaned parchments; because they have been repeatedly cleaned, renewed, or prepared for writing upon. If the learned world is ever to be gratified by the recovery of the lost comedies of Menander, or the lost books of Polybius, Livy, and Tacitus, it will most probably be by finding them under some homily or poem of the middle ages. (*Nouveau Traité de Diplomatique*, i. 482 &c.; Dom de Vaines, ii. 177; &c.)

PARTIAL LOSS. [INSURANCE (MARINE).]

PARTNERSHIP. The association of two or more individuals for carrying on some business or undertaking in common; each deriving a certain share of the profits, and bearing a corresponding share of the loss arising therefrom.

The term *partnership* is usually applied to those smaller associations in which the partners personally conduct their joint affairs: the term *company* being applied to those great associations conducted by the directors and servants appointed by the body of the partners to act for them; the latter having no direct concern in the management of the affairs of the company. [COMPANIES.]

The advantages of partnership are obvious. Many businesses could not be successfully carried on without a larger command of capital than usually belongs to an individual; and most of them require the combination of various species of talent. An individual may have capital sufficient to undertake a particular business; but he may not be thoroughly versed in any of its details, or he may be familiar with certain parts of it and not with others; so that it might be for his advantage to assume one or more individuals as his partners, supposing them to be without capital, provided they possessed the skill and other qualifications required in prosecuting the business. Associations of this sort enable capital and talent to derive all the assistance that each is capable of lending to the other. And as the gains of each partner usually consist of a certain *proportion* of the total profits made by the company, each has the most powerful motive to exert himself for the benefit of the concern. It is not, indeed, to be denied, that associations of this sort are occasionally productive of mischievous consequences. The public interest requires that the whole partners in a firm should be bound by the acts of any one of their number; so that the folly or fraud of a single partner may entail very serious consequences upon those associated with him. Generally, however, this is not an evil of frequent occurrence; and there can be no question that, both in a private and public point of view, partnerships are highly beneficial.

To enter into anything like a full discussion of the law of partnership would very far exceed our limits. We shall, therefore, merely state a few of those leading principles with which it is of importance that mercantile men, and the public generally, should be well acquainted.

Formation of Partnerships.—The mere consent of the partners, fixed and certified by acts or contracts, is quite sufficient to constitute a private copartnership; so that if two or more merchants, or other persons, join together in trade, or in any sort of business, with a mutual, though it may be unequal, participation in the profit and loss of the concern, they are in every respect to be considered as partners. No particular form of words or proceeding is necessary to constitute a partnership. It may be entered into either by an express written agreement, or by a merely verbal one. The former ought in almost all cases to be preferred. The contract of copartnery should state the parties to it, the business to be carried on, the space of time the partnership is to continue, the capital each is to bring into the business, the proportion in which the profit and loss are to be divided, the manner in which the business is to be conducted, the mode agreed upon for settling accounts at the dissolution of the partnership, together with the special covenants adapted to the circumstances of each particular case.

To constitute a partnership, there must be a participation in uncertain profits and losses: and the true criterion to determine, when money is advanced to a trader, whether the individual making the advance is to be looked upon as a partner or not, is to ascertain whether the *premium or profit be certain and defined, or casual, indefinite, and depending upon the accidents of trade.* In the former case he is a lender merely; in the latter he is a partner. The mere participation in the profits of any business or adventure, without a participation in the losses, constitutes a partnership, so far as to render the individual so participating liable to third parties for the engagements of the concern, though as between the parties themselves it may be no partnership. Thus, if a clerk or other servant stipulate for a share of the profits of any business as *a reward for his labour*, he becomes responsible to third parties as a partner, and no private arrangement can cancel his liability.

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If an individual, by his own act or inadvertence, allow himself *to appear to the world as a partner*, he is precluded from disputing the fact, even though he have no interest in the profits. A partner who withdraws from a firm is liable on account of the remaining partners continuing his name in the firm, though without his consent, unless he take the necessary precautions (post) to show that he has ceased to belong to it.

If there be no express stipulation as to the management of partnership property, the majority decide as to the disposition and management of the joint affairs of the firm; or, if there be but two parties in a firm, one may manage the concern as he thinks fit, provided it be within the rules of good faith, and warranted by the circumstances of the case. The general duty of a partner is to keep in view, at all times and in all transactions, the interest and welfare of the partnership, by acting honestly and uprightly, and as a prudent man would conduct his own affairs.

Rights and Liabilities of Partners among themselves.—In the absence of evidence to the contrary, partners are taken to be equally interested in the partnership stock and effects. That is, they are presumed to be joint owners, with the important difference expressed in legal language: 'Jus accrescendi inter mercatores locum non habet.' Equity, however, which exercises a special jurisdiction over partnerships, interposes here, and estimates the right of each partner in the joint stock. To ascertain what each partner's share in a joint stock is, it is necessary to know what property is included within that denomination. A partner may risk his whole property in the name of a firm, but it may not thereupon be partnership property. The law moulds itself to the intention of the parties, when the intention can be ascertained. Again, the most scrupulous fidelity must be observed. Any one partner is not allowed to stipulate for any private advantage at the expense of the rest: if he do, he is compellable to occupy the position of a trustee for the benefit of the other partners, if any great breach of faith is committed. Chancery may dissolve the partnership, though it does so reluctantly. An executor does not occupy the place of a deceased partner, unless there be an express stipulation in the deed of partnership, that the executor, or other person appointed by the will, shall succeed him. When such a clause does exist, it gives the executor an option whether he will remain, or secure his share, and a reasonable time must be given him in which to inspect accounts and make up his mind. If he should elect to remain a partner, he will become liable in person or property to the engagements of the firm, though he merely hold in trust for others.

If a court of equity decrees a dissolution, it has power to order a sale of the partnership effects, and a division of the produce, proportionately to the share of each partner in the joint property, subject to stipulations made in the deed of partnership; for it is a rule in mercantile law, that 'Modus et conventio vincunt legem.' (Smith *On Mercantile Law.*)

Liability of Partners as to third Parties.—It may be laid down as a general rule, that partners, whether actual, ostensible, or dormant, are bound by the act of their partner, made in the course of and with reference to the partnership business, and in the regular course of dealing by the firm; and though the general rule of law be, that no one is liable upon any contract, except such as are privy to it, yet this is not contravened by the liability of partners, as they are supposed virtually present at and sanctioning the proceedings they singly enter into in the course of trade, or as being severally vested with a power enabling them to act at once as principals and as the authorised agents of their copartners. It is for the advantage of partners that they are thus held liable; for the credit of their firm is in consequence greatly enhanced, and facility is given to all their dealings, even when they reside in different parts of the country, or of the world. A due regard to the interest of strangers is at the same time observed; for where an individual deals with one of several partners, he relies upon the credit of the entire firm, and therefore ought to have his remedy against all the individuals who compose it.

Unless the act of one partner relate to and be connected with the partnership trade, and in the *course of dealing by the firm*, such acting partner only will be bound: for it is only by acting in the course of their particular trade or line of business that an implied authority is delegated by partners to each other; and it is only in such transactions that third parties have a right to rely upon the partnership funds. To bind a partnership, credit must be given to the firm itself, and not to one merely of its partners. One of them may even, in furtherance of the objects of the firm, enter into a contract with some third party; but if such contract be made *exclusively and solely upon the credit of the individual partner*, it will only bind him, and not the firm. The presumption of the law, however, always is, that a contract with one of the partners in reference to the business of the firm has been entered into upon the credit of the whole; and this presumption is not to be rebutted, except by very clear evidence. One partner cannot, as such, except in bankruptcy, bind another by *deed*.

The authority of a partner is revocable; and it is now fully established that a *disclaimer* of the authority of the partners in any particular transaction will preclude him from binding his copartners. Even during the subsistence of the partnership, one partner may to a certain degree limit his responsibility; and if there be any particular speculation or bargain proposed, which he disapproves of, he may, by giving distinct notice to those with whom his partners are about to contract that he will not be concerned in it, relieve himself from all consequences. Such notice would rebut his primâ facie liability. The partnership would be suspended quoad this transaction. Thus, if a partner draw, accept, or indorse a bill or note, he will, in all ordinary cases, thereby render the firm liable. But, to use the words of Lord Ellenborough, 'it is not essential to a partnership that every partner should have such power; they may stipulate among themselves that it shall not be done; and if a third party, *having notice of this*, will take such security from one of the partners, he shall not sue the others upon it, in breach of such stipulation, nor in defiance of notice previously given to him by one of them, that he will not be liable for any bill or note signed by the others' (*Galway* v. *Matthew*, 10 East, 264); and so in other cases.

However small the share a partner may have in a concern, he is liable for the *whole* of the debts contracted by the firm; and must seek his remedy in a rateable contribution against his partners. Should one party enter into a smuggling or other illegal transaction on the partnership account, the other partners are liable to the duties and the penalty; and the Crown may proceed against the real delinquent alone, or against all the partners.

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A bookseller, or newspaper proprietor, is answerable for the acts of his agent or copartner, not only civilly but also *criminally*.

Dissolution of Partnerships.—A partnership may be dissolved by the efluxion or expiration of the time during which it was originally agreed that it should continue. When a copartnership is formed for a single dealing or transaction, the moment that is completed, it is at an end. Partnerships may also be dissolved by death, agreement, bankruptcy, outlawry &c. A court of equity will interfere to dissolve a partnership, in cases where a partner so misconducts himself as to be injurious to the firm, or to defeat the object for which the partnership was formed; or when a partner becomes insane, or is in such a state of mind as to render him permanently incapable of transacting the peculiar business of the firm; or where a partnership is formed for an impracticable purpose. Indeed, in all cases, where even a partnership may be dissolved without the interference of a court of equity, it may be most prudent, if the dissolution be opposed by one of the partners, to file a bill, praying a dissolution and account, and an injunction against using the partnership name.

When a partnership is dissolved by agreement, or one of the partners withdraws from it, public notice of the dissolution must be given in the *London Gazette*; and *a specific intimation of the circumstance must be sent to* ALL *individuals accustomed to deal with the firm.* Where such intimation has not been sent, the individual withdrawing from the firm may be made liable to third parties after he has ceased to have anything to do with it. A dormant partner, whose name has never been announced, may withdraw from a firm without making the dissolution of partnership publicly known.

When the joint debts of the firm are paid, and the property duly distributed among the partners, the dissolution may be said, in a general sense, to be accomplished. If any one of the firm be guilty of a breach of duty in misapplying the effects before the concern is finally wound up, the proper course is to apply to the Court of Chancery to appoint a manager.

Within a reasonable time after the death of one partner, the survivors must account to the representatives of the deceased; and if not willing to do so, a court of equity will compel them. In taking partnership accounts at the death of a partner, they must commence with the last stated account; or, if there be none such, with the commencement of the partnership; and they must end with the state of the stock at the time of the partner's death, and the proceeds thereof until it be got in.

No notice is necessary to third parties of the death of a partner; the partnership is dissolved, and all liabilities for subsequent acts cease. The surviving parties are to be sued alone for the partnership liabilities and obligations, for which they are liable to the full extent. But they are not liable for the separate debts of the deceased partner, unless, after payment of all the joint debts, they have a surplus of the partnership effects in their hands.

Upon a dissolution by death, if the joint effects be insufficient to pay the partnership debts, the separate estate of the deceased partner, if he have any, is liable for the deficiency.

The Act 28 & 29 Vict. c. 86 sanctions a further alteration in the law of partnership.

Advances by way of loan to a person engaged or about to engage in any trade or undertaking upon a contract in writing with such person that the lender shall receive a rate of interest varying with the profits, or shall receive a share of profits arising from carrying on such trade or undertaking, shall not of itself constitute the lender a partner with the person or persons carrying on such trade or undertaking, or render him responsible as such.

No contract for the remuneration of a servant or agent by a share of profits &c., shall render the servant responsible as a partner, or give him the rights of a partner.

No person being widow or child of the deceased partner, and receiving as such a share of profits, shall be deemed a partner.

No person receiving an annuity in consideration of the sale of good will, to be deemed a partner.

In case of bankruptcy or composition, the lender not to be entitled to recover.

The term 'person' to include a partnership firm, a joint-stock company and a corporation.

The statements now made will, probably, be sufficient to give our readers a tolerably distinct notion of the formation of partnerships; and of the more important rights, duties, liabilities &c., arising out of such institutions. Those who wish to go deeper into the subject may consult the treatises of Watson and Montague on the *Law of Partnership*; Chitty's *Commercial Law*, vol. iii. pp. 225—269; Woolrych *On Commercial Law*, pp. 298—317; Smith's *Mercantile Law*, p. 19, sec. 95.

PARTNERSHIPS WITH LIMITED LIABILITY. We have previously made some general remarks on this subject, to which we would beg to refer the reader. [COMPANIES.] We there endeavoured to show the extremely objectionable nature of such partnerships, and that there was nothing in the circumstances peculiar to this country which either required or excused their introduction. The opinion of the greater, if not the better informed, part of the public being, however, for a while at least, strongly in their favour, they were established by the Act 19 & 20 Vict. c. 47, amended by the 20 & 21 Vict. c. 14, and are now regulated by the Companies' Acts of 1862 and 1867, 25 & 26 Vict. c. 89, and 30 & 31 Vict. c. 131.

The two schedules annexed to the Act of 1862 give the following memorandums of association, and comprise a summary of the various proceedings connected with the formation and management of companies with liability limited by shares and limited by guarantee, of which we beg to annex copies.

Memorandum of Association of a Company Limited by Shares.

1st. The name of the company is 'The Eastern Steam Packet Company, limited.'

2nd. The registered office of the company will be situate in England.

3rd. The objects for which the company is established are, 'the conveyance of passengers and goods in ships or boats between such places as the company may from time to time determine, and the doing all such other things as are incidental or conducive to the attainment of the above object.'

4th. The liability of the shareholders is 'limited.'

5th. The capital of the company is 200,000*l.*, divided into 1,000 shares of 200*l.* each.

We, the several persons whose names and addresses are subscribed, are desirous of being formed into a company in pursuance of this memorandum of association, and we respectively agree to take the number of shares in the capi-

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tal of the company set opposite our respective names.

Names and Addresses of Subscribers		Number of Shares taken by each Subscriber
1. John Jones of	in the county of	200
2. John Smith of	in the county of	25
3. Thomas Green of	in the county of	50
4. John Thompson of	in the county of	40
5. Caleb White of	in the county of	15
6. Andrew Brown of	in the county of	5
7. Cæsar White of	in the county of	10
	Total Shares taken	325

Regulations for Management of a Company Limited by Shares. (See also Act of 1867.)

Shares.—1. If several persons are registered as joint holders of any share, any one of such persons may give effectual receipts for any dividend payable in respect of such share.

2. Every member shall, on payment of one shilling, or such less sum as the company in general meeting may prescribe, be entitled to a certificate, under the common seal of the company, specifying the share or shares held by him, and the amount paid up thereon.

3. If such certificate is worn out or lost, it may be renewed, on payment of one shilling, or such less sum as the company in general meeting may prescribe.

Calls on Shares.—4. The directors may from time to time make such calls upon the members in respect of all moneys unpaid on their shares as they think fit, provided that 21 days' notice at least is given of each call, and each member shall be liable to pay the amount of calls so made to the persons and at the times and places appointed by the directors.

5. A call shall be deemed to have been made at the time when the resolution of the directors authorising such call was passed.

6. If the call payable in respect of any share is not paid before or on the day appointed for payment thereof, the holder for the time being of such share shall be liable to pay interest for the same at the rate of 5*l.* per cent. per annum from the day appointed for the payment thereof to the time of the actual payment.

7. The directors may, if they think fit, receive from any member willing to advance the same, all or any part of the moneys due upon the shares held by him beyond the sums actually called for; and upon the moneys so paid in advance, or so much thereof as from time to time exceeds the amount of the calls then made upon the shares in respect of which such advance has been made, the company may pay interest at such rate as the member paying such sum in advance and the directors agree upon.

Transfers of Shares.—8. The instrument of transfer of any share in the company shall be executed both by the transferor and transferee, and the transferor shall be deemed to remain a holder of such share until the name of the transferee is entered in the register book in respect thereof.

9. Shares in the company shall be transferred in the following form:

I, A.B. of in consideration of the sum of pounds paid to me by C.D. of do hereby transfer to the said C.D. the share [*or* shares] numbered standing in my name in the books of the company, to hold unto the said C.D., his executors, administrators, and assigns, subject to the several conditions on which I held the same at the time of the execution hereof; and I the said C.D. do hereby agree to take the said share [*or* shares] subject to the same conditions. As witness our hands, the day of .

10. The company may decline to register any transfer of shares made by a member who is indebted to them.

11. The transfer books shall be closed during the fourteen days immediately preceding the ordinary general meeting in each year.

Transmission of Shares.—12. The executors or administrators of a deceased member shall be the only persons recognised by the company as having any title to his share.

13. Any person becoming entitled to a share in consequence of the death, bankruptcy, or insolvency of any member, or in consequence of the marriage of any female member, may be registered as a member upon such evidence being produced as may from time to time be required by the company.

14. Any person who has become entitled to a share in consequence of the death, bankruptcy, or insolvency of any member, or in consequence of the marriage of any female member, may, instead of being registered himself, elect to have some person to be named by him registered as a transferee of such share.

15. The person so becoming entitled shall testify such election by executing to his nominee an instrument of transfer of such share.

16. The instrument of transfer shall be presented to the company, accompanied with such evidence as the directors may require to prove the title of the transferor, and thereupon the company shall register the transferee as a member.

Forfeiture of Shares.—17. If any member fails to pay any call on the day appointed for payment thereof, the directors may at any time thereafter, during such time as the call remains unpaid, serve a notice on him, requiring him to pay such call, together with interest and any expenses that may have accrued by reason of such non-payment.

18. The notice shall name a further day, on or before which such call, and all interest and expenses that have accrued by reason of such non-payment, are to be paid. It shall also name the place where payment is to be made (the place so named being either the registered office of the company or some other place at which calls of the company are usually made payable). The notice shall also state, that in the event of non-payment at or before the time and at the place appointed, the shares in respect of which such call was made will be liable to be forfeited.

19. If the requisitions of any such notice as aforesaid are not complied with, any share in respect of which such notice has been given may at any time thereafter, before payment of all calls, interest, and expenses due in respect thereof has been made, be forfeited, by a resolution of the directors to that effect.

20. Any share so forfeited shall be deemed to be the property of the company, and may be disposed of in such manner as the company in general meeting thinks fit.

21. Any member whose shares have been forfeited shall, notwithstanding, be liable to pay to the company all calls owing upon such shares at the time of the forfeiture.

22. A statutory declaration in writing, that the call in respect of a share was made and notice thereof given, and that default in payment of the call was made, and that the forfeiture of the share was made by a resolution of the directors to that effect, shall be sufficient evidence of the facts

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therein stated, as against all persons entitled to such share, and such declaration, and the receipt of the company for the price of such share, shall constitute a good title to such share, and a certificate of proprietorship shall be delivered to a purchaser, and thereupon he shall be deemed the owner of such share discharged from all calls due prior to such purchase, and he shall not be bound to see to the application of the purchase money, nor shall his title to such share be affected by any irregularity in the proceedings in reference to such sale.

Conversion of Shares into Stock.—23. The directors may, with the sanction of the company previously given in general meeting, convert any paid-up shares into stock.

24. When any shares have been converted into stock, the several holders of such stock may thenceforth transfer their respective interests therein, or any part of such interests, in the same manner and subject to the same regulations as and subject to which any shares in the capital of the company may be transferred, or as near thereto as circumstances admit.

25. The several holders of stock shall be entitled to participate in the dividends and profits of the company according to the amount of their respective interests in such stock; and such interests shall, in proportion to the amount thereof, confer on the holders thereof respectively the same privileges and advantages for the purpose of voting at meetings of the company, and for other purposes, as would have been conferred by shares of equal amount in the capital of the company; but so that none of such privileges or advantages, except the participation in the dividends and profits of the company, shall be conferred by any such aliquot part of consolidated stock as would not, if existing in shares, have conferred such privileges or advantages.

Increase in Capital.—26. The directors may, with the sanction of a special resolution of the company previously given in general meeting, increase its capital by the issue of new shares, such aggregate increase to be of such amount, and to be divided into shares of such respective amounts, as the company in general meeting directs, or, if no direction is given, as the directors think expedient.

27. Subject to any direction to the contrary that may be given by the meeting that sanctions the increase of capital, all new shares shall be offered to the members in proportion to the existing shares held by them, and such offer shall be made by notice specifying the number of shares to which the member is entitled, and limiting a time within which the offer, if not accepted, will be deemed to be declined, and after the expiration of such time, or on the receipt of an intimation from the member to whom such notice is given that he declines to accept the shares offered, the directors may dispose of the same in such manner as they think most beneficial to the company.

28. Any capital raised by the creation of new shares shall be considered as part of the original capital, and shall be subject to the same provisions with reference to the payment of calls, and the forfeiture of shares on non-payment of calls, or otherwise, as if it had been part of the original capital.

General Meetings.—29. By the Act of 1867, a general meeting shall under a heavy penalty be held within 4 months after the registration of the company, and at such place as the directors may determine.

30. Subsequent general meetings shall be held at such time and place as may be prescribed by the company in general meeting; and if no other time or place is prescribed, a general meeting shall be held on the first Monday in February in every year, at such place as may be determined by the directors.

31. The above-mentioned general meetings shall be called ordinary meetings; all other general meetings shall be called extraordinary.

32. The directors may, whenever they think fit, and they shall upon a requisition made in writing by not less than one-fifth in number of the members of the company, convene an extraordinary general meeting.

33. Any requisition made by the members shall express the object of the meeting proposed to be called, and shall be left at the registered office of the company.

34. Upon the receipt of such requisition, the directors shall forthwith proceed to convene an extraordinary general meeting. If they do not proceed to convene the same within twenty-one days from the date of the requisition, the requisitionists, or any other members amounting to the required number, may themselves convene an extraordinary general meeting.

Proceedings at General Meetings.—35. Seven days' notice at the least, specifying the place, the day, and the hour of meeting, and in case of special business the general nature of such business, shall be given to the members in manner hereinafter mentioned, or in such other manner, if any, as may be prescribed by the company in general meeting; but the non-receipt of such notice by any member shall not invalidate the proceedings at any general meeting.

36. All business shall be deemed special that is transacted at an extraordinary meeting, and all that is transacted at an ordinary meeting, with the exception of sanctioning a dividend and the consideration of the accounts, balance sheets, and the ordinary report of the directors.

37. No business shall be transacted at any general meeting, except the declaration of a dividend, unless a quorum of members is present at the time when the meeting proceeds to business, and such quorum shall be ascertained as follows: that is to say, if the persons who have taken shares in the company at the time of the meeting do not exceed ten in number, the quorum shall be five; if they exceed ten, there shall be added to the above quorum one for every five additional members up to fifty, and one for every ten additional members after fifty, with this limitation, that no quorum shall in any case exceed twenty.

38. If within one hour from the time appointed for the meeting a quorum is not present, the meeting, if convened upon the requisition of members, shall be dissolved: in any other case it shall stand adjourned to the same day in the next week, at the same time and place; and if at such adjourned meeting a quorum is not present, it shall be adjourned sine die.

39. The chairman (if any) of the board of directors shall preside as chairman at every general meeting of the company.

40. If there is no such chairman, or if at any meeting he is not present within fifteen minutes after the time appointed for holding the meeting, the members present shall choose some one of their number to be chairman.

41. The chairman may, with the consent of the meeting, adjourn any meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than

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the business left unfinished at the meeting from which the adjournment took place.

42. At any general meeting, unless a poll is demanded by at least five members, a declaration by the chairman that a resolution has been carried, and an entry to that effect in the book of proceedings of the company, shall be sufficient evidence of the fact, without proof of the number or proportion of the votes recorded in favour of or against such resolution.

43. If a poll is demanded by five or more members, it shall be taken in such manner as the chairman directs, and the result of such poll shall be deemed to be the resolution of the company in general meeting. In the case of an equality of votes at any general meeting, the chairman shall be entitled to a second or casting vote.

Votes of Members.—44. Every member shall have one vote for every share up to ten; he shall have an additional vote for every five shares beyond the first ten shares up to one hundred, and an additional vote for every ten shares beyond the first hundred shares.

45. If any member is a lunatic or idiot, he may vote by his committee, curator bonis, or other legal curator.

46. If one or more persons are jointly entitled to a share or shares, the member whose name stands first in the register of members as one of the holders of such share or shares, and no other, shall be entitled to vote in respect of the same.

47. No member shall be entitled to vote at any general meeting unless all calls due from him have been paid, and no member shall be entitled to vote in respect of any share that he has acquired by transfer at any meeting held after the expiration of three months from the registration of the company, unless he has been possessed of the share in respect of which he claims to vote for at least three months previously to the time of holding the meeting at which he proposes to vote.

48. Votes may be given either personally or by proxy.

49. The instrument appointing a proxy shall be in writing, under the hand of the appointor, or if such appointor is a corporation, under their common seal, and shall be attested by one or more witness or witnesses: no person shall be appointed a proxy who is not a member of the company.

50. The instrument appointing a proxy shall be deposited at the registered office of the company not less than seventy-two hours before the time for holding the meeting at which the person named in such instrument proposes to vote, but no instrument appointing a proxy shall be valid after the expiration of twelve months from the date of its execution.

51. Any instrument appointing a proxy shall be in the following form:—

Company limited.

I of in the county of being a member of the company limited, and entitled to vote *or* votes, hereby appoint of as my proxy, to vote for me and on my behalf at the [ordinary *or* extraordinary, *as the case may be*] general meeting of the company to be held on the day of , and at any adjournment thereof [*or*, at any meeting of the company that may be held in the year].

As witness my hand, this day of .

Signed by the said in the presence of .

Directors.—52. The number of the directors, and the names of the first directors, shall be determined by the subscribers of the memorandum of association.

53. Until directors are appointed, the subscribers of the memorandum of association shall be deemed to be directors.

54. The future remuneration of the directors, and their remuneration for services performed previously to the first general meeting, shall be determined by the company in general meeting.

Powers of Directors.—55. The business of the company shall be managed by the directors, who may pay all expenses incurred in getting up and registering the company, and may exercise all such powers of the company as are not by the foregoing Act, or by these articles, required to be exercised by the company in general meeting, subject nevertheless to any regulations of these articles, to the provisions of the foregoing Act, and to such regulations, being not inconsistent with the aforesaid regulations or provisions, as may be prescribed by the company in general meeting; but no regulation made by the company in general meeting shall invalidate any prior act of the directors which would have been valid if such regulation had not been made.

56. The continuing directors may act notwithstanding any vacancy in their body.

Disqualification of Directors.—57. The office of director shall be vacated—

If he holds any other office or place of profit under the company;

If he becomes bankrupt or insolvent;

If he is concerned in or participates in the profits of any contract with the company;

but the above rules shall be subject to the following exceptions: that no director shall vacate his office by reason of his being a member in any company which has entered into contracts with or done any work for the company of which he is director: nevertheless he shall not vote in respect of such contract or work; and if he does so vote his vote shall not be counted.

Rotation of Directors.—58. At the first ordinary meeting after the registration of the company, the whole of the directors shall retire from office; and at the first ordinary meeting in every subsequent year, one-third of the directors for the time being, or if their number is not a multiple of three, then the number nearest to one-third, shall retire from office.

59. The one-third or other nearest number to retire during the first and second years ensuing the first ordinary meeting of the company shall, unless the directors agree among themselves, be determined by ballot; in every subsequent year the one-third or other nearest number who have been longest in office shall retire.

60. A retiring director shall be re-eligible.

61. The company, at the general meeting at which any directors retire in manner aforesaid, shall fill up the vacated offices by electing a like number of persons.

62. If at any meeting at which an election of directors ought to take place, the places of the vacating directors are not filled up, the meeting shall stand adjourned till the same day in the next week, at the same time and place; and if at such adjourned meeting the places of the vacating directors are not filled up, the vacating directors, or such of them as have not had their places filled up, shall continue in office until the ordinary

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meeting in the next year, and so on from time to time until their places are filled up.

63. The company may from time to time, in general meeting, increase or reduce the number of directors, and may also determine in what rotation such increased or reduced number is to go out of office.

64. Any casual vacancy occurring in the board of directors may be filled up by the directors, but any person so chosen shall retain his office so long only as the vacating director would have retained the same if no vacancy had occurred.

65. The company, in general meeting, may, by a special resolution, remove any director before the expiration of his period of office, and may by an ordinary resolution appoint another person in his stead; the person so appointed shall hold office during such time only as the director in whose place he is appointed would have held the same if he had not been removed.

Proceedings of Directors.—66. The directors may meet together for the despatch of business, adjourn, and otherwise regulate their meetings as they think fit, and determine the quorum necessary for the transaction of business: questions arising at any meeting shall be decided by a majority of votes: in case of an equality of votes, the chairman shall have a second or casting vote: a director may at any time summon a meeting of the directors.

67. The directors may elect a chairman of their meetings, and determine the period for which he is to hold office; but if no such chairman is elected, or if at any meeting the chairman is not present at the time appointed for holding the same, the directors present shall choose some one of their number to be chairman of such meeting.

68. The directors may delegate any of their powers to committees consisting of such member or members of their body as they think fit: any committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on them by the directors.

69. A committee may elect a chairman of their meetings: if no such chairman is elected, or if he is not present at the time appointed for holding the same, the members present shall choose one of their number to be chairman of such meeting.

70. A committee may meet and adjourn as they think proper: questions arising at any meeting shall be determined by a majority of votes of the members present; and in case of an equality of votes, the chairman shall have a second or casting vote.

71. All acts done by any meeting of the directors, or of a committee of directors, or by any person acting as a director, shall, notwithstanding that it be afterwards discovered that there was some defect in the appointment of any such directors or persons acting as aforesaid, or that they or any of them were disqualified, be as valid as if every such person had been duly appointed and was qualified to be a director.

Dividends.—72. The directors may, with the sanction of the company in general meeting, declare a dividend to be paid to the members in proportion to their shares.

73. No dividend shall be payable except out of the profits arising from the business of the company.

74. The directors may, before recommending any dividend, set aside out of the profits of the company such sum as they think proper as a reserved fund to meet contingencies, or for equalising dividends, or for repairing, or maintaining, the works connected with the business of the company, or any part thereof; and the directors may invest the sum so set apart as a reserved fund upon such securities as they may select.

75. The directors may deduct from the dividends payable to any member all such sums of money as may be due from him to the company on account of calls or otherwise.

76. Notice of any dividend that may have been declared shall be given to each member in manner hereinafter mentioned; and all dividends unclaimed for three years, after having been declared, may be forfeited by the directors for the benefit of the company.

77. No dividend shall bear interest as against the company.

Accounts.—78. The directors shall cause true accounts to be kept—

Of the stock in trade of the company;

Of the sums of money received and expended by the company, and the matter in respect of which such receipt and expenditure takes place; and,

Of the credits and liabilities of the company:

The books of account shall be kept at the registered office of the company, and, subject to any reasonable restrictions as to the time and manner of inspecting the same that may be imposed by the company in general meeting, shall be open to the inspection of the members during the hours of business.

79. Once at the least in every year the directors shall lay before the company in general meeting a statement of the income and expenditure for the past year, made up to a date not more than 3 months before such meeting.

80. The statement so made shall show, arranged under the most convenient heads, the amount of gross income, distinguishing the several sources from which it has been derived, and the amount of gross expenditure, distinguishing the expense of the establishment, salaries, and other like matters: every item of expenditure fairly chargeable against the year's income shall be brought into account, so that a just balance of profit and loss may be laid before the meeting: and in cases where any item of expenditure which may in fairness be distributed over several years has been incurred in any one year, the whole amount of such item shall be stated, with the addition of the reasons why only a portion of such expenditure is charged against the income of the year.

81. A balance sheet shall be made out in every year, and laid before the company in general meeting, and such balance sheet shall contain a summary of the property and liabilities of the company arranged under the heads appearing in the form given in the annexed table, or as near thereto as circumstances admit.

82. A printed copy of such balance sheet shall, seven days previously to such meeting, be served on every member in the manner in which notices are hereinafter directed to be served.

Audit.—83. Once at the least in every year the accounts of the company shall be examined, and the correctness of the balance sheet ascertained, by one or more auditor or auditors.

84. The first auditors shall be appointed by the directors: subsequent auditors shall be appointed by the company in general meeting.

85. If one auditor only is appointed, all the provisions herein contained relating to auditors shall apply to him.

86. The auditors may be members of the company; but no person is eligible as an auditor who is interested otherwise than as a member in any transaction of the company; and no director or other officer of the company is eligible during his continuance in office.

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87. The election of auditors shall be made by the company at their ordinary meeting in each year.

88. The remuneration of the first auditors shall be fixed by the directors; that of subsequent auditors shall be fixed by the company in general meeting.

89. Any auditor shall be re-eligible on his quitting office.

90. If any casual vacancy occurs in the office of any auditor appointed by the company, the directors shall forthwith call an extraordinary general meeting for the purpose of supplying the same.

91. If no election of auditors is made in manner aforesaid, the Board of Trade may, on the application of not less than five members of the company, appoint an auditor for the current year, and fix the remuneration to be paid to him by the company for his services.

92. Every auditor shall be supplied with a copy of the balance sheet, and it shall be his duty to examine the same, with the accounts and vouchers relating thereto.

93. Every auditor shall have a list delivered to him of all books kept by the company, and shall at all reasonable times have access to the books and accounts of the company; he may, at the expense of the company, employ accountants or other persons to assist him in investigating such accounts, and he may, in relation to such accounts, examine the directors or any other officer of the company.

94. The auditors shall make a report to the members upon the balance sheet and accounts, and in every such report they shall state whether, in their opinion, the balance sheet is a full and fair balance sheet, containing the particulars required by these regulations, and properly drawn up so as to exhibit a true and correct view of the state of the company's affairs, and in case they have called for explanations or information from the directors, whether such explanations or information have been given by the directors, and whether they have been satisfactory; and such report shall be read, together with the report of the directors, at the ordinary meeting.

Notices.—95. A notice may be served by the company upon any member either personally, or by sending it through the post in a prepaid letter addressed to such member at his registered place of abode.

96. All notices directed to be given to the members shall, with respect to any share to which persons are jointly entitled, be given to whichever of such persons is named first in the register of members; and notice so given shall be sufficient notice to all the holders of such share.

97. Any notice, if served by post, shall be deemed to have been served at the time when the letter containing the same would be delivered in the ordinary course of the post; and in proving such service it shall be sufficient to prove that the letter containing the notices was properly addressed and put into the post office.

Form of Balance Sheet referred to above.

Dr. Balance Sheet of the Co. made up to 18 . Cr.

Capital and Liabilities		Showing:	£ s. d.	£ s. d.
I. Capital	1	*a.* The number of shares		
	2	*b.* The amount paid per share		
	3	*c.* If any arrears of calls, the nature of the arrears, and the names of the defaulters.		
	4	*d.* The particulars of any forfeited shares.		
		Showing:		
II. Debts and Liabilities of the Company	5	The amount of loans on mortgage or debenture bonds.		
	6	The amount of debts owing by the Company, distinguishing: *a.* Debts for which acceptances have been given. *b.* Debts to tradesmen for supplies of stock in trade or other articles. *c.* Debts for law expenses. *d.* Debts for interest on debentures or other loans. *e.* Unclaimed dividends. *f.* Debts not enumerated above.		
		Showing:		
VI. Reserve Fund		The amount set aside from profits to meet contingencies.		
		Showing:		
VII. Profit and Loss		The disposable balance for payment of dividend &c.		
Contingent Liabilities		Claims against the Company not acknowledged as debts. Moneys for which the Company is contingently liable.		

Property and Assets		Showing:	£ s. d.	£ s. d.
III. Property held by the Company	7	Immovable property, distinguishing: *a.* Freehold land *b.* buildings *c.* Leasehold ,, ,,		
	8	Movable property, distinguishing: *d.* Stock in trade *e.* Plant		
		The cost to be stated, with deductions for deterioration in value as charged to the reserve fund or profit and loss.		
		Showing:		
IV. Debts owing to the Company	9	Debts considered good for which the Company hold bills or other securities.		
	10	Debts considered good for which the Company hold no security.		
	11	Debts considered doubtful and bad.		
		Any debt due from a director or other officer of the Company to be separately stated.		
		Showing:		
V. Cash and investments	12	The nature of investment and rate of interest.		
	13	The amount of cash, where lodged, and if bearing interest.		

Table of Fees to be paid to the Registrar of Joint-Stock Companies by a Company having a Capital divided into Shares.

	£	s.	d.
For registration of a company whose nominal capital does not exceed 2,000*l.*	2	0	0
For registration of a company whose nominal capital exceeds 2,000*l.*, the above fee of 2*l.*, with the following additional fees, regulated according to the amount of nominal capital (that is to say)—			
For every 1,000*l.* of nominal capital, or part of 1,000*l.*, after the first 2,000*l.*, up to 5,000*l.*	1	0	0
For every 1,000*l.* of nominal capital, or part of 1,000*l.*, after the first 5,000*l.* and up to 100,000*l.*	0	5	0
For every 1,000*l.* of nominal capital, or part of 1,000*l.* after the first 100,000*l.*	0	1	0
For registration of any increase of capital made after the first registration of the company, the same fees per 1,000*l.* or part of 1,000*l.*, as would have been payable if such increased capital had formed part of the original capital at the time of registration.			
Provided that no company shall be liable to pay in respect			

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	£	s.	d.
of nominal capital, on registration or afterwards, any greater amount of fees than 50*l.*, taking into account, in the case of fees payable on an increase of capital after registration, the fees paid on registration.			
For registration of any existing company, except such companies as are by this Act exempted from payment of fees in respect of registration under this Act, the same fee as is charged for registering a new company.			
For registering any document hereby required or authorised to be registered, other than the memorandum of association	0	5	0
For making a record of any fact hereby authorised or required to be recorded by the Registrar of Companies, a fee of	0	5	0

Table of Fees to be paid to the Registrar of Joint-Stock Companies by a Company not having a Capital divided into Shares.

	£	s.	d.
For registration of a company whose number of members, as stated in the articles of association, does not exceed 20	2	0	0
For registration of a company whose number of members, as stated in the articles of association, exceeds 20, but does not exceed 100	5	0	0
For registration of a company whose number of members, as stated in the articles of association, exceeds 100, but is not stated to be unlimited, the above fee of 5*l.*, with an additional 5*s.* for every 50 members or less number than 50 members after the first 100.			
For registration of a company in which the number of members is stated in the articles of association to be unlimited, a fee of	20	0	0
For registration of any increase on the number of members made after the registration of the company in respect of every 50 members, or less than 50 members, of such increase	0	5	0
Provided that no one company shall be liable to pay on the whole a greater fee than 20*l.* in respect of its number of members, taking into account the fee paid on the first registration of the company.			
For registration of any existing company, except such companies as are by this Act exempted from payment of fees in respect of registration under this Act, the same fee as is charged for registering a new company.			
For registering any document hereby required or authorised to be registered, other than the memorandum of association	0	5	0
For making a record of any fact hereby authorised or required to be recorded by the Registrar of Companies	0	5	0

MEMORANDUM AND ARTICLES OF ASSOCIATION OF A COMPANY LIMITED BY GUARANTEE, AND NOT HAVING A CAPITAL DIVIDED INTO SHARES.

Memorandum of Association.

1. The name of the Company is 'The Mutual London Marine Association, Limited.'

2. The registered office of the company will be situated in England.

3. The objects for which the company is established are, the 'mutual insurance of ships belonging to members of the company, and the doing all such other things as are incidental or conducive to the attainment of the above objects.'

4. Every member of the company undertakes to contribute to the assets of the company in the event of the same being wound up during the time that he is a member, or within one year afterwards, for payment of the debts and liabilities of the company contracted before the time at which he ceases to be a member, and the costs, charges, and expenses of winding up the same, and for the adjustment of the rights of the contributories amongst themselves, such amount as may be required, not exceeding 10*l.*

We, the several persons whose names and addresses are subscribed, are desirous of being formed into a company, in pursuance of this memorandum of association.

Names, Addresses, and Descriptions of Subscribers.

1. John Jones of	in the county of	Merchant.
2. John Smith of	in the county of	
3. Thomas Green of	in the county of	
4. John Thompson of	in the county of	
5. Caleb White of	in the county of	
6. Andrew Brown of	in the county of	
7. Cæsar White of	in the county of	

Dated the 22nd day of November 1861.

Witness to the above Signatures,
A.B., No. 13, Hute Street, Clerkenwell, Middlesex.

ARTICLES OF ASSOCIATION TO ACCOMPANY PRECEDING MEMORANDUM OF ASSOCIATION.

1. The company, for the purpose of registration, is declared to consist of 500 members.

2. The directors hereinafter mentioned may, whenever the business of the association requires it, register an increase of members.

Definition of Members.—3. Every person shall be deemed to have agreed to become a member of the company who insures any ship or share in a ship in pursuance of the regulations hereinafter contained.

General Meetings.—4. The first general meeting shall be held at such time, not being more than three months after the incorporation of the company, and at such place, as the directors may determine.

5. Subsequent general meetings shall be held at such time and place as may be prescribed by the company in general meeting; and if no other time or place is prescribed, a general meeting shall be held on the first Monday in February in every year, at such place as may be determined by the directors.

6. The above-mentioned general meetings shall be called ordinary meetings; all other general meetings shall be called extraordinary.

7. The directors may, whenever they think fit, and they shall, upon a requisition made in writing by any five or more members, convene an extraordinary general meeting.

8. Any requisition made by the members shall express the object of the meeting proposed to be called, and shall be left at the registered office of the company.

9. Upon the receipt of such requisition the directors shall forthwith proceed to convene a general meeting: if they do not proceed to convene the same within twenty-one days from the date of the requisition, the requisitionists, or any other five members, may themselves convene a meeting.

Proceedings at General Meetings.—10. Seven days' notice at the least, specifying the place, the day, and the hour of meeting, and in case of special business the general nature of such business, shall be given to the members in manner hereinafter mentioned, or in such other manner, if any, as may be prescribed by the company in general meeting; but the non-receipt of such notice by any member shall not invalidate the proceedings at any general meeting.

11. All business shall be deemed special that is transacted at an extraordinary meeting, and all that is transacted at an ordinary meeting, with the exception of the consideration of the accounts, balance sheets, and the ordinary report of the directors.

12. No business shall be transacted at any meeting, except the declaration of a dividend, unless a quorum of members is present at the commencement of such business, and such quorum shall be ascertained as follows; that is to say, if the members of the company at the time of the meeting do not exceed ten in number, the quorum shall be five; if they exceed ten there shall be added to the above quorum one for every five additional members up to fifty, and one for every ten additional members after fifty, with this limitation, that no quorum shall in any case exceed thirty.

13. If within one hour from the time appointed for the meeting a quorum of members is not present, the meeting, if convened upon the requisition of the members, shall be dissolved: in any other case it shall stand adjourned to the same day in the following week at the same time and place; and if at such adjourned meeting a quorum of members is not present, it shall be adjourned sine die.

14. The chairman (if any) of the directors shall preside as chairman at every general meeting of the company.

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15. If there is no such chairman, or if at any meeting he is not present at the time of holding the same, the members present shall choose some one of their number to be chairman of such meeting.

16. The chairman may, with the consent of the meeting, adjourn any meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.

17. At any general meeting, unless a poll is demanded by at least 5 members, a declaration by the chairman that a resolution has been carried, and an entry to that effect in the book of proceedings of the company, shall be sufficient evidence of the fact, without proof of the number or proportion of the votes recorded in favour of or against such resolution.

18. If a poll is demanded in manner aforesaid the same shall be taken in such manner as the chairman directs, and the result of such poll shall be deemed to be the resolution of the company in general meeting.

Votes of Members.—19. Every member shall have one vote and no more.

20. If any member is a lunatic or idiot, he may vote by his committee, curator bonis, or other legal curator.

21. No member shall be entitled to vote at any meeting unless all monies due from him to the company have been paid.

22. Votes may be given either personally or by proxies: a proxy shall be appointed in writing under the hand of the appointor, or, if such appointor is a corporation, under its common seal.

23. No person shall be appointed a proxy who is not a member, and the instrument appointing him shall be deposited at the registered office of the company not less than 48 hours before the time of holding the meeting at which he proposes to vote.

24. Any instrument appointing a proxy shall be in the following form:—

Company, Limited.

I of in the county of being a member of the company, limited, hereby appoint of as my proxy, to vote for me and on my behalf at the [ordinary *or* extraordinary, *as the case may be*] general meeting of the company to be held on the day of , and at any adjournment thereof to be held on the day of next [*or* at any meeting of the company that may be held in the year].

As witness my hand, this day of

Signed by the said in the presence of

Directors.—25. The number of the directors, and the names of the first directors, shall be determined by the subscribers of the memorandum of association.

26. Until directors are appointed, the subscribers of the memorandum of association shall for all the purposes of this Act be deemed to be directors.

Powers of Directors.—27. The business of the company shall be managed by the directors, who may exercise all such powers of the company as are not hereby required to be exercised by the company in general meeting; but no regulation made by the company in general meeting shall invalidate any prior act of the directors which would have been valid if such regulation had not been made.

Election of Directors.—28. The directors shall be elected annually by the company in general meeting.

Business of Company. [*Here insert Rules as to Mode in which Business of Insurance is to be conducted.*]

Accounts.—29. The accounts of the company shall be audited by a committee of five members, to be called the audit committee.

30. The first audit committee shall be nominated by the directors out of the body of members.

31. Subsequent audit committees shall be nominated by the members at the ordinary general meeting in each year.

32. The audit committee shall be supplied with a copy of the balance sheet, and it shall be their duty to examine the same with the accounts and vouchers relating thereto.

33. The audit committee shall have a list delivered to them of all books kept by the company, and they shall at all reasonable times have access to the books and accounts of the company: they may, at the expense of the company, employ accountants or other persons to assist them in investigating such accounts, and they may in relation to such accounts examine the directors or any other officer of the company.

34. The audit committee shall make a report to the members upon the balance sheet and accounts, and in every such report they shall state whether in their opinion the balance sheet is a full and fair balance sheet, containing the particulars required by these regulations of the company and properly drawn up, so as to exhibit a true and correct view of the state of the company's affairs, and in case they have called for explanation or information from the directors, whether such explanations or information have been given by the directors, and whether they have been satisfactory, and such report shall be read together with the report of the directors at the ordinary meeting.

Notices.—35. A notice may be served by the company upon any member either personally, or by sending it through the post in a prepaid letter addressed to such member at his registered place of abode.

36. Any notice, if served by post, shall be deemed to have been served at the time when the letter containing the same would be delivered in the ordinary course of the post; and in proving such service it shall be sufficient to prove that the letter containing the notice was properly addressed, and put into the post office.

Winding-up.—37. The company shall be wound up voluntarily whenever an extraordinary resolution, as defined by the Companies Act 1862, is passed, requiring the company to be wound up voluntarily.

Names, Addresses, and Descriptions of Subscribers.

1. John Jones of	in the county of	Merchant
2. John Smith of	in the county of	
3. Thomas Green of	in the county of	
4. John Thompson of	in the county of	
5. Caleb White of	in the county of	
6. Andrew Brown of	in the county of	
7. Cæsar White of	in the county of	

Dated the 22nd day of November 1861.

Witness to the above Signatures,
A. B., No. 13, Hute Street, Clerkenwell, Middlesex.

MEMORANDUM AND ARTICLES OF ASSOCIATION OF A COMPANY LIMITED BY GUARANTEE, AND HAVING A CAPITAL DIVIDED INTO SHARES.

Memorandum of Association.—1. The name of the company is 'The Highland Hotel Company, Limited.'

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2. The registered office of the company will be situate in Scotland.

3. The objects for which the company is established are 'the facilitating travelling in the Highlands of Scotland, by providing hotels and conveyances by sea and by land for the accommodation of travellers, and the doing all such other things as are incidental or conducive to the attainment of the above object.'

4. Every member of the company undertakes to contribute to the assets of the company in the event of the same being wound up during the time that he is a member, or within one year afterwards, for payment of the debts and liabilities of the company contracted before the time at which he ceases to be a member, and the costs, charges, and expenses of winding up the same, and for the adjustment of the rights of the contributories amongst themselves, such amount as may be required, not exceeding 20*l.*

We, the several persons whose names and addresses are subscribed, are desirous of being formed into a company, in pursuance of this memorandum of association.

Names, Addresses, and Descriptions of Subscribers.

1. John Jones of	in the county of	Merchant.
2. John Smith of	in the county of	
3. Thomas Green of	in the county of	
4. John Thompson of	in the county of	
5. Caleb White of	in the county of	
6. Andrew Brown of	in the county of	
7. Cæsar White of	in the county of	

Dated the 22nd day of November 1861.

Witness to the above Signatures,
A.B., No. 13, Hute Street, Clerkenwell, Middlesex.

Articles of Association to accompany preceding Memorandum of Association.—1. The capital of the company shall consist of 500,000*l.*, divided into 5,000 shares of 100*l.* each.

2. The directors may, with the sanction of the company in general meeting, reduce the amount of shares.

3. The directors may, with the sanction of the company in general meeting, cancel any shares belonging to the company.

4. All the articles of table A. shall be deemed to be incorporated with these articles, and to apply to the company.

We, the several persons whose names and addresses are subscribed, agree to take the number of shares in the capital of the company set opposite our respective names.

Names, Addresses, and Descriptions of Subscribers		Number of Shares taken by each Subscriber
1. John Jones of	in the county of	200
2. John Smith of	in the county of	25
3. Thomas Green of	in the county of	30
4. John Thompson of	in the county of	40
5. Caleb White of	in the county of	15
6. Andrew Brown of	in the county of	5
7. Cæsar White of	in the county of	10
Total shares taken		325

Dated the 22nd day of November 1861.

Witness to the above Signatures,
A.B., No. 13, Hute Street, Clerkenwell, Middlesex.

By the Companies Act of 1867 (30 & 31 Vict. c. 131) the liability of the directors or managers, or the managing director of a limited company, may, if so provided by the memorandum of association, be unlimited, sec. 4. And any existing limited company may by special resolution make the liability of the directors unlimited, sec. 8. But these provisions, insufficient as they are, should have been made compulsory, and not left to the option of the limited companies themselves.

N.B.—We have not thought it necessary to lay before the reader any abstract of those parts of the Companies Acts of 1862 and 1867 which refer to the winding up of companies, and to the legal proceedings connected therewith. Such abstract would we think have been of little or no use; for in such cases lawyers must be employed, and not merely the exact words of the statute, but also the interpretation given to them by the courts of law, must be referred to. It is most probable too that the law on this subject will be speedily modified. At present it is in a most discreditable state. It should be rendered not only clearer and more precise, but more in accordance with sound principles.

It may be supposed, perhaps, to be needless, after the statements we have already laid before the reader [COMPANIES], to make any further remarks upon this subject. But the system is in all respects so objectionable, and has already led, and must continue to lead, to such mischievous results, that we may be excused for making (as in the last edition of this work) one or two additional statements with respect to it. The experience of the last 3 years will have doubled their force, and rendered them conclusive.

Objections to Companies with Limited Liability.—In countries like France, where the people are mostly in narrow circumstances, and unaccustomed to, and afraid of, speculative enterprises, there may perhaps be some ground for permitting the formation of partnerships *en commandite*. And if they were confined to undertakings that admitted of being carried on according to a system of routine, such as railways, canals, fire and life insurances, gas-works, and so forth, we do not know that they would be open to much objection. But in a country like this, where capital is abundant, and where all enterprises, however hazardous, that promise anything like a reasonable return, are eagerly undertaken, all extraordinary inducements to make capitalists come forward are unnecessary, and therefore objectionable. We admit, indeed, that in the case of companies of the special class now alluded to, though nothing be gained, there is no great hazard of much being lost by the shareholders being endowed with the privilege of limited liability. Such companies are not easily perverted to improper purposes; and though the capital of the shareholders may be unprofitably expended, yet, as it is most commonly laid out on visible, permanent, and sometimes valuable works, there is a fund on which the creditors, in the event of the concern failing, may fall back. But modifying circumstances of this sort have very rarely any place in companies formed for conducting ordinary industrial or commercial businesses. In their case the entire capital of the association may be lost or embezzled, without a farthing being left to the creditors. And it is, moreover, if anything can be, a contradiction and an absurdity to suppose that ordinary industrial pursuits can be so well managed by great associations of any sort, whether the partners be indefinitely responsible or not, as they will be by individuals or small associations. The latter act on their own account, and reap all the advantages of superior skill, attention, and economy, at the same time that they are indefinitely responsible for all the losses they may incur, and for all the mistakes into which they may fall, whether in the contrivance or the execution of their projects.

But though great public companies be unsuitable for the conduct of all save routine businesses, the fair presumption, or rather, we should say, the certainty is, that those in which the responsibility of the partners is limited will be much more unsuitable, and more productive of mischievous

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results, than those in which there is no such limitation. It must, indeed, be conceded, that, despite the heavy responsibility under which the partners in ordinary associations or partnerships now act, they too often display an inexcusable degree of foolhardiness. It is probable, indeed, that the late experience of the ruin that may result from placing too much confidence in directors will lead to an improvement in this respect, and that the character and conduct of these functionaries will be more carefully enquired into. But without insisting further on considerations of this sort, if parties will every now and then be careless of their interests, and forget or decline to adopt the necessary precautions to guard against abuse and loss when everything they have is staked on the result, their carelessness, it is obvious, will be immeasurably increased when they may limit their liability at pleasure, and speculate without any fear of the consequences. No one can doubt that, under such circumstances, wild projects of all sorts have been, and will be, very greatly increased; and that the number of those extensive bankruptcies which are productive of so much misery have been and will be largely augmented. To suppose the contrary is to suppose what is plainly contradictory. It is equivalent to supposing that a man cares as much for 1,000*l.* as for 5,000*l.* or 10,000*l.*, or any greater sum; or is as anxious about a small part as about the whole of his fortune, how large soever it may be.

The affairs of not a few of the non-liability companies set on foot in England during the last few years have already, especially since the crisis of 1866, come before the courts of law; and if we took these for samples of the others, we should have to regard them as little better than mere swindling engines. But it would not be fair to conclude from the instances referred to that such was their uniform character. A good many have no doubt been honestly got up; and the greater number of these being for routine purposes, such as the supply of towns with water and gas, it may be assumed that they will be fairly conducted, and will succeed. But there are very many of a totally different character. And it would be childish to suppose that in any case the same consideration will be given either to their formation in the first instance, or to their future management, that would be given were the partners indefinitely liable. Hence, while the system operates to the prejudice even of the best schemes, it holds out every temptation to set on foot projects with the intention of deceiving and victimising the public.

The contrivers of the new system tell us that, whatever it may really be, it is at all events popular with the public: and in proof of this, they refer to the great number of companies that have been already formed with limited liability. But no such reference was needed to enable anyone to foresee that if a plan were set on foot to enable parties to contract debts without being bound to pay them, it would be eagerly grasped at. Gambling-houses are at present prohibited; but if they were to be licensed, does anyone doubt that numbers of them would be opened in most considerable towns? And we should be told that this was a conclusive proof that the prohibition of gambling was disapproved by the public, and that it required the healthy excitement furnished by the newly opened places of entertainment. But whatever may be the case with this or that institution, one would think that the former facilities for swindling might have sufficed, without giving them further encouragement.

But however powerful the deleterious influence of the non-liability system (for such it is when the shares are paid up) on the formation and conduct of companies, we were assured that it would be more than countervailed by the greater caution it would infuse into those who might deal with them. The names and the number of shares held by the partners in such associations, and the magnitude of their capital, or of the 'fund' to which their creditors have to look, were all to be made known; so that those who transacted business with them would be really aware of what they had to depend upon. But we take leave to say that they have not had, and will not have, any such knowledge. Suppose that a non-liability company had a capital of 50,000*l.* or 100,000*l.*, and that it was wholly paid up when it was established: it may have been greatly reduced, or wholly lost, in the next or in any subsequent year; and yet, as the public can know nothing, or nothing certain, of its losses, and may, on the contrary, suppose it has been successful, its credit may not be impaired, and it may go on extending its business and adding to its obligations after it is really insolvent. We have had since 1866 very numerous and sad illustrations of this. Ordinary partnerships, unless they consist of parties of very questionable solvency or character, have seldom any considerable difficulty in obtaining large amounts of credit; and companies, it matters not of whom composed, which are reported to have some 10,000*l.*, 20,000*l.*, 50,000*l.*, or 500,000*l.* of paid-up capital, will be sure to obtain loans to a much greater extent and with still greater readiness. In their case we have a kind of authorised guarantee for the possession of wealth. And this, it will be said, precludes all room for distrust; so that, unless we had access to peculiar sources of information, it might be not a little dangerous to question the solidity of such an association. And yet the whole thing may be a snare and a delusion. The assurance, whether official or otherwise, that a certain amount of capital has been paid up, is, as has been proved over and over again, really not worth a farthing. But the chances are, that it will, notwithstanding, serve its purpose with the million. It will make that appear to them to be gold which may not even be copper, and enable parties without a shilling to borrow large sums, and to trade or speculate on the means of others. In such cases the public is helpless. There is nothing on which it can rely; and when the imposture is discovered by the bursting of the bubble, no one is to be responsible for anything.

However it may be accounted for, there is nothing that is so lavishly and inconsiderately bestowed as credit. Frequently, indeed, it is rather thrust upon than given to individuals and firms. And it would be ludicrous to suppose that this is a case in which we can place any dependence on the caution of the public. The only real security is in the discretion, good sense, and, more than all, in the unlimited liability of partners. They know, or may know, what they are worth, and what they are about, which no one else can know. And, in the vast majority of cases, they further know that they will be bankrupts and beggars unless they act prudently and circumspectly. Hence our late legislation is precisely the reverse of what it ought to have been. Instead of diminishing, we should have increased the responsibility of partners by abstaining from all interference with their indefinite liability, and giving additional stringency to the bankruptcy laws.

That increased caution on the part of the public which, it was said, would be a result of the new system, is really, therefore, and has proved to be, no better than moonshine. It can have no practical influence. The only security which in such matters

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is worth a pinch of snuff consists in the responsibility of partners. It is not to those who deal with this or that house, but to the houses themselves—to the guarantees under which they have been placed—that we must look for protection against foolhardiness and fraud.

It may therefore be reasonably concluded, that in ordinary businesses—that is, in all businesses for carrying on branches of agriculture, manufacture, or trade—partnerships with limited liabilities can be neither more nor less than unmixed nuisances. If honestly conducted, they must fail in their competition with private parties; and if otherwise, they will only add to the means, which were already sufficiently extensive, of wasting capital and fleecing the public.

In the scheme laid down by Providence for the government of the world, there is no shifting or narrowing of responsibilities, every man being personally answerable for all his actions. But the advocates of limited liability proclaim, in their superior wisdom, that the scheme of Providence may be advantageously modified, and that debts and obligations may be contracted which the debtors, though they have the means, shall not be bound to discharge. Borrow, say they, as much as you please, and pay as little as you like—the less, it would seem, the better. And can it be doubted that the adventurous, the needy, the unprincipled, and the desperate, will be eager to avail themselves of such extraordinary privileges? The reckless speculation, and the consequent bankruptcy and ruin, that have on former occasions overspread the kingdom have been trifling compared with those that resulted in the crisis of 1866, and those future revulsions which may be anticipated, should the new system be allowed to spread its roots and scatter its seeds on all sides. Even the soberest individuals may be tempted to embark in hazardous projects; for, by limiting the risk, they in great measure secure themselves against loss by failure, at the same time that they reap all the advantages of success. Were Parliament to set about devising means for the encouragement of speculation, over-trading, and swindling, what better could it do than to carry out the non-liability system?

We may be told that Parliament has provided, by the Joint-Stock Companies Act, that in the event of the directors of a company declaring and paying a dividend when the company is known by them to be insolvent, they are to repay the same out of their own pockets. This is the statement in the body of the Act; but in the 'regulations for the management of companies' attached to it, and already quoted, we are told that 'no dividend shall be payable, except out of the profits arising from the business of the company.' We of course do not presume to decide whether this or the other statement be the more correct; but their contradictory nature affords a curious illustration of the slovenly, slipshod style in which the most important statutes are often compiled. Perhaps the reader may be inclined to think that those who are disposed to trust to a security of this sort are rather easily satisfied. A body of directors who would, under any circumstances, declare a dividend when they knew that the concern over which they presided was bankrupt, will not be kept in the right path by the threat now referred to. The declaration of dividends when there is nothing to divide is not the way in which dishonest directors would be most likely to defraud their constituents and the public. They would make loans to each other, or, if that be prohibited or apt to excite suspicions, they may do the same thing indirectly by the intervention of third parties. The capital and credit of the institution may be perverted, abused, and dissipated in a thousand ways before the circumstance becomes known to the public.

Some who are friendly to the principle of limited liability, but who are at the same time aware of the abuses to which it cannot fail to lead if the liability be limited to the mere amount of the shares, say that they would not object to its increase. It has, in consequence, been proposed to fix the liability at double or treble the amount of the shares; so that when a limited company failed, the subscribed capital of which had been fully paid up, the partners would not, as is now the case, be relieved of all responsibility, but would be obliged to make a further payment, if that were required, equal to the amount of their shares, or to double that amount, as might be decided upon. This plan has been enforced in Canada and in some other countries. And it is undoubtedly a very great improvement upon the system existing here; for, while it raises the character of the partners in limited associations, and makes them more careful in regard to the individuals they choose for directors, and more disposed to watch their proceedings, it makes them contribute to the entire or partial relief of those whom they might otherwise have involved in total ruin. If, therefore, the system is to be continued, we should strongly recommend that the liability of the partners should be raised to at least double the amount of their shares. This would add to its solidity, and divest it of some of its worst features.

But, after all, this is only paltering with or mitigating an evil which should be cut up by the roots. Every sound principle is outraged when a man who has the means of paying his just debts does not pay them. Whether they are contracted by himself directly, or in company with others, is of no importance. He is in either case bound to pay them; and to pass laws to protect him in declining to pay them, is to give a legislative sanction to dishonesty and villany.

It is alleged, however, that these representations are fallacious; that it is a manifest encroachment on the great principle of the freedom of industry to hinder individuals from engaging in partnerships under such conditions as they may choose to lay down; that in the event of these conditions being publicly declared, and everybody made aware of what they are, they cannot be justly objected to; for as it is optional to deal or not deal with the association, those who dislike the conditions upon which it is established may keep aloof from it. But sophistry of this sort is too transparent to deceive anyone, and might, in truth, be employed to excuse almost any sort of jugglery or delusion. The question is, not whether limited liability be consistent with this or that abstract principle, but what are its practical results—what its probable influence over that public well-being, to promote which either is or should be the object of all legislation? It is with its operation in this respect, and with it only, that we have to deal. Now, if there be one principle which more than another conduces to the public advantage, and may be said to constitute the foundation of all dealings between man and man, it is the obligation to discharge one's debts and engagements. And it is the bounden duty of Government strictly to enforce the rule of unlimited liability, unless in cases, if such there be, when it can be clearly made out that the public interests will be better promoted by its relaxation or suspension. If a case of this sort be satisfactorily established, then undoubtedly the rule referred to should be waived

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in as far as it is concerned. But we entirely deny that, when tried by this test, it either has been or can be shown that partnerships *en commandite* are publicly advantageous. On the contrary, we have seen that they are in the last degree injurious, and that their extensive introduction must necessarily give an immense stimulus to fraud and reckless speculation.

In dealing with ordinary firms or associations, people trust, or believe they may trust, to the reputation for skill and integrity, and to the presumed wealth, of one or more of the partners. Such presumptions are not, indeed, always to be depended upon. In these, as in other matters, people may be misled by appearances, and may place an unmerited degree of confidence in loud though insincere professions and promises. But how deceptive soever, the presumptions or indications referred to afford not merely the best, but the only guarantees that can really be had for upright conduct. Most people engaged in business, as hitherto carried on, are impressed with the well-founded conviction that their interests will be best promoted by their preserving an unblemished reputation; and when they act under the heaviest responsibility, the chances are ten to one that they will behave discreetly and honourably. But we have no such guarantees for the conduct of the partners of a society *en commandite*. Character is, in their case, of little, or rather of no consequence. Instead of being responsible, they are all, or may be all, but irresponsible. A., who is worth 50,000*l.* or 100,000*l.*, has not more, perhaps, than some 1,000*l.* or 2,000*l.* vested in the society. Whether he lose or gain by such investment is a matter about which he probably cares very little. Most likely he has joined the association that he might engage, without fear or apprehension, in the boldest speculations. But whether this be or be not his object, it is an insult to common sense to suppose that associations of this description will be as carefully and skilfully conducted as those in which the partners are indefinitely liable for their proceedings.

It would be the easiest thing imaginable, were it at all necessary, to corroborate the previous statements by illustrations drawn from the United States, where the principle of limited liability has been long established. But these must be familiar to almost all our readers. Everybody knows that, notwithstanding the peculiarly favourable circumstances under which the Americans are placed, from their free institutions, their enterprising character, and the boundless extent of their fertile and unoccupied lands, bankruptcy is ten times more prevalent among them than in England. The revulsions by which we are sometimes visited, though sufficiently severe, are gentle in the extreme compared with those that periodically devastate the United States. In various instances, every banking company in the Union has stopped payment, while great numbers have been totally destroyed. And it is the same with associations of all sorts. A spirit of overtrading, or a determination, at all hazards, to 'go a-head,' is universally prevalent, and bears there, as here, its legitimate harvest of bankruptcy and disaster. So much so, indeed, is this the case, and such and so violent are the convulsions referred to, that it is no exaggeration to affirm that moneyed fortunes and personal property are more secure in Austria and Russia than in the United States. The national character has suffered through this miserable system. Those repudiations which have so justly damaged the credit of the Americans, originated in their attempting to limit their responsibilities in their public as well as in their private capacity. And it could hardly, indeed, be expected that people who may contract debts to their neighbours which they are not bound to pay, should be disposed to make an exception in the case of their foreign creditors.

We sometimes hear the rather unwarrantable assertion, that, unless their liability be limited, neither the poorer nor the richer classes are generally disposed to engage in extensive partnerships. But if it really had the effect of tempting the poorer classes to engage in them, that alone would be a very sufficient reason why all associations with limited liability should be suppressed. The condition of these classes will never be improved by withdrawing their attention from the business to which they have been bred, and in which they are engaged, to fix it on joint-stock adventures. The spirit of gambling and speculation is already quite enough diffused, without seeking to spread its baneful influence among the lower classes. Nothing should be done which it is possible to avoid, to divert their attention from the pursuits of sober, persevering industry. Their surplus earnings may be far more beneficially invested in savings-banks, in loans, and in contributions to friendly societies, than in joint-stock adventures.

And while, on the one hand, it would be very wrong to tempt by immunities of any sort the labouring classes to engage in such schemes, it is, on the other, quite superfluous in the case of their richer brethren. They are already much too prone to embark in them. Even in those businesses, the hazard of which is extreme, there is no good reason for exempting those by whom they are carried on from the fullest responsibility. If the demand for gunpowder were doubled, the supply would very shortly be increased in an equal degree. Wherever there is extra risk, it is compensated by extra profits; and, practically, it is not found that the cost of gunpowder, or of any like article, is in any degree increased from capitalists being disinclined to face the hazard of its production.

Cautious men are content with moderate profits, and encounter only moderate risks; while those who are sanguine and adventurous, whether they be rich or poor, eagerly grasp at the highest profits, and to realise them do not hesitate to run the greatest hazards. Now, there is nothing surely to object to or amend in this. And yet the whole doctrine of limited responsibility proceeds on the contrary assumption—on the principle, if we may so call it, that profit and risk shall be divorced from each other; that speculators may undertake adventures, having, on the one hand, the chance of making unlimited profits if they turn out well, and on the other, of escaping, though they may ruin others, with a comparatively trifling loss if they turn out ill. In that peculiar class of cases in which it would seem, at the first blush of the matter, that limited responsibility would be least objectionable, it will be found to be most pernicious; for it will give an unnatural stimulus to what certainly does not require it, that is, to hazardous enterprises and desperate adventures.

On the whole, nothing but mischief can be legitimately anticipated from the establishment of partnerships with limited liability, or *en commandite*. It was not by the aid of the principles which they involve—by shirking responsibility, and evading the risks inseparable from all undertakings—that we have attained to our pre-eminence in character, in wealth, and in manufacturing and commercial industry. But are we well assured that the adoption of a contrary system will not mark the era of our decline?

Application of Limited Liability to Banking.—

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The limited liability system was not applied in the outset to the business of banking. But this exemption was of short continuance, a statute having been passed in the course of 1858, 21 & 22 Vict. c. 91, followed by that of 1862, 25 & 26 Vict. c. 89, which authorised banking companies, not issuing notes, to be established with limited liability. It was alleged in defence of these measures, that there should be no exception to the general rule; and that Parliament, having introduced the system of limited liability into other businesses, was bound, in consistency, to extend it to banking. But if this sort of reasoning is to have any influence in such matters, it would not justify merely, but require, that the system should be extended to all companies, however small the number of partners, and even to all individuals. Why is a privilege to be conceded to 10 or 12 persons, and denied to 6, to 4, or to 1? Where, may we ask, is the justice of such a proceeding? Why should not Mr. A. be permitted to limit his liability; to declare, à priori, that whatever debts he may contract, he shall be liable only to the extent of some 500*l.* or 1,000*l.*; and that it is to this 'fund,' and not to his estates, his factories, or his consols, that his creditors have exclusively to look? But everybody knows, or ought to know, that there is something more than mere logical sequence to be attended to in public affairs. When a law has been enacted which affects certain businesses or certain individuals, the question, whether it should be extended to others, depends in no degree on hypothetical notions about the symmetry of legislation, but on the fact whether it is a beneficial law, and whether it is fitted to promote the interests of those to whom it is proposed to extend its operation. Now as limited liability has not a single good quality to recommend it, the sphere of its operation, instead of being extended, should be contracted as much as possible. In so far, however, as banks are concerned, we incline to think that its extension to them will not have much influence either one way or other; for we cannot believe it possible, if an ordinary bank limit its liability, that half-a-dozen individuals will be found foolhardy enough to entrust their money to its keeping. If they do, they will well deserve the fate which may be expected to await them—that is, to lose their entire deposits. If such bank attempt, as it will probably do, to allure loans by the offer of a comparatively high rate of interest, that will make its ruin more certain and immediate, and is a bait that will be swallowed by those only whose ignorance is even greater than their voracity. We therefore have little doubt that the device of limited liability will be rejected by such banking companies as have any pretensions to character, or that have any wish to possess and deserve any portion of the public confidence. We subjoin the Act, 25 & 26 Vict., so far as it refers to Banking Companies.

On registration with Limited Liability Notice to be given to Customers.—Provided that every company so registering itself again as a limited company, and every existing banking company which shall register itself as a limited banking company, shall, at least 30 days previous to obtaining a certificate of registration with limited liability, give notice that it is intended so to register the same to every person and partnership firm who shall have a banking account with the company, and such notice shall be given either by delivering the same to such person or firm, or leaving the same or putting the same into the post addressed to him or them at such address as shall have been last communicated or otherwise become known as his or their address to or by the company; and in case the company shall omit to give any such notice as is hereinbefore required to be given, then as between the company and the person or persons only who are for the time being interested in the account in respect of which such notice ought to have been given, and so far as respects such account and all variations thereof down to the time at which such notice shall be given, but not further or otherwise, the certificate of registration with limited liability shall have no operation. (Sec. 188.)

Banking Company to publish a Statement periodically.—Every limited banking company shall, before it commences business, and also in February and August, in every year during which it carries on business, make a statement in the form contained in the schedule hereto annexed, or as near thereto as circumstances will admit, and a copy of such statement shall be put up in a conspicuous place in the registered office of the company, and in every branch office or place where the banking business of the company is carried on; and if default is made in due compliance with the provisions of this section, the company shall be liable to a penalty not exceeding 5*l.* for every day during which such default continues; and every director and manager who shall knowingly permit such default shall incur the like penalty. Every member and creditor of any such company shall be entitled to a copy of the statement, on payment of a sum not exceeding 6*d.* (Sec. 44.)

Form of Statement to be published by a Limited Banking Company, referred to in Part III. of the Act 25 & 26 Vict. c. 89.

The capital of the company is divided into shares of each.
The number of shares issued is
Calls to the amount of *l.* per share have been made, under which the sum of *l.* has been received.
The liabilities of the company on the first day of January (or July) were—

	£	s.	d.
On judgment			
On specialty			
On notes or bills			
On simple contracts			
On estimated liabilities			
Total			

The assets of the company on that day were— £
Government securities (stating them)
Bills of exchange
Promissory notes
Cash at the bankers
Other securities
Total

By the 30 & 31 Vict. c. 29, joint-stock banking companies are bound to show their list of shareholders to any registered shareholder between the hours of 10 and 4.

PASSENGERS. In Commercial Navigation, individuals conveyed for hire from one place to another on board ship. Passage ships are those peculiarly appropriated to the conveyance of passengers.

Passage ships are generally placed under certain regulations; and the extent to which emigration is now carried renders it of the utmost importance that these regulations should be carefully compiled and properly carried out.

By far the largest proportion of these emigrants, especially of late years, has consisted of natives of Ireland. The scarcity, or rather famine, of 1846–47, gave an extraordinary stimulus to Irish emigration; and it has since been continued, partly by the depressed condition of the peasantry, partly by the wish of the bulk of the landlords to diminish the number of petty holdings on their estates, and partly also by the entreaties, and more effectually still by the large sums of money

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which have been sent to Ireland by parties who have emigrated, to encourage and assist the emigration of others. But there is no reason to fear that this emigration, however promoted, will be carried to excess. The rise of wages consequent on the diminution of the population will effectually hinder this result. It has latterly, indeed, declined considerably; and there can be no manner of doubt that emigration from Ireland might be carried to a much greater extent than it has yet been carried, without its being otherwise than advantageous to that island and to the United Kingdom generally.

Emigration from the United Kingdom during the 53 Years, from 1815 to 1867 inclusive.

Year	North American Colonies	United States	Australian Colonies and New Zealand	All other Places	Total
1815	680	1,209	*	192	2,081
1816	3,370	9,022	*	118	12,510
1817	9,797	10,280	*	557	20,634
1818	15,136	12,429	*	222	27,787
1819	23,534	10,674	*	579	34,787
1820	17,921	6,745	*	1,065	25,729
1821	12,955	4,958	*	384	18,297
1822	16,013	4,137	*	279	20,429
1823	11,355	5,032	*	163	16,550
1824	8,774	5,152	*	99	14,025
1825	8,741	5,551	485	114	14,891
1826	12,818	7,063	903	116	20,900
1827	12,648	14,526	715	114	28,003
1828	12,084	12,817	1,056	135	26,092
1829	13,307	15,678	2,016	197	31,198
1830	30,574	24,887	1,242	204	56,907
1831	58,067	23,418	1,561	114	83,160
1832	66,339	32,872	3,733	196	103,140
1833	29,808	29,109	4,093	517	62,527
1834	40,060	33,074	2,800	288	76,222
1835	15,573	25,720	1,860	325	44,478
1836	34,216	37,774	3,124	293	75,417
1837	29,884	36,770	5,054	326	72,034
1838	4,577	14,332	14,021	292	33,222
1839	12,658	33,536	15,786	227	62,207
1840	32,295	40,612	15,850	1,958	90,715
1841	38,161	45,017	32,625	2,786	118,592
1842	54,123	65,852	8,534	1,835	128,744
1843	23,518	28,355	3,478	1,881	57,212
1844	32,924	45,660	2,229	1,873	70,686
1845	31,803	58,538	830	2,330	93,501
1846	43,139	82,239	2,347	1,826	129,551
1847	109,680	142,154	4,949	1,487	258,270
1848	31,065	186,233	23,904	4,887	248,089
1849	41,367	219,150	32,191	6,490	299,198
1850	32,961	223,078	16,037	8,773	280,849
1851	42,605	267,357	21,532	4,372	335,866
1852	32,873	244,261	87,881	3,749	368,764
1853	34,522	230,885	61,401	3,129	329,937
1854	45,761	193,065	83,237	3,366	323,429
1855	17,966	103,414	52,509	3,114	176,807
1856	16,378	111,857	44,584	3,755	176,554
1857	21,091	126,905	61,248	3,721	212,875
1858	9,704	59,716	39,295	5,257	113,972
1859	6,689	70,303	31,013	12,427	120,432
1860	9,786	87,500	21,302	6,881	125,469
1861	12,707	49,764	25,738	3,561	91,770
1862	15,522	58,706	41,843	5,143	121,214
1863	18,043	146,813	53,054	5,808	223,758
1864	12,721	147,942	40,942	8,195	208,900
1865	17,211	147,258	37,283	8,049	209,801
1866	13,255	161,080	21,097	6,550	204,882
1867	15,503	159,275	14,466	6,709	195,953
Total	1,501,323	3,918,064	943,648	139,110	6,502,345

Average annual emigration from the United Kingdom:—
From 1815 to 1867 - - 118,912
For the 10 years ending 1867 - 161,915

* The Customs Returns do not record any Emigration to Australia during these 10 years, but it appears from other sources that there went out in 1821, 320; in 1822, 575; in 1823, 543; in 1824, 780; and in 1825, 458 persons. These numbers have not been included in the totals of this table.

It is seen from the above account, that in 1852 no fewer than 368,764, and in 1854, 323,429 voluntary emigrants left the United Kingdom; and such being the vast extent to which emigration is now carried, the propriety, or rather necessity, of enacting some general regulations, with respect to the conveyance of emigrants to their destination, must be obvious to everyone at all acquainted with the subject. The greater number of emigrants are in humble life: few among them know anything of ships, or of the precautions necessary to insure a safe and comfortable voyage; they are also, for the most part, poor, and exceedingly anxious to economise, so that they seldom hesitate to embark in any ship, however unfit for the conveyance of passengers, or inadequately furnished with provisions, if it be *cheap*. Unprincipled masters and owners have not been slow to take advantage of this; and in order to prevent the frauds that would otherwise be practised on the unwary, it has been found indispensable to lay down some general regulations as to the number of passengers to be taken on board ships as compared with their tonnage, the quantity of water and provisions as compared with the passengers &c. But this is no very easy task. If the limitations be too strict, that is, if comparatively few passengers may be carried, or if the stock of provisions to be put on board be either unnecessarily large or expensive, the cost of emigration is proportionally enhanced; and an artificial and serious impediment is thrown in the way of what should be made as easy as possible, consistent with security. But, on the other hand, if too many passengers be allowed, their health is liable to suffer; and should the supply of provisions be inadequate, or the quality bad, the most serious consequences may ensue. The Act 6 Geo. IV. c. 116 obliged too great a quantity of expensive provisions to be put on board, and was in consequence objected to by emigrants as well as shippers. The Act 9 Geo. IV. c. 21 avoided this error; but it was defective, inasmuch as it made no provision with respect to the sufficiency of the ship, the having a surgeon, or other properly qualified medical person on board ships carrying a certain number of passengers, and in other particulars. These deficiencies were in part supplied by the Act 5 & 6 Wm. IV. c. 53, and subsequent statutes, including the 15 & 16 Vict. c. 44. But the provisions in these Acts having been found to be in several respects inadequate, they have been repealed, and the following regulations, embodied in the 18 & 19 Vict. c. 119 and 26 & 27 Vict. c. 51, have been substituted. We doubt, however, whether these will be much longer lived than those by which they have been preceded. They seem to be singularly deficient in the precision and clearness so very necessary in such matters, and to be encumbered with a host of details altogether foreign to the real business of the statute.

Act of 1855, the 18 & 19 Vict. cap. 119, for regulating the Carriage of Passengers by Sea, amended by the Act of 1863, 26 & 27 Vict. cap. 51, and relative Orders in Council.

The sections referred to are those of the Act of 1855, unless that of 1863 be cited.

Commencement of this Act, and repeal of former Act &c.—'The Passengers Act 1852' shall be repealed; except so far as the said Act repeals any former Act or enactment; and except as to existing passage brokers' licenses, which shall continue in force as mentioned in sec. 68 of this Act, and except as to any ship which shall have cleared out from any colonial port under the said Act, and before this Act shall have come into operation in such colony; and except so far as may be necessary for supporting or continuing any proceeding taken or to be taken upon any bond given under the said Act, or upon any other civil process; and except as to the recovery and application of any penalty for any offence committed against the said Act; and except also as to an order in council made by her Majesty on October 16, 1852, in pursuance of the powers given by sec. 55 of the said Act, which said order in council shall remain in force until altered or revoked by any order in council to be made under the provisions of this Act. (Sec. 1.)

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Section 2 directs that in reciting this Act in other Acts of Parliament, or in any instrument, document, or proceeding, it shall be sufficient to use the expression 'The Passengers Act 1855.'

Section 3 lays down the definition of terms used in this Act. The description of 'passenger ship' is repealed in the Act of 1863, and the term is intended to signify every description of seagoing vessel, whether British or foreign, carrying, upon any voyage to which the Act of 1855 extends, more than 50 passengers, or a greater number of passengers than in the proportion of one statute adult to every 33 tons of the registered tonnage of such ships if propelled by sails, or than one statute adult to every 20 tons if propelled by steam.

To what Vessels and Voyages this Act extends.—This Act shall extend to every 'passenger ship' proceeding on any voyage from the United Kingdom, to any place out of Europe, and not being within the Mediterranean Sea, and on every colonial voyage as after described, and in the particulars mentioned or referred to in secs. 100, 101, and 102, to every ship bringing passengers into the United Kingdom from any place out of Europe, and not being within the Mediterranean Sea; but shall not extend to any of her Majesty's ships of war, nor to any ships in the service of the lords of the Admiralty of the United Kingdom, nor to any ship of war or transport in the service of the East India Company, nor to any steam vessel regularly employed in the conveyance of mails under an existing contract with the Government of the state or colony to which such steam vessel may belong, provided the master thereof shall, on demand, produce to the emigration officer at the port of clearance or port of departure a certificate of exemption, in the form given in schedule (A) hereto annexed, under the hand of the postmaster-general of the United Kingdom, or of some person deputed by him for the purpose, or in the case of a colony, under the hand of the governor thereof, or in the case of a foreign state, under the hand of the postmaster-general or other competent Government officer, whose signature shall be authenticated by the signature of a British consular officer in such foreign state. (Sec. 4.) But by the provisions of the Act of 1863, steam vessels carrying mails, if they carry other than cabin passengers in sufficient numbers to bring the vessel within the definition of a 'passenger ship,' are brought within the Act.

Penalty on fraudulently using Certificates or using Fraudulent Certificates.—Such certificate of exemption shall be issuable at the discretion of the officer authorised to grant the same as herein mentioned, and shall remain in force for the period specified therein, unless sooner revoked, or unless the vessel for which it shall have been issued shall sooner cease to be employed in carrying the public mails; and if any person shall make or attempt to make any fraudulent use of any such certificate, or shall forge, counterfeit, alter, or erase the whole or any part thereof, or shall use or attempt to use any spurious or fraudulent certificate, the person so offending, and every person aiding and abetting in such offence, shall be liable to a penalty not exceeding 500*l.*, and the vessel for which the exemption is claimed shall not be cleared out until all the requirements of this Act have been complied with. (Sec. 5.)

Clause 6 enacts that the commissioners of emigration shall carry this Act into execution.

Clause 7 enacts that the emigration commissioners may sue and be sued in the name of their Secretary &c.

Clause 8 enacts that the emigration officers and assistants are to act under the commissioners of emigration, and that existing appointments are to continue until revoked.

Clause 9 enacts that the duties of emigration officer may be performed by his assistant or by the chief officer of customs.

Facilities to be given for the Inspection of all Ships fitting for Passengers.—The master of every ship, whether a 'passenger ship' or otherwise, fitting or intended for the carriage of passengers, or which shall carry passengers upon any voyage to which this Act extends, shall afford to the emigration officer at any port or place in her Majesty's dominions, and, in the case of British ships, to her Majesty's consular officer at any foreign port or place at which such ship shall be or arrive, every facility for inspecting such ship, and for communicating with the passengers, and for ascertaining that the provisions of this Act, so far as the same may be applicable to such ships, have been duly complied with; the master of any ship who shall omit or fail to comply with any of the requirements of this section, shall be liable to a penalty not exceeding 50*l.* (Sec. 10.)

No Passenger Ship to clear without Certificate from Emigration Officer &c.—No ship fitted or intended for the carriage of passengers as a 'passenger ship,' shall clear out or proceed to sea until the master thereof shall have obtained from the emigration officer at the port of clearance a certificate of clearance under his hand that all the requirements of this Act, so far as the same can be complied with, before the departure of such ship, have been duly complied with, and that such ship is, in his opinion, seaworthy, in safe trim, and in all respects fit for her intended voyage, and that her passengers and crew are in a fit state to proceed, nor until the master shall have joined in executing such bond to the Crown as required by sec. 63 of this Act: provided, that if such emigration officer shall refuse to grant such certificate, and the owner or charterer of such ship shall appeal in writing to the emigration commissioners, such commissioners shall appoint any 2 other emigration officers, or any 2 competent persons, at the expense of the appellant, to examine into the matter, and if the persons so appointed shall grant a certificate under their joint hands to the purport hereinbefore required, such certificate shall be held to be of the same effect as if granted by the emigration officer of the port of clearance. (Sec. 11.)

Where Passengers may be carried.—No ship shall carry passengers or cabin passengers on more than 2 decks: provided, that cabin passengers in a proportion not exceeding 1 cabin passenger for every 100 tons of the ship's tonnage, or sick persons placed in a hospital, as after provided, may be carried in a poop or deck house, notwithstanding that passengers are carried on 2 other decks, and if passengers are carried under the poop or in any round house or deck house, such poop, round house, or deck house shall be properly built and secured, to the satisfaction of the emigration officer at the port of clearance: for any breach of this enactment the master of the ship shall for each offence be liable to a penalty not exceeding 500*l.* nor less than 20*l.* sterling. (Sec. 13.)

Rule for determining the Number of Passengers to be carried.—For determining the number of passengers to be carried in any 'passenger ship' the following rules shall be observed:—

2. No ship shall carry under the poop, or in the round house or deck house, or on the 'upper passenger deck,' a greater number of passengers than in the proportion of 1 statute adult to every 15 clear superficial feet of deck allotted to their use:

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3. No ship shall carry on her lower passenger deck a greater number of passengers than in the proportion of 1 statute adult to every 18 clear superficial feet of deck allotted to their use: provided nevertheless, that if the height between such lower passenger deck and the deck immediately above it shall be less than 7 feet, or if the apertures (exclusive of side scuttles) through which light and air shall be admitted to the lower passenger deck shall be less in size than in the proportion of 3 square feet to every 100 superficial feet of the lower passenger deck, no greater number of passengers shall be carried on such deck than in the proportion of 1 statute adult to every 25 clear superficial feet thereof:

4. No ship, whatever be her tonnage or superficial space of 'passenger decks,' shall carry a greater number of passengers on the whole than in the proportion of 1 statute adult to every 5 superficial feet, clear for exercise, on the upper deck or poop, or (if secured and fitted on the top with a railing or guard to the satisfaction of the emigration officer at the port of clearance) on any round house or deck house:

5. In the measurement of the passenger decks, poop, round house, or deck house, the space for the hospital and that occupied by such portion of the personal luggage of the passengers as the emigration officer may permit to be carried there shall be included.

Two clauses which limited the number of passengers by the registered tonnage and laid penalties on the violation of this rule, were repealed by the Act of 1863.

Not to repeal 16 & 17 *Vict. c.* 84.—Provided, nevertheless, that nothing in this Act shall repeal the Act 16 & 17 Vict. c. 84, intituled 'An Act to Amend the Passengers Act 1852, so far as relates to the Passages of Natives of Asia or Africa, and also Passages between the Island of Ceylon and certain Parts of the East Indies.' (Sec. 15.) The Indian Act No. 13 of 1864 regulates the emigration from British India.

Passengers' Lists to be delivered in Duplicate by the Master before Clearance.—The master of every ship, whether a 'passenger ship' or otherwise, carrying passengers on any voyage to which this Act extends, shall, before demanding a clearance for such ship, sign 2 lists, made out according to the form contained in schedule (B.) hereto annexed, correctly setting forth in the manner therein directed the name and other particulars of the ship, and of every passenger on board thereof: and the said lists, when countersigned by the emigration officer, where there is one at the port, shall be delivered by the master to the officer of the customs from whom a clearance of the said ship shall be demanded, and such officer shall thereupon also countersign and return to the said master 1 of such lists, called 'The Master's List;' and the said master shall note in writing on such last-mentioned list, and on any additional lists to be made out as next provided, the date and supposed cause of death of any passenger who may die, and the date of birth and sex of any child who may be born on the voyage, and shall exhibit such list, with any additions which may from time to time be made thereto, to the chief officer of customs at any port or place in her Majesty's possessions, or to her Majesty's consular officer at any foreign port at which the said passengers or any of them shall be landed, and shall deposit the same with such chief officer of customs or such consular officer, as the case may be, at the final port or place of discharge, and such officer of customs or consular officer shall thereupon forthwith transmit the particulars respecting any passenger who may die, or of any child who may be born on the voyage, to the registrar-general of births, deaths, and marriages in England, who shall file the same, and enter a copy thereof in the 'marine register book,' which entry shall be dealt with and be of the same value as any other entry made in such book under the provisions of the 6 & 7 Wm. IV. c. 86: in case of non-compliance with any of the requirements of this section on the part of the master, or if such lists shall be wilfully false, the master shall for each offence be liable to a penalty of not more than 100*l.* nor less than 5*l.* (Sec. 16.)

Lists of Passengers embarked after Clearance to be delivered by Master.—If at any time after such lists have been signed and delivered, any additional passenger shall be taken on board, in such case the master shall add to 'the master's list' the names and other particulars of every such additional passenger, and shall also sign a separate list, made out according to the aforesaid form, containing the names and other particulars of every such additional passenger, and such last-mentioned list, when countersigned by the emigration officer, where there is one at the port, shall, with 'the master's list' to which such addition has been made, be delivered to the chief officer of customs, and thereupon such officer shall countersign 'the master's list,' and shall return the same to the said master, and shall retain the separate list, and so on in like manner whenever any additional passenger or passengers may be taken on board; or if no officer of customs be stationed at the port or place where such additional passenger or passengers may be taken on board, the said lists shall be delivered to the officer of customs at the next port or place at which such vessel shall touch or arrive and where any such officer shall be stationed, to be dealt with as before mentioned: provided, that when any additional passengers are taken on board, the master shall obtain a fresh certificate from the emigration officer of the port that all the requirements of this Act have been duly complied with before the ship proceeded to sea: in case of non-compliance with any of the requirements of this section, the master of such ship shall for each offence be liable to a penalty of not more than 50*l.* nor less than 5*l.* (Sec. 17.) By the Act of 1863, the regulations of the 16th and 17th secs. are extended to cabin passengers, who are to be distinguished as under and over 12.

Penalty on Persons found on board Ships without Consent of Owners &c.—If any person be found on board any 'passenger ship' with intent to obtain a passage therein without the consent of the owner, charterer, or master thereof, such person, and every person aiding and abetting him in such fraudulent intent, shall respectively be liable to a penalty not exceeding 5*l.*, and in default of payment to imprisonment, with or without hard labour, for not exceeding 3 calendar months; and such person so found on board may be taken before any justice of the peace, without warrant, and such justice may summarily hear the case, and on proof of the offence, convict such offender as aforesaid. (Sec. 18.) By the Act of 1863 the penalty is extended to 20*l.*

All Passenger Ships to be surveyed before clearing out.—No 'passenger ship' shall clear out or proceed to sea unless she has been surveyed, under the direction of the emigration officer at the port of clearance, but at the expense of the owner or charterer thereof, by 2 or more competent surveyors, to be appointed by the said emigration commissioners for each port at which there may be an emigration officer, and for other ports by the

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commissioners of customs, nor unless it shall be reported by such surveyors that such 'passenger ship' is in their opinion seaworthy, and fit for her intended voyage. The survey shall be made before any part of the cargo is taken on board, except so much as may be necessary for ballasting the ship, and such portion of cargo if laden on board shall be shifted, if required by the emigration officer or surveyors, so as to expose to view successively every part of the frame of the ship. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty not exceeding 100*l.* nor less than 5*l.*: provided always, that in case any 'passenger ship' be reported by such surveyors not to be seaworthy, or not fit for her said intended voyage, the owner or charterer, if he think fit, may require, by writing under his hand, the emigration officer, or in his absence the chief officer of customs, to appoint 3 other competent surveyors, of whom 2 at least shall be shipwrights, to survey the said ship, at the expense of the said owner or charterer; and the said officer shall thereupon appoint such surveyors, who shall survey the said ship, and if they shall, by an unanimous report under their hands (but not otherwise), declare the said ship to be seaworthy, and fit for her intended voyage, the said ship shall then, for the purposes of this Act, be deemed seaworthy for such voyage. (Sec. 19.)

As to the Construction of Beams and Decks.—In every 'passenger ship' the beams supporting the 'passenger decks' shall form part of the permanent structure of the ship: they shall be of adequate strength, in the judgment of the emigration officer at the port of clearance, and shall be firmly secured to the ship to his satisfaction. The 'passenger decks' shall be at least 1½ in. in thickness, and shall be laid and firmly fastened upon the beams continuously from side to side of the compartment in which the passengers are berthed. The height between that part of any deck on which passengers are carried and the deck immediately above it shall not be less than 6 ft. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty of not more than 50*l.* nor less than 5*l.* (Sec. 20.)

Arrangement and Size of Berths.—There shall not be more than 2 tiers of berths on any 1 deck in any 'passenger ship,' and the interval between the floor of the berths and the deck immediately beneath them shall not be less than 6 in., nor the interval between each tier of berths and between the uppermost tier and the deck above it less than 2½ ft.: the berths shall be securely constructed, and of dimensions not less than 6 ft. in length and 18 in. in width for each statute adult, and shall be sufficient in number for the proper accommodation of all the passengers contained in the lists of passengers hereinbefore required to be delivered by the master of the ship. No part of any berth shall be placed within 9 in. of any water-closet, erected in the between-decks. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.* (Sec. 21.)

Single Men to be berthed in a Separate Compartment.—In every 'passenger ship' all the male passengers of the age of 14 years and upwards who do not occupy berths with their wives shall, to the satisfaction of the emigration officer at the port of clearance, be berthed in the fore part of the ship, in a compartment divided off from the space appropriated to the other passengers by a substantial and well secured bulk-head, without opening into, or communication with, any adjoining passenger berth, or in separate rooms if the ship be fitted with enclosed berths. Not more than 1 passenger, unless husband and wife, or females or children under 12 years of age, shall be placed in or occupy the same berth. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty of not more than 50*l.* nor less than 5*l.* (Sec. 22.)

Berths not to be removed till Passengers are landed.—No berths in a 'passenger ship' occupied by passengers during the voyage shall be taken down until 48 hours after the arrival of such ship at the port of final discharge, unless all the passengers shall have voluntarily quitted the ship before the expiration of that time. In case of non-compliance with any of the requirements of this section, the master of such ship shall be liable for each offence to a penalty not exceeding 50*l.* nor less than 5*l.* (Sec. 23.)

Space to be allotted as an Hospital.—In every 'passenger ship' there shall be a sufficient space properly divided off to the satisfaction of the emigration officer at the port of clearance, to be used exclusively as an hospital or hospitals for the passengers: this space shall be under the poop, or in the round house, or in any deck house which shall be properly built and secured to the satisfaction of such emigration officer, or on the upper passenger deck, and not elsewhere, and shall in no case be less than 18 clear superficial feet for every 50 passengers which the ship shall carry. Such hospitals shall be fitted with bed-places, and supplied with proper beds, bedding, and utensils, to the satisfaction of the emigration officer at the port of clearance, and throughout the voyage kept so fitted and supplied. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of the ship shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.* (Sec. 24.)

Regulation as to the Construction of Privies.—No 'passenger ship' shall clear out or proceed to sea unless fitted, to the satisfaction of the emigration officer at the port of clearance, with at least 2 privies, and with 2 additional privies on deck for every 100 passengers on board, and in ships carrying as many as 50 female passengers, with at least 2 water-closets under the poop, or elsewhere on the upper deck, to the satisfaction of such emigration officer, for the exclusive use of the women and young children; all of which privies and water-closets shall be firmly constructed and maintained in a serviceable and cleanly condition throughout the voyage, and shall not be taken down until the expiration of 48 hours after the arrival of the ship at the port of final discharge, unless all the passengers sooner quit the ship; provided that such privies shall be placed in equal numbers on each side of the ship, and need not in any case exceed 12 in number. In case of non-compliance with any of the requirements of this section, the master shall be liable to a penalty for each offence of not more than 50*l.* nor less than 5*l.* (Sec. 25.)

As to Light and Ventilation.—No 'passenger ship' shall clear out or proceed to sea without such provisions for affording light and air to the passenger decks as the circumstances of the case may, in the judgment of the emigration officer at the port of clearance, require; nor if there are as many as 100 passengers on board, without having

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an adequate and proper ventilating apparatus, to be approved by such emigration officer and fitted to his satisfaction; the passengers shall, moreover, have the free and unimpeded use of the whole of each hatchway situated over the space appropriated to their use, and over each such hatchway there shall be erected such a boobyhatch or other substantial covering as shall, in the opinion of such emigration officer, afford the greatest amount of light and air, and of protection from wet, as the case will admit. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 20*l.* (Sec. 26.)

Regulations as to the Carrying of Boats.—Every 'passenger ship' shall carry throughout the voyage a number of boats according to the following scale; viz.:—

2 boats for every ship of less than 200 tons;

3 boats for every ship of 200 and less than 400 tons;

4 boats for every ship of 400 and less than 600 tons;

5 boats for every ship of 600 and less than 1,000 tons;

6 boats for every ship of 1,000 and less than 1,500 tons;

7 boats for every ship of 1,500 tons and upwards: provided that no 'passenger ship' shall be required to carry a greater number of boats than are sufficient, in the judgment of the emigration officer at the port of clearance, to carry all the persons on board of such ship:

One of such boats shall in all cases be a long boat, and one shall be a properly fitted life boat, which shall be carried in such a manner as to be, in the opinion of the emigration officer, most available for immediate service: each of such boats shall be of a suitable size and description, to be approved by the emigration officer at the port of clearance, and shall be seaworthy, and properly supplied with all requisites, and kept clear at all times for immediate use at sea: there shall likewise be on board each 'passenger ship,' if proceeding to any place to the southward of the equator, at least 2 chronometers, and if to any place to the northward of the equator, at least 1 chronometer, and on board of all 'passenger ships' at least 3 steering and 1 azimuth compass, 4 properly fitted life buoys, kept ready at all times for immediate use, and some adequate means, to be approved by the emigration officer at the port of clearance, of making signals by night and in fogs; also a fire engine, in proper working order, and of such description and power and either with or without such other apparatus for extinguishing fire as such officer may approve; and not less than 3 bower anchors of such weight, and with cables of such length, size, and material, as in the judgment of such emigration officer shall be sufficient for the size of the ship. In case of non-compliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty of not more than 50*l.* nor less than 5*l.* (Sec. 27.)

Regulations as to Carrying an Efficient Crew.—Every 'passenger ship' shall be manned with an efficient crew for her intended voyage, to the satisfaction of the emigration officer from whom a clearance of such ship may be demanded, and the strength of the crew shall not be diminished, nor any of the men changed when once passed by such emigration officer, without his consent in writing, or that of the shipping master of the port of clearance, as required by the laws then in force regulating the shipping of seamen on board merchant vessels. Where the consent of the shipping master is obtained, it shall, within 24 hours thereafter, be lodged with such emigration officer. In case of non-compliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l.*: provided, that if the emigration officer shall consider the crew inefficient, and the owner or charterer of the ship shall thereupon appeal in writing to the said emigration commissioners, such commissioners shall, at the expense of the appellant, appoint 2 other emigration officers or 2 competent persons to examine into the matter, and the unanimous opinion of the persons so appointed, expressed under their hands, shall be conclusive on the point. (Sec. 28.)

Certain Articles prohibited as Cargo and Ballast.—No 'passenger ship' shall clear out or proceed to sea if there shall be on board as cargo, horses, cattle, gunpowder, vitriol, lucifer matches, guano, or green hides, nor if there shall be on board any other article or number of articles, whether as cargo or ballast, which by reason of the nature or quantity or mode of stowage thereof shall, either singly or collectively, be deemed by the emigration officer at the port of clearance likely to endanger the health or lives of the passengers or the safety of the ship: no part of the cargo, or of the passengers' luggage, or of the provisions, water, or stores, whether for the use of the passengers or of the crew, shall be carried on the upper deck, or on the 'passenger decks,' unless, in the opinion of such emigration officer, it shall be so placed as not to impede light or ventilation, nor interfere with the comfort of the passengers; nor unless the same be stowed and secured to the satisfaction of such emigration officer, and the space occupied thereby or rendered, in the opinion of such officer, unavailable for the accommodation of the passengers, shall (unless occupied by passengers' luggage) be deducted in calculating the space by which, under the provisions of this Act, the number of passengers is regulated. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master, or any of them, shall for each offence be liable to a penalty not exceeding 300*l.* nor less than 5*l.* (Sec. 29.)

By the Act of 1863, horses and cattle may be carried in 'passenger ships' under these conditions:—

1. The animals not to be carried on any deck below that in which passengers are berthed, nor in any compartment in which passengers are berthed, nor in any adjoining compartment; except in a ship built of iron, and of which the compartments are divided off by water-tight bulkheads extending to the upper deck.

2. Clear space on the spar or weather deck to be left at 10 superficial feet for each adult.

3. In 'passenger ships' of less than 500 tons registered passage, not more than two head of large cattle to be carried, nor in larger ships more than one additional head for each 200 tons, nor in any ship more than ten head. Large cattle to be oxen or cows, deer, horses, and asses. Four sheep of either sex, and four *female* goats, to be equal to one large cattle.

4. Emigration officer to be satisfied as to housing, maintenance, and cleanliness of animals, and stowage of fodder.

5. Not more than *six dogs*, and no *pigs* or *male goats*, to be carried in any 'passenger ship.'

Penalty for violating these rules, in case of owner, charterer, or master of ship, 5*l.* to 300*l.*

Computation of Voyages.—For the purposes of this Act, the length of the voyage for a 'pas-

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senger ship' proceeding from the United Kingdom to the under-mentioned places respectively, shall be determined by the following scale; viz.—(See first table, annexed).

For the like purposes, the said emigration commissioners, acting by and under the authority of one of her Majesty's principal secretaries of state, from time to time, by any notice in writing issued under the hands of any 2 such commissioners, and published in the *London Gazette*, may nevertheless declare what shall be deemed to be the length of the voyage from the United Kingdom to any of the before-mentioned places, or to any other port or place whatsoever, and may fix such different lengths of voyage as they may think reasonable for such different descriptions of vessels as aforesaid. (Sec. 30.)

Before Clearance, Provisions and Water to be surveyed.—Before any 'passenger ship' be cleared out, the emigration officer at the port of clearance shall survey, or cause to be surveyed, by some competent person, the provisions and water required by this Act to be on board for the consumption of the passengers, and shall satisfy himself that the same are of a good and wholesome quality, and in a sweet and good condition, and are in quantities sufficient to secure throughout the voyage the issues herein prescribed: in addition to the allowance of pure water for the use of each passenger, there shall be shipped for cooking purposes an additional supply of pure water, after the rate of at least 10 gallons for every day of the prescribed length of voyage for every 100 statute adults on board; and also for the use of the crew and all other persons on board an ample supply of wholesome provisions and pure water, which shall not be inferior in quality to the supply of the same articles provided for the consumption of the passengers: all such water, provisions, and stores shall be provided and properly stowed away in accordance with the requirements of the 29th section of this Act, by and at the expense of the owner, charterer, or master of the ship: and if a clearance be obtained for any 'passenger ship' which is not then stored with the requisite quantities of such water, provisions, and stores as are required by this Act, the owner, charterer, or master of such ship, or any of them, shall for each offence be liable to a penalty not exceeding 300*l.* (Sec. 31.)

	If the ship be propelled by sails alone, or by steam power not sufficient without the aid of sails to propel the ship after the rate of 5 miles an hour.	If the ship be propelled either wholly or in aid of sails by steam engines of not less power than sufficient, without the aid of sails, to propel the ship after the rate of 5 miles an hour.
	days	days
To North America (except the W. coast thereof):		
For ships clearing out between January 15 and October 14, both days inclusive	70	40*
For ships clearing out between October 15 and January 15, both days inclusive	80	45†
To the West Indies, and any part of the E. coast of Central or South America, N. of the Equator	70	40
To any part of the E. coast of South America lying between the Equator and the 25th deg. of S. lat.	84	50
To the W. coast of Africa N. of the Equator	84	50
To the coast of Africa S. of the Equator, or to the Falkland Islands, or to any part of the E. coast of South America, S. of the 25th deg. of S. lat.	105	65
To the Mauritius, and to the W. coast of America, S. of the Equator	126	75
To Ceylon	140	85
To Western Australia	120	85
To any other of the Australian colonies	140	90
To New Zealand and to the W. coast of America between the Equator and the 40th deg. of N. lat.	150	90
To the W. coast of America N. of the 40th deg. of N. lat. and the islands adjacent thereto	182	96

* For Steamers 32 days.

† For Steamers 37 days.

Power to Emigration Officer to reject and mark Bad Provisions &c.—If such emigration officer shall consider that any of the provisions or stores or water are not of a good and wholesome quality, or are not in a sweet and good condition, it shall be lawful for him to reject and mark the same, or the packages or vessels in which they are contained, and to direct the same to be landed or emptied; and if such rejected provisions or stores or water be not thereupon forthwith landed or emptied, or if, after being landed, the same or any part thereof shall be reshipped in such ship, the owner, charterer, or master thereof, or any of them, or if reshipped into any other 'passenger ship,' the person causing the same to be reshipped, shall for each offence be liable to a penalty not exceeding 100*l.* (Sec. 32.)

Water Tanks or Casks to be approved by Emigration Officer.—In every 'passenger ship' the water to be laden on board, as herein required, shall be carried in tanks or in casks, to be approved by the emigration officer at the port of clearance. When casks are used, they shall be sweet and tight, of sufficient strength, and if of wood properly charred inside, and shall not be capable severally of containing more than 300 gallons each: the staves of the water casks shall not be made of fir, pine, or soft wood. In case of non-compliance with any of the requirements of this section, the owner, charterer, or master of such ship, or any of them, shall for each offence be liable to a penalty of not more than 50*l.* (Sec. 33.)

By orders in council of May 5, 1857, and December 5, 1865, steamers and sailing vessels which carry an approved apparatus for distilling fresh from salt water of not less than one gallon per diem for each person on board, need only carry in tanks or casks one-half the water prescribed by the Act.

Provision for touching at intermediate Ports to fill up Water.—If any 'passenger ship' be intended to call at any intermediate port or place during the voyage, for the purpose of taking in water, and if an engagement to that effect be inserted in the bond mentioned in the 63rd section of this Act, then it shall be sufficient to place on board at the port of clearance such supply of water as may be requisite, according to the rate hereinafter mentioned, for the voyage of the said ship to such intermediate port or place, subject to the following conditions; viz.:—

1. That the emigration officer signify his approval in writing of the arrangement, to be carried amongst the papers of the ship, and exhibited to the chief officer of customs, or to her Majesty's consular officer, as the case may be, at such intermediate port or place, and to be delivered to the chief officer of customs, or to her

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Majesty's consular officer, as the case may be, on the arrival of the said ship at the final port or place of discharge:

2. That if the length of either portion of the voyage, whether to such intermediate port or place, or from such intermediate port or place, to the final port or place of discharge, be not prescribed in or under the provisions of this Act, the emigration officer at the port of clearance shall in every such case declare the same in writing, to be carried amongst the papers of the ship:

3. That the ship shall have on board at the time a clearance is demanded, tanks or water casks, of the description hereinbefore mentioned, sufficient for stowing the quantity of water required for the longest of such portions of the voyage as aforesaid. (Sec. 34.)

Dietary Scales of Provisions.—The master of every 'passenger ship' shall, during the voyage, including the time of detention at any place before the termination thereof, issue to each passenger, or where the passengers are divided into messes, to the head man for the time being of each mess, on behalf and for the use of all the members thereof an allowance of pure water and sweet and wholesome provisions, of good quality, according to the following dietary scale; viz. if the length of the voyage, computed as before mentioned, shall not exceed 84 days for ships propelled by sails only, or 50 days for ships propelled by steam, or steam in aid of sails, then according to the dietary scale marked 'A.;' but if the length of the voyage, computed as aforesaid, shall exceed 84 days for ships propelled by sails only, or 50 days for ships propelled by steam, or steam in aid of sails, then according to the dietary scale marked 'B.'

Water.

Three Quarts of Water daily to each Statute Adult, exclusive of the quantity before specified as necessary for cooking the articles herein required to be issued in a cooked state.

Provisions.

Weekly per Statute Adult:

	Scale A. For Voyages not exceeding 84 days for Sailing Vessels, or 50 days for Steamers	Scale B. For Voyages exceeding 84 days for Sailing Vessels, or 50 days for Steamers
	lb. oz.	lb. oz.
Bread or biscuit, not inferior in quality to navy biscuit	3 8	3 8
Wheaten flour	1 0	2 0
Oatmeal	1 8	1 0
Rice	1 8	0 8
Peas	1 8	1 8
Potatoes	2 0	2 0
Beef	1 4	1 4
Pork	1 0	1 0
Tea	0 2	0 2
Sugar	1 0	1 0
Salt	0 2	0 2
Mustard	0 ½	0 ½
Black or white pepper, ground	0 ½	0 ½
Vinegar	One Gill	One Gill
Lime juice *	—	0 6
Preserved meat	—	1 0
Suet	—	0 6
Raisins	—	0 8
Butter	—	0 4

* By the Act of 1865, the issue of lime juice is confined to the period during which the ship is in the *Tropics*; during other portions of the voyage, the issue shall be at the discretion of the medical officer, or in case no such person be on board, at that of the master.

Substitutions.—Substitutions at the following rates may, at the option of the master of any 'passenger ship,' be made in the above dietary scales, that is to say:—

1 lb. of preserved meat, for 1 lb. of salt pork or beef.

1 lb. of flour or of bread or biscuit, or ½ lb. of beef or of pork, for 1¼ lb. of oatmeal, or 1 lb. of rice, or 1 lb. of peas.

1 lb. of rice, for 1¼ lb. of oatmeal, or vice versâ.

¼ lb. of preserved potatoes, for 1 lb. of potatoes.

10 oz. of currants, for 8 oz. of raisins.

3½ oz. of cocoa, or of coffee, roasted and ground, for 2 oz. of tea.

¾ lb. of treacle, for ½ lb. of sugar.

1 gill of mixed pickles, for 1 gill of vinegar.

1¼ lb. of soft bread (Act of 1863) may be issued instead of 1 lb. of flour, biscuit, rice, and peas, or of 1¼ lb. of oatmeal.

Provided, that the substituted articles be set forth in the contract tickets of the passengers. In case of non-compliance with any of the requirements of this section, the master of the ship shall be liable for each offence to a penalty not exceeding 50*l.* (Sec. 35.)

Size of Messes.—The messes into which the passengers in any 'passenger ship' may be divided shall not consist of more than 10 statute adults in each mess, and members of the same family, whereof 1 at least is a male adult, shall be allowed to form a separate mess. The provisions according to the above scale shall be issued, such of them as require to be cooked, in a properly cooked state, daily before 2 o'clock in the afternoon, to the head person for the time being of each mess, on behalf and for the use of the members thereof. The first of such issues shall be made before 2 o'clock in the afternoon of the day of embarkation to or for such passengers as shall be then on board. In case of non-compliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l.* (Sec. 36.)

Power to Emigration Commissioners to authorise an alternative Dietary Scale.—The emigration commissioners for the time being, acting under the authority of 1 of the principal secretaries of state, may from time to time, by any notice for that purpose, issued under the hands of any 2 of such commissioners, and published in the *London Gazette*, authorise the issue of provisions in any 'passenger ship' according to such other dietary scale (besides that before prescribed) as shall in their opinion contain in the whole an equivalent amount of wholesome nutriment; and after the publication of such notice it shall be lawful for the master of any 'passenger ship' to issue provisions to his passengers either according to the scale by this Act prescribed, or according to the scale authorised by the said commissioners, whichever may have been set forth in the contract tickets of the passengers: provided always, that the said commissioners, acting under such authority and by such notice as aforesaid, may revoke or alter any such dietary scale authorised by them, as occasion may require. (Sec. 37.)

As to Passengers' Stewards.—Every 'passenger ship' carrying as many as 100 passengers shall have on board a seafaring person, who shall be rated in the ship's articles as passengers' steward, and who shall be approved by the emigration officer at the port of clearance, and who shall be employed in messing and serving out the pro-

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visions to the passengers, and in assisting to maintain cleanliness, order, and good discipline among the passengers, and who shall not assist in any way in navigating or working the ship. In case of non-compliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.* (Sec. 38.)

As to Passenger Cooks and Cooking Apparatus.—Every 'passenger ship' carrying as many as 100 passengers, shall also have on board a seafaring man, or if carrying more than 300 'statute adults,' 2 seafaring men, to be rated and approved as in the case of passengers' stewards, who shall be employed in cooking the food of the passengers: a convenient place for cooking shall also be set apart on deck; and a sufficient cooking apparatus, properly covered in and arranged, shall be provided, to the satisfaction of the said emigration officer, together with a proper supply of fuel adequate, in his opinion, for the intended voyage. In case of non-compliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.* (Sec. 39.)

In what Cases Interpreters to be carried.—In every foreign 'passenger ship' in which as many as half the passengers are British subjects, unless the master and officers, or not less than 3 of them, shall understand and speak intelligibly the English language, there shall be carried, where the number of passengers does not exceed 250, 1 person, and where it exceeds 250, 2 persons, who understand and speak intelligibly the language spoken by the master and crew and also the English language, and such persons shall act as interpreters, and be employed exclusively in attendance on the passengers, and not in the working of the ship; and no such ship shall clear out or proceed to sea without having such interpreter or interpreters on board; and the master of any such foreign ship clearing out or proceeding to sea without having such interpreter or interpreters on board as aforesaid, shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.* (Sec. 40.)

In what Cases a Medical Man must be carried.—Every 'passenger ship' shall in the following cases carry a duly qualified medical practitioner, who shall be rated on the ship's articles:—

1. When the duration of the intended voyage, as before computed, exceeds 80 days in the case of ships propelled by sails, and 45 days in the case of ships propelled by steam, and the number of passengers on board exceeds 50:
2. Whenever the number of persons on board (including cabin passengers, officers, and crew) exceeds 300:

By order of council of August 9, 1866, issued under sec. 69 of the Act, every 'passenger ship' carrying more than 50 passengers on any voyage to which the Act extends, whatever be the duration of the voyage, must carry a duly qualified medical man.

In case of non-compliance with any of the requirements of this section, the master shall for each offence be liable to a penalty not exceeding 100*l.* nor less than 20*l.* (Sec. 41.)

Qualification of Medical Man.—No medical practitioner shall be considered to be duly qualified for the purposes of this Act unless authorised by law to practise in some part of her Majesty's dominions, or, in the case of a foreign ship, in the country to which such ship may belong, as a physician, surgeon, or apothecary, nor unless his name shall have been notified to the emigration officer at the port of clearance, and shall not be objected to by him, nor unless he shall be provided with proper surgical instruments to the satisfaction of such officer: provided nevertheless, that where the majority of the passengers in any 'passenger ship,' or as many as 300, are foreigners, any medical practitioner who may be approved by such emigration officer may be carried therein. In case any person shall proceed or attempt to proceed as medical practitioner in any 'passenger ship' without being duly qualified as aforesaid, or contrary to any of the requirements of this section, such person, and all persons aiding or abetting therein, shall for each offence be liable to a penalty not exceeding 100*l.* nor less than 10*l.* (Sec. 42.)

Medicines and Medical Comforts.—The owner or charterer of every 'passenger ship' shall provide for the use of the passengers a supply of medicines, medical comforts, instruments, and other things proper and necessary for diseases and accidents incident to sea voyages, and for the medical treatment of the passengers during the voyage, including an adequate supply of disinfecting fluid or agent, together with printed or written directions for the use of the same respectively; and such medicines, medical comforts, instruments, and other things shall, in the judgment of the emigration officer at the port of clearance, be good in quality, and sufficient in quantity, for the probable exigencies of the intended voyage, and shall be properly packed and placed under the charge of the medical practitioner, when there is one on board, to be used at his discretion. In case of non-compliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.* (Sec 43.)

Medical Inspection of Passengers and Medicines &c.—No 'passenger ship,' except as after provided, shall clear out or proceed to sea until some medical practitioner, to be appointed by the emigration officer at the port of clearance, shall have inspected such medicines, medical comforts, and other articles as are required to be supplied by the last section, and also all the passengers and crew about to proceed in the ship, and shall have certified to the said emigration officer that the said ship contains a sufficient supply of medicines, medical comforts, disinfecting fluid or agent, instruments, and other things requisite for the medical treatment of the passengers during the intended voyage, nor until such medical practitioner shall have certified, and the said emigration officer shall be satisfied, that none of the passengers or crew appear, by reason of any bodily or mental disease, unfit to proceed, or likely to endanger the health or safety of the other persons about to proceed in such vessel. Such medical inspection of the passengers shall take place either on board the vessel, or, at the discretion of the said emigration officer, at such convenient place on shore before embarkation as he may appoint; and the master, owner, or charterer of the ship shall pay to such emigration officer a sum at the rate of 1*l.* for every 100 persons so examined: provided also, that in case the emigration officer on any particular occasion shall be unable to obtain the attendance of a medical practitioner, it shall be lawful for the master of any such ship to clear out and proceed to sea, on receiving from the said emigration officer written permission for the purpose. In case any 'passenger ship' shall clear out or proceed to sea without having complied with all the requirements of this section, the master of such ship shall for each offence be

liable to a penalty not exceeding 100*l.* nor less than 5*l.* (Sec. 44.)

Relanding of Passengers on account of Sickness or for purifying Ships.—If the emigration officer at any port shall be satisfied that any person on board or about to proceed in any 'passenger ship' is by reason of sickness unfit to proceed, or is for that or for any other reason likely to endanger the health or safety of the other persons on board, the said emigration officer shall prohibit the embarkation of such person, or if embarked shall require him to be relanded; and if such emigration officer shall be satisfied that it is necessary, for the purification of the ship or otherwise, that all or any of the passengers or persons on board should be relanded, the said emigration officer may require the master of the ship to reland all such passengers or persons, and the master shall thereupon reland such passengers or persons, with so much of their effects and with such members of their families as cannot, in the judgment of such emigration officer, be properly separated from them; and in case of non-compliance with any of the requirements of this section, the master, owner, or charterer of the ship shall for each offence be liable to a penalty not exceeding 200*l.* nor less than 10*l.*; and any passenger or person embarking after such prohibition, or refusing or neglecting to leave the ship when so directed to be relanded, shall be liable to be summarily removed, and to a penalty not exceeding 2*l.* for each day which he shall remain on board after the giving of such prohibition or direction. (Sec. 45.)

Return of Passage Money to Passengers relanded on account of Sickness &c.—Any passenger so relanded on account of the sickness of himself or of any member of his family, who may not be re-embarked and finally sail in such ship, or any emigration officer on his behalf, shall be entitled to recover, by summary process, the whole of the moneys which may have been paid by or on account of such passenger for his passage, and that of the members of his family so relanded, from the party to whom the same may have been paid, or from the owner, charterer, or master of such ship, or any of them, at the option of such passenger or emigration officer. (Sec. 46.) The same regulation now applies to cabin passengers. But they can recover only *half* of their passage money.

Subsistence Money to be paid to Passengers relanded.—The master of any 'passenger ship,' from which the whole or any part of the passengers shall be relanded on account of any of the reasons mentioned in sec. 45, shall pay to each passenger so relanded (or if he shall be lodged and maintained in any hulk or establishment under the superintendence of the said emigration commissioners, then to the emigration officer at the port) subsistence money at the rate of 1*s.* 6*d.* a day for each statute adult until he shall be re-embarked or decline or neglect to proceed, or until his passage money, if recoverable under sec. 45 of this Act, be returned to him. (Sec. 47.)

Return of Passage Money &c.—If any person by whom or on whose behalf any contract shall have been made for a passage in any ship proceeding on any voyage to which this Act extends, shall be at the place of embarkation before 6 o'clock in the afternoon of the day of embarkation appointed in such contract, and shall, if required, pay the stipulated passage money, or the unpaid balance thereof, and if from any cause whatever, other than his own refusal, neglect, or default, or the prohibition of an emigration officer, as before mentioned, or the requirements of any order in council, such passenger shall not be received on board before that hour, or if from any such cause as aforesaid any passenger who shall have been received on board shall not either obtain a passage in such ship to the port at which he may have contracted to land, or, together with all the immediate members of his family who may be included in such contract, obtain a passage to the same port in some other equally eligible ship, to sail within 10 days from the expiration of the said day of embarkation, and in the meantime be paid subsistence money from the time and at the rate after mentioned, such passenger, or any emigration officer on his behalf, shall be entitled to recover either from the party to whom or on whose account the same may have been paid, or (in case such contract shall have been made with the owner, charterer, or master of such ship or with any person acting on behalf or by the authority of any of them respectively) from such owner, charterer, or master of such ship, or any of them, at the option of such passenger or emigration officer, all moneys which shall have been paid by or on account of such passengers for such passage, and also such further sum, not exceeding 10*l.*, in respect of each such passage, as shall, in the opinion of the justices of the peace who shall adjudicate on the complaint, be a reasonable compensation for the loss or inconvenience occasioned to such passenger by the loss of such passage. (Sec. 48.)

Subsistence in case of Detention.—If any ship, whether a 'passenger ship' or otherwise, shall not actually put to sea, and proceed on her intended voyage before 3 o'clock in the afternoon of the day next after the said day of embarkation, the owner, charterer, or master of such ship, or his or their agent, or any of them, at the option of such passenger or emigration officer, shall pay to every passenger entitled to a passage (or if such passenger shall be lodged and maintained in any establishment under the superintendence of the said emigration commissioners, then to the emigration officer at the port of embarkation), subsistence money after the rate of 1*s.* 6*d.* for each statute adult in respect of each day of delay for the first 10 days, and afterwards 3*s.* a day for each statute adult, until the final departure of such ship on such voyage, and the same may be recovered in manner after mentioned: provided that, if the passengers be maintained on board in the same manner as if the voyage had commenced, no such subsistence money shall be payable for the first 2 days next after the said day of embarkation, nor if they shall be maintained shall such subsistence money be payable if the ship be unavoidably detained by wind or weather, or by any cause not attributable, in the opinion of the emigration officer, to the act or default of the owner, charterer, or master. (Sec. 49.)

Ships putting back to replenish Provisions &c.—If any 'passenger ship' shall, after clearance, be detained in port for more than 7 days, or shall put into or touch at any port or place in the United Kingdom, she shall not put to sea again until there shall have been laden on board, at the expense of the owner, charterer, or master of such ship, such further supply of pure water, wholesome provisions of the requisite kinds and qualities, and medical comforts and stores, as may be necessary to make up the full quantities of those articles before required to be laden on board for the intended voyage, nor until any damage she may have sustained shall have been effectually repaired, nor until the master of the said ship shall have obtained from the emigration officer or his assistant, or, where there is no such officer, or in his absence, from the officer of customs at such port or place, a certificate to the same effect as the certificate

before required to enable the ship to be cleared out; and in case of any default herein, the said master shall be liable, on conviction, as hereinafter mentioned, to a penalty not exceeding 100*l.* nor less than 50*l.* And if the master of any 'passenger ship' so putting into or touching at any port or place as aforesaid, shall not within 12 hours thereafter report, in writing, his arrival, and the cause of his putting back, and the condition of his ship, and of her stores and provisions, to the emigration officer, or, as the case may be, to the officer of customs at the port, and shall not produce to such officer the official or 'master's list' of passengers, such master shall for each offence be liable to a penalty not exceeding 20*l.* nor less than 2*l.* (Sec. 50.)

Secretary of State &c. may pay Expenses of taking off Passengers at Sea.—If the passengers or cabin passengers of any 'passenger ship' shall be taken off from any such 'passenger ship,' or shall be picked up at sea from any boat, raft, or otherwise, it shall be lawful, if the port or place to which they shall be conveyed shall be in the United Kingdom, for one of the principal secretaries of state, or if in any colonial possession, for the governor of such colony, or for any person authorised by him for the purpose, or if in any foreign country, for her Majesty's consular officer, at such port or place therein, to defray all or any part of the expenses thereby incurred. (Sec. 52.)

In place of the 12th, 51st, 53rd, & 54th clauses of the Act of 1855, the following are substituted in the Act of 1863 (26 & 27 Vict. c. 51):—

If any 'passenger ship' shall clear out or proceed to sea, without the master having first obtained a certificate of clearance, or without his having joined in executing such bond to the Crown as by the said Passengers Act of 1855 are required, or if such ship, after having put to sea, shall put into any place or port of the United Kingdom in a damaged state, or shall leave, or attempt to leave, such port or place with passengers on board, without the master having first obtained such certificate of clearance as is required by sec. 58 of the said Passengers Act of 1855, such ship shall be forfeited to the use of her Majesty, and may be seized by any officer of customs, if found within 2 years from the commission of the offence in any port or place of her Majesty's dominions, and such ship shall thereupon be dealt with in the same manner as if she had been seized as forfeited for an offence incurring forfeiture under any of the laws relating to the customs. (26 & 27 Vict. c. 51 s. 13.)

If any 'passenger ship' be wrecked, or otherwise rendered unfit to proceed on her intended voyage, while in any port of the United Kingdom or after the commencement of the voyage, and if any of the passengers be brought back to the United Kingdom, or if any passenger ship shall put into any port or place in the United Kingdom in a damaged state, the master, charterer, or owner shall, within 48 hours, give the nearest emigration officer, or, in the absence of such officer, the chief officer of customs, a written undertaking to the effect: 1. Transfer of passengers, if necessary, to some other ship, to sail within 6 weeks for the port or place for which their passages had been taken. 2. Maintenance or payment at the rate of 1*s.* 6*d.* a day to each statute adult. If these conditions are not complied with, passengers may recover passage money by summary process. Passengers may be removed from damaged ships, if emigration officer requires, under a penalty of 40*s.* or imprisonment for 1 calendar month if any passenger refuse to leave. (Sec. 14.)

Governors or consuls may forward passengers, left without fault of their own, unless master of ship gives, within 48 hours of passengers' arrival, a written undertaking to forward the passengers within 6 weeks. (Sec. 15.)

Expenses under this and preceding section and those of sec. 52 of the Passengers Act to be a debt to the Crown. But passengers forwarded by the governor or consul are not entitled to the return of passage money. Not more than twice the total amount of passage money to be recoverable against the charterer, master &c. (Sec. 16.)

In all particulars the Act of 1863 and the Passengers Act of 1855 shall be construed together as one Act. (Sec. 18.)

Insurance of Passage Money not to be void on account of the nature of the Risk.—No policy of assurance effected in respect of any passages, or of any passage or compensation moneys, by any person by this Act made liable, in the events aforesaid, to provide such passages or to pay such moneys, or in respect of any other risk under this Act, shall be deemed to be invalid by reason of the nature of the risk or interest sought to be covered by such policy of assurance. (18 & 19 Vict. c. 119 s. 55.)

Penalty on wrongfully landing Passengers.—If any passenger in any ship, whether a 'passenger ship' or otherwise, shall be landed at any port or place other than the port or place at which he may have contracted to land, unless with his previous consent, or unless such landing shall be rendered necessary by perils of the sea, or other unavoidable accident, the master shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 10*l.* (Sec. 56.)

Passengers to be maintained for 48 Hours after Arrival.—Every passenger in a 'passenger ship' shall be entitled, for at least 48 hours next after his arrival at the end of his voyage, to sleep in the ship, and to be provided for and maintained on board thereof, in the same manner as during the voyage, unless within that period the ship shall quit such port or place in the further prosecution of her voyage. In case of non-compliance with any of the requirements of this section, the master shall for each offence be liable to a penalty not exceeding 5*l.* (Sec. 57.)

Passengers' Right of Action preserved.—Nothing herein contained shall take away or abridge any right of action which may accrue to any passenger in any ship, or to any other person, in respect of the breach or non-performance of any contract made or entered into between or on behalf of any such passenger or other person, and the master, charterer, or owner of any such ship, or his or their agent, or any passage broker. (Sec. 58.)

Her Majesty may, by Orders in Council, prescribe Rules for Purposes herein described.—It shall be lawful for her Majesty, by any order in council, to prescribe such rules and regulations as to her Majesty may seem fit, for the following purposes; viz.:—

1. For preserving order, promoting health, and securing cleanliness and ventilation on board of 'passenger ships' proceeding from the United Kingdom to any port or place in her Majesty's possessions abroad.

2. For permitting the use on board of 'passenger ships' of an apparatus for distilling water, and for defining in such case the quantity of fresh water to be carried in tanks or casks for the passengers.

3. For prohibiting emigration from any port or ports at any time when choleraic or any epidemic disease may be generally prevalent in the United Kingdom or any part thereof, or for reducing the number of passengers allowed to be carried in

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'passenger ships' generally, or from any particular ports under the provisions of this Act.

4. For requiring duly qualified medical practitioners to be carried in 'passenger ships' in cases where they would not be required to be carried under the provisions of this Act.

Any such order in council may from time to time in like manner be altered, amended, and revoked, as occasion may require. Any copy of such order in council contained in the *London Gazette*, or purporting to be printed by the Queen's printer, shall throughout her Majesty's dominions be received in all legal proceedings as good and sufficient evidence of the making and contents of any such order in council. (Sec. 59.)

Surgeon or Master to exact Obedience to Rules and Regulations.—In every such 'passenger ship' the medical practitioner on board, aided by the master thereof, or, in the absence of such medical practitioner, the master of such ship, is hereby empowered to exact obedience to all rules and regulations which may be prescribed by any such order in council to be observed on board 'passenger ships' as aforesaid; and any person on board who shall neglect or refuse to obey any such rule or regulation, or who shall obstruct the medical practitioner or master of such ship in the execution of any duty imposed upon him by any such rule or regulation, or who shall offend against any of the provisions of this Act, or who shall be guilty of riotous or insubordinate conduct, shall be liable for each offence to a penalty not exceeding 2*l.*, and in addition thereto, to be confined in the common gaol for any period not exceeding 1 month, at the discretion of the justices who shall adjudicate on the complaint. (Sec. 60.)

Emigration Commissioners to prepare an Abstract of Act and Orders in Council.—The said emigration commissioners shall from time to time prepare such abstracts as they may think proper of the whole or any part of this Act, and of any such order in council as aforesaid; and four copies of such abstracts, together with a copy of this Act, shall, on demand, be supplied by the principal officer of customs at the port of clearance to the master of every 'passenger ship' proceeding from the United Kingdom to any port or place in her Majesty's possessions abroad; and such master shall, on request made to him, produce a copy of this Act to any passenger on board, for his perusal, and, further, shall post, previous to the embarkation of the passengers, and shall keep posted so long as any passenger shall be entitled to remain in the ship, in at least two conspicuous places between the decks on which passengers may be carried, copies of such abstracts; and such master shall be liable to a penalty not exceeding 2*l.* for every day during any part of which by his act or default such abstracts shall fail to be so posted; and any person displacing or defacing such abstracts so posted shall be liable to a penalty not exceeding 2*l.* (Sec. 61.)

Sale of Spirits prohibited on board 'Passenger Ships.'—If in any 'passenger ship' any person shall during the voyage, directly or indirectly, sell or cause to be sold any spirits or strong waters to any passenger, he shall be liable for every such offence to a penalty not exceeding 20*l.* nor less than 5*l.* (Sec. 62.)

Bond to be given by Masters of British and Foreign 'Passenger Ships.'—Before any 'passenger ship' shall clear out or proceed to sea, the master, together with the owner or charterer of the ship, or in the event of the absence of such owner or charterer, or if the master be the owner or charterer, one other good and sufficient person, to be approved by the chief officer of customs at the port of clearance, shall enter into a joint and several bond, in the sum of 2,000*l.*, to her Majesty, her heirs and successors, according to the form contained in schedule annexed to the Act. Such bond shall not be liable to stamp duty, and shall be executed in duplicate. (Sec. 63.) By the Act of 1863 (sec. 17), the amount of the bond is raised to 5,000*l.*

Clause 64 enacts that a counterpart of the bond referred to shall be certified, and sent to the colony to which the ship is bound, and be received in evidence without proof of execution.

In the Absence of Agreement to the contrary, the Owner to be responsible in respect of Default.—In the absence of any agreement to the contrary, the owner shall be the party ultimately responsible, as between himself and the other persons hereby made liable in respect of any default in complying with the requirements of this Act; and if any such last-mentioned person shall pay any moneys hereby made payable to or on behalf of any such passengers as aforesaid, the person so paying the same shall be entitled, in the absence of any such agreement as aforesaid, to sue for and recover from the owner the amount so paid, together with costs of suit. (Sec. 65.)

No Person to act as a Passage Broker without a License.—No person whatever shall directly or indirectly act as a passage broker in respect of passages from the United Kingdom to any place out of Europe, and not being within the Mediterranean Sea, or shall sell or let, or agree to sell or let, or be in anywise concerned in the sale or letting of passages in any ship, whether a 'passenger ship' or otherwise, proceeding from the United Kingdom to any such place as aforesaid, unless such person, with 2 good and sufficient sureties to be approved by the emigration officer at the port nearest to the place of business of such person, shall have previously entered into a joint and several bond, in the sum of 1,000*l.*, to her Majesty, her heirs and successors, which bond shall be renewed on each occasion of obtaining such license as after mentioned, and shall be in duplicate, without stamps, and one part thereof shall be deposited at the office in London of the said emigration commissioners, and the other part thereof with the emigration officer at the port nearest to the place of business of such person; nor unless such person shall have obtained a license, as after mentioned, to let or sell passages, nor unless such license shall then be in force; and if any person shall offend in any particular against this enactment, every person so offending shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 20*l.*, to be sued for and recovered as after mentioned; provided that such bond shall not be required of any person who shall be one of the sworn brokers of the city of London: provided also, that there shall be excepted from the operation of this section the said emigration commissioners, and any persons contracting with them, or acting under their authority, and also any person acting as the agent of any passage broker in pursuance of an appointment signed by such passage broker, and countersigned by such emigration officer as aforesaid: provided further, that the acts and defaults of any person acting under the authority or as agent of any passage broker shall, for the purposes of this Act, be deemed to be also the acts and defaults of such passage broker: provided also that nothing before contained shall be held or construed to prevent the said emigration officer from accepting the bond of a guarantee society, such bond and such guarantee

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society as shall have been approved by the commissioners of her Majesty's treasury, in lieu of the bond of 2 good and sufficient securities as aforesaid. (Sec. 66.)

Clause 67 directs how passage brokers are to obtain licenses.

Clause 68 limits the duration of the then existing licenses.

Clause 69 enacts that passage brokers shall employ no agents except those expresely appointed by them.

Penalty on Persons fraudulently inducing others to engage Passages.—If any person shall by false representation as to the size of a ship, or otherwise, or by any false pretence or fraud whatsoever, induce any person to engage a passage in any ship, the person so offending shall for each offence be liable to a penalty not exceeding 20*l.* nor less than 5*l.* (Sec. 70.)

Contract Tickets for Cabin and other Passengers.—Every person whatever, except the said emigration commissioners and persons acting for them and under their direct authority, who shall receive money from any person for or in respect of a passage in any ship, or of a cabin passage in any 'passenger ship' proceeding from the United Kingdom to any place out of Europe, and not being within the Mediterranean Sea, shall give to the person paying such money a contract ticket, signed by the owner, charterer, or master of the ship or 'passenger ship' (as the case may be) in which the passage is to be provided, or by some person in their or his name, and on their or his behalf: such contract ticket shall be made out in plain and legible characters on a printed form, which in the case of cabin passengers shall be according to the form contained in schedule annexed to the Act, and in the case of all other passengers in the form contained in schedule L. hereto annexed, or according to such other form as in either case may from time to time be prescribed by the said emigration commissioners in any notice issued under their hands, or the hands of any two of them, and published in the *London Gazette*:—and any directions contained on the face of such form of contract ticket shall be obeyed in the same manner as is herein set forth. In case of non-compliance with any of the requirements of this section, or of any of the directions on such form of contract ticket not inconsistent with this Act, the person so offending shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.*: provided always, that such contract tickets shall not be liable to any stamp duty. (Sec. 71.)

Clauses 72 to 94 inclusive relate to matters of detail and to legal procedure.

Colonial Voyages defined.—And whereas it is expedient to provide in certain cases for the carriage of passengers by sea from her Majesty's possessions abroad: Be it therefore enacted as follows:

For the purposes of this Act, the term *colonial voyages* shall signify any voyage from any place within any of such possessions (except the territories (then) under the government of the East India Company and the island of Hong Kong) to any place whatever where the distance between such places shall exceed 400 miles, or the duration of the voyage, to be prescribed as hereinafter mentioned, shall exceed 3 days. (Sec. 95.)

This Act shall apply to all Colonial Voyages, except as relates to Matters herein named.—This Act shall apply, so far as the same is applicable, to all ships carrying passengers on any such 'colonial voyage,' except as to such parts of the Act as relate to the following matters; viz.:—

1. To passage brokers and their licenses:
2. To passengers' contract tickets:
3. To emigrant runners:
4. To the giving bond to her Majesty:
5. To the keeping on board a copy of this Act:
6. To orders in council regulating emigration from the United Kingdom, or prescribing rules for promoting health, cleanliness, order, and ventilation:

Provided that if the prescribed duration of any 'colonial voyage' be less than three weeks, then, in addition to the matters lastly hereinbefore excepted, the provisions of this Act shall not extend or apply, so far as they relate to the following subjects; viz.:—

The construction or thickness of the decks:
The berths and berthing:
The height between decks:
Privies:
Hospitals:
Light and ventilation:
Manning:
Passengers' stewards:
Passengers' cooks, and cooking apparatus:
The surgeon, and medicine chest:
The maintenance of passengers for 48 hours after arrival:

Provided also, that in the case of such 'colonial voyages' whereof the prescribed duration is less than 3 weeks, the requirements of this Act respecting the issue of provisions shall not, except as to the issue of water, be applicable to any passenger who may have contracted to furnish his own provisions. (Sec. 96.)

Clause 97 empowers the governors of colonies, by proclamation, to declare length of voyage, and prescribe scale of diet, medicines, and medical comforts.

Clause 99 authorises the Governor-General of India in council, by any Act to be passed for that purpose, to adopt this Act for India, and to make rules respecting food, passengers, surgeons &c.

List of Passengers brought into the United Kingdom &c.—The master of every ship bringing passengers into the United Kingdom from any place out of Europe, and not within the Mediterranean Sea, shall, within 24 hours after arrival, deliver to the emigration officer or his assistant, or in their absence to the chief officer of customs at the port of arrival, a correct list, signed by such master, and specifying the names, ages, and callings of all the passengers embarked, and also the port or ports at which they respectively may have embarked, and showing which, if any of them, may have died, with the supposed cause of death, or been born on the voyage; and if any master shall fail so to deliver such list, or if the same shall be wilfully false, he shall, on conviction, as before mentioned, be liable to a penalty not exceeding 50*l.* Such emigration or customs officer shall, upon receipt of such list, transmit the particulars respecting any passenger named therein who may have died, with the supposed cause of death, or been born on the voyage, to the registrar-general of births, deaths, and marriages, who shall file the same, and enter a copy thereof under his hand in the 'Marine Register Book,' which entry shall be dealt with and be of the same value as evidence as any other entry made in such book under the provisions of the 6 & 7 Wm. IV. c. 86. (Sec. 100.)

Penalty on Masters for having on Board a greater Number of Persons than prescribed by this Act.—If any ship bringing passengers into the United Kingdom from any place out of Europe shall have on board a greater number of passengers or

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Schedule B.—Form of Passengers' List.

Ship's Name	Master's Name	Tons per Register	Aggregate Number of Superficial Feet in the several Compartments set apart for Passengers other than Cabin Passengers	Total Number of Statute Adults, exclusive of Master, Crew, and Cabin Passengers, which the Ship can legally carry	Where Bound

I hereby certify, that the provisions actually laden on board this ship are sufficient, according to the requirements of the Passenger Act, for statute adults for a voyage of days.

(Signature) _____ Master.

Date _____ 185

*** By the Act of 1863, this schedule must include *cabin* passengers.

Names and Descriptions of Passengers.

Ports of Embarkation	Names of Passengers	Age of each Adult of 12 Years and upwards				Children between 1 and 12 Years		Infants		Profession, Occupation, or Calling of Passenger	State whether English, Scotch, or Irish	Port at which Passengers have contracted to land
		Married		Single								
		M.	F.	M.	F.	M.	F.	M.	F.			

Summary.

	Number of Souls				Equal to Statute Adults
	English	Scotch	Irish	Total	
Adults - - - - -					
Children between 1 and 12 - -					
Infants - - - - -					
Total - - - -					

We hereby certify, that the above is a correct list of the names and descriptions of all the passengers who embarked at the port of _____

(Signed) _____ Master.

_____ Emigration Officer.

(Countersigned) _____ Officer of Customs at _____.

Date _____ 185 .

N.B.—Lines should be ruled in the same Form for any additions to the list after the ship first clears out; and similar certificates be subjoined to such additions, according to the requirements of the Act.

Ship _____.

Counterpart of Passenger's Contract Ticket.

This part of the contract ticket is to be separated from the other, and to be delivered by the passenger to the emigration officer at the port of embarkation (or if no such officer, to the officer of customs), or to anyone appointed by him to receive it, under a penalty not exceeding 10*l*.

Contract Ticket.

I engage that the persons mentioned below shall be provided with a steerage passage to _____ and be landed at the port of _____ in _____ in the ship _____ of _____ tons with not less than ten cubic feet for luggage for each statute adult, and shall be victualled during the whole voyage according to the dietary scale prescribed by law. The ship to receive her passengers at _____ on the _____ day of _____ 185—. Passage money, including Government dues, if any, and all charges of landing, £_____.

Names	Ages

_____ Souls, equal to *_____ statute adults.

To be signed in full by the party issuing the ticket. _____

* Insert number of souls and of statute adults respectively.

These directions, and the 'Notices to Passengers' below, form part of, and must appear on, each contract ticket.

Schedule L.—Form of Passenger's Contract Ticket.

1. A contract ticket in this form must be given to every passenger engaging a passage from the United Kingdom to any place out of Europe, and not being within the Mediterranean Sea.

2. The victualling scale for the voyage must be printed in the body of the ticket.

3. All the blanks must be correctly filled in, and the ticket must be legibly signed with the Christian names and surname and address in full of the party issuing the same.

4. The day of the month on which the passengers are to embark must be inserted in words, and not in figures.

5. When once issued, this ticket must not be withdrawn from the passenger, nor any alteration, addition, or erasure made in it.

Ship _____ of _____ tons register, to take in passengers at _____ for _____ on the _____ day of _____ 185—.

Names	Age	Equal to Statute Adults

I engage that the person named in the margin hereof shall be provided with a steerage passage to, and shall be landed at, the port of _____ in _____ in the ship _____ with not less than ten cubic feet for luggage for each statute adult, and shall be victualled during the voyage and the time of detention at any place before its termination, according to the subjoined scale, for the sum of £_____ including Government dues before embarkation, and head money, if any, at the place of landing, and every other charge, except freight for excess of luggage beyond the quantity above specified, and I hereby acknowledge to have received the sum of £_____ in {full / part} payment.

The following quantities, at least, of water and provisions (to be issued daily), will be supplied by the master of the ship, as required by law; viz., to each statute adult 3 quarts of water daily, exclusive of what is necessary for cooking the articles required by the Passenger Act to be issued in a cooked state; and a weekly allowance of provisions according to the following scale:—

{Here insert the victualling scale intended to be used on the voyage. This must be either the scale prescribed in the 54th section of the Passenger Act 1855, or that scale modified by the introduction of articles authorised by the Act to be substituted for oatmeal, rice, and potatoes.]

[N.B.—If mess utensils and bedding are to be provided by the ship, the stipulation must be inserted here.]

Signature in full _____

Place and date _____

[If signed by a broker or agent, state on whose behalf.]

Deposit £ _____

Balance £ _____ to be paid at _____

Total £ _____

Notices to Passengers.

1. If passengers, through no default of their own, are not received on board on the day named in their contract tickets, or fail to obtain a passage in the ship, they should apply to the Government emigration officer at the port, who will assist them in obtaining redress under the Passenger Act.

2. Passengers should carefully keep this part of their contract ticket till after the end of the voyage.

N.B.—This contract ticket is exempt from stamp duty.

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persons than in the proportions respectively prescribed in sec. 14 of this Act for ships carrying passengers from the United Kingdom, the master of such ship shall be liable, on such conviction as before mentioned, to a penalty not exceeding 10*l.* nor less than 5*l.* for each such person or statute adult constituting any such excess. (Sec. 101.)

Provisions and Water to be issued to Passengers brought into the United Kingdom &c.—The master of every 'passenger ship' bringing passengers into the United Kingdom from any place out of Europe, shall make to each statute adult during the voyage, including the time of detention, if any, at any port or place before the termination thereof, issues of pure water and of good and wholesome provisions in a sweet condition, in quantities not less in amount than is prescribed in sec. 35 of this Act for passengers proceeding from the United Kingdom; and in case of non-compliance with any of the requirements of this section, the master of such ship shall, on such conviction as hereinbefore mentioned, be liable for each offence to a penalty not exceeding 50*l.* (Sec. 102.)

The United States, in imitation of the policy followed in the United Kingdom, have passed several Acts in regard to the conveyance of passengers in ships belonging to the different ports of the Union. The last of these Acts is as follows:—

AN ACT TO REGULATE THE CARRIAGE OF PASSENGERS IN STEAM SHIPS AND OTHER VESSELS, APPROVED MARCH 3, 1855.

N.B.—A bill to amend this Act was introduced into Congress in January 1865.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that no master of any vessel owned in whole or in part by a citizen of the United States, or by a citizen of any foreign country, shall take on board such vessel, at any foreign port or place other than foreign contiguous territory of the United States, a greater number of passengers than in proportion of 1 to every 2 tons of such vessel, not including children under the age of 1 year in the computation, and computing 2 children over 1 and under 8 years of age as 1 passenger. That the spaces appropriated for the use of such passengers, and which shall not be occupied by stores or other goods nor the personal baggage of such passengers, shall be in the following proportions, viz.—on the main and poop decks or platforms and in the deck-houses, if there be any, 1 passenger for each 16 clear superficial feet of deck, if the height or distance between the decks or platform shall not be less than 6 feet; and on the lower deck (not being an orlop deck), if any, 1 passenger for 18 such clear superficial feet, if the height or distance between the decks or platforms shall not be less than 6 feet, but so as that no passenger shall be carried on any deck or platform nor upon any deck where the height or distance between the decks is less than 6 feet, with intent to bring such passenger to the United States, and shall leave such port or place and bring the same, or any number thereof, within the jurisdiction of the United States; or if any such master of any vessel shall take on board his vessel, or at any port or place within the jurisdiction of the United States, any greater number of passengers than in the proportion aforesaid, to the space aforesaid, or to the tonnage aforesaid, with intent to carry the same to any foreign port or place other than foreign contiguous territory as aforesaid, every such master shall be deemed guilty of a misdemeanor, and upon conviction thereof, before any circuit or district court of the United States, shall, for each passenger taken on board beyond the limit aforesaid, or the space aforesaid, be fined in the sum of 50 dollars, and may also be imprisoned, at the discretion of the judge before whom the penalty shall be recovered, not exceeding six months; but should it be necessary for the safety or convenience of the vessel that any portion of her cargo, or any other articles or article, should be placed on or stored in any of the decks, cabins, or other places appropriated to the use of passengers, the same may be placed in lockers or inclosures prepared for the purpose, on an exterior surface impervious to the wave, capable of being cleansed in like manner as the decks or platforms of the vessel. In no case, however, shall the places thus provided be deemed to be a part of the space allowable for the use of passengers, but the same shall be deducted therefrom, and in all cases where prepared or used, the upper surface of said lockers or inclosed spaces shall be deemed and taken to be the deck or platform from which measurement shall be made for all the purposes of this Act. It is also provided that one hospital in the space appropriated to passengers, and separated therefrom by an appropriate partition, and furnished as its purposes require, may be prepared, and when used, may be included in the space allowable for passengers, but the same shall not occupy more than 100 superficial feet of deck or platform: provided, that on board two deck ships, where the height between the decks is 7½ feet or more, 14 clear superficial feet of deck shall be the proportion required for each passenger. (Sec. 1.)

And no such vessel shall have more than two tiers of berths, and the interval between the lowest part thereof and the deck or platform beneath shall not be less than 9 inches, and the berths shall be well constructed, parallel with the sides of the vessel, and separated from each other by partitions, as berths ordinarily are separated, and shall be at least 6 feet in length and at least 2 feet in width, and each berth shall be occupied by no more than 1 passenger; but double berths of twice the above width may be constructed, each berth to be occupied by no more, and by no other, than 2 women, or by 1 woman and 2 children under the age of 8 years, or by husband and wife, or by a man and 2 of his own children under the age of 8 years, or by 2 men, members of the same family; and if there shall be any violation of this section in any of its provisions, then the master of the vessel and owners thereof shall severally forfeit and pay the sum of 5 dollars for each passenger on board of said vessel on such voyage, to be recovered by the United States in any port where such vessel may arrive or depart. (Sec. 2.)

And all vessels, whether of the United States or any foreign country, having sufficient capacity of space, according to law, for 50 or more passengers (other than cabin passengers), shall, when employed in transporting such passengers between the United States and Europe, have, on the upper deck, for the use of such passengers, a house over the passage-way leading to the apartments allotted to such passengers below deck, firmly secured to the deck or combings of the hatch with 2 doors, the sills of which shall be at least 1 foot above the deck, so constructed that one door or window in such house may at all times be left open for ventilation; and all vessels so employed, and having the capacity to carry 150 such passengers or more, shall have 2 such houses; and the stairs or ladder leading down to the aforesaid apartment shall be furnished with a hand-rail of wood or strong rope; but booby hatches may be substituted for such houses. (Sec. 3.)

And every such vessel so employed, and having

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the legal capacity for more than 100 such passengers, shall have at least 2 ventilators to purify the apartment or apartments occupied by such passengers; 1 of which shall be inserted in the after part of the apartment or apartments, and the other shall be placed in the forward portion of the apartment or apartments, and one of them shall have an exhausting cap to carry off the foul air, and the other a receiving cap to carry down the fresh air; which said ventilators shall have a capacity proportioned to the size of the apartment or apartments to be purified; namely, if the apartment or apartments will lawfully authorise the reception of 200 such passengers, the capacity of such ventilators shall each be equal to a cube of 12 inches diameter in the clear, and in proportion for larger or smaller apartments; and all said ventilators shall rise at least 4 feet 6 inches above the upper deck of any such vessel, and be of the most approved form and construction: but if it shall appear, from the report to be made and approved, as hereinafter provided, that such vessel is equally well ventilated by any other means, such other means of ventilation shall be deemed and held to be a compliance with the provisions of this section. (Sec. 4.)

And every vessel carrying more than 50 such passengers shall have for their use on deck, housed and conveniently arranged, at least one caboose or cooking range, the dimensions of which shall be equal to 4 feet long and 1 foot 6 inches wide for every 200 passengers; and provision shall be made in the manner aforesaid, in this ratio, for a greater or less number of passengers; but nothing herein contained shall take away the right to make such arrangements for cooking between decks, if that shall be deemed desirable. (Sec. 5.)

And all vessels employed as aforesaid shall have on board, for the use of such passengers, at the time of leaving the last port whence such vessel shall sail, well secured under deck, for each passenger, at least 20 pounds of good navy bread, 15 pounds of rice, 15 pounds of oatmeal, 10 pounds of wheat flour, 15 pounds of peas and beans, 20 pounds of potatoes, 1 pint of vinegar, 60 gallons of fresh water, 10 pounds of salted pork, and 10 pounds of salt beef, free of bone, all to be of good quality; but at places where either rice, oatmeal, wheat flour, or peas and beans, cannot be procured, of good quality, and on reasonable terms, the quantity of either or any of the last-named articles may be increased and substituted therefor; and in case potatoes cannot be procured on reasonable terms, 1 pound of either of said articles may be substituted in lieu of 5 pounds of potatoes; and the captains of such vessels shall deliver to each passenger at least one-tenth part of the aforesaid provisions weekly, commencing on the day of sailing, and at least 3 quarts of water daily; and if the passengers on board of any such vessel in which the provisions and water herein required shall not have been provided as aforesaid, shall at any time be put on short allowance during any voyage, the master or owner of any such vessel shall pay to each and every passenger who shall have been put on short allowance, the sum of 3 dollars for each and every day they may have been put on short allowance, to be recovered in the circuit or district court of the United States; and it shall be the duty of the captain or master of every such ship or vessel to cause the food and provisions of all the passengers to be well and properly cooked daily, and to be served out and distributed to them at regular and stated hours, by messes, or in such other manner as shall be deemed best and most conducive to the health and comfort of such passengers, of which hours and manner of distribution due and sufficient notice shall be given. If the captain or master of any such ship or vessel shall wilfully fail to furnish and distribute such provisions, cooked as aforesaid, he shall be deemed guilty of a misdemeanor, and upon conviction thereof before any circuit or district court of the United States, shall be fined not more than 1,000 dollars, and shall be imprisoned for a term not exceeding 1 year, provided that the enforcement of this penalty shall not affect the civil responsibility of the captain or master and owners to such passengers as may have suffered from said default. (Sec. 6.)

And the captain of any such vessel so employed is hereby authorised to maintain good discipline and such habits of cleanliness among such passengers as will tend to the preservation and promotion of health; and to that end he shall cause such regulations as he may adopt for this purpose to be posted up before sailing on board such vessel, in a place accessible to such passengers, and shall keep the same so posted up during the voyage; and it is hereby made the duty of said captain to cause the apartments occupied by such passengers to be kept at all times in a clean, healthy state, and the owners of every such vessel so employed are required to construct the decks, and all parts of said apartment, so that it can be thoroughly cleansed; and they shall also provide a safe, convenient privy or water-closet for the exclusive use of every 100 such passengers. And when the weather is such that said passengers cannot be mustered on deck with their bedding, it shall be the duty of the captain of every such vessel to cause the deck occupied by such passengers to be cleansed with chloride of lime, or some other equally efficient disinfecting agent, and also at such other times as said captain may deem necessary. (Sec. 7.)

And the master and owner or owners of any such vessel so employed, which shall not be provided with the house or houses over the passageways, as prescribed in the third section of this chapter, or with ventilators, as prescribed in the fourth section of this chapter, or with the cabooses or cooking ranges, with the houses over them, as prescribed in the fifth section of this chapter, shall severally forfeit and pay to the United States the sum of 200 dollars for each and every violation of or neglect to conform to the provisions of each of said sections; and 50 dollars for each and every neglect or violation of any of the provisions of the seventh section of this chapter, to be recovered by suit in any circuit or district court of the United States, within the jurisdiction of which the said vessel may arrive, or from which she may be about to depart, or at any place within the jurisdiction of such courts, wherever the owner or owners, or captain of such vessel may be found. (Sec. 8.)

And the collector of the customs at any port of the United States at which any vessel so employed shall arrive, or from which any such vessel shall be about to depart, shall appoint and direct one or more of the inspectors of the customs for each port to examine such vessel, and report in writing, to such collector, whether the requirements of law have been complied with in respect to such vessel; and if such report shall state such compliance, and shall be approved by such collector, it shall be deemed and held as primâ facie evidence thereof. (Sec. 9.)

And the provisions, requisitions, penalties, and liens of this Act, relating to the space in vessels appropriated to the use of passengers, are hereby extended and made applicable to all spaces appropriated to the use of steerage passengers in

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vessels propelled, in whole or in part, by steam, and navigating from, to, and between the ports and in manner as in this Act named, and to such vessels and to the masters thereof, and so much of the Act entitled 'An Act to amend an Act entitled "An Act to provide for the better Security of the Lives of Passengers on board of Vessels propelled in whole or in part by Steam, and for other Purposes,"' approved August 30, 1852, as conflicts with this Act, is hereby repealed: and the space appropriated to the use of steerage passengers in the vessels so as above propelled and navigated is hereby subjected to the supervision and inspection of the collector of the customs at any port of the United States at which any such vessel shall arrive, or from which she shall be about to depart; and the same shall be examined and reported in the same manner and by the same officers, by the next preceding section directed to examine and report. (Sec. 10.)

And the vessels bound from any port in the United States to any port or place in the Pacific Ocean, or on its tributaries, or from any such port or place to any port in the United States on the Atlantic or its tributaries, shall be subject to the foregoing provisions regulating the carriage of passengers in merchant vessels, except so much as relates to provisions and water; but the owners and masters of all such vessels shall in all such cases furnish to each passenger the daily supply of water therein mentioned; and they shall furnish a sufficient supply of good and wholesome food, properly cooked; and in case they shall fail so to do, or shall provide unwholesome or unsuitable provisions, they shall be subject to the penalty provided in the sixth section of this chapter, in case the passengers are put on short allowance of water or provisions. (Sec. 11.)

And the captain or master of any ship or vessel arriving in the United States, or any of the territories thereof, from any foreign place whatever, at the same time that he delivers a manifest of the cargo, and if there be no cargo, then at the time of making report or entry of the ship or vessel, pursuant to law, shall also deliver and report to the collector of the district in which such ship or vessel shall arrive, a list or manifest of all the passengers taken on board of the said ship or vessel at any foreign port or place, in which list or manifest it shall be the duty of the said master to designate, particularly, the age, sex, and occupation of the said passengers respectively, the part of the vessel occupied by each during the voyage, the country to which they severally belong, and that of which it is their intention to become inhabitant; and shall further set forth whether any, and what number, have died on the voyage; which list or manifest shall be sworn to by the said master, in the same manner as directed by law in relation to the manifest of the cargo, and the refusal or neglect of the master aforesaid to comply with the provisions of this section, or any part thereof, shall incur the same penalties, disabilities, and forfeitures as are provided for a refusal or neglect to report and deliver a manifest of the cargo aforesaid. (Sec. 12.)

And each and every collector of the customs to whom such manifest or list of passengers as aforesaid shall be delivered, shall quarterly return copies thereof to the Secretary of State of the United States, by whom statements of the same shall be laid before Congress at each and every session. (Sec. 13.)

And in case there shall have occurred on board any ship or vessel arriving at any port or place within the United States or its territories, any death or deaths among the passengers (other than cabin passengers), the master or captain, or owner or consignee of such ship or vessel shall, within twenty-four hours after the time within which the report and list of manifest of passengers mentioned in section 12 of this Act is required to be delivered to the collector of the customs, pay to the said collector the sum of 10 dols. for each and every passenger above the age of 8 years who shall have died on the voyage by natural disease; and the said collector shall pay the money thus received at such times and in such manner as the Secretary of the Treasury by general rules shall direct, to any board or commission appointed by, and acting under the authority of, the state within which the port where such ship or vessel arrived is situated, for the care and protection of sick, indigent, or destitute emigrants, to be applied to the objects of their appointment; and if there be more than one board or commission who shall claim such payment, the Secretary of the Treasury for the time being shall determine which is entitled to receive the same, and his decision in the premises shall be final and without appeal: provided that the payment shall in no case be awarded or made to any board, or commission, or association, formed for the protection or advancement of any particular class of emigrants, or emigrants of any particular nation or creed; and if the master, captain, owner, or consignee of any ship or vessel, refuse or neglect to pay the collector the sum and sums of money required, and within the time prescribed by this section, he or they shall severally forfeit and pay the sum of 50 dols., in addition to such sum of 10 dols. for each and every passenger upon whose death the same has become payable, to be recovered by the United States in any circuit or district court of the United States where such vessel may arrive, or such master, captain, owner, or consignee may reside; and when recovered, the said money shall be disposed of in the same manner as is directed with respect to the sum and sums required to be paid to the collector of customs. (Sec. 14.)

And the amount of the several penalties imposed by the foregoing provisions, regulating the carriage of passengers in merchant vessels, shall be liens on the vessel or vessels violating those provisions, and such vessel or vessels shall be libelled therefor in any circuit or district court of the United States where such vessel or vessels shall arrive. (Sec. 15.)

And all and every vessel or vessels which shall or may be employed by the American Colonisation Society, or the colonisation society of any state, to transport, and which shall actually transport, from any port or ports of the United States to any colony or colonies on the west coast of Africa, coloured emigrants to reside there, shall be, and the same are hereby, subjected to the operation of the foregoing provisions regulating the carriage of passengers in merchant vessels. (Sec. 16.)

And the collector of the customs shall examine such emigrant ship or vessel on its arrival at his port, and ascertain and report to the Secretary of the Treasury, at the time of sailing, the length of the voyage, the ventilation, the number of passengers, their space on board, their food, the native country of the emigrants, the number of deaths, the age and sex of those who died during the voyage, together with his opinion of the cause of the mortality, if any, on board, and if none, what precautionary measures, arrangements, or habits, are supposed to have had any, and what, agency in causing the exemption. (Sec. 17.)

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And this Act shall take effect, with respect to vessels sailing from ports in the United States, on the eastern side of the continent, within 30 days from the time of its approval; and with respect to vessels sailing from ports to the United States, on the western side of the continent, and from ports in Europe, within 60 days from the time of its approval; and with respect to vessels sailing from ports in other parts of the world, within 6 months from the time of its approval: And it is hereby made the duty of the Secretary of State to give notice in the ports of Europe and elsewhere of this Act, in such manner as he shall deem proper. (Sec. 18.)

And from and after the time that this Act shall take effect with respect to any vessels, in respect to such vessels, the Act of March 2, 1819, entitled 'An Act regulating Passenger Ships and Vessels,' the Act of February 22, 1847, entitled 'An Act to regulate the Carriage of Passengers in Merchant Vessels,' the Act of March 2, 1847, entitled 'An Act to amend an Act entitled "An Act to regulate the Carriage of Passengers in Merchant Vessels," and to determine the time when said Act shall take effect,' the Act of January 31, 1848, entitled 'An Act exempting Vessels employed by the American Colonisation Society in transporting Coloured Emigrants from the United States to the coast of Africa from the provisions of the Acts of February 22 and March 2, 1847, regulating the Carriage of Passengers in Merchant Vessels,' the Act of May 17, 1848, entitled 'An Act to provide for the Ventilation of Passenger Vessels, and for other Purposes,' and the Act of March 3, 1849, entitled 'An Act to extend the Provisions of all Laws now in force relating to the Carriage of Passengers in Merchant Vessels, and the regulation thereof,' are hereby repealed: But nothing in this Act contained shall in anywise obstruct or prevent the prosecution, recovery, distribution or remission of any fines, penalties, or forfeitures which may have been incurred in respect to such vessels prior to the day this Act goes into effect, in respect to such vessels under the laws hereby repealed, for which purpose the said laws shall continue in force.

But the Secretary of the Treasury may, in his discretion, and upon such conditions as he shall think proper, discontinue any such prosecution, or remit or modify such penalties. (Sec. 19.)

Passenger Ships in Australia.—By 24 & 25 Vict. c. 52, the governor in each of the Australian colonies may, by any proclamation to be by him issued, furnish such rules as he shall think proper for determining the number of passengers to be carried in any passenger ship from any such colony to any other of her Majesty's possessions in Australasia, with other regulations, and prescribe penalties for infraction and non-observance of the rules laid down.

While the proclamation is in force, the rules and enactments of the Passenger Act of 1855 shall not apply to intercolonial voyages.

The requirements of these proclamations shall be valid as law in all her Majesty's dominions, as though they formed part of the Passenger Act of 1855.

Chinese Passenger Ships.—Our readers are aware that there is at present (1869), and that there has been for some considerable time past, an extensive emigration from China to California and Australia. This emigration (especially that to Australia) has been principally carried on in British ships; and the abuses connected therewith have been such as to attract the attention of Parliament, which has been induced, in the view of putting them down, to enact the following statute:—

ACT FOR THE PREVENTION OF ABUSE IN CHINESE PASSENGER SHIPS, AND THEIR REGULATION. 18 & 19 VICT. C. 104.

Clause 1 defines the terms used in the Act.

Clause 2 authorises the Legislature of Hong Kong to make regulations respecting passenger ships, providing that until such regulations be made, those contained in the annexed schedule A. shall be in force: provided always, that no ordinance shall come into operation until her Majesty's confirmation of the same shall have been proclaimed in Hong Kong by the governor thereof.

Governor of Hong Kong to declare Length of Voyages.—It shall be lawful for the governor of Hong Kong to declare by proclamation, for the purposes of this Act and of the said regulations, what shall be deemed to be the duration of the voyage of any Chinese passenger ship, and by such proclamation to alter the scales of dietary, medicines, and medical comforts contained in the annexed schedule A. (Sec. 3.)

No Chinese Passenger Ship to clear out on Voyage of more than 7 Days without &c.—No Chinese passenger ship shall clear out or proceed to sea on any voyage of more than 7 days' duration until the master thereof have received from an emigration officer a copy of the aforesaid regulations, and a certificate in the form contained in the annexed schedule B., or in such other form as may be prescribed by the Legislature, which copy and certificate, with any documents to be attached thereto (herein designated as emigration papers), shall be signed by the said emigration officer, nor until the master shall, with two sufficient sureties, to be approved by the said emigration officer, have entered into a joint and several bond in the sum of 1,000*l.* to her Majesty, her heirs and successors, in such form as may be prescribed by the said Legislature. (Sec. 4.)

Penalty of Bond, when recoverable.—The said penal sum of 1,000*l.* shall be due and recoverable notwithstanding any penalty or forfeiture imposed by this Act or by the aforesaid regulations, and whether such penalties or forfeitures shall have been sued for and recovered or not. (Sec. 5.)

Clause 6 authorises the commanders of ships of war &c. to search ships, require production of papers &c.

Penalty for neglect to comply with Regulations &c.—In case of any neglect or refusal to comply with any of the provisions of this Act or any of the regulations aforesaid, or to perform any stipulation in any of the contracts made with passengers, the master of the ship and any other person who may have been guilty of or have aided or abetted such neglect or refusal, shall each be deemed for each offence guilty of a misdemeanor. (Sec. 7.)

Ship to be forfeited for clearing without Emigration Papers &c.—If any Chinese passenger ship clears out or proceeds to sea on any voyage exceeding 7 days in duration without such emigration papers as aforesaid, or if the emigration papers of any Chinese passenger ship are forged or fraudulently altered, such ship shall, if she is a British ship, or if, not being a British ship, the offence is committed and the ship is seized in her Majesty's dominions, be forfeited to her Majesty. (Sec. 8.)

Penalties in addition to Forfeiture.—Every person who commits, or aids, or abets in committing any act or default by which any Chinese passenger ship may become liable to forfeiture, shall be liable to a penalty not exceeding 100*l.* for each offence. (Sec. 9.)

The following clauses refer to the mode of enforcing and applying forfeitures.

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Schedule A.

Regulations respecting Chinese Passenger Ships.

Note.—The wilful and fraudulent breach of any of these regulations by the person in charge of any Chinese passenger ship is punishable by forfeiture of the ship, and every person concerned in such breach is liable to a fine of 100*l.* for such offence.

I. No Chinese passenger ship shall clear out or proceed to sea on any voyage of more than 7 days' duration without a certificate from an emigration officer; and such certificate shall be in the annexed form.

II. No emigration officer shall be bound to give such certificate in respect of any Chinese passenger ship till 7 days after receiving notice that the ship is to carry passengers, and of her destination, and of her proposed day of sailing, nor unless there are on board a surgeon and an interpreter approved by such emigration officer.

III. After receiving such notice, the emigration officer shall be at liberty at all times to enter and inspect the ship, and the fittings, provisions, and stores therein, and any person impeding him in such entry or inspection, or refusing to allow of the same, shall be liable to a fine of not more than 100*l.* for each offence.

IV. The emigration officer shall not give his certificate unless he be satisfied—

(1.) That the ship is seaworthy, and properly manned, equipped, fitted, and ventilated; and has not on board any cargo likely from its quality, quantity, or mode of stowage, to prejudice the health or safety of the passengers.

(2.) That the space appropriated to the passengers in the between decks contains at the least 12 superficial and 72 cubical feet of space for every adult on board; that is to say, for every passenger above 12 years of age, and for every two passengers between the ages of 1 year and 12 years.

(3.) That a space of 5 superficial feet per adult is left clear on the upper deck for the use of the passengers.

(4.) That provisions, fuel, and water have been placed on board, of good quality, properly packed, and sufficient to supply the passengers on board during the declared duration of the intended voyage, according to the following scale:—

Dietary Scale.

	per diem
Rice	lb. 1½
Salted provisions:	
Wholly pork, or ⅔ pork and ⅓ fish, or ⅔ pork, ⅓ beef, and ⅓ fish	" ⅔
Salted vegetables or pickles	" ⅓
Water	imp. quarts 3
Firewood	lb. 2
Tea	oz. ½

(5.) That medicines and medical comforts have been placed on board according to the following scale:—

For every 100 passengers, and in like proportion for any greater or less number.

Calomel	3 oz.
Blue pill	2 "
Rhubarb powder	2 "
Compound jalap powder	12 "
Ipecacuanha powder	12 "
Opium	2 "
Dover's powder	2 "
Magnesia	2 "
Epsom salts	6 lb.
Chloride of lime	20 "
Tartar emetic	4 drams
Quinine	½ oz.
Antimonial powder	0½ "
Extract of colocynth, compound	1 "
Carbonate of ammonia	1½ "
Asafœtida	1 "
Camphor	1½ "
Camphorated liniment	16 "
Catechu	2 "
Prepared chalk	2 "
Tincture of opium	8 "
Turpentine	16 "
Senna leaves	8 "
Blistering plaister	8 oz.
Sulphur, sublimed	16 "
ointment	12 "
Linseed flour	4 lb.
Country soap	24 oz.
Castor oil	6 bottles
Oil of peppermint	2 oz.
Adhesive plaister, spread	2 yards
Simple ointment	16 oz.
Ringworm ointment	16 "
Jeremie's opiate	2 oz. phial
Aromatic spirits of hartshorn	4 "
Cholera pills in phial	1½ drams
Cubebs powder	4 lb.
Sweet spirits of nitre	16 oz.
Copaiba	16 "
Sulphate of copper	2 "
Sulphate of zinc	1 "
Lunar caustic	4 drams
Lime juice	3½ quarts
Rum or brandy	36 "

Instruments &c.

1 Set of amputating and other surgical instruments (if there be any person on board competent to use them).
1 One-ounce glass measure.
1 Minim glass measure.
1 Pestle and mortar (Wedgwood).
1 Set of weights and scales (grains in box).
1 Set of common splints.
1 Set of bleeding lancets.
1 Silver catheter.
1 Spatula.
1 Dressing scissors.
1 Infusion box.
1 Quire of country paper.
1 Penknife.
2 Metal bed pans.
2 Trusses for hernia, right and left.
2 Small syringes.
4 Ounces prepared lint.
2 Pieces cloth for bandages.

V. The master of any Chinese passenger ship being a British ship and proceeding on a voyage of more than 7 days' duration, shall, during the whole of the intended voyage, make issues of provisions, fuel, and water, according to the aforesaid dietary scale, and shall not make any alteration, except for the manifest advantage of the passengers, in respect of the space allotted to them as aforesaid, or in respect of the means of ventilation, and shall not ill-use the passengers or require them (except in case of necessity) to help in working the vessel: and shall issue medicines and medical comforts, as shall be requisite, to the best of his judgment, and shall call at such ports as may be mentioned in the emigration officer's clearing certificate for fresh water and other necessaries; and shall carry them without unnecessary delay to the destination to which they have contracted to proceed.

VI. The emigration officer shall not give his certificate until he has mustered the passengers, and ascertained, to the best of his power, that they understand whither they are going, and comprehend the nature of any contracts of service which they have made; he shall also take care that a copy of the form of such contracts, or an abstract of their substance, signed by himself, is appended to the said certificate: if any of the passengers are in bad health, or insufficiently provided with clothing, or if the contracts are unfair, or if there is reason to suspect that fraud or violence has been practised in their collection or embarkation, he may detain the ship, and, if he shall think fit, may order all or any of the passengers to be re-landed.

Schedule B.

Emigration Officer's Certificate &c.

I hereby authorise the Chinese passenger ship to proceed to sea for the port of and I certify that the said ship can in legally carry adults, and that there are

on board passengers, making in all adults, viz. men, women, male children, and female children, such children being between the ages of 1 and 12 years: that the space set apart and to be kept clear for the use of such emigrants is as follows: On the upper deck, superficial feet, being [*here describe the space*], and in the between decks superficial feet, being [*here describe the space*]; that the ship is properly manned and fitted, and that the means of ventilating the part of the between decks appropriated to passengers are as follows [*here describe the means of ventilation*]; that the ship is furnished with a proper quantity of good provisions, fuel, and water for days' issues to the passengers according to the * annexed dietary scale, and with a proper quantity of medicines, instruments, and medical comforts according to the *annexed scale of medical necessaries; that I have inspected the contracts between the emigrants and their intended employers (the terms of which are annexed to this certificate), and consider them reasonable; that no fraud appears to have been practised in collecting the emigrants; and that there are on board a surgeon † [and interpreter] approved by me, and designated [respectively and] ‡ [The master of the ship is to put into and for water and fresh vegetables.]

(Signed)

Dated this day of 18 .

(* These scales must be those prescribed by the regulations in schedule A.)

(† In case the ship has been authorised to proceed without an interpreter, omit the part between brackets, and add "and that the ship has been authorised to proceed without an interpreter.")

(‡ The part between brackets is to be inserted or not, as may be required.)

Indian Emigration Act.

Emigration from British India is regulated by the Indian Act of March 18, 1864, No. 13 of that year.

This Act, which came into operation on July 1, 1864, repeals and consolidates, with amendments, 16 Acts, and a portion of another Act, passed between 1839 and 1863, on the subject of emigration. The following are some of its main provisions.

1. *Ports of Emigration.*—Emigration is prohibited from any port of India except Calcutta, Madras, and Bombay. (Sec. 7.)

2. *What Labour Contracts, and to what Places Emigration, legal.*—Contracts for labour, out of India, are declared to be unlawful, except when made under the provisions of the Act, and for such places as the Governor-General in council may notify in the *Gazette of India*, in addition to Mauritius, the Seychelles, Jamaica, British Guiana, Trinidad, St. Lucia, Grenada, St. Vincent, St. Kitt's, Natal, and the Danish colony of St. Croix. (Secs. 3, 4, 5, and 6.)

3. *Emigration may be prohibited.*—The Governor-General in council may, by notification in the *Gazette of India*, prohibit emigration to any place to which it has been sanctioned, if he has reason to believe that proper measures have not been taken for the protection of emigrants, or for their safe return to India when they are entitled to a return passage. This prohibition may, however, in like manner be removed when the Governor is satisfied that such measures have been adopted. (Secs. 64 and 67.)

4. *Emigration Agents.*—The Governments of the various places to which emigration is allowed may appoint emigration agents in Calcutta, Madras, and Bombay (subject to the approval of the Presidency Government) to collect emigrants and act for them. (Sec. 10.) The remuneration, however, of these agents is not to be regulated by the number of emigrants sent off, but is to be in the nature of a fixed annual salary. (Sec. 12.)

5. *Recruiters.*—The Protector of Emigrants, an officer appointed by the Presidency Government, is empowered (but only on the application of an emigration agent of a colony) to license annually as many recruiters as he may think necessary for that particular colony; and no person can act as a recruiter without such license, under a penalty of 500 rupees. (Secs. 13, 24, 25, 26, and 70.) The fee for the license is 10 rupees. (Sec. 27.)

6. *Recruitment and Registration of Emigrants.*—Natives in the country engaging with a recruiter to emigrate are not to leave their district without appearing, with the recruiter, before the magistrate of the district, who must register, in a book for the purpose, the name and particulars of the emigrant, unless he finds that the emigrant does not understand the nature of his engagement, or has been induced to enter into it by fraud or misrepresentation. The fee for registration is one rupee. A copy of this registration is to be given to the emigrant. (Secs. 30 and 31.) The registration of emigrants recruited in the three Presidency towns of Calcutta, Madras, and Bombay, is to be effected under similar conditions, by the protector of emigrants, instead of by magistrates. (Secs. 30 and 34.) The emigration agent of any colony may, with the consent of the protector, set aside any contract of his recruiter; but if he sets it aside without such consent, he must pay to the protector a sum sufficient to enable the emigrant to return to the place where he was registered. (Sec. 41.)

7. *Emigration Season.*—The emigration season for steamers going anywhere, and for sailing vessels to any place *east* of the Cape of Good Hope, is the whole year; but for sailing vessels to any place *west* of the Cape it is confined to the period between July 31 and March 16. (Sec. 45.)

8. *Length of Voyage.*—The declared length of voyage from Calcutta to the West Indies is 20 weeks, from Madras and Bombay 19 weeks. To Natal 12 and 10 weeks respectively. To the Mauritius, from 5 to 10 weeks, according to the time of the year and the Presidency from which the voyage is made. (Sec. 8.)

9. *Shipping Arrangements.*—The vessels must obtain a license from the Presidency Government (sec. 46), must have a height of not less than 5½ feet between decks, and must not carry more than one adult for every 10 superficial feet on deck (by Order of the Indian Government, February 24, 1868, the superficial space per adult has been increased from 10 to 12 feet), and for every cubic space of 72 feet. Every emigrant above 10 years, and two children from 1 to 10, are to count as one adult. Women and children must occupy a distinct compartment from the single men (sec. 47). Vessels fitted with any water-distilling apparatus approved by the protector of emigrants is to be allowed a reduction of one-third of the quantity of water (seven gallons for every emigrant for each week of the computed voyage) required by the Act to be shipped in tanks or casks (sec. 48). Vessels sailing from Calcutta are to be towed to sea by steamers (sec. 60) under a penalty not exceeding 1,000 rupees. (Sec. 78.)

10. *Governor-General may make Rules.*—The Governor-General is empowered to make, from time to time, rules (which must be published in the *Gazette of India*) not inconsistent with the Act, on the following subjects, viz.: 1, the proportion of women to be taken, and the age at

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which children are not to be taken; 2, the dietary and clothing of emigrants on the voyage; 3, the medical care, medicines, and medical journals &c., of the emigrants; 4, ventilation and cleanliness, and boats for the voyage; and 5, the security, well-being, and protection generally of the emigrants.

11. *Exemption of French Colonies.*—With the exception of sections 19 to 41, both inclusive, which relate to the recruitment of native labourers, the Act is not to apply to emigration to the French colonies. (Sec. 83.)

Emigration to the French colonies is regulated by sections 19 to 41 of the Act of 1864, and by Act No. 46 of 1860, which Act was passed to give effect to two conventions entered into between the English and the French Governments, dated Paris, July 25, 1860, as regards Reunion, and July 1, 1861, as regards the West India Colonies of France.

The passenger trade between India and Ceylon is regulated by sections 19 to 41, both inclusive, of the Indian Act. No. 13 of 1864, and by the Acts No. 25 of 1859, No. 7 of 1862, and by the Ceylon Ordinances, No. 1 of 1860, and No. 10 of 1862.

Abstract of Order in Council (Jan. 7, 1864) for promoting Order and Health, &c. in Passenger Ships to any of her Majesty's Possessions abroad. (59 *sec. Pass. Act.*)

1. Every passenger to rise at 7 A.M., unless otherwise permitted by the surgeon; or if no surgeon, by the master.

2. Breakfast from 8 to 9 A.M., dinner at 1 P.M., supper at 6 P.M.

3. The passengers to be in their beds at 10 P.M., except under permission of the surgeon, or, if no surgeon, of the master.

4. Fires to be lighted by the passengers' cook at 7 A.M., and kept alight by him till 7 P.M.; then to be extinguished unless otherwise directed by the master, or required for the use of the sick.

5. The master to determine the order in which each passenger or family of passengers shall be entitled to the use of the fires. The cook to take care that this order is preserved.

6. On each passenger deck three safety lamps to be lit at dusk, and kept burning all night, and such further number as shall allow one to be placed at each of the hatchways used by the passengers.

7. No naked light between deck or in the hold to be allowed at any time or on any account.

8. The passengers, when dressed, to roll up their beds, to sweep the decks (including the space under the bottom of the berths), and to throw the dirt overboard.

9. Breakfast not to commence till this is done.

10. The sweepers for the day to be taken in rotation from the males above 14, in the proportion of 5 for every 100 passengers.

11. Duties of the sweepers to be to clean the ladders, hospitals, round houses, and water-closets, to pump water into the cisterns or tanks for the supply of the water-closets, to sweep the decks after every meal, and to dry holy-stone and scrape them after breakfast.

12. But the occupant of each berth to see that his or her own berth is well brushed out; and single women are to keep their own compartment clean in ships where a separate compartment is allotted to them.

13. The beds to be well shaken and aired on deck, and the bottom boards, if not fixtures, to be removed, and dry-scrubbed and taken on deck, at least twice a week.

14. Two days in the week to be appointed by the master as washing days, but no clothes on any account to be washed or dried between decks.

15. The coppers and cooking vessels to be cleaned every day, and the cisterns kept filled with water.

16. The scuttles and stern ports, if any, to be kept open (weather permitting) from 7 A.M. to 10 P.M., and the hatches at all hours.

17. On Sunday the passengers to be mustered at 10 A.M., when they will be expected to appear in clean and decent apparel. The day to be observed as religiously as circumstances will admit.

18. No spirits or gunpowder to be taken on board by any passenger. Any that may be discovered to be taken into the custody of the master till the expiration of the voyage.

19. No loose hay or straw to be allowed below.

20. No smoking to be allowed between decks.

21. All immoral or indecent acts or conduct, improper liberties or familiarities with the female passengers, blasphemous, obscene, or indecent language, or language tending to a breach of the peace, swearing, gambling, drunkenness, fighting, disorderly, riotous, quarrelsome, or insubordinate conduct, and also all deposits of filth or offensive acts of uncleanliness in the between decks, are strictly prohibited.

22. Fire-arms, swords, and other offensive weapons, as soon as the passengers embark, to be placed in the custody of the master.

23. No sailors to remain on the passenger deck among the passengers, except on duty.

24. No passenger to go to the ship's cookhouse without special permission from the master, nor to remain in the forecastle among the sailors on any account.

Offences at Sea Punishable in the Colonies.

Formerly offences at sea might, under the Act 11 & 12 Wm. III. c. 7, be tried in any colony, and were to be dealt with according to the civil law, and the method and rules of the Admiralty, and subsequently (under the 46 Geo. III. c. 54), according to the common course of the laws of this realm, applicable to like offences committed on land. But now, by the 12 & 13 Vict. c. 96 (1849), these offences, when dealt with in a colony, are to be *tried* according to the law of the colony, but *punished* according to the law of England.

The Act of Victoria which was passed in August 1849 for the prosecution and trial in the colonies of offences committed within the jurisdiction of the Admiralty, provides that all persons charged in any colony with piracy, felony, murder, 'or other offence, of what nature or kind soever,' committed on the sea, or within the Admiral's jurisdiction, may be brought to trial in the same manner, according to the laws of the colony, as if the offence had been committed on waters within the local jurisdiction of the criminal courts of the colony, and upon conviction shall suffer the same punishments as they would have been liable to had the offence been committed, tried, and adjudged in England.

Where death ensues in a colony from an injury inflicted at sea, the offence, whether murder, manslaughter, or accessory before or after the fact, may be dealt with in the colony as if it had been wholly committed there; but in the converse case, of the death ensuing at sea from an injury inflicted in the colony, the offence shall be held to have been wholly committed upon the sea.

The jurisdiction of the Supreme Courts of New South Wales and Tasmania, as established by 9 Geo. IV. c. 83, is left intact.

Exclusive of the statutes and regulations now

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referred to, and in cases to which they may not apply, the relation between masters of ships and passengers is governed by the general rules of maritime law. 'Whatever,' says Lord Tenterden, 'is necessary for the security of the vessel, the discipline of the crew, the safety of all on board, the master may lawfully require, not only of the ship's company who have expressly contracted to obey him, but of those also whom he has engaged to carry to their destination on the implied condition of their submission to his rule.' (*Law of Shipping*, part ii. c. 8, p. 180, Shee's ed. 1854.) Hence in certain cases, such as those of imminent peril, from whatever cause arising, passengers are to be considered as a portion of the crew, and may be called upon to contribute by their exertions to the safety of the ship and cargo. And in the event of their refusing so to act, they make themselves amenable to such reasonable punishment as the captain may choose to inflict. A passenger is not, however, bound to remain on board ship in the hour of danger, but may quit it if he have an opportunity; and he is not required to take upon himself any responsibility as to the *conduct* of the ship. If he incur any responsibility, and perform extraordinary services in relieving a vessel in distress, he is entitled to a corresponding reward. The goods of passengers contribute to general average; and their conduct should in all cases be such as may be consistent with the good order and discipline of the ship. They are not to set a bad example to the crew, or excite a spirit of insubordination, but to assist in maintaining the just and proper authority of the captain. The latter, however, in repressing disorder and improper conduct on the part of passengers, should act with much circumspection, and exercise his authority within the limits required by the exigencies of the case. His conduct in regard to passengers is always viewed with considerable jealousy; and though the courts of law will support him in the exercise of his authority when circumstances require it, they will not go beyond what is necessary; much less support him in any wanton or oppressive exercise of his authority. (Tenterden, in loco cit.; Holt's *Navigation Laws*, 2nd ed. p. 425 &c.)

PASSPORT (Fr. and Ger., passeport; Ital. passaporta; Spanish, pasaporte). The use of passports or safe-conducts is of great antiquity, and no doubt originated during periods of war and civil commotion.

In its modern acceptation a passport is a document issued by the Foreign Minister of any State, requesting that the holder may receive at the hands of foreign Powers such 'assistance and protection' as he may require, during his travels in their territories.

In the United States of America and in England, the internal passport system has no existence; but on the Continent, though now (1863) much modified, it was, until recently, peculiarly strict and inconvenient. Annexed are our Foreign Office regulations respecting passports.

1. Applications for Foreign Office passports must be made in writing, and inclosed in a cover addressed to 'The Chief Clerk, Foreign Office, London,' with the word 'PASSPORT' conspicuously written on the cover.

2. The charge on the issue of a passport, whatever number of persons may be named in it, is 2*s.*; and if it is desired that the passport should be sent by post, that sum must be forwarded with the application for the passport by a post-office order, made payable at the post office, Charing Cross, London, to the chief clerk of the Foreign Office, Francis B. Alston, Esq. Postage stamps will not be received in payment.

3. Foreign Office passports are granted only to British-born subjects, or to such foreigners as have become naturalised either by Act of Parliament or by a certificate of naturalisation granted by the Secretary of State for the Home Department. When the party is a 'naturalised British subject,' he will be so designated in his passport; and if his certificate of naturalisation be dated subsequently to August 24, 1850, and previously to August 1, 1858, his passport will be marked as good for one year only; or should the certificate be dated subsequently to August 1, 1858, his passport will in that case be marked as good for six months only, except in cases where a license for a longer period of residence abroad has been granted by the Secretary of State for the Home Department: but this regulation will not preclude any person whom it affects from obtaining at the Foreign Office, at any future time, on his producing his old passport, a fresh passport in exchange for it for a further limited period, without being required to pay a fresh charge. A Foreign Office passport granted to a British-born subject or to a 'naturalised British subject' who has been naturalised by Act of Parliament, or whose certificate of naturalisation is dated previously to August 24, 1850, is not limited in point of time, but is available for any time, or for any number of journeys to the Continent.

4. Passports are granted to all persons either known to the Secretary of State or recommended to him by some person who is known to him; or upon the application of any *Banking Firm* established in London or in any part of the United Kingdom; or upon the production of a *Certificate of Identity* signed by any mayor, magistrate, justice of the peace, minister of religion, physician, surgeon, solicitor, or notary, resident in the United Kingdom.

5. If the applicant for a passport be a naturalised British subject, his certificate of naturalisation, with his signature subscribed to the oath printed on the third page of it, must be forwarded to the Foreign Office with the certificate of identity granted on his behalf; and his certificate of naturalisation will be returned with the passport to the person who may have granted the certificate of identity, in order that he may cause such naturalised British subject to sign the passport in his presence. The agents at the outports are not authorised to grant passports to naturalised British subjects; and such persons, if resident in London or in the suburbs, should apply *personally* for their passports at the Foreign Office.

6. Passports are issued at the Foreign Office between the hours of 11 and 4 on the day following that on which the application for the passport has been received at the Foreign Office; but the passports will be issued at the outports immediately on application, accompanied by the production of a certificate of identity, within such hours as may be fixed with regard to the convenience of persons desirous of embarking for the Continent.

7. A passport cannot be sent by the Foreign Office, or by an agent at an outport, to a person already abroad: such person, being a British-born subject, should apply for one to the nearest British mission or consulate. A passport cannot be issued abroad to a naturalised British subject except for a direct journey to England, or in the case of a colonial naturalised subject for a journey back to the colony where he has been naturalised. Neither can a passport granted at the Foreign Office to a naturalised British subject for a limited period

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be renewed by her Majesty's diplomatic or consular agents in foreign countries; but only at the Foreign Office.

8. The bearer of every passport granted by the Foreign Office should sign his passport as soon as he receives it; without such signature, either the *visa* may be refused, or the validity of the passport questioned abroad. Travellers about to proceed to Russia, Turkey, and Portugal can have their passports *visé* at the under-mentioned places respectively: for Russia, at the Russian consulate, 32 Great Winchester street; for Turkey, at the Turkish embassy, 1 Bryanston square; and for Portugal, at the Portuguese consulate, 5 Jeffrey's square. Travellers about to proceed to Austria, Bavaria, Belgium, Denmark, The Netherlands, France, Italy, Prussia, Saxony, Spain, Sweden and Norway, or Wurtemberg, need not obtain the *visa* of the diplomatic or consular agents of those countries respectively resident in the United Kingdom.

N.B.—Travellers who may have any intention of visiting the Russian empire at any time in the course of their travels, are particularly and earnestly advised not to quit England without having had their passports *visé* at the Russian consulate in London.

Model form of Certificate of Identity to be written out in full, signed and sealed by the person giving it; and also by the person in whose behalf it is granted.

(Date of Place, and Day of Month.)

The undersigned, Mayor of (*Magistrate, Justice of the Peace, Minister, Physician, Surgeon, Solicitor or Notary*, as the case may be),
residing at
hereby certifies that *A. B. (Christian and surname to be written at length)*, whose signature is written at foot, is a British subject, / a naturalised British subject, and requires a passport to enable him to proceed to / to travel on the Continent (*accompanied, as the case may be, by his wife and children, with their tutor, named C. D. (Christian and surname to be written at length), a British subject, and governess, a naturalised British subject, and maid servant [or servants], and man servant [or servants], named E.F., a British subject [or subjects], and a courier, named G. H., a naturalised British subject*).

(Signed)

(With the usual signature.)

(Seal.)

Signature of the above-named

Foreign Office, December 1867.

There are Foreign Office passport agents at Bath, Belfast, Birmingham, Dover, Dublin, Folkestone, Great Grimsby, Harwich, Hull, Liverpool, Londonderry, Lowestoft, Manchester, Newcastle-on-Tyne, Newhaven, Queenstown (Cork), Southampton, Swansea, and Weymouth.

The impolicy of the passport system, as impeding the free intercourse of nations for commercial and other purposes, is self-evident, and its abolition would be a great advantage. It is proverbial that those alone of deservedly suspicious character have their passports invariably *en règle*.

The passport duty was reduced in 1858 from 5*s.* to 6*d.*

PATENT. A privilege from the Crown granted by letters patent (whence the name), conveying to the individual or individuals specified therein the sole right to make, use, or dispose of some new invention or discovery, for a certain specified period.

The power to grant patents seems to exist at common law; but it is limited and defined by the famous statute 21 Jas. I. c. 3, which enacts, 'That any declaration before mentioned shall not extend to any letters patent and grants of privilege for the term of 14 years or under, thereafter to be made, of the sole working or making of any manner of new manufactures within this realm, to the *true and first* inventor and inventors of such manufactures, which others at the time of making such letters patent and grants shall not use, so as also they be not contrary to the law, nor mischievous to the State, by raising prices of commodities at home, or hurt of trade, or generally inconvenient. The said 14 years to be accounted from the date of the first letters patent, or grant of such privilege thereafter to be made; but that the same shall be of such force as they should be if that Act had never been made, and none other.'

Policy of Patents.—The law with respect to patents is unavoidably encumbered with several difficulties. The expediency of granting patents has been disputed; though, as it would seem, without sufficient reason. Were they refused, the inducement to make discoveries would, in many cases, be very much weakened; at the same time that it would plainly be for the interest of every one who made a discovery to endeavour, if possible, to conceal it. And notwithstanding the difficulties in the way of concealment, they are not insuperable; and it is believed that several important inventions have been lost, from the secret dying with their authors. On the other hand, it is not easy to decide as to the term for which the patent, or exclusive privilege, should be granted. Some have proposed that it should be made perpetual; but this would be a very great obstacle to the progress of improvement, and would lead to the most pernicious results. Perhaps the term of 14 years, to which the duration of a patent is limited in England, is as proper a one as could be suggested. It may be too short for some inventions, and too long for others; but, on the whole, it seems a pretty fair average.

Specification.—Previously to the reign of Queen Anne, it was customary to grant patents without any condition, except that they should be for really new inventions. But a condition was then introduced into all patents, and is still retained, declaring that if the inventor did not, by an instrument under his hand and seal, denominated a specification, *particularly describe* and ascertain the nature of his invention, and in what manner the same is to be performed, and also cause the same to be enrolled in Chancery within a certain time (generally a month), the letters patent, and all liberties and advantages whatever thereby granted, should utterly cease and become void. This was a very judicious regulation. It secured the invention from being lost; and the moment the patent expired, every one was in a situation to profit by it. The deliverance of the specification is now made precedent to granting the letters patent; and they will not be granted unless it be distinct and explicit.

Letters patent were formerly obtained upon petition and affidavit to the Crown, setting forth that the petitioner had, after great labour and expense, made a certain discovery, which, he believed, would be of great public utility; and that he was the first inventor. The petition was then referred to the Attorney and Solicitor-

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General, who were separately attended by the applicant and all competitors, if there were any.

But it was found that this was a very clumsy and inconvenient mode of proceeding; and after a great many abortive attempts at legislation, it was enacted in 1852, by the Patent Law Amendment Act, the 15 & 16 Vict. c. 83, that the Lord Chancellor, the Master of the Rolls, the Attorney-General and the Solicitor-General for England, the Lord Advocate and the Solicitor-General for Scotland, and the Attorney-General and the Solicitor-General for Ireland for the time being, with such persons as may from time to time be appointed by her Majesty, should be commissioners of patents for inventions. The vice of the former system had been that the law officers of the Crown were the sole judges of what patents should or should not be granted. But, whatever their ability as lawyers, these gentlemen might not have the scientific or peculiar knowledge required to decide in numerous patent cases; and such being the authority under which patents were granted, we need not wonder at the numbers of them which were overthrown. Now, however, parties distinguished for their scientific attainments may be named commissioners of patents; and it may fairly be presumed that their opinions will have considerable influence in deciding whether they should or should not be granted.

Mode of applying for Patents.—Persons applying for letters patent present petitions to the Commissioners, accompanied by a declaration and a provisional specification. The object of the latter is to state distinctly the nature of the invention; and if properly made, it secures the inventor in his invention for a period of 6 months, when he may proceed to apply for and take out letters patent. The application for the letters must be advertised in the *Gazette*. Parties who suppose they have a right to object to the letters patent being issued, may then, if they think fit, come forward; and their objections being heard and decided upon, the letters are either granted or refused. The peculiar forms to be observed, and the routine to be followed on applications of this sort, may be learned from the compendious treatises of Webster and Norman on the new patent law.

Formerly letters patent had to be separately taken out for England, Scotland, and Ireland. Now, however, the same patent serves for the whole United Kingdom, and the expenses have been greatly diminished.

Caveats used formerly to be lodged at the offices of the Attorney-General and the Solicitor-General, describing inventions in general terms, and requiring notice to be given to the person entering the caveat, when application was made for a patent for a like invention; but this practice has been abolished, and caveats are no longer allowed to be lodged. Those who mean to contest patents, or who are afraid of the encroachments of others, must, consequently, keep a watchful eye upon the notices in the *Gazette*, as they afford the only information in regard to the claims made for patents.

General Conditions as to Patents.—The *novelty* and *utility* of the invention are essential to the validity of a patent; if it can be shown to have been in use previously to the grant of the patent, or to be of no utility, it will be void. It must also be for something vendible — something 'material and useful made by the hands of man.' (Lord Kenyon, 8 *T. R.* 99.) A philosophical principle only, neither organised, nor capable of being so, is no ground for a patent; because it is an element and rudiment of science, and which, till applied to some new production from these elements, cannot, with justice to other inventors, be applied to the exclusive use of any one of them. In all patents there is required, in the words of Lord Tenterden, 'something of a *corporeal or substantial nature*, something that *can be made* by man from the matters subjected to his art and skill, or at the least, some *new mode of employing practically his art and skill*.' (Godson *On the Law of Patents*, p. 81.) Previously to Lord Tenterden, it had been ruled that a new process or method was not the subject of a patent. But his lordship having suggested that 'the word manufacture (in the statute) may, perhaps, extend to a *new process* to be carried on by known implements, or elements acting upon known substances, and ultimately producing some other known substance &c.' (Godson, p. 83), this principle of interpretation has now been adopted.

A patent for a machine, each part of which was in use before, but in which the *combination* of the different parts is *new*, and a *new result* is obtained, is valid. But, in order to its being valid, the specification must clearly express that it is in respect of such new combination or application, and of that only; and not lay claim to original invention in the use of the materials.

A patent may be granted for an addition to an old invention. But the patent must be *confined to the addition* or improvement, that the public may purchase it without being encumbered with other things. If the patent include the whole, it will be void; for the property in the addition or improvement can give no right to the thing that has been improved. (Godson, p. 71.)

A valid patent may be obtained for an invention '*new in this realm*,' though it may have been previously practised in a foreign country.

A patent is void, if it be for several distinct inventions, and *any one of them* fail of originality.

The specification must be prepared with *great care*. It should set forth the invention fully and correctly. The terms used must be clear and unambiguous; no necessary description must be omitted nor what is unnecessary be introduced; and the invention must be described in the *best and most improved state* known to the inventor. If any one of these conditions be not complied with, the patent will be void. Any inaccurate or defective statement, were it even inserted through inadvertency, will vitiate the whole.

An injunction may be obtained for the infringement of a patent, in the same way as for a violation of the Copyright Acts.

Patents have been sometimes extended by Act of Parliament beyond the term of 14 years, on the ground that the term was too short properly to reward the inventor.

We subjoin the forms referred to in the Patent Act, the 15 & 16 Vict. c. 83.

No.

PETITION.

To the Queen's most excellent Majesty.

The humble petition of [*here insert name and address of petitioner*] for &c.

Sheweth—That your petitioner is in possession of an invention for

[*the title of the invention.*]

which invention he believes will be of great public utility; that he is the true and first inventor thereof; and that the same is not in use by any other person or persons, to the best of his knowledge and belief.

Your petitioner therefore humbly prays that your Majesty will be pleased to grant unto him, his executors, administrators, and assigns, your

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royal letters patent for the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man [*colonies to be mentioned, if any*], for the term of fourteen years, pursuant to the statutes in that case made and provided.

And your petitioner will ever pray &c.

No.

DECLARATION.

I of in the county of do solemnly and sincerely declare, That I am in possession of an invention for &c.

[*the title as in petition.*]

which invention I believe will be of great public utility; that I am the true and first inventor thereof; and that the same is not in use by any other person or persons, to the best of my knowledge and belief [*where a complete specification is to be filed with the petition and declaration, insert these words*:—'and that the instrument in writing under my hand and seal, hereunto annexed, particularly describes and ascertains the nature of the said invention and the manner in which the same is to be performed']; and I make this declaration conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the session of Parliament held in the fifth and sixth years of the reign of his late Majesty King William IV., intituled 'An Act to repeal an Act of the present Session of Parliament, intituled "An Act for the more effectual abolition of Oaths and Affirmations taken and made in various Departments of the State, and to substitute Declarations in lieu thereof, and for the more entire Suppression of voluntary and extra-judicial Oaths and Affidavits," and to make other Provisions for the Abolition of unnecessary Oaths.' *A.B.*

Declared at this day of A.D. before me,

A Master in Chancery, *or* Justice of the Peace.

No.

PROVISIONAL SPECIFICATION.

I do hereby declare the nature of the said invention for

[*insert title as in petition.*]

to be as follows

[*here insert description.*]

Dated this day of A.D.

(*To be signed by applicant or his agent.*)

REFERENCE.

(*To be endorsed on the Petition.*)

Her Majesty is pleased to refer this petition to to consider what may be properly done therein.

————, Clerk of the Commissioners.

WARRANT.

In humble obedience to her Majesty's command referring to me the petition of of , to consider what may be properly done therein, I do hereby certify as follows: That the said petition sets forth that the petitioner

[*Allegations of the petition.*]

And the petitioner most humbly prays,

[*Prayer of the petition.*]

That in support of the allegations contained in the said petition, the declaration of the petitioner has been laid before me, whereby he solemnly declares, that

[*Allegations of the declaration.*]

That there has also been laid before me [a provisional specification signed , and also a certificate,] *or* [a complete specification, and a certificate of the filing thereof,] whereby it appears that the said invention was provisionally protected [*or protected*] from the day of A.D. in pursuance of the statute:

That it appears that the said application was duly advertised.

Upon consideration of all the matters aforesaid, and as it is entirely at the hazard of the said petitioner whether the said invention is new or will have the desired success, and as it may be reasonable for her Majesty to encourage all arts and inventions which may be for the public good, I am of opinion: that her Majesty may grant her royal letters patent unto the petitioner, his executors, administrators, and assigns, for his said invention within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man [*colonies to be mentioned, if any*], for the term of fourteen years, according to the statute in that case made and provided, if her Majesty shall be graciously pleased so to do, to the tenor and effect following: viz.:—

Given under my hand, this day of A.D.

Seal of the Commissioners.

The letters patent are then issued.

The schedule of fees charged on applying for or taking out letters patent, in the 15 & 16 Vict. c. 83, has been repealed, and the following stamp duties have been imposed in their stead, 16 & 17 Vict. c. 5.

Schedule of Stamp Duties.

	£	s.	d.
On petition for grant of letters patent	5	0	0
On certificate of record of notice to proceed	5	0	0
On warrant of law officer for letters patent	5	0	0
On the sealing of letters patent	5	0	0
On specification	5	0	0
On the letters patent, or a duplicate thereof, before the expiration of the third year	50	0	0
On the letters patent, or a duplicate thereof, before the expiration of the seventh year	100	0	0
On certificate of record of notice of objection	2	0	0
On certificate of every search and inspection	0	1	0
On certificate of entry of assignment or license	0	5	0
On certificate of assignment or license	0	5	0
On application for disclaimer	5	0	0
On caveat against disclaimer	2	0	0
On office copies of documents, for every 90 words	0	0	2

By the 22 Vict. c. 13, the Secretary for War is enabled to avail himself of, and keep secret, any invention for improvements in instruments and munitions of war.

The reader will find a great deal of curious and instructive information with respect to patents in the *Report of the Committee of the House of Commons* on that subject (No. 332, Sess. 1829), particularly in the evidence and papers laid before the Committee by Mr. Farey. The treatise on the *Law of Patents and Copyrights*, by Mr. Godson, and the late treatise on the *Law of Patents*, by Mr. Norman, are clear and able. The most important *Report*, however, on the subject of patents is that of the House of Commons' Committee of 1864, of which Lord Stanley was chairman.

PATRAS or PATRASSO. A seaport in the NW. corner of the Morea, near the entrance of the Gulf of Lepanto, lat. 38° 14′ 25″ N., long. 21° 46′ 20″ E. Population in 1860, 18,342.

The port lies a little to the northward of the town; but the part fronting it is unsafe, and exposed to heavy seas, particularly in winter. Vessels, therefore, go a little farther up the gulf, where there is a mole or quay, and where they can lie close to the wharf. There is a lighthouse on the mole, which gives a flash every two minutes. It is 55 feet above high-water mark, and is visible for 7 miles. It was built in 1859, and much improved in 1864. Patras has a more extensive trade than any other port of Greece. The tonnage of 137 British vessels engaged in the trade of Patras in 1867 was 48,739 tons,

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and of 257 other foreign vessels 17,826 tons. The principal exports are currants, oil, valonia, wine, raw silk, raw cotton, grain, wool, skins, wax &c. Of these, currants are by far the most important. The fruit is larger, and freer from sand and gravel, than that of the Ionian Islands. They are shipped in casks of various sizes; but as the weight of the cask is included in that of the fruit, it is said to be, for the most part, heavier and stronger than necessary. Morea currants are preferred in most countries, except England; but here the currants of Zante are held in equal, or perhaps greater, estimation. The export of currants from Patras may, in good seasons, average from 150,000 to 200,000 cwt. a-year. Hitherto the produce of the crop has varied extremely in different seasons. But within the last few years it has been found that, through the judicious application of sulphur in the cultivation of the plant, the attacks of blight are obviated, and the security of the crop greatly increased. The entire annual produce of currants in Greece may be estimated on the average at about 50,000 tons; but though the shipments of currants from the Morea in 1867 reached 48,650 tons, being 7,647 tons in excess of those of the previous year, the price was so low that the value of the exports in 1867 was only 744,472*l.*, while that of the exports in 1866 was 720,885*l.* In 1867 we imported 1,002,366 cwt. currants, of which 970,681 cwt. came from Greece. The crops of oil are even more fluctuating than those of currants formerly were. 5,000 tons of valonia, valued at 50,000*l.*, were exported from Patras in 1867; and the silk crop having proved good, about 65,000 okes (178,750 lb.) of cocoons were exported; her total exports in that year being valued at 538,880*l.* The imports at Patras (valued at 52,900*l.* in 1867), as at the other Greek ports, consist principally of sugar, coffee, and other colonial products; plain and printed cotton stuffs, woollen goods, salted fish, iron, tin plates, hardware, coal, cordage, hemp, deals &c. Imported articles are brought principally from the Ionian Islands, Malta, Venice, Leghorn, Marseilles, and Trieste; but, from the want of authentic details, it is quite impossible to form any perfectly accurate estimate of their amount, either as respects Patras, or any other Greek port.

We subjoin an account of the trade between the United Kingdom and Greece for the years 1864—1867.

Imports from Greece into the United Kingdom, 1864—1867.

Articles		Quantities				Computed Real Value			
		1864	1865	1866	1867	1864	1865	1866	1867
						£	£	£	£
Cotton, raw	cwt.	3,800	9,556	390	246	39,246	48,967	2,391	1,152
Emery stone	"	3,786	9,502	17,134	15,521	1,703	4,047	7,713	6,894
Fruit: currants	"	586,510	690,921	546,761	723,342	515,380	595,003	550,101	668,679
raisins	"	698	1,036	2,440	1,227	1,027	1,453	3,824	1,714
Lead, pig and sheet	tons	—	—	1,222	6,545	—	—	23,781	122,076
Madder root	cwt.	6,919	2,598	1,378	742	17,561	5,719	2,593	1,603
Oil or spirit of turpentine	"	6,341	2,300	65	100	20,129	7,586	156	184
Rosin	"	7,393	6,609	508	345	11,075	7,695	201	140
Sponge	lb.	137,566	140,554	186,356	422,791	15,609	25,506	19,544	30,555
Tobacco, unmanufactured	"	388,516	44,019	221,818	517,514	7,845	881	4,544	10,533
Turpentine	cwt.	27,014	16,189	6,610	—	35,015	14,709	2,875	—
Valonia	tons	1,992	4,170	2,685	1,914	24,998	59,415	38,262	26,809
Wine	gallns.	10,451	42,737	52,063	12,574	1,045	4,211	4,114	1,107
All other articles	value	—	—	—	—	19,851	20,267	13,239	14,303
Total	—	—	—	—	—	740,535	795,469	673,963	885,793

Exports to Greece of the Produce of the United Kingdom, 1864—1867.

Articles		Quantities				Declared Real Value			
		1864	1865	1866	1867	1864	1865	1866	1867
						£	£	£	£
Alkali, soda	cwt.	11,152	13,513	11,664	5,543	4,021	4,950	5,169	2,609
Apparel and haberdashery	value	—	—	—	—	11,994	16,523	10,184	11,414
Coals, cinders and culm	tons	22,468	37,853	38,919	56,256	11,543	21,450	23,491	36,236
Copper, wrought and unwrought	cwt.	3,297	2,408	1,284	1,421	17,461	11,838	6,231	6,073
Cotton yarn	lb.	434,888	984,426	444,237	1,184,660	45,627	82,654	33,162	74,354
Cottons, entered by the yard	yards	7,219,761	12,169,990	9,308,272	12,900,906	192,211	293,387	211,055	264,469
at value	value	—	—	—	—	1,159	2,056	2,566	4,071
Earthenware and porcelain	"	—	—	—	—	4,587	6,180	1,451	1,575
Gunpowder	lb.	588,750	493,367	556,061	849,375	15,942	14,087	14,751	13,446
Hardwares and cutlery, unenumerated	cwt.	1,509	1,251	1,193	872	7,370	6,013	5,857	9,990
Iron, wrought and unwrought	tons	1,783	3,114	2,510	2,638	18,686	28,816	22,881	21,427
Linens, entered by the yard	yards	495,738	550,271	370,227	265,094	16,580	20,076	11,984	10,334
Sugar, refined	cwt.	1,050	579	195	3,082	1,508	870	283	5,192
Tin, unwrought	"	821	580	565	176	4,363	2,496	2,536	809
Tin plates	value	—	—	—	—	4,039	2,559	2,435	2,808
Woollens, entered by the yard	yards	456,638	513,721	557,923	271,604	27,009	32,192	32,131	15,700
at value	value	—	—	—	—	1,562	1,255	1,322	289
All other articles	"	—	—	—	—	47,933	35,843	29,591	40,620
Total	—	—	—	—	—	433,687	582,299	417,643	514,686

Between 1859–63, the trade of Greece was as follows:—

Years	Imports	Exports
	value	value
1859	£1,741,568	£996,009
1860	2,058,934	1,088,122
1861	1,813,960	1,158,980
1862	1,755,917	1,184,419
1863	2,280,580	935,605

One-half of the exports of Greece are shipped to the United Kingdom. The import trade is shared between Great Britain, Turkey, France, Austria, Italy, and Russia.

Money, Weights and Measures.—The following are the British equivalents of the Greek moneys, &c.:—

100	lepta	equal to	1	drachma
28·12	drachmas	"	1	£ sterling
2,128	Venetian lb.	"	1	ton
400	drams	"	1	oke
1	oke	"	2¾	lb.
1	kilo	"	1	bushel
1	pik	"	25½	inches
1	do. for cloth	"	27	inches
8¾	stremma	"	1	acre

The paper circulation of the Greek National Bank on Dec. 31, 1867 (Old Style), was 20,127,435 drachmas. The specie in the coffers of the bank

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and its branches, was 9,505,722 drachmas, and the debt due to it by the Government 9,521,943 drachmas.

Tariff.—In February 1867, the duty on all articles of export was abolished, except on valonia, raisins (including currants), and figs, and it was to cease on these also on Oct. 5, 1867.

On the other hand, the duties on almost every article of import have been increased. The basis of the tariff, supposed to be 10 per cent. ad valorem, is in reality on many articles a great deal higher. Thus:—

	per cent.
Manufactured goods pay about	15 to 20
Bottled wine of ordinary quality	30 „ 40
Scented soap	60 „ 100
Gloves	15 „ 20

In addition to this there is about ½ per cent. town dues, and ½ per cent. mole dues. (Mr. Consul Ongley's and Mr. Consul Martin's *Reports* of April 24 and June 9, 1868.)

PORT CHARGES IN THE KINGDOM OF GREECE.

Tonnage.

In the Ports of Patras, Syra, Nauplia, Piræus, Marathonensis, Pylos, Calamata, and Navarino.

On vessels under 5 tons	free
of 20 „	9 lep.
above 20 „	12 lep.

In the other Ports.

On vessels under 5 tons	free
of 20 „	6 lep.
above 20 „	9 lep.

Permit of Departure.

On vessels under 5 tons	free
of from 5 to 20 tons	50 lep.
21 to 50 „	1 dr.
51 to 100 „	2 drs.
101 to 200 „	5 drs.
201 tons and above	5 drs.

Lighthouse (only where there is one).

On vessels under 5 tons	free
of from 5 to 20 tons	50 lep.
21 to 50 „	1 dr.
51 to 101 „	2 drs.
101 to 200 „	5 drs.
201 to 300 „	8 drs.
301 tons and above	9 drs.
When gunpowder remains on board, for every 2½ lb. per month of 30 days	2 lep.
When it is placed in the public magazine, for the same quantity and time	3 lep.

Observations on the Tonnage Duty.—1. Vessels arriving from abroad loaded, and which discharge their cargoes, and depart loaded, pay the whole duty.

2. Vessels arriving from abroad loaded, and which depart in ballast, pay two-thirds of the duty, which is also exacted if they arrive in ballast and depart loaded.

3. Vessels arriving from abroad in ballast, and departing without lading, or arriving and departing with cargo, and not discharging any of it, pay one-third of the duty.

4. Vessels arriving from and going to another port of the kingdom pay but one-half of the duty.

5. A vessel is considered as loaded, whether she be so fully or partially.

Exceptions.—1. Every vessel forced to enter a port, either by a storm or in consequence of damage, is exempted from all charges during 8 days.

2. Every vessel entering a port, from whatever cause, and destined to another port, and the master of which shall immediately make a declaration to the captain of the port, that he has no intention either of loading or discharging his goods, may remain 5 days without paying any duty except the lighthouse duty. He is permitted also to receive or to deliver letters or money, unless otherwise provided for by special ordinances.

In 1867 a new tax, called *mole dues*, of 10 leptas (⅒ shilling) per ton, was imposed on all vessels entering the port.

Quarantine.—From the Board of Trade notice of Sept. 3, in the *London Gazette* of Sept. 4, 1868, it appears that a steamboat or merchant vessel, whatever its nationality or port of departure, is not required, on entering a Greek port, to have a bill of health visé by a Greek or other consul, unless cholera or other infectious disease is prevalent on the Mediterranean coast. If cholera be prevalent, and there is no Greek or any foreign consul at the port of departure, the Greek authorities will ascertain the sanitary condition of that port, and take such steps with regard to quarantine as seem to them best calculated to promote the public health. The certificate of a merchant, Greek or foreign, at the port of departure, would influence, though it would not bind, the quarantine authorities.

Commerce, Shipping &c.—The Greeks have particularly distinguished themselves by the spirit and success with which they have engaged in naval and mercantile enterprises. Their commerce, next to their freedom, was the grand source of the prosperity of Athens, Corinth, and other Greek cities of antiquity. 'C'est, au reste, à cet esprit de commerce, qui s'empara de la plus grande partie des habitans de la Grèce, que ces peuples ont été redevables de ce degré de puissance et de considération dont ils ont joui pendant quelques siècles. Une nation commerçante est, en général, une nation active et industrieuse. Le trafic maritime surtout exige beaucoup de travail, de hardiesse et de sagacité. Ces qualités influent nécessairement sur les mœurs, et rendent les esprits plus propres aux grandes entreprises.' (Goguet, *De l'Origine des Loix etc.* iii. 155.) And in these respects the modern Greeks have been no unsuccessful imitators of their illustrious progenitors. The great articles of export from Greece consist of currants, silk, figs, wool, olive oil, valonia, wine, sponge, wax, tobacco &c.; the principal imports being manufactured cotton and woollen goods, corn, with a great variety of subordinate articles, principally from England, but partly, also, from France and Germany. The mercantile navy of Greece was in 1863 estimated at 4,452 vessels, of the aggregate burden of 262,531 tons, employing 24,672 seamen. The Greeks have, in fact, attained to the distinction of being the carriers, factors, and traders of the Levant.

We borrow from Mr. Consul Merlin's last *Report* the annexed table, showing the trade at the Piræus in 1866 and 1867:—

	Total No. of all Vessels, including Coasting Trade	Total Tonnage	Total Value of Cargoes
Entered			£
1866	5,703	390,876	825,130
1867	5,442	392,127	906,401
Cleared			
1866	5,716	390,834	112,281
1867	5,330	387,128	135,810

It is expected that the railway from the Piræus to Athens will be completed this year, 1869.

We avail ourselves of this opportunity to observe that the prejudices entertained in this country against the Greeks are alike unreasonable and ill-founded. It was not to be expected that they should be trodden under foot, and subjected for centuries to the brutal tyranny of the Turks, without contracting many of the vices incident to so degraded a state. But their enterprise,

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ingenuity, and activity have not been impaired; and the bad habits that were forced upon them in their enslaved condition are gradually disappearing. Whatever there is of industry or improvement in Turkey, is wholly owing to the Greeks, or, if not to them, to some Christian tribe. The Turks have not made, and we believe we may safely affirm never will make, the smallest advance. Their character and their religion are insuperable obstacles to their progress; and their expulsion from Europe would be more for the advantage of this quarter of the world than anything else that appears possible. Neither have we any doubt that eventually they will be expelled. The Greeks are gaining every day upon the Turks; and, as the antipathy between the races is strong, deep-rooted, and all but ineradicable, the presumption is, that as soon as the Christians gain the ascendency, the Turks will themselves withdraw to Asia. The selfishness of some of the Christian Powers, and the miserable jealousies of others, may retard for a time this desirable consummation. But in whatever way it may be brought about, whether with or without Russian assistance, it will be most beneficial; and we hardly think that it is likely to be long delayed.

It is deeply to be regretted that Candia, or Crete, was not either added to the new kingdom of Greece, or made independent. We cannot help considering it as disgraceful to the Christian nations of Europe, that this famous island, where European civilisation first struck its roots, should be consigned to the barbarians by whom it is now laid waste. It is as well entitled to the favourable consideration of England, France, and Russia, as any part of Continental Greece; and we do hope that measures may yet be devised for rescuing it from the atrocious despotism by which it has been so long weighed down.

PATTERNS. Specimens or samples of commodities, transmitted by manufacturers to their correspondents, or carried from town to town by travellers, in search of orders.

PAWNBROKERS AND PAWNBROKING. A pawnbroker is a species of banker, who advances money, at a certain rate of interest, upon security of goods deposited in his hands; having power to sell the goods, if the principal sum and the interest thereon be not paid within a specified time.

1. *Advantages and Disadvantages of Pawnbroking.*—The practice of impledging or pawning goods, in order to raise loans, is one that must necessarily always exist in civilised societies, and is, in many cases, productive of advantage to the parties. But it is a practice that is extremely liable to abuse. By far the largest proportion of the bonâ fide borrowers of money on pawn consist of the lowest and most indigent classes; and were the lenders not subjected to any species of regulation, advantage might be taken (as, indeed, it is occasionally taken, in despite of every precaution) of their necessities, to subject them to the most grievous extortion. But, besides those whose wants compel them to resort to pawnbrokers, there is another class, who have recourse to them in order to get rid of the property they have unlawfully acquired. Not only, therefore, are pawnbrokers instrumental in relieving the pressing and urgent necessities of the poor, but they may also, even without intending it, become the most efficient allies of thieves and swindlers, by affording them ready and convenient outlets for the disposal of their ill-gotten gains. The policy of giving legislative protection to a business so liable to abuse, has been doubted by many. But though it were suppressed by law, it would always really exist. An individual possessed of property which he may neither be able nor willing to dispose of, may be reduced to a state of extreme difficulty; and in such case, what can be more convenient or advantageous for him than to get a loan upon a deposit of such property, under condition that if he repay the loan, and the interest upon it, within a certain period, the property will be returned? It is said, indeed, that the facilities of raising money in this way foster habits of imprudence; that the first resort for aid to a pawnbroker almost always leads to a second, and that it is impossible so to regulate the business, as to prevent the ignorant and the necessitous from being plundered. That this statement, though exaggerated, is, to a certain extent, true, no one can deny. On the other hand, however, the capacity of obtaining supplies on deposits of goods, by affording the means of meeting pressing exigencies, in so far tends to prevent crime, and to promote the security of property; and it would seem as if the desire to redeem property in pawn would be one of the most powerful motives to industry and economy. At the same time, too, it must be borne in mind, that it is not possible, do what you will, to prevent those who are poor and uninstructed from borrowing; and that they must, in all cases, obtain loans at a great sacrifice, and be liable to be imposed upon. But the fair presumption is, that there is less chance of any improper advantage being taken of them by a licensed pawnbroker, than by a private and irresponsible individual. Although, however, the business had all the inconveniences, without any portion whatever of the good which really belongs to it, it would be to no purpose to attempt its suppression. It is visionary to imagine that those who have property will submit to be reduced to the extremity of want, without endeavouring to raise money upon it. Any attempt to put down pawnbroking would merely drive respectable persons from the trade, and throw it entirely into the hands of those who have neither property nor character to lose. And hence the object of a wise Legislature ought not to be to abolish what must always exist, but to endeavour, so far at least as is possible, to free it from abuse, by enacting such regulations as may appear to be best calculated to protect the ignorant and the unwary from becoming the prey of swindlers, and to facilitate the discovery of stolen property.

2. *Obligations under which Pawnbrokers should be placed.*—For this purpose it seems indispensable that the interest charged by pawnbrokers should be limited; that they should be obliged to give a receipt for the articles pledged, and to retain them for a reasonable time before selling them; that the sale, when it does take place, should be by public auction, or in such a way as may give the articles the best chance for being sold at a fair price; and that the excess of price, if there be any, after deducting the amount advanced, and the interest and expenses of sale, should be paid over to the original owner of the goods. To prevent pawnbrokers from becoming the receivers of stolen goods, they should be liable to penalties for making advances to any individual unable to give a satisfactory account of the mode in which he became possessed of the property he is desirous to pawn; the officers of police should at all times have free access to their premises; and they should be obliged carefully to describe and advertise the property they offer for sale.

3. *Law as to Pawnbrokers.*—It may appear singular that pawnbrokers should hardly have

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been named in any legislative enactment till after the middle of last century. It was enacted by the 30 Geo. II. c. 24 that a *duplicate* or receipt should be given for goods pawned; and that such as were pawned for any sum less than 10*l.* might be recovered any time within *two* years, on payment of the principal and interest; but the rate of interest was not fixed. This defect was supplied by the 25 Geo. III. c. 48: but the Act 39 & 40 Geo. III. c. 99 (*though* slightly modified by subsequent Acts) contains the latest and most complete regulations on the subject.

Every person exercising the trade of a pawnbroker must take out a license, renewable annually, 10 days at least before the end of the year, for which he shall pay, within the cities of London and Westminster, and the limits of the twopenny post, 15*l.*, and everywhere else, 7*l.* 10*s.* No person shall keep more than 1 house by virtue of 1 license; but persons in partnership need only take out 1 license for 1 house. All persons receiving goods by way of pawn or pledge for the repayment of money lent thereon, at a higher rate of interest than 5 per cent., to be deemed pawnbrokers.

Upon every pledge on which there shall have been lent not exceeding 2*s.* 6*d.*, interest may be charged at the rate of ½*d.* per month.

£	s.	d.				d.	
If 0	5	0	-	-	-	1	per month.
0	7	6	-	-	-	1½	,,
0	10	0	-	-	-	2	,,
0	12	6	-	-	-	2½	,,
0	15	0	-	-	-	3	,,
0	17	6	-	-	-	3½	,,
1	0	0	-	-	-	4	,,
2	0	0	and not exceeding £2 2s.			8	,,

And for every sum exceeding 40*s.* and not exceeding 10*l.*, at the rate of 3*d.* in the pound by the calendar month, including the current month; and so in proportion for any fractional sum.

Pawnbrokers are to give farthings in exchange.

Persons applying to redeem goods pawned within 7 days after the first calendar month after the same shall have been pledged, may redeem the same without paying anything for the first 7 days; and, upon applying before the expiration of 14 days of the second calendar month, shall be at liberty to redeem such goods, upon paying the profit payable for 1 calendar month and the half of another; and in all cases where the parties so entitled, and applying as aforesaid, after the expiration of the first 14 days, and before the expiration of the second month, the pawnbroker is allowed to take the interest of the whole second month; and the same regulations and restrictions shall take place in every subsequent month.

When goods are pawned for more than 5*s.*, the pawnbroker, before advancing the money, shall immediately enter in his books a description of the pawn, the money lent thereon, the day of the month and year, the name of the person pawning, and the name of the street, and number of the house, if numbered, where such person resides, and use of the letter L, if the person be a lodger, and the letters H K, if a housekeeper; and also the name and abode of the owner of the party offering such pledge; and if the money lent shall not exceed 5*s.*, such entry shall be made within 4 hours after the goods shall have been pawned; and the pawnbroker shall, at the time of taking the pawn, give to the person so pawning a duplicate, corresponding with the entry in the book, which the party pawning shall take in all cases; and the pawnbroker shall not receive any pledge, unless the party so pawning shall receive such duplicate.

Rates Payable for Duplicates.

* If under 10*s.*	- - -	½*d.*
10*s.* and under 20*s.*	-	1*d.*
20*s.* and under 5*l.*	-	2*d.*
5*l.* and upwards	-	4*d.*

* (25 Vict. c. 21. A pawnbroker may take ½*d.* on his note or memorandum, when the sum is below 10*s.*)

The duplicate to be produced to the pawnbroker before he shall be compelled to redeliver the respective goods and chattels, except as hereinafter excepted.

The amount of profits on duplicates shall be added on pledges redeemed, and such duplicate shall be kept by the pawnbroker for 1 year.

Persons pawning other people's goods without their consent may be apprehended by the warrant of 1 justice, and convicted in a penalty not exceeding 5*l.* nor less than 20*s.*, and the full value of the goods pawned; and if the forfeiture be not immediately paid, the justice shall commit the party to the house of correction, to be kept to hard labour for 3 calendar months; and if within 3 days before the expiration of the commitment the forfeiture shall not be paid, the justice may order the person to be publicly whipped, and the forfeitures shall be applied towards making satisfaction to the party injured, and defraying the costs; but if the party injured shall decline to accept such satisfaction and costs, or if there be any overplus, such forfeitures or overplus shall be paid to the poor of the parish.

Persons forging or counterfeiting duplicates may be seized and delivered to a constable, who shall convey them before a justice; and, upon conviction, such person shall be committed to the house of correction for any time not exceeding 3 calendar months.

Persons offering pledges, not giving a satisfactory account of themselves, or the means by which they became possessed of such goods, or wilfully giving any false information, or if there shall be reason to suspect that such goods are stolen, or illegally obtained, or if any person not entitled to redeem goods in pawn shall endeavour to redeem the same, they may be seized and delivered to a constable, to be carried before a justice; and if there should appear ground for a second examination, they shall be committed to the common gaol or house of correction, to be dealt with according to law; or where such proceedings are not authorised by the nature of the offence, the party shall be committed for any time not exceeding 3 calendar months.

Persons buying or taking in pledge unfinished goods, linen, or apparel, intrusted to others to wash or mend, shall forfeit double the sum lent, and restore the goods.

Peace officers are empowered to search for unfinished goods which shall be come by unlawfully.

When goods are unlawfully pawned, the pawnbroker is to restore them; and their houses may be searched during the hours of business, by a warrant from a magistrate, for the discovery of such property.

Persons producing notes or memorandums are to be deemed the owners of the property.

Where duplicates are lost, the pawnbroker, upon affidavit made by the owner of such loss before a magistrate, shall deliver another duplicate.

Goods pawned are deemed forfeited at the end of a year; but on notice from persons having goods in pledge, 3 months further are to be allowed beyond the year for redemption: such notice to be given before the twelvemonth is expired.

All goods pawned may be sold at the expira-

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tion of *one* whole year; and all goods so forfeited, on which above 10*s.* and not exceeding 10*l.* shall have been lent, shall be sold by public auction, and not otherwise; notice of such sale being twice given at least 3 days before the auction, in a public newspaper, upon pain of forfeiting to the owner of the goods not more than 5*l.* nor less than 2*l.*

All pictures, prints, books, bronzes, statues, busts, carvings in ivory and marble, cameos, intaglios, musical, mathematical and philosophical instruments, and china, shall be sold by themselves, and without other goods, 4 times only in every year; viz. on the first *Monday* in *January*, *April*, *July*, and *October*, in every year.

Pawnbrokers are not to purchase goods while in their custody, nor take in pledges from persons under 12 years of age, or intoxicated; nor take in any goods before 8 in the forenoon or after 7 in the evening between *Michaelmas-day* and *Lady-day*, or before 7 in the forenoon or after 8 in the evening during the remainder of the year, excepting only until 11 on the evenings of *Saturday*, and the evenings preceding *Good Friday* and *Christmas-day*, and every fast or thanksgiving day.

An account of the sale of pledges on which advances of more than 10*s.* have been made, is to be entered by pawnbrokers in a book, and the surplus is to be paid to the owner of the goods pawned, if demanded within *three years* of the sale, under penalty of 10*l.* and treble the sum lent.

Pawnbrokers are to place in view the table of profits; and their name and business is to be placed over the door, on penalty of 10*l.*

Pawnbrokers injuring goods, or selling them before the time specified, shall, upon application to a magistrate, be compelled to make satisfaction for the same; and if the satisfaction awarded shall be equal to or exceed the principal and profits, the pawnbroker shall deliver the goods pledged to the owners without being paid anything for principal or profit.

Pawnbrokers shall produce their books before a magistrate; or, refusing so to do, shall forfeit a sum not exceeding 10*l.* nor less than 5*l.*

Pawnbrokers offending against this Act, shall forfeit for every offence not less than 40*s.* nor more than 10*l.*

It has been held by the Court of King's Bench, that a pawnbroker has no right to sell unredeemed pledges, after the expiration of a year from the time the goods were pledged, if, while they are in his possession, the original owner tender him the principal and interest due. (Walter *v.* Smith, January 22, 1820.) On a motion for a new trial, Lord Tenterden said, 'I am of opinion, that if the pledge be not redeemed at the expiration of a year and a day (and no notice given that 3 months further are to be allowed for its redemption), the pawnbroker has a right to expose it to sale so soon as he can, consistently with the provisions of the Act: but if at any time *before the sale has actually taken place*, the owner of the goods tender the principal and interest, and expenses incurred, he has a right to his goods, and the pawnbroker is not injured; for the power of sale is allowed him merely to secure to him the money which he has advanced, together with the high rate of interest which the law allows to him in his character of pawnbroker.'

By 22 & 23 Vict. c. 14, the provisions of 2 & 3 Vict. c. 71 ss. 32—35 are applied to pawnbrokers. The provisions give magistrates power to award amends against frivolous informations to the extent of 5*l.*, and any penalties to the extent of 10*l.* on common informers in compounding informations; with power to lessen the share of informers, and to mitigate penalties. The word magistrate must be taken to include stipendiary magistrates or justices of the peace.

Such is the present state of the law with respect to pawnbrokers. On the whole, the regulations seem to be judiciously devised. Perhaps, however, the rate of interest on small deposits might be advantageously lowered. The law allows interest at the rate of ½*d.* per month to be charged on loans of 2*s.* 6*d.*, which is at the rate of 20 per cent.: but the same sum of ½*d.* per month is exigible from all smaller loans; and very many do not exceed 1*s.* 6*d.*, and even 6*d.*, the interest on them is exceedingly oppressive. No doubt there is a great deal of trouble with respect to such loans, and the pawnbrokers allege that they form the least profitable part of their business; but still, considering the vast number of advances under 2*s.* 6*d.*, it would seem that the interest on them might be somewhat reduced. Perhaps, too, it might be advisable, still better to secure compliance with the statute, to enact that no one should be licensed as a pawnbroker without producing sufficient security for a certain sum, to be forfeited in the event of his knowingly or wilfully breaking or evading any of its provisions. This would prevent (what Colquhoun says is not an uncommon practice) swindlers from becoming pawnbrokers, in order to get the means of selling stolen goods. (*Treatise on the Police of the Metropolis*, 2nd ed. p. 156; and *private information*.)

It would be a useful regulation to oblige pawnbrokers to insure against losses by fire. Much mischief has been occasioned by the neglect of this precaution.

The duties on pawnbrokers' licenses produced, in the United Kingdom in 1867, 32,107*l.*

4. *Notices of Pawnbroking in Italy, France &c.*—The practice of advancing money to the poor, either with or without interest, seems to have been occasionally followed in antiquity. (Beckmann, vol. iii. p. 14, 1st Eng. ed.) But the first public establishments of this sort were founded in Italy, under the name of *Monti di Pietà*, in the 14th and 15th centuries. As it was soon found to be impossible to procure the means of supporting such establishments from voluntary contributions, a bull for allowing interest to be charged upon the loans made to the poor was issued by Leo X. in 1521. These establishments, though differing in many respects, have universally for their object to protect the needy from the risk of being plundered by the irresponsible individuals to whom their necessities might oblige them to resort, by accommodating them with loans on comparatively reasonable terms. And though their practice has not, in all instances, corresponded with the professions they have made, there seems no reason to doubt that they have been, speaking generally, of essential service to the poor.

From Italy these establishments have gradually spread over the Continent. The *Mont de Piété* in Paris, was established by a royal ordinance in 1777; and after being destroyed by the Revolution, was again opened in 1797. In 1804, it obtained a monopoly of the business of pawnbroking in the capital. Loans are made, by this establishment, upon deposits of such goods as can be preserved, to the amount of two-thirds of the estimated value of all goods other than gold and silver, and to four-fifths of the value of the latter. No loan is for less than 3 francs (2*s.* 6*d.*). The advances are made for a year, but the borrower may renew

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the engagement. Interest is fixed at the rate of one per cent. per month.

The *Mont de Piété* has generally in deposit from 600,000 to 650,000 articles, worth from 12,000,000 to 13,000,000 francs. The expense of management amounts to from 60 to 65 centimes for each article, so that a loan of 3 francs never defrays the expenses it occasions, and the profits are wholly derived from those that exceed 5 francs. At an average the profits amount to about 280,000 francs, of which only about 155,000 are derived from loans upon deposit, about 125,000 being the produce of other funds at the disposal of the company.

In some respects, particularly the lowness of interest upon small loans, and the greater vigilance exercised with respect to the reception of stolen goods, the *Mont de Piété* has an advantage over the pawnbroking establishments in this country. It may be doubted, however, whether it is, on the whole, so well fitted to attain its objects. The limitation of the loans to 3 francs would be felt to be a serious grievance here, and it can hardly be otherwise in France; nor is it to be supposed, that the servants of a great public establishment will be so ready to assist poor persons, having none but inferior articles to offer in security, as private individuals anxious to get business. And such, in point of fact, is found to be the case, not in Paris only, but in all those parts of the Continent where the business of pawnbroking is confined to a few establishments. And hence, though the question be not free from difficulty, it would seem that, were the modifications already suggested adopted, our system would be the best of any.

For further information with respect to this curious and interesting subject, the reader is referred to the *Traité de la Bienfaisance publique* of Degerando, iii. 1–55; besides giving a succinct historical notice of *Monts de Piété*, the learned author has discussed, with equal sagacity and ability, most part of the knotty questions connected with the proper organisation of these establishments, and with their influence on society.

PEARL-ASH. [Potash.]

PEARLS (Dutch, paarlen; Fr. perles; Ger. perlen; Ital. perle; Lat. margaritæ; Russ. shemtschug, perlü; Span. perlas; Arab. looloo; Cing. mootoo; Hin. mootie). Well-known globular concretions found in several species of shell-fish, but particularly the mother-of-pearl oyster (*Concha margaritifera*, Linn.). Pearls should be chosen round, of a bright translucent silvery whiteness, free from stains and roughness. Having these qualities, the largest are of course the most valuable. The larger ones have frequently the shape of a pear; and when these are otherwise perfect, they are in great demand for earrings. Ceylon pearls are most esteemed in England.

Value &c. of Pearls.—Pearls were in the highest possible estimation in ancient Rome, and bore an enormous price. ('Principium culmenque omnium rerum pretii, margaritæ tenent.' Plin. *Hist. Nat.* lib. x. c. 35.) Their price in modern times has very much declined; partly, no doubt, from changes of manners and fashions; but, more probably, from the admirable imitations of pearls that may be obtained at a very low price. According to Mr. Milburn, a handsome necklace of Ceylon pearls, smaller than a large pea, costs from 170*l.* to 300*l.*; but one of pearls about the size of peppercorns may be had for 15*l.*: the pearls in the former sell at a guinea each, and those in the latter at about 1*s.* 6*d.* When the pearls dwindle to the size of small shot, they are denominated *seed* pearls, and are of little value. They are mostly sent to China. One of the most remarkable pearls of which we have any authentic account was bought by Tavernier, at Catifa, in Arabia, a fishery famous in the days of Pliny, for the enormous sum of 110,000*l.* It was pear-shaped, regular, and without blemish. The diameter was ·63 inch at the largest part, and the length from 2 to 3 inches.

Mr. Emanuel says, in 1865 (*Diamonds and Precious Stones*), that 'a perfect white drop pearl of 80 to 100 grains, is worth from 7*l.* to 11*l.* per grain; those of 50 to 80 grains from 4*l.* to 7*l.*; those from 30 to 50 grains from 3*l.* to 5*l.*; smaller sizes bringing from 20*s.* to 60*s.* per grain. Misshapen pearls, called *barrok pearls*, are worth from 10*l.* to 200*l.* per ounce, depending on quality, colour, and size. Pink pearls are worth from 3*s.* to 40*s.* the grain. Black and lead-coloured pearls bring a large price, when they are of a fine shape and good colour. Unbored pearls are called *virgins*, worn ones *widows*. Boring is done best in India, for the Indian borers make the hole smaller and straighter than the English. In drilling, a bow and steel are used with a very fine drill, the pearl being held between two pieces of wood. It is said that the finest pearl necklaces in existence are, that possessed by the Empress of the French, and that presented to the Queen by the East India Company. The Duke of Abercorn possesses a matchless drop pearl of great size.

Much difference of opinion has existed among naturalists with respect to the production of pearls in the oyster; but it seems now to be generally believed that it is the result of disease, and is formed in the same manner as bezoar [Bezoar]; pearls, like it, consisting of successive coats spread with perfect regularity round a foreign *nucleus*. In fact, the Chinese throw into a species of shell-fish (*Mytilus cygneus*, or swan muscle), when it opens, 5 or 6 very minute mother-of-pearl beads strung on a thread; and in the course of a year they are found covered with a pearly crust, which perfectly resembles the real pearl. (Milburn's *Orient. Com.*; Ainslie's *Mat. Indica*; &c.)

Pearl Fisheries.—The pearl oyster is fished in various parts of the world, particularly on the west coast of Ceylon, though of late years the fishery here has not been productive; at Tuticoreen, in the province of Tinnevelly, on the coast of Coromandel; at the Bahrein Islands, in the Gulf of Persia; at the Sooloo Islands; off the coast of Algiers; off St. Margarita, or Pearl Islands in the West Indies, and other places on the coast of Colombia; and in the Bay of Panama, in the South Sea. Pearls have sometimes been found on the Scotch coast, in Scotch rivers, and in various other places in Europe.

The pearl fishery of Tuticoreen is monopolised by the Indian, and that of Ceylon by the Colonial, Government. But these monopolies are of no value; as in neither case does the sum for which the fishery is let equal the expenses incurred in guarding, surveying, and managing the banks. It is, therefore, sufficiently obvious that this system ought to be abolished, and everyone allowed to fish on paying a moderate license duty. The fear of exhausting the banks is quite ludicrous. The fishery would be abandoned as unprofitable long before the breed of oysters had been injuriously diminished; and in a few years it would be as productive as ever. Besides giving fresh life to the fishery, the abolition of the monopoly would put an end to some very oppressive regulations, enacted by the Dutch more than a century ago.

Persian Gulf.—The most extensive pearl fisheries are those on the several banks not far distant from the island of Bahrein, on the West side of the Persian Gulf, in lat. 26° 50′ N., long.

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51° 10′ E.; but pearl oysters are found along the whole of the Arabian coast, and round almost all the islands of the Gulf. Such as are fished in the sea, near the Islands of Karrak and Corgo, contain pearls said to be of a superior colour and description. They are formed of 8 layers or folds, whilst others have only 5, but the water is too deep to make fishing for them either very profitable or easy. Besides, the entire monopoly of the fishery is in the hands of the sheik of Bushire, who seems to consider these islands as his immediate property.

'The fishing season is divided into two portions —the one called the short and cold, the other the long and hot. In the cooler weather of the month of June, diving is practised along the coast in shallow water; but it is not until the intensely hot months of July, August, and September, that the Bahrein banks are much frequented. The water on them is about 7 fathoms deep, and the divers are much inconvenienced when it is cold; indeed, they can do little when it is not as warm as the air, and it frequently becomes even more so in the hottest months of the summer. When they dive, they compress the nostrils tightly with a small piece of horn, which keeps the water out, and stuff their ears with beeswax for the same purpose. They attach a net to their waist, to contain the oysters; and aid their descent by means of a stone, which they hold by a rope attached to a boat, and shake it when they wish to be drawn up. From what I could learn, 2 minutes may be considered as rather above the average time of their remaining under water. Although severe labour, and very exhausting at the time, diving is not considered particularly injurious to the constitution; even old men practise it. A person usually dives 12 to 15 times a day in favourable weather, but when otherwise, 3 or 4 times only. The work is performed on an empty stomach. When the diver becomes fatigued, he goes to sleep, and does not eat until he has slept some time.

'At Bahrein alone, the annual amount produced by the pearl fishery may be reckoned at from 200,000*l.* to 240,000*l.* If to this, the purchases made by the Bahrein merchants or agents at Aboottabee Sharga, Ras-ul Khymack &c. be added, which may amount to half as much more, there will be a total of about 300,000*l.* or 360,000*l.*, but this is calculated to include the whole pearl trade of the Gulf; for it is believed that all the principal merchants of India, Arabia, and Persia, who deal in pearls, make their purchases, through agents, at Bahrein. I have not admitted in the above estimate much more than one-sixth of the amount some native merchants have stated it to be, as a good deal seemed to be matter of guess or opinion, and it is difficult to get at facts. My own estimate is in some measure checked by the estimated profits of the small boats. But even the sum which I have estimated is an enormous annual value for an article found in other parts of the world as well as here, and which is never used in its best and most valuable state, except as an ornament. Large quantities of the seed pearls are used throughout Asia, in the composition of majoons, or electuaries, to form which all kinds of precious stones are occasionally mixed, after being pounded, excepting, indeed, diamonds; these being considered, from their hardness, as utterly indigestible. The majoon, in which there is a large quantity of pearls, is much sought for and valued, on account of its supposed stimulating and restorative qualities.

'The Bahrein pearl fishery boats are reckoned to amount to about 1,500, and the trade is in the hands of merchants, some of whom possess considerable capital. They bear hard on the producers or fishers, and even those who make the greatest exertions in diving hardly have food to eat. The merchant advances some money to the fishermen at cent. per cent., and a portion of dates, rice, and other necessary articles, all at the supplier's own price; he also lets a boat to them, for which he gets one share of the gross profits of all that is fished; and, finally, he purchases the pearls nearly at his own price, for the unhappy fishermen are generally in his debt, and therefore at his mercy.' (*Manuscript Notes communicated by Major D. Wilson, late Political Resident at Bushire.*)

The total number of towns, villages and hamlets which send boats to the pearl fishery is about 140, including those of Bahrein, while the mean number of boats furnished by each is about 40. The sum of fishing vessels would therefore equal 5,600 in all. Each boat owner has to pay for every boat that he mans for the pearl season, a sum amounting to about 30*s.* of English money, besides a small percentage on the produce seldom exceeding a rial and a half, i.e. about 8*s.*; this added to the boat tax gives 38*s.* (Palgrave's *Arabia.*)

The fishery at Algiers was farmed by an English association in 1826, but we are ignorant as to the success of this undertaking.

The pearl fisheries on the coast of Colombia were at one time of very great value. In 1587, upwards of 697 lb. of pearls are said to have been imported into Seville. Philip II. had one from St. Margarita, which weighed 250 carats, and was valued at 150,000 dollars. But, for many years past, the Colombian pearl fisheries have been of comparatively little importance. During the mania for joint-stock companies, in 1825, two were formed—one, on a large scale, for prosecuting the pearl fishery on the coast of Colombia; and another, on a smaller scale, for prosecuting it in the Bay of Panama and the Pacific. Both were abandoned in 1826.

The best fishery ground is said to be in from 6 to 8 fathoms water. The divers continue under water from a minute to a minute and a half, or at most 2 minutes. They have a sack or bag fastened to the neck, in which they bring up the oysters. The exertion is extremely violent; and, contrary to Major Wilson's opinion, it is believed that the divers are unhealthy and short-lived.

In 1866, we imported pearls of the value of 51,816*l.*, chiefly from Egypt, and in 1867, 38,096*l.* worth, chiefly from St. Thomas.

Pearl Shells, commonly called *Mother-of-pearl shells*, are imported from various parts of the East, and consist principally of the shells of the pearl oyster from the Gulf of Persia and other places, particularly the Sooloo Islands, situate between Borneo and the Philippines, the shores of which afford the largest and finest shells hitherto discovered. On the inside, the shell is beautifully polished, and of the whiteness and water of pearl itself: it has the same lustre on the outside, after the external laminæ have been removed. Mother-of-pearl shells are extensively used in the arts, particularly in inlaid work, and in the manufacture of handles for knives, buttons, toys, snuff-boxes &c. The Chinese manufacture them into beads, fish, counters, spoons &c.; giving them a finish to which European artists have not been able to attain. Shells for the European market should be chosen of the largest size, of a beautiful pearly lustre, thick and even, and free from stains. Reject such as are small, cracked, or broken, or have lumps on them. When stowed loose as dunnage, they are sometimes allowed to pass free of freight. (Milburn's *Orient. Com.*)

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In 1867, 36,175 cwt. were imported, valued at 70,120*l*. They are used largely in lacker and inlaid work at Birmingham. [HARDWARE INDUSTRIES.]

PEAS (Ger. erbsen; Fr. pois; Ital. piselli, pisi; Span. pesoles, guisantes; Russ. goroch). The pea is one of the most esteemed of the leguminous or pulse plants. It is supposed to be indigenous to the south of Europe, and was cultivated by the Greeks and Romans, the latter of whom probably introduced it into Britain. There are many varieties; but the common garden pea (*Pisum sativum*) and the common grey or field pea (*Pisum arvense*) are the most generally cultivated; being reared in large quantities in all parts of the country, particularly in Kent. But since the introduction of the drill husbandry the culture of the pea as a field crop has been to a considerable extent superseded by the bean. Sometimes, however, it is drilled along with the latter; for, being a climbing plant, it attaches itself to the bean, so as to admit the ground being hoed; at the same time that the free admission of air about its roots promotes its growth. It is not possible to frame any estimate of the consumption of peas. The field pea is now hardly ever manufactured into meal for the purpose of being made into bread, as was formerly the case in many parts of the country; but there is reason to think that the garden pea is now more extensively used than ever. In 1868, the total acreage in the United Kingdom devoted to the cultivation of peas was 297,612, and the crop of 1866 occupied 323,184, and that of 1867, 320,697 acres. (Loudon's *Ency. of Agriculture*; Brown *On Rural Affairs*, vol. ii. p. 72; *Agricultural Returns*, 1867 and 1868. For an account of the laws regulating the importation &c. of peas, see CORN LAWS AND CORN TRADE.) Leguminous crops are very extensively cultivated in India. In 1867 we imported 1,586,129 cwt. of peas, chiefly from Prussia and North America, of the value of 721,604*l*.

PECK. A dry measure for grain, pulse &c. The standard or Imperial peck contains 2 gallons, or 554·55 cubic inches. Four pecks make a bushel, and 4 bushels a coomb. [WEIGHTS AND MEASURES.]

PELLITORY. The root of a perennial plant (*Anthemis pyrethrum*), a native of the Levant, Barbary, and the south of Europe. The root is long, tapering, about the length and thickness of the little finger, with a brownish cuticle. It is imported packed in bales, sometimes mixed with other roots, from which, however, it is easily distinguished. It is inodorous. When chewed, it seems at first to be insipid, but after a few seconds it excites a glowing heat, and a pricking sensation on the tongue and lips, which remains for 10 or 12 minutes. The pieces break with a short resinous fracture; the transverse section presenting a thick brown bark, studded with black shining points, and a pale yellow radiated inside. It is used in medicine as a stimulant. (Thomson's *Dispensatory*; *British Pharmacopœia*, 1867.)

PENANG. [SINGAPORE.]

PENCILS (Ger. pinsel; Dutch penseelen; Fr. pinceaux; Ital. pennelli; Span. pinceles). The instruments used by painters in laying on their colours. They are of various kinds, and made of various materials; some being formed of the bristles of the boar, and others of camel's hair, the down of swans &c.

PENCILS, BLACK LEAD. [BLACK LEAD PENCILS.]

PENKNIVES (Ger. federmesser; Fr. canifs; Ital. temperini; Span. cortaplumas). Small knives, too well known to need any particular description, used in making and mending pens. The best and most highly ornamented penknives are manufactured in London and Sheffield. [CUTLERY.]

PENNY. Formerly a silver, but now a copper coin. This was the first silver coin struck in England by our Saxon ancestors, being the 240th part of their pound; so that its weight was about 22½ grains troy. [COINS.]

PENNYWEIGHT. A troy weight, being the 20th part of an ounce, containing 24 grains. [WEIGHTS AND MEASURES.]

PENS (Fr. plumes à écrire; Ger. schreibfedern, Ital. penne da scrivere; Russ. pera stwoli). Well-known instruments for writing, usually formed of the quills of the goose, swan, or some other bird. Metallic pens have been occasionally employed for a lengthened period; but it is only within the last quarter of a century that they have been extensively introduced. They are now, however, manufactured in vast quantities, and of an immense variety of forms. But though they have superseded, to a very considerable extent, the use of quills, and have some peculiar advantages, it does not appear possible to give them the elasticity of the quill, nor to fit them so well for quick and easy writing on common descriptions of paper.

PEPPER (Fr. poivre; Ger. pfeffer; Dutch, peper; Ital. pepe; Span. pimienta; Russ. perez; Lat. piper). The berry or fruit of different species of plants, having an aromatic, extremely hot, pungent taste, used in seasoning &c. The following sorts of pepper are met with in commerce:—

I. BLACK PEPPER (Fr. poivre; Ger. schwarzer pfeffer; Ital. pepe negro; Span. pimienta; Sansc. mercha; Hin. col-mirch; Malay, lada; Jav. mariha). The fruit of a creeping plant (*Piper nigrum*), one of the pepper genus, of which there are upwards of 80 species. It is cultivated extensively in India, Siam, the Eastern islands &c. It requires the support of other trees, to which it readily adheres. It climbs to the height of 20 feet; but is said to bear best when restrained to the height of 12 feet. It begins to produce at about the 3rd year, and is in perfection at the 7th; continues in this state for 3 or 4 years; and declines for about as many more, until it ceases to be worth keeping. The fruit grows abundantly from all the branches, in long small clusters of from 20 to 50 grains; when ripe, it is of a bright red colour. After being gathered, it is spread on mats in the sun, when it loses its red colour, and becomes black and shrivelled as we see it. The grains are separated from the stalks by hand rubbing. That which has been gathered at the proper period shrivels the least; but if plucked too soon, it will become broken and dusty in its removal from place to place. The vine produces two crops in the year; but the seasons are subject to great irregularities.

Pepper should be chosen of a pungent aromatic odour, an extremely hot and acrid taste, in large grains, firm, sound, tegument brownish black, and with few wrinkles—for of these it always has some. Reject that which is shrivelled, or small-grained, or which on being rubbed will break to pieces.

In point of quality, the pepper of Malabar is usually reckoned the best; but there is no material difference between it and that of Sumatra, and the other islands. In the market of Bengal, where they meet on equal terms, the produce of Malabar is generally about 2 per cent. higher than the other. In Europe, there is generally a difference of ¼*d.* per lb. in favour of Malabar; but in China they are held in equal estimation.

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Black pepper sold ground is said to be often adulterated with burnt crust of bread.

II. White Pepper is made by blanching the finest grains of the common black pepper by steeping them for a while in water, and then gently rubbing them. so as to remove the dark outer coat. It is milder than the other, and is much prized by the Chinese; but very little is imported into England.

III. Cayenne Pepper is the produce of several varieties of the *Capsicum*, an annual plant, a native of both the Indies. The best, which is brought home from the West Indies ready prepared, is made from the *Capsicum baccatum* (bird pepper). It has an aromatic, extremely pungent, acrimonious taste, setting the mouth, as it were, on fire, and the impression remaining long on the palate. It is sometimes adulterated with muriate of soda; and sometimes with a very deleterious substance, the red oxide of lead; but this fraud may be detected by its weight, and by chemical tests. [Chillies.]

IV. Long Pepper.—This species is the produce of a perennial (*Piper longum*), a native of Malabar and Bengal. The fruit is hottest in its immature state; and is therefore gathered while green, and dried in the sun. It is imported in entire spikes, which are about 1½ inch long. It has a weak aromatic odour, an intensely fiery pungent taste, and a dark grey colour. The root of long pepper is a favourite medicine among the Hindus.

The quantities of the last 3 species of pepper imported are quite inconsiderable, compared with the quantity of black pepper. (Milburn's *Orient. Com.*; Ainslie's *Mat. Indica*; Thomson's *Dispensatory*; *British Pharmacopœia*, 1867; &c.)

Trade in Pepper. Consumption of, and Duties on, in England.—Pepper is extensively used, all over Europe and the East, as a condiment. It was originally imported into this country by way of the Levant (ante, East India Company); and for many years after the establishment of the East India Company, it formed the most important article of their imports. In nothing has the beneficial effect of opening the Indian trade been so unequivocally displayed as in the instance of pepper. The private traders have resorted to new markets, and discovered new sources of supply, which had previously been wholly unexplored; so that there has been not only a very great increase in the quantity of pepper brought to Europe, but also a very great fall in its price, which does not now exceed a third part of what it amounted to in 1814.

Pepper for a lengthened period was one of the most grossly over-taxed articles in the British tariff. Until 1823, the duty was 2*s.* 6*d.* per lb.—a duty so exorbitant, that one would be inclined to think it had been imposed to put a total stop to the use of the article. In 1826, the duty on pepper from a British possession was reduced to 1*s.* per lb.; but even this duty, as compared with the price of the article (3*d.* to 5*d.* per lb.), was quite oppressive, amounting to no less than from 240 to 400 per cent.; so that it was further and most properly reduced, in 1837, to 6*d.* per lb. And in consequence principally of these reductions, the entries of pepper for home consumption, which, previously to 1826, had not amounted to 1,450,000 lb. in any one year, amounted in 1846 to 3,803,865 lb. Still, however, the duty, as compared with the price of pepper, was decidedly too high; and should not have exceeded 1*d.*, or at most 2*d.* per lb. And in proof of this statement it is enough to mention that from 1846 down to 1866 the entries for consumption did not sensibly increase; in 1857 they amounted to only 3,656,445 lb. The duty of $6\frac{3}{10}d.$ per lb. produced, in 1865, 124,400*l.* In 1866 it was repealed. By the abolition of the duty, pepper has become accessible to the lower classes, to whom its free use will be of much importance; and the probability is, that the consumption will, in no very lengthened period, be doubled or more.

Years	Imports	Exports
	lb.	lb.
1859	8,710,966	6,651,824
1860	12,810,040	9,131,827
1861	14,681,389	8,065,954
1862	18,115,975	12,674,115
1863	16,810,409	10,011,690
1864	18,536,795	13,156,120
1865	19,203,092	13,835,002
1866	14,044,161	10,448,297
1867	13,913,924	16,329,910

Supply of Pepper.—The following instructive details with respect to pepper are taken from the *Singapore Chronicle*, to which they were contributed by the late John Crawfurd, Esq.—than whom there could be no more competent authority as to such subjects.

Of all the products of the Eastern islands, and of the countries immediately in their neighbourhood, in demand among strangers, black pepper is the most important, both in value and quantity.

The pepper countries extend from about the longitude of 96° to that of 115° E., beyond which no pepper is to be found; and they reach from 5° S. latitude to about 12° N., where it again ceases. Within these limits we have Sumatra, Borneo, the Malayan peninsula, and certain countries lying on the east coast of the Gulf of Siam.

The pepper ports on the north-east coast of Sumatra are Lankat and Delli, with Sardang. The cultivation is carried on by the Batta nation in the interior.

The ports and pepper districts on the south-west coast, are as follow: port and district of Trumah, districts of Pulo Dua and Cluat, coast from Tampat Tuan to Susu, port of Susu, Kualla Batta, Analabu, and districts to the north of Analabu.

Here it is of importance to remark that the culture and production are extremely fluctuating.

On the east coast of the Malayan peninsula, the production of pepper is very considerable, the ports being Patani and Calantan—chiefly the latter. A portion of this, and of the produce of the islands at the mouth of the straits of Malacca and Singapore, is brought to Singapore and Penang; but we believe the greater proportion goes direct to China in junks.

The east coast of the Gulf of Siam, from the latitude of 10½° to that of 12½° N., affords an extensive crop of pepper. The principal ports here are Chantibun, Tungyai, Pongsom, and Kampop; the first two being under the dominion of Siam, and the latter under that of Kamboja. The produce of Borneo is also considerable.

Mr. Crawfurd more recently supplied the subjoined revised estimate of the production of pepper, viz.:—

	lb.
Sumatra (west coast)	20,000,000
Do. (east do.)	8,000,000
Islands in the Straits of Malacca	3,600,000
Malay peninsula	3,733,333
Borneo	2,666,667
Siam	8,000,000
Malabar	4,000,000
Total	50,000,000

PERCH. A long measure, 16½ feet in length. [Weights and Measures.]

PERIODICAL PUBLICATIONS. These, as the name implies, are publications which appear at fixed periods or stated intervals, and consequently include newspapers, monthly and other

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magazines, quarterly reviews, and journals, and all such books as appear at monthly or other intervals. But the term *periodical publications* is usually understood in a more confined sense, or as comprising only magazines and such political, literary, and scientific journals as appear at regular intervals, without including newspapers or works published in parts.

Even when thus restricted, this is a very extensive and important department of literature. No doubt a vast deal of trash gets into print by the agency of magazines that might not otherwise see the light; but most part of these publications contain at the same time some superior articles; and a few are ably conducted and embrace a wide range of topics. Since the establishment of the *Edinburgh Review* in 1802, the quarterly journals, especially those that embrace politics and literature, have risen to great eminence, and have had a powerful influence over the public mind. At present, however, and for some time past, the influence of this class of journals has been declining. An ably conducted daily paper is, at this moment, by far the most powerful engine the press can bring into the field.

From a mercantile point of view, periodical literature is of more importance than most persons would probably be at first disposed to admit. We have enquired with some care into the subject, and we are inclined to think that the following estimate of its extent and value in 1868 may be considered as near the mark as such an estimate can be made.

Monthly Magazines.—These in the United Kingdom amounted, in 1868, including all descriptions, to about 367; and taking their average price at 8*d.*, and their average sale at 2,000 copies, their produce will be 24,467*l.* a month, and 293,604*l.* a-year.

Quarterly Journals.—There are 74 of these; and taking the average price of each at 2*s.* 9*d.*, and their average sale at 2,000 copies, they will produce 20,350*l.* a quarter, and 81,400*l.* a-year. Hence, supposing these estimates to be nearly accurate, the annual produce of the sale of periodical publications (exclusive of what they yield by advertisements) will amount to about 375,000*l.*

PERMIT. A license or instrument, granted by the officers of excise, certifying that the excise duties on certain goods have been paid, and permitting their removal from some specified place to another.

The Acts relative to permits were consolidated by the stat. 2 Wm. IV. c. 16. The Commissioners of Inland Revenue provide moulds or frames for making the paper used in the printing of permits, which have the water mark 'Excise Office' visible in its substance; and the counterfeiting of such frames or paper, or the having the latter in one's possession without being able satisfactorily to account for it, is a felony punishable by transportation. Permits are not delivered except on the receipt of 'request notes,' specifying the places from and to which the goods are to be conveyed. A penalty of 500*l.* is to be imposed on all persons counterfeiting 'request notes,' or fraudulently procuring or misapplying permits; and all goods, for the removal of which permits are necessary, if they be removed without them, are to be forfeited, and the various parties engaged in their removal are to be each amerced in a penalty of 200*l.* It is needless to dwell on the extreme inconvenience that would result from such regulations were permits in extensive use. But such is not the case, and they are now wholly dispensed with, except in the case of a very few articles.

PERNAMBUCO. A city and seaport in the empire of Brazil, inferior only to Rio Janeiro and Bahia in commercial importance; capital of the province of the same name, distant from Bahia 410 miles, from Rio 1,130. The harbour light-house is in lat. 8° 3′ 20″ S., long. 34° 46′ 40″ W. Light revolving with three changes; two white, one following after the other is invisible, then red. Time of revolution, 5′ 15″; each light showing 1′ 45″. Light visible 20 miles in clear weather.

Pernambuco is situated near the most easterly point of the South American continent, nearly in the track of vessels proceeding to India, China, Australia, New Zealand, and the west coast of South America; and is advantageously placed for calling for orders, seeking freight, provisions, or refitting. Distance by mail from England and France, 19 days; Lisbon or Gibraltar, 14 days; New York, 22 days.

There is good anchorage in the roads, for any draught, about 2 miles distant from, and in front of, the harbour. Water supplied in the roads at 70 milreis per 1,200 gallons, in pipes. There is no charge of any kind on vessels calling for orders, water, or provisions. Steamers requiring coals can enter in distress (*por força maior*), without paying anchorage dues.

The harbour is formed by the united mouths of the rivers Capibaribe and Berberibe, and is perfectly safe and easy of access in all weathers. It is protected from the ocean swell by a natural breakwater or reef of soft calcareous or siliceous stone, varying from 15 to 30 feet in breadth at the top, almost perpendicular inside, and sloping rapidly off outside to a great depth. 'No vessel drawing more than 14½ feet can enter at neaps, nor more than 18½ feet at springs.' (Consul Hunt's *Report*, 1864.) There are from 30 to 35 feet of water at parts of the anchorage. The regular traders of the port are sailing vessels of 300 tons and under, and steamers of 500 tons. In December 1867, a vessel of 1,413 tons anchored in the harbour, having entered in ballast, and drawing 17 feet.

Various projects have been submitted from time to time to the Imperial Government for the improvement and enlargement of the port. Meanwhile, it would be possible to effect a great deal at little cost by dredging the bar, and deepening the water in the harbour, so as to admit vessels of greater tonnage. If, in addition, the quays were secured, and the water near them deepened, so as to admit of vessels coming up and lying alongside, every commercial necessity which could be demanded for the next fifty years would be supplied. At the head of the harbour, there is a vast natural basin, at present dry at every low tide, but capable, when dredged out, of forming one of the finest natural docks in the world.

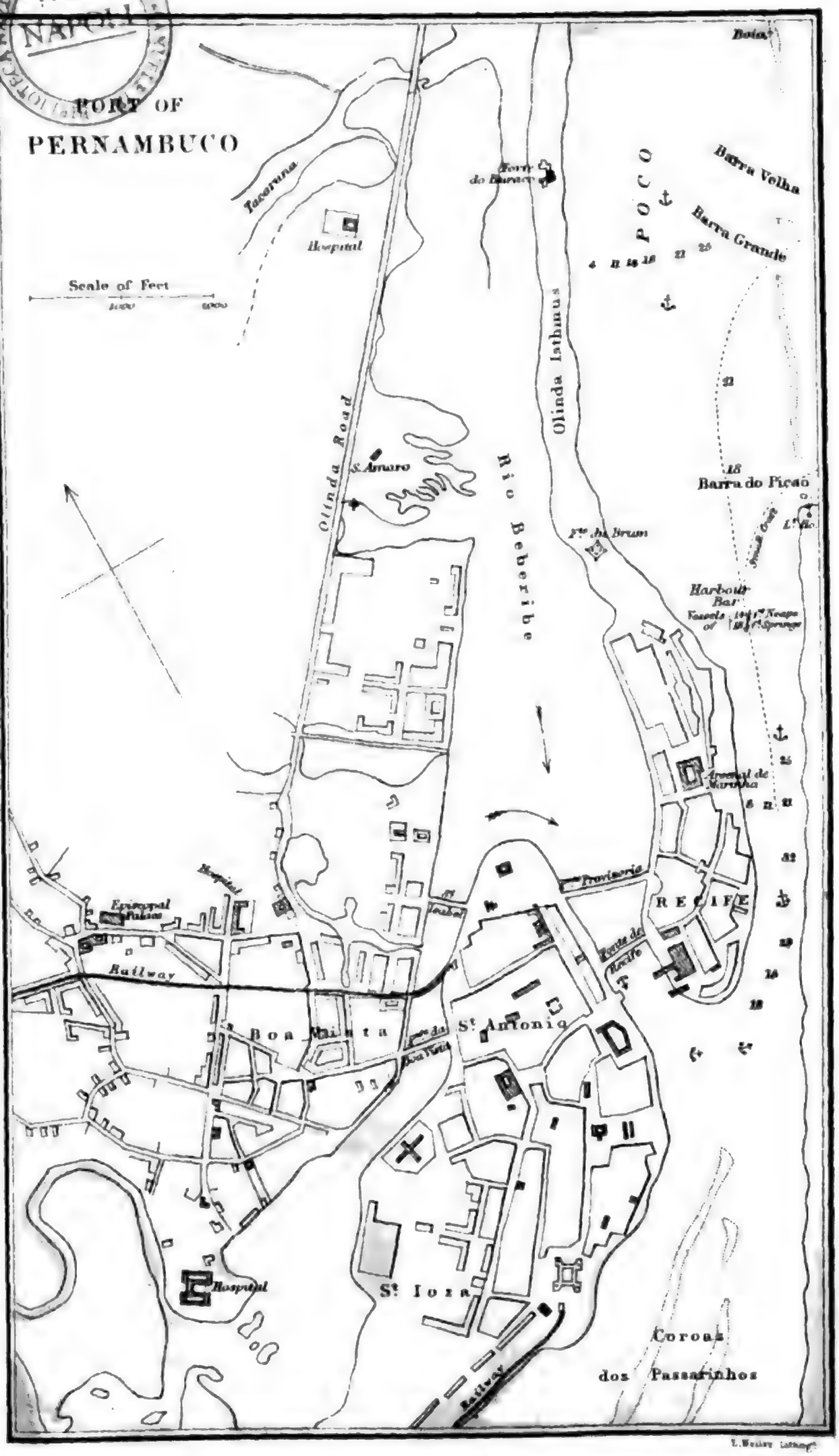
Water is supplied within the harbour, by canoes or covered barges, at 50 milreis the whole, or 25 milreis the half canoe; the latter being sufficient to water any trading ship. Smaller quantities, at 500 reis per pipe, are to be had at the fountains on the quay. There is a small wharf in front of the custom-house, alongside which vessels can lie, but its accommodation is so limited as not to be generally available. Steamers prefer to go alongside this wharf.

Vessels generally discharge into, and always load from, lighters. (See *Table of Lighterage* below.) These lighters can be employed only in the presence of a custom-house officer or guard, on board the vessels using them. The hours fixed by the regulations are from daylight—say 5.30 A.M. to 8 A.M. In order to economise time, the

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PORT OF PERNAMBUCO



London Longmans & Co.

sum of 10 milreis per diem is paid to an officer to go on board before the hour fixed by the regulations, every day that the ship's discharge may last.

All visits to vessels discharging in the port must be made under a license, the stamp of which costs 200 reis (5½*d.* at par). The commander of a vessel lying in the harbour cannot go on board the nearest ship, unless furnished with this permission, under a penalty of 50 milreis and the forfeiture of the boat. These licenses are obtainable on demand at the custom-house.

By the custom of the port, though it is not obligatory, every British vessel pays 240 reis per ton register to the British Hospital, and can have its seamen visited and medicinally treated there, free of any extra expense.

The anchorage dues are the same in the harbour and roads; vessels loading or discharging in the latter will be under the item *franquia*. To take cargo in the roads, a license from the President of the province is necessary. It is easily obtained.

There is a quarantine hospital at the head of the harbour; about a mile from the city there are hulks, with apparatus for careening and masting vessels.

Goods may be warehoused in bond for re-exportation.

Ballast slightly varies in price, but may be stated as costing 1,500 reis for sand, and 3 milreis for stone per ton alongside the ship.

All port charges are by the Brazilian measurement ton, an advance of 40 to 45 per cent. on British register tons. Vessels are manned by the custom-house officials on their first voyage to the port. The annexed tables show the value and extent of the coasting trade with the principal ports of the province of Pernambuco for the six years ending with 1867. It may be stated that the charges on a ship entering and going out loaded average roughly from 20*s.* to 25*s.* per British register ton.

Owing to the high price of cotton, the entries of ships, exports and imports, at Pernambuco represent a far larger amount of business than ordinary.

Exports pay the duties of the general tariff, and in addition those imposed by the Provincial Assembly, which has no power to tax imports. These duties of importation are assessed by a weekly table of average values, prepared by the Customs. The rates were in December 1867 as follow:—

Articles	General Duty	Provincial Duty
Cotton	9 per cent.	5 per cent. and 3 per cent. on the 5 per cent.
Sugar		20 reis per arroba and 3 per cent. on the 20.
Hides		8 per cent. and 3 per cent. on the 8 per cent.
Rum		20 reis per medida and 3 per cent. on the 20.
Molasses		7 per cent. and 3 per cent. on the 7 per cent.

The capital of the province of Pernambuco is the city of RECIFE (of the reef), situated at the confluence and mouth of the rivers Capibaribe and Beberibe, which unite within the city, and flow through it in the form of the letter Z, making two isthmuses parallel to the mainland, the one being in front of the other. The harbour is at the outer or seaward side of the outer isthmus, which is united to the second isthmus by two bridges, and this again to the mainland by two bridges.

The city is partially surface-drained, but not sewered; it is paved, and lighted with gas, and supplied with excellent water.

The greatest extent of the city, from east to west, is about three miles, and from north to south about two miles. In 1862 it contained about 10,000 separate properties, in 230 streets and 15 squares; and it has increased since that time. The population is estimated at about 120,000. The city proper has four parishes: Recife proper, or S. Pedro Gonçaloes, where the principal Government and merchants' offices &c. are; S. Antonio; S. José; Boa Vista. There is a street railway, 5 miles long, from the suburbs to the city.

The exchange is a new building, one of the finest and largest in Brazil. There are branches of two British banks in the city, besides native institutions. Mr. Secretary of Legation Pakenham, in his *Report* of February 14, 1867, stated the capital of the Bank of Pernambuco at 120,000*l.*

The postal service is very defective. There is one daily delivery only in the city, one weekly to the country and interior towns. There is a poste-restante to which letters should be addressed, with the superscription 'Para ficar no Correio.'

Communication out of the province, monthly; neighbouring provinces, twice monthly; the whole coast, from Para to Rio de Janeiro, twice monthly; Bahia and Rio de Janeiro, six monthly; River Plate, three monthly; United States: New York viâ S. Thomas, once monthly; Europe: Lisbon, Bordeaux, Southampton, Marseilles and Gibraltar, twice monthly.

In January 1868 there were 80 wholesale import houses in Pernambuco, of the following nationalities: Brazilian 27, Dutch 1, English 17, French 2, German 6, Portuguese 21, Spanish 1, United States 2.

There are foundries and engine works, capable of repairing trading steamers' engines, and two private steam-driven hydraulic cotton-pressing establishments. There are also two daily newspapers.

Province of Pernambuco. — This region, to which the town is the capital, is situated between 7° 12′ 1″ and 9° 11′ 30″ S. lat., and between 37° 22′ and 44° 8′ W. long. The area is 4,467 square leagues of 20 to a degree. It has 22 leagues of sea-coast, from the river Abiahy to the Persinnuga, and is protected by the remarkable reef, which extends, more or less continuously, from Maranham to Sergipe, at a variable distance from the shore.

Population estimated at 1,220,000. The natives are of every shade of colour, and of every possible admixture of blood, between European, Indian, and Negro. There is hardly any prejudice of colour.

The climate varies. Near the coast it is warm and moist, with a constant breeze. Temperature 85° mean maximum, 70° mean minimum. The hottest months are December and January, the coolest June and July.

The rivers do not take their rise far into the country; but several are navigable for some leagues above their mouths. The province is healthy, except on the low grounds and river banks, on which intermittent fever is occasionally prevalent. Of late years the sanitary condition of the province has improved.

The surface of the soil is very varied, the only level land being the sea-coast. In the interior there are mountainous ranges, dividing large and somewhat arid plains. Brazilians exaggerate the fertility of the soil; but the country is very liable to drought and to the ravages of insects. The soil near the coast is very suitable for sugar, that of the inland region for cotton. But unless

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cotton reaches a high price, its production, owing to the deficiency of roads, is unprofitable. Cotton is generally cultivated by free labour. There are about 700 sugar plantations, but this branch of industry is declining. The number of slaves (about 50,000) is diminishing, and since the abandonment of the trade, the price of slaves has trebled. Senhor Luiz de Carvalho, Deputy Collector of Customs at Pernambuco, states that two-thirds of the plantations are mortgaged at interests varying from 18 to 20 per cent. Many of the slaves have been exported to Rio, though the duties and charges amount to 117 milreis per head.

There are only four roads in the province, three of which extend about 34 miles, the fourth 50 miles, from the capital. On these roads bullock carts are used; but much of the transit is on pack-horses, each of which carries from 300 lb. to 345 lb., and travels 25 miles a day in the dry season. In the wet season the tracks are impassable, and the roads not much better.

The Recife and San Francisco Railway is an English enterprise. It is a single line, 77½ miles long, and 5 ft. 3 in. gauge, running into the country at an angle of about 35° with the coast-line. It is intended to continue the line to about 400 miles. The administration and locomotive drivers are English, the train and station staff Brazilian. A single telegraphic wire extends along the line, and is available for the public at a moderate tariff. The number of cubic yards of earthwork and excavation per mile is about half what is usual in England.

The province sends 6 senators and 13 deputies to the general Parliament at Rio de Janeiro. It is governed by a President, appointed by the general Government, and has an Assembly of 39 members, which legislates and taxes for purely provincial matters.

No one is permitted to quit the province and empire without previously advertising his departure for three consecutive days in the local journals, and obtaining a passport from the authorities at the cost of 24 milreis. This rule does not apply to passengers landing for a few days, and proceeding on their journey.

The products of the province are cotton, sugar, hides, rum, and molasses. Farinha, or the coarse meal of the manioc root, takes the place of bread; wheaten flour being rarely consumed, except in the shape of hard biscuits, similar to those used on shipboard.

For the soundings we are indebted to Messrs. Law and Blount; and to G. O. Mann, Esq., superintendent of the Pacific and San Francisco Railway Company, for the following—

Account of the Traffic for 3 Years ending 1866, on the Pacific and San Francisco Railway (77½ miles) first opened throughout in 1862.

Years	Tons carried up the Country	Tons carried from the Country	Passengers	Receipts	Expenses	Percentage
				£ s. d.	£ s. d.	
1864	5,003	18,788½	145,969	48,294 5 2	45,890 1 4	95·02
1865	6,740	33,845	161,425	61,037 4 11	39,715 6 1	65·06
1866	7,898½	43,625½	182,568	72,815 16 4	40,963 2 1	56·26

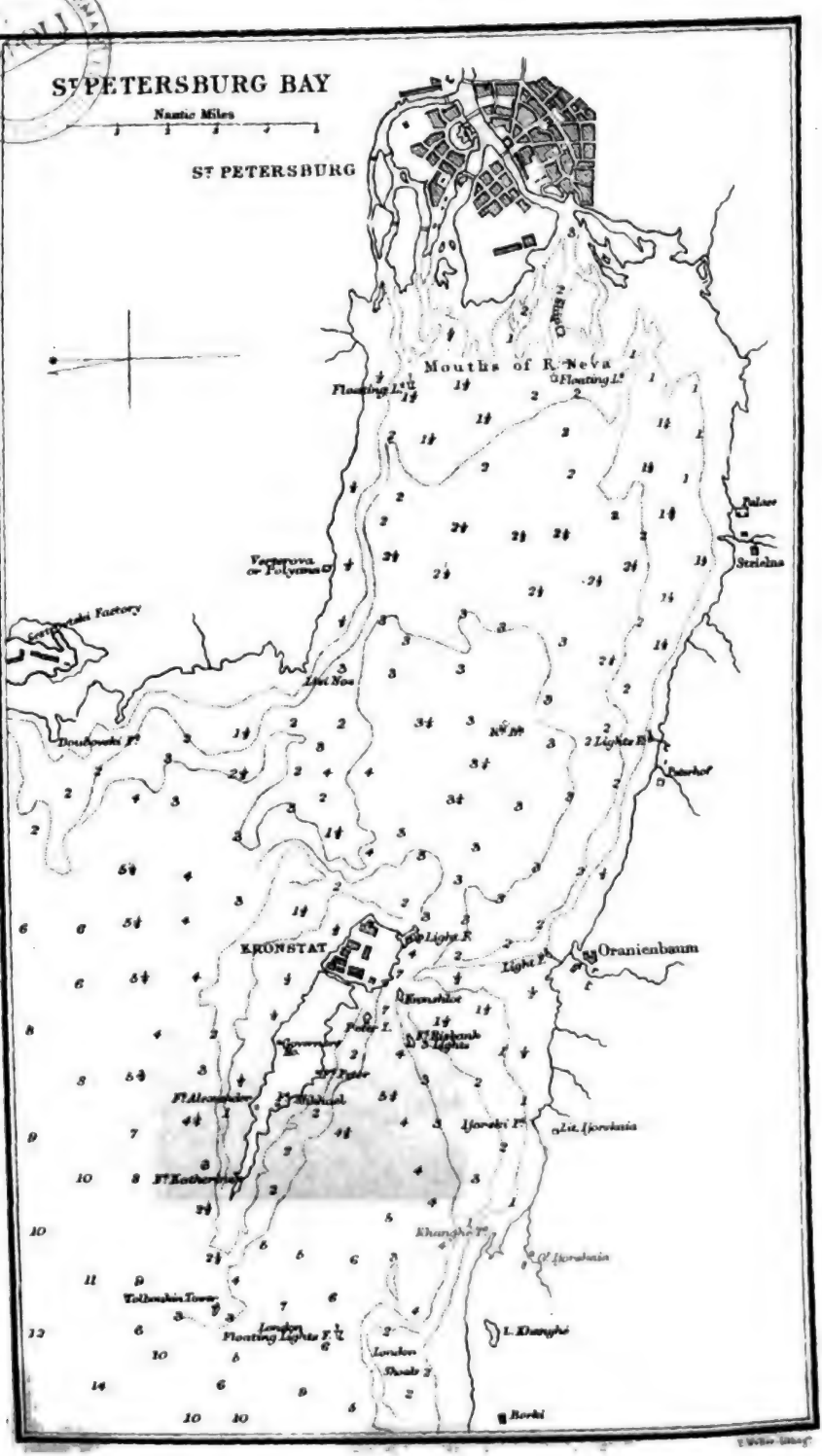
Coasting Trade with the Principal Ports of the Province of Pernambuco for the 6 Years ending 1867.

Articles	1861-2				1862-3				1863-4			
	Rio Grande del Norte	Parahiba	Alagoas	Total	Rio Grande del Norte	Parahiba	Alagoas	Total	Rio Grande del Norte	Parahiba	Alagoas	Total
Rum - canadas	—	—	3,864	3,864	—	—	—	—	—	—	—	—
Cotton - arrobas	9,634	6,843	315	16,792	18,056	12,388	1,455	31,899	85,376	138,349	7,780	229,905
Sugar, refined ,,	2,115	3,020	178,689	183,824	3,235	4,036	183,422	190,683	375	1,710	132,078	134,163
brown ,,	93,323	50,157	231,810	378,790	127,825	42,632	210,280	380,737	42,735	26,340	227,231	296,409
Hides, salted lb.	169,034	185,518	57,642	409,994	249,349	341,816	73,493	664,658	70,625	97,331	35,719	203,705
dry - ,,	16	7,505	—	7,521	54,806	238	—	55,094	—	194	578	772
Louro wood, rough logs	—	—	2,453	2,453	—	—	869	869	—	—	651	651
Sundry ,, ,,	40	50	6,437	5,527	—	—	862	862	—	65	830	895
Treacle - canadas	30	—	12,177	12,207	30	—	—	30	16	—	396	412
Indian corn - arrobas	—	200	—	200	1,728	—	3,429	5,157	299	52,492	376	53,167
Castor oil - lb.	—	—	35,850	35,850	—	—	10,580	10,580	—	—	14,600	14,600
Sole leathers pieces	1,521	190	—	1,711	494	177	—	671	1,610	30	4,804	5,444
Sucupira - logs	—	896	934	1,830	—	455	312	767	—	8	141	149
Vinhatico, rough logs	—	—	1,038	1,038	—	—	559	559	—	—	407	407

Articles	1864-5				1865-6				1866-7				Total six Years
	Rio Grande del Norte	Parahiba	Alagoas	Total	Rio Grande del Norte	Parahiba	Alagoas	Total	Rio Grande del Norte	Parahiba	Alagoas	Total	
Rum - canadas	—	—	—	—	—	—	3,600	3,600	—	—	4,688	4,688	12,152
Cotton - arrobas	28,462	142,658	7,296	178,416	41,600	141,283	27,141	210,024	54,729	155,175	41,686	251,590	918,896
Sugar, refined ,,	—	50	155,098	155,098	—	509	233,124	233,429	—	100	213,860	213,960	1,811,117
brown ,,	15,530	8,970	171,772	196,262	57,469	24,175	259,066	340,710	9,692	57,700	209,748	277,140	1,869,648
Hides, salted lb.	131,495	213,995	68,236	413,626	123,209	207,596	61,853	392,658	112,061	234,718	53,336	600,135	2,484,548
dry - ,,	—	—	5,587	5,587	3,100	12,764	1,010	16,864	0	—	1,933	1,993	87,607
Louro wood, rough logs	—	—	305	305	—	—	488	488	—	—	1,285	1,285	5,931
Sundry ,, ,,	117	465	1,529	2,111	—	—	1,681	1,681	—	—	—	—	11,076
Treacle - canadas	—	—	850	950	436	—	2,229	2,665	190	—	595	715	16,979
Indian corn - arrobas	38	17,931	30,098	48,067	—	1,990	4,773	6,763	600	1,500	2,344	4,945	58,799
Castor oil - lb.	—	—	10,368	10,368	—	2,400	3,735	6,135	—	—	2,610	2,610	80,143
Sole leathers - pieces	803	185	3,263	4,251	3,917	—	2,108	6,025	30,532	93	1,245	31,875	50,577
Sucupira - logs	—	—	—	—	—	81	—	81	113	—	746	859	3,680
Vinhatico rough logs	—	—	—	—	—	—	61	61	—	—	1,144	1,144	3,309

Account of the Official Value of the Coasting Trade during each of the 6 Years ending with 1867, and the Average Current Value.

Years	Rio Grande del Norte	Parahiba	Alagoas	Total
	reis	reis	reis	reis
1861-2	426,291,504	261,156,937	1,163,713,371	1,851,049,412
1862-3	648,668,219	379,637,726	1,023,441,704	2,091,746,949
1863-4	696,963,587	1,892,405,994	1,309,060,022	3,898,429,603
1864-5	891,940,232	2,759,191,467	1,088,615,151	4,739,746,850
1865-6	992,857,102	2,342,918,027	1,823,551,858	5,144,326,987
1866-7	934,091,440	2,287,877,103	1,774,706,237	5,010,664,780
Total	4,649,730,084	9,843,186,354	8,183,088,343	22,716,004,981
Average	774,955,014	1,647,197,759	1,363,848,084	3,768,000,837



London, Longman & Co

Comparative Table of the Weight of a Ton of the various Articles of Produce usually Shipped from Brazilian Ports.

Articles		Bahia arrobas	English cwt.	French kilos.
Sugar -	cases, boxes, barrels	70	20	1,000
-	- bags	80½	23	1,150
Coffee -	- barrels	63	18	900
-	- bags	73½	21	1,050
Tobacco leaf -	- bales	42	12	600
-	- serons	56	16	800
-	- rolls	70	20	1,000
-	mangotes	73½	21	1,050
Hides -	- dry	45	12 6-7	643
-	- salted	56	16	800
-	- green	70	20	1,000
Cotton, Maccio or S. Francisco		29	8 2-7	414
Cachoeira	-	27	7 5-7	386
Cocoa -	- bags	56	16	800
Tapioca -	- "	56	16	800
-	- barrels	49	14	700
Jacarandá -	- logs	80½	23	1,150
Piapara -	loose bundles	24½	7	350
-	- pressed	42	12	600
Rice - -	- bags	73½	23	1,150
- -	- barrels	63	18	900
Bones -	- -	42	12	600
Hoofs -	- -	35	10	500

Liquid Measures.

		canadas	old gallons
Rum -	- pipes	105	210
Molasses -	- -	90	181
Horns, Rio Grande and Buenos Ayres	- -	2,000	
Bahia	- -	3,000	
Coquilhas	- -	8,000	

Segars 40 cubic feet

PERRY. A fermented liquor made from pears, in the same manner as cider from apples. The pears best fitted for producing this liquor are exceedingly harsh and tart; but it is itself pleasant and wholesome. [CIDER.]

PERUVIAN BARK. [BARK.]

PETERSBURG. The modern metropolis of the Russian empire, situated at the confluence of the river Neva with the eastern extremity of the Gulf of Finland, in lat. 59° 56′ 23″ N., long. 30° 18¾′ E. Population in 1865, 546,000.

This flourishing emporium was founded by Peter the Great, whose name it bears, in 1703. In the same year the first merchant ship that ever appeared on the Neva arrived from Holland; and the Czar, to mark his sense of the value of such visitors, treated the captain and crew with the greatest hospitality, and loaded them with presents. In 1714, 16 ships arrived at Petersburg; in 1730, the number had increased to 180; and so rapid has been the progress of commerce and civilisation in Russia since that period, that this year (1869) upwards of 3,000 ships will probably enter and clear out from Petersburg.

It is much to be regretted that, although favourable to commerce, the situation of Petersburg is, in other respects, far from good. The ground on which it stands is low and swampy; it has, on different occasions, sustained great injury from inundations; and the country round is, generally speaking, a morass and forest, so that almost everything required for the subsistence of the inhabitants must be brought from a distance. No one less bold and daring than Peter the Great would have thought of selecting such a situation for the metropolis of his empire; and none possessed of less power and resolution could have succeeded in overcoming the all but insuperable obstacles which the nature of the country opposed to the completion of his gigantic schemes.

Cronstadt, situated on a small island about 20 miles W. of Petersburg, may, in some measure, be considered as the port of the latter. Almost all vessels bound for Petersburg touch there; and those drawing above 8 feet water load and unload at Cronstadt; the goods being conveyed from and to the city in lighters, the charges of which vary according to the demand at the time. The merchants' harbour at Cronstadt is fitted to contain about 600 ships; but it is exposed to the westerly winds. Cronstadt is strongly fortified, and is the principal station of the Russian fleet. Vessels bound for Petersburg must pass by the narrow channel to the south of the island, commanded by the fortifications of Cronstadt on the one side, and of Cronslot on the other. The accompanying illustration, taken from the official survey published by the Russian Government, gives a better idea of the situation of Petersburg, Cronstadt &c., than could be derived from any description.

Two new lights have been added on Tolboukin island; making in all, one on the E., another on the NE. side, and another on the SE. side, all visible for five miles. There is also a double light on the S. side of S. Nicholas battery, which was raised in 1861. The lower light is red. Two more are on each side of the merchants' gate; one on Frederickstadt (red), on the S. bastion of Cronstadt harbour, another on the opening of the Man of War harbour. A bell is sounded four times an hour during foggy weather.

Money.—Accounts are kept at Petersburg, and throughout Russia, in roubles of 100 copecks.

The only gold coin at present struck is the ½ imperial, or 5 rouble piece=16*s.* sterling very nearly. The silver rouble, worth 3*s.* 2¾*d.* sterling very nearly, was declared, by a ukase issued in 1839, to be worth 3½ paper roubles.

But another ukase, issued on June 14, 1843, directs that the old bank note roubles in circulation, amounting to the sum of 595,776,310, being equal, at the exchange of 3½, to 170,221,803 silver roubles, should be called in, and replaced by an issue of 170,221,000 *billets du crédit*, to be exchangeable at the pleasure of the holder for silver roubles. This is a most important regulation, and if it be fully carried out, the distinction between silver and paper roubles will disappear; at the same time that additional security will be given to all sorts of industrial undertakings, and to the credit of the Government.

Weights and Measures.—The Russian weights are the same for gold, silver, and merchandise, viz.:—

5 soltnicks = 1 loth.	40 pounds = 1 pood.
32 loths = 1 pound.	10 poods = 1 berkovitz.

The Russian pound contains, according to Kelly, 6318·5 English grains. Hence, 100 lb. Russian = 90·26 lb. avoirdupois = 40·93 kilog. The pood = 36 lb. 1 oz. 11 drs., but among merchants it is reckoned = 36 lb. According to Nelkenbrecher, 100 lb. Russian = 90·19 lb. avoirdupois = 40·9 kilog. = 82·8 lb. of Amsterdam = 84·444 of Hamburg.

The principal measure for corn is the chetwert, divided into 2 osmins, 4 pajocks, 8 chetwericks, or 64 gernitz. The chetwert = 5·77 imperial bushels. Hence, 100 chetwerts = 75·12 imperial quarters.

In liquid measure:—	3 wedros = 1 anker.
11 usharky = 1 krashka.	6 ankers = 1 oxhoft.
8 krashka = 1 wedro.	2 oxhoft = 1 pipe.
40 wedros = 1 sorokovy.	In long measure:—
The wedro = 3¼ wine gal. English.	16 wershok = 1 arsheen.
13½ bottles = 1 wedro.	3 arsheen = 1 sashen.
	500 sashen = 1 verst.

1 sashen = 7 English feet. 1 arsheen = 28 English inches. 100 Russian feet = 114½ English feet. The verst, or Russian mile = 5 furlongs 12 poles. The English inch and foot are used throughout Russia, chiefly, however, in the measuring of timber. (Kelly's *Cambist*, art. 'Russia;' Nelkenbrecher, *Manuel Universel.*)

In fixing freight to England, a ton is 63 poods of hemp, flax, tallow, iron, copper, and ashes;

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44 poods of bristles, isinglass, leather, and wax; 5 dozen of deals; 3,500 hare skins; 8 chetverts of wheat or linseed; and 60 pieces of sail-cloth.

The following regulations for the importation of foreign goods are strictly enforced:—

All goods imported must be accompanied by the following documents:—

1. The declaration of the captain, according to the form ordered by the custom-house.

2. An attestation from the Russian consul, and, where there is no consul, from the custom-house of the place, of the quantity and quality of the goods, and a declaration that they are not the produce, manufacture, or property of an enemy's country.

3. Bills of lading of all goods, in which the weight, measure, or quantity of each package must be specified. In case the bills of lading are not exactly after this regulation, the goods pay double duty as a fine. In case more is found than specified in the bill of lading, the surplus is confiscated; if less is found, the duty must be paid on the quantity specified. Of wine, it is not sufficient to specify the number of pipes or hogsheads only, but also their contents in gallons &c. Of lemons, the number in each box must be specified. Of manufactured goods, the measure of each piece must be specified, and the number of pieces in each bale. It is indifferent whether the gross or the nett weight be specified. If the packages be all of the same weight, measure, or contents, a general specification will do; as, for example, 100 casks alum, of 17 lispound each. Of dye woods, the weight of the whole need only be mentioned. Of goods of small bulk, as pepper &c., it is sufficient to state the weight of every 5 or 10 bales, but with specification of the numbers. There must not be any erasures or blots in the bill of lading. All goods not accompanied by these documents, or where the documents are not according to the above regulations, will be sent back.

Bills of lading may be made out either to some house, or to order.

The following charges have been fixed by the merchants of Petersburg:—

	per cent.
Commission on sales and purchases	2
Extra charges on all goods	1
Commission and extra charges for goods delivered up	2
Brokerage on sales and purchases	½
Ditto on bills	¼
Ditto on freight, per ton, 50 copecks.	
Stamps	¼
Charges on duty, paid inwards	4
Ditto, paid outwards	4
Commission for collecting freight, or average inwards	3
Commission for procuring freight outwards	2
For clearance, 40 roubles.	
Dues to be paid to the church, 10 roubles each vessel.	

Clearing of ships, of or under	
25 lasts each	40 roubles each vessel
25 to 50 „	60 „
50 „ 75 „	80 „
75 „ 100 „	100 „
100 „ 150 „	150 „
150 or above	200 „

Tare on Goods Exported, as fixed by the Custom-house.

	per cent.
Dry goods.	
In barrels or chests	10
In sacks	2
In mats, or sacks made of mats	3
Except Muscovy leather, of which is deducted	5
Moist goods.	
Pressed caviare	13
Soap	3
Meat and salt fish	20
Tallow	10
Honey	17
Treacle	10
All other moist goods	17

Tare on Goods Imported.

	per cent.
Dry goods.	
In barrels or chests	10
In vessels of glass or earthenware	20
In sacks	2
In double sacks	4
In mats	3
In casks and mats together	5
In baskets	5

Moist Goods Imported.—The following are some of the tares specified in the tariff:—

Olive oil in casks	17	per cent.
of Italy, in flasks and straw	20	„
of France, in flasks and earthenware	40	„
Salt fish in barrels	36	„
And generally on all moist goods in barrels	17	„
In glass and earthenware	20	„
Miscellaneous goods.		
Cotton twist in bales	6	„
In chests and barrels	15	„
Cochineal must be weighed in the casks after being taken from the casks; for every sack of from 4 to 7 poods	2	lb.
sacks of from 2 to 3½ poods	1	„
Indigo in serons; every seron of from 5½ to 7 poods	34	„
in ½ serons, 2½ to 4 poods	20	„
of Guatemala	20	per cent.
in boxes	20	„

It should be stated, however, that some of the customary charges for the statement of freight between the consignees and masters of vessels are constantly complained of. Among these are: 1. The commission of 3 per cent. for the collection of freight, which is payable whether the cargo belongs to the consignee or is only addressed to him, and is payable notwithstanding any stipulation to the contrary in the charterparty. 2. A charge which certain German merchants, dealing principally in coals, have recently endeavoured to impose, under the title of 'discount for cash.' It appears that the legal remedies against fraud and contention are not complete as yet. (See Mr. Consul Michell's *Report* for 1867.)

Bills drawn in Russia, and payable after date, are allowed 10 days' grace; but if payable at sight, 3 days only: Sundays and holidays are included in both cases. The Julian calendar, or Old Style, is still retained throughout Russia. This is 12 days later than the New Style; and in leap years, 13 days, after the month of February.

Port Charges.—The regular charges which British ships have to pay at the ports of Petersburg and Cronstadt comprise the following fixed dues and expenses, viz. lastage, passes, clearing at Cronstadt, address money, Petersburg and Cronstadt church money, Cronstadt expedition and allowance to the Russia Company's agent, for all which a charge is made in the ship's account in one sum, proportionally to the ship's register tonnage, according to the following scale, viz.:—

			silv. roub.
For	61	tons register	48 0
62 to	81	„	56 0
82	101	„	61 14
102	121	„	66 28
122	141	„	74 0
142	161	„	79 14
162	181	„	84 28
182	201	„	92 0
202	221	„	97 14
222	241	„	102 28
242	261	„	110 28
262	281	„	115 14
282	301	„	123 14
302	321	„	128 28
322	341	„	136 0
342	361	„	141 14
362	381	„	149 14
382	401	„	154 0
402	421	„	162 0
422	441	„	167 14
442	461	„	175 14
462	481	„	180 0
482	501	„	188 0
502	521	„	193 14
522	541	„	200 86
542	561	„	206 0
562	581	„	214 0
582	600	„	218 56

In 1866, the differential duty of 16 copecks per pood, in favour of certain Russian harbours in the Baltic, was abolished.

Trade &c.—Petersburg has the most extensive foreign trade of any city in the north of Europe. This arises from its being the only great maritime outlet on the Gulf of Finland, and from its vast and various communications with the interior of the country. Few countries have such an extent of internal navigation as Russia. By means

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partly of rivers, and partly of canals, Petersburg is connected with the Caspian Sea. Goods are conveyed from the latter to the capital, through a distance of 1,434 miles, without once landing them. The iron and furs of Siberia, and the teas of China, though not to the same extent as formerly, are received at Petersburg in the same way; but owing to the great distance of those countries, and the short period of the year during which the rivers and canals are navigable, they take 3 years in their transit. Immense quantities of goods are also conveyed during winter upon the ice, in sledges, to the different ports, and to the nearest *pristans*, or places in the interior where barks are built for river or canal navigation. They are put on board in anticipation of the period of sailing, that the barks may be ready to take advantage of the high water, by floating down with the current as soon as the snow and ice begin to melt. The cargoes carried up the river into the interior during summer are principally conveyed to their ultimate destinations by the sledge roads during winter. The conveyance by the latter is generally the most expeditious; and it, as well as the internal conveyance by water, is performed at a very moderate expense.

The barks that come from the interior are mostly of a very rude construction, flat-bottomed, and seldom drawing more than 20 or 30 inches water. When they arrive at their destination they are sold or broken up for fire-wood. Those that leave the ports for the interior are of a superior description, and are comparatively few in number; the commodities imported being, at an average, of much greater value, relatively to their bulk and weight, than those that are exported.

The following is an account showing the total tonnage of the shipping that entered Cronstadt and St. Petersburg, in each year, from 1856 to 1866, and the portion thereof that was British:—

Years	Total Tonnage	British	
		Tonnage	Per Cent. of Total
1856	520,004	218,442	42
1857	456,748	209,728	45½
1858	453,964	221,012	48
1859	514,470	253,726	49
1860	455,482	227,358	50
1861	472,608	262,012	55
1862	408,278	244,352	60
1863	460,000	281,856	61
1864	471,768	344,564	73
1865	511,834	355,116	69½
1866	664,920	421,402	63½
Total -	5,390,074	3,039,168	—
Per cent.	—	56	Average 56

Tariff.—A new tariff of Russian custom duties came into operation on January 1 (13), 1869, when ceased to be levied the additional charge of 5 per cent. on the duties established by ukases of March 14, 1858, and Dec. 30, 1861. We borrow the following remarks and tables from a review of the tariff given in the *Times* of Jan. 5, 1869, and from the tariff itself the rates of duty:—

'An English edition of it (the new tariff) has just been published by Mr. Michell in parallel columns, showing the English equivalents for the Russian rates. The following are its principal features.

'The number of paragraphs or positions has been reduced from 367 to 253, of which 42 refer to goods admitted duty free, and 12 to those of which the importation is prohibited, leaving 197 groups or classes of duties leviable, with two exceptions, on specific weights or certain units. The two ad valorem rates of 35 per cent. on ready-made clothes, and 80 per cent. on linen, cambric, and lawn, mark, as it were, the highest limits of the protection which the new tariff was intended to bestow on native manufactures. A reference, however, to the memoranda which Mr. Michell submitted to the Tariff Commission will clearly show that even some of the reduced specific rates range up to 100 per cent. and more on the value of the goods imposed. The reductions are evidently not based on any system or general plan, either for protective or fiscal purposes. Compared with the customs duties levied in other countries, the new Russian rates present the most extraordinary deviation from the general European basis, and look, indeed, what they in reality are, the result of compromises between the interests of powerful manufacturers and those of 70,000,000 consumers, as represented at the Council of the Empire. Fortunately for the maritime trade of Russia, the recommendation of the Minister of Finance for the abolition of the differential duties was adopted by the Council except in the case of tools, which are still to be favoured with a reduction of duty when imported overland (4*s.* 11*d.* per cwt. by land, instead of 7*s.* 10*d.* per cwt. by sea), *with the object of protecting the manufacture of tools at St. Petersburg*, it being all the while notorious that the Russian markets are glutted with cheap German tools bearing counterfeited Sheffield trade-marks. The official remonstrances of Sir Andrew Buchanan, the British Ambassador, against this injustice to British trade appear to have been unheeded, and the influential manufacturer at St. Petersburg has obtained the premium which will enable him to impose inferior tools on the Russian workman. Next to the abolition of differential duties we notice with satisfaction the disappearance of the 10 per cent. additional duties and the special bridge tax of 2 per cent. levied at the port of St. Petersburg, "which taxes," says M. de Reutern, "have complicated the accounts of the Customs, while the bridge-tax was not unfrequently avoided by clearing goods destined for St. Petersburg and Moscow at custom-houses on the land frontier."

'Apart from these improvements in the Russian Tariff, the following reductions may be mentioned as bearing more particularly on the export and carrying trade from Great Britain to Russia:—

Articles of Food.

Articles		Rates of Duty £	s.	d.	Reduction in Duty.*
Coffee - - - -	per cwt.	0	14	8	45
Cocoa - - - -	,,	0	14	8	31½
Pickles and sauces - - -	,,	1	9	6	39½
Biscuits - - - -	,,	1	9	6	39½
Cheese - - - -	,,	1	19	2	23½
Porter and ale, in casks - -	,,	0	9	9	62
bottles - -	bottle	0	0	8½	52

Raw and Half-manufactured Materials.

Articles		Rates of Duty £	s.	d.	Reduction in Duty.*
Cotton yarn, grey and bleached -	per cwt.	1	11	11½	13½
dyed - -	,,	2	1	7½	22½
Iron-boiler, armour-plate, and sheet	,,	0	4	11	35
rails - - -	,,	0	1	11½	48
Tin plate - - -	,,	0	12	2½	24
Litharge and lead ashes - -	,,	0	0	6	77
Zinc and spelter, in blocks -	,,	0	2	11½	54½
sheets -	,,	0	5	11	39
Indigo - - - -	,,	1	9	6	32
Red lead - - - -	,,	0	2	5½	43
Borax - - - -	,,	0	1	0	65
Sulphuric acid and sulphate of iron	,,	0	1	11½	55
Oil, olive and wood - -	,,	0	17	7	12
cocoa nut and palm - -	,,	0	4	11	75½
Phosphorus - - -	,,	4	18	3	70

* These reductions are calculated on the rates previously charged at seaports.

Manufactures.

Articles		Rate of Duty £ s. d.	Reduction in Duty*
	per		per ct.
Alabaster, worked	cwt.	0 10 9	50
Pottery ware, common	,,	0 1 11½	54½
Do. ware, white, and of one colour	,,	0 7 5	58
Do., and of variegated patterns	,,	1 4 7	35
Porcelain, white or of one colour	,,	1 12 2	39
Do. variegated	,,	2 17 3	39
Do. ornaments, without painting &c.	,,	..	39
Do. with painting &c.	,,	..	38
Glass ware, common	,,	0 3 11	69½
Do. of white glass	,,	0 11 9	35
Do. cut and ground	,,	1 19 2	62
Do. with painting &c.	,,	3 18 0	23
Mirrors, large, according to measurement	,,	..	17
Copper or brass manufactures	,,	1 9 6	32
Iron carriages, without boxes, weighing more than 3 lb.	,,	0 4 11	43
Cast-iron utensils, enamelled	,,	0 7 10	56½
Cast steel rims, axles &c., weighing more than 10 lb.	,,	0 15 2	18
Locksmiths' work, unpolished	,,	1 4 7	43
Do. polished	,,	2 4 1	49
Ditto, weighing more than 10 lb. each	,,	..	77
Tin-plate manufactures, gilt, painted &c.	,,	2 9 1	43
Wire of iron and steel	,,	0 11 8	54
Do. copper or brass	,,	0 14 8	54½
Manufactures of iron or steel wire	,,	1 9 6	32
Do. copper or brass	,,	1 9 6	54½
Needles, sewing	lb.	0 1 9	70
Cutlery, common	cwt.	2 19 0	52
Do. set in ivory, silver, plate &c.	,,	11 16 10	45½
Manufactures of tin, zinc, or Britannia metal :—	,,		
1. Not polished or painted	,,	0 9 9	77
2. Polished and painted	,,	1 4 7	43
Manufactures of lead, shot &c.	,,	0 7 6½	39
Tinsel and foil	lb.	0 2 5½	70
Joiners' and turners' work :—			
1. Not varnished or polished	cwt.	0 10 9	43
2. Varnished or polished	,,	1 16 11	35
Carvers' work, wood	,,		14½
India-rubber boots and shoes	,,	4 18 3	43
Do. tissues, with silk &c.	,,	10 16 3	25
Paper :—			
Glazed, for printing &c.	,,	0 19 8	67
Sized, for printing and writing	,,	1 9 6	50
Ornamented, stamped &c.	,,	3 18 8	27½
Tissue	,,	2 19 0	45
Hangings	,,	2 4 1	25½
Papier-mâché articles, lacquered and polished, without ornaments of other materials pay as carved wood			66

Tissues.

Articles		Rates of Duty £ s. d.	Reduction in Duty*
1. Flax or hemp :—	per		per ct.
Drills	lb.	0 1 7	37
Cambric, lawn &c., reduced to 30 per cent. ad valorem.			
2. Silk :—			
Pure silk and transparent stuffs, gauzes, crapes	,,	0 17 4	35
Mixed silk not transparent ditto &c.	,,	0 7 8½	25
Foulards, printed in the cloth	,,	0 10 6	32
Hosiery, trimmings &c.	,,	0 3 6	54½
3. Wool :—			
Cloth, half cloth &c.	,,	0 4 2½	22
Moltons, union moltons, pilots, indigo pilots, beaver, doeskin, union cloth, pea-coats, witneys, ladies' cloth, presents &c.	,,	0 3 0	44½
Flannel, white, and blankets	,,	0 1 5	54½
Unmilled stuffs, having up to 5 sq. arshins to a lb.	,,	0 1 9	9
Ditto, 5 to 9 sq. arshins to a lb.	,,	0 3 0	35½
(This class includes Orleans, alpaca linsters, mixtures and mottles, cobourgs, sateens, lenos, mohairs, figured Orleans, tibbs, alpacas &c.)			
Unmilled stuffs having more than 9 sq. arshins to a lb. (these stuffs)		0 3 10	16½
(In addition to these reductions, a considerable advantage accrues from a 30 per cent. additional rate on printed woollens in lieu of previous specific rates.)			
Shawls, handkerchiefs, cashmir	,,	0 10 6	51½
Carpets	,,	0 1 0½	51½
4. Cotton :—			
Tissues, grey, bleached or dyed, having up to 8 sq. arshins to a lb.	,,	0 0 11½	28
(This class includes about two-thirds of the qualities of grey shirtings, nine-tenths of grey longcloths, every quality of grey T-cloths, and nine-tenths of grey jean-cloths.)			
Tissues, grey, bleached or dyed, having 9 to 16 sq. arshins to a lb.	,,	0 1 9	51½

* These reductions are calculated on the rates previously charged at seaports.

Tissues—continued.

Articles		Rates of Duty £ s. d.	Reduction in Duty*
Cotton :—			per ct.
(This class will include a few qualities of jaconets and cambrics.)			
Tissues, printed, having 8 up to 12 sq. arshins to a lb.	per lb.	0 1 4½	30½
(This reduction will be applicable to a great proportion of heavy prints.)			
Tissues, printed, having 8 to 12 sq. arshins to a lb.	,,	0 2 1	16
Ditto, more than 16 sq. arshins to a lb.	,,	0 4 2½	22
Ditto, with pastings, tinsel &c.	,,	..	55
Cotton velvets, plush &c.	,,	0 1 7	37
Tulle (net) for ladies' dresses	,,	0 7 0	54½
Lace, edgings &c.	,,	0 10 6	37
Muslins (37 per cent. of qualities)	,,	0 1 5	54½

* These reductions are calculated on the rates previously charged at seaports.

'Against these reductions must, however, be set off a slight increase of several duties (those on calcined and caustic soda, white lead, hemp, flax, and woollen yarn, silk twist, silk stuffs &c.), and a new duty on machinery, except agricultural, spinning, weaving, paper-making, and letter-press printing machinery, which is to continue free of taxation. The duty on machinery (*7s. 5d.* per cwt. on locomotives, and copper and brass fittings, and *2s. 11½d.* per cwt. on locomobiles and other machines and fittings) was yielded at the last moment by the Council of the Empire, owing to the organised agitation which was set up by the leading Protectionists.

'But, favourable even as it appears, and although averaging 41 per cent. in 88 classes, the above list of reductions conveys a very erroneous impression of the new Russian tariff, which still remains one of the least liberal in Europe, Portugal excepted.

'This will be seen from the following comparison of the tariffs of Austria and Russia:—

Articles		Duties in Austria	Duties in Russia
		per cwt. £ s. d.	per cwt. £ s. d.
Iron and steel wire	-	0 3 1½	0 14 8
Zinc, in sheets	-	0 1 6	0 5 11
Cotton yarn	minimum	0 3 1½	1 11 11½
	maximum	0 13 3	2 1 7
Flax and hemp	minimum	0 1 6½	1 10 2
	maximum	0 12 2½	
Woollen	minimum	0 1 6½	2 4 1
	maximum	0 12 2½	
Cotton goods	minimum	1 10 5	5 9 8
	maximum	8 2 6	23 11 4
Linen of flax or hemp	minimum	0 12 2	2 16 0
	maximum	7 2 4	17 14 7
Silk goods	minimum	6 2 0	19 13 1
	maximum	12 4 0	28 5 10
Paper for writing and printing	minimum	0 2 0	0 12 8
	maximum	0 12 8	3 18 8
Saddlery	minimum	0 12 2½	7 16 5
	maximum	1 1 4½	
Glass ware	minimum	0 1 6	11 4 11
	maximum	0 12 2	3 14 8
Earthenware	minimum	0 5 0½	0 7 5
	maximum	0 12 2	7 17 5
Needles (sewing)	- -	1 10 5	9 16 7
Firearms	- -	1 10 5	8 16 11

'Compared, therefore, with the most modern protective tariff of Europe, that of Russia appears to be four or five times higher in all the principal groups of merchandise.

'We must conclude this review by expressing a hope that the vast difference apparent in the two tariffs does not in reality give the measure of the relative industrial and financial condition of Russia. From the many documents now published on this question it is to be inferred that the Russian Government is far in advance of the political intellect of the country, but that its capabilities for doing good are to a great extent neutralised by a fear of the old Russian party.'

Customs at St. Petersburg.—The amount of duties collected at the custom-house at St. Petersburg in 1866 was as follows: Duties on

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imports, 10,820,870 roubles; on exports, 139,308 roubles; total, 10,960,178 roubles = 1,370,125*l.* The total amount collected in 1865 having been 8,296,816 roubles, the increase in 1866 was 2,663,362 roubles, or 32 per cent.

Principal Articles of Export.—The principal articles of export are tallow, hemp, and flax; grain, particularly wheat; linseed, timber, copper; hides, potashes, bristles, hempseed oil, furs, leather; fox, hare, and squirrel skins; canvas and coarse linen, cordage, caviare, wax, isinglass, quills, tar &c. Tallow, both for candles and soap, is more largely exported from this than from any other port in the Baltic or elsewhere, and is an article of great commercial importance. [TALLOW.] Hemp is of good quality, though inferior to that of Riga: it is assorted, according to its quality, into *clean*, or firsts; *outshot*, or seconds; and *half-clean*, or thirds. The first sort should be quite clean, and free from spills; the second is less so; and the third, or *half-clean*, contains a still greater portion of spills, and is, besides, of mixed qualities and colours. Russian flax is much esteemed for the length of its fibre; it is naturally brownish, but becomes very white after the first bleaching. Three qualities are distinguished; viz. 12 head, 9 head, and 6 head. [HEMP; FLAX.] Iron of good quality, and preferable to that from the other Russian ports, is of two kinds, old and new sables, the former being the best. It used to be exported in considerable quantities; but the shipments are now much reduced. M. de Tegoborski observes in regard to the exportation of iron from Russia: 'Bien des personnes croient que puisque la Russie exporte du fer, c'est une preuve qu'elle en produit plus que ne porte les besoins de la consommation intérieure. C'est une manière de juger très-superficielle. D'abord, cette exportation n'a jamais été très-considérable; elle ne s'élève plus qu'à environ 700,000 ou 800,000 poods, représentant un valeur d'à peu près 1 million de roubles d'argent. Puis cette exportation, qui ne se soutient que par la bonne qualité de quelques espèces de nos fers, très-recherchées pour certains usages, n'est nullement une preuve que les besoins de la consommation intérieure soient satisfaits, *car si le fer en Russie était à meilleur marché, on pourrait consommer plus du double de la production actuelle.*' (i. 300.) The grain trade between this country and Petersburg is of very considerable importance; and Russia has become one of the principal sources of our foreign supplies.

But by far the larger portion of the wheat and all the Indian corn which come to us from Russia are brought from ODESSA, TAGANROG, and other ports on the Black Sea and the Sea of Azoff. The oats come principally from Archangel, but the exports from Petersburg are also very considerable. The *Russian wheat* (so called to distinguish it from the *azemaia*, or soft wheat, and the *kubanka*, or hard wheat) is the lowest description of wheat shipped from Petersburg. It is small-grained, and dingy coloured; being, though sound, unfit for the manufacture of fine bread. The azemaia is of a larger, though still not a large grain, and better colour, and has of late been extensively imported into England. The kubanka is a large semi-transparent grain. Its hardness has nothing of the flinty character of the Spanish hard wheat, which it most resembles. When first brought to London, the millers objected to it, on account of the difficulty experienced in grinding it; but it is now much esteemed. All the Russian wheats are well calculated for keeping, either in granary or when made into bread: but the kubanka has this quality in a peculiar degree, and is in great demand for mixing with other wheats that are old, stale, or out of condition. A shipment of 100 chetverts of wheat in Petersburg is found, when delivered here, to yield about 72 imperial quarters.

M. de Tegoborski, in his elaborate and excellent treatise on the *Forces Productives de la Russie* (i. 350), gives the following—

Account of the Gross Quantities and Values of all Sorts of Corn (Wheat, Barley, Rye, and Oats, except Indian Corn) Exported from Russia in Triennial Periods from 1824–26 to 1845–7, both included.

Years	Corn of all Sorts	Value in Sil. Roubles
	chet.	
1824–26	3,398,127	11,913,900
1827–29	7,486,012	24,141,900
1830–32	11,324,831	39,107,400
1833–35	9,241,266	10,357,900
1836–38	7,540,269	31,875,200
1839–41	8,364,564	47,757,900
1842–44	8,685,907	40,131,400
1845–47	14,319,986	115,483,700

And in 1866 (according to Mr. Consul Michell's *Report*), 2,510,241 chetverts of breadstuffs were exported from St. Petersburg alone.

We extract from the same Consular *Report* the subjoined statement, showing the total shipments of linseed from St. Petersburg in each decennial period from 1771 to 1866:—

Years	Total Shipped	Years	Total Shipped
	chetverts		chetverts
1771 to 1780	108,155	1821 to 1830	816,666
1781 „ 1790	259,160	1831 „ 1840	2,151,913
1791 „ 1800	467,758	1841 „ 1850	2,906,533
1801 „ 1810	389,770	1851 „ 1860	*2,338,877
1811 „ 1820	388,111	1861 „ 1866	†2,372,034

* Eight years' shipments, as there was war in 1854 and 1855.
† Six years only. For ten years, at the same rate, the quantities would be, respectively, total chetverts, 3,950,000; of which to Hull, 2,709,326.

Estimated supply for 1867, about 650,000 chetverts, equal to 455,000 imperial quarters.

Price of No. 1 for August, on Feb. 25 (March 9), 45*s.* 10*d.* to 47*s.*

Imports.—The principal imports are sugar, especially from the Havannah; coffee; madder, indigo, cochineal, and dye woods; cotton wool, cotton stuffs and yarn; machinery and mill work; woollen fabrics and woollen yarn; linen and linen yarn; silk goods; coals and salt, our exports of the former to Russia in 1857 being 277,866 tons, and of the latter 79,826 tons; iron, lead, and shot; hardware and cutlery; wines, especially champagne; spices; fruits; tobacco; tea viâ Kiachta; with a great variety of other articles.

Commercial Policy.—The policy of Russia, previously to 1857, in regard to commerce, was of a mixed character, with, however, a large predominance of illiberality. Machinery and mill-work, including ships with their tackle, steamers &c., were admitted duty free; as were most other articles necessary to the prosecution of art and science. But most articles of consumption, and some even of those most necessary in production, were either excluded or loaded with oppressive duties. Those on iron, for example, were so very heavy that they went far to prohibit its importation, which did not exceed 10,000 or 12,000 tons a-year. And as the whole, or almost the whole of the iron made in Russia is smelted by means of wood, it cannot be furnished except at a very high price.

The Government authorities admitted that such was the case. Thus it is stated in the *Supplément au Journal de l'Intérieur* (p. 27), March 4, 1853, that 'L'emploi exclusif de bois dans nos usines entrave d'une manière invincible le développement ultérieur de l'industrie de fer.' And it is further

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stated in the same article that such, in many parts of the empire, is the scarcity and high price of iron, that the peasants are all but ignorant of its use, and neither employ it in their implements, nor even in shoeing their horses, whose feet are left without any protection. It may be supposed, perhaps, that this can be true only of the more remote and backward districts; but such is not the case. And nothing is more common in the immediate vicinity of Petersburg and Moscow than for horses to be unshod, and spades, ploughshares, harrows, and such like implements, to consist wholly of wood. See a remarkable and conclusive paragraph to the same effect in the work of Tegoborski, referred to above, i. 298.

It is really astonishing that any Government, and especially one so generally intelligent as that of Russia, does not eagerly adopt every possible means of putting an end to such a state of things, and of adding to the efficacy of the labour of its subjects. And to introduce a better system, all that is required is to admit foreign iron and ironware free of duty; that is, to allow the people freely to exchange their corn, tallow &c., for the iron and iron implements of England and the Netherlands. The extraordinary magnitude of the exports of corn from the empire, even with its present barbarous husbandry, shows what they might amount to were agriculture a little improved, and means of communication opened from the interior to the seaports. Under such circumstances there can be little doubt that the exportation of corn, tallow, flax, bristles &c., would speedily be doubled or trebled; and the population and the Government would be enriched by abandoning a system which confers no kind of advantage on anyone, except, perhaps (for even that is very doubtful), a mere handful of forest proprietors.

But a better system commenced with the tariff introduced in 1867, which, though in many respects most objectionable, effected sundry beneficial changes, and was a very great improvement on that by which it was preceded. It repealed various prohibitions, and effected large reductions in the duties on some important articles. Pig iron, bars, and rails, that were formerly prohibited, were admitted at reasonable duties; the duty on cotton twist was reduced from 5 roubles per pood to 3½ do.; while cotton, linen, woollen, and silk fabrics, earthenware, sugar, salt &c., might all be imported at considerably lower rates of duty than formerly. It is true that many of these duties were still much too high. But in matters of this sort it is a great thing to have laid the foundations of a better system. And as the reductions that have been made in the rates of duty did not occasion any reduction of revenue, and have given a great stimulus to commerce, it would seem, from the issue of the still more liberal tariff of 1869, that their prospective reduction from time to time may be anticipated. There can be no question that it will be at once the readiest and most effective means of developing the productive capacities of this vast empire.

Notwithstanding its reduction, the duty on raw sugar imported by sea now (1869) rather exceeds 3*d.* per lb. English, which, for a country like Russia, is a great deal too high. But it has been imposed not so much for the sake of revenue, as to encourage the production of beet-root sugar, the duty on which is under 1*d.* per lb. Tegoborski has shown the pernicious influence of this system over the trade and revenue of the empire, and the interests of the consumers. And this immense sacrifice is incurred for no better purpose than to divert a portion of the scanty capital and labour of the country to a business of which the eventual success, even with this extraordinary encouragement, is, if not problematical, not worth the cost.

Speaking generally, the duties were formerly a good deal higher (frequently as much as a third part) on goods imported by sea than on the same goods when imported by land. This was a most unwise distinction, and in the tariff of 1869 it applies only to sugar and tools. It matters not through what channel an article finds its way to the consumers. Its cost is the only thing to which they attend. And if they can get it cheaper by sea than by land, why force them to resort to the dearer mode of conveyance? If this distinction be resorted to as a means of raising revenue, it is, perhaps, the very worst that can be devised. The business of Government is to impose reasonable duties on commodities, leaving it to their subjects to import, or procure them through the cheapest channels.

According to Tegoborski (iii. 37), and Mr. Consul Michell, the imports of raw cotton and cotton yarn into the empire at different dates from 1824–26 to 1866 have been as under, viz.:—

Years	Raw Cotton	Cotton Thread	Years	Raw Cotton	Cotton Thread
	poods	poods		poods	poods
1824–26 av.	74,265	337,001	1845–47 av.	780,149	534,336
1827–29 „	98,100	410,562	1848–50 „	1,389,031	281,580
1830–32 „	115,996	553,690	1851 „	1,460,712	157,931
1833–35 „	171,189	549,399	1852 „	1,748,346	119,733
1836–38 „	282,799	626,713	1863 „	756,503	34,807
1839–41 „	355,774	542,125	1866 „	1,543,643	56,619
1842–44 „	524,511	592,193			

It is seen from this table that the annual imports of raw cotton increased between 1824–26 and 1852 from a mere trifle to about 63,000,000 lb., while the imports of yarn appear to have declined during the same period to about $\frac{1}{10}$ of their amount at its commencement. But we cannot help regarding the extension of the cotton manufacture as a serious loss to Russia; for, to suppose that a country without coal, without improved means of communication, with iron at an exorbitant price, and whose inhabitants, thinly scattered over the surface, are but just emerging from a state of prædial slavery, should succeed in manufacturing industry, is to suppose what is contradictory and absurd. It may be fairly presumed that under a free commercial system the progress of Russia in agriculture and in the ruder and coarser species of manufacture would be surpassed by few other countries. But she has no aptitude or means for the successful prosecution of the finer description of manufactures. And it is mere felo-de-se policy to make her, as has been done, neglect the former by forcing the cultivation of the latter.

In addition to those on imports, some of the most important articles of native growth were formerly subjected to duties on their being exported; the effect of these being to increase their price, and narrow their sale in the foreign market. But these have, for the most part, been either repealed or reduced, and the tariff of 1869 imposes duties on but 5 items of export; viz. bone, not worked, except burned or ground, 1*s.* per cwt.; leeches, 2*s.* 10*d.* per lb.; silkworm eggs, 7*s.* per lb.; rags, from 1*s.* 11½*d.* to 4*s.* 5*d.* per cwt.; and calamine or zinc ore, 3¼*d.* per cwt. It is a common, though, perhaps, an exaggerated complaint, that the customs authorities are extremely corrupt; and the procedure in contested cases slow, cumbrous, and expensive.

We may further observe that the accuracy of the official returns of the trade of the empire is not always to be relied on. They frequently involve very grave errors. And though they

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were as accurate as they might be made, they would necessarily be very defective, inasmuch as they take no account of the smuggling which is extensively carried on.

The charge sometimes made against the Russians of designedly underrating the exports to England is wholly groundless. It arises from the circumstance of many of the ships destined for England clearing out for the Sound. And these being classed, in the official returns, under the head of cleared for 'other countries,' it is proportionally though unintentionally exaggerated, while the clearances for England are proportionally and unintentionally diminished.

Inspection of Goods.—At Petersburg, Riga, and other Baltic ports, when goods are brought from the interior to be shipped, they are inspected and classified according to their qualities, by officers (*brackers*) appointed by Government for that purpose, and sworn to the faithful performance of their duty. All sorts of timber, linen and canvas, flax and hemp, linseed and hempseed, ashes, wax &c., are subject to such inspection. They are generally divided into three qualities: *Krohn* (crown), or superior; *Brack*, or middling; and *Bracks-Brack*, or inferior. This classification is said to be, in most cases, made with considerable fairness. A factor or commission agent in Russia instructed to buy, on account of his correspondent in England or Holland, a specified quantity of any description of produce subject to the official visit, is not liable to any action in the event of the article being found upon delivery to be of inferior quality, provided he produce a certificate to show that it had been officially inspected, or *bracked*. But a factor is at liberty, should any article delivered to him be manifestly defective, to name 1 or 2 other *brackers* to decide whether the article be merchantable or not.

Native and Foreign Merchants &c.—Every Russian carrying on trade must be a burgher, and have his name registered in the burghers' book. All whose names are in this book are either townsmen who have property within the city, or members of a guild. There are three guilds. Those who belong to the first must possess 15,000 silver roubles; they may engage in all sorts of commercial transactions, may establish banks, fit out privateers in case of war, and drive about the city in carriages drawn by two horses. Those belonging to the second guild declare themselves possessed of 6,000 roubles; they are not confined to inland trade, but they can only import foreign goods worth 90,000 roubles. A capital of 2,400 roubles entitles its owner to admission into the third guild, which comprises shopkeepers and petty dealers. The rates paid by the members of these guilds amount to 1 per cent. upon their declared capital, the 'statement of which is left to the conscience of every individual.' Burghers are not obliged to serve in the army, but may provide a substitute, or pay a fine. The *guests*, or foreign merchants, who enrol themselves in the city register on account of their commercial affairs, enjoy privileges nearly similar to those enjoyed by members of the first guild.

Tegoborski gives (iii. 319) the following account of the number of merchants inscribed in the different guilds, viz.:—

Years	1st Guild	2nd Guild	3rd Guild	Total
1838-40 av.	917	1,874	33,516	36,304
1841-43 „	908	1,941	35,877	38,726
1844-46 „	874	2,132	36,671	39,674
1847-49 „	862	2,293	37,774	40,926
1850-52 „	924	2,394	42,327	45,642

Tegoborski supposes that the capital belonging to each of the merchants of the first guild may amount, at an average, to 100,000 silver roubles; to the second, to 40,000 roubles; and to the third, to 1,000 roubles. In addition to the above there are about 4,500 small dealers with certificates.

It is useless to enlarge on the impolicy of these distinctions. They prevent men of limited capital, but of enterprise and intelligence, from engaging in those branches in which they would be most likely to succeed. The duties on *guests*, or foreign merchants, may, at an average, amount to about 18*l.* or 19*l.* a-year.

None but native Russians are allowed to engage in the internal trade of the country; and hence a foreigner who imports goods into Russia, must sell them to Russians only, and at the port where they arrive. A few foreigners, indeed, settled in Russia, and having connections with the natives, do carry on a trade with the interior: but it is contrary to law, and the goods are liable to be seized.

The merchants engaged in foreign trade are mostly foreigners, of whom the English are the principal. The peculiar privileges formerly enjoyed by the latter are now nearly obsolete; and their rights, in common with those of other foreigners, are merely those of *guests*. The English factory is, at present, little more than a society formed of some of the principal English merchants, several of whom, however, do not belong to it: its power extends to little else than the management of certain funds under its control.

Purchase and Sale of Commodities &c.—Owing to the scarcity of capital in Russia, goods, the produce of the country, are frequently paid for in advance; and foreign goods are most commonly sold upon credit. From the month of November to the shipping season in May, the Russians who trade in flax, hemp, tallow, bristles, iron &c., either come themselves to Petersburg, or employ agents to sell their goods to foreigners, to be delivered, according to agreement, in May, June, July, or August. The payments are made according to the circumstances of the sellers and buyers: sometimes the buyer pays the whole amount, in the winter months, for the goods which are to be delivered in the summer or autumn; and sometimes he pays a part on concluding the contract, and the remainder on delivery of the goods. The manufacturers and dealers in linen usually come to Petersburg in March, and sell their goods for ready money.

Foreign goods were formerly almost entirely sold at a twelvemonth's credit, and some at a still longer term; but of late years several articles, as coffee and sugar, are sold for ready money; still, however, the great bulk of foreign goods for the supply of the interior is sold on credit. Most part of the Russians who buy goods on credit of foreigners, for the use of the interior, have no other connection or trade with Petersburg than merely coming there once or twice a-year to make purchases; which having accomplished, they set off with the goods, and the foreigner neither sees nor hears of them again till the bill becomes due.

It is obvious from this statement, that experience and sagacity are nowhere more requisite in a merchant than here. He has nothing, in fact, but his own knowledge of the native dealers to depend upon; and it is highly creditable to the Russians, that foreigners do not hesitate to trust them with immense sums on such a guarantee. A foreign merchant, carrying on business in Russia, must also be acquainted with the customary forms and obligations of contracts; the mode of making payments; the many formalities that encumber,

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and sometimes turn aside, the course of justice; the spirit, still more than the letter, of the tariff and the Custom-house regulations; the privileges claimed by the Crown, and the different orders; with a variety of other particulars, which attentive, able men may learn on the spot, and nowhere else.

'Another circumstance connected with the British trade is too curious to be passed in silence. Every mercantile house in Petersburg employs certain men, called in the language of the country *artelschicks*, who are the counting-house men, and employed by every merchant to collect payment on bills, and to receive money, as well as, in many instances, to pay it in very considerable sums. This is an important part of their trust. There being no bankers in Russia, every mercantile house keeps its own cash; and as the payments between merchants, and for bills of exchange, are made entirely in bank notes of no higher value than 5, 10, 25, 50, and 100 roubles—most of them in so tattered a state as to require several hours to count over a sum of 2,000*l.* or 3,000*l.*—this business is performed by artelschicks; and very few instances have occurred of loss by their inattention, either in miscounting the notes, in taking false notes, or, where they are much torn, in receiving parts of different bank notes.

'These artelschicks are also employed to superintend the loading and unloading the different cargoes; they receive the most valuable into the warehouse, where they are left solely under their care; and in these warehouses, not merely merchandise, but often large quantities of dollars, are deposited. These Russians are mostly natives of Archangel, and the adjacent governments, of the lowest class: are often slaves, generally of the Crown; and the only security of the merchant arises in some degree from the natural reluctance of the Russian to betray confidence reposed in him; but in a much greater from their association, which is called an artel.

'An artel consists of a certain number of labourers, who voluntarily become responsible, as a body, for the honesty of each individual. The separate earnings of each man are put into the common stock; a monthly allowance is made for his support; and at the end of the year the surplus is equally divided. The number varies in different associations from 50 to 100; and so advantageous is it considered to belong to one of these societies, that 500 and even 1,000 roubles are paid for admission. These societies are not bound by any law of the empire, or even written agreement; nor does the merchant restrain them under any legal obligation: yet there has been no instance of their objecting to any just claim, or of protecting an individual whose conduct had brought a demand on the society.' (Coxe's *Travels in Russia*, vol. iii. p. 815.)

Marine Insurance.—The usual rates of marine insurance at St. Petersburg are 1 to 6 per cent. in the case of sailing vessels, and ½ to 3 per cent. in the case of steamers, according to the time of the year, the premiums rising about the month of August. Marine insurances are generally effected in London or Amsterdam. An insurance company against fire has been established in Petersburg, and enjoys several privileges. It is a joint-stock company, divided into actions or shares. It has been very successful; and its shares are at a high premium. No insurance on houses or goods in Russia, made in a foreign country, can be legally recovered; no official documents of loss being allowed to be furnished for such a purpose. A life insurance company has also been established.

Trade of the United Kingdom with Russia.

I.—*Account of the Quantities and Values of the Principal Articles Imported from the Northern Ports of Russia into the United Kingdom in* 1865–67.

Principal and other Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Bones of animals and fish (except whalefins)	tons	9,940	8,899	8,334	54,040	42,464	41,845
Bristles	lb.	2,032,478	2,142,072	1,723,970	258,325	282,147	262,145
Candles, stearine	cwt.	10,459	12,055	9,709	36,141	39,758	35,923
Cordage and cables, not of iron	,,	16,232	15,997	11,862	30,475	29,821	24,792
Corn: Wheat	,,	841,045	1,509,741	1,353,266	372,079	838,557	979,243
Oats	,,	1,857,582	3,019,078	2,791,837	700,257	1,209,774	1,290,955
Other kinds	,,	53,040	23,783	75,960	12,702	11,115	39,484
Wheatmeal and flour	,,	88	193,757	110,846	60	179,079	109,740
Feathers for beds	,,	4,490	2,764	3,243	46,098	27,316	31,169
Flax, dressed	,,	47,622	26,105	24,953	156,389	99,124	86,163
rough or undressed	,,	1,203,060	1,006,749	918,433	3,122,549	2,785,729	2,512,795
tow and codilla of	,,	192,953	212,613	120,257	470,585	527,076	300,645
Hair, camel	lb.	691,388	191,055	867,061	20,165	6,951	28,942
horse	cwt.	2,452	3,277	2,547	12,551	17,719	15,045
Hemp, dressed	,,	49,064	34,948	36,473	112,976	79,800	91,313
rough or undressed	,,	582,857	595,868	488,648	903,672	925,571	858,571
tow and codilla of	,,	4,944	4,577	8,605	6,180	5,722	10,709
Hides, not tanned	,,	9,908	15,760	11,933	45,630	70,226	41,364
tanned, tawed, curried, or in any way dressed	lb.	7,498	79,114	24,946	459	4,326	1,367
Muscovy or Russia hides	,,	212,230	106,217	132,593	27,414	15,723	17,100
Iron in bars, unwrought	tons	1,972	2,855	2,690	31,552	42,825	38,272
chromate of	,,	3,748	5,000	7,370	40,647	41,895	45,388
Isinglass	cwt.	719	884	786	34,236	39,621	32,507
Linen manufactures	value	..	..	..	77,199	60,536	27,567
Mats and matting	,,	..	..	..	9,027	17,341	19,054
Oil seed cake	tons	5,134	8,460	2,959	41,298	68,696	22,791
Pitch	cwt.	28,437	45,894	35,681	11,135	20,985	15,140
Quills, goose and swan	number	5,633,300	8,856,801	8,706,100	5,921	8,416	9,408
Rags and other materials for making paper	tons	1,154	1,661	914	25,404	37,697	19,521
Seeds: linseed and flaxseed	qrs.	360,512	455,182	449,352	866,099	1,175,003	1,164,138
Silk, raw	lb.	2,608	3,880	11,500	2,786	4,027	9,775
Tallow	cwt.	628,196	612,991	559,683	1,528,197	1,556,370	1,307,609
Tar	lasts	10,718	16,352	11,984	121,879	166,193	108,579
Wood and timber, not sawn or split	loads	211,416	191,855	106,123	747,680	544,548	267,033
deals, battens, boards &c., sawn or split	,,	461,844	483,791	458,878	1,630,531	1,583,586	1,548,973
lathwood	,,	45,439	41,199	37,623	95,012	74,801	67,605
Wool or hair, goats'	lb.	71,540	23,460	..	10,317	3,257	..
Wool, sheep and lambs'	,,	6,816,416	9,686,319	5,478,852	571,991	480,536	169,994
Yarn, cable	,,	10,775,843	12,906,730	12,927,990	150,294	185,740	205,838
All other articles	value	..	..	..	141,864	236,183	149,995
Total		..	..	..	12,349,901	13,336,887	11,611,597

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Principal and other Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Alkali, soda	cwt.	119,837	117,585	182,455	62,597	68,956	112,568
Apparel and haberdashery	value	..	..	..	7,286	7,060	7,577
Beer and ale	barrels	2,759	2,502	2,352	10,061	9,114	9,282
Bleaching materials	cwt.	18,655	9,501	19,342	10,480	7,319	13,399
Cement	..	81,866	130,185	152,632	10,702	17,423	18,253
Coals, cinders, and culm	tons	384,185	492,773	667,269	175,219	236,942	241,139
Copper, wrought and unwrought	cwt.	13,556	3,702	20,744	61,731	17,705	112,372
Cotton yarn	lb.	1,607,597	1,128,300	1,595,275	191,122	143,488	171,615
Cottons, entered by the yard	yards	907,917	801,524	918,311	30,305	27,079	34,732
at value	value	..	..	..	22,149	20,126	20,983
Drugs and chemical products	..	..	..	..	13,797	15,769	27,064
Earthenware and porcelain	..	..	..	..	4,631	5,257	8,224
Fish, herrings	barrels	6,582	10,761	12,184	8,443	10,584	13,140
Hardwares and cutlery, unenumerated	cwt.	3,687	6,182	7,199	11,559	20,654	33,128
Iron, wrought and unwrought	tons	70,751	81,655	105,857	667,461	759,947	1,057,128
Lead and shot	..	1,861	3,653	3,861	38,067	75,899	77,167
Linen yarn	lb.	8,847	20,720	27,170	743	4,126	9,379
Linens, entered by the yard	yards	241,671	184,977	166,190	17,424	11,930	7,584
at value	value	..	..	..	4,467	5,013	7,956
Machinery: steam engines	..	..	..	..	147,625	170,109	458,779
all other sorts	..	..	..	..	526,574	655,189	458,273
Oil cloth	..	..	..	..	12,093	17,055	17,954
Oil, train and sperm	gallons	45,147	54,184	93,570	9,389	14,396	18,290
Painters' colours (not otherwise described)	value	29,582	34,173	43,830	6,060	7,253	6,493
Paper of all sorts (including paper hangings)	..	..	..	..	..	..	..
Salt	cwt.	947	988	982	1,764	5,789	5,663
Silk, thrown and yarn	tons	36,141	46,263	72,847	29,582	28,177	46,185
manufactures	lbs.	..	4,749	18,215	..	5,895	18,022
Tin, unwrought	value	..	..	..	2,586	2,402	4,167
Tin plates	..	8,486	7,796	7,198	31,511	31,165	32,876
Wool, sheep and lambs'	lbs.	..	..	..	18,742	11,774	32,474
Woollen and worsted yarn	..	245,185	97,710	291,399	24,797	9,864	21,848
Woollens, entered by the yard	yards	1,599,187	1,771,571	1,783,185	205,215	216,022	280,646
at value	value	458,964	488,592	529,150	44,782	55,702	51,783
All other articles	..	..	..	..	7,513	6,766	6,609
Total	..	..	..	..	261,370	288,711	259,196
	..	..	..	..	2,588,343	2,706,148	3,151,396

III.—*Account of the Exports of Foreign and Colonial Produce and Manufactures from the United Kingdom to the Northern Ports of Russia in 1865–67.*

Principal and other Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Caoutchouc	cwt.	2,465	2,974	3,497	18,723	30,033	28,704
Cochineal	..	2,941	2,548	3,173	53,573	48,971	46,048
Coffee	lbs.	4,734,366	4,865,737	4,970,307	138,775	160,656	157,599
Cotton, raw	cwt.	270,258	380,574	437,714	2,253,123	2,413,129	2,603,955
Cutch	tons	41	12	51	1,108	367	2,040
Gambier	..	214	193	304	5,350	4,636	7,298
Gum lac, shellac	cwt.	1,470	1,415	1,841	7,077	5,471	8,617
sticklac	..	3,033	2,561	1,840	6,261	6,002	4,378
Hides, untanned	..	9,088	6,842	9,156	19,500	17,166	22,793
Indigo	..	8,086	8,350	7,356	253,695	253,980	247,329
Logwood	tons	548	501	1,098	2,426	2,571	4,880
Nicaragua wood	..	559	185	101	6,787	2,559	1,607
Oil, cocoa-nut	cwt.	4,425	9,185	5,959	9,565	19,101	9,782
olive	tuns	16	34	29	842	1,943	1,805
Olibanum	cwt.	6,330	4,136	3,687	17,035	12,421	11,199
Pepper	lb.	433,611	587,083	473,509	6,323	8,645	6,903
Petroleum, refined and unrefined	tuns	91	858	225	2,613	14,629	3,775
Quicksilver	lb.	87,641	94,044	127,040	9,059	9,204	11,252
Rice, not in the husk	cwt.	28,752	21,506	13,895	19,771	14,606	10,166
Shumach	tons	1,905	2,020	1,481	27,784	32,084	20,674
Silk, raw	lb.	124	2,792	14,051	163	3,591	18,119
Tea	..	553,548	1,481,013	2,423,915	46,128	559,417	191,893
Tobacco, unmanufactured	..	187,990	24,898	20,691	6,658	1,984	6,07
Wine	gallons	42,334	44,558	58,198	12,277	11,334	18,907
Wood for ship-building, viz. teak	loads	1,039	567	1,014	11,760	5,429	9,912
Wool, sheep and lambs'	lb.	309,644	13,908	159,538	23,901	1,018	10,692
All other articles	value	..	..	..	106,151	116,694	173,148
Total	..	..	..	..	3,087,560	3,550,668	3,936,606
Total of British and Foreign produce	..	..	..	..	5,675,920	6,316,816	6,904,202

IV.—*List of Prices of Russian Produce*, 1866.

Ports and Goods		May	June	July	Aug.	Sept.	Oct.
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
London—Tallow	per ton	18 0	..	19 0	21 0	18 0	17 0
Wheat	per qr.	3 0	3 9	3 3	3 9	3 6	3 3
Oats	..	2 4	..	2 6	2 3	2 3	2 6
Deals	per st. doz.	45 0	50 0	50 0	50 0	42 6	35 0
Dundee and Montrose—Flax	per ton	30 0	46 0	57 6	30 0	30 0	30 0

V.—*The following were the Average Rates of Exchange on London, at the Port of Petersburg, between the Years 1857 and 1866.*

Quotations		1857	1858	1859	1860	1861	1862	1863	1864	1865	1866
Highest	per rouble	38 15-16	36¼	36 11-16	36 15-16	35⅞	35¾	38	35¼	32⅜	32⅜
Lowest	..	34	34⅜	34½	34 15-16	32⅝	33	33¼	29⅛	30 15-16	29⅝
Average	..	37¼	35 15-16	34 15-16	35¾	34⅛	34 9-16	36 15-16	31¾	31¼	29 9-16
Rise or fall of average	per cent.	..	— 4	— 2½	+ 2½	— 4⅔	+ 1½	+ 6½	— 13	— 3	— 6

The shipping season commenced in 1866 with the breaking up of the ice on April 21 (May 3), and closed on November 10 (22), having been shorter by two days than in 1865.

The following tables (VII. and VIII.) give some very interesting and important particulars in respect of the Russian corn and linseed trade; the area over which corn is produced, the yield, and the gross estimated amount of the harvest being stated.

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VI.—*Table showing the Medium Rouble Price and the corresponding Sterling Cost, free on board at Cronstadt, at the average Rates of Exchange, of the Principal Articles of Export from St. Petersburg between 1857 and 1866.*

	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866
Average rate of exchange . pence per rouble	37½	35 13-16	34 15-16	35½	34½	34 9-16	36 15-16	32½	31½	29 9-16
Hemp, clean per berkowets R.	27½	25½	25½	26½	28½	33½	35	32½	29½	33½
,, per ton free on board	£29 12 6	28 11 0	26 5 0	27 5 0	28 6 0	33 8 0	35 15 0	30 1 0	26 15 0	29 15 0
Flax, St. Petersburg, usual, 12 head per berkowets R.	32	40	51	43	45	42½	44	46½	42	53
,, per ton free on board	£34 4 0	40 15 0	49 5 0	43 12 0	43 8 0	41 12 0	46 1 0	42 19 0	37 11 0	44 2 0
Tallows, I. Y. C. per berkowets R.	50	46½	55	52	52	46½	40½	44	49	55
,, per ton free on board	£51 11 0	46 9 0	53 3 0	51 8 0	49 2 0	44 12 0	40 7 6	39 12 0	42 15 0	50 1 0
Linseed, No. 1 per chetvert R.	11½	10½	9½	10½	11½	12	12½	12	12½	14
,, per imp. qr. free on board	£ 2 15 6	2 8 0	2 2 8	2 6 9	2 10 0	2 15 0	2 17 6	2 9 6	2 10 0	2 12 6
Wheat, Saxonka per chetvert R.	10½	9½	9½	10½	11	9½	8½	8½	9½	11½
,, per imp. qr. free on board	£ 2 8 6	2 2 6	2 1 0	2 0 9	2 6 0	2 2	2 0 6	1 15 6	1 18 0	2 5 0
Oats, 6 pds. gross per chetvert R.	5½	4	4	4	4½	4½	5½	5½	5½	6½
,, per imp. qr. free on board	£ 0 19 3	0 19 9	0 19 0	0 19 1	0 19 9	1 0 1	0 16 9	0 14 9	0 16 3	0 17 3

	Average of Medium Prices		Average Rise or Fall between 1857–1861 and 1862–1866, per Cent.	
	1857-1861	1862-1866	Rise	Fall
Average rate of exchange . . . pence per rouble	35 9-16	33	..	7
Hemp, clean . . . per berkowets R.	26½	33	18½	..
,, . . . per ton free on board	27 11 1	31 2 9	13	..
Flax, St. Petersburg, usual, 12 head . . per berkowets R.	42½	45½	7½	..
,, . . per ton free on board	42 4 9	42 9 0	0	..
Tallows, I. Y. C. . . . per berkowets R.	51	47	..	8
,, . . . per ton free on board	50 0 9	43 9 7	..	13½
Linseed, No. 1 . . . per chetvert R.	10½	12½	18	..
,, . . . per imp. qr. free on board	2 8 2	1 12 6	9	..
Wheat, Saxonka . . . per chetvert R.	10	9½	..	5
,, . . . per imp. qr. free on board	2 5 4	1 19 9	..	12½
Oats, 6 pds. gross . . . per chetvert R.	4	5½	..	6½
,, . . . per imp. qr. free on board	0 19 6	0 17 0	..	13½

VII.—*Account of the Corn Sown and Reaped in Russia in Europe (not including Poland or Finland). Compiled from the Reports of Governors, 1859 and 1863.*

Province	Sown		Reaped		Yield		Chetverts for each Inhabitant	
	Winter Corn	Spring Corn	Winter Corn	Spring Corn	Winter Corn	Spring Corn	Winter	Spring
	Chetverts*	Chetverts	Chetverts	Chetverts	Fold.	Fold.		
Northern Zone:								
1. Archangel	15,740	69,150	65,600	206,000	4·2	3·3	0·42	0·74
2. Vologda	250,600	474,600	957,000	1,340,000	4·1	2·8	0·98	1·37
3. Olonetz	58,330	86,670	215,400	330,000	3·7	3·8	0·72	1·11
Alâun Zone:								
4. St. Petersburg	150,500	267,100	503,150	917,000	3·3	3·4	0·41	0·76
5. Novgorod	536,000	742,000	1,150,000	1,929,000	3·4	2·6	1·26	2·12
6. Tver	652,000	1,317,600	2,917,000	4,042,000	4·4	3·3	1·87	2·60
7. Tskof	325,000	550,000	1,172,500	1,550,000	3·6	2·8	1·63	2·14
8. Smolensk	931,454	1,148,000	2,450,000	3,400,000	3·3	2·9	2·14	2·99
Baltic Zone:								
9. Esthonia	92,300	121,500	455,000	470,000	4·9	3·8	1·41	1·5
10. Livonia	227,000	326,000	1,313,000	2,100,000	5·7	6·4	1·41	2·26
11. Courland	135,000	162,500	813,000	921,000	6·0	5·6	1·43	1·62
Lower Zone:								
12. Witebsk	270,550	421,500	765,000	1,185,500	2·8	2·8	0·98	1·52
13. Mohileff	346,200	536,000	818,500	1,410,000	2·4	2·5	0·85	1·58
14. Minsk	690,000	890,000	1,960,000	1,952,000	4·0	3·3	1·94	1·94
15. Gradno	407,000	291,060	1,400,000	813,500	3·4	2·8	1·16	0·91
16. Wilna	362,000	400,000	1,025,000	1,115,000	3·0	2·8	1·19	1·23
17. Kovno	368,100	445,900	1,743,650	1,884,000	4·5	4·2	1·65	1·79
Carpathian Zone:								
18. Kief	680,400	733,100	3,520,000	3,084,200	5·2	4·1	1·74	1·53
19. Volhynia	541,600	621,500	2,060,000	2,090,000	3·8	3·3	1·28	1·30
20. Podolia	729,500	745,000	3,000,000	2,752,000	4·1	3·6	1·6	1·47
21. Chernigoff	651,000	860,000	2,150,000	1,450,000	3·3	2·5	1·44	0·96
22. Poltava	805,800	1,100,000	2,980,000	3,660,000	3·7	3·3	1·55	1·91
23. Kharkoff	485,000	865,600	1,561,000	2,820,000	3·2	3·2	0·97	1·77
Steppe Zone:								
24. Kherson	353,000	421,000	2,100,000	2,140,000	5·9	5·0	1·58	1·61
25. Bessarabia	236,900	453,400	1,440,500	2,723,800	6·0	6·0	1·40	2·65
26. Ekaterinoslaf	260,000	650,000	910,000	2,205,000	3·5	3·3	0·80	1·95
27. Taurida	125,000	300,000	425,000	1,600,000	3·3	5·3	0·69	2·65
28. Don Cossacks	266,500	788,500	1,332,600	3,517,100	5·0	4·4	1·40	3·70
29. Saratoff	954,000	1,403,000	4,229,000	4,637,000	4·4	3·3	2·58	2·89
30. Astrakhan	32,393	84,000	125,140	310,000	3·8	3·6	0·76	0·91
Central Zone:								
31. Yaroslaf	390,000	786,000	1,589,000	2,136,000	3·6	2·7	1·43	1·92
32. Kostroma	512,000	984,000	1,646,000	2,284,000	3·2	2·3	1·53	2·12
33. Nijegorod	755,000	1,020,000	3,250,000	4,100,000	4·4	4·0	2·58	3·19
34. Penza	766,200	1,146,000	2,923,000	4,370,000	4·2	3·8	2·73	3·70
35. Tamboff	993,200	1,471,000	4,226,000	6,003,000	4·2	4·0	2·11	3·00
36. Voronej	1,085,000	1,745,000	5,800,000	5,250,000	3·6	3·0	1·96	2·70
37. Kourak	917,000	1,398,000	3,850,000	4,450,000	4·0	3·1	2·12	2·45
38. Orel	982,130	1,481,600	4,050,000	4,130,000	4·1	2·8	2·61	2·73
39. Kaluga	405,000	603,000	1,125,000	2,346,000	2·7	3·8	1·16	2·43
40. Tula	863,900	1,630,000	3,530,000	4,319,000	4·0	2·6	2·06	2·71
41. Moscow	517,100	831,500	1,385,500	1,950,000	2·6	2·3	0·88	1·24
42. Vladimir	566,600	907,300	2,000,000	2,430,000	3·4	2·6	1·64	2·00
43. Riazan	708,174	1,176,000	4,330,700	5,164,000	6·1	4·3	3·05	3·64
44. Simbirsk	680,000	880,000	3,501,000	2,763,000	4·8	3·1	2·79	2·20
Ural Zone:								
45. Kazan	843,000	1,132,500	2,663,000	2,700,000	3·1	2·3	1·65	1·68
46. Viatka	1,450,190	2,156,800	3,250,000	6,155,000	2·2	2·8	1·46	2·77
47. Perm	516,000	1,630,000	1,375,400	4,940,000	2·6	3·0	0·64	2·30
48. Orenburgh	630,000	1,800,000	3,250,000	4,800,000	5·0	4·0	1·76	2·60
49. Ufa								
50. Samara	642,200	1,964,400	2,568,000	7,667,000	3·6	3·9	1·41	4·37
Total	25,559,971	40,870,990	99,818,000	136,836,700	3·9	3·3	1·64	2·25
				[236,654,700]				3·90

* Chetvert = 381 quarts. † About 181,111,000 quarters.

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Linseed.—The following Table as to shipments from St. Petersburg from the commencement of the trade, and other particulars as to destination and contract prices, are borrowed from Messrs. Cattley & Co.'s statistics. The first shipment was made in 1771.

Table No. VIII.

Years	Total Shipment	Of which destined to Hull	Contract Prices of No. 1, per Imp. qr. f.o.b.	Years	Total Shipment	Of which destined to Hull	Contract Prices of No. 1, per Imp. qr. f.o.b.
	chetverts	chetverts	*s.* *d.*		chetverts	chetverts	*s.* *d.*
1771	100	..	..	1819	52,179	..	..
1772	977	..	..	1820	25,345	..	..
1773	408	..	..	1821	40,380	..	..
1774	877	..	..	1822	3?,251	..	..
1775	14,134	..	..	1823	30,191	..	..
1776	11,449	..	..	1824	45,642	..	..
1777	18,854	..	..	1825	58,109	..	..
1778	32,331	..	..	1826	58,239	13,996	29 6
1779	13,921	..	..	1827	97,231	28,082	31 8
1780	15,744	..	..	1828	141,491	38,282	29 5
1781	13,892	..	..	1829	102,289	35,017	28 8
1782	2,789	..	..	1830	183,167	42,551	33 4
1783	4,892	..	..	1831	211,287	51,929	36 3
1784	27,085	..	..	1832	172,674	49,158	35 3
1785	28,325	..	..	1833	148,769	34,107	30 10
1786	24,742	..	..	1834	141,245	30,?32	42 4
1787	52,235	..	..	1835	252,182	56,379	41 2
1788	45,294	..	..	1836	189,206	91,101	38 10
1789	48,824	..	..	1837	289,473	111,302	34 0
1790	55,492	..	..	1838	288,815	119,713	34 10
1791	13,582	..	..	1839	256,315	134,901	35 6
1792	25,549	..	..	1840	296,955	129,244	44 8
1793	21,857	..	..	1841	208,286	79,989	45 2
1794	25,502	..	..	1842	250,028	79,197	36 0
1795	63,065	..	..	1843	319,077	136,654	35 10
1796	68,141	..	..	1844	311,218	131,656	35 0
1797	54,951	..	..	1845	283,602	146,947	41 9
1798	73,272	..	..	1846	171,240	80,872	43 10
1799	58,373	..	..	1847	245,511	77,?98	34 7
1800	65,294	..	..	1848	279,195	127,433	36 5
1801	56,005	..	..	1849	302,199	133,615	38 7
1802	78,432	..	..	1850	242,118	114,?13	41 6
1803	61,039	..	..	1851	221,702	121,178	35 8
1804	55,356	..	..	1852	201,091	89,313	36 5
1805	67,011	..	..	1853	351,507	196,903	35 5
1806	40,636	..	..	1854	War	..	..
1807	26,744	..	..	1855	War	..	..
1808	War	..	..	1856	527,111	2?0,193	55 2
1809	4,967	..	..	1857	344,342	2?0,750	52 4
1810	War	..	..	1858	215,745	115,?96	47 8
1811	War	..	..	1859	218,150	117,?18	46 7
1812	25,781	..	..	1860	280,800	221,465	47 2
1813	18,013	..	..	1861	173,?27	146,121	48 5
1814	64,966	..	..	1862	346,814	2?0,?80	52 2
1815	39,181	..	..	1863	317,?94	258,836	50 9
1816	36,053	..	..	1864	437,880	3?6,?19	49 9
1817	47,670	..	..	1865	456,242	297,?35	48 6
1818	39,042	..	..	1866	537,?58	4?6,?67	55 3

Per Messrs. C. & Co.'s Annual Circular

Per cluis Price Current at about March 1–15

Summary.

Years	Total Shipped	Shipments to Hull
	chetverts	chetverts
1771 to 1780	108,455	..
1781 1790	279,160	..
1791 1800	467,?58	..
1801 1810	389,770	..
1811 1820	358,411	..
1821 1830	815,696	..
1831 1840	2,154,913	817,136
1841 1850	2,906,533	1,119,598
1851 1860	*?,378,877	*1,450,852
1861 1866	†2,372,634	†1,625,596

* Eight years' shipments, as there was war in 1854 and 1855.
† Six years only. For 10 years, at the same rate, the quantities would be, respectively, total chetverts, 3,950,000; Hull, 2,709,326.

Estimated supply for 1867, about 650,000 chetverts, equal to 455,000 imperial quarters.

Price of No. 1 for August, on {February 25, / March 9,} 45*s.* 10*d.* to 47*s.*

Finland.—The trade with Finland during the years 1863–5 was as follows:—

	1863	1864	1865
	£	£	£
Imports - -	2,460,110	2,?01,?90	2,?9?,?02
Exports - -	1,145,673	1,091,?37	1,?87,?25

The chief trade being carried on at Helsingfors, Wiborg, and Abo. The chief imports are manufactured iron, coffee, and other colonial produce, the exports being timber and fish.

The following Table shows the total value of the imports and exports, exclusive of specie, by each frontier of the Russian empire in the years 1861–3:—

Table No. IX.

Ports	Imports			Exports		
	1861	1862	1863	1861	1862	1863
	£	£	£	£	£	£
White Sea - - - -	79,275	85,?55	104,614	1,078,180	1,112,455	?51,683
Finland - - - -	?51,?36	437,?56	475,995	611,415	1,1?2,?31	?57,678
Baltic - - - -	15,??5,?36	12,191,173	13,513,502	10,?37,?17	11,?52,?30	10,165,039
European land frontier - -	4,?90,684	5,?99,949	4,?45,?23	3,?08,?65	4,057,761	3,113,?66
Black Sea and Sea of Azov -	2,?46,?06	2,?5?,197	2,?97,?96	9,?87,132	8,?65,?40	7,?93,?28
Trans-Caucasian frontier -	876,732	?99,?05	?10,?85	41,??6	68,149	45,486
Astrakhan - - -	126,432	147,?52	?10,?85	951,?70	8?3,?61	??6,613
Orenburg and Siberia - -	1,?25,?25	1,?86,413	1,?45,?48	760,?02	695,?22	?27,?39
Kiachta and China - -	1,?76,?97	1,?83,?84	1,?14,?73	..	..	..
Amoor - - - -	..	..	?,?92	..	..	..
Total - - - -	?6,459,?63	?9,?01,413	?4,?93,?49	?3,?55,?98	?8,?68,?38	?4,?58,?50
Duty received - - - -	4,?07,?72	4,?19,?56	4,?54,?52	?00,?65	?90,?19	?88,?99

The following table, compiled from a return published by Messrs. Maynard and Fishwicks, shipping agents at Cronstadt, gives an account of the exportation of Russian produce through St. Petersburg in 1864–66. The increase, as will be seen, is chiefly to Great Britain.

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X.—*Table showing the Principal Items of Export from St. Petersburg to Great Britain between the Years* 1864 *and* 1866.

Description of Goods		1864	1865	1866	1865-1866 Increase	1865-1866 Decrease
					per cent.	per cent.
Hemp	poods	1,183,398	1,416,625	1,231,582	..	13
Flax	,,	972,298	997,443	894,822	..	10
Wool	,,	216,471	214,847	308,055	50	..
Tallow	,,	1,345,562	1,916,580	2,044,410	6¾	..
Linseed cake	,,	197,800	214,821	419,056	71	..
Linseed	chetverts	331,427	388,112	484,230	24¾	..
Wheat	,,	399,441	281,446	506,696	80	..
Oats	,,	66 ,834	672,852	1,153,291	68	..
Wheat flour	bags	4,998	..	125,926	..	..
Lath wood	pieces	607,554	1,089,900	979,326	..	10
Deals	stand. doz.	303,192	440,413	426,169	..	3

XI.—*Table showing the Principal Items of Import at St. Petersburg from Great Britain, between* 1864 *and* 1866.

Description of Goods		1864	1865	1866	1865-1866 Increase	1865-1866 Decrease
					per cent.	per cent.
Cotton, raw	poods	669,666	733,217	1,128,932	53½	..
Machinery, value	roubles	3,934,748	3,008,803	5,347,774	77¾	..
Coal	,,	3,503,666	685,736	1,069,016	53	..
Coffee	poods	103,076	117,212	122,095	4	..
Sugar, raw and crushed	,,	50,878	2,755	38,429	1,272	..
Oil	,,	25,622	6,266	35,036	459	..
Porter, bottles		118,786	159,116	168,073	5¾	..
in casks	poods	8,483	8,277	7,985	..	3½
Salt	,,	785,426	792,522	758,796	..	5
Tobacco	,,	8,710	14,776	2,094	..	85¾
Rice	,,	74,870	48,765	57,175	17	..
Tea of all qualities	,,	34,938	23,849	31,808	245	..
Cotton Twist	,,	43,571	39,586	26,881	..	31½
Indigo	,,	16,570	20,612	20,988	1¾	..
Cochineal	,,	6,655	7,697	9,574	24	..
Logwood	,,	81,686	105,222	142,389	35	..
Cast iron, unmanufactured	,,	776,964	350,880	536,208	52¾	..
Iron, wrought	,,	794,752	1,043,698	988,195	..	5
Copper	,,	22,575	44,516	14,052	..	27
Lead	,,	81,817	118,925	242,786	104	..
Soda	,,	377,774	344,202	365,569	6	..
Wool	,,	38,142	52,940	38,473	..	27¼
Iron, manufactured	roubles	1,564,119	2,698,856	3,227,273	20¼	..
Cotton goods	,,	478,742	248,562	238,180	4¾	..
Flax ,,	,,	527,397	273,554	218,888	..	19¾
Silk ,,	,,	11,492	19,574	37,428	91	..
Woollen ,,	,,	522,245	347,924	537,570	54½	..

XII.—*Table showing the Principal Items of Import into St. Petersburg from Countries in Europe during the Year* 1866, *and the Increase or Decrease of Importations as compared with* 1865.

Goods	Quantity	As compared with 1865 Increase	Per cent.	Decrease	Per cent.
		Quantity		Quantity	
Sugar, raw and crushed poods	1,553,309	944,013	155	..	..
Tea - ,,	94,790	8,860	10	..	..
Coffee - ,,	228,549	..	..	9,892	4
Other Colonial goods - ,,	20,125	..	..	2,302	10
Tobacco - ,,	38,968	218	6	..	..
Wine in casks ,,	245,110	28,685	14	..	..
bottles, No.	721,316	21,787	3	..	..
Spirituous liquors poods	10,789	1,913	21½	..	..
Oil - ,,	631,951	159,554	33¾	..	..
Fruit - No.	28,907,874	10,761,046	59	..	..
Salt - poods	766,750	11,991	1½	..	..
Iron, unmanufactured - ,,	990,268	297,543	43	..	..
cast - ,,	595,718	180,527	43	..	..
Cotton, raw - ,,	1,543,649	787,159	104	..	..
twist - ,,	36,619	..	..	2,188	6
Woollen yarn - ,,	56,880	1,305	2¼	..	..
Silk, raw and spun - ,,	900	475	111¾	..	..
Indigo - ,,	31,623	6,212	24½	..	..
Other dye stuffs - ,,	709,328	167,109	30¾	..	..
Cotton manufactures ,,	6,760	504	8	..	..
Flax ,, - ,,	8,410	..	..	658	7
Silk ,, - ,,	832	164	24¾	..	..
Woollen ,, - ,,	13,293	2,146	21	..	..
Petroleum - ,,	216,707	78,925	46¾	..	..
Other goods, value in roubles -	25,571,895	2,521,564	22	..	..
Total value, silver roubles -	83,700,265 £10,467,000	24,094,404	40¼		

Before the tariff reforms of 1857, the value of the exports given above (Table XIII.) was only a little more than 1,000,000*l.* sterling. It is most likely, indeed, as already observed, that the increase may have been in some degree occasioned by a decrease of clandestine importation. But, independently of this indirect effect, there can be no manner of doubt that there has been a large increase of consumption. It may be observed with reference to our trade with Russia, that a large proportion of the British ships and produce destined for Odessa and other ports on the Black Sea, and the Sea of Azoff, clear out for Constantinople, and are included among the clearances and exports for Turkey.

XIII.—*Table showing the Principal Items of Export from St. Petersburg to Countries in Europe during the Year* 1866.

Goods	Quantity	As compared with 1865 Increase Quantity	Per cent.	Decrease Quantity	Per cent.
Hemp - poods	1,738,778	..	..	205,747	10½
Flax - ,,	921,116	..	..	260,417	22
Tallow - ,,	2,356,979	197,518	9¼	..	..
Hides, raw - ,,	69,921	27,693	65½	..	..
Leather, puffs ,,	12,199	..	..	6,143	33½
Iron - ,,	401,451	277,125	217¼	..	..
Copper - ,,	9,419	..	..	2,325	19¾
Bristles - ,,	78,176	..	..	334	½
Cordage - ,,	121,363	..	..	19,940	13
Linen - pieces	19,380	..	..	5,294	21
Breadstuffs - chets.	2,510,241	1,398,396	125¼	..	..
Bones - poods	347,778	..	..	28,813	7½
Timber - pieces	10,469	9,608	1,116	..	..
Potashes - poods	533,554	..	..	45,789	7½
Mats and bags, pieces	318,600	50,706	16	..	..
Rags - poods	91,007	37,406	125¾	..	..
Miscellaneous rbls.	18,994,839	1,777,976	10¾	..	..
Total value in rbls.	53,434,020 £5,979,000	3,451,428	17¼	..	..

Note.—In 1866 the exportation of gold and silver from St. Petersburg exceeded the importation by 14,587,500 roubles (1,823,000*l.*).

Average Annual Exportation of Wool from Russia.

	poods.		poods.
From 1800 to 1813 -	19,815	In 1849 -	601,638
1814 1823 -	35,173	1853 -	617,069
1824 1833 -	111,546	1857 -	1,096,330
1834 1837 -	300,100	1861 -	1,045,664
1838 1841 -	375,580	1862 -	1,337,111
In 1841 -	456,181	1863 -	1,317,459
1845 -	783,488		

XIV.—*Account of the Real Value of the British Products and Manufactures Exported from the United Kingdom to Russia in each of the 7 Years ending with* 1866.

	1860	1861	1862	1863	1864	1865	1866
	£	£	£	£	£	£	£
Northern ports - - -	2,885,576	2,661,487	1,743,462	2,423,834	2,575,170	2,588,334	2,766,148
Southern ports - - -	382,903	379,961	327,961	271,442	271,239	334,652	396,871
Total - - -	3,268,479	3,041,448	2,071,423	2,695,276	2,846,409	2,923,006	3,163,019

XV.—*Table showing the Comparative Tonnage of the British and Foreign Vessels that Entered the Ports of Cronstadt and St. Petersburg between the Years* 1856 *and* 1866.

Years	Total Tonnage	British		Dutch	Swedish and Norwegian	Russian	Prussian	French
		Tonnage	Per cent. of total					
1856	520,004	218,442	42	67,438	44,944	19,236	35,906	12,960
1857	456,748	209,728	45½	68,808	23,172	18,102	24,772	17,918
1858	453,962	221,012	48	40,511	26,100	18,240	26,236	19,562
1859	514,470	253,726	49	49,266	25,732	40,410	25,100	12,140
1860	455,482	227,358	50	37,366	27,216	31,252	22,488	11,532
1861	472,608	262,012	55	32,370	28,414	33,442	18,178	12,628
1862	408,278	241,352	60	37,698	19,120	23,256	9,374	10,106
1863	460,000	281,856	61	44,758	21,938	22,180	16,856	13,460
1864	471,768	344,364	73	33,846	20,836	16,772	7,658	13,214
1865	511,834	355,116	69½	36,638	16,974	16,754	16,324	12,690
1866	661,920	421,202	64	48,380	40,216	23,232	21,920	14,148
Total -	5,390,074	3,039,164	..	497,072	294,692	266,186	228,062	150,378
Per cent.	..	56	Average 56	9	5½	4½	4	3

In addition to the modifications of the tariff, the measures the Russian Government have adopted in regard to the emancipation of the slaves, and the construction of railways, are of the highest importance. The capacities of production possessed by Russia are not surpassed by those of any other country, and their greater development cannot fail to give a vast stimulus to her trade and civilisation, and to add greatly to her political influence.

The relative amount of tonnage supplied by Great Britain at St. Petersburg between the years 1856 and 1866 has therefore been as follows:—

British - - -	56	per cent.
Dutch - - -	9	,,
Swedish and Norwegian - -	5½	,,
Russian - - -	4½	,,
Prussian - - -	4	,,
French - - -	3	,,
Other countries together - -	17½	,,
Total - -	100	

Important as the Russian trade of this country is, it does not now occupy such a position as it did at the time when nearly the entire supply of many raw materials of manufacture was derived from Russia. Such were hemp, flax, and tallow, the staple commodities of that great empire, besides corn in seasons of scarcity. At present, however, many other kinds of fibre are used as substitutes for hemp, as esparto, jute, coir, and Manilla hemp. Similar facts may be stated of flax, while the number and variety of substitutes for tallow, as a means for supplying artificial light, and for the manufacture of soap, are even more striking. The supply of corn too is yearly becoming more and more extensive. For the financial position of Russia, see the *Report* of Mr. Consul T. Michell, of June 1867, on the finances of the empire, and M. Walewski's *Les Finances de la Russie*, which gives an unfavourable estimate of the present state of the country.

In compiling this article, we have consulted Schnitzler, *Essai d'une Statistique Générale de la Russie*, pp. 133–157; and his *Russie, Pologne, et Finlande*, pp. 187–289; Ricard, *Traité Général du Commerce*, ed. 1781, ii. pp. 268–817; Tegoborski, *Forces Productives de la Russie*, passim; Coxe's *Travels in the North of Europe*, 8vo. ed. iii. pp. 283–358 &c.; Clark's *Russian Trader's Assistant*, a valuable and useful work; *Supplément au Journal de St. Pétersbourg*, for 1852–53; *Consular Returns* from Petersburg and Odessa; especially Mr. Consul Michell's elaborate and valuable *Report* for 1866; but we have derived our principal information from the official returns published by Government, and *private communications* of eminent Russian merchants.

PETROLEUM. This substance, which has been known for a long period as rock oil or naphtha, is found in various parts of the world. It was known to Herodotus as existing in Zante, and formed the source of the fire which the ancient Persians worshipped. Till lately, the best-known sources were the borders of the Caspian Sea, Amiano in Italy, Trinidad in the West Indies, and Rangoon in the East Indies, where vast quantities have been raised for many centuries, without apparent exhaustion. It is only lately, however, that petroleum has been an object of great commercial importance, owing to the extraordinary abundance (about 14,000 barrels a-day) in which it has been found in the United States.

The principal source of supply is Western Pennsylvania, but it has been found throughout a region commencing in Western Canada, and extending through New York and Pennsylvania, westward into Ohio and Kentucky, and far southward into Western Virginia. It appears that it also exists largely in California, and that it is likely to be as instrumental in increasing the wealth of that wide region as gold and quicksilver. It frequently rises with overflowing springs, but the most abundant source of supply is from wells bored into the oil-bearing region. The depth at which it is found varies from 71 to 600 feet, a solid rock overlying it. It is supposed to be supplied from the natural distillation of carbonaceous matter, the agent being subterranean heat. In some districts the amount of coal-gas generated with it is so large that the gas is used for economical purposes.

The trade in petroleum has assumed immense proportions. The following are the exports from Boston, New York, Philadelphia, and Baltimore:—

	gals.		gals.
1862 - -	10,887,701	1865 - -	25,024,410
1863 - -	28,210,721	1866 - -	61,406,058
1864 - -	31,772,972		

The home consumption of 1866 was 39,416,149 gals., and the total value of the product 47,210,379 dollars, or 7,263,136*l.*

The yield of this substance in the United States has been stated to be as follows:—

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	gals.		gals.
1861 -	24,000,000	1864 -	87,000,000
1862 -	40,000,000	1865 -	91,160,000
1863 -	70,000,000		

The largest shipments were to Antwerp, Bremen, London, Havre, and Marseilles, these five ports receiving 912,914 barrels out of 1,462,049 exported from the 4 American ports just mentioned. But there is scarcely a port of any consequence in Europe to which consignments of this oil are not made.

The price of the oil at the wells, in 1866, according to Mr. Consul Cortwright, was only 2 dols. (currency), 6*s.* 7*d.* per barrel, whereas the carriage to Philadelphia and New York amounted to 4 dols. (13*s.* 2*d.*) per barrel. To remedy this state of things, it has been proposed to lay down a vast oil pipe from the wells to the sea-coast. 'So important is petroleum,' adds the Consul, 'as a substitute for fuel, that, odd as the project is, it is not impossible that it may be realised.' See also the work on Petroleum of Messrs. Daddon and Bannan, of Poltsville, United States, 1866.

In 1867, exclusive of 1,166 tuns of unrefined, valued at 13,451*l.*, we imported, chiefly from the United States, 5,374,532 gallons of refined petroleum, valued at 354,271*l.* [PHILADELPHIA.]

In consequence of its inflammable nature two Acts were passed (in 1862 and 1868) to regulate the storing and testing of this and kindred substances. After February 1, 1869, 'no petroleum shall be kept otherwise than for private use within 50 yards of a dwelling house, or of a building in which goods are stored, except by license.'

PEWTER (Ger. zinn, zinngiesserzinn; Fr. étain; Ital. stagno; Span. estaño, peltre; Russ. olowo). A factitious metal used in making plates, dishes, and other domestic utensils. It is a compound, the basis of which is tin. The best sort consists of tin alloyed with about $\frac{1}{16}$ or less of copper, or other metallic bodies, as the experience of the workmen has shown to be most conducive to the improvement of its hardness and colour, such as lead, zinc, bismuth, and antimony. There are 3 sorts of pewter, distinguished by the names of *plate*, *trifle*, and *ley-pewter*. The 1st was formerly much used for plates and dishes; of the 2nd are made the pints, quarts, and other measures for beer; and of the ley-pewter, wine measures and large measures. (Ure.)

PHILADELPHIA. A large city and seaport of the United States, in Pennsylvania, near the confluence of the rivers Delaware and Schuylkill, lat. 39° 57′ N., long. 75° 10′ 59″ W. It was founded by William Penn in 1682. Population in 1860, 562,529.

Harbour, Lighthouses, Pilotage &c.—Vessels of the largest burden ascend the river as far as Newcastle, but those drawing above 18 or 20 feet water cannot reach Philadelphia, on account of a bar a little below the city. The entrance to the magnificent bay formed by the embouchure of the Delaware has Cape May on its north, and Cape Henlopen on its south side. The former, in lat. 38° 55′ 50″ N., long. 75° 57′ 16″ W., is a sandy headland, rising about 12 feet above the level of the sea. It is surmounted by a lighthouse 152 feet in height. The light revolves every half minute. It is seen, in clear weather, 19 miles off. Cape Henlopen, marking the southern boundary of the bay, is in lat. 36° 46′ 38″ N., long. 75° 4′ 45″ W. A little south from it is a hill, elevated about 60 feet above the level of the sea; and on it is erected a lighthouse, 72 feet in height, furnished with a powerful *fixed* light, visible, in clear weather, 20 miles off. To the north of this principal light, and close to the extremity of the Cape, a second lighthouse has been constructed, 45 feet above the level of the sea, which is also furnished with a *fixed* light, which may be seen about 9 miles off. The channel for large ships is between Cape Henlopen and the banks called the Overfalls. The navigation is, however, a little difficult, and it is compulsory on ships to take pilots. The latter frequently board them at sea; but if not, as soon as a ship comes between the Capes she must hoist the signal for a pilot, and heave to as soon as one offers to come on board. (Coulier *Sur les Phares*, 2nd ed. See post, for regulations as to pilotage.)

Trade.—The trade of Philadelphia is pretty extensive. She communicates by various canals (one of which, 395¼ miles in length, unites her with Pittsburg, on the Ohio) and by railways with the interior, and is the grand depôt for the coal and petroleum of the Union, the increase of the trade in which has been quite unprecedented. Previous to 1825 no coal had been sent down the Schuylkill, and in that year only 5,306 tons were brought by that channel to Philadelphia; whereas in 1857 the quantity amounted to 3,042,378 tons, exclusive of about twice as much supplied by other channels. Large quantities of this coal are sent coastwise to other parts of the Union. Exclusive of coal, petroleum, and iron, the exports principally consist of wheat and wheat flour, Indian corn, and other agricultural products: Philadelphia is, however, becoming as much a manufacturing as a trading city.

The exports of petroleum from Philadelphia in the 5 years 1863–67 were, in quantities and values, as follow, viz.:—

Years	Quantity	Value
1863 -	4,950,708 gals.	1,582,189 dols.
1864 -	7,566,945 "	4,794,721 "
1865 -	12,032,934 "	6,441,874 "
1866 -	26,836,884 "	11,274,707 "
1867 -	28,751,445 "	8,055,435 "

The principal imports are cotton, woollen, and silk goods; sugar, coffee, and tea; iron and hardware; wines, brandies, spices, dye-stuffs &c. In point of shipping, Philadelphia is the fourth port in the Union, being, in this respect, inferior only to New York, Boston, and New Orleans. The registered, enrolled, and licensed tonnage belonging to the port on June 30, 1858, amounted to 219,852 tons, of which more than two-thirds (151,615 tons) were engaged in the coasting trade, which was very large. In 1865, 531 vessels of 159,579 tons entered the port. The total value of the articles imported into Pennsylvania from foreign countries in 1866 amounted to 14,115,004 dols., and that of the exports to 17,913,901 dols. The coasting trade of the port is, however, more extensive and of greater importance than its foreign trade.

Account of the Value of Foreign Imports into and Exports from Philadelphia in the 10 Years ending with 1866.

Years	Value of Exports	Value of Imports
	dols.	dols.
1857	7,135,156	17,850,630
1858	5,987,251	12,090,369
1859	5,298,595	15,601,769
1860	7,839,286	14,531,352
1861	10,277,934	8,094,161
1862	11,518,970	8,327,976
1863	10,628,963	6,769,530
1864	13,664,852	9,136,585
1865	12,584,152	8,545,122
1866	17,913,901	14,115,004

There are numerous banks in Philadelphia, but they stand no higher in point of character than those in most other parts of the Union, and have over and over again suspended payments. The Bank of the United States had its head-office

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here. Besides banks, there are numerous insurance companies and joint-stock associations.

The exports of flour, wheat, corn &c., or of bread-stuffs, as they are called by the Americans, from Philadelphia to foreign countries, have been as follow:—

Years	Flour	Corn Meal	Rye Flour	Wheat	Corn
	brls.	brls.	brls.	bhls.	bhls.
1839	191,380	73,800	21,527	37,831	17,117
1840	287,774	89,186	36,171	280,047	76,749
1841	195,555	108,822	26,866	56,571	80,266
1842	161,866	97,884	22,530	87,953	83,772
1843	168,517	106,484	22,503	32,935	74,613
1844	196,453	101,556	21,904	23,775	110,068
1845	201,956	115,101	17,098	88,089	129,256
1846	366,610	141,857	19,730	245,136	279,820
1847	420,684	300,531	20,407	523,538	1,102,201
1848	179,507	100,014	15,537	207,092	817,150
1849	220,786	91,349	26,536	177,312	906,823
1850	83,021	91,331	25,054	205,670	602,680
1851	299,466	65,385	10,505	225,201	554,545
1852	311,453	68,182	6,285	491,163	113,993
1853	513,475	74,189	3,780	882,910	52?,702
1854	251,495	70,024	9,192	187,629	923,649
1855	218,197	95,168	12,757	226,071	686,252
1856	346,356	91,830	15,083	643,859	1,094,255
1857	198,560	47,571	8,354	201,200	603,236

Account of the Quantity of Grain produced in the State of Pennsylvania in 1866.

Articles	Bushels	Value
		dols.
Indian Corn	35,831,877	32,607,004
Wheat	10,519,660	28,087,192
Rye	6,569,690	7,686,557
Oats	54,954,560	27,477,280
Barley	621,571	677,515
Buckwheat	9,718,728	9,329,979

Shipping and Navigation.—In 1864 there entered the port of Philadelphia 276 foreign ships, and 342 American; and 192 American and 313 foreign cleared the port.

In Pennsylvania, the dollar is worth 7*s.* 6*d.* currency; so that 1*l.* sterling = 1*l.* 13*s.* 4*d.* currency. [NEW YORK.]

Weights and Measures same as those of England.

Account of the Trade with Philadelphia in British Vessels, 1864—1866.

Years	Entered				Cleared			
	Number	Tonnage	Crews	Estimated Value of Cargoes	Number	Tonnage	Crews	Estimated Value of Cargoes
				£				£
1864	256	80,000	2,894	1,030,410	247	79,611	2,821	1,082,255
1865	285	100,755	3,557	1,340,556	285	100,755	3,557	1,303,700
1866	290	99,127	3,477	1,279,560	290	99,127	3,477	1,383,000

Statement of the Number and Tonnage of American Vessels that have Entered and Cleared through the Philadelphia Custom-house during the same period, viz., from 1864 *to* 1866 *inclusive.*

Years	Entered				Cleared			
	From Foreign Countries		From other American Ports		From Foreign Countries		From other American Ports	
	Number	Tonnage	Number	Tonnage	Number	Tonnage	Number	Tonnage
1864	307	89,902	1,235	362,824	159	51,784	8,993	1,470,595
1865	274	76,259	1,196	343,031	208	68,816	5,370	698,870
1866	419	143,426	..	..	274	113,376	..	..

The above account does not include all the vessels engaged in the coasting trade, but only such as have entered and cleared at the Custom-house.

The following table will show the number of vessels engaged in the coasting trade. No flag but American is allowed to engage in this trade.

Statement of the Arrivals at Philadelphia of Vessels engaged in the Coasting Trade of the United States during the Years 1861 *to* 1866 *inclusive—*

1861	34,577	1864	33,998
1862	35,164	1865	31,435
1863	34,096	1866	38,060

Regulations of the Port.—If any master or captain of any ship or vessel, or other person, shall refuse or neglect to comply with the directions of the harbour master, in matters within the jurisdiction of his office, such person shall, for each and every such offence, severally forfeit and pay any sum not exceeding 100 dollars. And the said harbour master shall, in full compensation for his services, be entitled to have, recover, and receive from the master, captain, owner, or consignee of each and every ship or vessel arriving at the port of Philadelphia (coasting vessels not exceeding the burden of 75 tons excepted) the sum of 1 dollar for each and every voyage by such ship or vessel performed, and no more.

Every ship or vessel that may arrive in this harbour, and that shall come to anchor in the stream anywhere between Almond and Vine Streets, having previously caused her gunpowder, if any she had on board, to be landed as the law directs, may remain in that situation 24 hours, and no longer, taking care to lie as near to the island or sand-bar as may be consistent with her safety. But if, from the circumstance of a vessel having servants on board, or from any other cause, it may be thought necessary or convenient to lie a longer time in the stream, then, and in every such case, the owner, master, pilot, or other person having the charge or direction of such vessel, shall remove her from opposite the city, and shall moor her, or cause her to be moored, to the northward of Vine Street with 1 anchor and cable up and 1 anchor and cable down the stream; and in both the above-mentioned situations, the regulation contained in the next succeeding article to be duly attended to.

If any vessel properly moored in the stream shall have her anchor or cable overlaid by any other vessel in anchoring or mooring, the master

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or person having the care or direction of such last-mentioned vessel shall immediately, or as soon as may be after application made to him by the party aggrieved, cause the said anchor or cable so overlaying to be taken up and cleared. When any ship or vessel shall be hauled in to any wharf or dock, or alongside of another vessel that may be lying at such wharf or dock, the owner, master, pilot, or whoever may have the command, care, or direction of her, shall have her securely made fast; and if outside of another vessel, shall get one good fast from each end of the vessel to the shore, with sufficient fenders between them and the inside vessel; and shall cause the flukes of their anchors to be taken on board; and, within 24 hours thereafter, cause her jib boom, spritsail-yard, main boom, spanker and ringtail booms, if any they have, to be rigged in, and their lower yards topped up, in such a manner as least to interfere with vessels passing.

If the fasts of vessels when moored at a wharf shall extend across a dock, so as to obstruct the passing or repassing of shallops, lighters, or other craft or vessel, the master or other person having the command of such ship or vessel shall, upon the first application, immediately cause such fast or fasts to be cast off or slacked down.

No outward-bound vessel, putting off from a wharf, shall lie longer in the stream, between Vine Street and Almond, in the district of Southwark, above mentioned, than 24 hours. And if vessels lying at the end of wharves so much interlock with each other as to prevent vessels hauling in and out of docks, the master, owner, pilot, or other person having the charge of the same, shall, immediately on application from any person so wanting to haul his vessel in or out of docks aforesaid, have the vessel or vessels so interfering, moved in such a manner as to accommodate the one applied for; in which case the vessel making room for another to haul in or out shall have liberty to make her warps fast to the most convenient place adjacent, for a reasonable time; and all sea vessels, when transporting or wanting to haul into a wharf or dock, or to make sail in order to proceed to sea, shall have the same privilege.

When any ship or vessel may be lying alongside any wharf, and not taking in or discharging, she shall make way for and permit any vessel that wants to unload or load, to come inside, next the wharf, until she discharges or loads her cargo; and the said vessel, when so discharged or loaded, shall haul outside and give way to the vessel that first occupied the wharf; provided that, from the 10th of December to the 1st of March, no vessel shall be compelled to move from her berth (only those at Gloucester Point piers), excepting to let vessels in and out of docks.

Rates of Pilotage.

Table A.

Inwards up to 12 feet at 5 dollars per foot; over 12 feet, for every foot, at 3 dollars 33 cents.

	dols.	cents		dols.	cents
5 feet is	15	00	13½ feet is	45	00
5½ ..	16	50	14 ..	46	67
6 ..	18	00	14½ ..	48	33
6½ ..	19	50	15 ..	50	00
7 ..	21	00	15½ ..	51	67
7½ ..	22	50	16 ..	53	33
8 ..	24	00	16½ ..	55	00
8½ ..	25	50	17 ..	56	67
9 ..	27	00	17½ ..	58	33
9½ ..	28	50	18 ..	60	00
10 ..	30	00	18½ ..	61	67
10½ ..	31	50	19 ..	63	33
11 ..	33	00	19½ ..	65	00
11½ ..	34	50	20 ..	66	67
12 ..	36	00	21 ..	70	00
12½ ..	41	67	22 ..	73	33
13 ..	43	33	23 ..	76	66

Table B.

Inwards, up to 12 feet, 3·74 dollars per foot; over 12 feet, 4·16 for every foot.

Outwards, up to 12 feet, at 2·50 dollars; over 12 feet, for every foot, at 3 dollars.

Inwards			Outwards		
	dols.	cents		dols.	cents
5 feet is	18	70	5 feet is	11	50
5½ ..	20	57	5½ ..	12	65
6 ..	22	44	6 ..	13	80
6½ ..	24	31	6½ ..	14	25
7 ..	26	18	7 ..	16	10
7½ ..	28	05	7½ ..	17	25
8 ..	29	92	8 ..	18	40
8½ ..	31	79	8½ ..	19	55
9 ..	33	66	9 ..	20	70
9½ ..	35	53	9½ ..	21	85
10 ..	37	40	10 ..	23	00
10½ ..	39	27	10½ ..	24	15
11 ..	41	14	11 ..	25	30
11½ ..	43	01	11½ ..	26	45
12 ..	44	88	12 ..	27	60
12½ ..	52	00	12½ ..	37	50
13 ..	54	08	13 ..	39	00
13½ ..	56	16	13½ ..	40	50
14 ..	58	24	14 ..	42	00
14½ ..	60	32	14½ ..	43	50
15 ..	62	40	15 ..	45	00
15½ ..	64	48	15½ ..	46	50
16 ..	66	56	16 ..	48	00
16½ ..	68	64	16½ ..	49	50
17 ..	70	72	17 ..	51	00
17½ ..	72	80	17½ ..	52	50
18 ..	74	88	18 ..	54	00
18½ ..	76	96	18½ ..	55	50
19 ..	79	04	19 ..	57	00
19½ ..	81	12	19½ ..	58	50
20 ..	83	20	20 ..	60	00
21 ..	87	36	21 ..	63	00
22 ..	91	52	22 ..	66	00
23 ..	95	68	23 ..	69	00

The table marked A contains the fees leviable upon vessels which are towed by steamers to Philadelphia.

The table marked B contains the fees which are charged in cases where no steamer has been employed to tow the vessel from or to sea.

No ship or vessel loading or discharging hemp at any wharf, or within any dock, shall be allowed to have any fire on board; neither shall any vessel lying outside or near her be permitted to have fire on board, while it may be considered dangerous. And no tar, turpentine, rosin, or pitch shall be heated on the wharf, or on board any vessel lying at any wharf within the limits of the city.

There are 3 classes of pilots. 1. Those capable of piloting vessels of any practicable depth of water. 2. Those capable of piloting vessels drawing 12 feet of water or under. 3. Those capable of piloting vessels drawing 9 feet of water or under.

Every vessel arriving from, or bound to, a foreign port, is required by law to receive a pilot, or to pay half pilotage in the warden's office, where the master of every such vessel is required, under a penalty of 10 dollars, to make report within 36 hours after his arrival, and again before his departure, signing his name to said report in the warden's book.

Every vessel of 75 tons and upwards arriving from, or bound to, any port within the United States, and the masters of all such vessels, are bound as above.

The pilot of every vessel is required to inform the master of his having to report at the warden's office.

All vessels obliged to receive a pilot are required to pay 10 dollars in addition, as winter pilotage, from November 20 to March 10, both days inclusive.

Foreign vessels, i.e. Spanish, Portuguese, Neapolitan, Danish, Russian, South American, and Haytian, to pay 2 dollars 67 cents in addition to other pilotage.

Every pilot detained more than 24 hours by any master, owner, or consignee, is entitled to 3 dollars per day for every day he is so detained.

Every pilot detained more than 48 hours by the ice, after he has conducted his vessel to a place of safety, is entitled to 3 dollars per day for every day he is so detained.

Every pilot compelled to perform quarantine is entitled to 2 dollars per day, for every day he is

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so detained, and cannot be discharged in less than 6 days, without his consent.

Every pilot obliged by the ice or stress of weather to proceed to another port, is, when there, entitled to his pilotage; and if there discharged, to 8 cents a mile for every mile he has to travel home.

Every pilot is required, under a penalty of 12 dollars, to make report, within 48 hours, at the warden's office, of every vessel he conducts to the city.

Rates of Commission on Sales adopted by the Merchants of Philadelphia.

	cents
Flour	12½ per bbl.
Corn meal	2½ "
Ditto	50 per hhd.
Grain, all kinds	1 per bush.
Seeds	2½ per ct.
Coal	5 "
Lumber	5 "
Whisky	2½ "
Produce not specified	2½ "
Guarantee	1½ and 2½ per ct.
Accepting without property in hand	2½ per ct.

We have obtained much of the information given in this article from Mr. Consul Cortwright's very instructive *Report* of June 7, 1867.

PHOSPHORUS. A substance of a light amber colour, and semi-transparent; but, when carefully prepared, nearly colourless and transparent. When kept some time it becomes opaque externally, and has then a great resemblance to white wax. It may be cut with a knife, or twisted to pieces with the fingers. It is insoluble in water; its specific gravity is 1·77. When exposed to the atmosphere it emits a white smoke, and is luminous in the dark. When heated to 148° it takes fire, and burns with a very bright flame. When phosphorus is inflamed in oxygen, the light and heat are incomparably more intense; the former dazzling the eye, and the latter cracking a glass vessel. (Thomson's *Chemistry*; Watt's *Dictionary of Chemistry*.)

PIASTRES or DOLLARS. Spanish and American silver coins in very extensive circulation. Value, at an average, about 4*s.* 4*d.* sterling. [Coins; Dollar.]

PIERS. [Harbours.]

PILCHARDS. Fishes closely resembling the common herring, but smaller, and at the same time thicker and rounder. They are rarely found on the British shores, except on the coasts of Cornwall and Devon, particularly the former, where they are taken in great numbers from the middle of July to the end of November, or even the middle of December. It is a saying of the Cornish fishermen, that the pilchard is the least fish in size, most in number, and greatest for gain, taken from the sea.

Pilchard Fishery.—This is carried on along the coasts of Cornwall and Devon, from the Bolt Head in the latter, round by the Land's End to Padstow and Bossiney in the former. Its principal seats are St. Ives, Mount's Bay, and Mevagissey. The fish usually make their appearance in vast shoals in the early part of July, and disappear about the middle of October; but they sometimes reappear in large quantities in November and December. They are taken either by *seans* or by drift nets, but principally, perhaps, by the former. A sean is a net, varying from 200 to 300 fathoms in length, and from 10 to 14½ do. in depth, having cork buoys on one edge and lead weights on the other. Three boats are attached to each sean, viz. a boat (*sean boat*), of about 15 tons burden, for carrying the sean; another (*follower*) of about the same size, to assist in mooring it; and a smaller boat (*lurker*), for general purposes. The number of hands employed in these 3 boats varies from about 13 to 18, but may be taken, at an average, at about 16. But at St. Ives, where the fishery is conducted in a peculiar manner or by *turns*, one crew serves for from 10 to 15 seans. When the shoals of fish come so near the shore that the water is about the depth of the sean, it is employed to encircle them; the fishermen being directed to the proper places for casting or shooting the nets by persons (*huers*) stationed for that purpose on the cliffs and in the boats. The tunny fish in the Archipelago was caught in a similar way: 'Ascendebat quidam (Anglicè *huer*, Græcè *thunoscopos*) in altum promontorium, unde thunnorum gregem specularetur, quo viso, signum piscatoribus dabat, qui retibus totum gregem includebant.' (Bishop Blomfield's *Notes on the Persæ of Æschylus*, quoted by Dr. Paris, in his *Guide to Mount's Bay*, p. 150.) The practice is to row the boat with the sean on board gently round the shoal; and the sean being, at the same time, thrown gradually into the water, assumes, by means of its buoys and weights, a vertical position, its loaded edge being at the bottom, and the other floating on the surface. Its two ends are then fastened together; and, being brought into a convenient situation, it is moored by small anchors or grapnels; sometimes, however, one or two smaller seans are employed to assist in securing the fish. At low water, the enclosed fish are taken out by a *tuck net*, and carried to the shore. A single sean has been known to enclose at once as many as 4,200 hogsheads (1,200 tons) of fish. But this was the greatest quantity ever taken, and it is seldom that as many as 1,200 hogsheads are caught at a time. The 'take,' in fact, depends on so many accidental circumstances, that while one sean may catch and cure in a season from 1,000 to 2,000 hogsheads, others in the neighbourhood may not get a single fish. In some places the tides are so strong as to break the seans and set the fish at liberty. When the quantity enclosed is large, it requires several days to take them out, as they must not be removed in greater numbers than those who salt them can conveniently manage.

Drift nets are usually about ½ mile in length by about 4½ fathoms in depth; they are shot in the open sea, and entangle the fish in their meshes in the same way as the herring nets. The fish thus taken are said to be superior to those taken by the seans, though it be doubtful, from their being strangled in the nets, whether they are so good for curing.

As soon as the fish are brought on shore, they are carried to cellars or warehouses, where they are piled in large heaps, having a sufficient quantity of salt interspersed between the layers. Having remained in this state for about 35 days, they are, after being carefully washed and cleaned, packed in hogsheads, each containing, at an average, about 2,600 fish. (Mr. Pennant inadvertently states the number of fish in a hogshead at 35,900—*British Zoology*, iii. 344, ed. 1776. Trusting to his authority, we fell into the same error in the 1st edition of this work.) They are then subjected to a pressure sufficient to extract the oil, of which each hogshead yields, provided the fish be caught in summer, about 3 gallons; but those that are taken late in the season do not yield above half this quantity. This oil usually sells for from 12 to 15 per cent. under the price of brown seal oil. The broken and refuse fish and salt are sold to the farmers, and are used as manure with excellent effect. The skimmings which float on the water in which the pilchards are washed are called *dregs*, and are chiefly sold as grease for machinery.

The fresh fish in a hogshead of pilchards weigh

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about 6 cwt., and the salt about 3½ cwt.; but the weight of the hogshead when cured and pressed is reduced to about 4¼ cwt., including the weight of the cask, from 20 to 24 lb. We subjoin—

An Account of the Exports of Pilchards during each of the 17 Years ending with 1866; specifying the Places for which they were exported, the Quantity shipped for each, and their Price at the Port of Shipment.

Years	Genoa	Leghorn	Civita Vecchia	Naples	Ancona, Venice, Trieste	Total	Price per Hogshead on Shore
	hhds.	hhds.	hhds.	hhds.	hhds.	hhds.	
1850	2,034	4,500	1,102	10,170	8,017	25,823	44s. to 50s. to 60s.
1851	2,594	4,672	1,352	8,964	9,161	26,743	43s. 6d. to 45s. 0d.
1852	2,971	4,445	825	5,218½	3,618½	15,141	30s. 0d. 50s. 0d.
1853	2,729	5,120	1,257	5,657	7,014	21,275	36s. 0d. 42s. 6d.
1854	1,165	2,293	460	1,357	1,429	6,704	37s. 0d. 50s. 0d.
1855	1,987½	2,225½	—	881½	1,007½	6,102	42s. 0d. 54s. 0d.
1856	1,831	4,657	1,718	5,258	5,569	18,833	70s. 0d. 75s. 0d. 40s. 0d. 51s. 0d.
1857	2,317	3,627	1,020	4,334	4,617	15,915	42s. 0d.
1858	1,881	1,429	791	6,686	4,992	16,479	60s. to 30s. to 42s.
1859	1,698	—	632	613	202	3,145	62s. 6d. to 37s. 0d.
1860	560	781½	—	1,613	966	3,920½	60s. 0d. 80s. 0d.
1861	2,539½	1,980½	—	4,141½	2,356	10,988	68s. 6d. 72s. 6d.
1862	4,857½	3,352	1,316	6,226½	2,055½	17,807	51s. 0d. 63s. 0d.
1863	5,171	4,439	1,179	12,962	2,006½	26,157	41s. 0d. 55s. 0d.
1864	3,964	5,825	963	9,521½	3,168	23,539½	46s. 0d. 45s. 0d.
1865	3,657	1,793½	498	1,919	2,171½	9,929	
1866	4,017	2,585½	998	3,490	3,203½	14,294	

Of the fish cured in 1866, 2,944 hhds. were caught eastward of Lizard; 5,700 in Mount's Bay; 5,650 in St. Ives and north of St. Ives. Total, 14,294 hogsheads.

N.B.—Of the quantity sent to the Adriatic, full ¾ have been sold in Venice, and the remainder chiefly in Ancona.

The export of pilchards has been rather declining of late years. This has been ascribed to various causes, such as the withdrawal of the bounty of 8*s.* 6*d.* per hogshead formerly paid on their export, the relaxed observance of Lent in the countries to which they are principally exported, and the imposition of a heavy duty on their importation into Naples. The falling off in the demand of the latter has, however, been in great measure compensated by the increased demand at Venice.

Pilchards are not used in England, except in Cornwall and Devon, where from 4,000 to 5,000 hhds. a-year may at present be consumed.

The sean fishery employs about 1,500 hands regularly throughout the season, and a vast number more when any considerable shoals are enclosed. There are at present (1866) about 260 seans afloat, of which above 180 belong to St. Ives. The first cost of a sean on the south coast is about 450*l.*; but a St. Ives sean does not cost above 300*l.* The drift fishery employs, during the season, from 900 to 1,000 men, and about 230 boats; the cost of each boat and nets amounting to about 250*l.* The labour in the cure of the fish may be taken at about 5*s.* per hogshead. The total capital embarked in the fishery has been estimated by those engaged in it at from 200,000*l.* to 250,000*l.*

The drift fishermen employ themselves, when not engaged in the pilchard fishery, in the mackerel, herring, and hook-line fisheries. The sean fishermen consist principally of agricultural labourers, miners &c., attracted to the business in the expectation (in which, however, they are not unfrequently disappointed) of making a comparatively large sum by a few weeks' exertion. But at St. Ives only able-bodied and expert fishermen are employed. In all sean boats 3 or 4 individuals of the crew are regularly bred, expert fishermen.

Four-fifths of the persons employed on shore in the salting, curing, packing &c., of the fish are women.

The wages of those employed in the fishery are made sometimes to depend on the number of fish taken; but in other instances they are independent of any such contingency.

The fishery at St. Ives is carried on under a particular Act of Parliament, passed in 1841. The exaction of a tithe of the fish is a very serious burden on the fishery; sometimes it is taken in kind, but is more generally compounded for. (Dr. Paris's *Guide to Mount's Bay and the Land's End*, 2nd ed. pp. 146-156; *Beauties of England and Wales*, vol. ii. p. 471; but we are principally indebted to *private information* obtained from the most authentic sources, and obligingly communicated, by Mr. Coulson, of Penzance.)

PILOTS AND PILOTAGE. The name of pilot or steersman is applied either to a particular officer, serving on board a ship during the course of a voyage, and having charge of the helm and the ship's route; or to a person taken on board at any particular place for the purpose of conducting a ship through a river, road, or channel, or from or into a port.

It is to the latter description of persons that the term pilot is now usually applied; and pilots of this sort are established in various parts of the country by ancient charters of incorporation, or by particular statutes. The most important of these corporations are those of the Trinity House, Deptford Strond, with which the fellowship of the pilots of Dover, Deal, and the Isle of Thanet, commonly called the *Cinque Port Pilots*, is now consolidated; and the Trinity Houses of Hull and Newcastle. The 5 Geo. IV. c. 73 established a corporation for the regulation and licensing of pilots in Liverpool.

Principles of the Law as to Pilots.—These are sufficiently obvious, and differ but little in most maritime codes. When a master is obliged by law to employ a pilot, and does so accordingly, the vessel having ceased to be under the command of their servants, the owners are no longer responsible for such loss or damage as may be occasioned by her mismanagement (17 & 18 Vict. c. 104 s. 388) unless it be made to appear that it arose from the neglect or misconduct of the master or crew in obeying or carrying out the orders of the pilot. It is, therefore, a very serious matter for a master or captain to interfere with or supersede a pilot in the exercise of his peculiar functions. But still there are cases, and those, too, not of rare occurrence, of such a nature as to make interference indispensable. Pilots are anything but infallible; and whenever it becomes evident to a master, or to the authorities on board, that the pilot is acting inconsiderately, or that he is drunk or incompetent, it is not the right only, but the bounden duty of the master to provide for the safety of the ship by resuming his authority, and taking the command upon himself. On this

being done the responsibility of the pilot ceases, of course; and the owners become liable for the proceedings of their servant, the master. In those cases, again, in which it is in the election or discretion of the master to take a pilot or not, and he thinks fit to take one, the pilot so taken is considered as the servant of the owners, who are responsible for his conduct. (Abbott *On the Law of Shipping*, part ii. c. 5; Maude and Pollock on ditto, c. 5 and the authorities there quoted.)

The statute 6 Geo. IV. c. 125 consolidated the laws with respect to the licensing, employment &c. of pilots. But all that portion of the Act which related to the Cinque Port pilots was repealed by the 16 & 17 Vict. c. 129. This statute united the Trinity House and Cinque Port pilots; or, rather, it included the latter in the former. It provided, that the Cinque Port pilots should in future be subject to the same rules and regulations as the Trinity House pilots, and that they might pilot ships inwards and outwards within the limits for which they were licensed. The property belonging to the Cinque Port pilots was at the same time transferred to the Trinity House; and the Act laid down the rules by which the debts and claims of the Cinque Port pilots on the Trinity House funds were to be adjusted.

The general rules and regulations now (1869) existing with respect to pilotage have been embodied in part V. of the Merchant Shipping Act, 17 & 18 Vict. c. 104, and sec. 39 of the Merchant Shipping Amendment Act, 25 & 26 Vict. c. 63. And as a knowledge of these rules and regulations is indispensable to masters and other parties engaged in shipping, we subjoin a full abstract of the portion of the statutes now referred to. See also schedules to 25 & 26 Vict. c. 63 for regulations for preventing collision at sea, and art. COLLISION.

Powers of Pilotage Authorities (general).

Jurisdiction of Pilotage Authorities.—Every pilotage authority shall retain all powers and jurisdiction which it now lawfully possesses, so far as the same are consistent with the provisions of this Act; but no law relating to such authority, or to the pilots licensed by it, and no act done by such authority, shall, if inconsistent with any provision of this Act, be of any force whatever, 17 & 18 Vict. c. 104 s. 331. But the Board of Trade has power to transfer pilotage jurisdiction in certain cases, 25 & 26 Vict. c. 63 s. 39.

To make and extend Exemptions from compulsory Pilotage.—Every pilotage authority shall have power, by by-law made with the consent of her Majesty in council, to exempt the masters of any ships, or of any classes of ships, from being compelled to employ qualified pilots, and to annex any terms or conditions to such exemptions, and to revise and extend any exemptions now existing by virtue of this Act or any other Act of Parliament, law, or charter, or by usage, upon such terms and conditions and in such manner as may appear desirable to such authority, 17 & 18 Vict. c. 104 s. 332. The Board of Trade has power by provisional order to exempt from compulsory pilotage in any district, 25 & 26 Vict. c. 63 s. 39.

Power of Pilotage Authorities.—Subject to the provisions contained in these Acts, it shall be lawful for every pilotage authority, by by-law, made with the consent of her Majesty in council, from time to time to do all or any of the following things within its districts, viz.:—

1. To determine the qualifications to be required from persons applying to be licensed as pilots, whether in respect of their age, skill, time of service, character, or otherwise:

2. To make regulations as to the approval and licensing of pilot boats and ships, with power to establish and regulate companies for the support of such boats and ships, and for a participation in the profits made thereby; the companies so established to be exempt from the provisions of the Act 7 & 8 Vict. c. 110:

3. To make regulations for the government of the pilots licensed by them, for insuring their good conduct, and their constant attendance to and effectual performance of their duty, either at sea or on shore:

4. To fix the terms and conditions of granting licenses to pilots and apprentices, and of granting pilotage certificates as hereinafter mentioned to masters and mates, and to make regulations for punishing any breach of such regulations committed by such pilots or apprentices or by such masters and mates by the withdrawal or suspension of their licenses or certificates, as the case may be, or by the infliction of penalties, to be recoverable summarily before two justices, so that no such penalty exceed the sum of 20*l*., and so that every such penalty be capable of reduction at the discretion of the justices by whom the same is inflicted:

5. To fix the rates and prices or other remuneration to be demanded and received for the time being by pilots licensed by such authority, or to alter the mode of remunerating such pilots, in such manner as such authority may, with such consent as aforesaid, think fit, so that no higher rates or prices be demanded or received from the masters or owners of ships in the case of the Trinity House than the rates and prices specified in the table A. hereto annexed; and in the case of all other pilotage authorities, than the rates and prices which might have been lawfully fixed or demanded by such pilotage authorities respectively under any Act of Parliament, charter, or custom in force immediately before the commencement of this Act:

6. To make such arrangements with any other pilotage authority for altering the limits of their respective districts, and for extending the powers of such other authority or the privileges of the pilots licensed by such other authority, or any of them, to all or any part of its own district, or for limiting its own powers or the privileges of its own pilots or any of them, or for sharing the said last-mentioned powers and privileges with the said other authority and the pilots licensed by it, or for delegating or surrendering such powers and privileges or any of them to any other pilotage authority constituted or to be constituted by agreement between such authorities, and to the pilots licensed by it, as may appear to such pilotage authorities to be desirable for facilitating navigation or for reducing charges on shipping:

7. To establish, either alone or in conjunction with any other pilotage authority or authorities, funds for the relief of superannuated or infirm qualified pilots, or of their wives, widows, or children, or to make any new regulations with respect to any funds already applicable to such purposes, with power to determine the amount, manner, time, and persons (such persons to be in the service of such pilotage authority) to and in which and by and upon whom the contributions in support of such existing or future funds may be made or levied; and further, to declare the persons or class of persons (such persons or class of persons being confined to men in the service of

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such pilotage authority, their wives, widows, or children) entitled to participate in the benefits of such existing or future funds, and the terms and conditions upon which they are to be so entitled:

8. To repeal or alter any by-law made in exercise of the above powers, and to make a new by-law or new by-laws in lieu thereof: And every by-law duly made by any pilotage authority in exercise of the powers hereby given to it, shall be valid and effectual, notwithstanding any Act of Parliament, rule, law, or custom to the contrary, 17 & 18 Vict. c. 104 (sec. 333). In cases where the pilotage is not compulsory, and where there is no restriction on the power of duly qualified persons to obtain licenses as pilots, the Board of Trade has power by provisional order to enable the existing authorities to grant licenses and to fix, raise, and facilitate the recovery of, pilotage rates, and also to give facilities to qualified persons to obtain licenses as pilots, 25 & 26 Vict. c. 63 s. 39.

Publication of By-laws.—Every by-law proposed to be enacted by any pilotage authority in pursuance of the foregoing powers shall, before it is submitted to her Majesty in council for her assent, be published in such manner as may from time to time be prescribed by the Board of Trade, 17 & 18 Vict. c. 104. (Sec. 334.)

By-laws to be laid before Parliament.—Every order in council made in pursuance of the provisions of this Act shall be laid before both Houses of Parliament as soon as possible after the making thereof. (Sec. 335.)

Power of Appeal to Board of Trade.—If the greater part in number of the qualified pilots belonging to any port, or the Local Marine Board, where there is one, or at any port where there is no Local Marine Board, if any masters, owners, or insurers of ships, being not less than six in number, consider themselves aggrieved by any regulation or by-law in force when this Act comes into operation or hereafter made under some authority other than the provisions of this Act, or by any defect or omission therein, they may appeal to the Board of Trade, and the said Board may thereupon revoke or alter any such regulation or by-law or may make additions thereto in such manner as, having regard to the interests of the persons concerned, may appear to be just and expedient; and every order so made shall be conclusive in the matter. (Sec. 336.)

Returns by Pilotage Authorities (general).

Pilotage authorities to make Returns to Board of Trade.—Every pilotage authority shall deliver periodically to the Board of Trade, in such form and at such times as such Board requires, returns of the following particulars with regard to pilotage within the port or district under the jurisdiction of such authority, viz.:—

1. All by-laws, regulations, orders, or ordinances relating to pilots or pilotage for the time being in force:

2. The names and ages of all pilots or apprentices licensed or authorised to act by such authority, and of all pilots or apprentices acting either mediately or immediately under such authority, whether so licensed or authorised or not:

3. The service for which each pilot or apprentice is licensed:

4. The rates of pilotage for the time being in force, including therein the rates and descriptions of all charges upon shipping made for or in respect of pilots or pilotage:

5. The total amount received for pilotage, distinguishing the several amounts received from British ships and from foreign ships respectively and the several amounts received in respect of different classes of ships paying different rates of pilotage, according to the scale of such rates for the time being, and the several amounts received for the several classes of service rendered by pilots; and also the amount paid by such ships (if any) as have, before reaching the outer limits of pilotage water if outward-bound, or their port of destination if inward-bound, to take or pay for two or more pilots, whether licensed by the same or by different pilotage authorities; together with the numbers of the ships of each of the several classes paying such several amounts as aforesaid:

6. The receipt and expenditure of all moneys received by or on behalf of such authority, or by or on behalf of any sub-commissioners appointed by them, in respect of pilots or pilotage:

And shall allow the Board of Trade, or any persons appointed by such Board for the purpose, to inspect any books or documents in its possession relating to the several matters herein required to be returned to the Board of Trade. (Sec. 337.)

The Jurisdiction of local Authorities failing to give the required Returns, to be transferred to Trinity House.—If any of such pilotage authorities as aforesaid (other than the Trinity House, or sub-commissioners of pilotage appointed by it) fail to deliver to the Board of Trade the periodical returns above required within 1 year of such time as may be fixed by such Board for the purpose, or if any of such authorities do not allow the said Board, or any persons who may be appointed by it for the purpose, to inspect any books or documents in their possession relating to the matters herein required to be returned by them, it shall be lawful for her Majesty, by and with the advice of her Privy Council, to direct that all the rights and powers of such authorities in respect of pilotage shall cease or be suspended during such time as her Majesty directs; and thereupon the Trinity House shall thereafter, or during such time as such suspension may continue, have and exercise the same powers of appointing sub-commissioners of pilotage, and of licensing pilots, and of establishing and altering rates of pilotage, within the district within which the authority so making default has previously appointed or licensed pilots, as it is by this Act authorised to exercise in any district for which no particular provision is made by any Act of Parliament or charter for the appointment of pilots, and shall also, during such time as aforesaid, have and exercise the same rights, title, and powers to and in respect of any pilotage funds or other pilotage property which the said pilotage authorities would or might have had or exercised if not so suspended as aforesaid. (Sec. 338.)

Returns to be laid before Parliament.—The Board of Trade shall without delay cause the several returns hereinbefore required to be made to such Board to be laid before both Houses of Parliament. (Sec. 339.)

Licensing of Masters and Mates (general).

Master or Mate, if examined and passed, to receive a Pilotage Certificate.—The master or mate of any ship may, upon giving due notice, and consenting to pay the usual expenses, apply to any pilotage authority to be examined as to his capacity to pilot the ship of which he is master or mate, or any one or more ships belonging to the same owner, within any part of the district over which such pilotage authority has jurisdiction; and such master or mate shall, if such authority thinks fit, thereupon be examined; and if found

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competent, a pilotage certificate shall be granted to him, containing his name, a specification of the ship or ships in respect of which he has been examined, and a description of the limits within which he is to pilot the same, such limits to be within such jurisdiction as aforesaid; and such certificate shall enable the person therein named to pilot the ship or any of the ships therein specified, of which he is acting as master or mate at the time, but no other, within the limits therein described, without incurring any penalties for the non-employment of a qualified pilot. (Sec. 340.)

Renewal of Pilotage Certificate.—The pilotage certificate so granted shall not be in force for more than 1 year, unless the same is renewed, which may from time to time be done by an indorsement under the hand of the secretary or other proper officer of the authority by whom such certificate was granted. (Sec. 341.)

Board of Trade examine and grant Pilotage Certificates.—If upon complaint to the Board of Trade it appear to such Board that any such authority as aforesaid has without reasonable cause refused or neglected to examine any master or mate who has applied to them for the purpose, or, after he has passed the examination, has without reasonable cause refused or neglected to grant him a pilotage certificate, or that the examination of any such master or mate has been unfairly or improperly conducted, or that any terms imposed or sought to be imposed by such authority are unfair or improper, or that any pilotage certificate granted by such authority has been improperly withdrawn, the Board of Trade may, if in its judgment the circumstances appear to require it, appoint persons to examine such master or mate, and if he is found competent may grant him a pilotage certificate, containing the same particulars as would have been inserted in any certificate granted by such pilotage authorities as aforesaid, upon such terms and conditions, and subject to such regulations, as such Board may think fit; and such certificate shall have the same effect as if it had been granted by such pilotage authority as aforesaid; and such certificate shall be in force for 1 year, and may be renewed from year to year, either by the said authorities in manner hereinbefore mentioned, or by the Board of Trade, if such Board thinks fit, such renewal to be indorsed on the said certificate, either by such person as the Board of Trade may appoint for the purpose, or in manner hereinbefore provided as to certificates granted by any pilotage authority. (Sec. 342.)

Fees paid upon Certificates and Renewals thereof.—All masters or mates to or for whom any such pilotage certificates are granted or renewed by any pilotage authority shall pay to such authority, or as it directs, such fees upon their respective certificates and upon the renewals thereof as are from time to time fixed for that purpose by such authority, with the consent of the Board of Trade; and all masters and mates to or for whom any such certificates are granted or renewed by the Board of Trade shall pay to such Board, or as it directs, such fees upon their certificates and upon the renewals thereof as may be fixed by such Board, so nevertheless that in the case of pilotage certificates granted or renewed by the Board of Trade, such fees shall in no case be less than the fees payable by the qualified pilots in the same district upon their licenses and the renewal thereof; and such fees shall, in the case of certificates and renewals granted by pilotage authorities, be applicable either to paying the expense of the examinations, or any other general expenses connected with pilotage incurred by such authorities, or to the Pilots' Superannuation Fund of the district (if any), or otherwise for the benefit of the pilots appointed by such authorities, as such authorities think fit; and such fees shall in the case of pilotage certificates granted or renewed by the Board of Trade be applicable to the expense of the examinations, and the surplus (if any) shall be applied for the benefit of the qualified pilots of the port or district to which such certificates apply, in such manner as such Board thinks fit (Sec. 343.)

Power to withdraw Pilotage Certificates.—If at any time it appear to the Board of Trade or to any pilotage authority, that any master or mate to whom a pilotage certificate has been granted by such Board or authority has been guilty of misconduct, or has shown himself incompetent to pilot his ship, such Board or such authority (as the case may be) may thereupon withdraw his certificate, and such certificate shall thenceforth cease to be of any effect whatever. (Sec. 344.)

Pilot Boat (general).

Pilot Boats how to be provided.—All boats and ships regularly employed in the pilotage service of any district shall be approved and licensed by the pilotage authorities of such district, who may, at their discretion, appoint and remove the masters of such boats and ships. (Sec. 345.)

Characteristics of Pilot Boats.—Every pilot boat or ship shall be distinguished by the following characteristics, viz.:—

1. A black colour painted or tarred outside, with the exception of the names and numbers hereinafter mentioned; or such other distinguishing colour or colours as the pilotage authority of the district, with the consent of the Board of Trade, directs:

2. On her stern the name of the owner and of the port to which she belongs painted in white letters at least 1 inch broad and 3 inches long, and on each bow the number of the license of such boat or ship:

3. When afloat, a flag at the mast-head or on a sprit or staff, or in some other equally conspicuous situation; such flag to be of large dimensions compared with the size of the boat or ship carrying the same, and to be of two colours, the upper horizontal half white, and the lower horizontal half red:

And it shall be the duty of the master of such boat or ship to attend to the following particulars: First, that the boat or ship possess all the above characteristics; secondly, that the aforesaid flag is kept clean and distinct, so as to be easily discerned at a proper distance; and, lastly, that the names and numbers before mentioned are not at any time concealed; and if default is made in any of the above particulars, he shall incur a penalty not exceeding 20*l.* for each default. (Sec. 346.)

Qualified Pilot to display Flag though not in Pilot Boat.—Whenever any qualified pilot is carried off in a boat or ship not in the pilotage service, he shall exhibit a flag of the above description, in order to show that such boat or ship has a qualified pilot on board; and if he fail to do so without reasonable cause, he shall incur a penalty not exceeding 50*l.* (Sec. 347.)

Penalty on ordinary Boat displaying Pilot Flag.—If any boat or ship, not having a licensed pilot on board, display a flag of the above-mentioned description, there shall be incurred for every such offence a penalty not exceeding 50*l.*, to be recovered from the owner or from the master of such boat or ship. (Sec. 348.)

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Pilot License (general).

Registry of Pilot License.—Every qualified pilot on his appointment shall receive a license, containing his name and usual place of abode, together with a description of his person, and a specification of the limits within which he is qualified to act; and it shall be the duty of the principal officer of customs at the place at or nearest to which any qualified pilot may reside, upon his request, to register his license; and no qualified pilot shall be entitled to act as such until his license is so registered; and any qualified pilot acting beyond the limits for which he is qualified by his license shall be considered as an unqualified pilot. (Sec. 349.)

Regulations to be furnished to qualified Pilot, and produced by him.—Every qualified pilot shall, upon receiving his license, be furnished with a copy of such part of this Act as relates to pilotage, together with a copy of the rates, by-laws, and regulations established within the district for which he is licensed; and he shall produce such copies to the master of any ship, or other person employing him, when required to do so, under a penalty in case of default not exceeding 5*l*. (Sec. 350.)

Qualified Pilot to produce License to Employer.—Every qualified pilot, while acting in that capacity, shall be provided with his license, and produce the same to every person by whom he is employed, or to whom he tenders his services as pilot; and if he refuse to do so at the request of such person, he shall incur for each offence a penalty not exceeding 10*l*., and shall be subject to suspension or dismissal by the pilotage authority by whom he is licensed. (Sec. 351.)

Licenses to be delivered up when required &c.—Every qualified pilot, when required by the pilotage authority who appointed him, shall produce or deliver up his license; and on the death of any qualified pilot the person into whose hands his license happens to fall shall without delay transmit the same to the pilotage authority who appointed the deceased pilot; and any pilot or person failing to comply with the provisions of this section shall incur a penalty not exceeding 10*l*. (Sec. 352.)

Compulsory Pilotage (general).

Compulsory Pilotage, how enforced.—Subject to any alteration to be made by any pilotage authority in pursuance of the powers in that behalf given, the employment of pilots shall continue to be compulsory in all districts in which the same was by law compulsory immediately before the time when this Act comes into operation; and all exemptions from compulsory pilotage then existing within such districts shall also continue in force; and every master of any unexempted ship navigating within any such district who, after a qualified pilot has offered to take charge of such ship or has made a signal for that purpose, either himself pilots such ship without possessing a pilotage certificate enabling him so to do, or employs or continues to employ an unqualified person to pilot her, and every master of any exempted ship navigating within any such district who, after a qualified pilot has offered to take charge of such ship or has made a signal for that purpose, employs or continues to employ an unqualified pilot to pilot her, shall, for every such offence, incur a penalty of double the amount of pilotage demandable for the conduct of such ship. (Sec. 353.)

Home Trade Passenger Ships to employ qualified Pilots, unless &c.—The master of every ship carrying passengers between any places situate in the United Kingdom, or the Islands of Guernsey, Jersey, Sark, Alderney, and Man, and any other place so situate, when navigating upon any waters situate within the limits of any district for which pilots are licensed by any pilotage authority under the provisions of this or any other Act, or upon any part thereof so situate; shall, unless he or his mate has a pilotage certificate enabling such master or mate to pilot the said ship within such district, employ a qualified pilot to pilot his ship; and if he fail so to do, he shall for every offence incur a penalty not exceeding 100*l*. (Sec. 354.)

Certificates, how to be granted to Masters and Mates.—Any master or mate of a ship which by the preceding section is made subject to compulsory pilotage may apply to the Board of Trade for a certificate, and the Board of Trade shall thereupon, on satisfactory proof of his having continuously piloted any ship within the limits of any pilotage district or of any part or parts thereof for two years prior to the commencement of this Act, or upon satisfactory proof by examination of his competency, or otherwise as it may deem expedient, cause to be granted to him, or to be indorsed on any certificate of competency or service obtained by him under this Act, a certificate to the effect that he is authorised to pilot any ship or ships belonging to the same owner, and of a draught of water no greater than such draught as may be specified in the certificate within the limits aforesaid; and the said certificate shall remain in force for such time as the Board of Trade directs, and shall enable the master or mate therein named to conduct the ship or ships therein specified within the limits therein described to the same extent as if the preceding section had not been passed, but not farther or otherwise; and every such master or mate shall, upon applying for such certificate or for any renewal thereof, pay to the Board of Trade or as it directs such fees not exceeding the fees payable on an examination for a master's certificate of competency under this Act as the Board of Trade directs; and such fees shall be applied in the same manner in which the fees payable on such last-mentioned examination are made applicable. (Sec. 355.)

Rights, Privileges, and Remuneration of Pilots (general).

Qualified Pilot unable to board when entitled to Pilotage.—If any boat or ship, having a qualified pilot on board, leads any ship which has not a qualified pilot on board when such last-mentioned ship cannot from particular circumstances be boarded, the pilot so leading such last-mentioned ship shall be entitled to the full pilotage for the distance run as if he had actually been on board and had charge of such ship. (Sec. 356.)

Allowance to qualified Pilot taken out of his District.—No pilot, except under circumstances of unavoidable necessity, shall without his consent be taken to sea or beyond the limits for which he is licensed in any ship whatever; and every pilot so taken under circumstances of unavoidable necessity or without his consent shall be entitled, over and above his pilotage, to the sum of 10*s*. 6*d*. a day, to be computed from and inclusive of the day on which such ship passes the limit to which he was engaged to pilot her, up to and inclusive of the day of his being returned in the said ship to the place where he was taken on board, or up to and inclusive of such day as will allow him, if discharged from the ship, sufficient

time to return thereto; and in such last-mentioned case he shall be entitled to his reasonable travelling expenses. (Sec. 357.)

Penalty on Pilot receiving or Master offering improper Rate.—Any qualified pilot demanding or receiving, and also any master offering or paying to any pilot, any other rate in respect of pilotage services, whether greater or less, than the rate for the time being demandable by law, shall for each offence incur a penalty not exceeding 10*l.* (Sec. 358.)

Penalty on making a Declaration as to Draught of Ship &c.—If any master, on being requested by any qualified pilot having the charge of his ship to declare her draught of water, refuse to do so, or himself makes or is privy to any other person making a false declaration to such pilot as to such draught, he shall incur a penalty for every such offence not exceeding double the amount of pilotage which would have been payable to the pilot making such request; and if any master or other person interested in a ship make or is privy to any other person making any fraudulent alteration in the marks on the stern or stem post of such ship denoting her draught of water, the offender shall incur a penalty not exceeding 500*l.* (Sec. 359.)

Qualified Pilot to supersede unqualified Pilot.—A qualified pilot may supersede an unqualified pilot, but it shall be lawful for the master to pay to such unqualified pilot a proportionate sum for his services, and to deduct the same from the charge of the qualified pilot, and in case of dispute the pilotage authority by whom the qualified pilot is licensed shall determine the proportionate sums to which each party is entitled. (Sec. 360.)

Penalty on unqualified Person acting as Pilot.—An unqualified pilot assuming or continuing in the charge of any ship after a qualified pilot has offered to take charge of her, or using a license which he is not entitled to use for the purpose of making himself appear to be a qualified pilot, shall for each offence incur a penalty not exceeding 50*l.* (Sec. 361.)

Occasions on which unlicensed Persons may act as Pilots.—An unqualified pilot may, within any pilotage district, without subjecting himself or his employer to any penalty, take charge of a ship as pilot under the following circumstances, viz.:—

When no qualified pilot has offered to take charge of such ship, or made a signal for that purpose; or,

When a ship is in distress or under circumstances making it necessary for the master to avail himself of the best assistance which can be found at the time; or,

For the purpose of changing the moorings of any ship in port, or of taking her into or out of any dock, in cases where such act can be done by an unqualified pilot without infringing the regulations of the port or any orders which the harbour master is legally empowered to give. (Sec. 362.)

Liability for and Recovery of Pilotage Dues.—The following persons shall be liable to pay pilotage dues for any ship for which the services of a qualified pilot are obtained, viz., the owner or master, or such consignees or agents thereof as have paid or made themselves liable to pay any other charge on account of such ship in the port of her arrival or discharge, as to pilotage inwards, and in the port from which she clears out as to pilotage outwards; and in default of payment such pilotage dues may be recovered in the same manner as penalties of the like amount may be recovered by virtue of this Act; but such recovery shall not take place until a previous demand thereof has been made in writing, and the dues so demanded have remained unpaid for 7 days after the time of such demand being made. (Sec. 363.)

Power of Consignees to retain Pilotage Dues paid by them.—Every consignee and agent (not being the owner or master) hereby made liable for the payment of pilotage dues in respect of any ship may, out of any moneys in his hands received on account of such ship or belonging to the owner thereof, retain the amount of all dues so paid by him, together with any reasonable expenses he may have incurred by reason of such payment or liability. (Sec. 364.)

OFFENCES OF PILOTS (GENERAL).

Penalties on qualified Pilots.—If any qualified pilot commits any of the following offences, viz.:—

1. Keeps himself, or is interested in keeping by any agent, servant, or other person, any public house or place of public entertainment, or sells or is interested in selling any wine, spirituous liquors, tobacco, or tea;
2. Commits any fraud or other offence against the revenues of Customs or Excise or the laws relating thereto;
3. Is in any way directly or indirectly concerned in any corrupt practices relating to ships, their tackle, furniture, cargoes, crews, or passengers, or to persons in distress at sea or by shipwreck, or to their moneys, goods, or chattels;
4. Lends his license;
5. Acts as pilot whilst suspended;
6. Acts as pilot when in a state of intoxication:
7. Employs or causes to be employed on board any ship of which he has the charge any boat, anchor, cable, or other store, matter, or thing beyond what is necessary for the service of such ship, with the intent to enhance the expenses of pilotage for his own gain or for the gain of any other person;
8. Refuses or wilfully delays, when not prevented by illness or other reasonable cause, to take charge of any ship within the limits of his license upon the signal for a pilot being made by such ship, or upon being required to do so by the master, owner, agent, or consignee thereof, or by any officer of the pilotage authority by whom such pilot is licensed, or by any principal officer of customs;
9. Unnecessarily cuts or slips or causes to be cut or slipped any cable belonging to any ship;
10. Refuses, on the request of the master, to conduct the ship of which he has the charge into any port or place into which he is qualified to conduct the same, except on reasonable ground of danger to the ship;
11. Quits the ship of which he has the charge, without the consent of the master, before the service for which he was hired has been performed:

He shall for each such offence, in addition to any liability for damages at the suit of the person aggrieved, incur a penalty not exceeding 100*l.*, and be liable to suspension or dismissal by the pilotage authority by whom he is licensed; and every person who procures, abets, or connives at the commission of any such offence shall likewise, in addition to any such liability for damages as aforesaid, incur a penalty not exceeding 100*l.*, and, if a qualified pilot, shall be liable to suspension or dismissal by the pilotage authority by whom he is licensed. (Sec. 365.)

Penalty on Pilot endangering Ship, Life, or Limb.—If any pilot, when in charge of any ship, by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, does any act tending to the immediate loss, destruction, or serious

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damage of such ship, or tending immediately to endanger the life or limb of any person on board such ship; or if any pilot, by wilful breach of duty or by neglect of duty, or by reason of drunkenness, refuse or omit to do any lawful act proper and requisite to be done by him for preserving such ship from loss, destruction, or serious damage, or for preserving any person belonging to or on board of such ship from danger to life or limb; the pilot so offending shall for each such offence be deemed guilty of a misdemeanor, and if a qualified pilot, also be liable to suspension and dismissal by the authority by which he is licensed. (Sec. 366.)

Penalty on Pilot in Charge of a Ship doing her wilful Injury.—If any person, by wilful misrepresentation of circumstances upon which the safety of a ship may depend, obtains or endeavours to obtain the charge of such ship, such person, and every other person procuring, abetting, or conniving at the commission of such offence, shall, in addition to any liability for damages at the suit of the party aggrieved, incur a penalty not exceeding 100*l.*; and, if the offender be a qualified pilot, he shall also be liable to suspension or dismissal by the pilotage authority by which he is licensed. (Sec. 367.)

General Power of Trinity House.

Power of Trinity House to alter Regulations.—The Trinity House may, in exercise of the general power hereinbefore given to all pilotage authorities of doing certain things in relation to pilotage matters, alter such of the provisions hereinafter contained as are expressed to be subject to alteration by them, in the same manner and to the same extent as they might have altered the same if such provisions had been contained in any previous Act of Parliament instead of in this Act. (Sec. 368.)

Sub-Commissioners and Pilots (Trinity House).

Power of Trinity House to appoint Sub-Commissioners.—The Trinity House shall continue to appoint sub-commissioners, not being more than 5 nor less than 3 in number, for the purpose of examining pilots in all districts in which they have been used to make such appointments, and may, with the consent of her Majesty in council, but not otherwise, appoint like sub-commissioners for any other district in which no particular provision is made by any Act of Parliament or charter for the appointment of pilots; but no pilotage district already under the authority of any sub-commissioners, appointed by the Trinity House, shall be extended, except with such consent as aforesaid, and no sub-commissioners so appointed shall be deemed to be pilotage authorities within the meaning of this Act. (Sec. 369.)

Trinity House to license Pilots to act within certain Limits.—The Trinity House shall continue, after due examination by themselves or their sub-commissioners, to appoint and license under their common seal pilots for the purpose of conducting ships within the limits following or any portion of such limits; that is to say:—

1. 'The London District,' comprising the waters of the Thames and Medway as high as London Bridge and Rochester Bridge respectively, and also the seas and channels leading thereto or therefrom as far as Orfordness to the North and Dungeness to the South; so nevertheless that no pilot shall be hereafter licensed to conduct ships both above and below Gravesend:

2. 'The English Channel District,' comprising the seas between Dungeness and the Isle of Wight:

3. 'The Trinity House Outport Districts,' comprising any pilotage district for the appointment of pilots within which no particular provision is made by any Act of Parliament or charter. (Sec. 370.)

Publication of Notice of Licenses of Pilots by Trinity House.—Subject to any alteration to be made by the Trinity House, the name of all pilots licensed by the Trinity House shall be published in manner following, viz.:—

1. The Trinity House shall at their house in London fix up a notice specifying the name and usual place of abode of every pilot so licensed, and the limits within which he is licensed to act:

2. The Trinity House shall transmit a copy of such notice to the Commissioners of Customs in London, and to the principal officers of customs resident at all ports within the limits for which such pilot is licensed; and such notice shall be posted up by the commissioners at the Custom-house in London, and by such officers at the custom-houses of the ports at which they are respectively resident. (Sec. 371.)

Bonds to be given.—Subject to any alteration to be made by the Trinity House, every Trinity House pilot on his appointment shall execute a bond for 100*l.* conditioned for the due observance on his part of the regulations and by-laws of the Trinity House, such bond to be free from stamp duty, and from any other charge except the actual expense for preparing the same. (Sec. 372.)

Liability limited.—No qualified pilot who has executed such bond as is hereinbefore mentioned shall be liable for neglect or want of skill beyond its penalty and the amount of pilotage payable to him in respect of the voyage on which he is engaged. (Sec. 373.)

Continuance and Renewal of Licenses.—Subject to any alteration to be made by the Trinity House, no license granted by them shall continue in force beyond the 31st day of January next ensuing the date of such license; but the same may, upon the application of the pilot holding such license, be renewed on such 31st day of January in every year, or any subsequent day, by indorsement under the hand of the Secretary of the Trinity House, or such other person as may be appointed by them for that purpose. (Sec. 374.)

Power to revoke and suspend Licenses.—The Trinity House shall have power to revoke or suspend the license of any pilot appointed by them, in such manner and at such time as they think fit. (Sec. 375.)

Compulsory Pilotage (Trinity House).

Penalty on Masters employing unlicensed Pilots.—Subject to any alteration to be made by the Trinity House, and to the exemptions hereinafter contained, the pilotage districts of the Trinity House within which the employment of pilots is compulsory are the London district, and the Trinity House outport districts, as hereinbefore defined; and the master of every ship navigating within any part of such district or districts, who, after a qualified pilot has offered to take charge of such ship, or has made a signal for that purpose, either himself pilots such ship without possessing a certificate enabling him so to do, or employs or continues to employ an unqualified person to pilot her, shall for every such offence, in addition to the penalty hereinbefore specified, if the Trinity House certify in writing under their common seal that the prosecutor is to be at liberty to proceed for the recovery of such additional penalty, incur an additional penalty not exceeding 5*l.* for every 50 tons burden of such ship. (Sec. 376.)

Trinity House to insure constant Supply of qualified Pilots at Dungeness.—Subject to any altera-

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tion to be made by the Trinity House, a sufficient number of qualified pilots shall always be ready to take charge of ships coming from the westward past Dungeness; and the Trinity House shall make such regulations with respect to the pilots under their control as may be necessary to provide for an unintermitted supply of qualified pilots for such ships, and to insure their constant attendance upon and due performance of their duty both by night and day, whether by cruising between the South Foreland and Dungeness, or by going off from shore upon signals made for the purpose, or by both such means, or by any other means, and whether in rotation or otherwise, as the Trinity House think fit. (Sec. 377.)

Ship coming past Dungeness without Pilot to take the first qualified Pilot who offers.—Subject to any alteration to be made by the Trinity House, every master of any ship coming from the westward, and bound to any place in the rivers Thames and Medway (unless she has a qualified pilot on board or is exempted from compulsory pilotage), shall, on the arrival of such ship off Dungeness, and thenceforth until she has passed the South Buoy of the Brake, or a line to be drawn from Sandown Castle to the said buoy, or until a qualified pilot has come on board, display and keep flying the usual signal for a pilot; and if any qualified pilot is within hail, or is approaching and within ½ mile, and has the proper distinguishing flag flying in his boat, such master shall, by heaving to in proper time or shortening sail, or by any practicable means consistent with the safety of his ship, facilitate such pilot getting on board, and shall give the charge of piloting his ship to such pilot; or if there are two or more of such pilots offering at the same time, to such one of them as may, according to the regulations for the time being in force, be entitled or required to take such charge; and if any such master fail to display or keep flying the usual signal for a pilot in manner hereinbefore required, or to facilitate any such qualified pilot as aforesaid getting on board as hereinbefore required, or to give the charge of piloting his ship to such pilot as before mentioned, he shall incur a penalty not exceeding double the sum which might have been demanded for the pilotage of his ship, such penalty to be paid to the Trinity House, and to be carried to the account of the Trinity House Pilot Fund. (Sec. 378.)

Exemptions from compulsory Pilotage.—The following ships, when not carrying passengers, shall be exempted from compulsory pilotage in the London district, and in the Trinity House outport districts; viz.:—

1. Ships employed in the coasting trade of the United Kingdom:
2. Ships of not more than 60 tons burden:
3. Ships trading to Boulogne or to any place in Europe north of Boulogne:
4. Ships from Guernsey, Jersey, Alderney, Sark, or Man, which are wholly laden with stone being the produce of those islands:
5. Ships navigating within the limits of the port to which they belong:
6. Ships passing through the limits of any pilotage district on their voyages between two places both situate out of such limits, and not being bound to any place within such limits, nor anchoring therein. (Sec. 379.)

Rates of Pilotage (Trinity House).

Rates of Pilotage.—Subject to any alteration to be made by the Trinity House, there shall continue to be paid to all Trinity House pilots, in respect of their pilotage services, such dues as are immediately before the time when this Act comes into operation payable to them in respect of such services. (Sec. 380.)

Certificate of Payment of Pilotage to be given.—Subject to any alteration to be made by the Trinity House, the collector of customs shall, on receiving any pilotage dues in respect of foreign ships, give to the person paying the same a receipt in writing; and no officer of customs in the port of London shall grant a clearance or transire for any such foreign ship as aforesaid without the production of such receipt; and if any such ship attempts to go to sea without such clearance or transire, any such officer may detain her until the said receipt is produced. (Sec. 382.)

Application of such Moneys by Trinity House.—Subject to any alteration to be made by the Trinity House, the said collector shall pay over to the Trinity House the pilotage dues received by him in respect of any foreign ship; and the Trinity House shall apply the same in manner following:—

1st, in paying to any pilot who may bring sufficient proof of his having had the charge of such ship such dues as would have been payable to him for such pilotage service if the ship had been a British ship, after deducting therefrom the poundage due to the Trinity House:

2nd, in paying to any unlicensed person who may bring sufficient proof of his having, in the absence of a licensed pilot, had the charge of such ship, such amount as the Trinity House may think proper, not exceeding the amount which would under similar circumstances have been payable to a licensed pilot, after deducting poundage:—

And 3rd, shall pay over to the Trinity House Pilot Fund the residue, together with all poundage deducted as aforesaid. (Sec. 383.)

Settlement of Difference as to Draught of Ship.—Whenever any differences arise between the master and the qualified pilot of any ship trading to or from the port of London as to her draught of water, the Trinity House shall, upon application by either party, made, in case of a ship inward-bound, within 12 hours after her arrival or at some time before she begins to discharge her cargo, and in the case of a ship outward-bound before she quits her moorings, appoint some proper officer who shall measure the ship, and settle the difference accordingly; and there shall be paid to the officer measuring such ship, by the party against whom he decides, the following sums, viz. 1*l.* 1*s.* if the ship be below and 10*s.* 6*d.* if the ship be above the entrance of the London Docks at Wapping. (Sec. 384.)

Pilot Fund (Trinity House).

Payments to be made to the Pilot Fund.—Subject to any alteration to be made by the Trinity House, there shall continue to be paid to them, and carried over to the Trinity House Pilot Fund, the sums of money following, viz.:—

(1.) A poundage of 6*d.* in the pound upon the pilotage earnings of all pilots licensed by the Trinity House:

(2.) A sum of 3*l.* 3*s.* to be paid on January 1 in every year by every person licensed by the Trinity House to act as pilot in any district not under the superintendence of sub-commissioners, or in any part of such district:

And any qualified pilot giving a false account of his earnings, or making default in payment of any sum due from him under this section, shall forfeit double the amount payable, and shall further be liable, at the discretion of the Trinity House, to suspension or dismissal. (Sec. 385.)

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Table of the Rates of Pilotage to be Demanded and Received by Qualified Pilots, for Piloting Ships and Vessels within the Under-mentioned Limits.

From	To	7 Feet and under	8 Feet	9 Feet	10 Feet	11 Feet	12 Feet	13 Feet	14 Feet	15 Feet	16 Feet	17 Feet	18 Feet	19 Feet	20 Feet	21 Feet	22 Feet	23 Feet
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
The Isle of Wight and vice versâ	The Downs	3 10 0	4 0 0	4 10 0	5 0 0	5 10 0	6 0 0	6 0 0	7 0 0	7 14 0	8 9 0	9 4 0	10 0 0	11 4 0	12 14 0	14 4 0	16 1 0	18 4 0
Off Dungeness to off Folkestone, the Church bearing N.N.W. by compass, and vice versâ	Ditto	0 18 0	1 0 0	1 2 0	1 4 0	1 6 0	1 8 0	1 10 0	1 13 0	1 16 0	2 0 0	2 4 0	2 9 0	2 14 0	3 0 0	3 6 0	3 16 0	4 6 0
Off Folkestone to the South Foreland—the lights in one and vice versâ	Ditto	0 10 0	0 12 0	0 14 0	0 16 0	0 18 0	1 0 0	1 2 0	1 5 0	1 8 0	1 12 0	1 16 0	2 0 0	2 4 0	2 12 0	2 18 0	3 6 0	3 14 0
The Sea, the Downs, Orfordness, Hunsley Bay, and vice versâ	The Nore or Warpe	3 5 0	3 14 0	4 3 0	4 12 0	5 1 0	5 10 0	5 19 0	6 9 0	6 19 0	7 15 0	8 11 0	9 9 0	10 10 0	11 16 0	13 1 0	14 16 0	16 11 0
	Sheerness, Stangate Creek, or Blackstakes	3 14 0	4 5 0	4 16 0	5 7 0	5 18 0	6 9 0	7 0 0	7 13 0	8 6 0	9 4 0	10 2 0	11 0 0	12 0 0	13 4 0	14 12 0	16 0 0	17 16 0
	Gravesend or Chatham	4 3 0	4 16 0	5 9 0	6 2 0	6 15 0	7 8 0	8 1 0	8 16 0	9 11 0	10 11 0	11 11 0	12 13 0	13 16 0	15 2 0	16 11 0	18 1 0	19 16 0
	Long Reach or Greenhithe	4 7 0	5 1 0	5 15 0	6 9 0	7 3 0	7 17 0	8 11 0	9 6 0	10 1 0	11 1 0	12 1 0	13 7 0	14 12 0	16 0 0	17 7 0	18 17 0	20 13 0
	Erith	4 12 0	5 6 0	6 0 0	6 14 0	7 8 0	8 2 0	8 16 0	9 12 0	10 8 0	11 8 0	12 8 0	13 15 0	15 2 0	16 12 0	17 22 0	19 13 0	21 9 0
	Woolwich or Blackwall	4 14 0	5 9 0	6 4 0	6 19 0	7 14 0	8 9 0	9 4 0	10 0 0	10 16 0	11 16 0	12 16 0	14 3 0	15 10 0	17 0 0	18 10 0	20 1 0	21 17 0
	Moorings, London Docks, City Canal, or St. Katharine's Docks	5 0 0	5 15 0	6 10 0	7 5 0	8 0 0	8 15 0	9 10 0	10 7 0	11 4 0	12 4 0	13 5 0	14 12 0	15 19 0	17 14 0	19 4 0	20 16 0	22 13 0
The Sea, the Downs, Orfordness, or Hunsley Bay, and vice versâ	Greenhithe, Long Reach, or Chatham	5 2 0	6 2 0	7 2 0	8 2 0	9 2 0	10 2 0	11 2 0	12 2 0	13 2 0	14 4 0	15 5 0	16 6 0	17 7 0	18 8 0	19 9 0	20 11 0	22 8 0
	Erith	5 7 0	6 7 0	7 7 0	8 7 0	9 7 0	10 7 0	11 7 0	12 7 0	13 7 0	14 9 0	15 10 0	16 11 0	17 12 0	18 13 0	19 14 0	21 16 0	23 13 0
	Woolwich or Blackwall	5 10 0	6 12 0	7 14 0	8 16 0	9 18 0	11 0 0	12 2 0	13 4 0	14 6 0	15 8 0	16 10 0	17 12 0	18 14 0	19 16 0	21 18 0	24 0 0	26 2 0
	Moorings, London Docks, City Canal, or St. Katharine's Docks	6 0 0	7 5 0	8 10 0	9 15 0	11 0 0	12 5 0	13 10 0	14 15 0	16 0 0	17 0 0	18 0 0	19 0 0	20 0 0	21 0 0	22 0 0	23 0 0	24 0 0
The Nore or Warpe, and vice versâ	Greenhithe or Long Reach	6 2 0	7 2 0	8 2 0	9 2 0	10 2 0	11 2 0	12 2 0	13 2 0	14 2 0	15 2 0	16 2 0	17 2 0	18 2 0	19 2 0	20 2 0	21 2 0	22 2 0
	Erith	6 7 0	7 7 0	8 7 0	9 7 0	10 7 0	11 7 0	12 7 0	13 7 0	14 7 0	15 7 0	16 7 0	17 7 0	18 7 0	19 7 0	20 7 0	21 7 0	22 7 0
	Woolwich or Blackwall	6 12 0	7 12 0	8 12 0	9 12 0	10 12 0	11 12 0	12 12 0	13 12 0	14 12 0	15 12 0	16 12 0	17 12 0	18 12 0	19 12 0	20 12 0	21 12 0	22 12 0
	Moorings, London Docks, City Canal, or St. Katharine's Docks	7 0 0	8 0 0	9 0 0	10 0 0	11 0 0	12 0 0	13 0 0	14 0 0	15 0 0	16 0 0	17 0 0	18 0 0	19 0 0	20 0 0	21 0 0	22 0 0	23 0 0
The Nore or Warpe, and vice versâ	Sheerness, Stangate Creek, or Blackstakes	2 18 0	3 5 0	3 12 0	4 3 0	4 10 0	4 17 0	5 5 0	5 10 0	6 6 0	6 12 0	7 4 0	7 16 0	8 8 0	9 4 0	10 0 0	11 14 0	13 4 0
	Chatham	3 0 0	3 10 0	4 0 0	4 10 0	5 0 0	5 10 0	6 0 0	6 10 0	7 0 0	7 10 0	8 0 0	8 10 0	9 0 0	9 10 0	10 0 0	11 10 0	13 0 0
	Gravesend	3 10 0	4 0 0	4 10 0	5 0 0	5 10 0	6 0 0	6 10 0	7 0 0	7 10 0	8 0 0	8 10 0	9 0 0	9 10 0	10 0 0	10 10 0	11 10 0	13 0 0
	Greenhithe or Long Reach	3 15 0	4 5 0	4 15 0	5 5 0	5 15 0	6 5 0	6 15 0	7 5 0	7 15 0	8 5 0	8 15 0	9 5 0	9 15 0	10 5 0	10 15 0	11 15 0	13 5 0
	Erith	4 0 0	4 10 0	5 0 0	5 10 0	6 0 0	6 10 0	7 0 0	7 10 0	8 0 0	8 10 0	9 0 0	9 10 0	10 0 0	10 10 0	11 0 0	12 0 0	13 10 0
	Woolwich or Blackwall	4 5 0	4 15 0	5 5 0	5 15 0	6 5 0	6 15 0	7 5 0	7 15 0	8 5 0	8 15 0	9 5 0	9 15 0	10 5 0	10 15 0	11 5 0	12 5 0	13 15 0
Gravesend Reach, and vice versâ	Moorings, London Docks, City Canal, or St. Katharine's Docks	4 10 0	5 0 0	5 10 0	6 0 0	6 10 0	7 0 0	7 10 0	8 0 0	8 10 0	9 0 0	9 10 0	10 0 0	10 10 0	11 0 0	11 10 0	12 10 0	14 0 0
	Sheerness, Stangate Creek, or Blackstakes	2 10 0	2 15 0	3 0 0	3 5 0	3 10 0	3 15 0	4 0 0	4 7 0	4 14 0	5 4 0	5 14 0	6 6 0	6 18 0	7 13 0	8 8 0	9 6 0	10 4 0
	Chatham	2 18 0	3 3 0	3 8 0	3 13 0	3 18 0	4 3 0	4 8 0	4 15 0	5 2 0	5 12 0	6 2 0	6 12 0	7 2 0	7 12 0	8 5 0	9 2 0	10 0 0
	Gravesend	3 5 0	3 10 0	3 15 0	4 0 0	4 5 0	4 10 0	4 15 0	5 2 0	5 12 0	6 2 0	6 12 0	7 2 0	7 12 0	8 5 0	9 2 0	10 0 0	11 0 0
Erith Reach and vice versâ	Woolwich or Blackwall	0 15 0	0 18 0	1 1 0	1 4 0	1 7 0	1 10 0	1 13 0	1 16 0	2 0 0	2 5 0	2 11 0	2 18 0	3 5 0	3 13 0	4 1 0	4 11 0	5 5 0
	Moorings, London Docks, City Canal, or St. Katharine's Docks	1 1 0	1 4 0	1 7 0	1 10 0	1 15 0	2 0 0	2 5 0	2 11 0	2 17 0	3 4 0	3 11 0	4 7 0	4 17 0	5 7 0	5 19 0	6 11 0	7 5 0
	Woolwich or Blackwall	0 17 0	1 0 0	1 3 0	1 6 0	1 12 0	1 18 0	2 4 0	2 12 0	3 0 0	3 9 0	3 18 0	4 8 0	4 18 0	5 16 0	6 14 0	7 10 0	8 14 0
Greenhithe, or Long Reach, and vice versâ	Moorings, London Docks, City Canal, or St. Katharine's Docks	1 3 0	1 6 0	1 9 0	1 14 0	2 2 0	2 10 0	2 18 0	3 6 0	3 14 0	4 3 0	4 12 0	5 4 0	5 16 0	6 11 0	7 6 0	8 11 0	9 16 0
	Sheerness, Stangate Creek, or Blackstakes	2 18 0	3 3 0	3 8 0	3 13 0	3 18 0	4 3 0	4 8 0	4 15 0	5 2 0	5 10 0	5 18 0	6 6 0	6 18 0	7 13 0	8 8 0	9 6 0	10 4 0
	Chatham	3 0 0	3 5 0	3 10 0	3 15 0	4 0 0	4 5 0	4 10 0	4 17 0	5 4 0	5 12 0	6 2 0	6 12 0	7 2 0	7 12 0	8 5 0	9 2 0	10 0 0
	Gravesend	3 10 0	4 0 0	4 10 0	5 0 0	5 10 0	6 0 0	6 10 0	7 0 0	7 10 0	8 0 0	8 10 0	9 0 0	9 10 0	10 0 0	10 10 0	11 10 0	13 0 0
Woolwich or Blackwall, and vice versâ	Moorings, London Docks, City Canal, or St. Katharine's Docks	0 17 0	1 0 0	1 3 0	1 6 0	1 12 0	1 18 0	2 4 0	2 12 0	3 0 0	3 9 0	3 18 0	4 8 0	4 18 0	5 16 0	6 14 0	7 10 0	8 14 0
	Sheerness, Stangate Creek, or Blackstakes	3 6 0	3 11 0	3 16 0	4 1 0	4 6 0	4 11 0	4 16 0	5 4 0	5 12 0	6 2 0	6 12 0	7 2 0	7 12 0	8 5 0	9 2 0	10 0 0	11 0 0
	Chatham	3 15 0	4 0 0	4 5 0	4 10 0	4 15 0	5 0 0	5 5 0	5 12 0	6 2 0	6 12 0	7 2 0	7 12 0	8 5 0	9 2 0	10 0 0	11 0 0	12 0 0
Chatham	Sheerness, Stangate Creek, or Blackstakes	1 15 0	1 18 0	2 1 0	2 4 0	2 11 0	2 18 0	3 5 0	3 12 0	3 19 0	4 6 0	4 13 0	5 0 0	5 7 0	5 14 0	6 1 0	6 11 0	7 7 0

From Sea in or out of Ramsgate, Margate, Dover, or Sandwich Harbours, &c. per foot of the Vessel's Draft of Water.

* Pilots duly licensed to conduct vessels beyond Gravesend, either inwards or outwards, and continuing in charge to or from any of the within-mentioned places, as the case may be, are to be paid the rates indicated above.

For Vessels exceeding 23 feet, an increase in the Rates for each foot or part of a foot, in the same proportion as between 22 and 23 feet.

The several Rates and Prices specified above are subject to a reduction of one-fourth part, in respect of Vessels propelled by steam, and Vessels towed by Steam Vessels, provided that if any such Vessel shall be propelled by steam, or towed by a Steam Vessel for a part only of the distance for which any such Rate or Price may be payable, the reduction of one-fourth shall be made on such part only of the said Rate or Price as shall be proportionate to the distance so propelled or towed.

For putting a Pilot on board a vessel either from the cutters or from the shore :—

60 Tons and under 150	-	£1 0 0	400 Tons and under 600	-	£2 0 0
150 " " 250	-	1 5 0	600 " " 1,000	-	2 10 0
250 " " 400	-	1 10 0	1,000 Tons and upwards	-	3 3 0

Vessels not exceeding 70 tons, chiefly laden inwards with fish, corn, or other provisions, are to pay during the summer months, viz. from Lady-day to Michaelmas-day inclusive, the following rates only, viz.:—

From Sea to London or vice versâ -	-	£1 14 6
" Gravesend to London or vice versâ -	-	1 5 0

Vessels exceeding 70 tons and not exceeding 100 tons, chiefly laden inwards with fish, corn, or other provisions, are to pay during the summer months, viz. from Lady-day to Michaelmas-day inclusive, the following rates for the outward voyage, viz.:—

From London to Gravesend -	-	£1 5 0
" Do. to the Nore -	-	2 15 0
" Do. to the Sea -	-	3 3 0

A pilot taking charge of a foreign vessel, on board of which there may not be any individual qualified to interpret his orders, shall be authorized to employ a person to assist him as linesman or interpreter; provided it be distinctly understood that the necessity for the employment of such person shall be proved to the satisfaction of the Corporation of Trinity House, in which case only the following rates shall be chargeable in addition to the regular pilotage, viz.:—

For the whole run from Sea to Gravesend -	-	£1 10 0
" Ditto from Gravesend to Sea -	-	1 0 0

The additional rate, for intermediate portions of a foot, in the draft to be regulated as follows, viz.:—

For three inches and under -	No addition
For more than three inches and under nine inches -	The medium between the two rates
For nine inches and upward -	The rate for the next foot.

For removing a ship or vessel from moorings into a dry or wet dock, or from one part of the river situated above Blackwall to another part of the river so situated :—

For a ship under 500 tons -	£0 15 0	For a ship 600 to 1,000 tons - £1 11 6
500 to 600 " -	1 1 0	above 1,000 " - 2 2 0

In the Thames, above Gravesend, For a boat of a class carrying an anchor of above 4 cwt. £ s. d. with a corresponding tow line - - 2 2 0 for trip for the whole distance from Gravesend to London; and in proportion for any part of that distance.
Do. do. 2 cwt. 1 1 0
Do. do. under 2 cwt. 0 15 0
And for each man's service in those boats, 8s. per tide.

Application of Fund.—Subject to any prior charges subsisting thereon, the Trinity House Pilot Fund shall be chargeable in the first instance with such expenses as the Trinity House may duly incur in performing their duties in respect of pilots and pilotage, and after payment thereof shall be administered by the Trinity House for the benefit of such pilots licensed by them after October 1, 1853, as are incapacitated for the performance of their duty by reason of age, infirmity, or accident, or of the widows and children of pilots so licensed, or of such incapacitated pilots only. (Sec. 386.)

Appointment of Sub-Commissioners by Trinity Houses of Hull and Newcastle.

Section 387 authorises the corporations of the Trinity Houses of Hull and Newcastle to appoint sub-commissioners for the purpose of examining pilots in all districts in which they have been used to make such appointments.

Saving of Owners' and Masters' Rights.

Limitations of Liability of Owner where Pilotage is compulsory.—No owner or master of any ship shall be answerable to any person whatever for any loss or damage occasioned by the fault or incapacity of any qualified pilot acting in charge of such ship within any district where the employment of such pilot is compulsory by law. (Sec. 388.)

Account of the Rates charged for the Pilotage of Vessels, and of the other Charges affecting them in the undermentioned Ports.

ABERDEEN.

Tonnage Duty.

	s.	d.
Class 1.—For all vessels to or from any place between Flamborough Head on the southward, and Cape Wrath on the north, excepting vessels passing through the Caledonian and Forth and Clyde Canals, but including the Orkney and Shetland Isles, per register ton	0	2
Class 2.—To or from all other ports or places in Great Britain and Ireland	0	4
Class 3.—To or from all parts of Europe to the northward of Gibraltar, including the Canaries, Western Islands, Madeira, Azores, Guernsey, Jersey, Alderney, Sark, the Faroe Isles and Iceland, also the whole of the Baltic and White Seas	0	9
Class 4.—All parts on the eastern coast of North America, including Greenland and Davis's Straits fisheries, all parts within the Straits of Gibraltar and W. coast of Africa, as far S. as the Tropic of Cancer	1	0
Class 5.—The West Indies, and all parts within the Tropics of Capricorn and Cancer	1	6
Class 6.—All vessels navigating to the southward of the Tropic of Capricorn, and all other parts of the world	2	0

Leading Lights, Tidal Pier Light, and Flag Dues.

All vessels under 40 tons	1 0
40 tons and under 50	1 6
50 ,, 80	2 0
80 ,, 100	2 6
100 ,, 120	3 0
120 ,, 200	3 6
200 tons and upwards	4 0

The above rates are payable for all vessels entering the harbour.

Pilotage	First Boat		Second Boat		Third Boat	
	s.	d.	s.	d.	s.	d.
Vessels under 30 tons	4	0	3	0	2	0
30 tons and under 50	5	0	4	0	3	0
50 ,, 60	7	0	6	0	5	0
60 ,, 85	9	0	7	6	6	6
85 ,, 110	10	0	8	0	7	0
110 ,, 150	11	0	8	6	7	6
150 ,, 200	12	0	9	0	8	0
200 ,, 250	14	0	10	0	9	0
250 tons and above	15	0	11	0	10	0

Ballast.—All ships or vessels furnished with ballast by the Aberdeen Harbour Commissioners pay 1*s.* per ton.

Ballast put on board 1*s.* per ton, discharged 6*d.*, and 4*d.* per hour for each man attending the lighter.

Vessels to pay half dues on first voyage, if sailing in ballast; but if landing goods, to pay full dues.

Vessels entering the harbour for safety, or windbound, and not breaking bulk, to pay half dues; but if they break bulk, or take in goods (stores for their own use excepted), to pay full dues.

One arrival and one sailing to constitute a voyage.

Vessels remaining in the harbour after 3 calendar months (and 14 days allowed for loading and discharging) to pay 1*d.* per register ton per calendar month, and for each part of a month, in advance.

It shall be in the option of the trustees to charge either the dues on the voyage, inwards or outwards, at the rates specified in the foregoing table, according to the distance; and if the charge be made on the voyage outwards, there shall be deducted from it the amount of dues that may have been previously paid on the voyage inwards; but if such vessels sail in ballast, they shall be charged with dues on the inward voyage only.

Exemptions for shipping, not including loading, lights &c. or pilotage—

All open boats under the burden of 10 tons to be exempted from dues.

All ships, steamers, or vessels having made 50 voyages in any one year, from January to December inclusive, shall pay no more harbour dues for any additional voyages made by them within the same year.

Vessels sailing from the harbour and put back by stress of weather, or other cause, without having accomplished the voyage, shall not be liable in additional dues for such returns.

All ships or vessels belonging to, or exclusively employed in the service of, her Majesty, the Customs, Excise, or Post-office, or of the Commissioners of the Northern Lighthouses, or of the Corporation of the Trinity House of Deptford Strond, to be exempted from dues.

Vessels bonâ fide employed in the white fishery to be exempted from the payment of harbour dues, provided they have no cargo, on board but the fish caught, and their stores and fishery implements.

AYR.

Tonnage Dues.

		s.	d.
Vessels under 20 tons register	per ton	0	2
20 and under 50 tons register	,,	0	3
50 ,, 100 ,,	,,	0	3½
100 tons and upwards	,,	0	4

Anchorage Dues.

		s.	d.
Vessels under 20 tons register	per vessel	1	0
20 and under 40 tons register	,,	1	6
40 ,, 60 ,,	,,	2	0
60 ,, 80 ,,	,,	2	6
80 ,, 100 ,,	,,	3	0
100 ,, 150 ,,	,,	4	0
150 ,, 200 ,,	,,	5	0
200 tons and upwards	,,	7	0

For every vessel remaining in harbour longer than 24 lawful days, per month additional, per ton 2*d.* Every lighter from any vessel shall be exempt from dues; but if any vessel do not enter the harbour, for each lighter, for each trip, per ton 2*d.*

Plankage and Shutes.

		s.	d.
For every vessel of the burden of 20 tons and not exceeding 25 tons	per vessel	0	6
25 but not exceeding 100 tons	,,	1	0
100 and upwards	,,	2	0

Hawser Dues.

		s.	d.
Every vessel under 100 tons using any hawser the property of the trustees	per vessel	0	6
100 tons and upwards	,,	1	0

Pilotage.—Coasting vessels 1½*d.* per registered ton, oversea vessels 2*d.* per registered ton.

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Towage.—40 tons and upwards ½*d.* per ton, and if using the boat either outwards or inwards ½*d.* per ton extra each way. These rates to and from the outermost buoy. Higher rates for farther distances.

Ballast.—Put on board 6*d.* per ton; discharged, 4*d.*

ARBROATH.

	per ton £ s. d.
Harbour Dues.—On vessels navigating to the south of the Tropic of Capricorn	1 6
On vessels navigating between the Equator and the Tropic of Capricorn	1 3
On vessels navigating between the Tropic of Cancer and the Equator	1 0
On vessels navigating to and from any port in North America, and within the Straits of Gibraltar	0 8
On vessels navigating to and from any port in Norway, north of Drontheim, Azores, Madeira, or Teneriffe Islands	0 7
On vessels navigating to and from any port between Gibraltar and Dunkirk, and any port in the Baltic	0 5
On vessels navigating to and *from* any port in Great Britain	0 3
On vessels with coals or lime from any port in Great Britain, excepting Scotland	0 2
On vessels with coals or lime from any port in Scotland, and all vessels engaged in the herring trade	0 1½
On all steam-vessels, with passengers and their luggage exclusively, from any port in Great Britain	2 0
All steam-vessels, with goods and passengers, to pay the same rates as sailing vessels	0 3
On vessels entering the harbour for refuge half the above dues are to be charged.	
All vessels remaining in harbour, after 2 months, to pay 1*d.* per ton per month, in advance.	
Vessels loading or unloading goods, or ballast, to pay in name of plant money, viz.:—	

	per vessel £ s. d.
On vessels under 20 tons	1 0
20 and under 50 tons	1 6
50 „ 100 „	2 0
100 „ 150 „	2 6
150 „ 200 „	3 0
200 „ 250 „	3 6
250 „ 300 „	4 0
300 „ 350 „	4 6
350 „ 400 „	5 0
400 tons and upwards	6 6

Lights.—Local harbour light, ¼*d.* per ton on each vessel. Police dues ¼*d.* per reg. ton.

Pilotage in and out of the Harbour.—Coasting vessels, laden or in ballast, 3*d.* per register ton.
All vessels employed in the foreign trade, 3½*d.* per register ton.
Vessels taking refuge, 2½*d.* per register ton.
And in addition to the above, on
Vessels under 40 tons, 6*d.*
40 and under 80 tons, 1*s.*
80 „ 100 „ 1*s.* 6*d.*
100 „ 120 „ 2*s.*
120 „ 150 „ 2*s.* 6*d.*
150 „ 180 „ 3*s.*
180 and upwards 4*s.*

Ballast.—The charge for ballast varies from 8*d.* to 1*s.* per ton, the parties purchasing where it can be had cheapest, and not under the management of any party.

The charge for harbour dues, lights, and pilotage, levied under the Act 2 Vict. c. 16, by the Harbour Commissioners.

BELFAST.

Towage.—For every ton of the burden of every vessel coming into the harbour of Belfast, except through stress of weather, 4*d.*

Pilotage	Vessels not having British Registers, arriving from or Sailing on a Foreign Voyage	Vessels with British Registers arriving from or Sailing on a foreign Voyage	Vessels not Steamers trading to or from a Port in the United Kingdom	Vessels being Steamers
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
For all vessels carrying merchandise, or passengers, coming from sea into Garmoyle, or to the quay, and going from the quay to Garmoyle, or to the sea:				
15 tons and under 20 tons	0 8 0	0 6 0	0 4 0	0 2 0
20 „ 30 „	0 10 0	0 7 6	0 5 0	0 2 6
30 „ 40 „	0 16 0	0 12 0	0 8 0	0 4 0
40 „ 50 „	1 0 0	0 15 0	0 10 0	0 5 0
50 „ 60 „	1 4 0	0 18 0	0 12 0	0 6 0
60 „ 70 „	1 8 0	1 1 0	0 14 0	0 7 0
70 „ 80 „	1 12 0	1 4 0	0 16 0	0 8 0
80 „ 90 „	1 16 0	1 7 0	0 18 0	0 9 0
90 „ 100 „	2 0 0	1 10 0	1 0 0	0 10 0
100 „ 110 „	2 4 0	1 13 0	1 2 0	0 11 0
110 „ 120 „	2 8 0	1 16 0	1 4 0	0 12 0
120 „ 130 „	2 12 0	1 19 0	1 6 0	0 13 0
130 „ 140 „	2 16 0	2 2 0	1 8 0	0 15 0
140 „ 150 „	3 0 0	2 5 0	1 10 0	0 17 0
150 „ 160 „	3 4 0	2 8 0	1 12 0	0 19 0
160 „ 175 „	3 8 0	2 11 0	1 14 0	1 1 0
175 „ 200 „	3 12 0	2 14 0	1 16 0	1 3 0
200 „ 250 „	4 0 0	3 0 0	2 0 0	1 8 0
250 „ 300 „	4 8 0	3 6 0	2 4 0	1 13 0
300 „ 400 „	5 8 0	4 1 0	2 14 0	2 5 0
400 tons and upwards	6 0 0	4 10 0	3 0 0	2 5 6

Pilotage.

	£ s. d.
Outside the Black Head, or outside the buoy of the Brigs, to the Whitehouse Roads:—	
Vessels of 200 tons and upwards	2 2 0
above 100 and under 200 tons	1 11 6
not exceeding 100 tons	1 0 0
Outside the Grey Point, or outside Kilnot Point, to the Whitehouse Roads:—	
Vessels of 200 tons and upwards	1 1 0
above 100 and under 200 tons	0 15 0
not exceeding 100 tons	0 10 0

These charges are for out-pilots, stationed by the corporation at Groomsport, Donaghadee, Carrickfergus, and Island Magee, for the accommodation of strangers to the port, but it is optional with the masters of vessels to employ them or not.

Mooring Buoys.

At Garmoyle, vessels under 200 tons, per week	0 10 0
At Garmoyle, vessels 200 and not exceeding 300 tons, per week	1 0 0
At Garmoyle, vessels 300 tons and upwards, per week	0 15 0
At the quays, per ton	0 0 1
In the old channel, per ton	0 0 1

Sand Ballast.

For every ton delivered at any place between the Pool of Garmoyle and Belfast Bridge	0 1 4
For every ton delivered in the Pool of Garmoyle, or below it towards the sea	0 2 0
Foreign vessels to be charged one-third part more.	
For every ton delivered to any vessel at the ballast wharf	0 1 6

Stone Ballast.

Common stone ballast, per ton	0 2 6
Small ara stone for cotton vessels, per ton	0 3 0
An extra charge of 6*d.* per ton if sent from the quays to Garmoyle.	

Quayage at the Corporation Quays.

	s. d.
On vessels from foreign ports, per ton	0 5
On vessels coastways, per ton	0 3
On all vessels loading outwards, per ton	0 3
On lighters loading or discharging, each	7 0

Vessels discharging from one to the other pay half quayage.

Vessels are charged half quayage when loaded to the beams only; if above the beams, whole quayage.

Steamers to pay per special agreement.

Local Lights or Beacons.—No charge.

Note.—Foreign vessels belonging to countries having treaties of reciprocity with Great Britain are charged with the like rates as are paid by British vessels to this corporation.

BERWICK.

Tonnage Dues.

Every vessel trading between Berwick and any place between Sunderland in that port and Flfeness	1*d.* per ton.
Between the Humber and Aberdeen	1½*d.* „
Between the N. Foreland and Shetland	2*d.* „
Any other place in Great Britain, or any place in Ireland	3*d.* „
Any place on the coast of Europe between Dunkirk and the North Cape	5*d.* „
Any place in the Baltic Sea, or on the coast of Europe between Dunkirk and the Straits of Gibraltar	3½*d.* „

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Tonnage Dues.

Every vessel trading between Berwick and any place in the White Sea, or in the Mediterranean Sea, the West Indies, America, Greenland, or any other foreign port or place not before mentioned	4½*d.* per ton.
For every vessel coming into the harbour for shelter, laden and not breaking bulk	½*d.* ,,
In ballast and departing in ballast	½*d.* ,,
Foreign vessels pay double the above rates and duties.	
For every ship or vessel coming into the harbour, over and above rates and duties	1*s.* 8*d.*

Pilotage.

	All ves. per ft.
April 1 to October 1	1*s.* 3*d.*
October 1 to April 1	1*s.* 6*d.*

Each tide's work within the harbour 7*s.* 6*d.*

Anchorage.—4*d.* for every vessel anchoring between Tweedmouth and Spittal.

BOSTON.

Harbour Dues.—4*d.* per registered ton, except coal, salt, iron, and earthenware, which are charged at the rate of 3*d.*

Pilotage.—High Horn or Boston Toft to Boston down or vice versâ: 8½ feet draught, 1*s.* 6*d.* per foot; 8½ to 10½, 1*s.* 9*d.*; above 10½, 2*s.* 6*d.* Extra distances higher rates.

Towage.—Boston to Elbow Buoy or vice versâ: 3 to 10 feet, 2*s.* 6*d.* per foot; all vessels drawing more than 10 feet or exceeding 5 keels of coals, 5*s.* per keel loaded and 2*s.* 6*d.* light.

Ballast.—When taken from Clayhole, 5*s.* 6*d.* per tide for each man; if brought alongside in the harbour 1*s.* per ton, and in Clayhole 1*s.* 6*d.*

Tidesmen.—5*s.* 6*d.* per tide.

BRIDGEWATER.

The following is the definition of limits of district within such parts of the Bristol Channel and adjacent rivers and creeks, as lie on the south-east side of, and are comprised within an imaginary straight line drawn from Anchor Head, in the county of Somerset, on the east to Watchet, in the same county on the west.

Table of Rates of Pilotage.

From the extreme limits of the navigation, or from any point between such extreme limits and the outer buoy of the Gore Sand, to the town or to any point between the Black Rock and the town, the vessel being safely moored at her discharging berth;

Also from the town to the limits of the navigation, or to any point between the outer buoy of the Gore Sand and the said limits, the following rates, viz.:—

						per vessel *s.* *d.*
On vessels not exceeding	60 tons register					12 0
						per foot
exceeding	60 tons, and not exceeding			80 tons		1 3
80	,,	,,	100	,,		2 0
100	,,	,,	125	,,		3 0
125	,,	,,	150	,,		4 0
150	,,	,,	200	,,		5 0
200	,,	,,	250	,,		6 6
250 tons						8 0

From the outer buoy of the Gore Sand or from any point between such buoy and Burnham, to the town or to any point between such outer buoy and the town, the vessel being safely moored at her discharging berth;

Also from the town to the outer buoy of the Gore Sand, or to any point between Burnham and the said buoy:—

						per vessel *s.* *d.*
On vessels not exceeding	60 tons register					9 0
						per foot
exceeding	60 tons, and not exceeding			80 tons		1 0
80	,,	,,	100	,,		1 6
100	,,	,,	125	,,		2 0
125	,,	,,	150	,,		3 0
150	,,	,,	200	,,		4 0
200	,,	,,	250	,,		5 6
250 tons						7 0

From Burnham, or from any point between Burnham and the town, to the town, or to any intermediate point, the vessel being safely moored at her discharging berth, and vice versâ:—

						per vessel *s.* *d.*
On vessels not exceeding	60 tons register					6 0
						per foot
exceeding	60 tons, and not exceeding			80 tons		0 9
80	,,	,,	100	,,		1 0
100	,,	,,	125	,,		1 6
125	,,	,,	150	,,		2 0
150	,,	,,	200	,,		3 0
200	,,	,,	250	,,		4 6
250 tons						6 0

No vessel exceeding 60 tons register to pay for less than 10 feet.

The several pilotage rates herein specified are subject to a reduction of ¼ in respect of vessels propelled by steam or towed by steam vessels.

If a master choose to employ a pilot for a tide in the navigation, the pilot shall be entitled to receive for such service, 2*s.* 6*d.* for each tide.

Trinity House by-law, approved by order in council of July 25, 1861:—

'That all ships navigating in ballast from any port or place in the United Kingdom, to any other port or place in the United Kingdom, shall, when not carrying passengers, be exempt from compulsory pilotage within the pilotage jurisdiction of the said Trinity House.'

This exemption from compulsory pilotage does not relieve masters of vessels, employing unqualified pilots to take charge of their vessels, from the penalties imposed by ss. 353 and 376 of the Merchant Shipping Act, 1854; nor unqualified pilots from the penalties imposed by s. 361 of said Act.

BRISTOL.

For Dock Dues, Mayors' Dues, Anchorage, and Moorage &c., see DOCKS, BRISTOL.

Regulation and Rates of Pilots.

All vessels navigating up, down, or upon the Bristol Channel, to the east of Lundy Island, except coasting vessels and Irish traders, shall be piloted, and navigated by pilots, duly authorised and licensed by the mayor, the burgesses, and commonalty of the city of Bristol; and the master, owner, or owners of every vessel which shall be navigated in the limits aforesaid, without a licensed pilot, shall forfeit double the sum that would have been demandable for the pilotage of such vessel, together with 5*l.* for every 50 tons burden of such vessel.

It shall be lawful for any licensed pilot to supersede any person not licensed as a pilot in the charge of any vessel within the limits aforesaid; and every master who shall continue any person not licensed, after any licensed pilot has offered to take charge of such vessel; and every person assuming, or continuing in, the charge of any such vessel, without being duly licensed, after any licensed pilot has offered to take charge thereof, shall, respectively, forfeit for every such offence a sum not exceeding 10*l.*

For rates of pilotage, see DOCKS, BRISTOL.

For each man employed on board, or for hauling or towing any vessel, and mooring or unmooring, from Bathurst or Cumberland Basin to Hungroad Pill, and Broad Pill, and from either of those places to Cumberland or Bathurst Basin, the pilot shall receive and be entitled to 8*s.* 9*d.* per man; or from Bathurst or Cumberland Basin to Kingroad and Portshead, or either of them, or from either of those places to Cumberland or Bathurst Basin, he shall receive 3*s.* 9*d.* per man, and no more. When the pilot remains on board a vessel, he shall be entitled to 5*s.* per day, and the man to 3*s.* per day.

And the pilot shall be entitled to and shall receive for each tow-boat and yawl employed in towing or assisting, mooring and unmooring any vessel from Portshead, Kingroad, Hungroad, or Broad Pill, into Cumberland or Bathurst Basin, and out of Cumberland or Bathurst Basin to

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Portshead, Kingroad, Hungroad, or Broad Pill, the sums following, viz.—for a tow-boat, 6*s.*; for a yawl, 3*s.*

And he shall receive for every boat used in towing, unmooring, and mooring any ship or vessel from either of the following places to any part of such places, viz.—Portshead, Kingroad, Pill, or Hungroad; or for unmooring, new berthing, and again mooring any ship or vessel in either of the said last-mentioned places, the sum following, viz.: for every yawl, 2*s.* 6*d.*

And every man who shall be engaged or be discharged at Hungroad or Pill, without being employed to assist in mooring or unmooring, shall be entitled to, for his fee or wages, 2*s.* 9*d.*; and the pilot shall be entitled, for the boats not employed in so mooring and unmooring, for a tow-boat, 4*s.*; and for a yawl, 2*s.* 6*d.*, and no more.

The pilot of all vessels above 300 tons shall be allowed for an assistant pilot in the river pilotage, the sum of 10*s.*—such an assistant being a licensed pilot; in default whereof only 3*s.* 9*d.* shall be paid for such assistant.

There shall be allowed for each horse used in towing any ship or vessel a sum not exceeding 6*s.*, and to the driver 1*s.*

If under 100 tons register burden	1*s.*
If 100 tons and under 200	2*s.*
If 200 tons and upwards	3*s.*

And that such sums shall be added to the pilotage note and paid therewith by the master and commander, merchant, or owner of such ship or vessel.

In case any ship or vessel shall be in distress, either in the outward or homeward bound voyage, and any pilot or men shall run an imminent risk or hazard in going to the relief of such ship or vessel, the pilot or men assisting shall have reasonable satisfaction for the assistance so given, according to such assistance, and the risk and hazard run; and in case of a difference of opinion as to the amount of such satisfaction, the same to be ascertained by two of her Majesty's justices of the peace acting for the city and county of Bristol.

If any licensed pilot shall proceed with any ship or vessel as far as Minehead, Combe, or Lundy Island, and shall be forced by stress of weather to return to Kingroad or Portshead, he shall be allowed one-third part of the channel pilotage, according to the distance such vessel may have reached before she shall have put back.

Each pilot shall, within two days after his return from a voyage to the westward, return to the haven-master the number of the skiff so returned from the westward, the time of her sailing, the time of her return, the distance she has been, and the names of the persons employed in navigating her, and all the material particulars of the voyage; and each pilot who shall neglect to make such return, or shall make a false return, shall for each offence forfeit and pay any sum not exceeding 40*s.*

ADDENDA TO PILOTAGE.

From Lundy Island to Swansea.—A uniform charge of 4*l.* 4*s.*

From Lundy Island to Bridgewater.

	£	s.	d.
If such vessel be under 100 tons register	2	15	0
If 100 tons and under 200	3	10	0
If 200 „ 300	4	7	6
If 300 tons and upwards	5	5	0

From Lundy Island to Cardiff.—The same rates as to Bridgewater.

From Lundy Island to Newport.—The same rates as to Kingroad.

CARDIFF.—*See* DOCKS, CARDIFF.

COLCHESTER.

	d.
Tonnage dues:—	
Under 50 tons register	per ton ½
60 „	„ 1
70 „	„ 1½
80 „	„ 2
90 „	„ 2½
100 „	„ 3
110 „	„ 3½
130 „	„ 4
150 „	„ 4½
175 „	„ 5
200 „	„ 5½
250 „	„ 6
300 „	„ 9
300 tons and upwards	„ 9

Coal vessels half rates.

Pilotage.—Limits from a line drawn from the Naze Tower to the N.E. buoy of the Gunfleet, up the river Colne to Wyvenhoe:—

From or to seaward of Eastness	1*s.* per foot
Eastness to Pyfleet	1*s.* 3*d.* per foot
Pyfleet to Wyvenhoe	1*s.* 6*d.* „

Ballast 10½*d.* per ton put on board.

CORK.

Tonnage.

	s.	d.
On every vessel reporting at custom-house, except coasters and colliers, per ton	0	3
Colliers „	0	2
Vessels from any port in Ireland „	0	1

Ballast.

Other than limestone „	1	0
Limestone „	1	6
For every ton of ballast taken from any vessel, if by lighter „	0	1
Otherwise „	0	4

Anchorage.

On vessels calling for orders or refuge „	0	1

Pilotage.—During summer months, vessels outside the limits of Cork Harbour, by special agreement.

From the Outward Limits of Cork Harbour into Cove, Passage, and Cork, per Vessel.

	Cove			Passage			Cork		
	£	s.	d.	£	s.	d.	£	s.	d.
British vessels:									
Under 80 tons	0	5	0	0	8	0	0	12	0
80 to 120 „	0	8	0	0	10	0	0	16	0
120 160 „	0	10	0	0	15	0	1	0	0
160 220 „	0	12	0	0	17	0	1	2	0
220 300 „	1	0	0	1	10	0		—	
300 400 „	1	10	0	2	0	0		—	
400 and upwards	1	15	0	2	5	0		—	
Coasters and colliers:									
Under 80 tons	0	5	0	0	7	0	0	10	0
80 to 120 „	0	6	0	0	8	0	0	12	0
120 and upwards	0	8	0	0	10	0	0	15	0

One-fourth additional in winter months.

The whole of the foregoing charges are levied by the Cork Harbour Commissioners, established by local Act (1 Geo. IV. c. 52).

COWES.

Harbour Dues.

From 5*s.* to 1*l.* 10*s.* according to tonnage. Mooring posts and rings in addition, if used.

Ballast.—In harbour 1*s.* 6*d.* per ton, in the roads 2*s.*

DARTMOUTH.

Harbour Dues.—6*d.* per vessel.

Pilotage.

Bob's Nose to the Start:—

If boarded without the run of Mewstone East, or the Blackstone West:—

	s.	d.
10 feet and under, per foot	2	6
10 to 12 „	3	0
12 14 „	3	6
14 16 „	4	0
16 and upwards „	5	0

If boarded within the abovenamed line one quarter part, subject to circumstances of weather.
If boarded within the castle, half rates.
Pilotage out, one third less.

Towage.—2*d.* per register ton.
Ballast.—Put on board, 1*s.* per ton.

DOUGLAS.

Pilotage.

Under 40 tons	5*s.*
40 to 60 „	7*s.*
60 100 „	13*s.*
100 and upwards	20*s.*

Ballast, 5*d.* to 6*d.* per ton.

Harbour Dues.—Nil.

Dover.

Harbour Dues.—Every decked vessel, 3*d.* per ton. But coal, coke, culm, stone, and ballast 1½*d.* per ton.

Vessels remaining in harbour longer than a month charged 1*d.* per week per registered ton.

Vessels entering the inner harbour, and being kept water-borne, to pay additional rates; if in foreign trade 1½*d.*, coasting 1*d.* per registered ton.

Dues on Vessels passing from and to Dover.—Every vessel, except in ballast, or wholly laden with coal, culm, or stone, from 20 to 300 tons, 3*d.* per ton. For every chaldron of coal or culm, or ton of stone, 1½*d.*

Bridge-money.—For swinging bridge for passage of any vessel, 1*s.* 6*d.* This charge not to be made on those which pay for being water-borne.

Pilotage not compulsory, but 5*s.* per foot if needed.

Towage from Harbour to Edge of Flood Tide.

	£	s.	d.
Under 50 tons	0	7	6
50 to 75 ,,	0	15	0
75 100 ,,	0	17	6
100 200 ,,	1	0	0
200 300 ,,	1	5	0
300 400 ,,	1	10	0

Ballast.—2*s.* 3*d.* per ton (chalk).

Shipway without Cargo or Ballast.

	s.	d.
Tons 60 and under, 1*l.* 10*s.*, and per day	7	6
60 and above, 6*d.* per ton, and per day	10	0

With Cargo and Ballast.

60 and under, 2*l.*, and per day — 10*s.*
60 and above, 8*d.* per ton, and per day — 15*s.*

Steamers having engines and boilers on board in the second category.

Gridiron.—Half the shipway rates.

Dublin.

Nature of the Dues and Charges	Date	Particulars and Rates of the several Charges and Dues	In what manner charged	Amount
				s. *d.*
City dues	Corporation cannot trace the date, but very old.	On every vessel arriving with cargo:		
		Anchorage	per vessel	3 1
		Shippage	,,	0 11
		On every vessel, if under 40 tons register:		
		Anchorage	,,	1 10½
		On vessels with coals:		
		Anchorage	,,	3 1
		Shippage	,,	0 11
		Lord Mayor 2*s.* 3½*d.*	,,	7 10½
		Water bailiffs 5*s.* 6½*d.*		
		With coals under 40 tons: anchorage	,,	1 10½
		In addition to the above charges, on each vessel, once in every year, for chapter and guild	,,	1 6
Harbour dues. Dunleary, now called Kingstown.	—	On all vessels with foreign cargo, whether delivering in whole or in part:		
		Invoice or report inwards	,,	2 0
		On burden or tonnage	per ton	0 4
		Ditto on vessels not privileged	,,	0 6
		Anchorage &c.	per vessel	7 6
		Invoice or report outwards	,,	2 0

Charges and Dues Payable by Shipping to the Corporation, for Preserving and Improving the Port.

Dues and Charges	Particulars and Rates of the several Dues and Charges	Tonnage Duty	Ballast put on Board	Quay Walls
Ballast	Vessels from Foreign ports, or from Colonies of Great Britain.	8½*d.* per ton register	1*s.* 9½*d.* per ton of 21 cwt.	1½*d.* per ton register.
Quay walls	Colliers, British and Irish coasting vessels	5½*d.* ditto	ditto.	1*d.* ditto.
	All vessels in distress, or seeking refuge, or calling for orders.	Exempt.		

Nature of the Dues and Charges	Particulars and Rates of the several Dues and Charges	From outside Banks over Bar	From inside Banks over Bar	From the Bay over Bar	From Poolbeg to Basin, Docks, or Quays.	Outwards
Pilotage	Foreign vessels not privileged	5*s.* 6½*d.* per foot.	3*s.* 8½*d.* per foot.	2*s.* 9½*d.* per foot.	1*s.* 4½*d.* per foot.	1*s.* 10½*d.* per foot.
	Foreign vessels privileged	2*s.* 9½*d.* per foot.	1*s.* 10½*d.* per foot.	1*s.* 4½*d.* per foot.	11*d.* per foot.	
	British vessels from Foreign ports	ditto.	ditto.	ditto.	ditto.	
	Colliers and coasters	1*s.* 10½*d.* per foot.	11*d.* per foot.	11*d.* per foot.	5½*d.* per foot.	
	Vessels in distress, seeking refuge, or calling for orders, exempt from dues.					

Dundalk.

Pilotage.

Registered Tonnage	Vessels not having British Registers, arriving from or sailing on a Foreign Voyage	Vessels with British Registers, arriving from or sailing on a Foreign Voyage	Vessels not Steamers, trading to or from a Port in the United Kingdom
	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*
30 and under 40	0 12 0	0 9 0	0 6 0
40 ,, 50	0 15 0	0 11 3	0 7 6
50 ,, 60	0 18 0	0 13 6	0 9 0
60 ,, 70	1 1 0	0 15 9	0 10 6
70 ,, 80	1 4 0	0 18 0	0 12 0
80 ,, 90	1 7 0	1 0 3	0 13 6
90 ,, 100	1 10 0	1 2 6	0 15 0
100 ,, 110	1 13 0	1 4 9	0 16 6
110 ,, 120	1 16 0	1 7 0	0 18 0
120 ,, 130	1 19 0	1 9 3	0 19 6
130 ,, 140	2 2 0	1 11 6	1 1 0
140 ,, 150	2 5 0	1 13 9	1 2 6
150 and under 160	2 8 0	1 16 0	1 4 0
160 ,, 175	2 11 0	1 18 3	1 5 6
175 ,, 200	2 14 0	2 0 6	1 7 0
200 ,, 225	2 17 0	2 2 9	1 8 6
225 ,, 250	3 0 0	2 5 0	1 10 6
250 ,, 275	3 3 0	2 7 3	1 11 6
275 ,, 300	3 6 0	2 9 6	1 13 0
300 ,, 325	3 9 0	2 11 9	1 14 6
325 ,, 350	3 12 0	2 14 0	1 16 0
350 ,, 375	3 15 0	2 16 3	1 17 6
375 ,, 400	3 18 0	2 18 6	1 19 0
400 and upwards	4 1 0	3 0 9	2 0 6

N.B.—Steam vessels do not at present come within 1½ mile of the quays. No distinction between coasting and foreign trade as to tonnage duty.

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Tonnage Duty.—Sailing vessels, 6*d.* per ton registered tonnage.

Steam vessels, 1½*d.* per ton registered tonnage.

Ballast.—British vessels, 1*s.* 2*d.* per ton, on quantity delivered on board.

Vessels taking Refuge.—British and foreign, under 50 tons registry, 5*s.* per vessel.

British and foreign, 50 and under 100 tons registry, 10*s.* per vessel.

British and foreign, above 100 tons registry, 20*s.* per vessel.

DUNDEE.

Tonnage Rates and Duties.

	per register ton *s.*	*d.*
For all vessels navigating to the southward of the Tropic of Capricorn	1	6
Between the Equator and the Tropic of Capricorn	1	3
Between the Tropic of Cancer and the Equator	1	0
To and from any port in North America, Greenland, Davis's Straits fisheries, and all within the Straits of Gibraltar	0	8
To and from any port in Europe to the north of Drontheim in Norway, and to or from the Azores, Madeira, or Teneriffe Islands, and the west coast of Africa, between the Tropic of Cancer and the Straits of Gibraltar	0	7
To and from any port on the coast of Europe, between Gibraltar and Drontheim in Norway, including both these ports, and all ports in the Baltic	0	5
To or from any port in Great Britain or Ireland, including the islands of Guernsey, Jersey, Alderney, Sark, Man, the Shetland Islands, and Orkneys	0	3
All vessels loaded with coals, lime, or manure only, from any port in Great Britain &c., excepting Scotland	0	2
All vessels loaded with coals, lime, or manure only, from any port in Scotland	0	1½
All vessels employed in the river Tay, carrying goods and entering the precincts of the port or harbour of Dundee	0	1½
All steam vessels from any port in Great Britain or Ireland, including the islands of Guernsey, Jersey, Alderney, Sark, Man, the Shetland Islands, and Orkneys, carrying passengers and their luggage exclusively	0	2
All steam vessels (from any port in Great Britain) employed on the river Tay, carrying passengers and their luggage exclusively, and vessels trading from the harbour, or carrying passengers to any port within the precincts	0	1

Vessels sailing outwards and coming under the first two classes pay 1*s.* instead of 1*s.* 6*d.* and 1*s.* 3*d.*

All steam vessels carrying goods and passengers to pay the same rates as sailing vessels.

All vessels from any part of the river Tay, not exceeding 30 tons register, with stones, and having no other goods on board, and delivering their cargoes in the precincts of the said harbour, to pay 2*s.* each voyage in name of tonnage dues, and 1*s.* for every 20 tons, or part of 20 tons, additional.

All vessels from any part of the river Tay, with sand, and having no other goods on board, to pay 1*s.* for each trip in name of tonnage dues.

It shall be in the option of the trustees to charge either the tonnage dues on the voyage inwards, or on the voyage outwards, at the rates specified in the above schedule; and if the charge be made on the voyage outwards, there shall be deducted from it the amount of the dues that may have been previously paid on the voyage inwards: but if such vessels sail in ballast, they shall be charged with dues on the inward voyage only.

All vessels launched within the harbour of Dundee, or precincts thereof, to pay half dues on the voyage outwards, if sailing in ballast; but if loaded in whole or in part, or taking passengers, to pay full dues.

All vessels to be permitted to enter the harbour of Dundee for safety, by payment of one-half of the tonnage dues; but if such vessels shall remain in the harbour, or any of the docks, beyond the space of 21 days, or shall take goods on board (stores for their own use excepted), or break bulk, they shall be liable in the full tonnage dues.

All vessels remaining in harbour to pay, after 2 months, 1*d.* per register ton per month, in advance, when they are lying in any of the tide-harbours, and 1½*d.* per ton when lying in any of the docks.

Each vessel, with the exception after-mentioned, entering the harbour and loading or unloading goods or ballast within the same, or performing both operations, before leaving the harbour to pay, in name of plank-money (whether a plank be used or not), as follows:—

			s.	*d.*
Vessels not exceeding 20 tons			1	0
exceeding 20 tons and not exceeding		50	1	6
50	"	100	2	0
100	"	150	2	6
150	"	200	3	0
200	"	250	3	6
250	"	300	4	0
300	"	350	4	6
350	"	400	5	6
400 tons and upwards			6	6

All vessels loaded with lime, coals, or manure only, and discharging their cargoes within the precincts of the harbour, to the eastward of the Rood Yards, or to the westward of the Magdalen Yard, to pay one-half of the dues in the above schedule.

Vessels with fish of any kind for curing, per ton register, or admeasurement, 2*d.*

Exemptions.

All vessels leaving the harbour for the purpose of taking on board ballast in any part of the river Tay, and returning to the said harbour, or precincts thereof, with ballast, shall not be liable in shore dues for such return.

Any vessel sailing from the port of Dundee, and put back by stress of weather, or any other cause, without having accomplished her voyage, shall not be liable in additional dues for such return.

Vessels partly loaded with coals, lime, or manure, or in ballast, but having dunnage deals or stowwood on board, which have been used as such, and are intended to be unloaded; or having goods on board, which are neither to be landed, nor reshipped into any other vessel within the harbour or precincts, shall be charged the same dues as vessels wholly loaded with coals, lime, or manure.

All vessels arriving in ballast for the purpose of being repaired in the graving-dock, or on the patent slip, and departing in ballast, shall be exempted from tonnage dues, provided such vessels enter for the dock or slip immediately on arrival, and sail within 1 month after leaving such graving-dock or patent slip; otherwise to be charged 1*d.* per register ton per month in advance when they are lying in any of the tide harbours, and 1½*d.* per ton when lying in any of the docks.

Vessels with cargoes, arriving for the express purpose of being repaired in the graving-dock, or on the patent slip, shall not be liable in shore dues, provided they neither take goods on board (stores for their own use excepted) nor break bulk, except to lighten for getting into the dock, or upon the slip, and that they shall again reload all the goods so landed.

All vessels loading or unloading goods within the precincts of the harbour of Dundee, to the eastward of the Rood Yards, and the westward of the Magdalen Yard, shall be exempted from payment of plank-money.

All vessels not carrying passengers arriving in the harbour in ballast, and departing again in ballast, shall be subject only in half dues; but if such vessels, after arriving in ballast, shall take in cargoes, or parts of cargoes, before their departure, they shall be liable in full dues.

Table of Rates for Pilots licensed by the Trustees of the Harbour of Dundee.

For vessels to or from foreign parts, boarded at the distance of not more than 3 miles outward of the Fairway Buoy of Tay, or at any point between that distance and the said buoy, and from thence to and including the harbour of Dundee, 3*s.* 6*d.* per foot, according to the draught of water.

For vessels to or from foreign, boarded between the Fairway Buoy of Tay and the buoy on the Elbow-end, marked No. 3, and thence to and including the harbour of Dundee, 2*s.* 6*d.* per foot.

For vessels to or from foreign, boarded between the Elbow-end buoy, No. 3, and Broughty Castle, and from thence to and including the harbour of Dundee, 1*s.* 3*d.* per foot.

All coasting vessels boarded at the respective distances above mentioned to pay as follows, viz.—vessels boarded not more than 3 miles outward of the Fairway Buoy of Tay, to pay 3*s.* per foot; between the Fairway Buoy of Tay and the Elbow-end Buoy No. 3, 2*s.* per foot; and between the Elbow-end Buoy and Broughty Castle, to and including the harbour, 1*s.* per foot.

All vessels, whether foreign or coasting, boarded above Broughty Castle, to and including the harbour, 1*s.* per foot.

In the event of having to stop in Carolina Roads for want of water in the harbour, or otherwise, the master of the vessel shall have it in his option either to dispense with the services of the pilot, or detain him on board till the vessel can enter the harbour. In the former case the pilot shall be entitled to full pilotage dues; in the latter, the pilot shall be entitled, besides these dues, to 5*s.* for each day, or part of a day, in name of river fees.

When pilots enter the river on board vessels bound for places above Dundee, the river or sea pilotage, including the harbour, shall be payable in full by such vessels when moored or off Carolina Roads.

All vessels boarded between 3 miles and 6 miles beyond the Buoy of Tay to pay 10*s.* 6*d.* additional for distance money; and vessels boarded 6 miles beyond said Buoy of Tay to pay 15*s.* of distance money.

In case of dispute, the distance to be ascertained by the bearings of the different headlands when the vessel was boarded.

Tay Light Duties (local).

The 'Fraternity of Masters and Seamen of Dundee, incorporated by Royal Charter,' possess the right, by charter, to levy, inter alia, the following dues on vessels arriving within the Firth of Tay, being the whole charges presently made in respect of said right; and those for and in name of the expense of erection and maintenance of 4 light-houses owned exclusively by said fraternity, 2 of which are situated on the north side and 2 on the south side of said Firth; and of certain buoys placed in the Fairway thereof:—

On every British ship coming within the entrance of the Firth of Tay, whether with cargo on board or in ballast, or driven therewithin by stress of weather or otherwise, at the rate of 1*s.* for every 10 tons register; under 10 tons, charged at the same ratio.

On every foreign ship, privileged, the same rate of dues when in either of the above situations; but the Trinity House makes good an equal amount to the said incorporation, in consequence of the half charge being only made on foreign vessels so privileged.

On every foreign ship, unprivileged, situated as above, the rate of charge is 2*s.* for every 10 tons register; under 10 tons charged at this ratio.

No dues are levied on British ships, nor on foreign vessels privileged or otherwise, leaving the Tay on their outward voyage, whether laden or in ballast, excepting in the case of new ships, built within the ports of Dundee and Perth respectively, which pay the above dues on British shipping when leaving on their first voyage, whether foreign or coasting.

Buoyage.—½*d.* per register ton.

Exeter.

Harbour Dues.—1*s.* 2*d.* per vessel: the same charge at the creeks.

Canal Dues.—Vessels under 110 tons register, 4*d.* per ton; 110 tons and over, 6*d.*; and besides 2½*d.* per register ton for horse trackage.

Ballast.—4*d.* per ton, payable to the lord of the manor.

Pilotage.—As per annexed rate, established under Act 6 Geo. IV. c. 125, but amended under sanction of the Trinity Board of July 1864.

Vessels coasting, or in the foreign trade, are liable to the same charges, except pilotage.

Vessels taking shelter only, are not liable to any charges beyond pilotage.

Definition of Limits.—From Lyme to Bob's Nose, and vice versâ, and to and from and into and out of all ports and places within those limits.

The following are the rates of pilotage for ships in and over Exmouth Bar, to the moorings in the Bight at Exmouth, and out again over the Bar:—

	Inwards *s.*	*d.*
Coasters, if not exceeding per register 60 tons	1	9 per foot
If exceeding 60 and under 80	2	0 ,,
80 ,, 90	2	3 ,,
90 ,, 100	2	9 ,,
100 ,, 125	3	3 ,,
125 ,, 150	3	9 ,,
150 ,, 175	4	3 ,,
175 ,, 200	4	9 ,,
200 ,, 250	6	0 ,,
250 ,, 300	7	0 ,,
300 ,, 400	7	9 ,,

Outwards half rates.

	s.	*d.*
All vessels carried from Bight at Exmouth to Sands	3	6
Back	3	6
All vessels under 100 tons to Topsham Quay	13	0
Back	13	0
To Turf	9	0
Back	9	0

	d.
Ships upwards of 100 tons to Topsham	1½ per ton
Back	1½ ,,
Ships upwards of 100 tons to Turf	1½ ,,
Back	1½ ,,

Pilotage of Foreign Ships.

	Inwards *s.*	*d.*
80 tons	3	0 per foot
80 to 100	3	9 ,,
100 150	5	0 ,,
150 200	5	6 ,,
200 250	6	3 ,,
250 300	7	9 ,,
300 400	9	0 ,,
400	9	9 ,,
For each additional 100 tons	1	0 ,,

Outwards half rates.

	s.	*d.*
All ships carried from Bight at Exmouth to Sands	3	6
Back	3	6
All ships under 100 tons, to Topsham Quay	13	0
Back	13	0
To Turf	9	0
Back	9	0

	d.
All ships above 100 tons carried to Topsham Quay	1½ per ton
Back	1½ ,,
To Turf	1½ ,,
Back	1½ ,,

Teignmouth.

Harbour Dues.—1*d.* per ton for every vessel.

Canal Dues.—Nil.

Ballast Dues.—Nil.

Pilotage.—As per annexed rate, established under Act 6 Geo. IV. c. 125, but amended under sanction of the Trinity Board of Nov. 1862.

Vessels coasting, or in the foreign trade, are liable to the same charges, except pilotage.

Vessels taking shelter only are not liable to any charge beyond pilotage.

Masters of ships taking a pilot off the Bill of Portland or the Start (which is optional to them) are to pay, beyond the pilotage, from Bob's Nose, or Lyme, as follows, viz.:—

	£	*s.*
Colliers and coasters	2	2
Ships from foreign parts	3	3

And proportionably for intermediate distances.

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Rates of Pilotage for Vessels in and out over Teignmouth Bar.

	Colliers and Coasting Vessels							Vessels from or to Foreign Ports			
	Tons		Tons	Rate per foot Inward	Rate per foot Outwards	But not to exceed for each Vessel Inwards	Outwards	Rate per foot Inwards	Rate per foot Outwards	But not to exceed for each Vessel Inwards	Outwards
				s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
If not exceeding per register	20		—	1 0	0 6	5 0	2 6	1 3	0 8	6 0	3 0
If exceeding per register	20		30	1 0	0 6	7 6	3 9	1 3	0 8	8 6	4 3
	30		40	1 2	0 7	10 0	5 0	1 5	0 9	12 0	6 0
	40		50	1 4	0 8	13 0	6 6	1 7	0 10	16 0	8 0
	50		60	1 6	0 9	16 0	8 0	1 10	0 11	20 0	10 0
	60		80	1 9	0 11	All by the foot draught of water, except as above stated, for vessels not exceeding 60 tons register.		2 1	1 1	All by the foot draught of water, except as above stated, for vessels not exceeding 80 tons register.	
	80	And not exceeding	100	2 1	1 1			2 5	1 3		
	100		125	2 7	1 4			2 11	1 6		
	125		150	3 0	1 6			3 4	1 8		
	150		175	3 5	1 9			3 9	1 11		
	175		200	3 10	1 11			4 2	2 1		
	200		225	4 2	2 1			4 6	2 3		
	225		250	4 6	2 3			4 10	2 5		
	250		300	4 10	2 5			5 4	2 8		
	300		350	5 4	2 8			5 10	2 11		
	350		400	5 10	2 11			6 4	3 2		
	400		450	6 3	3 2			6 9	3 5		
	450		500	6 7	3 4			7 1	3 7		

The several pilotage rates herein specified are subject to a reduction of one-fourth part in respect of vessels propelled by steam, and vessels towed by steam vessels.

FALMOUTH.—*Harbour Dues.*

Foreign trading vessels, 3*d.* per registered ton; coasters, 2*d.* per registered ton; steamers taking coals, 1*d.* per registered ton.

Light Dues.

Foreign-going vessels, ½*d.* per registered ton; coasters, ¼*d.* per registered ton.

Pilotage.

From the Dodman to the Lizard, and vice versâ, and to and from, and into and out of, all ports and places within these limits—Various rates, for which see in detail Clayton's *Annual Register*. Since the last edition of the Dictionary they have been reduced about 15 per cent.

Vessels propelled or towed by steam have a reduction of 25 per cent. Pilots taken on board at sea off the Lizard are entitled to—

under 200 tons	21*s.*
200 and under 500 „	42*s.*
500 tons and upwards	63*s.*

Ballast.—Put on board, 9*d.* to 1*s.* per ton.

FLEETWOOD.—*Harbour Dues.*

Vessels in foreign trade	3*d.* per reg. ton
Coasting	1*d.* „
Vessels taking refuge: foreign	1½*d.* „
coasting	1½*d.* „

In ballast, exempt.

Pilotage.

From sea into and out of the port of Fleetwood, and along the coast from Formby Point to Havering Point, from 5*s.* to 3*l.* per foot foreign, and 2*s.* to 1*l.* coasters.

Light Dues.

Walney Light	3*d.* per reg. ton
Vessels taking refuge	1*d.* „
Wyre Light, foreign trade, per ton, per voyage	3*d.* „
Coasting, per annum	3*d.* „
Vessels taking refuge	1½*d.* „

In ballast exempt.

Ballast.

Foreign trade vessels	8*d.* per ton
Coasting	6*d.* „

Free on board; if discharged in lighters of 15 tons, 12*s.* each lighter.

GAINSBOROUGH.

Nature of Dues	Rates				Under what Authority
Anchorage	From foreign or coast-wise:			s. d.	
	If 40 tons and under 45, per ship			1 0	
	45 „ 100 „			1 4	
	100 „ 200 „			2 0	
	200 tons and upwards			2 6	
Buoyage and beaconage	Royal navy, revenue vessels, and small fishing-craft excepted:				Payable once only each voyage, either outwards or inwards, to Trinity House, Hull, and the authority is derived from them.
		Below Cleanness Buoy	Above Cleanness Buoy and to Buoy of Burcome	Whitebooth Roads	Hull
		s. d.	s. d.	s. d.	s. d.
	Under 20 tons	0 8	1 0	1 4	2 0
	20 to 30 „	0 10	1 3	1 8	2 6
	30 40 „	1 0	1 6	2 0	3 0
	40 50 „	1 2	1 9	2 4	3 6
	50 60 „	1 4	2 0	2 8	4 0
	60 70 „	1 6	2 3	3 0	4 6
	70 80 „	1 8	2 6	3 4	5 0
	80 90 „	1 10	2 9	3 8	5 6
	90 100 „	2 0	3 0	4 0	6 0
	every odd 10 tons add.	0 2	0 3	0 4	0 6
Pilotage	All vessels from foreign parts are subject to this. *See* Hull. Vessels drawing less than 6 feet water are not liable.				These dues are received under the authority of the Pilot Office at Hull; but their authority for levying them we do not know. A receiver (not in the Customhouse) is appointed, under the authority of the Pilot Office at Hull, to collect these rates.
	A further pilotage on vessels proceeding from Hull to Gainsborough, or departing from thence to foreign parts:			s. d.	
	not exceeding 6 feet, per foot			3 6	
	6 feet and not exceeding 8 feet			4 0	
	8 feet „ 10 feet			4 6	
	10 feet and upwards			5 0	
	coastwise, if piloted			2 6	
River pilotage		s. d.			
	Under 6 feet, per foot	3 6	8 to 10 feet, per foot	4 6	
	6 to 8 „	4 0	10 and upwards	5 0	
	Ballast, 1*s.* per ton.				
Dover Harbour	On British or foreign vessels passing Dover Harbour:				Payable on foreign and British vessels from foreign parts each voyage, and on coastwise once a year, under authority of 9 Geo. IV. c. 31.
	20 to 300 tons, per ton			0 1½	
Ramsgate Harbour	Under 300 tons, per ton			0 2	Payable each voyage on passing Ramsgate, except on coasting vessels, which pay once a year, under the authority of 32 Geo. III. c. 76.
	above 300 tons „			0 0½	
	Foreign ships not entitled to reciprocity:				
	under 300 tons, per ton			0 4	
	above 300 tons „			0 1	

GALWAY.

Dues payable to the Harbour Commissioners on all Vessels, whether British or Foreign, entering the Harbour, whether for Refuge or to Discharge their Cargoes in whole or in part, or in Ballast.

Vessels, Coasting or Foreign, delivering whole or part of Cargo	Vessels taking Refuge	Lights	Ballast	Authority
6*d.* per ton register	No charge, except in using the docks and quays; in such case 6*d.* per ton register	No charge	No charge	11 Geo. IV. ann. 1830

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Pilotage on all Vessels entering Galway Harbour, whether in Ballast or with Cargoes, to discharge some in whole or part, or for Refuge.

Tons, Register Tonnage							
20 to 50	50 to 100	100 to 150	150 to 200	200 to 250	250 to 300	300 to 350	350 to 400
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
0 15 0	1 1 0	1 10 0	2 2 0	2 12 0	3 0 0	4 0 0	5 0 0

GLASGOW.

Harbour and Dock Dues.

per reg. ton

1. On all vessels, except as after-mentioned, arriving at, or departing from, the harbour, from or to any place in the United Kingdom, inwards or outwards - - - - d. 1½
2. On all steam-vessels arriving at, or departing from, the harbour, from or to any place within a line drawn east to west across the channel at Pladda, inwards or outwards - - - ½
3. On all vessels arriving at, or departing from, the harbour from or to any place out of the United Kingdom, inwards or outwards - - - - - - - 4
4. On all vessels that shall remain in the harbour over and above the first 24 lawful days, per week - - - 1
5. On all vessels entering, or departing from, any of the wet docks or tidal basins, in addition to the harbour rates, inwards or outwards - - - - - - - 6
6. On all vessels remaining in such docks or basins over and above 24 lawful days, per week - - - - 2
7. On all vessels entering and using the river, not liable for the above rates, and not trading with cargo liable to rates under Schedule H - - - - - - 6½
8. On all vessels entering or using the trustees' basin at Barling, having previously been regularly trading on the river, per week - - - - - - - ½
9. On all other vessels entering or using the said basin, per week - - - - - - - 2

Vessels empty for cargo, or returning empty, not liable to rates in Art. 7.

Cranage, Ordinary.

	s. d.
Each hhd. of sugar and hoists not exceeding 12 cwt. -	0 3
12 to 15 ,, -	0 4
15 to 20 ,, -	0 6
Each ton of hemp - - - -	0 6
Mahogany and other timber, rated at 2s. per ton -	0 6
Other timber - - - -	0 4
Marble - - - -	1 0

Cranage of 10 tons and upwards:	£ s. d.
each hoist not exceeding 1 ton - - -	0 0 6
1 and not 2 ,, - - -	0 1 0
2 ,, 3 ,, - - -	0 2 0
3 ,, 4 ,, - - -	0 5 0
5 ,, 6 ,, - - -	0 15 0
6 ,, 8 ,, - - -	1 0 0
8 ,, 10 ,, - - -	1 10 0
10 ,, 12 ,, - - -	2 0 0
12 ,, 15 ,, - - -	3 0 0
15 ,, 20 ,, - - -	5 0 0
20 ,, 25 ,, - - -	7 10 0
25 ,, 30 ,, - - -	10 0 0
30 ,, 35 ,, - - -	12 10 0
35 ,, 40 ,, - - -	15 0 0
40 ,, 45 ,, - - -	17 10 0
45 ,, 50 ,, - - -	20 0 0
50 ,, 60 ,, - - -	25 0 0

River Pilotage.

From Greenock, or off Greenock, or off the Tail of the Bank to Glasgow; or from Glasgow to Greenock, or off Greenock, or the Tail of the Bank, including unmooring of ships for all	s. d.
vessels under 10 feet draught, per foot - - -	1 6
10 and under 12 feet - - -	2 0
12 ,, 15 ,, - - -	2 6
all exceeding 15 ,, - - -	3 0

The towage rates are also fixed by the towing companies.

GRANTON, ADJOINING LEITH.

Harbour Dues.

per reg. ton

Vessels from any port or place in the Firth of Forth, to the westward of St. Abb's Head and Fifeness, excepting vessels coming or going through the Forth and Clyde Canal - - - - - - -	s. d. 0 2
To or from any port or place in Scotland, and to or from Newcastle and River Tyne, or any other port or place in England to the north of the Tyne - - - -	0 3
To or from any other port in Great Britain and Ireland, except the above - - - - - -	0 4
To or from any port or place in Europe, except the above -	0 8
To or from other parts of the world - - -	1 0

These dues payable only once each voyage.

Ballast.—Put on board, 1*s.* per ton; discharged, 6*d.*

GREENOCK.

Harbour Rates Inwards and Outwards per Register Ton.

Class 1. River craft of Glasgow with coals, for inhabitants, not manufacturers, free inwards; outwards in cargo 1½*d.* per ton, light ½*d.*

River craft and luggage steamers, 1½*d.* per ton per voyage.

Tugs, ½*d.* per ton.

Vessels from foreign parts, after discharging their inwards cargoes, and proceeding to any port in the river above Greenock, without cargo 1*d.*, with cargo 2*d.* per ton.

Class 2. To or from any place inside of the Cumbrae Head; also from or to all places on the Forth and Clyde Canal, west of Grangemouth, including the Union and other canals leading into it, 1*d.* per ton.

Class 3. To or from all places between the Cumbrae on the north and the Mulls of Galloway and Kintyre on the south, including Lochryan, Lochfine &c. in these limits; also by the Forth and Clyde Canal to or from places on the Firth of Forth, extending from Stirling to Fifeness on the north side, and Dunbar on the south; likewise by the Crinan Canal to or from all ports and places in the Highlands, situated betwixt West Loch Tarbert on the south, and the north end of the Isle of Skye, including Skye, Mull, Coll, Tiree, Islay, Jura, and other islands betwixt these and the mainland, 1½*d.* per ton.

Class 4. To or from any place situated betwixt the Mulls of Galloway and St. David's Head on the British side of St. George's Channel, including the Isle of Man, and, on the Irish side, from Tuskar along the east and north coasts of the island to Torry; and from the Mull of Kintyre to Cape Wrath, including all the Hebrides; also by the Forth and Clyde Canal to or from places betwixt Fifeness and Kinnaird's Head, and betwixt Dunbar and Flamborough Head, 2*d.* per ton.

Class 5. To or from all places in Ireland extending from Torry along the west and south coasts of the island to Tuskar; and in England and Wales, betwixt the Land's End and St. David's Head; also in Scotland, betwixt Cape Wrath and Kinnaird's Head, including the Orkney and Shetland Islands; likewise to or from places north of Flamborough Head navigating otherwise than by the canals, 3*d.* per ton.

Class 6. To or from all places on the east and south coasts of England extending from Flamborough Head to the Land's End, including Scilly Islands, 4*d.* per ton.

Class 7. To or from any port or place in Europe, or island in the European seas, 6*d.* per ton.

Class 8. To or from any port or place in the British provinces of Canada, New Brunswick, Nova Scotia, Newfoundland, Iceland, the Greenland and Davis Strait fisheries, and all ports or places on the south coast of the Mediterranean Sea, 8*d.* per ton.

Class 9. To or from all ports or places in the United States of America, West Indies, and east coast of America north of the river Amazon; also the west coast of Africa, from the Straits of Gibraltar to the Equator, including the islands of these coasts, 8*d.* per ton.

Class 10. To or from any port, place, or island lying betwixt the River Amazon and Cape Horn in South America, and between the Equator and Cape of Good Hope on the west coast of Africa, 6*d.* per ton.

Class 11. To or from all ports, places, or islands south and east of the Cape of Good Hope and west of Cape Horn, 8*d.* per ton.

Class 13. All vessels, British or foreign, arriving at or departing from the port of Greenock in ballast, and all steam-packets employed solely in carrying passengers, to be charged only a moiety of the rates, corresponding to their voyages.

Class 14. Whenever any vessels propelled by steam, whether employed in carrying goods, partly goods and passengers, or passengers solely, shall have entered inwards and cleared outwards so frequently as to have paid 16*s.* per ton of port charges, and tugs 23*s.* 6*d.* of port charges as above, they shall be exempt from further payment of port charges during whatever part of 12 current months may be unexpired from the date of making payment of first portion of said 16*s.* or 23*s.* 6*d.*, as the case may be.

Class 15. All vessels not bound to or from the port of Greenock, but taking shelter in either of the harbours thereof, to pay, in addition to the anchorage dues, 1*d.* per ton.

Class 16. All vessels at clearing outwards shall pay the rate applicable to the most distant port of their intended voyage.

Class 17. All vessels outward bound for foreign ports from any other port in the river or channel, coming to anchor in the roadstead of this harbour for stores only, shall only pay 1*d.* per ton harbour dues.

Class 18. All vessels outward bound for foreign ports from any other port in the river or channel, touching at the quays of this harbour for stores merely, and not taking in more than ¼ a full cargo here, shall be admitted on payment of 2*d.* per ton of harbour dues. If more than one fourth, and not exceeding half, 4*d.* per ton; exceeding half, full rates.

Class 20. All vessels coming into the port of Greenock to lay up for any space not exceeding 8 days, shall on arrival pay 4*d.* per ton, and on departure pay the like sum of 4*d.* per ton.

Class 21. All vessels laden with lime, limestones, flintstones, or chalk, to be charged full rates, unless they are only ballasted, when they pay full ballast rates.

Class 22. All lighters from and for Glasgow and intermediate places are chargeable with harbour dues when with cargo, at ½*d.* per ton per voyage, inwards and outwards making a voyage.

Class 23. All lighters with coals for the use of the inhabitants of the town, but not for use in manufactories, are not chargeable with harbour dues inwards; but when loading a cargo are chargeable outwards at 1½*d.* per ton, and if departing light, without cargo, at ½*d.* per ton.

Class 24. Vessels under 15 tons, excepting when entering at or clearing from the Custom House with cargo, are exempted from the payment of harbour dues, and pay only anchorage dues, as per anchorage table.

Class 25. All vessels arriving at this port in distress, or for repair (excepting such vessels as have sailed from the port and paid the outward dues), shall, upon arrival, pay the full harbour dues applicable to the most distant port or place for which such vessels were bound; but if in ballast, or not discharging any cargo, only half dues.

Class 26. All vessels clearing for foreign ports in ballast, with stores only, and having to proceed to Troon, Ardrossan, or any other place in the United Kingdom, to load, are to be charged the ballast rates applicable to coasting vessels.

Class 27. All steamers plying to and from ports or places, as per Class 1 of harbour rates, when with passengers only, are chargeable at the rate of ½*d.* per ton per trip, or ½*d.* per ton per voyage.

Class 28. All steamers plying to or from ports or places, as per Class 2 of harbour rates, when with passengers only, are chargeable at the rate of ½*d.* per ton per trip, or 1½*d.* per ton per voyage.

Class 29. All steamers plying to or from ports or places, as per

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Class 5 of harbour rates table, and passing to or repassing from Glasgow with passengers only, are chargeable at the rate of 1¼d. per ton per trip, or 2½d. per ton per voyage.

Class 30. All steamers plying to or from ports or places, as per Class 4 of harbour rates table, when with passengers only, are chargeable at the rate of 1¼d. per ton per trip, or 2½d per ton per voyage; and so on for steamers plying to or from ports or places, as per Classes 5 and 6 of harbour rates, according to the table.

All British steamers entering the harbours to take in their machinery, or for repairs of the same, shall pay 8d. per ton for harbour dues.

The rates in the foregoing table are exclusive of the harbour police rates on shipping, and of the town dues for anchorage.

Harbour Police Rates	Per reg. ton	
	In.	Out.
	d.	d.
All ships or other vessels trading to or from ports, bays, or islands, in Classes 7, 8, 9, 10, and 11 of the table of harbour rates	½	½
All ships or other vessels trading to or from ports, bays, or islands, in Classes 3, 4, 5, and 6 of the table of harbour rates	¼	¼
Steam-packets on the above lines, from the frequency of their voyages	½	½
All vessels of every description plying in Classes 1 and 2 of table, 1½d. per ton per annum.		

Tables of Anchorage and Ring Money, inclusive: payable at Clearing Outwards, or previous to leaving, the Port of Greenock.

Ships	400 tons and upwards	350 to 400	300 to 350	250 to 300	200 to 250	150 to 200	125 to 150	100 to 125	75 to 100	50 to 75
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Rate per voyage	10 0	9 0	8 0	7 0	6 0	4 6	3 6	3 0	2 6	2 0

All vessels above 200 tons, whether ship, barque, or brigantine-rigged, to rank as ships; and smaller vessels, of whatever rig, the size to regulate the rate.

Modified Table of Anchorage Dues, calculated for Steam Packets, and Boats making frequent Voyages.

Tons	350 to 400	300 to 350	250 to 300	200 to 250	175 to 200	150 to 175	125 to 150	100 to 125	90 to 100	80 to 90	70 to 80	60 to 70	50 to 60	40 to 50	30 to 40	20 to 30
When plying on line:	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Class 1, harbour rates	5 4	5 0	4 8	4 4	4 0	3 8	3 4	3 0	2 10	2 8	2 6	2 4	2 2	2 0	1 10	1 8
Class 2 "	5 6	5 2	4 10	4 6	4 2	3 10	3 6	3 2	2 11	2 8½	2 7	2 5	2 3	2 1	1 11	1 9
Class 3 "	5 8	5 6	5 2	4 10	4 6	4 2	3 10	3 6	3 2	2 11	2 9	2 7	2 5	2 3	2 1	1 10
Class 4 "	6 0	5 8	5 4	5 0	4 8	4 4	4 0	3 8	3 4	3 1	2 10	2 8	2 6	2 4	2 2	2 0

HARWICH.

Quay Dues.

	d.
Not exceeding 25 tons, per ton	½
40 "	¾
50 "	1
75 "	1¼
100 "	2
150 "	2½
exceeding 150 "	3

Ballast.—Put on board, per register ton.

Discharged.—Exclusive of labour, per register ton.

Harwich Harbour Pilotage.

From	To	Under 10 feet	10 feet to 13 feet	13 feet and upwards
Inwards		£ s. d.	£ s. d.	£ s. d.
Sea, or Orfordness	Harwich Harbour	2 2 0	3 3 0	4 4 0
The Rolling Grounds	Ditto	1 1 0	1 11 6	2 2 0
Outwards				
Harwich Harbour	Sea, or Orfordness	1 11 6	2 2 0	3 3 0
	The Rolling Grounds	Two-thirds of the above.		

Harbour Dues.

On all vessels of 30 tons or upwards entering the harbour by sea 1d. per register ton, except vessels in ballast, fishing vessels, and yachts, ½d. per ton. Ten payments in one year, unless in cases of steamers and river barges, clear from further payments in that year.

HULL.

Dock and Harbour Dues payable to the Dock Company at Kingston-upon-Hull.

	s. d.
For every ship or vessel coming to or going between the port of Kingston-upon-Hull and any port to the northward of Yarmouth, in Norfolk, or any port to the southward of the Holy Island, for every ton	0 2
For every ship or vessel coming to or going between the port of Kingston-upon-Hull and any port or place between the North Foreland and Shetland, on the east side of England, except as above, for every ton, the sum of	0 3
For every ship or vessel trading between the said port of Kingston-upon-Hull and any other port or place in Great Britain, not before described, for every ton, the sum of	0 5
For every ship or vessel trading between the said port of Kingston-upon-Hull and any port or place in the Baltic Seas, and all other ports or places above the Sound, for every ton, the sum of	1 0
For every ship or vessel trading between the said port of Kingston-upon-Hull, and any port or place in Denmark, Sweden, or Norway, below Elsinore, or any port or place in Germany, Holland, Flanders, France to the eastward of Ushant, Ireland, the islands of Guernsey and Jersey, for every ton, the sum of	0 6
For every ship or vessel trading between the said port of Kingston-upon-Hull and any island or port or place of Europe to the westward of Ushant, without the Straits of Gibraltar, for every ton, the sum of	1 0
For every ship or vessel trading between the said port of Kingston-upon-Hull and any port or place in the West Indies, North or South America, Africa, Greenland, or any place to the eastward of the North Cape of Norway, all places within the Straits of Gibraltar, and all islands and places in the ocean to the southward of Cape St. Vincent, not hereinbefore named, for every ton, the sum of	1 6
For every foreign ship or vessel coming to or going (with merchandise) from any of the abovenamed ports or places, double the rates, tonnage, or duties above-mentioned, unless the said ships belong to British owners.	
For every ship or vessel sailing coastwise or otherwise, or coming into the said haven in ballast to be laid up, for every ton (coasting duty included), the sum of	0 6

N.B.—River craft using the docks and harbour at Hull are not charged any tonnage dues, except in cases where they come from and go to other ports.

Mem.—It is important to note that the dues here given include any period of time during which a vessel may lie in the docks. It may also be stated that there is no transhipping duty on goods at Hull. There is no general dock-rate on goods; but for merchandise landed on the quays, wharfage is charged. The importer, however, may remove goods by lighters &c., without placing them on the quays; and the quays are perfectly open to the merchant's labourers, if he choose to land them there, so that the charge of the company may, if the merchant and shipowner so desire, be strictly limited to the tonnage rates on the vessel, as stated in the above table.

An Account of Charges levied on Shipping by the Corporation of Hull for Buoyage and Beaconage.

	s. d.
Vessels under 20 tons	2 0
And for every additional 10 tons	0 6

A Scale of Ancient and Usual Dues payable to the Corporation of Hull, upon Ships and Vessels Entering Inwards and Clearing Outwards, Foreign and Coastwise.

Anchorage				Jettage	
				Inwards	Outwards
			s. d.	s. d.	s. d.
If under 40 tons burden			1 0	1 6	1 0
40 and not	45 tons		1 0	2 0	1 0
45 "	50 "		1 6	2 0	1 6
50 "	100 "		1 6	2 6	2 6
100 "	150 "		2 0	3 6	3 6
150 "	200 "		2 0	4 6	4 0
200 "	250 "		2 6	5 0	5 0
250 "	300 "		2 6	6 0	6 0
300 and upwards			2 6	7 0	6 6

The charge for jettage is not made unless with goods landed at or taken in at Hull, or within the harbour.

The above charges are payable to the corporation by prescription and charter.

No charge made on vessels coming into port in distress, unless they take in cargo.

Primage and dock dues are levied on behalf of the Trinity House and the dock company. For these and pilotage dues, see DOCKS, HULL.

IPSWICH.

Dock Dues on Vessels Entering or Departing from the Port, Laden.

		d.
Vessels under	50 tons - - - per ton	1
from	50 to 60 tons - - ,,	1½
	60 70 ,, - - - ,,	2
	70 80 ,, - - - ,,	3
	80 90 ,, - - - ,,	4
	90 100 ,, - - - ,,	5
	110 130 ,, - - - ,,	6
	130 150 ,, - - - ,,	7
	150 175 ,, - - - ,,	8
	175 200 ,, - - - ,,	9
	200 250 ,, - - - ,,	10
	250 tons and upwards - - ,,	11

All vessels bringing coals only, and departing in ballast only, half dues. All colliers bringing goods are charged full tonnage duty for them.

Pilotage.

	per foot s.	d.
Harwich to Ipswich and vice versâ, with 2 or more masts -	2	3
1 mast - - - - -	2	0
Levington Creek to Ipswich and vice versâ, 2 or more masts -	1	9
1 mast - - - - -	1	6
Downham Reach and vice versâ, 2 or more masts - -	1	3
1 mast - - - - -	1	0

One-fourth less if propelled or towed by steam.

Ballast.—1*s.* per ton, to be purchased of the dock commissioners.

ISLE OF MAN, PEEL, RAMSAY.

Pilotage.

	£	s.
British vessels under 40 tons - - -	0	5
Vessels of 40 tons and under 60 tons - -	0	7
60 ,, 100 ,, - -	0	13
100 tons and larger - - -	1	0

KIRKCALDY.

Ports	Harbour Dues	Dock	Pilotage	Ballast
	d.			d.
Kirkcaldy -	4 per ton	1*s.*	1*s.* per foot	9
Burntisland -	1½ ,,	..	1*s.* ,,	7
Anstruther -	½ ,,	..	..	
Dysart -	1½ ,,	4*d.* and 3*d.*	6*d.* inwards, 1*s.* outwards	6
Wemyss -	..	..	1*s.* per 20 tons	4
Methil -	1½ ,,	..	8*s.* to 12*s.* the vessel	6
Leven -	1 ,,	..	12*s.* per vessel	free

LEITH.

Pilotage, by Order of Council, June 30, 1863.

					s.	d.
Vessels drawing not more than	7	feet water	-	-	5	10
7 and not more than	8	,,	-	-	8	0
8 ,, ,,	9	,,	-	-	9	9
9 ,, ,,	10	,,	-	-	11	8
0 ,, ,,	11	,,	-	-	13	9
11 ,, ,,	12	,,	-	-	16	0
12 ,, ,,	13	,,	-	-	19	6

And for every foot or part of a foot above 13, an additional charge of 1*s.* 6*d.*

Extra attendance every 24 hours—master pilot, 5*s.*; boatmen, 1*s.* 6*d.*

Pilot Boats and Crews.

For vessels from foreign ports under	70 tons	- -	4*s.*
70 and not exceeding	120 ,,	- -	5*s.*
120 ,, ,,	250 ,,	- -	6*s.*
exceeding	250 ,,	- -	9*s.*

Rates outwards one half.

The pilotage to be paid to the collectors of shore dues, not to pilots themselves.

Hire of pilots not necessary.

Flag or Light Dues (Act 28 Geo. III. c. 58 s. 36.)

	Per vessel. s.	d.
Every vessel, of whatever burden, to pay to the shore-master 1*s.* 6*d.*, and to the man for hoisting the flag or putting up the light 1*s.* - - - - - -	2	6
Every vessel of 40 tons burden and upwards, to pay for each coasting voyage 1*s.* 6*d.* to the shore master, and 1*s.* to the man for hoisting the flag or putting up the light - -	2	6

Harbour Dues (Act 28 Geo. III. c. 58 s. 34).

	s.	d.
All vessels, whether ships, barques, or boats (except drag boats, haddock-boats, yawls, ferry boats, and pinnaces), shall pay every time they come into the harbour for each ton of four-fifths of their burden - - - - -	0	1½

Ballast (Act 1 & 2 Vict. c. 55).

	s.	d.	
Shipped - - -	1	3	per ton
Landed - - -	0	7	,,

Dock Dues.

	s.	d.
For every ship or vessel from any port between Buchanness and Eyemouth, including the Great Canal and the river Clyde, as far down as Greenock, coming by the canal -	0	4
For every ship from any other port in Great Britain and Ireland - - - - - -	0	8
For every ship or vessel from Norway, Sweden, Denmark, Holstein, Hamburg, Bremen, Holland, and Flanders, that is, without the Baltic, and no farther south than Dunkirk -	0	10
For every ship or vessel coming from the Baltic, all above the Sound, Onega, Archangel, Jersey or Guernsey, Portugal, France, and Spain, without the Straits of Gibraltar, Newfoundland, Madeira, or Western Islands - - -	1	0
For every ship or vessel from within the Straits of Gibraltar, or from America - - - - -	1	2
For every ship or vessel coming from the West Indies, Asia, Africa, or the Cape de Verde Islands - - -	1	5
For every ship or vessel from Greenland or Davis's Straits -	1	5
But, if cleaned, to be charged as in ballast.		
For every ship or vessel in ballast coming into the dock -	0	4

All steam vessels from ports in Firth of Forth, as far as Anstruther and North Berwick, carrying passengers and luggage exclusively, ½*d.* per ton.

Vessels laden with coal, sold in retail to the inhabitants of Edinburgh and Leith, who are hereby debarred from entering the said dock, are exempted.

LONDON.

Port or Dock Duties.—The following rates are received by the officers of this port on all vessels, entering inwards or clearing outwards, except in ballast, under the authority of Act 4 & 5 Wm. IV. c. 32; and the amount so received is paid into the chamber of the city of London, in conformity with the 6th section of the said Act, viz.:—

From or to Denmark, Norway or Lapland, Holstein, Hamburg, Bremen, or any other part of Germany bordering on or near the German Ocean, Holland, or any other of the United Provinces, Brabant, Antwerp, Flanders, the Netherlands, France (within Ushant), Finland, Russia (without or within the Baltic Sea), Livonia, Courland, Poland, Prussia, Sweden, or any other country or place within the Baltic Sea, ½*d.* per ton.

From or to all other places, ¾*d.* per ton.

The following is the Ramsgate Harbour duty (per Act 32 Geo. III. c. 74), chargeable on all vessels trading to or from foreign ports or places passing the harbour, laden or in ballast:—

For every vessel under 300 tons - -	2*d.* per ton.
above 300 ,, - -	½*d.* ,,

For every vessel trading coastwise passing the harbour, the rates not chargeable oftener than once a year.

Also 1*d.* per chaldron on coals, and 1*d.* per ton on stone, payable for each voyage.

Dover Harbour Duty (per Act 9 Geo. IV.), chargeable on all Vessels, British or Foreign.

From 20 to 300 tons burden trading oversea, for each time passing the harbour, if laden, 1½*d.* per ton; also the like sum for entering the harbour.

Coasters:—The passing and entering, duty once a year; also ¾*d.* per chaldron on coals, and ¾*d.* per ton on stone, each time passing.

Not having corn or provisions for the greater part of the cargo, having come through the Cinque Port water, a fourth part of the Cinque Port pilotage rates.

Scarborough Pier Duty, chargeable on coasting vessels.

If laden, passing the pier, ⅓ of 1*d.* per ton.

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Liverpool.

Rates on Shipping

	Tonnage Duty	Light-house Duty	Anchorage	Pilotage per foot of water drawing	Ballast
	per ton	per ton	per ton.		
Coasting Trade.	s. d.	s. d.	s. d.	s. d.	
Class 1.—Between the Mull of Galloway and St. David's Head, including the Isles of Man and Anglesea	0 2½	0 0½	1 0	4 6 inw. 2 0 out.	..
Ditto, if taking refuge in the harbour only	..	0 0½	1 0	"	..
Class 2.—Between the Mull of Galloway and Duncan's Bay Head, including the Orkney Isles, and all the islands on the Western Coast of Scotland, and between St. David's Head and the Land's End, including the Scilly Islands and the East Coast of Ireland, from Cape Clear to Malling Head	0 4½	0 0½	1 0	"	..
Ditto, if taking refuge in the harbour only	..	0 0½	1 0	"	..
Class 3.—All parts of the East and Southern Coasts of Great Britain between Duncan's Bay Head and the Land's End, including the Islands of Shetland and all parts of the West Coast of Ireland, from Cape Clear to Malling Head, including the islands on that coast	0 5½	0 0½	1 0	"	..
Ditto, if only taking refuge	..	0 0½	1 0	"	..
Foreign Trade, viz.:—					
Class 4.—All parts of Europe to the Northward of Cape Finisterre, and to the Westward of the North Cape, and without the Cattegat and Baltic Sea, and including the Islands of Guernsey, Jersey, Alderney, Sark, the Faro Isles, and Iceland	0 10	0 1½	1 3	9 0 inw. 4 0 out.	..
Ditto, if only taking refuge	..	0 1½	1 3	9 0 inw. 4 0 out.	..
Class 5.—All parts within the Cattegat and Baltic, including Sweden, the White Sea, and all parts to the Eastward of the North Cape, all parts in Europe to the South of Cape Finisterre without the Mediterranean, Newfoundland, Greenland, Davis's Straits, Canaries, Western Islands, Madeira, and Azores	1 1½	0 1½	1 3	9 0 inw. 4 0 out.	..
Ditto, if only taking refuge in the harbour	..	0 1	1 3	9 0 inw. 4 0 out.	..
Class 6.—All parts on the East Coast of North America, the West Indies, the East Coast of South America to the Northward of Rio de la Plata, inclusive; all the West Coast of Africa and Islands to the North of the Cape of Good Hope, and all ports within the Mediterranean, including the Adriatic, the Black Sea and Archipelago, the Islands of St. Helena, Ascension, and Cape de Verde	1 4½	0 1½	1 3	9 0 inw. 4 0 out.	..
Ditto, if only taking refuge in the harbour	..	0 1	1 3	9 0 inw. 4 0 out.	..
Class 7.—All parts in South America to the South of Rio de la Plata in the Pacific Ocean, in Africa and Asia to the Eastward of the Cape of Good Hope	1 4½	0 1½	1 3	9 0 inw. 4 0 out.	..
Ditto, if only taking refuge in the harbour	..	0 1	1 3	9 0 inw. 4 0 out.	..

Londonderry.

Tonnage.—Collected under 2 & 3 Wm. IV.

All ships from foreign parts, 3*d.* per ton: coasters, 2*d.* per ton; vessels in distress, or taking refuge from stormy weather, free; vessels in ballast, free; vessels under 20 tons, free; no deduction on vessels delivering their cargo in part.

Pilotage.—Collected under 2 & 3 Wm. IV. and reduced by by-laws to the following rates, for ships of every description, or steamboats, viz.:—

Inwards.—(Per foot, and inches in proportion.)

	s.	d.
7 feet and under to pay 14*s.*		
Above 7 feet and under 8 to pay at the rate of	2	0
8 " 9 "	2	2
9 " 10 "	2	4
10 " 11 "	2	8
11 " 12 "	3	0
12 " 13 "	3	4
13 " 14 "	3	8
14 " 15 "	4	0
15 feet and upwards at the rate of	4	4

Outwards.—(Per foot, and inches in proportion.)

	s.	d.
7 feet and under to pay 10*s.* 6*d.*		
Above 7 feet and under 8 to pay at the rate of	1	6
8 " 9 "	1	9
9 " 10 "	2	0
10 " 11 "	2	3
11 " 12 "	2	6
12 " 13 "	2	9
13 " 14 "	3	0
14 " 15 "	3	3
15 feet and upwards at the rate of	3	6

Vessels of 30 tons burden, per register, and under, shall pay 10*s.* inward pilotage, and 6*s.* outward pilotage; above 30 tons and not exceeding 40 tons, if bound coastwise, and sailing in ballast, only 8*s.* outward. Boats which have discharged potatoes, under 20 tons, 3*s.* 6*d.* outward pilotage, if British. Wind-bound vessels half pilotage in and half pilotage out, to or from Moville or Quigley's Point. Vessels towed by steamers ¼ off, if demanded by the master or owner, or by any person for them, on producing a proper order.

All vessels laden with bark, under 120 tons, to pay 6*d.* per foot extra; 120 tons and not exceeding 150 tons, 9*d.*; exceeding 150 tons, 1*s.* per foot extra. All ships from foreign ports, or, if bound to foreign ports, having on board half their registered tonnage of cargo, or with passengers, to pay 8*d.* per foot extra, in addition to the above charges.

Vessels which have cleared the Lough, and by stress of weather obliged to return:—It is hereby directed, that as these vessels have paid the full amount of pilotage, they shall pay but ¼ in, and ½ out, of the amount of their outward pilotage, to be ascertained by the master's account from the collector of pilotage.

Pilots detained on board vessels, the sum of 2*s.* 6*d.* per day; when the measurement exceeds 150 tons, 3*s.* 6*d.* per day; detaining them unnecessarily in Derry, the like amount.

Ballast.—Collected under the 2 & 3 Wm. IV. Masters of vessels may procure their own ballast in the best and cheapest manner; but those who may wish to be supplied by the ballast office pay, for gravel, 1*s.* 3*d.* per ton; sand or sufficient ballast, 1*s.* per ton.

Anchorage.—Collected from time immemorial. Vessels with one mast, 1*s.* 6*d.*; vessels with 2 masts or more, 2*s.* 6*d.* Vessels, unless they come to the ship quays, are not charged.

Merchants' Quays.—Vessels arriving or sailing with a cargo are free; the owners of the goods pay the wharfage.

Vessels arriving in ballast for the purpose of repairing, pay 2*d.* per ton on the register tonnage, for the berth and use of the quays.

Vessels coming to the quays for the purpose of discharging or taking in ballast, pay 2*d.* per ton on the quantity discharged or taken in.

Vessels arriving in ballast for the purpose of taking passengers, pay 2*d.* per ton on the register tonnage, for the berth and use of the quays, and the passengers' luggage is free.

Vessels that have discharged their cargoes, and take in ballast for the purpose of taking passengers, pay 2*d.* per ton on their register tonnage the ballast and the luggage are free.

Lynn.

Town dues, foreign and coasting vessels, are as follows:—

	s.	d.
Beaconage, per ton delivered	0	1
Stakage, ditto	0	0½
Anchorage, per vessel	0	6
Bulkbreaks, per vessel, to foreign parts and not belonging to Lynn	3	4
Ballast, for every 3 tons delivered. (*Vide* Ballast.)	0	4

These dues are not payable from vessels taking refuge or discharging their cargoes for the purpose of repairs, and are under the superintendence of the corporation.

Mooring Dues.

1*d.* per ton delivered; unprivileged vessels double.

Not chargeable upon vessels taking refuge &c.

Under the control of the commissioners under the Pilot Act.

Pilotage.

	s.	d.	
To 10 feet draught of water	1	6	per foot.
Exceeding 10 feet to 12 feet	1	9	,,
12 ,, 14 ft. 6 in.	2	0	,,
14 ft. 6 in.	2	6	,,

The rate is the same whether loaded or in ballast, and is chargeable each time up and away, as well as on vessels taking refuge or in distress. The Company of Pilots is under the control of the commissioners under the Pilot Act.

Ballast.—Ballast is supplied to vessels by private individuals at 1*s.* 3*d.* per ton. This charge is independent of that of ballast, under the head of town dues, which is payable from all vessels not belonging to freemen of the borough of King's Lynn.

Montrose.

The dues and charges levied under the 1st Vict. c. 99 are the following:—

Vessels from Foreign Parts.

	s.	d.
1. For all vessels navigating to the southward of the Tropic of Capricorn, per register ton	1	6
2. Between the Equator and the Tropic of Capricorn	1	3
3. Between the Tropic of Cancer and the Equator	1	0
4. To and from any port in North America, Greenland, Davis's Straits Fisheries, and all within the Straits of Gibraltar	0	8
5. To or from any port to the north of Drontheim in Norway, or from Azores, Madeira, or Teneriffe Islands	0	7
6. To or from any port between Gibraltar and Dunkirk, including Dunkirk, and from any port in the Baltic, per register ton	0	5

On Coasting Vessels.

7. To or from any port in Great Britain or Ireland, including the islands of Guernsey, Jersey, Alderney, Sark, Man, the Shetland Islands, and Orkneys	0	3
8. All vessels laden with coals or lime only, from any port in Great Britain &c., excepting Scotland	0	2
9. All vessels laden with coals or lime only, from any port in Scotland, and all vessels engaged in the herring trade	0	1½
10. All steam vessels from any port in Great Britain, or places enumerated in No. 7, carrying passengers and their luggage exclusively	0	2
11. All steam-vessels carrying goods and passengers to pay the same rates as sailing vessels.		

It is in the option of the harbour trustees to charge either the tonnage dues on the voyage inwards, or on the voyage outwards, at the rates specified in the above schedule, according to the distance; and if the charge be made on the voyage outwards, there shall be deducted from it the amount of the dues that may have been previously paid on the voyage inwards; but if such vessels sail in ballast, they shall be charged with dues on the inward voyage only.

All vessels with cargoes are permitted to enter this harbour for safety or convenience by payment of one-half of the tonnage dues; but if they shall take goods on board (stores for their own use excepted), or break bulk, they shall pay full tonnage dues.

All vessels remaining in harbour pay, after 2 months, 1*d.* per register ton per month in advance.

Plankage.—Each vessel entering the harbour, loading or unloading goods or ballast within the same, or performing both operations before leaving the harbour, to pay, in name of plank-money (whether a plank be used or not), as follows, viz.:—

				s.	d.
On vessels amounting to	and not exceeding	20	tons	1	0
exceeding 20	and not exceeding	50	,,	1	6
50	,,	100	,,	2	0
100	,,	150	,,	2	6
150	,,	200	,,	3	0
200	,,	250	,,	3	6
250	,,	300	,,	4	0
300	,,	350	,,	4	6
350	,,	400	,,	5	6
400 tons and upwards				6	6

Local Lights and Beacons.—The harbour trustees are empowered by the before-mentioned Act to charge at the rate of ¾*d.* per ton on vessels, for the support of the harbour lights and beacons; but, finding that a less rate would cover the expenditure, they reduced it to ½*d.* per ton.

Pilotage.—By virtue of the powers conferred on the harbour trustees, the following rates of pilotage were fixed by them, viz.:—

Tons Register	First Boat				Second Boat			
	Inwards		Outwards		Inwards		Outwards	
	£	s.	d.	£	s.	d.	s.	d.	s.	d.
All under 40 tons	0	6	0	0	4	6	5	0	4	0
40 and under 50 ,,	0	7	0	0	5	3	6	0	4	6
50 ,, 60 ,,	0	8	0	0	6	0	6	6	5	0
60 ,, 70 ,,	0	9	0	0	6	9	7	0	5	6
70 ,, 85 ,,	0	10	0	0	7	6	7	6	6	0
85 ,, 100 ,,	0	12	0	0	9	0	8	0	6	6
100 ,, 120 ,,	0	15	0	0	11	3	9	0	6	9
120 ,, 150 ,,	1	0	0	0	13	0	10	0	7	6
150 ,, 175 ,,	1	5	0	0	18	9	11	0	8	3
175 ,, 200 ,,	1	7	6	1	0	7	12	0	9	0
200 ,, 250 ,,	1	10	0	1	2	6	13	0	9	9
250 ,, 300 ,,	1	15	0	1	6	3	14	0	10	6
300 tons and upwards	2	0	0	1	10	0	15	0	11	3

The third boat is paid the same as the second, and the pilot-master's charge is 6*d.* per mast on each vessel entering the harbour.

Ballast.—Put on board, 9*d.*; discharged free.

Newcastle.

Tonnage Dues.

	per reg. ton s.	d.
On every vessel with a cargo to or from any port or place in the United Kingdom, or the Isle of Man, or the continent of Europe between the river Elbe and Brest	0	1
On every vessel with a cargo to or from any other port or place	0	2
Steam Vessels, plying on the Tyne, for towing vessels or conveying passengers or goods, per horse power, per annum	7	6

	s.	d.
Harbour light, under 100 tons	0	11
100 and under 200	1	1
200 ,, 300	1	3
above 300 tons	1	5
Low lights, not exceeding 50 tons	1	3
100 ,,	1	8
200 ,,	2	0
300 ,,	2	4
Above 300 ,,	2	8
Holy Island, buoys and beacons, per vessel laden	1	0
Fairway buoy.—Each vessel proceeding northwards	1	0
River watch and moorings.—On every vessel entering the Tyne, per registered ton	0	0½

Pier Dues.

Outwards, Home, per ton	0	1
Foreign ,,	0	2

Dock Police.

		£	s.	d.			£	s.	d.
20 tons to 50	each	0	1	6	300 tons to 500	each	0	7	6
50 ,, 80	,,	0	3	0	500 ,, 600	,,	0	10	6
80 ,, 120	,,	0	4	0	600 ,, 800	,,	0	15	0
120 ,, 200	,,	0	5	0	800 tons and upwards		1	0	0
200 ,, 300	,,	0	6	0					

Ballast.

	s.	d.
Discharged in dock by hydraulic cranes, per ton	1	0
Chalk rubbish	0	6
Clean sand	0	9
loam	0	9
Stones	0	6
Block chalk	free	

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NEWPORT.

Harbour Dues.

Vessels in the coasting trade, with cargo, inwards and outwards, per ton register, each way - - - - - - - d. 0½

Vessels in the foreign trade, with cargo, inwards and outwards, per ton register, each way - - - - - - 0½

Vessels coming in in ballast pay only on the outward cargo.

Keelage.

Vessels loading or discharging at the wharves in the river, on the quantity taken on board and discharged, per ton - - d. 1

	Newport to Mouth of Usk	Newport to the Holmes	Limit No. 1.	Limit No. 2.	Limit No. 3.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Under 100 tons -	0 10 0	0 13 0	0 7 6	0 17 6	1 5 0
100 to 200 ,, -	0 15 0	1 0 0	0 10 0	1 5 0	1 12 6
200 300 ,, -	0 17 6	1 10 0	0 15 0	1 15 0	2 10 0
300 400 ,, -	1 2 6	1 15 0	0 17 6	1 17 6	2 17 6
400 500 ,, -	1 5 0	2 1 0	1 0 0	2 2 6	3 5 0
500 600 ,, -	1 6 0	2 3 0	1 2 6	2 7 6	3 15 0
600 800 ,, -	1 8 0	2 8 0	1 5 0	2 15 0	4 5 0
800 1000 ,, -	1 10 0	2 12 0	1 10 0	3 5 0	5 5 0
1000 tons and upwards -	1 12 0	2 16 0	1 15 0	3 15 0	6 0 0

Coasters and Vessels in ballast, one-third less.
Limit No. 1.—Between Holmes or Cardiff Roads, and Minehead or Ringroad, or any point east of Minehead and west of Ringroad.
Limit No. 2.—Between Holmes or Cardiff Roads, and Coombe, or any point west of Minehead or Nash Point, or east of Coombe.
Limit No. 3.—Between Holmes or Cardiff Roads and Lundy Island, or any point west of Coombe.

Dock Dues.

First Class:—Vessels Entering with Cargoes or Departing with Cargoes.

	Inwards	Outwards
Vessels from or to any part of Great Britain, Ireland, the Isle of Man, or any of the Islands of Guernsey, Jersey, Alderney, and Sark, not exceeding 100 tons measurement - -	2d. per ton	2d. per ton
For vessels exceeding 100 tons measurement - - -	3d. ,,	3d. ,,
Rent after two weeks from date of entrance, 1d. per ton, per week.		
Vessels from or to any other part of Europe, except places within the Straits of Gibraltar, and round the North Cape - - -	5d. ,,	5d. ,,
Rent after 4 weeks, as before, 1d. per ton, per week.		
From or to any port or place in Europe, round the North Cape, any port or place within the Straits of Gibraltar, whether in Europe, Asia, or Africa -	7d. ,,	7d. ,,
Rent after 4 weeks, as before, 1d. per ton, per week.		
From or to any port or place in British America, except the West Indies, and any port or place in United States -	10d. ,,	10d. ,,
Rent after 4 weeks, as before, 1d. per ton, per week.		
From or to any port or place in any other part of the world - -	10d. ,,	10d. ,,
Rent after 4 weeks, as before, 1d. per ton, per week.		

For every vessel, with a cargo, which shall *enter* the said dock and depart therefrom without breaking bulk, or which shall discharge, and afterwards take on board and depart with the same cargo, per ton measurement, 6d.

Entering and departing in ballast, per ton, 3d.
Rent after 1 week from date of entrance, 1d. per ton per week.
Every vessel of less burden than 20 tons measurement to be rated at 20 tons measurement.
For removing and taking away the ballast, a charge of 2½d. per ton is made on the register tonnage.
Ballast discharged at various private wharves on the west side of the river costs from 1½d. to 2½d. per ton register, from any place whatever, varying according to the nature of the ballast, whether gravel or limestone; payable by custom or consent.

Pilots employed on tides work on board vessels:—

	s. d.
Under 100 tons - - - -	4 0
100 tons to 300 - - - -	5 0
300 ,, 500 - - - -	7 6
500 ,, 800 - - - -	10 0
800 tons and upwards - - -	12 6

Wind-bound vessels to pay pilots 5s. per diem.

Haven-master's fees, received under the authority of the sub-commissioners for pilotage:—

	s. d.
For vessels under 50 tons - -	0 6
50 tons, and under 100 - -	0 9
100 ,, 200 - -	1 0
200 ,, 250 - -	1 6
250 ,, 300 - -	2 0
300 tons and upwards -	2 6

There is a charge made for what is called a keelage, of 1d. per ton, upon the number of tons of goods shipped or landed, paid by consent, and under the authority of the merchants. This is paid by the masters of vessels on clearing, and we believe is very generally charged to the ship.

The following ballast charges are levied by harbour commissioners, under Act 6 Wm. IV. c. 66:—

Ballast discharged in dock, 1s. per ton; additional 3d. for working by night.

Vessels coming in in ballast pay only on the outward cargo.

The dues levied on vessels for discharging their ballast on the east side of the river are 1½d. per ton register on vessels coming from any place westward of the Holmes Island, and 1½d. per ton on those from places eastward of the Holmes.

NEWRY.

Description of Charge	How Levied	Rates
		£ s. d.
Harbour dues -	Anchorage on a smack, coasting trade - - - - - - - -	0 2 6
	ditto, foreign - - - - - - - -	0 5 0
	schooner, coasting - - - - - - - -	0 4 0
	ditto, foreign - - - - - - - - Newry vessels exempt by courtesy.	0 8 0
	brig, coasting - - - - - - - -	0 5 0
	ditto, foreign - - - - - - - -	0 10 0
	ship, coasting - - - - - - - -	0 10 0
	ditto, foreign - - - - - - - -	1 0 0
	Dockage per ton on the registered measurement - - - - - - each vessel	0 0 1½
Pilotage -	From the bar of Carlingford - - - - - - - -	0 2 8
	If the vessel is 5 miles at sea - - - - - - - -	0 5 6
	On the river, up and down, per foot on the draught of water - - - - - - - -	0 1 11
	N.B.—Pilotage is in some cases paid by agreement, there being no branch or established pilots.	
Canal dues -	Each vessel - - - - - - - - - per ton	0 1 1
	On goods - - - - - - - - -	—
	Charge for each horse towing or tracking a vessel - - - - - - - -	0 2 0

PLYMOUTH.

Saltash Dues.

1s. per vessel of every description, whether taking refuge in the harbour only, or to deliver the cargo, whole or in part.

SUTTON POOL.

Dues payable to the Sutton Pool Company.—Tolls on Ships.

For all ships or vessels coming from foreign parts, 2d. per ton.

For all ships or vessels employed in the coasting trade, or coming from Ireland, above 50 tons, 1d. per ton.

For all such ships or vessels of 50 tons or under, ½d. per ton.

All vessels employed in fishing, and belonging to the port, 1l. 1s. per annum.

All barges, lighters, and other craft above 20 tons, 1l. per annum.

All barges, lighters, and other craft under 20 tons, 16s. per annum.

All ships or vessels lying within the said harbour more than 3 calendar months (unless under

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repair at a shipwright's yard) shall pay, at the expiration thereof, the same dues as if they had again entered the harbour; and so on at the expiration of every 3 months they shall continue therein.

	s.	d.
Anchorage and groundage, each vessel	1	6
Moorage to quay	0	8
Mooring chain	1	0
Plank, if used	1	0

For the Use of the Graving Beach.

For every ship or vessel of 60 tons, and under 80 tons, 2*s.* per week.
of 80 tons and under 100 tons, 2*s.* 6*d.* per week.
of 100 tons and under 200 tons, 3*s.* per week.
of 200 tons or upwards, 5*s.* per week.

For the Use of the Mooring Chains.

For every ship under 200 tons, 3*s.* per week.
Above 200 and under 250 tons, 4*s.* per week.
Above 250 tons, 5*s.* per week.

DEVONPORT.

Dues charged on Vessels entering Mutton Cove, New Passage, and Stonehouse Quay.

Ships of 80 tons register, each, 6*s.*
under 80 tons, 4*s.* 6*d.*
Sloops, 3*s.* 6*d.*
Barge or hoy of 20 tons, and not exceeding 40 tons register, 1*s.*
Boats or vessels under 20 tons, laden, 6*d.*
For vessels lying up, per week, 2*s.* 6*d.*
For the use of the graving beach, 3*s.*
(Levied, by prescription, by the lord of the manor.)

Table of the Rates of Pilotage, for Piloting Ships within the Plymouth District.

Definition of Limits:—To the Westward as far as Looe, and Eastward as far as the Start, and to and from, and into and out of, all Ports and Places within those Limits.

	To Cawsand Bay, and vice versâ		To Plymouth Sound, and vice versâ		To Catwater, and vice versâ		To Sutton Pool, and vice versâ		To Hamoaze, and vice versâ		To Mill Bay, and vice versâ		To Yealm River, and vice versâ		To Salcombe, and vice versâ	
From an imaginary line drawn from the Mewstone to Penlee Point :—	14 ft. and upwards	Under 14 ft.	14 ft. and upwards	Under 14 ft.	14 ft. and upwards	Under 14 ft.	14 ft. and upwards	Under 14 ft.	14 ft. and upwards	Under 14 ft.	14 ft. and upwards	Under 14 ft.	14 ft. and upwards	Under 14 ft.	14 ft. and upwards	Under 14 ft.
	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.	per ft. s. d.
On ships boarded or quitted *without* those limits	2 6	2 0	3 0	2 6	5 0	4 0	5 0	4 0	5 0	4 0	5 0	4 0	4 0	3 0	4 0	3 0
On ships boarded or quitted *within* those limits	2 0	1 6	2 6	2 0	4 0	3 0	4 0	3 0	4 0	3 0	4 0	3 0	3 0	2 6	3 0	2 6
From Cawsand Bay	—	—	3 6	2 6	3 6	2 6	3 6	2 6	3 6	2 6	3 6	2 6	—	—	—	—
,, Plymouth Sound	—	—	—	—	3 6	2 6	3 6	2 6	3 6	2 6	3 6	2 6	—	—	—	—
,, Catwater	—	—	—	—	—	—	1 6	1 6	3 6	2 6	3 6	2 6	—	—	—	—
,, Sutton Pool	—	—	—	—	—	—	—	—	3 6	2 6	3 6	2 6	—	—	—	—
,, Hamoaze	—	—	—	—	—	—	—	—	—	—	3 6	2 6	—	—	—	—

All ships drawing less than 8 ft. of water are to pay the same amount of pilotage as if they were of that draught.

The several pilotage rates herein specified are subject to a reduction of one-fourth part in respect of vessels propelled by steam, and vessels towed by steam vessels.

N.B.—Ships returning by distress of weather to pay half the common pilotage.

Distance Pilotage.—For every league without a line drawn from the Ram Head to the Mewstone, one-fourth part of the rate of pilotage chargeable on the vessel from sea to the Sound.

The foregoing rates are levied by authority of the Trinity Board, under 6 Geo. IV. c. 125, and were sanctioned November 1862.

There are no charges levied for local lights or beacons at this port.

There is no regulated charge for ballast, nor any Board appointed for its supply; the parties obtain it on the best terms they can from different quarters, the quarries here abounding with matter fit for the purpose.

PORTSMOUTH.

Harbour dues payable to the Corporation of the borough of Portsmouth, per Act 3 Vict., in respect of all ships or other vessels arriving and casting anchor, or making fast, in the harbour of Portsmouth, for each and every time such ship or other vessel shall enter or come into the harbour—

Under 30 tons	1*s.* per ship
30 and under 60 tons	2*s.* ,,
60 ,, 150 ,,	3*s.* ,,
150 ,, 200 ,,	4*s.* ,,
200 ,, 300 ,,	5*s.* ,,
300 ,, 400 ,,	8*s.* ,,
400 tons and upwards	10*s.* ,,

Steamboats to be charged only once a day.

Exemptions.—Pilot-boats, fishing-vessels, boats not decked, and ships and vessels arriving in distress.

Tonnage dues payable in respect of all ships, boats, or other vessels, lading or unlading, upon or from the wharves and quays or other works, or in the Camber, within a line drawn from the north-east angle of Mr. Lindegren's Store, to the south-west angle of the New Gun Wharf—

To or from Rye or Salcombe, or any port or place between them, 2*d.* per ton.

To or from any port or place in Great Britain or Ireland, coastwise 8*d.* per ton.

To or from parts (foreign), 4*d.* per ton.

General Exemptions.—Her Majesty's ships, vessels, or boats, or any ship, vessel, or boat in the service or employ of her Majesty's Customs or Excise, or Board of Ordnance.

No charge for local lights and beacons at this port.

Pilotage.

From	To	17 feet and under	17 to 20 feet	20 feet and upwards
		s. d.	s. d.	s. d.
5 miles without Bembridge Ledge, or 3 miles without Dunnose or St. Catherine, or 3 miles from Needles Point, coming in at that passage, or vice versâ.	Spithead, Motherbank, Stokes Bay, or Cowes Roads, per foot -	5 0	6 0	7 0
	St. Helens, Yarmouth, or Lymington, for ships anchoring and remaining thereat, per foot -	2 6	3 0	3 6
Within 2 miles of the buoys off Bembridge, or within 3 miles of the Needles Point, or vice versâ.	Spithead, &c. -	4 0	5 0	6 0
	St. Helens, &c. -	2 0	2 6	3 0

Ships inward bound, boarded between Needles and Hurst Castle, 2*s.* per foot. Ships inward bound, boarded between Hurst Castle and Newton Creek, 1*s.* per foot. Ships coming from Cowes Harbour to pay 1*s.* 6*d.* per foot, and same on going out.

N.B.—The early issue of a new table for Portsmouth is expected.

RAMSGATE.

Harbour Dues.—For every vessel under 15 tons burden, 4*d.* per ton; 15 tons and over, 6*d.*

Pilotage.—5*s.* per foot of draught.

Refuge.—No due for 60 hours.

Ballast.—Put on board: sand, 1*s.* 3*d.*; chalk, 1*s.* 11*d.* per ton.

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Sligo.

Denomination of Vessels	Harbour Dues per Ton	Pilotage for Vessels coming into the Port to discharge their Cargoes				Pilotage for Vessels taking Refuge in the Port				Ballast	
		From April 1 to Sept. 30		From Oct. 1 to March 31		From April 1 to Sept. 30		From Oct. 1 to March 31		Vessels taking in	Vessels discharging
		In	Out	In	Out	In	Out	In	Out		
	Irish currency	per foot		per foot		per foot		per foot		per ton	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
British vessels from ports in Ireland	0 3	2 6	2 0	3 0	2 6	1 3	1 0	1 6	1 3	1 0	0 4
Ditto from Great Britain	0 6	2 6	2 0	3 0	2 6	1 3	1 0	1 6	1 3	1 0	0 4
Ditto from foreign parts	0 6	2 6	2 0	3 0	2 6	1 3	1 0	1 6	1 3	1 0	0 4
Foreign vessels	1 0	3 6	3 0	4 0	3 6	1 9	1 6	2 0	1 9	1 0	0 4

Scarborough.

Harbour Dues.

All vessels under 50 tons, 4*s.* each; above 50 tons, 1*d.* per registered ton. Coals landed, 6*d.* per ton.

Corporation Dues.

Each vessel, 1*s.* 6*d.* Coals delivered, 1½*d.* per ton.

Southampton.

Vessels, whether coasting or foreign, entering the port of the town of Southampton, are chargeable with a boomage duty:—

	s.	d.	
Under 50 tons	1	6	per vessel
Above 50 and under 100 tons	2	6	,,
100 tons and upwards	3	0	,,

And all vessels, upon loading or unloading in the roads, at the legal quays, or in the docks, 2*d.* per ton, register tonnage, each voyage; if with half cargoes, 1*d.*

Dock Dues	Inwards	Outwards
All ships and vessels from any port outside the Baltic between the North Cape and Ushant	6*d.* per reg. ton	6*d.* per reg. ton
From any port in the Mediterranean, including Gibraltar	9*d.* ,,	9*d.* ,,
Any other part	9*d.* ,,	9*d.* ,,

	£	s.	d.
Rent after 3 weeks, per register ton, per week	0	0	1
Coasters landing cargo or passengers, or loading out, with 1 week's privilege			free
Rent after 1 week, per register ton, per week	0	0	1
Colliers, transhipping their cargoes into vessels in dock, per collier	1	1	0

The docks are part of the port of Southampton, and consequently vessels using them are subject to no extra dues of pilotage.

Rates of Pilotage for the Port of Southampton.

	per foot s. d.
From any place within the Isle of Wight to Southampton, Hamble, or Bursledon:	
For vessels drawing 17 ft. water and under	2 0
For vessels drawing more than 17 ft.	3 0
From any place within the Isle of Wight to Eling, Redbridge, Northam, or Chapel, 1*s.* per foot more than the above rates.	
From Southampton to sea:	
For vessels drawing 17 ft. water and under	6 0
17 ft. and not exceeding 20 ft.	7 0
more than 20 feet	9 0
For removing vessels from one place to another within the Southampton Water, or within the Isle of Wight, the following rates, viz.:—	
From Southampton to Redbridge, Eling, Northam, or Chapel, and vice versâ	1 0
From Southampton to Hamble, Bursledon, Leye, or Buckler's Hard, or Beaulieu, and vice versâ	1 6

and for any intermediate distance a proportionate part of the above rates.

Ballast.—1*s.* per ton.

If a master choose to retain or employ a pilot whilst at anchor, the rate for the lay-days is to be 7*s.* 6*d.* per day, exclusive of the day on which the vessel comes in or goes out.

N.B.—A new table for Southampton is in preparation.

Stockton.

Foreign Trade.

	s.	d.
Inwards.—United Kingdom, Isle of Man, White Sea ports between North Cape and Gibraltar, Baltic, and British possessions in North America, per register ton	0	3
Any other place ,,	0	4
Outwards.—Same dues.		
Ships seeking refuge, per register ton	0	1½
Ships in ballast ,,	0	1½
Local Lights.—Each vessel	0	6
Lifeboat ,,	0	6
Town dues ,,	2	6

Ballast discharged at the Middlesboro' crane at 4½*d.* per ton.

Rates of Pilotage for every Foot of Water the Vessel draws.

		s.	d.
From the sea and any intermediate place, and vice versâ.	To the fifth buoy, being the first safe place of anchorage, as allowed by Act of Parliament	1	3
	To Cargo Fleet	1	9
From Cargo Fleet, and any intermediate place, and vice versâ.	To Middleburg	0	6
	To Stockton	1	6

Between October 1 and April 1, 3d. per foot extra.

N.B.—Owners and masters of ships using the Tees and port of Stockton are not to pay more, or any other rates of pilotage, than the above mentioned; and all pilots acting under the license and authority of the master, wardens, &c. of this Trinity House are hereby ordered and directed not to ask, demand, or receive for pilotage any more than the rates as above stated.

Sunderland.

Harbour Tonnage Dues.

	per ton s.	d.
United Kingdom, Isle of Man, ports between Ushant and the Scaw, not exceeding 150 tons register	0	0½
150 to 250 ,,	0	0½
500 tons and upwards	0	1
Other ports, each ton	0	2
This to be paid either on entrance or clearing, but always at the highest rate.		
Refuge, per register ton	0	1½
Port Light	0	0½
Groundage Dues, per vessel, per voyage	1	2
Newcastle Trinity House.—Under 100 tons	0	11
200 ,,	1	1
300 ,,	1	3
Fairway Buoys, each vessel	1	0
Lifeboat, by consent	0	6
River Watch, per ton, each voyage, each year	0	0½

Dock Dues, additional (Inwards).

	s.	d.
1. United Kingdom and Isle of Man, per register ton	0	2
2. Europe between Ushant and Naze of Norway, Guernsey, and Jersey	0	4
3. Baltic Sea, Ushant, and Gibraltar, Naze and North Cape	0	6
4. Within Gibraltar, east of North Cape, Madeira, Azores, North America, south of Davis's Straits	0	8
5. All other ports	1	0
Outwards.—Classes 1, 2, 3	0	2
Class 4	0	4
Class 5	0	6

Pilotage.

	s.	d.	
April 1 to October 1	1	5	per foot
October 1 to April 1	1	6	,,

Ballast.

	s.	d.	
Under 400 tons	1	0	per ton
400 ,, and upwards	1	6	,,
Discharging clay or rubbish, extra	0	3	,,
Ten per cent. additional between October 1 and April 1.			
Shipping ballast from dock quays	0	9	,,

Masting Rates.

	s.	d.
Vessels under 300 tons	0	1
300 to 500 tons	0	1½
500 tons and upwards	0	2

SWANSEA.

Tonnage Dues.

	per reg. ton s.	d.
1. United Kingdom and Isle of Man, under 150 tons	0	4
above 150 and under 200 ,,	0	5½
250 ,, 350 ,,	0	7
350 tons and upwards	0	8½
2. Europe, and within the Straits of Gibraltar, under 100 tons	0	4
above 100 and under 250 ,,	0	6
250 ,, 350 ,,	0	7½
350 tons and upwards	0	9
3. Other places, under 150 tons	0	7½
above 150 and under 250 ,,	0	9½
250 ,, 350 ,,	1	0
350 tons and upwards	1	3
Vessels entering in ballast, and departing with cargoes, all in Class 1	0	3
In Class 2, 3d., 5d., 6d., 7d., according to tonnage.		
3, 6d., 7d., 9d., 11d., ,, ,,		
Vessels remaining over 30 days, per register ton, per week	0	1

NEATH.

	Inner Basin	Outer Basin
United Kingdom and Channel Islands:		
Under 100 tons - - - per ton	2d.	1½d.
100 to 200 - - - ,,	2½d.	2d.
200 and upwards - - - ,,	3d.	2½d.
North Cape and Cape Finisterre - ,,	3½d.	2½d.
All other ports - - - ,,	5d.	4d.

PORT TALBOT.

Every vessel - - - -	4d. per reg. ton
If inwards with cargo, outwards without -	3d. ,,
ballast ,, with coal -	2d. ,,

PORT CAUL.

Coasters - - - -	2d. per reg. ton
Foreign-going ships - - -	4d. ,,

Ballast.

Swansea: Vessels under 100 tons register -	6d. per reg. ton
100 to 150 ,, -	8d. ,,
150 to 200 ,, -	10d. ,,
200 tons and upwards -	1s. ,,
Neath: Discharged - - - -	6d. per ton
Port Talbot: In river - - - -	free
In dock - - - -	3d. per ton
Port Caul: Put on board - - -	6d. ,,
Discharged - - - -	4d. ,,

Pilotage.—Neath District.

For the pilotage of any vessel—	First Station* per foot s.	d.	Second Station† per foot s.	d.	Third Station‡ per foot s.	d.
Under 80 tons register -	1	3	1	4	1	6
80 to 100 ,, -	1	8	1	9	2	0
100 ,, 125 ,, -	1	10	2	0	2	3
125 ,, 150 ,, -	2	0	2	3	2	6
150 ,, 175 ,, -	2	3	2	6	3	0
175 ,, 200 ,, -	2	6	2	9	3	3
200 ,, 225 ,, -	2	9	3	0	3	6
225 ,, 250 ,, -	3	0	3	3	4	0
250 ,, 300 ,, -	3	3	3	6	4	3
300 ,, 350 ,, -	3	6	4	0	5	0
350 and upwards -	4	0	4	3	5	6

* From outside of Neath Bar to the Layer, and to any distance between the Layer and southern end of Abbey Estate, and vice versâ.

† From outside of Neath Bar to any distance lying between the inner termination of the First Station and the Abbey Pill, and vice versâ.

‡ From outside of Neath Bar to any distance lying between the Abbey Pill and Neath Bridge, and vice versâ.

N.B.—No vessel to pay for less than 7 feet.

The several pilotage rates herein specified are subject to a reduction of one-fourth part in respect of vessels propelled by steam and vessels towed by steam vessels, provided that if any such vessel shall be propelled by steam, or towed by a steam vessel for a part only of the distance for which any such rate may be payable, the reduction of one-fourth shall be made on such part only of the said rate as shall be proportionate to the distance so propelled or towed.

For conducting vessels from one station to another station within the port:

	s.	d.
Vessels under 100 tons - - -	3	0
over 100 tons and under 150 -	4	0
150 ,, 200 -	5	0
250 and upwards - -	8	0
To or from the Mumbles when specially retained—	s.	d.
Vessels under 250 tons - - -	4	0 extra
over 250 ,, - - -	7	0 ,,

Pilot boats and hobblers' fees, 5s., which is included in the rates.

SWANSEA.

Draught	First Station Neath Bar to Layer or any distance between Layer and southern end of Abbey Estates				Second Station Neath Bar to any Distance between the First Station and the Abbey Pill				Third Station Neath Bar to Abbey Pill and Neath Bridge			
	Under 40 tons - -			7 0	Under 40 tons - -			8 0	Under 40 tons -			9 6
	40 to 60 - -			10 0	40 to 60 - -			11 0	40 to 60 -			13 6
	Above 60 tons Register				Above 60 tons Register				Above 60 tons Register			
	With Steam			Without Steam	With Steam			Without Steam	With Steam			Without Steam
feet	£ s.	d.	£	s. d.	£ s.	d.	£	s. d.	£ s.	d.	£	s. d.
8	0 11	3	0	8 5	0 12	9	0	9 7	0 14	9	0	11 1
8½	0 12	0	0	9 0	0 15	6	0	10 2	0 16	0	0	12 0
9	0 12	6	0	9 5	0 14	0	0	10 6	0 16	6	0	12 5
9½	0 13	0	0	9 9	0 14	6	0	10 11	0 17	0	0	12 9
10	0 13	6	0	10 2	0 15	0	0	11 3	0 18	0	0	13 6
10½	0 14	0	0	10 6	0 16	0	0	12 0	0 19	0	0	14 3
11	0 14	6	0	10 11	0 16	9	0	12 7	1 0	0	0	15 0
11½	0 15	9	0	11 10	0 18	3	0	13 8	1 1	6	0	16 2
12	0 16	10	0	12 8	0 19	10	0	14 11	1 3	1	0	17 4
12½	0 18	6	0	14 2	1 2	0	0	16 6	1 5	3	0	18 11
13	1 0	6	0	15 5	1 4	6	0	18 5	1 8	0	1	1 1
13½	1 2	6	0	16 11	1 7	0	1	0 3	1 10	6	1	2 11
14	1 13	6	1	5 2	1 19	6	1	9 8	2 4	6	1	13 5
14½	1 8	0	1	1 0	1 13	0	1	4 9	1 17	0	1	7 9
15	2 1	6	1	11 2	2 8	6	1	16 5	2 14	6	2	0 11
15½	2 10	6	1	18 0	2 17	9	2	5 4	3 5	3	2	8 11
16	3 1	0	2	5 9	3 8	6	2	11 5	3 17	0	2	17 9
16½	3 12	0	2	14 0	4 0	6	3	0 5	4 10	6	3	7 11
17	4 5	6	3	4 2	4 13	0	3	10 6	5 6	0	3	19 6
17½	4 19	0	3	14 5	5 8	0	4	1 0	6 2	0	4	11 6
18	5 13	0	4	5 0	6 3	0	4	12 3	6 19	0	5	4 3
	And 10s. for every ½ foot above 18 feet.				And 7s. for every ½ foot above 18 feet.				And 8s. for every ½ foot above 18 ft.			

PORT TALBOT.

	From outer buoy £	s.	d.	To outer buoy £	s.	d.
25 and under 40 tons	0	5	0	0	4	0
40 ,, 50	0	6	0	0	5	0
50 ,, 60	0	7	0	0	6	0
60 ,, 70	0	8	0	0	6	10
70 ,, 80	0	9	0	0	7	8
80 ,, 90	0	10	0	0	8	6
90 ,, 100	0	12	0	0	9	10
100 ,, 120	0	14	0	0	11	6
120 ,, 140	0	16	0	0	13	2
140 ,, 160	0	18	0	0	14	10
160 ,, 180	1	0	0	0	16	6
180 ,, 200	1	5	0	1	0	0
200 ,, 250	1	10	0	1	3	6
250 ,, 300	2	0	0	1	10	4
300 ,, 350	2	15	0	2	0	8
350 ,, 400	3	10	0	2	11	4
and for each additional 50 tons - -	0	5	0	0	4	0

PORT CAUL.

From any place between the Sker or Nash Points, and inside the sands into the harbour or out of the harbour:—

	£	s.	d.		£	s.	d.
Under 30 tons	0	4	0	100 to 125 tons	0	15	0
30 to 40	0	5	0	125 150	0	18	0
40 50	0	6	6	150 175	1	2	0
50 60	0	8	0	175 200	1	6	0
60 75	0	10	0	200 225	1	10	0
75 100	0	12	0	225 tons and upwards	1	14	0

In addition to pilotage, use of Pilot Boat, every vessel under 75 tons 1s.; 75 and upwards, 2s.

TROON.

Vessels under 12 tons register -	1s.
12 tons and under 15, per ton -	1d.
15 ,, 25 ,, -	1½d.
25 tons and upwards - -	2d.

All vessels, whether in the coasting or foreign trade, whether with or without cargoes, or put into the harbour for refuge, pay the above rates.

Charges levied by the Duke of Portland.

	d.
Water dues, per 20 tons register -	6
Discharging ballast, per ton -	4
Discharging limestone, per ton -	4
Hawser money on each vessel, as follows; viz.:—	6

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TROON—*continued.*

	s.	d.
Vessels under 50 tons register	0	3
50 tons and under 100	0	6
100 „ 200	1	0
200 „ 300	1	6
300 „ 400	2	0
400 „ 500	2	6
500 tons and upwards	3	0

Double the above rates are charged if the hawser is used.

Pilotage.—1*d.* per ton register on all vessels above 45 tons register.

Harbour Light.—¼*d.* per register ton.

WATERFORD.

Ballast Dues.

	British vessels
	s. d.
For every ton of ballast brought alongside by lighters	1 0 per ton
discharged by lighters	0 8 „
delivered at ballast quay	0 8 „
discharged at ditto	0 6 „
limestone supplied	1 6 „

Pilotage.—Every vessel entering the harbour of Waterford between March 25 and September 29, drawing 12 feet and upwards, for every foot of her draught pays as follows, viz.:—

Taking Pilots at the following Places	Above Arden Head, and no further than Passage		To Check Point, or Glasshouse Reach, and no further		Above Glasshouse Reach, or up to Waterford	
	British	Foreign	British	Foreign	British	Foreign
Westward / Eastward	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Great Newtown Head - Salters - -	1 4	2 8	2 8	4 1	3 8	5 3
Foilskirt - - Bag and Bun Head -	1 0	2 3	1 11	3 8	3 1	4 9
Below Duncannon, and nearer than Foilskirt or Bag and Bun Head - - - - -	0 8	1 9	1 8	3 2	2 9	4 4
Every vessel of the above class entering said harbour between September 29 and March 25 pays for every foot of her draught as follows, viz.:—						
Great Newtown Head - Salters - -	1 9	3 2	2 8	4 7	3 10	5 8
Foilskirt - - Bag and Bun Head -	1 4	2 8	2 3	4 1	3 5	5 3
Below Duncannon, and nearer than Foilskirt or Bag and Bun Head - - - - -	1 0	2 3	1 11	3 8	3 1	4 9
Every vessel entering said harbour between March 25 and September 29, which shall draw more than 6 feet and less than 12 feet water, shall pay as follows, viz.:—						
Great Newtown Head - Salters - -	0 10	2 3	1 7	3 2	2 7	4 4
Foilskirt - - Bag and Bun Head -	0 8	1 9	1 5	2 8	2 5	3 10
Below Duncannon, and nearer than Foilskirt or Bag and Bun Head - - - - -	0 5	1 4	0 10	2 3	2 2	3 5
Every vessel of the above class entering said harbour between September 29 and March 25 shall pay for every foot of her draught the following rates, viz.:—						
Great Newtown Head - Salters - -	1 4	2 8	2 0	3 8	3 1	4 9
Foilskirt - - Bag and Bun Head -	1 2	2 3	1 9	3 2	2 11	4 4
Below Duncannon, and nearer than Foilskirt or Bag and Bun Head - - - - -	0 10	1 9	1 6	2 8	2 7	3 10

Vessels taking refuge in this harbour are subject to no other charge than pilotage, at the above-named rates.

Vessels not exceeding 50 tons register, arriving from or sailing to any port in Ireland, are not required to take pilots or pay tonnage duty.

Vessels laden, two-thirds laden, or having 20 tons potatoes, without any other goods on board, arriving at the port of Waterford, and retailing same at the quay, are not charged any of the aforesaid rates and duties.

Tonnage Duty.

On British vessels with goods or ballast	3*d.*	per reg. ton
coal laden	2*d.*	„
50 tons register and upwards, from any port in Ireland	1½*d.*	„

Water Bailiff's Fees.

	Late Currency s.	d.
Tonnage Dues on British and foreign vessels, per ton	0	1
Anchorage for vessels not exceeding 20 tons register, each vessel	1	6
Ditto, exceeding 20 and not exceeding 50 tons register	2	6
Ditto, exceeding 50 tons register, and upwards	5	0

Colliers requiring the use of beams, scales, and weights, are supplied with same at the following rates, viz.:—

For every vessel not exceeding 50 tons register, for use of each set of beams, scales, and weights	3*s.*
Ditto, exceeding 50 and not exceeding 100 tons register, ditto	4*s.*
For every vessel exceeding 100 and not exceeding 150 tons register, for use of each set of beams, scales, and weights	5*s.*
„ 150 „ 200 „	6*s.*
„ 200 „ 250 „	7*s.*
„ 250 tons and upwards „	8*s.*

WESTPORT.

Pilotage.

	£	s.	d.
From Clare Island to Dornick, being about 9 miles, and called the Out Pilotage, per vessel	1	1	0
From Dornick to the quay, vessels are conducted up and down by a river pilot, the charge per foot up, and the same down	0	2	0

Harbour Dues, Quayage.

Vessels taking in or delivering cargoes, pay per ton	4*d.*
Vessels coming in ballast and departing with cargo, per ton	3*d.*

N.B.—There is no charge for anchorage in any of the lower roads or harbour.

Ballast.—Delivered to vessels, at 1*s.* per ton.

No charge on discharging from the vessel, the master paying the labourers himself, as per agreement.

Lighterage.

When large vessels finish their loading down the river, per ton of goods delivered	2*s.*

The foregoing charges, with the exception of ballast discharged and lighterage, are levied by prescription under the harbour commissioners of Westport.

WEXFORD.

Dues and Charges	Tonnage	Ballast	Pilotage
For every vessel which shall enter within the limits of said harbour, and be entitled to the privileges of a British ship, upon every ton such vessel shall measure	4*d.* per ton		
For every vessel not so entitled	1*s.* „		
For every ton of ballast taken in by any vessel (though the Act levies 1*s.* 3*d.* per ton), there is however at present only levied	..	10*d.* per ton	
For every ton of ballast discharged from any vessel	..	2*d.* „	
For every vessel discharging and receiving cargo, upon every ton such vessel shall measure	..	..	5*d.* per ton
For every vessel that shall enter into the harbour or leave the same in ballast, or shall discharge her cargo, or any part thereof, without taking in any new cargo, or shall, without discharging her cargo or any part thereof, take in new cargo, then, in any of those cases, for every ton such vessel shall measure	..	..	4*d.* „
For every vessel taking refuge in the harbour	..	..	2*d.* „

Steam vessels liable only to one-half the foresaid rates of pilotage.

WHITBY.

Dues.

	s.	d.
Lord of Manor.—Every laden vessel	1	4
Every light vessel	0	8
Bridge, per vessel	1	6
Harbour, each vessel	1	0
Each top	0	4
Every vessel under 15 tons entering or leaving harbour, per registered ton	0	1
50 tons and upwards	0	1½
From foreign or colonial port	0	3
Fishing vessels under 15 tons each	0	6
Light.—Vessels exceeding 10 tons, per ton	0	0½
Lighters exempt; but if the vessel does not enter the harbour, each trip	0	2

Pilotage.

April to September, per foot	1	3
October to March	1	6

Ballast.

Put on board or discharged, per ton	1	0

WHITEHAVEN.

Charges on Vessels in the Foreign and Coasting Trade.

Harbour Tonnage Dues: Inwards.

	per reg. ton s.	d.
On vessels with goods, in whole or in part, or in ballast, viz.:—		
From any port of Great Britain, Ireland, and Isle of Man	0	4
From any other port of Europe, the Islands of Guernsey, Jersey, Alderney, Sark, the Faro Isles, and Iceland	0	8
From any part of Asia, Africa, or America, to the northward of the river La Plata inclusive, and to the northward of the Cape of Good Hope, the Islands of St. Helena, Ascension, Cape de Verde Islands, Canaries, Western Islands, Madeira, Azores, Newfoundland, Greenland, and Davis' Straits	1	0
From any part of South America to the southward of Rio La Plata, in the Pacific Ocean, in Africa and Asia, to the eastward of the Cape of Good Hope	1	6

Harbour Tonnage Dues: Outwards.

To any part of Great Britain and Ireland and Isle of Man	nil	
To any other part of the world	0	4

Pilotage: Inwards and Outwards.

There are no established charges, but made by verbal agreement with the pilots, and vary from 15*s.* to *M.*, according to the size of the vessel.

Ballast.

For every ton discharged, either from foreign or coastwise - 6*d.*
Supply, 1*s.* per ton. Delivery, 6*d.*

Local Lights and Beacons.—Foreign or coastwise, per ton register per annum - ½*d.*

Harbour Boat.

	s.	d.
Coasters, 20 tons and under	1	0
20 " " 40	1	6
40 " " 60	2	0
60 " " 80	2	6
80 " " 100	3	0
100 " " 120	3	6
120 tons and upwards	4	0
Foreign vessels under 120 tons	4	0
120 and upwards	6	0

The charges for harbour boat must be paid by all vessels entering the harbour.

WICK.

Harbour Dues, Inwards and Outwards.

	per reg. ton £	s.	d.
15 tons and under 45 tons	0	0	2
45 " " 100 "	0	0	4
100 and upwards	0	0	5
In ballast windbound	0	0	2

Pilotage.

Inwards and outwards	0	0	3
Each tide's work	0	7	6
Laying out kedge and warp	0	5	0

Extra Pilotage.

One tide	0	5	0
12 to 24 hours	0	10	0
36 hours	1	0	0
2 days to a week	1	10	0
If obliged to go for shelter to an adjacent harbour not more than	2	0	0

Ballast.

Put on board	0	0	8
Discharged	0	1	0

YARMOUTH.

Harbour Dues.

On all vessels with cargoes 3*d.* per reg. ton. Pier master, 1*s.* per vessel. Vessels putting in for refuge, 1*s.*

Corporation Dues.

			s.	d.
Inwards.—Coal		children	0	0½
Goods		ton	0	0½
Coal, shoots and weighage		"	0	0½
Tonnage		"	0	8
Murage		"	0	1
Measurage (last)		"	0	2
Outwards.— "		"	0	2
Over sea dues		"	0	2
General charges in lieu of customs, outgoings and pilotage		per voyage	4	6
Water-bailiff		per ship	1	0

The charges for pilotage in and out of the Haven, and also the gatways or channels, are as follow:—

			s.	d.	
Vessels drawing 8 ft. water and under			1	6	per ft.
8 "	9 feet		1	9	"
9 "	10 "		2	0	"
10 "	11 "		2	3	"
11 "	12 "		2	6	"
12 "	13 "		2	9	"
13 "	14 "		3	0	"
14 "	15 "		3	6	"
15 "	16 "		4	0	"

And an additional 2*l.* 10*s.* per cent. over the above rates.
Local Lights and Beacons.—Nil.

Sea Pilotage.

Limits, Yarmouth to and from Dudgeon light vessel, Yarmouth to and from Orfordness; thence across Kentish Knock, to and from Downs, and into and out of several harbours and roadsteads within these limits.

YARMOUTH.

From	To	Not exceeding 11 feet draught £	s.	d.	11 to 14 £	s.	d.	Exceeding 14 £	s.	d.
Dudgeon Light, its parallel of latitude, or the northward thereof *	Orfordness	5	0	0	6	5	0	7	10	0
Smith's Knowl, Yarmouth, or Lowestoft *	Ditto	1	5	0	2	10	0	3	15	0
Southwold *	Ditto	0	17	6	1	5	0	1	17	6
Dudgeon Light, its parallel of latitude, or the northward thereof	Yarmouth Roads, either within or without the Sands	2	10	0	3	12	0	6	0	0
Ditto	Downs	10	10	0	12	0	0	15	15	0
Smith's Knowl, Yarmouth, or Lowestoft	Ditto	8	8	0	10	0	0	12	12	0
Ditto	The entrance of the Gatways	1	0	0	1	10	0	2	2	0
Orfordness	Ditto	1	0	0	1	10	0	2	2	0

From Sea to Yarmouth Roads through any of the channels, 4*s.* per foot of draught.
From Yarmouth Roads through any of the channels to sea, 2*s.* 6*d.* "
No vessel to pay for less than 11 ft.
* An addition of one-fifth is chargeable on the above rates, in case the pilot shall not conduct the vessel to any port or place westward of the Nore Light.

Into and out of the Harbour of Yarmouth.

			s.	d.	
Vessels drawing 8 feet water and under			1	6	per foot
above 8 feet water and under 9 feet			1	9	"
9 "	10 "		2	0	"
10 "	11 "		2	3	"
11 "	12 "		2	6	"
12 "	13 "		2	9	"
13 "	14 "		3	0	"
14 "	15 "		3	6	"
15 "	16 "		4	0	"

Note.—An additional 2½ per cent. is to be charged upon the above rates.
The several pilotage rates above specified are subject to a reduction of one fourth part in respect of vessels propelled by steam and vessels towed by steam vessels.
Fishing vessels piloted into the said harbour are to pay 5*s.* each for such service.

Ballast.

			s.	d.	
Through ballast ports			0	9	per ton
When the vessel has no such ports, and registers under 149 tons			0	10	"
Above 149 tons			0	11	"
From stiffener or quay			1	3	"
Transhipped			0	4	"

For information on other ports in the United Kingdom, and the relative charges on shipping, see Clayton's *Annual Register*. The last edition of this valuable work is for 1865. It is much to be regretted that it has not been continued.

N.B.—All differential dues on foreign shipping

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were abolished by 24 & 25 Vict. c. 47; and all local exemptions (compensation being provided for) were abolished by 30 Vict. c. 15.

PIMENTO, ALLSPICE, or JAMAICA PEPPER (Fr. poivre de Jamaïque; Span. pimienta de la Jamaica; Ger. nelkenpfeffer; Ital. pimenti). Nat. order *Myrtaceæ*. The fruit of the *Eugenia pimenta*, a beautiful tree which grows in great plenty on the hills on the north side of Jamaica. The berries are spherical, and, when ripe, of a black or dark purple colour. But, as the pulp is in this state moist and glutinous, the berries are plucked when green; and being exposed in the sun to dry, they lose their green colour, and become of a reddish brown. They are packed in bags and hogsheads for the European market. The more fragrant and smaller they are, the better are they accounted. They have an aromatic, agreeable odour, resembling that of a mixture of cinnamon, cloves, and nutmegs, with the warm, pungent taste of the clove. Pimento is used in medicine; but its principal use is in the seasoning of soups and other dishes. (*British Pharmacopœia*, 1867.)

'The returns,' says Mr. Bryan Edwards, 'from a pimento walk in a favourable season are prodigious. A single tree has been known to yield 150 lb. of the raw fruit, or 100 lb. of the dried spice; there being commonly a loss in weight of ⅓ in curing; but this, like many other of the minor productions, is exceedingly uncertain, and perhaps a very plenteous crop occurs but once in 5 years.' (Vol. ii. p. 372, ed. 1819.) The price of pimento in bond, in the London market, has varied of late years from 4*d.* to 5½*d.* per lb.

At the period when Edwards's work was published, the annual imports of pimento from Jamaica, which supplies more than $\frac{19}{20}$ of the pimento brought to England, amounted to about 672,000 lb.; the annual imports in 1833 amounted to 4,844,973 lb.: in 1841, they were only 1,013,400 lb. They have much exceeded this amount of late years. The imports into the United Kingdom during each of the 7 years ending with 1867 were:—

Years		cwt.	Years		cwt.
1861	-	50,453	1865	-	25,785
1862	-	30,950	1866	-	20,182
1863	-	26,299	1867	-	47,179
1864	-	44,045			

The duty on pimento was reduced in 1836 from 5*d.* to 3*d.* per lb., and in 1842 to 5*s.* per cwt. The duty was repealed in 1866. In 1867 its price averaged in the London market from 18*s.* 5*d.* to 18*s.* 10*d.* per cwt.

PINCHBECK (Ger. tomback; Dutch. tombak; Fr. tambac, similor; Ital. tombacco; Span. tambac, tumbaga). A name given to one of the many imitations of gold. By melting zinc in various proportions with copper or brass, some alloys result, the colours of which approach more or less to that of gold. This composition is frequently employed as a substitute for gold, in the formation of watch-cases, and various other articles of a like description. Pinchbeck is sometimes called *tambac*, and sometimes *similor*, and *petit-or*.

PINE or FIR. A species of forest tree, next, if not superior, to the oak, in point of utility and value. There are above 20 species of pine. They do not bear flat leaves, but a species of spines, which, however, are real leaves. They are mostly, though not all, evergreens; but the appearance of the tree, as well as the quality of the timber, varies with the species, and also with the situation in which it grows. Generally speaking, the timber is hardest and best in exposed, cold situations, and where its growth is slow. We shall only notice those species the timber of which is most in use in this country.

1. Scotch Pine (*Pinus sylvestris*) is a native of the Scotch mountains, and of most northern parts of Europe; being common in Russia, Denmark, Sweden, Norway, and Lapland. It is straight, abruptly branched, rising in favourable situations to the height of 80 or 90 feet, and being from 3 to 4 feet in diameter. It is at perfection when 70 or 80 years old. The colour of the wood differs considerably; it is generally of a reddish yellow, or of a honey yellow, of various degrees of brightness. It has no larger transverse septa, and it has a strong resinous odour and taste. In the best timber, the annual rings are thin, not exceeding $\frac{1}{16}$ inch in thickness; the dark parts of the rings of a bright reddish colour; the wood hard and dry to the feel, neither leaving a woolly surface after the saw, nor filling its teeth with resin. The best Norway is the finest of this kind, and the best Riga and Memel are not much inferior. The inferior sorts have thick annual rings; in some, the dark parts of the ring are of a honey yellow, the wood heavy, and filled with a soft resinous matter, feels clammy, and chokes the saw. Timber of this kind is not durable, nor fit for bearing strains. In some inferior species the wood is spongy, contains less resinous matter, and presents a woolly surface after the saw. Swedish timber is often of this kind.

Scotch fir is the most durable of the pine species. It was the opinion of the celebrated Mr. Brindley, 'that red Riga deal, or pine wood, would endure as long as oak in all situations.' Its lightness and stiffness render it superior to any other material for beams, girders, joists, rafters &c. It is much used in joiners' work, as it is more easily wrought, stands better, is much cheaper, and is nearly, if not quite, as durable as oak.

Scotch fir is exported from Norway and Sweden, under the name of *redwood*. Norway exports no trees above 18 inches diameter, consequently there is much sapwood; but the heart wood is both stronger and more durable than that of larger trees from other situations. Riga exports a considerable quantity under the name of masts and spars: pieces from 18 to 25 inches diameter are called *masts*, and are usually 70 or 80 feet in length; those of less than 18 inches diameter are called *spars*. [Riga.] Yellow deals and planks are imported from various parts of Norway, Sweden, Prussia, Russia &c. Tar, pitch, and turpentine are obtained from the Scotch fir. When the tree has attained to a proper age, it is not injured by the extraction of these products.

2. Spruce Pine.—Of this there are 3 species: the Norway spruce, or *Pinus abies*; white spruce, or *Pinus alba*; and black spruce, or *Pinus nigra*. These are noble trees, rising in straight stems from 150 to 200 feet in height. They yield the timber known by the name of *white fir*, or *deal*, from its always being imported in deals or planks.

Deals imported from Christiania are in the highest estimation. [Christiania.] The trees are usually cut into 3 lengths, generally of about 12 feet each; and are afterwards cut into deals by saw-mills, each length yielding 3 deals. The Norway spruce thrives very well in Britain, and produces timber little inferior to the foreign: it is somewhat softer, and the knots are extremely hard.

The white spruce, or *Pinus alba*, is brought from British North America. The wood is not so resinous as the Norway spruce: it is tougher, lighter, and more liable to twist in drying.

The black spruce, or *Pinus nigra*, is also an

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American tree; but it is not much imported into this country. The black and white spruce derive their names from the colour of the bark; the wood of both being of the same colour.

The colour of spruce fir, or white deal, is yellowish or brownish white; the hard part of the annual ring a darker shade of the same colour; it often has a silky lustre, especially in the American and British grown kinds. Each annual ring consists of two parts; the one hard, the other softer. The knots are generally very hard. The clear and straight-grained kinds are often tough, but not very difficult to work, and stand extremely well when properly seasoned. White deal, as imported, shrinks about $\frac{1}{12}$ in becoming quite dry.

3. Weymouth Pine, or White Pine (*Pinus strobus*), is a native of North America, and is imported in large logs, often more than 2 feet square and 30 feet in length. It is one of the largest and most useful of the American trees, and makes excellent masts; but it is not durable, nor fit for large timbers, being very subject to dry rot. It has a peculiar odour.

4. Silver Fir (*Pinus picea*) is a native of the mountains of Siberia, Germany, and Switzerland, and is common in British plantations. It is a large tree, and yields the Strasburg turpentine. The wood is of good quality, and much used on the Continent both for carpentry and ship building. The harder fibres are of a yellow colour, compact, and resinous; the softer nearly white. Like the other kinds of fir, it is light and stiff, and does not bend much under a considerable load; consequently, floors constructed of it remain permanently level. It is subject to the worm. It has been said to last longer in the air than in the water; and, therefore, to be fitter for the upper parts of bridges than for piles and piers.

5. Larch (*Pinus larix*). There are 3 species of this valuable tree; 1 European, and 2 American. The variety from the Italian Alps is the most esteemed, and has lately been extensively introduced into plantations in Great Britain. It is a straight and lofty tree, of rapid growth. A tree 79 years of age was cut down at Blair Athol, in 1817, which contained 252 cubic feet of timber; and one of 80 years of age, at Dunkeld, measured 300 cubic feet. The mean size of the trunk of the larch may be taken at 45 feet in length, and 33 inches diameter. The wood of the European larch is generally of a honey yellow colour, the hard part of the annual rings of a redder cast; sometimes it is brownish white. In common with the other species of pine, each annual ring consists of a hard and a soft part. It generally has a silky lustre; its colour is browner than that of the Scotch pine, and it is much tougher. It is more difficult to work than Riga or Memel timber; but the surface is better when once it is obtained. It bears driving bolts and nails better than any other species of resinous wood. When perfectly dry, it stands well; but it warps much in seasoning. It is in all situations extremely durable. It is useful for every purpose of building, whether external or internal: it makes excellent ship timber, masts, boats, posts, rails, and furniture. It is peculiarly adapted for flooring-boards, in situations where there is much wear, and for staircases: in the latter, its fine colour, when rubbed with oil, is much preferable to that of the black oaken staircases to be seen in some old mansions. It is well adapted for doors, shutters, and the like; and, from the beautiful colour of its wood when varnished, painting is not necessary. (We have extracted these particulars from Mr. Tredgold's excellent work, *The Principles of Carpentry*, pp. 209–217.)

PINE-APPLE or ANANAS. Though a tropical fruit, it is now extensively cultivated in hothouses in this country, and is well known to everyone. When of a good sort and healthy, it is the most luscious, and, perhaps, the best fruit that this country produces; and when carefully cultivated, is superior in point of quality to that produced in the West Indies. A pine-apple raised at Stackpool Court, Pembrokeshire, and served up at the coronation dinner of George IV., weighed 10 lb. 8 oz. (*Vegetable Substances*, p. 379.)

PINT. A measure used chiefly in the measuring of liquids. The word is High Dutch, and signifies a little measure of wine. The English pint used to be of 2 sorts; the one for wine, the other for beer and ale. Two pints make a quart; 2 quarts a pottle; 2 pottles a gallon &c. The pint, imperial liquid measure, contains 34·659 cubic inches.

PIPE. A wine measure, usually containing 105 (very nearly) imperial, or 126 wine gallons. Two pipes, or 210 imperial gallons, make a tun. But, in practice, the size of the pipe varies according to the description of wine it contains. Thus, a pipe of port contains 138 wine gallons, of sherry 130, of Lisbon and Bucellas 140, of Madeira 110, and of Vidonia 120. The pipe of port, it is to be observed, is seldom accurately 138 gallons, and it is usual to charge what the vessel actually contains.

PIPE-CLAY. A species of clay abounding in Devonshire, and other parts of England, employed in the manufacture of various sorts of earthenware, and in bleaching &c.

PIRACY consists in committing upon the seas those acts of robbery and violence which, if committed upon land, would amount to felony.

Pirates hold no commission or delegated authority from any sovereign or State, empowering them to attack others. They can, therefore, be only regarded in the light of robbers or assassins. They are, as Cicero has truly stated, the common enemies of all (*communes hostes omnium*); and the law of nations gives to every one the right to pursue and exterminate them without any previous declaration of war; but it is not allowed to kill them without trial, except in battle. Those who surrender, or are taken prisoners, must be brought before the proper magistrates, and dealt with according to law.

By the ancient common law of England, piracy, if committed by a *subject*, was held to be a species of treason, being contrary to his natural allegiance; and, by an *alien*, to be felony only: but since the Statute of Treasons (25 Edw. III. c. 2) it is held to be only felony in a subject. Formerly this offence was only cognisable by the Admiralty Courts, which proceed by the rules of the civil law; but it being inconsistent with the liberties of the nation that any man's life should be taken away unless by the judgment of his peers, the statute 28 Hen. VIII. c. 15 established a new jurisdiction for this purpose, which proceeds according to the course of common law.

It was formerly a question whether the Algerines, and other African states, should be considered pirates; but, however exceptionable their conduct might have been on many occasions, and however hostile their policy might be to the interests of humanity, still, as they had been subjected to what may be called regular Governments, and had been admitted to enter into treaties with other Powers, they could not be treated as pirates.

Pirates having no right to make conquests, or

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to seize upon what belongs to others, capture by them does not divest the owner of his property. At a very early period of our history, a law was made for the restitution of property taken by pirates, if found within the realm, whether belonging to strangers or Englishmen: but any foreigner suing upon this statute must prove that, at the time of the capture, his own sovereign and the sovereign of the captor were in mutual amity; for it is held that piracy cannot be committed by the subjects of states at war with each other.

Piracy was almost universally practised in the heroic ages. Instead of being esteemed infamous, it was supposed to be honourable. ('Latrocinium maris gloriæ habebatur.'—Justin. lib. xliii. c. 3.) Menelaus, in the *Odyssey*, does not hesitate to inform his guests, who admired his riches, that they were the fruit of his piratical expeditions (lib. iv. ver. 90); and such, indeed, was the way in which most of the Greek princes amassed great wealth. (Goguet, *Origin of Law*, vol. i. p. 383, Eng. trans.)

The prevalence of this piratical spirit in these early ages may, perhaps, be explained by the infinite number of small independent states into which the country was divided, and the violent animosity constantly subsisting amongst them. In this way ferocious and predatory habits were universally diffused and kept alive; and it is not to be supposed that those who were at all times liable to be attacked by hosts of enemies, should very accurately examine the grounds upon which they attacked others. As, however, a more improved system of government grew up in Greece, and a few states, as Athens, Corinth &c., had attained to distinction by their naval power, piracy was made a capital offence; but though repressed, it was never entirely put down. Cilicia was at all times the great stronghold of the pirates of antiquity: and in consequence of the decline of the maritime forces of Athens, Rhodes &c., which had kept them in check, they increased so much in numbers and audacity as to insult the majesty of Rome herself; so that it became necessary to send Pompey against them, with a large fleet and army, and more extensive powers than had been ever previously conferred on any Roman general.

During the anarchy of the Middle Ages, when every baron considered himself a sort of independent prince, entitled to make war on others, piracy was universally practised. The famous Hanseatic League was formed chiefly for the purpose of protecting the ships of the confederated cities from the attacks of the pirates by which the Baltic was then infested. The nuisance was not finally abated in Europe till the feudal system had been subverted, and the ascendancy of the law everywhere secured. In more modern times, some of the smaller West India Islands and Central America have been the great resort of pirates: latterly, however, they have been driven from most of their haunts in that quarter. They are still not unfrequently met with in the Indian seas east of Sumatra.

Besides those acts of robbery and depredation upon the high seas, which, at common law, constitute piracy, some other offences have been included under that term. Thus, by the stat. 11 & 12 Wm. IV. c. 7, if any natural-born subject commits any act of hostility upon the high seas against others of his Majesty's subjects, under colour of a commission from any foreign Power, this, though it would only be an act of war in an alien, shall be construed piracy in a subject. And further, any commander or other sea-faring person betraying his trust, and running away with any ship, boat, ordnance, ammunition, or goods, or *yielding them up voluntarily to a pirate*, or conspiring to do these acts; or any person assaulting the commander of a vessel, to hinder him from fighting in defence of his ship, or confining him, or causing or endeavouring to cause a revolt on board, shall for each of these offences be adjudged a pirate, felon, and robber, and shall suffer death, whether he be principal, or merely accessory by setting forth such pirates, or abetting them before the fact, or receiving them, or concealing them or their goods after it: and the stat. 4 Geo. I. c. 2 expressly excludes the principals from the benefit of clergy. By the stat. 8 Geo. I. c. 24, the trading with known pirates, or furnishing them with stores or ammunition, or fitting out any vessel for that purpose, or in any wise consulting, combining, confederating, or corresponding with them; or the forcibly boarding any merchant vessel, though without seizing or carrying her off, and destroying or throwing any of the goods overboard, shall be deemed piracy; and such accessaries to piracy as are described by the statute of King William are declared to be principal pirates, and all pirates convicted by virtue of this Act are made felons without benefit of clergy. To encourage the defence of merchant vessels against pirates, the commanders and seamen wounded, and the widows of such seamen as are slain in any engagement with pirates, are entitled to a bounty, to be divided among them, not exceeding the *one fiftieth* part of the value of the cargo saved; and the wounded seamen are entitled to the pension of Greenwich Hospital. (11 & 12 Wm. III. c. 7; 8 Geo. I. c. 24.) The first of these statutes also enacts, that if any mariner or inferior officer of any English ship decline or refuse to fight when commanded by the master, or shall utter any words to discourage the other mariners from defending the same, he shall lose all the wages due to him, together with such goods as he hath in the ship, and be imprisoned and kept to hard labour for 6 months.

The 6 Geo. IV. c. 49 enacts that a bounty shall be paid to the officers and crews of such of his Majesty's ships of war as may be engaged in the actual taking, sinking, burning, or otherwise destroying any vessel or boat manned by pirates, of 20*l.* for each pirate taken or killed during the attack, and of 5*l.* for every other man of the crew not taken or killed, who shall have been alive on board the said piratical vessel at the attack thereof.

The same statute (sec. 3) enacts that vessels and other property taken from pirates, proved to have belonged to any of his Majesty's subjects, are to be delivered up to them, on their paying a sum of money as salvage, equal to ⅛ of the true value of the same.

PIRÆUS. [PATRAS.]

PISTACHIA or PISTACHIO NUTS (Ger. pistazien; Dutch, pistaches; Fr. pistaches; Ital. pistacchi, fastucchi; Span. alfoncigos; Lat. pistaciæ). The fruit of the *Pistachia vera*, a kind of turpentine tree. It grows naturally in Arabia, Persia, and Syria; also in Sicily, whence the nuts are annually brought to us. They are oblong and pointed, about the size and shape of a filbert, including a kernel of a pale-greenish colour, covered with a yellowish or reddish skin. They have a pleasant, sweetish, unctuous taste, resembling that of sweet almonds; their principal difference from which consists in their having a greater degree of sweetness, accompanied with a light grateful flavour, and in being more oily. Pistachios imported from the East are superior to those raised in Europe. (Lewis's *Mat. Med.*)

PITCH (Ger. pech; Fr. poix, brai; Ital. pece; Span. pez; Russ. smola gustaja). The residuum

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which remains on inspissating tar, or boiling it down to dryness. It is extensively used in shipbuilding, and for other purposes. Large quantities are manufactured in Great Britain; but exclusive of these, 13,284 cwt. imported from foreign countries were entered for consumption in 1841. The duty, which was then 10*d.* per cwt., after being reduced in 1842 to 6*d.*, was finally abolished in 1853. In 1867, 42,344 cwt. were imported, valued at 18,603*l.* [Burgundy Pitch.]

An allowance is to be made for *tare on pitch*, of 93 lb. each on Archangel casks, 36 lb. each on Swedish do., and 56 lb. each on American do.

PLANE. A forest tree, of which there are 2 species—the Oriental plane (*Platanus Orientalis*), and the Occidental plane (*Platanus Occidentalis*).

The Oriental plane is a native of the Levant and other Eastern countries, and is considered one of the finest of trees. It grows to about 60 feet in height, and has been known to exceed 8 feet in diameter. Its wood is much like beech, but more figured, and is used for furniture and suchlike articles. The Occidental plane is a native of North America, and is one of the largest of the American trees, being sometimes more than 12 feet in diameter. The wood of the Occidental plane is harder than that of the Oriental. It is very durable in water.

The tree known by the name of plane in England is the sycamore, or great maple (*Acer pseudo-platanus*). It is a large tree, grows quickly, and stands the sea-spray better than most trees. The timber is very close and compact, easily wrought, and *not liable* either to splinter or warp. It is generally of a brownish-white or yellowish-white colour, and sometimes it is very beautifully curled and mottled. In this state it takes a fine polish, and bears varnishing well. It is chiefly used in the manufacture of saddletrees, wooden dishes, and a variety of articles of furniture and machinery. When kept dry, and protected from worms, it is pretty durable; but it is quite as liable as beech to be attacked by them. (Tredgold, p. 196.)

PLANKS (Ger. and Dutch, planken; Dan. planker; Swed. plankor; Fr. planches, bordages; Russ. Tolstüle oloeku). Thick strong boards, cut from various kinds of wood, especially oak and pine. Planks are usually of the thickness of from 1 inch to 4. They are imported in large quantities from the northern parts of Europe, particularly from the ports of Christiania, Dantzic, Archangel, Petersburg, Narva, Revel, Riga, and Memel, as well as from several parts of North America. [Timber.]

PLANTAIN or BANANA. The pulpy fruit of the *Musa paradisiaca*, an herbaceous plant, extensively cultivated in most intertropical countries, but especially in Mexico. It is not, like most other fruits, used merely as an occasional luxury, but is rather an established article of subsistence. Having been long and extensively cultivated, it has diverged into numerous varieties, the fruit of which differs materially in size, flavour, and colour. That of some is not above 2 or 3 inches long, while that of others is not much short of a foot; some sorts are sweet, and of a flavour not unlike nor inferior to that of a good mellow pear; but the larger kinds are, for the most part, coarse and farinaceous. The latter are either used fresh or dried in the sun, in which latter state they are occasionally ground into meal and made into bread. In Mexico, the sweeter sorts are frequently pressed and dried, as figs are in Europe; and, while they are not very inferior to the last-mentioned fruit, they are infinitely cheaper.

'I doubt,' says M. Humboldt, 'whether there be any other plant that produces so great a quantity of nutritive substance in so small a space. Eight or nine months after the sucker is planted, it begins to develop its cluster. The fruit may be gathered in the 10th or 11th month. When the stalk is cut, there is always found, among the numerous shoots that have taken root, a sprout (*pimpollo*), which, being ⅔ the height of its parent plant, bears fruit 3 months later. Thus a plantation of bananas perpetuates itself, without requiring any care on the part of man, further than to cut the stalks when the fruit has ripened, and to stir the earth gently once or twice a year about the roots. A piece of ground of 100 square mètres of surface will contain from 30 to 40 plants. During the course of a year this same piece of ground, reckoning the weight of the cluster at from 15 to 20 kilog. only, will yield 2,000 kilog., or more than 4,000 lb., of nutritive substance. What a difference between this product and that of the cereal grasses in most parts of Europe! The same extent of land planted with wheat would not produce above 30 lb., and not more than 90 lb. of potatoes. Hence the product of the banana is to that of wheat as 133 to 1, and to that of potatoes as 44 to 1.' (*Essai sur la Nouvelle-Espagne*, tom. ii. p. 388, 2nd ed.)

The banana forms a principal part of the food of the people of Mexico; and the apathy and indolence of the natives in the *tierras calientes*, or hot regions, have been ascribed, and probably with good reason, to the facility with which it supplies them with subsistence. It is by no means in such extensive use in tropical Asia, and in that part of the globe comes nowhere into competition with corn as an article of food.

PLATE. The denomination usually given to gold and silver wrought into articles of household furniture.

Partly in order to prevent fraud, and partly for the purpose of collecting a revenue, the manufacture of plate is placed under certain regulations. Those who carry it on are obliged to take out a license, renewable annually on July 31. Assay offices are established in different places; and any one selling any article previously to its having been assayed and marked forfeits 50*l.* (24 Geo. III. c. 53.) Gold plate, with the exception of gold watch-cases, is to pay a duty of 17*s.* per oz., and silver plate since March 7, 1860 a duty of 1*s.* 6*d.*; but watch-cases, chains, tippings, mountings, collars, bottle tickets, teaspoons &c. are exempted. The 25 Geo. III. c. 143 made the counterfeiting, or the transference from one piece of plate to another, of the marks, stamps &c. impressed on plate by the assayers, felony without the benefit of clergy. But the offence is now punishable by transportation or imprisonment only. (1 Wm. IV. c. 66.)

In 1867, we imported 58,598 oz. of silver plate, valued at 14,674*l.*, of which 54,445 oz. were entered for consumption.

By 30 & 31 Vict. c. 90, manufacturers of gold and silver plate pay a license duty of 2*l.* 6*s.* for a manufacture of 2 dwt. and under 2 oz. of gold, above 5 dwt. and under 30 oz. of silver, and 5*l.* 15*s.* if the manufacture is above those amounts. Pawnbrokers in gold and silver and refiners pay the same amount. Plate licenses expire on July 5.

The subjoined account (from Porter's *Progress of the Nation*, iii. 25) gives a very complete view of the plate manufacture for half a century from 1800 downwards. It should be borne in mind that this account refers only to articles of standard silver and gold, and that the great consumption of the precious metals consists in plated or electro-plated and gilt articles, which are now made of a

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very superior quality. Owing also to the fact of old plate being held in the greatest estimation, but little of it is melted down to be remanufactured, so that the principal consumption is by new families. The returns for the year 1826, in the annexed table, afford a striking proof of this. During a considerable portion of that year a crowd of speculators, most of whom were previously worth little or nothing, believed they had made large fortunes, and launched out, with the proverbial ostentation of *parvenus*, into all sorts of lavish expenditure. Hence the wonderful increase in the demand for plate in the course of that year. No doubt, also, the consumption of plate appears less than it really is, from the facility with which the duties are evaded. We subjoin—

Account of the Number of Ounces of Gold and Silver Plate upon which Duty was paid, and for which Drawback was allowed, showing the Quantity retained for Home Use in each Year, in the undermentioned Years, from 1800 *to* 1850.

Year ending Jan. 5	Duty paid on		Drawback allowed on		Retained for Home Use	
	Gold	Silver	Gold	Silver	Gold	Silver
	oz.	oz.	oz.	oz.	oz.	oz.
1801	5,251	902,966	77	142,705	5,174	760,261
1805	4,854	904,788	21	114,829	4,833	747,959
1810	6,582	1,242,208	53	71,116	6,529	1,171,092
1815	6,779	974,245	29	55,948	6,750	918,297
1820	6,037	1,250,104	1,607	116,507	4,430	1,113,597
1821	6,651	1,081,310	3,735	114,224	2,916	967,086
1822	5,434	1,024,761	1,436	120,600	3,998	902,161
1823	6,997	1,027,722	1,370	64,783	5,627	962,939
1824	6,516	1,075,244	20	97,016	6,496	976,228
1825	7,662	1,208,658	38	70,182	7,624	1,138,176
1826	8,486	1,585,254	81	112,017	8,405	1,473,237
1827	7,108	1,247,840	..	71,493	7,108	1,176,387
1828	7,266	1,207,887	10	60,910	7,256	1,146,977
1829	7,106	1,361,352	2	86,157	7,104	1,275,175
1830	6,441	1,071,327	12	109,907	6,429	1,161,415
1831	5,716	1,076,976	6	84,444	5,710	992,532
1832	4,574	826,052	5	100,127	4,565	725,925
1833	5,189	914,096	15	79,659	5,174	834,437
1834	5,431	879,117	2	72,005	5,432	807,112
1835	6,116	1,050,232	..	102,251	6,116	947,981
1836	6,678	1,071,026	16	110,217	6,662	960,779
1837	7,966	1,272,920	..	164,064	7,966	1,108,856
1838	6,811	1,178,568	4	177,539	6,807	1,001,029
1839	6,784	1,195,463	21	161,458	6,763	1,034,025
1840	6,875	1,270,390	7	155,923	6,868	1,114,467
1841	6,992	1,209,266	7	179,904	6,985	1,029,362
1842	6,580	1,149,070	5	160,495	6,575	988,575
1843	6,305	1,026,046	4	171,574	6,301	854,472
1844	6,415	911,220	2	122,689	6,413	788,531
1845	7,242	1,025,412	8	170,987	7,234	854,425
1846	8,036	1,158,050	16	181,759	8,020	976,291
1847	8,335	1,188,736	18	167,513	8,317	1,021,223
1848	7,629	1,049,268	5	161,183	7,624	887,785
1849	6,810	756,388	..	109,156	6,810	647,232
1850	7,373	735,865	3	76,759	7,370	659,106

It is not easy to account for the nearly stationary demand for plate as exhibited in this return. Most probably it has been mainly occasioned by the greater use of plated articles, which have, to a great extent, been substituted for those made of silver. Perhaps, also, it may be in part accounted for by the fact of the cost of gold and silver having increased from 1809 down to 1849 or 1850. But a large increase in the consumption of the precious metals may now be expected to result from their increasing supply and diminishing value. (See Mr. Cayley's *Report on Gold and Silver Plate*, in connection with the Paris Exhibition of 1867, for some remarks on its classification.)

PLATINA—a metal which, in respect of scarcity, beauty, ductility, and indestructibility, is hardly inferior to gold—was unknown in Europe till about the middle of last century, when it began to be imported in small quantities from South America. It has since been discovered in Estremadura in Spain, and, more recently, in the Ural Mountains in Asiatic Russia, where it is now raised in very considerable quantities.

Platina is of a white colour, like silver, but not so bright, and has no taste or smell. Its hardness is intermediate between copper and iron. Its specific gravity is about 21·5, that of gold being 19·3; so that it is the heaviest body with which we are acquainted. It is exceedingly ductile and malleable; it may be hammered out into very thin plates, and drawn into wires not exceeding $\frac{1}{1946}$ inch in diameter. In these properties it is probably inferior to gold, but it seems to surpass all the other metals. Its tenacity is such, that a wire of platina 0·078 inch in diameter is capable of supporting a weight of 274·31 lb. avoirdupois without breaking. It is one of the most infusible of all metals, but pieces of it may be welded together without difficulty when heated to whiteness. It is not in the smallest degree altered by the action of air or water. (Thomson's *Chemistry*.)

The late Dr. Wollaston discovered a method of welding platina, and consequently of rendering it easily available in the arts. The Russians issued platina coins of the value of 3, 6, and 20 silver roubles some years since. They have now been recalled. Platina first began to be an object of attention in Russia in 1824, when 1 pood 33 lb. were collected. In 1836 the produce amounted to 138 poods 42 lb. In 1831 a piece of native platina was discovered at Demidoff's gold mines, weighing 29 lb. 2⅛ zolt. (*Official Statements* published by the Russian Government.) In 1867 17,877 oz. were imported into the United Kingdom, the value of which was 19,666*l*. It is chiefly used for sulphuric acid retorts.

PLATTING. Slips of bast, cane, straw &c. woven or plaited for making into hats &c. [Hats, Straw.]

PLUMBAGO. [Black Lead.]

PLUMS, the fruit of the *Prunus domestica*, are too well known to require any description. They were introduced into England in the 15th century, and are cultivated in all parts of the country. There are said to be nearly 300 varieties of plums. In 1867, exclusive of 15,855 cwt., of prunes, valued at 18,377*l*., we imported 6,445 cwt. French plums and prunelloes valued at 38,333*l*., and 741 cwt. dried plums, (worth 1,702*l*.) preserved otherwise than in sugar. On the 2 last mentioned a duty of 7*s*. per cwt. has been levied since December 10, 1856. [Prunes.]

POMEGRANATE, POMEGRANATES (Ger. granatäpfel; Fr. grenades; Ital. granati, melagrane; Span. granadas). The fruit of the pomegranate tree (*Punica granatum*). This tree, which grows to the height of 15 or 20 feet, appears to be a native of Persia, whence it has been conveyed, on the one side, to Southern Europe, and on the other to the tropical parts of Asia, and eventually to the New World. The fruit is a pulpy many-seeded berry, the size of an orange, covered with a thick brown coriaceous rind. The pulp has a reddish colour, and a pleasant subacid taste. The value of the fruit depends on the smallness of the seed and the largeness of the pulp. The finest, called by the Persians *badana*, or seedless, is imported into India from Cabul and Candahar, where the pomegranate grows in perfection. The tree thrives all the way to the equator; but, within the tropics, the fruit is hardly fit for use. The pomegranates brought to England from the South of Europe and the West Indies are very inferior to those of Persia. (*Private information.*)

POPLAR (Ger. pappel, pappelbaum; Dutch, populier; Ital. pioppa; Span. alamo; Lat. populus). Of the poplar (*Populus* of botanists) there are about 15 species described; of these, 5 are common in England, viz. the common or *White*, the *Black*, the *Aspen* or trembling poplar, the *Abele* or great white poplar, and the Lombardy poplar. In favourable situations, the white poplar grows with great rapidity, sometimes sending forth shoots 16 feet long in a

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single season. The wood is soft, and not very durable unless kept dry; but it is light, not apt either to swell or shrink, and easily wrought. The Lombardy poplar grows rapidly, and shoots in a complete spire to a great height; its timber does not differ materially from that of the white poplar. It is very light, and is therefore well adapted for the manufacture of packing-cases. None of the species is fit for large timbers. (Tredgold's *Principles of Carpentry*; *Veget. Sub., Lib. of Entert. Knowledge.*)

POPULATION. It would be quite inconsistent with the objects and limits of this work to attempt giving in this place any explanation of the laws which regulate the progress of population. It may, indeed, be thought that the word has no business here. However, as it is frequently of importance in commercial questions, and in others affecting commercial interests, to be able to compare the consumption of an article with the population, we believe we shall gratify our readers by laying before them the following Tables, showing the results of the different censuses that have been taken of the population of Great Britain and Ireland, and showing also the increase in the population of the principal British cities.

Population of Great Britain, exclusive of Army and Navy, as determined by the Censuses of 1811, 1821, 1831, 1841, 1851, *and* 1861, *showing its Amount in each of these Years in each County of England and Scotland, and in the Principality of Wales, with the Ratio of its Increase or Decrease in the intervening Decennial Periods.*

Counties	1811	Inc. per Cent.	1821	Inc. per Cent.	1831	Inc. or Dec. per Cent.	1841	Inc. or Dec. per Cent.	1851	Inc. or Dec. per Cent.	1861
ENGLAND.											
Bedford	70,215	20	84,052	14	95,483	13	107,936	+ 16	124,478	+ 9	135,287
Berks	119,450	11	132,639	10	146,274	10	161,759	5	170,063	4	176,256
Buckingham	118,065	14	135,133	9	146,977	6	156,479	5	165,725	3	167,993
Cambridge	101,109	21	122,387	18	145,265	14	164,550	13	183,405	— 5	174,016
Chester	227,031	19	270,098	24	334,391	18	395,660	15	456,725	+ 11	505,418
Cornwall	220,525	18	261,045	15	301,506	14	342,159	4	355,558	4	369,390
Cumberland	133,665	17	156,124	8	169,262	5	178,038	10	195,492	5	205,276
Derby	185,487	15	213,551	11	237,170	15	272,902	9	296,084	15	339,367
Devon	382,776	15	438,417	13	493,908	7	532,959	6	567,098	3	584,373
Dorset	124,718	16	144,350	10	159,584	10	175,094	5	184,207	2	188,749
Durham	165,293	17	193,811	24	239,356	29	307,863	27	390,097	30	508,666
Essex	252,473	15	289,424	10	317,507	9	344,979	7	369,318	10	404,851
Gloucester	285,955	18	336,120	15	387,298	11	431,405	6	458,805	6	485,770
Hereford	93,526	10	102,669	8	110,617	2	113,272	2	115,189	7	123,712
Hertford	111,225	17	129,731	10	142,844	10	156,660	7	167,898	4	174,290
Huntingdon	42,238	16	48,946	9	53,195	10	58,549	10	64,183	+1	64,850
Kent	371,701	15	427,724	12	479,558	12	549,551	11	611,766	19	733,887
Lancaster	828,499	27	1,052,948	27	1,336,854	24	1,667,054	22	2,031,236	20	2,429,440
Leicester	150,599	16	174,571	13	197,203	10	215,867	7	230,508	3	237,412
Lincoln	237,634	22	283,008	12	317,465	14	362,602	12	407,272	1	412,246
Middlesex	955,774	20	1,145,057	19	1,358,330	16	1,576,636	20	1,886,576	17	2,206,485
Monmouth	62,105	22	75,801	29	98,126	36	134,368	17	157,118	11	174,633
Norfolk	291,947	18	344,368	13	390,054	9	412,664	7	442,714	— 2	434,798
Northampton	141,553	15	163,097	10	179,758	11	199,278	7	213,380	7	227,704
Northumberland	183,269	15	212,389	11	236,309	12	266,020	14	303,568	13	343,025
Nottingham	162,961	15	186,873	21	225,327	11	249,910	8	270,427	9	295,867
Oxford	120,376	15	138,231	11	153,526	6	163,127	5	170,439	3	170,914
Rutland	16,380	13	18,487	5	19,385	10	21,302	8	22,983	— 5	21,861
Salop	194,973	7	198,311	8	213,518	6	226,870	2	229,541	+ 5	240,959
Somerset	302,836	17	353,789	13	401,790	8	434,599	4	443,916	2	444,823
Southampton	246,514	15	282,897	11	313,276	12	354,682	13	403,570	19	481,815
Stafford	294,940	17	345,974	18	409,180	24	509,477	20	608,716	23	746,943
Suffolk	253,963	16	271,541	9	296,317	6	315,073	7	337,214	— 4	337,070
Surrey	323,851	23	399,417	22	486,434	20	584,036	17	683,082	+ 22	831,093
Sussex	190,343	23	235,328	17	272,644	10	300,075	15	336,844	8	363,735
Warwick	228,906	20	274,482	23	336,645	19	401,703	19	475,013	16	561,455
Westmoreland	49,929	12	55,899	7	59,941	8	56,454	3	58,407	3	60,817
Wilts	191,555	14	219,574	8	237,944	8	256,980	— 1	254,291	— 2	249,311
Worcester	168,982	15	194,074	15	222,855	12	248,460	+ 12	276,946	+ 9	302,397
York, East Riding	133,075	15	154,643	9	168,891	15	194,936	12	220,983	9	240,227
City	19,039	14	21,711	21	26,260	10	28,842	26	36,303	11	40,433
North Riding	170,127	11	188,178	2	192,206	6	204,701	5	215,214	14	245,154
West Riding	662,875	22	809,363	22	984,609	18	1,165,580	14	1,325,493	14	1,509,796
Total of England	9,533,921	18	11,261,883	16	13,090,925	14	14,997,427	13	16,921,888	12	18,954,444
WALES	611,235	18	718,353	12	806,274	13	911,700	10	1,005,721	10	1,111,780
Totals of England and Wales	10,164,256	18	12,000,236	16	13,896,797	14	15,914,148	13	17,927,609	12	20,066,224
SCOTLAND.											
Aberdeen	133,871	16	155,049	15	177,657	+ 8	192,387	+ 10	212,033	+ 4	221,569
Argyll	86,541	12	97,316	4	100,973	— 4	97,371	— 9	89,298	— 12	79,724
Ayr	103,839	23	127,792	14	145,955	+ 13	164,356	+ 15	189,858	+ 4	198,971
Banff	38,455	14	43,663	11	48,537	3	49,879	9	54,171	2	59,215
Berwick	30,893	8	33,385	2	34,048	1	34,438	5	36,297	1	36,613
Bute	12,035	15	13,797	5	14,151	11	15,740	5	16,608	— 14	14,331
Caithness	23,419	25	29,181	18	34,529	5	36,345	6	38,709	+ 6	41,111
Clackmannan	14,010	10	15,363	11	14,729	30	19,156	20	22,961	— 7	21,450
Dumbarton	24,189	13	27,317	22	33,211	33	44,296	1	45,103	+ 154	52,035
Dumfries	62,960	13	70,878	4	73,770	— 1	72,870	7	78,123	3	75,878
Edinburgh	148,607	29	191,514	15	219,345	+ 2	225,154	15	259,453	— 34	273,297
Elgin or Moray	27,967	12	31,398	10	34,498	1	35,014	11	38,908	+ 9	42,695
Ayr	101,372	13	114,582	12	128,859	9	140,109	10	153,540	2	134,770
Fife	107,187	6	113,566	23	139,609	22	170,465	14	191,164	6	204,425
Forfar	51,050	15	58,727	3	36,145	— 1	55,886	1	56,386	3	57,634
Haddington	77,671	16	89,961	3	94,797	+ 3	97,799	— 2	96,500	— 8	88,588
Inverness	77,339	6	79,118	8	31,131	5	33,075	+ 5	34,598	5	34,466
Kincardine	7,745	7	7,762	17	9,072	— 3	8,763	5	8,944	11	7,977
Kinross	33,684	15	38,805	4	40,590	+1	41,119	3	43,120	1	42,495
Kirkcudbright	191,991	28	244,342	30	316,819	34	426,973	24	530,109	+ 19	631,566
Lanark	19,451	17	22,883	3	23,591	15	26,872	12	30,158	28	38,645
Linlithgow	8,496	9	9,264	1	9,354	— 1	9,217	8	9,966	1	10,065
Nairn	46,155	15	55,121	10	58,239	+ 5	61,260	7	65,552	2	64,085
Orkney and Shetland	9,975	1	10,040	5	10,578	— 1	10,499	2	10,778	6	11,408
Peebles	134,580	3	138,847	3	142,169	3	147,481	1	148,866	— 1	147,500
Perth	93,172	20	112,179	19	133,443	+ 16	155,077	4	161,091	10	177,561
Renfrew	66,864	13	75,762	9	71,720	5	78,685	3	82,707	— 11	81,406
Ross and Cromarty	37,230	10	40,899	7	43,663	5	46,009	12	51,642	+ 42	54,119
Roxburgh	5,889	13	6,657	3	6,853	17	7,990	23	9,802	6	10,449
Selkirk	58,171	12	65,376	11	72,621	15	82,457	5	86,257	6	91,926
Stirling	25,629	1	25,918	7	28,518	— 3	24,782	4	25,703	— 3	25,246
Sutherland	23,409	7	25,110	9	27,354	+ 3	28,195	11	31,389	5	32,985
Wigton	26,891	24	33,249	9	36,256	+1	36,595	11	40,555	3	41,705
Total of Scotland	1,805,864	16	2,091,521	13	2,364,386	11	2,620,184	10	2,888,742	+ 6	3,062,294

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Table exhibiting the Population of Ireland in 1821, 1831, 1841, 1851, *and* 1861, *according to the Censuses of these Years, and showing the Increase or Decrease per Cent. in the Intervening Periods.*

Counties &c.	1821	Increase or Decrease per Cent. 1821-31	1831	Increase or Decrease per Cent. 1831-41	1841	Increase or Decrease per Cent. 1841-51	1851	Increase or Decrease per Cent. 1851-61	1861
Leinster									
Carlow	78,952	+ 5	81,988	+ 5	86,228	−21	68,059	−16½	57,137
Dublin County	372,011	22	476,012	−21	449,347	+ 6½	476,731	+ 6	455,444
Dublin City	185,881	9	204,155	+14	232,726	11	258,361	− 2	254,808
Kildare	66,005	9	108,424	6	114,898	− 6	95,084	5	90,980
Kilkenny County	139,716	6	149,945	7½	135,519	25	139,273	20½	110,341
Kilkenny City	25,370	2	25,711	−20	19,051	+ 4½	19,973	5½	18,871
King's County	133,888	9	144,275	2	146,857	−23	112,080	20½	89,045
Longford	107,370	4	112,585	2	115,491	28	82,760	15½	71,401
Louth	101,311	7	107,481	4	111,979	18	90,812	16½	75,973
Drogheda Town	18,118	− 4	17,365	4½	16,261	+ 3½	16,845	15	16,740
Meath	134,385	+11	149,878	+ 4	155,838	−24	119,750	21½	94,373
Queen's County	124,273	8	134,551	5	141,330	28	101,625	18½	83,659
Westmeath	128,849	6	136,812	5	143,393	23	111,409	18½	90,804
Wexford	176,866	7	189,215	11	209,033	10	189,159	23½	145,304
Wicklow	130,167	10	121,557	3	126,145	21	99,978	12½	87,479
Total	1,757,192	+ 9	1,909,215	+ 3	1,973,731	−15½	1,677,591	−13½	1,452,655
Munster									
Clare	208,089	24	258,522	11	286,594	−25	212,426	−21½	166,595
Cork County	629,786	12	703,716	9	773,308	25	565,725	17	664,637
Cork City	100,038	6	107,016	−25	80,710	+ 6	85,745	8	80,121
Kerry	246,185	22	265,189	+12	297,883	−19	238,259	15½	201,309
Limerick County	218,134	6	248,801	15	281,658	25	208,686	17½	172,801
Limerick City	70,015	12	66,304	−27½	48,391	+10	53,418	17	44,476
Tipperary	346,896	16	402,367	+ 5	426,557	−25	331,487	25½	249,046
Waterford	172,842	15	198,233	11	219,671	21	173,754	20½	140,959
Waterford City	28,679	—	28,824	..	23,116	+ 8½	25,097	8	23,095
Total	1,965,612	+15	2,222,192	+ 8	2,396,161	−22½	1,857,412	−18½	1,513,558
Ulster									
Antrim	247,687	23	268,683	22	276,188	− 9	251,561	− 1½	247,864
Belfast	43,427	62	48,324	56	75,308	+33	100,289	+20½	121,602
Carrickfergus	8,023	8	8,706	8	9,379	−11	8,360	10	8,432
Armagh	197,197	11	220,134	6	232,393	15	196,085	− 5	186,056
Cavan	199,076	17	227,525	7	243,158	28	174,071	11½	155,026
Donegal	238,270	16	276,719	3	296,448	14	255,160	7	237,395
Down	325,110	8	352,112	3	361,446	11	320,917	6½	305,302
Fermanagh	130,997	14	149,365	4	156,481	25	116,997	9½	106,208
Londonderry	193,869	15	222,972	1·20	225,174	13	197,868	4	184,899
Monaghan	174,097	6	185,536	8	200,452	29	141,815	16½	118,487
Tyrone	261,865	16	304,168	3	312,956	18	255,731	6½	239,009
Total	1,998,194	+ 4	2,286,244	+ 4	2,388,363	−16	2,011,256	− 5	1,914,436
Connaught									
Galway	309,599	27	381,564	+10½	422,025	−29	298,136	−14½	254,511
Galway Town	27,275	19	33,129	−48½	17,075	+37	23,609	22½	18,987
Leitrim	124,785	15	141,841	+ 9	155,207	−28	111,841	6½	104,744
Mayo	293,112	25	366,348	6	388,887	29	274,612	7½	254,796
Roscommon	208,779	19	249,613	1	253,501	31	175,417	10	157,872
Sligo	146,229	17	171,765	5	180,886	28	128,340	3	124,845
Total	1,109,779	+21	1,343,974	+ 5	1,418,850	−28½	1,010,911	− 9	913,135

SUMMARY

Provinces									
Leinster	1,757,192	+ 9	1,909,215	+ 3	1,973,731	−15½	1,677,591	−13½	1,452,655
Munster	1,965,612	15	2,222,192	8	2,396,161	22½	1,857,412	18½	1,513,558
Ulster	1,998,194	4	2,286,244	4	2,388,363	16	2,011,256	5	1,914,436
Connaught	1,110,229	21	1,343,914	5	1,418,850	28½	1,010,911	9	913,135
Total	6,831,227	+14	7,767,401	+5	8,175,124	−20	6,551,970	−11½	5,793,967

Summary of Great Britain and Ireland, including Army and Navy.

	1811	Inc. per Cent.	1821	Inc. per Cent.	1831	Inc. per Cent.	1841	Inc. or De. per Cent.	1851	Inc. or Dec. per Cent.	1861
England	9,555,021	17½	11,281,883	16	13,090,523	14·5	14,997,427	+12·8	16,921,888	12	18,954,444
Wales	611,235	17	718,355	12	806,274	13·0	911,705	10·5	1,005,721	10·54	1,111,780
Scotland	1,805,864	16	2,091,521	13	2,364,386	10·7	2,620,184	10·2	2,888,742	6	3,062,294
Army, Navy &c.	640,500	—	319,300	—	277,017	—	193,469	—	210,474	—	—
Islands in British Seas	—	—	89,508	15·8	103,710	19·6	124,040	15·8	143,126	·22	145,447
Total	12,610,620	14·2	14,500,565	14·9	16,592,410	13·2	18,846,825	+12·3	21,169,951	9·02	23,271,965
Ireland	—	—	6,801,827	14·5	7,767,401	5·2	8,175,124	−18·5	6,551,970	−11·75	5,799,967
Total population of United Kingdom	—	—	21,302,392	15·1	24,319,811	10·6	27,021,949	+ 3·9	27,721,921	+1·86	29,070,508

An Account of the Population of the Principal Cities and Towns of the United Kingdom in 1801, 1811, 1821, 1831, 1841, 1851, *and* 1861.

N.B.—The same limits have been preserved throughout, or as near as was practicable.

Cities or Towns	1801	1811	1821	1831	1841	1851	1861
ENGLAND.							
London	958,863	1,138,815	1,378,947	1,654,994	1,948,417	2,362,236	2,807,117
Manchester and Salford	94,876	115,874	163,633	237,832	311,009	401,391	460,429
Liverpool	82,295	104,104	138,354	201,751	286,487	375,955	493,338
Birmingham	70,670	81,753	101,722	143,986	182,922	232,841	296,076
Leeds	53,162	67,554	83,796	123,393	152,054	172,270	207,165
Bristol	61,153	71,433	85,168	104,408	125,746	137,328	154,093
Sheffield	45,755	53,231	60,375	91,691	111,091	135,310	185,172
Wolverhampton	30,344	43,190	53,011	67,514	95,745	119,748	147,470
Bradford	13,264	16,012	26,307	43,527	66,715	103,778	106,218
Plymouth and Devonport	39,787	50,846	56,140	65,963	70,349	90,401	107,382
Newcastle-upon-Tyne	33,048	39,373	41,794	53,815	70,337	87,784	109,108
Hull	29,580	37,003	44,520	45,510	67,309	84,690	97,661

Population of the Principal Cities and Towns of the United Kingdom—continued.

Cities or Towns	1801	1811	1821	1831	1841	1851	1861
ENGLAND—cont.							
Stoke-upon-Trent	23,278	31,557	40,237	51,589	68,444	84,027	101,207
Oldham	21,677	29,179	38,201	50,515	60,451	72,357	94,348
Portsmouth	33,226	41,587	46,743	50,589	53,032	72,096	94,799
Brighton	7,440	12,205	24,741	41,994	49,170	69,673	87,317
Preston	12,174	17,360	24,859	33,871	50,887	69,542	82,985
Norwich	36,238	36,748	49,705	60,505	61,846	68,195	74,891
Sunderland	21,998	25,821	31,891	40,735	53,335	67,391	85,797
Merthyr Tydvil	10,127	14,945	20,959	27,281	43,031	63,080	83,875
Bolton	17,966	24,799	32,045	42,245	51,029	61,171	70,395
Leicester	17,005	23,153	31,056	40,639	50,806	60,584	68,056
Nottingham	28,861	34,253	40,115	50,680	53,091	57,407	74,693
Bath	33,196	38,404	46,709	50,800	53,196	54,240	52,528
Stockport	14,830	17,545	21,726	25,469	50,154	53,835	54,681
Blackburn	11,980	15,083	21,910	27,091	36,629	46,536	63,126
Exeter	17,412	18,896	23,479	28,242	37,231	40,688	41,749
Derby	10,832	13,043	17,423	23,627	32,741	40,609	43,091
Macclesfield	13,255	17,143	21,154	30,911	32,629	39,048	36,101
Dudley	10,107	13,925	18,211	23,430	31,232	37,962	44,975
Coventry	16,034	17,923	21,448	27,208	31,032	36,812	41,647
York	16,846	19,099	21,711	26,260	28,842	36,303	45,385
Southampton	7,913	9,617	15,353	19,324	27,744	35,305	46,060
Cheltenham	3,076	8,325	13,396	22,942	31,411	35,051	39,093
Halifax	12,010	12,766	17,056	21,552	27,520	33,582	37,304
Ipswich	11,277	13,670	17,186	20,201	25,334	32,914	37,950
Wigan	10,989	14,060	17,716	20,774	25,517	31,941	37,658
Swansea	10,117	11,965	14,896	19,672	24,604	31,461	37,488
Bury	9,152	11,302	15,180	19,140	24,816	31,262	37,563
Huddersfield	7,268	9,671	13,284	19,035	25,068	30,880	34,877
Yarmouth	16,573	20,448	21,007	21,535	27,865	30,879	34,810
Ashton-under-Lyne	5,727	7,037	9,222	12,441	22,678	29,791	34,886
Rochdale	8,040	10,392	12,998	18,351	24,272	29,195	38,184
Tynemouth	13,171	17,548	23,173	23,206	25,416	29,170	34,021
South Shields	11,011	15,165	16,503	18,756	23,072	28,974	35,239
Chatham	19,940	15,787	19,177	21,124	24,269	28,424	36,177
Oxford	11,924	12,951	16,364	20,619	24,258	27,943	27,560
Cambridge	10,087	11,108	14,142	20,917	24,453	27,815	26,361
Chester	15,052	16,140	19,949	21,244	23,866	27,666	31,110
Worcester	11,460	13,814	17,023	14,610	27,001	27,328	31,227
Northampton	7,020	8,427	10,795	15,351	21,242	26,657	32,813
Carlisle	9,415	11,476	14,416	18,365	21,550	26,310	29,417
Walsall	10,399	11,189	11,914	15,066	19,857	25,680	37,760
Gateshead	8,597	8,782	11,767	15,177	20,123	25,568	32,587
Birkenhead	110	105	200	2,569	8,223	24,285	51,649
Dover	7,081	9,074	10,327	11,922	17,795	24,244	25,325
Warrington	11,321	12,682	14,822	18,184	21,116	23,363	26,947
Wakefield	10,581	11,595	14,164	15,932	18,842	22,057	23,150
Reading	9,742	10,788	12,867	15,595	18,937	21,456	25,045
Burnley	3,918	5,405	8,242	10,026	14,224	20,828	28,700
Maidstone	8,027	9,443	12,508	15,790	18,086	20,801	25,058
Stalybridge	..	..	..	..	..	20,760	24,921
Gloucester	7,579	8,280	9,741	11,933	14,152	17,572	16,512
Lincoln	8,676	10,217	11,776	13,203	16,172	17,536	20,999
Boston	..	..	..	..	14,618	17,518	17,893
Hastings	..	..	..	..	11,614	17,011	22,910
Gravesend	..	..	..	..	..	16,633	18,782
Lancaster	..	..	..	..	14,389	16,168	16,005
Leamington	..	..	..	..	..	15,692	17,958
Shrewsbury	14,739	16,606	..	..	17,688	19,681	22,163
Colchester	11,520	12,544	14,046	16,167	17,532	19,443	23,809
King's Lynn	10,096	10,259	12,253	13,370	15,751	19,355	16,170
Kidderminster	6,110	8,038	10,709	14,981	15,427	18,462	15,399
Canterbury	9,000	10,200	12,799	13,679	15,122	18,398	21,324
Cardiff	..	..	..	..	9,714	18,351	32,954
Whitehaven	..	..	..	..	15,841	18,916	18,842
SCOTLAND.							
Edinburgh	66,544	81,784	112,235	136,301	138,182	160,302	168,121
Glasgow	83,769	110,460	147,043	202,426	280,682	347,001	391,864
Aberdeen	..	25,370	44,796	58,019	61,923	71,973	73,305
Dundee	..	29,616	50,373	45,355	62,873	78,931	90,417
Paisley	26,084	..	..	..	47,695	47,952	47,406
Greenock	17,458	19,042	22,088	27,571	36,645	36,689	42,098
Perth	14,878	..	..	..	20,167	23,835	25,250
IRELAND.							
Dublin	..	..	185,881	204,155	232,726	258,361	254,808
Cork	..	..	..	..	80,720	85,745	80,121
Belfast	..	..	45,177	48,221	75,308	100,300	121,602
Limerick	..	..	..	..	48,391	53,448	44,476
Waterford	..	..	..	..	23,216	25,297	23,293
Kilkenny	..	..	..	..	19,071	19,973	14,174
Drogheda	..	..	..	..	16,261	16,845	14,740
Galway	..	..	..	..	17,275	25,695	16,967

PORCELAIN or CHINA-WARE. A very fine species of earthenware. The first specimens of this fabric were brought to Europe from China and Japan. The best Chinese porcelain is of a very fine texture, white, semitransparent, and sometimes beautifully coloured and gilt; is infusible, and not subject to break by the sudden application of heat or cold. The Chinese term for the article is *tse-Ri*. But the Portuguese, by whom it was first brought in considerable quantities into Europe, bestowed on it the name of porcelain, from *porcella*, a cup.

Common earthenware, sometimes of a very good quality, is manufactured in Canton, Fokien, and several other provinces of China. But it is a curious fact, that the beautiful porcelain imported into Europe is made only in the town of Kingtesing, in the province of Kyangsi. Its manufacture is fully described by Duhalde, in his account of China, under the head 'Porcelain and China-ware.' The porcelain of Japan is decidedly inferior to that of China; very little is imported, and it is valued only as a curiosity.

After porcelain began to be imported, its beauty soon brought it into great request, notwithstanding its high price, as an ornament for the houses and tables of the rich and the great. The emulation of European artists was in consequence excited. Very little information was, however, obtained as to the mode of manufacturing porcelain till the early part of last century, when the process was developed in a letter from a French Jesuit in China, who had found means to make himself pretty well acquainted with the subject. The knowledge that thus transpired and the investigations of Reaumur and other chemists prepared the way for the esta-

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blishment of the manufacture in Europe. It was first commenced at Dresden, which has been famous ever since for the beauty of its productions; but the finest and most magnificent specimens of European china have been produced at Sèvres, in France, in the factory carried on at the expense of the French Government.

British Porcelain Manufacture.—This, though unable to boast of such fine specimens of costly workmanship as have been produced at Sèvres and Dresden, is of much greater national importance. Instead of exclusively applying themselves to the manufacture of articles fitted only for the use of the rich, the artists of England have exerted themselves, in preference, to produce china-ware suitable for the middle classes; and have succeeded in producing articles at once excellent in quality, elegant in form, and cheap. We are principally indebted for the improvements made in this important manufacture to the genius and enterprise of the late Mr. Josiah Wedgwood. This extraordinary man owed none of his success to fortuitous circumstances. Devoting his mind to patient investigation, and sparing neither pains nor expense in accomplishing his aims, he gathered round him artists of talent from different countries, and drew upon the stores of science for aid in pursuing the objects of his praiseworthy ambition. The early and signal prosperity that attended his efforts served only as an incentive to urge him forward to new exertions, and as means for calling forth and encouraging talent in others, in a manner calculated to promote the welfare of his country. Previously to his time, the potteries of Staffordshire produced only inferior fabrics, flimsy as to their materials, and void of taste in their forms and ornaments; the best among them being only wretched imitations of the grotesque and unmeaning scenes and figures portrayed on the porcelain of China. But such have been the effects resulting from the exertions and example of this one individual, that the wares of that district are now not only brought into general use in this country, to the exclusion of all foreign goods, which had been largely imported, but English pottery has since been sought for and celebrated throughout the civilised world, and adopted even in places where the art was previously practised. An intelligent foreigner, M. Faujas de St. Fond, writing on this subject, says: 'Its excellent workmanship, its solidity, the advantage which it possesses of sustaining the action of fire, its fine glaze impenetrable to acids, the beauty and convenience of its form, and the cheapness of its price, have given rise to a commerce so active and so universal, that, in travelling from Paris to Petersburg, from Amsterdam to the farthest part of Sweden, and from Dunkirk to the extremity of the South of France, one is served at every inn upon English ware. Spain, Portugal, and Italy are supplied with it; and vessels are loaded with it for both the Indies and the continent of America.'

See the quotation in the '*Account of the Porcelain Manufacture*' (p. 16), in Lardner's *Cyclopædia*; for the statistical details with respect to the manufacture, see the article EARTHENWARE, in this work. For much common information on this subject the reader is referred to Birch's *Ancient Pottery*, Marryatt's *Pottery and Porcelain*, *Life of Wedgwood*, and M. Arnoux's Report on Pottery in connection with the Paris Exhibition of 1867.

The British porcelain manufacture is principally carried on at the Potteries in Staffordshire, and at Worcester, Derby, Colebrookdale, and other places.

Murrhine Cups.—It was long a prevalent opinion among modern critics, that the *vasa murrhina*, so famous in Roman history, were formed of porcelain. Pompey was the first who brought them to Rome from the East, about 64 years before the Christian era. They were used as drinking-cups, and fetched enormous prices: Nero having given, according to the common method of interpreting, 58,000*l.* for a single cup. The extravagance of the purchaser may, in this instance, be supposed to have increased the price; so that the degree of estimation in which these cups were held may be more accurately inferred from the fact that, of all the rich spoils of Alexandria, Augustus was content to select one for his share. (Sueton. lib. ii. c. 71.) Pliny (lib. xxxvii. c. 2) says they were made in Persia, particularly in Karamania. But those who contend they were china-ware chiefly depend on the following line of Propertius:—

Murrheaque in Parthis pocula victa focis.
Lib. iv. Eleg. 5, lin. 26.

In despite, however, of this apparently decisive authority, Le Bland and Larcher have, in two very learned dissertations (*Mémoires de l'Académie des Inscriptions*, tom. xliii.), which Robertson has declared are quite satisfactory, endeavoured to prove that the *vasa murrhina* were formed of transparent stone, dug out of the earth in some Eastern provinces, and that they were imitated in vessels of coloured glass. (Robertson's *Disquisition on India*, note 39.) Dr. Vincent (*Commerce and Navigation of the Ancients*, vol. ii. p. 723) inclines to the opposite opinion; but the weight of authority is evidently on the other side. At all events, it is plain that if the murrhine cups were really porcelain, it had been exceedingly scarce at Rome, as their price would otherwise have been comparatively moderate. But it is most probable that the ancients were wholly unacquainted with this article, which indeed was little known in Europe till after the discovery of the route to India by the Cape of Good Hope. (For some further details on this question, see Kippingii, *Antiq. Rom.* lib. iv. c. 3.)

In 1867 we imported 19,354 cwt. of china or porcelain ware, chiefly from France and Germany, valued at 170,391*l.*

PORK, BACON, AND HAMS consist, the first of the fresh or uncured flesh of the hog, the second of the sides and belly when cured or salted, and the third of the hind-legs when cured.

These form important articles of food in this quarter of the world and in America. But they are rejected by many nations, and among others by the Jews and Mohammedans, partly from superstitious motives, but in part also from sanitary considerations. (See the profound work of Michaëlis, *On the Laws of Moses*, iii. 230, Eng. trans.)

Previously to 1842, the duty on bacon and hams, being 28*s.* per cwt., was in effect prohibitory of the former, and little or none was imported. It was then, however, reduced to 14*s.* per cwt. In 1846 the duty on bacon was entirely repealed, and that on hams reduced to 7*s.* per cwt., the latter being also repealed in 1853. There has been, in consequence of the abolition of the duty, a great increase in the demand for foreign bacon—the imports, which amounted in 1852 to 18,952 cwt., having increased, in 1866, to 578,272 cwt., valued at 1,699,301*l.*; the exports of foreign bacon and hams in the same year being only 66,760 cwt. The imports of hams in 1866 were 57,510 cwt. We subjoin—

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An Account of the Quantities of Bacon, Hams, and Pork Imported into the United Kingdom in 1867, specifying the Countries whence they were brought, and the Quantities brought from each.

Countries	Bacon	Hams	Pork
	cwt.	cwt.	cwt.
Denmark - -	20,174	4,079	20,910
Hanse Towns - -	165,324	4,757	53,171
France - -	1,125	—	8,419
United States - -	294,361	30,152	55,048
Holland - -	1,856	1,325	416
Other parts - -	12,804	3,121	12,931
Total - -	493,647	43,487	150,895

PORT. [OPORTO; WINE.]

PORT-AU-PRINCE. The capital of Hayti, or St. Domingo. Population in 1865 from 30,000 to 35,000. The lighthouse on Lamentin Point is visible for 9 miles in lat. 18° 33′ 35″ N., long. 72° 25′ 12″ W. It is situated on the west coast of the island, at the bottom of a large and deep gulf. It was founded in 1749, since which, with few intervals, it has been the capital of French St. Domingo. It is partially fortified, the harbour being protected by a battery on a small island at a little distance from the shore. The country round is low and marshy; and the heat in the summer months being excessive, the climate is then exceedingly unhealthy. The buildings are principally of wood, and seldom exceed 2 storeys in height.

Harbour.—The entrance to the harbour is between White Island and the southern shore. The depth of water varies from about 18 feet at ebb to about 21 feet at full tide. It is customary, but not compulsory, to employ a pilot in entering the harbour. Pilots are always on the look-out. Ships moor head and stern, at from 100 to 500 yards from shore; loading and unloading by means of boats, as there are neither docks nor quays to assist these operations. The harbour is perfectly safe except during hurricanes, which may be expected from August to November. The bay of Port-au-Prince is wellnigh blocked up to the northward by numerous shoals and islets, which protect the anchorage.

Hayti is, next to Cuba, the largest of the West India islands. It was discovered by Columbus, on December 5, 1492. Its greatest length may be about 400 miles, and its greatest breadth 155. Its superficies is estimated at about 29,500 square miles. Three principal chains of mountains (from which emanate smaller mountain arms) run from the central group of Cibao. The whole of these are described as fertile and susceptible of cultivation, even to their summits; affording great variety of climate, which, contrary to what is the fact in the plains, is remarkably healthy. The soil of the plains is, in general, a very rich vegetable mould, exceedingly fertile, and well watered. There are several large rivers, and an immense number of smaller streams, some tributary and others independent. The ports are numerous and good. The harbour of Cape St. Nicholas, the fortifications of which are now in ruins, is one of the finest in the West Indies, being inferior only to the Havannah. Timber of the finest description is most abundant, and mines of gold, silver, copper, tin, iron, and rocksalt, besides other natural productions, are said not to be wanting. The French were therefore fully justified in designating this magnificent island *La Reine des Antilles*. The principal towns, besides Port-au-Prince, are Cap Haïtien, formerly Cap François, on the north coast, St. Domingo on the south, Les Cayes, and Jacmel.

Previously to the revolt of the blacks, Hayti was divided in unequal portions between the French and Spaniards; the former possessing the west, and the latter the eastern and larger portion of the island. The revolution began in 1789, and terminated, after the most dreadful massacres and the destruction of a vast deal of property, in the total abolition of slavery, and the establishment of an independent black republic. The Spanish part of the island and the French, after being consolidated in 1820, were again separated in 1844; since which time the former has been, speaking generally, a mock empire, and the latter a mock republic. But in both disorder and revolution have been recurring at short intervals.

Population.—In 1789 the French part of Hayti was by far the most valuable and flourishing colony in the West Indies. The population was estimated at 524,000; of which 31,000 were white, 27,500 people of colour, and 465,500 slaves. The Spanish part of the island was much less densely peopled, the number in 1785 being estimated at 152,640; of which 122,640 were free people of all colours, mostly mulattoes, and the rest slaves. The population of the entire island, in 1827, was estimated by Humboldt at 820,000, of whom 30,000 were whites; but there are good grounds for thinking that that estimate was exaggerated, and that the present population does not exceed 700,000 or 750,000.

Exports.—There has been an extraordinary falling-off in the trade of Hayti since the Revolution. The exports of sugar, for example, which amounted to above 141,000,000 lb. in 1789, have wholly disappeared. The cultivation of the cane has not, however, been entirely relinquished; but its produce is now wholly converted into tafia, an inferior description of rum, of which the blacks are excessively fond. The produce of coffee has also fallen off; and its export, which may amount to about 60,000,000 lb., is in great part derived from the old coffee plantations of the French, which are now almost wild. The remaining articles of export consist principally of mahogany, logwood, and other dye and fancy woods, which merely require to be cut down; with small quantities of cotton, cacao, tortoiseshell, honey, wax &c. But so inconsiderable is their amount, that the entire value of the exports in 1863 did not exceed 2,458,000*l.*, not certainly $\frac{1}{10}$ of what it would amount to were the island occupied by a reasonably intelligent and industrious population. The greater part of its foreign trade is with the United States; and that with England is next in importance. In 1867 the value of our exports to Hayti and St. Domingo amounted to only 91,623*l.*, principally consisting of cottons (163,099*l.*) and linens. It is an instructive fact that they took from us no machinery, and only 2,497*l.* worth of iron. At present (1869) they are suffering all the horrors of civil war; anarchy prevails, and commerce is paralysed.

Besides its imports from England, it imports flour, rice, mess and cargo beef, fish &c., and timber, from the United States; wines, satins, liqueurs, jewellery, toys, haberdashery &c. from France; and linens, canvas, gin &c. from Holland and Germany; but the amounts of the latter are inconsiderable.

The greater part of this extraordinary falling-off is to be accounted for by the change in the condition of the inhabitants. The blacks, being no longer compelled to labour, and regarding with abhorrence the culture of sugar and the other occupations in which they had been principally engaged, sank into a state of idleness and apathy. The condition of all the great branches of industry formerly carried on became, in consequence, most deplorable, and the commerce

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of Hayti was reduced within the narrowest limits. Its successive rulers have endeavoured, though with little success, to bring about a revival of industry. The *Code rural*, enacted for this purpose by Boyer in 1826, was exceedingly stringent, its principal provisions being, in fact, copied from the regulations as to slaves embodied in the *Code noir*. But even this code had little influence; and as a proof of the low state of industry in the island, it is enough to refer to the previous statements. And this result is, after all, only what should have been anticipated. To expect that half-civilised Africans, under a burning sun, and without the wants or desires of Europeans, should be equally industrious, is to expect what is contradictory and all but absurd.

Port Charges.—The charges on a native and foreign ship of 300 tons are the same, and as follows:—

	dols.	cts.
Tonnage duty	300	0
Administrator	12	0
Commandante de place	12	0
Commissaire de guerre	12	0
Commandante de port	12	0
Director of customs	12	0
Interpreter	12	0
Treasurer	12	0
Doctor	12	0
Stamps for entry and clearing	16	50
Fountain tax	20	0
Pilotage	2	0
Total, currency	454	50

Custom-house Regulations.—On arrival, the master of the vessel proceeds to the Custom-house with the interpreter, where he makes his declaration whether he discharges his cargo in the port. If he discharge, his invoices are translated, and the goods verified in the presence of the consignee, who is allowed to land and store them. On clearing outwards, the merchant pays the duties on the cargoes both ways, and exhibits a receipt at the office of the commissaire de guerre, commandant de place, and commandant de port, who sign a certificate that the vessel may depart.

Warehousing.—The warehousing and bonding system is established by law, but there are at present no buildings appropriated to the reception of bonded goods. Until very recently, goods were permitted to be bonded under this law in the merchants' stores; a late order has, however, suspended that indulgence. The rate is 1 per cent. per year, and no allowance made for waste or loss. Goods exported in the same vessel they arrive in pay, if landed, ½ per cent. and wharfage fees.

Money.—The weight of the dollar is 216 grains, the ½ and ¼ dollar being in proportion. But nearly ½ the weight of the coin consists of tin or other alloy, so that the value of the dollar does not exceed 1*s.* 6*d.* sterling.

Weights in Hayti are divided as in avoirdupois and apothecaries' weight; but they are about 8 per cent. heavier than British weights.

Measures.—Same as those used in France.

Regulations as to Trade.—It is enacted that all persons exercising any trade or profession, excepting that of cultivating the soil, must be provided with a patent or licence to carry on such trade or profession; that all strangers admitted as merchants into the republic must, in the first place, procure the permission of the president to take out a patent, which, when obtained, only authorises them, under heavy penalties, to carry on a wholesale business, not with each other but with the Haytians, in the open ports, which are Port-au-Prince, Gonaives, Cap Haïtien, Port-à-Plate, Santo Domingo, Jacmel, Les Cayes, and Jérémie. The minimum quantities of goods that may be sold are fixed by the same law. The Haytian consignee may be also a retailer, on taking out a corresponding patent.

A charge of 2,000 dollars is made for each patent to a foreigner trading to Port-au-Prince; 1,800 for Les Cayes, Cap Haïtien, and Jacmel; and 1,600 for each of the remaining ports.

Duties.—The duties on all imported commodities consigned to foreign merchants are 17½ per cent. on an established tariff, whether they be brought in native or foreign ships, with the exception of those from the United States, which pay an additional 10 per cent. on the amount of the duties. Goods consigned to native merchants pay only 16½ per cent.

The coasting trade is entirely confined to Haytian citizens.

The commerce of Port-au-Prince is carried on by various classes of persons. The imports from Europe and America are principally consigned to European and North American commission houses, besides a few Haytian establishments.

We have derived these details with respect to Hayti partly from the published *Notes* of Charles Mackenzie, Esq., late consul in that island, and partly from consular and other *Returns*.

PORT LOUIS or NORTH-WEST PORT. The capital of the Mauritius, at the bottom of a triangular bay, the entrance to which is rather difficult, in lat. 20° 9′ 56″ S., long. 57° 28′ 41″ E. Every vessel approaching the harbour must hoist her flag and fire 2 guns; if in the night, a light must be shown, when a pilot comes on board, and steers the ship to the entrance of the port. Though not very extensive, the anchorage in Port Louis is generally quite safe, and the dangers to which ships in it were sometimes exposed during the hurricane season have been in great measure obviated by the formation of docks. It used to be reckoned a convenient port for the careening and repair of vessels; but, owing to the greatly increased magnitude of the ships and steamers which now navigate the Indian seas, increased means of accommodation in this respect became highly desirable, and these have been supplied by the formation of a dry-dock capable of admitting the largest ships. The houses are low, and principally built of wood. The town and harbour are pretty strongly fortified. Almost all the foreign trade of the island is carried on here.

The Mauritius was so called by the Dutch, in honour of Prince Maurice; but it was first settled by the French in 1720, and is indebted for most part of its prosperity to the skilful management of its governor, the famous M. de la Bourdonnais. It was taken by the English in 1810, and was definitively ceded to us in 1814.

Exports and Imports &c.—Mauritius is pretty fertile, a considerable part of the surface being, however, occupied by mountains. Its shape is circular, being about 150 miles in circumference. The climate is healthy, but subject to hurricanes. The principal product is sugar, which is now cultivated to the almost total neglect of everything else, and the island may, indeed, be said to have become an immense sugar-factory. But it also produces excellent coffee, indigo, and cotton. The blackwood or ebony of the Mauritius is very abundant, and of superior quality. Very little corn or grain of any kind is raised, most articles of provision being imported. Previously to 1825, the sugar and other articles brought to Great Britain from the Mauritius were charged with the same duties as the like articles from India; but in the above-mentioned year this distinction was done away, and it was enacted (6 Geo. IV. c. 111 s. 44) that all goods of the Mauritius should,

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on being imported into the United Kingdom, be subject to the same duties and regulations as the like goods from the British West Indies, and that the trade with the Mauritius should be placed as nearly as possible on the same footing as that of the West India islands.

This was a great boon to the Mauritius, but it is not to it that the increase of its sugar cultivation is to be ascribed. The emancipation of the slaves was as injurious to the planters here as to those in the West Indies; but, owing to its more convenient situation, vast numbers of hill-coolies and other labourers from India, and some also from Madagascar, have been introduced into the Mauritius, and it is to the supply of labour which has thus been obtained that the prosperity of the island is wholly owing. All the best insular authorities admit that but for the immigration it would have retrograded; the emancipated negroes would not have engaged in any sort of severe labour; and it is in part by the example of the immigrants, but more through necessity, that the blacks have been stimulated to exert themselves.

This prosperity, however, has, unfortunately, not been continuous. The rapid increase in the cultivation of beetroot sugar, the excess of immigration into the Mauritius, and the almost entire dependence of the colony on importations of food, have seriously impaired its prosperity. (Lieut. Governor Barkly's *Report*, 1866.) In 1866, the number of Indian immigrants was 5,596, and of Indian emigrants 3,815.

The imports of sugar into the United Kingdom from the Mauritius increased from 516,076 cwt. in 1840, to 1,006,237 cwt. in 1866, but fell in 1867 to 595,741 cwt. Yet this statement does not give a fair view of the real increase of production, inasmuch as a far greater quantity of sugar is now sent to France, the Cape of Good Hope, and Australia, than formerly. Thus, of the total shipments from the island, amounting in 1866 to 248,038,513 lb., only 75,886,276 lb. were for the United Kingdom; 18,405,756 lb. being for France, 6,137,896 lb. for the Cape of Good Hope, 99,111,415 lb. for Australia, and 51,609,554 lb. for Continental India. With the exception of rum, molasses, and ebony, the other exports are too trifling to deserve notice. Sugar pays an export duty of 3*d.* per 100 lb. nett French weight.

The principal imports consist of provisions, particularly grain and flour; the supply required for the use of the island being almost entirely derived from the Cape of Good Hope, Madagascar, India, Reunion &c. Cotton stuffs; iron, hardware, and cutlery; machinery, copper, linens, wine, coals &c., are also largely imported. Guano has of late years been extensively imported, and has been found to be of the greatest service in the raising of sugar. The total declared value of the exports from the United Kingdom to the Mauritius, in 1866, amounted to 583,403*l.*, and in 1867 to 384,938*l.*, chiefly cotton and iron.

Money, Weights, and Measures.—According to the regulations of Government, the franc is deemed equal to 10*d.*, and the Spanish dollar to 4*s.* 4*d.* The Government accounts are kept in sterling money; but merchants, shopkeepers &c. keep their accounts in dollars and cents, and dollars, livres, and sous.

The measures and weights are those of France previously to the Revolution. 100 lb. French = 108 lb. English; the French foot is to the English foot as 100 to 93·89, but in practice they are supposed to be as 16 to 15. The velte = 1 gallon 7·8 pints English, but in commercial transactions it is always taken at 2 gallons.

Lighthouses.—On May 24, 1867, the *Harbour Lights* at the entrance of Port Louis were done away with, and a floating light-vessel, painted white, has been substituted. It is moored a little to the north-west of the well-known Bell Buoy, and shows a flashing white light from sunset to sunrise, visible 9 miles off.

There is a *revolving* catoptric light, of the first order, on the south-west Flat Island, lat. 19° 53′ 26″ S., long. 57° 41′ 12″ E. It is 366 feet above the level of the sea, and is visible in clear weather 25 miles off.

There is a *fixed* catoptric light, also of the first order, on Cannonier Point, lat. 20° 0′ 35″ S., long. 57° 35′ 24″ E. It is 39 feet above the level of the sea, and can be seen for about ten miles. It indicates the position of a dangerous shoal nearly one mile from the shore, and keeps vessels clear of the coral-reefs to the north-east and south-west of the point.

There is a lighthouse built on a small island called 'Ile aux Fouquets,' lat. 20° 24′ 20″ S., long. 57° 45′ 9″ E. It marks the southern entrance to Grand Port, and is 880 yards to the E.N.E. of Ile de Passe, which bounds Grand Port entrance to the northward. The apparatus is a dioptric of the first order, showing a *fixed white light* from sunset to sunrise, visible in every direction from seaward. It is 108½ feet above the sea, and in clear weather can be seen at a distance of 16 miles.

There is a Government pilot stationed at the lighthouse, who will board ships bound to Mahebourg, on their making the usual signal.

No vessel bound into Grand Port ought to approach it *at night*; she should heave-to well to the *southward* of the light, as, the drift being to the northward, she might find herself to leeward in the morning, and lose much time in working up. (November 3, 1863.)

Lighthouse on Little Basses Rock, Ceylon.—Ordinance No. 22 of 1865 provides that there shall be levied and paid in this colony as dues in respect of the light-vessel upon Little Basses Rock, Ceylon, 1*d.* per ton of the burden of such ship as may have derived benefit therefrom.

Lighthouses on Coast of Mauritius.—Extract from Ordinance No. 22 of 1855. Art. 1. There shall be levied by the harbour master, on all vessels excepting coasters employed on the coast of Mauritius, entering the harbour, or discharging, or shipping cargo or immigrants in the roadstead of Port Louis, 2*d.* per ton.

Art. 2. The above due shall not be levied more than twice within 12 calendar months on any one vessel, and the whole amount collected shall be appropriated to defraying the cost of maintaining lighthouses and lights on the coast of the Mauritius.

The following are the numbers and tonnage of vessels that entered with cargoes and ballast into ports of this colony in the years 1864–65.

Entered.

	1864		1865	
	Vessels	Tons	Vessels	Tons
Total	658	278,368	715	301,556
British	258	126,545	246	132,563
Colonial	200	74,212	216	78,541

Cleared.

	1864		1865	
	Vessels	Tons	Vessels	Tons
Total	668	280,129	707	301,583
British	260	126,050	247	135,067
Colonial	200	77,389	224	82,255

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Tonnage of vessels entered and cleared in 1866, about 300,000.

For Immigration, see COLONIES.

Population estimated in 1866 at 340,664. Population of Seychelles Islands and other dependencies of Mauritius in 1861, 9,055.

Years	Revenue	Expenditure
	£	£
1860	553,119	500,853
1861	482,788	468,849
1862	492,322	581,495
1863	550,618	528,546
1864	638,067	602,279
1865	646,750	667,716
1866	639,576	700,048

Public Debt in 1866, 1,000,000*l.*

The revenue in 1866 was, including railway traffic receipts, 639,576*l.*, and the expenditure, including the sinking fund and interest on railway loan, 700,048*l.*

Brokerage, Commission, and Fees of Brokers and Exchange Brokers.

1. For sales and purchases of goods, merchandise and movables, payable *half* by the seller and half by the purchaser, 1 *per* cent.
2. Sales and purchases of immovables, payable *half* by the seller and half by the purchaser, 1 per cent.
3. Sales and purchases of cattle out of the town, payable *half by* the seller and half by the purchaser, 2 per cent.
4. Procuring advances on cargoes of sugar for Europe or elsewhere, 1 per cent. payable half by the party making the advance and half by the party who receives it.
5. Estimation of goods of merchandise and all other articles, verification of the state of damaged merchandise and other operations of a like nature, for each attendance of a broker not exceeding three hours 1*l.*, for each hour beyond the three 4*s.*
6. Negotiating notes of hand (whatever may be the *date of* payment) payable by the receiver, ½ per cent.
7. Negotiating bills of exchange, ½ per cent., payable ¼ by holder and ¼ by the receiver.
8. Negotiating contracts and bottomry bonds, payable by the consignee, ½ per cent.
9. Procuring freight and passengers, payable by the persons employing the broker, ½ per cent.
10. Hire of labourers, workmen, immovable property, on the whole amount of hire, if the contract or lease does not exceed one year, and on the amount of hire for a year only if the duration of the contract or lease exceeds that period; half by the person hiring, half by the other party.
11. Each signature on certificate or *pièce* 4*s.*

Lighterage Charges.—The lighterage charges at the port have been fixed at the following rates:—

Landing or shipping of goods in inner harbour, 50c. per ton.
Hire of workmen, 1d. 25c. per diem.
Do. cargo boat per ton, 1 dol. per diem.
Landing or shipping of bricks and coals, guano and shipping sand, 75c. per ton.
Do. wood, 75c. per ton.
Do. *fou-gayac* and *teak* in logs, 1d. 50c.
Do. iron, copper or zinc sheeting, and lead in cases, casks or rolls, 75c. per ton.
Do. sugar pans, 4 dol. each.
Do. steam engines, per horse power, 10 dol. each.
Do. anchors under 1,000 lb. weight, 3 dol. each.
Do. above 1,000 lb., 5 dol. each.
Do. above 1,500 lb., 7d. 50c. each.
Supplying water, 1d. 25c. per ton.
Do. bell buoy, 3 dol. per ton.
Landing or shipping of chain cables of 6 to 10 lines each, 5 dol. per ton.
Do. bell buoy, 10 dol. per ton.
Do. 8 to 10 lines each, 7d. 50c. per ton.
Do. bell buoy, 15 dol. per ton.
Landing oxen or cows, 2 dol. each.
Do. bell buoy, 4 dol. each.
Do. calves, 50c. each.
Do. bell buoy, 1 dol. each.
Do. horses or mules, 2 dol. each.
Do. bell buoy, 4 dol. each.
Do. ponies and donkeys, 1 dol. each.
Do. bell buoy, 2 dol. each.
Do. turbines complete, 6 dol. each.
Transshipment from one vessel to another, 1 dol. per ton.
Landing or shipping of tanks, full, 4 dol. each.
Do. empty, 1 dol. each.
Do. of goods lying at men-of-war's moorings, 1 dol. per vessel.
Do. from outside men-of-war's moorings to bell buoy, 3 dol. per vessel.
Do. of carriages, two wheels, 9d. 50c. per carriage.
Do. of carriages, four wheels, 4 dol. per carriage.
Do. of coolies in the harbour, 12½c. each.
Do. bell buoy, 25c. each.

Tonnage (lb. to the ton).—Bran, 1,000 lb.; oats, 1,500 lb.; dholl, 2,000 lb.; rice, 2,000 lb.; coffee, 1,500 lb.; pepper, 1,400 lb., coir, 750 lb.; cloves, 750 lb.; Europe cordage, 1,400 lb.; cotton in bales, 750 lb.; butter, 2,000 lb.; sugar, 2,000 lb.; tallow, 2,400 lb.; lead in pigs, 2,000 lb.; iron and ironmongery, 2,000 lb.; molasses, 2,000 lb.; Manilla rope, 1,000 lb.; dried fish in bulk, 1,000 lb.; mustard seed, 1,400 lb.; linseed and others, 1,400 lb.; potatoes, 1,100 lb.; bark, 800 lb.; resin in casks, 6; hemp or thread in bales, 4; salt provisions in casks, 5; flour in barrels, 8; bottled beer in casks of 6 doz., 4; beef and pork in tierces, 3; wine in hogsheads, full or empty, 4; cocoanuts in shell, 300; do. without shell, 500; horns, 500; gunpicks, 100; demijohns full, 20; do. empty, 24; planks 1 in. thick, 384 ft. to the ton; cases, 42; pieces of Tatamaca and other wood, 30 cubic ft.; Madagascar hides, 50; India do., 80; Vacoa bags, 300, brandy in pipes, 2; empty barrels, 5; earthen dishes and bowls, 100; gunny bags, 500; soap in bales, 70.

Statement of Commercial Commissions (from Mauritius Civil Service Almanack).

1. On sales of goods imported of all descriptions, on the net amount if sold by auction, and on the gross amount of all other sales, 5 per cent.
2. On sales of colonial sugar and other colonial produce, 2½ per cent.
3. Purchase of goods:—
   On purchases effected when the agent is in funds, 2½ per cent.
   On purchase of do. when funds are provided by the agent, 5 per cent.
4. On the sale of specie and bills of exchange, 1 per cent.
5. On remittance of proceeds of the sales of goods, specie, bills of exchange &c., 1 per cent.
6. On goods consigned and afterwards withdrawn on invoice value, 2½ per cent.
7. On goods landed on account of damage incurred by the vessel and re-shipment of the same, 1¼ per cent.
8. On freight or passage money procured, 5 per cent.
9. On the collection of freight or passage money, 2½ per cent.
10. On ship's disbursement when the agent is in funds, 2½ per cent.
11. On do. when consignee furnishes funds, 5 per cent.
12. On disbursements for vessels under repairs, 5 per cent.
13. On letters of credit and advances of funds from which no other commission is derived, 2½ per cent.
14. On effecting insurances, on the amount insured, ½ per cent.
15. On sales or purchases of houses, or other immovable property, under power of attorney, 5 per cent.
16. On sales or purchases of vessels, whether abandoned or whether purchased or sold under power of attorney, 5 per cent.
17. For recovery of rent, 5 per cent.
18. On affairs in dispute, 5 per cent.
19. On affairs before the courts and attended with legal proceedings, according to the trouble and delay, but not less than 5 per cent. on the amount of the transaction.
20. On affairs in dispute and withdrawn before brought to a settlement, upon the actual value of the claim, 2½ per cent.
21. On protested bills, returned for recovery, 2½ per cent. on the amount received.
22. On negotiation of bottomry bonds, 1 per cent.
23. On funds employed at interest for parties absent, on the amount of interest received, 10 per cent.
24. On guarantee of sales where the term does not exceed 6 months, 2½ per cent. and ½ per cent. additional on each month beyond 6 months
25. Endorsement of bills of exchange or local bills, 2½ per cent.
26. For the delivery of goods from a cargo when the freight has been paid before hand, 2*s.* per ton.

N.B.—Brokerage and auction dues are a separate charge.

The following charges are leviable, by Ordinances Nos. 6 & 32 of 1852, on all vessels entering or clearing from Port Louis:—

	£	*s.*	*d.*
For Pilotage.—Vessels remaining at the bell buoy, per foot	0	2	6
Vessels entering the harbour:			
Piloting inwards and mooring, per foot	0	5	0
Ditto outwards and unmooring, per foot	0	5	0
Vessels under 100 tons burden entering the harbour shall not be required to take a pilot.			
For the use of Warps and Boats, viz.:—Inwards, for each vessel of 100 tons burden and above	3	0	0
Ditto, if the port office steamer be employed	1	0	0
Outwards	3	0	0
For the use of Boats without Warps.—For each launch (manned) per day	1	10	0
Anchorage Dues.—Vessels trading with Madagascar or the dependencies of Mauritius, per ton of register	0	0	3
Such vessels shall not be charged anchorage dues more than twice in any one year.			
Vessels entering the harbour in distress, or for repairs, provided that they do not receive cargo, nor break bulk, or that they discharge cargo solely for the purpose of repairs, and that the whole of the same be reshipped (excepting any part condemned as damaged)	free		
Vessels entering the harbour, but not breaking bulk nor receiving cargo, per ton of register	0	0	4
All other vessels breaking bulk or receiving cargo, per ton of register	0	0	8
The anchorage dues leviable under Ordinance No. 6 of 1852, were reduced as follows by Ordinance No. 32 of 1852, Art. 1. On vessels entering the harbour these dues shall in no case exceed the following amounts, whatever may be their tonnage, viz.:—			
On vessels breaking bulk or receiving cargo	30	0	0
On vessels not breaking bulk nor receiving cargo	15	0	0
Art. 2. All steam vessels touching at this port on their way to some other port, other than those receiving a contribution from this colony, for the carriage of mails between this colony and England and India, shall be exempt from anchorage dues and from all other harbour charges leviable exclusively for the use of the Government.			
Port and Police Clearance.—On vessels trading with Madagascar and dependencies of Mauritius, each	0	3	0
On all other vessels	0	15	0
For the Dredging Service.—An additional proportional amount on all other port charges (excepting the charges for the use of the steamer and for remaining swung upon the warps), levied upon all vessels, except those which remain at the bell buoy, viz.:—			
On vessels under 350 tons, per register, 10 per cent.			
Of 350 tons or upwards, per register, 15 per cent.			
For tugging vessels by the port office steamer inwards or outwards, viz.:—			
For vessels under 100 tons, each	3	0	0
from 100 to 150 tons	4	0	0
150 200	5	0	0
200 400, per ton	0	0	6
above 400 tons, each additional 100 tons	1	0	0

This island is, as everybody knows, the scene of St. Pierre's inimitable tale of *Paul and Virginia*. The wreck of the St. Geran, so striking and affecting an incident in the story, is a real event, which took place on August 18, 1744.

Table showing the Value of the Exports from and Imports into Mauritius in the 5 Years 1862–1866, *and of the Quantity and Value of the Sugar Exported.*

		1862	1863	1864	1865	1866
Imports, excluding specie	£	1,946,255	2,238,846	2,137,107	1,962,800	2,048,539
Exports - -	£	2,410,325	2,661,079	2,249,710	2,629,519	2,501,805
Sugar exported -	lb.	268,162,541	274,548,961	253,440,100	270,026,937	244,160,000
Value of sugar exported	£	2,239,249	2,491,546	2,121,385	2,626,275	—

[This article has been compiled in great measure from information supplied by *Parl. Papers* and the *Mauritius Civil Service Almanack*, 1867—1868.]

We also give from the same *Almanack* for 1868, a schedule of duties levied in the customs department, Mauritius, specifying the laws and authorities under which such duties &c. are levied.

Table of Duties on Imports.

Description of Goods	Rates of Duty	Authority under which Levied.
Dogs, imported from the United Kingdom, or from any possession in Europe or America - -	2*l.* for each dog - - - -	Ordinance No. 26 of 1845.
Wine, in casks of 50 gallons each - -	1*l.* 12*s.* 6*d.* per cask - - -	Nos. 25 & 29 of 1867.
Wine, bottled - - - - -	5*s.* 6*d.* per dozen bottles - - -	
Spirits:		
Being rum or arrack, the produce or manufacture of the United Kingdom, or of any British possession in America, or of any of the British possessions within the limits of the East India Company's charter, into which the importation of rum or arrack, the produce of any foreign country, or of any British possession into which foreign rum may be legally imported, is prohibited. (See Act 16 & 17 Vict. c. 107, s. 139) - - -	6*s.* 6*d.* per gallon of any strength, not exceeding the strength of proof by Sykes' hydrometer, and so in proportion for any greater strength.	Ordinance No. 32 of 1862.
Except rum or arrack - - - -		
Or cordials sweetened or mixed with any article, so that the degree of strength thereof cannot be exactly ascertained by Sykes' hydrometer -	6*s.* 6*d.* per gallon - - - -	
Tobacco:		
Leaf or unmanufactured - - -	1*s.* per lb. - - - -	
Manufactured - - - -	1*s.* 2*d.* per lb. - - - -	
Cigars and snuff - - - -	1*s.* 4*d.* per lb. - - - -	
Beer and porter in casks - - -	1*l.* 12*s.* per hogshead - - -	Ordinance Nos. 25 & 29 of 1867.
in bottles - - -	2*s.* per dozen bottles - - -	
Bread and biscuit - - - -	6*d.* per cwt. - - - -	
Cider and perry, bottled - - -	1*s.* per dozen bottles - - -	*Ordinance No. 33 of 1863.
in casks - - -	1*l.* per hogshead - - -	
Bacon, butter, cheese, hams, tongues, and sausages -	4*s.* per cwt. - - - -	
Tea - - - - - -	1*d.* per lb. - - - -	
Coffee - - - - - -	4*s.* per cwt. - - - -	Ordinance No. 9 of 1851.
Sugar, refined, and sugar candy (British produce, and foreign refined in bond in the United Kingdom) - - - - -	4*s.* per cwt. - - - -	
Bran and maize - - - -	4*d.* per cwt. - - - -	
Barley, beans, biscuit, bread, oats, peas, pollard, and wheat flour - - - - -	6*d.* per cwt. - - - -	
Dholl, gram, lentils, rice, and wheat - -	6*d.* per bag of 164 lbs. English - -	
Beef and pork, salted - - - -	2*s.* per cwt. - - - -	*Ordinance No. 33 of 1863.
Fish:		
Salted, dried, &c. - - - -	1*s.* per cwt. - - - -	
Pickled - - - - -	2*s.* per barrel of 200 lbs. - - -	
All other goods, wares, and merchandise, not otherwise charged with duty, and not hereinafter declared to be free of duty -	6 per cent. ad valorem - - -	Ordinance No. 9 of 1851, and No. 11 of 1857.

* N.B.—Ordinance No. 33 of 1863 was continued in force for another year, from January 1, 1867, under Ordinance No. 25 of 1865.

PORTO RICO. The capital of the valuable Spanish island of the same name, on the north side of the island, on a peninsula joined to the main land by a narrow isthmus, lat. 18° 29′ 10″ N., long. 66° 7′ 2″ W. The fortifications are very strong: the town, which stands on a pretty steep declivity, is well built, clean, and contains about 16,000 inhabitants.

Harbour.—The harbour of Porto Rico has a striking resemblance to that of the Havannah, to which it is but little inferior. The entrance to it, about 300 fathoms in width, has the Morro Castle on its east side, and is defended on the west side by forts erected on 2 small islands. Within, the harbour expands into a capacious basin, the depth of water varying from 5 to 6 and 7 fathoms. On the side opposite to the town there are extensive sand banks; but the entrance to the port, as well as the port itself, is unobstructed by any bar or shallow.

The island of Porto Rico lies in the same latitude as Jamaica. Though the smallest of the greater Antilles, it is of very considerable size. Its form is that of a parallelogram, being about 110 miles in length from east to west, with a mean breadth of about 38, containing an area of 3,750 square miles. Surface pleasantly diversified with hills and valleys; soil generally fertile. It has, however, suffered much from hurricanes; those of 1742 and 1825 having been particularly destructive. Since the breaking up of the old Spanish colonial system, the progress of Porto Rico has hardly been less rapid than that of Cuba. Her population, which in 1778 was estimated at 80,650, amounted, according to a census taken in 1836, to 357,086, of whom 188,869 were whites, and only 41,818 slaves. It is obvious from this statement that a large proportion of the free inhabitants are coloured: but the law knows no distinction between the white and the coloured *roturier*; and this circumstance, as well as the whites being in the habit of freely intermixing with people of colour, has prevented the growth of those prejudices and deep-rooted antipathies that prevail between the white and the black and coloured population in the United States, and in the English and French islands. The population is now (1869) probably above 400,000.

Trade.—Sugar and coffee are by far the greatest articles of export. Next to them are molasses, tobacco, cotton, rum &c. The imports consist principally of flour, fish, and other articles of provision, lumber &c. from the United States; cottons, hardware, machinery &c. from England; wines, silks, jewellery, perfumery &c. from Spain and France; linen from the Hanse Towns; iron from Sweden &c. Large quantities of rice, maize

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Quantities of the Principal Articles Exported from the Island of Porto Rico in each Year from 1861 to 1865.

Articles	1861	1862	1863	1864	1865
Sugar - - - lb.	145,995,816	150,584,628	146,467,263	110,425,025	157,332,185
Molasses - - - gal.	4,616,108	4,987,252	4,972,645	3,732,076	5,564,057
Coffee - - - lb.	14,440,950	13,861,586	20,980,475	14,995,851	23,524,624
Tobacco - - - ,,	9,394,843	8,591,720	6,074,595	4,698,729	5,559,569
Hides - - - ,,	279,927	396,246	627,681	369,665	722,838
Cotton - - - ,,	166,598	125,861	525,810	1,383,187	2,229,766
Rum - - - qr.	399,066	1,094,024	363,305	32,055	191,887

Summary Statement showing the Description and Quantities of the Exports of Porto Rico for the Year ending October 31, 1864, together with the Names of the Countries of Destination.

Countries of Destination	Sugar	Molasses	Coffee	Tobacco	Hides	Cotton	Rum
	lb.	gal.	lb.	lb.	lb.	lb.	qr.
United States - - -	33,032,774	2,421,065	493,581	—	71,732	339,885	15,000
Great Britain - - -	56,272,174	—	21,238	—	—	548,175	—
British North American Provinces -	6,102,780	287,559	253,916	4,920	—	—	—
Spain - - - -	1,396,876	1,368	453,215	83,500	369,775	261,147	2,435
France - - - -	9,491,565	—	855,171	199,926	—	—	—
Germany - - -	—	—	—	4,050,899	—	—	—
Italy - - - -	—	—	595,845	—	—	—	—
Cuba - - - -	—	—	1,958,036	—	—	—	—
St. Domingo - - -	2,080	—	—	—	—	—	2,315
St. Thomas - - -	105,494	—	3,822	—	—	—	—
Other countries - - -	4,660,270	26,971	5,841,402	189,177	118,158	422,974	12,805
Total - - -	110,974,015	2,736,963	10,454,229	4,528,242	559,665	1,572,181	32,555

Summary Statement showing the Exports from the several Ports of the Island of Porto Rico for the Year ending October 31, 1864.

Names of Ports whence Shipped	Sugar	Molasses	Coffee	Tobacco	Hides	Cotton	Rum
	lb.	gal.	lb.	lb.	lb.	lb	qr.
San Juan or Porto Rico - -	17,149,994	379,273	3,467,383	886,356	328,125	250,780	8,897
Manante and Tortuguero - -	—	—	—	663,176	—	—	—
Arecibo - - - -	5,686,205	128,712	—	2,707,352	—	—	—
Mayaguez - - -	22,562,005	809,289	5,783,686	15,567	176,318	231,937	—
Ponce - - - -	21,476,382	889,484	1,780,926	211,525	6,264	472,250	—
Arroyo - - - -	11,944,556	620,709	72,936	119,933	—	62,935	17,315
Humacao &c. - - -	18,576,782	734,110	—	29,865	—	—	—
Guayanilla and Guanica - -	6,905,498	115,185	1,030,885	46,461	8,158	181,285	—
Aguadilla - - -	6,525,800	64,310	2,858	—	50,800	376,000	8,843
Total - - -	110,125,222	3,741,070	14,993,536	4,678,733	569,665	1,575,187	93,055

&c. are raised in the island. The pasture lands in the north and east are superior to any in the West Indies for breeding and fattening cattle.

Previously to 1815, Porto Rico, being excluded from all direct intercourse with other countries excepting Old Spain, was either stationary or but slowly progressive, the entire value of the exports in that year having amounted to only 65,274 dollars. But at that epoch a royal decree appeared, which exempted the trade between Spain and the Spanish colonies and Porto Rico from all duties for 15 years; and she was then, likewise, permitted to carry on a free trade, under reasonable duties, with other countries. In consequence principally of these wise and liberal measures, but partly, also, of a considerable immigration of rich Spanish colonists from South America, Porto Rico has latterly made an extraordinary progress. Great improvements have been effected in the police and internal administration, and roads have been constructed in all parts of the island.

The island of Porto Rico, though exceedingly rich, suffers, according to the Report of Mr. Consul Cowper (*Consular Reports*, 1867), from the maladministration of the Spanish employés, and especially from the state of the currency. American money is current, but not legal; and home merchants are obliged, in order to pay their dues, to purchase Spanish money at a premium of 3 or 4 per cent., while the loss on bills is no less than 8 to 12 per cent., owing to this and similar causes.

Vessels under the Spanish flag have a protective privilege in a 6 per cent. abatement of duties, and the payment of half tonnage dues.

Vessels calling should not enter the port, or they are charged all the port dues, whereas if they send a boat for information they pay only 7½ dollars.

Shipping Dues &c., on a 3-masted Vessel.—Anchorage dues, 2 piast. o. c.; Tonnage &c. dues, 189 piast. o. c.; captain of port, medical officer, and military and civil authorities 26 p. 75 c.; stamped paper for entry and clearance 9 p. 25 c.

Every vessel in cargo or ballast must be provided with 2 manifests and a bill of health, certified by the Spanish Consul, or in default by two merchants at the port of departure.

Merchandise imported direct is allowed a discount of 6 per cent. on the amount of the duties. In case a vessel shall have touched at an intermediate port, she must be furnished with a Spanish consular certificate, stating she has taken no lading.

The value of the total imports into Porto Rico in 1866 was 1,541,020*l.*, and of her exports 1,712,346*l.* The value of her imports from the United Kingdom in 1866 was 308,659*l.*, and of her exports to this country 496,172*l.*

PORT PHILLIP. [MELBOURNE.]

PORTS. [HARBOURS.]

POSTAGE AND POST-OFFICE. Postage is the duty or charge imposed on letters or parcels conveyed by post; the Post-office being the establishment by which such letters or parcels are conveyed.

1. *Establishment of Post-offices.*—Regular posts or couriers were instituted at a very early period, for the safe, regular, and speedy transmission of public intelligence. Herodotus informs us (lib. viii. c. 98) that in Persia, men and horses, in the service of the monarch, were kept at certain stations along the public roads; and that the despatches, being given to the first courier, were by him carried to the second, and so on, with an expedition which neither snow, nor rain, nor heat, nor darkness could check. A similar institution, under the name of *cursus publicus*, was established at Rome by Augustus, and was extended and

improved by his successors. Horses and carriages were kept in readiness at the different stations along the public roads, not only for the transmission of despatches, but also for the conveyance of official personages, or others who had obtained an order from authority allowing them to travel post. By this means Government was speedily apprised of whatever took place in the remotest corners of the empire; and instructions or functionaries could be sent to, or recalled from, the most distant provinces, with a celerity that would even now appear considerable. (Bergier, *Histoire des Grands Chemins*, liv. iv. c. 4; Bouchaud *Sur la Police des Romains*, pp. 136–151.)

Posts appear to have been established, for the first time, in modern Europe, in 1477, by Louis XI. They were originally intended to serve merely, as the ancient posts, for the conveyance of public despatches, and of persons travelling by authority of Government. Subsequently, however, private individuals were allowed to avail themselves of this institution; and Governments, by imposing higher duties or rates of postage on the letters and parcels sent through the post-office than are sufficient to defray the expense of the establishment, have rendered it productive of a considerable revenue. Nor, when the rates of postage are confined within due limits, or not carried so high as to form any serious obstacle to correspondence, is there, perhaps, a less objectionable tax.

English Post-office.—The Post-office was not established in England till the 17th century. Postmasters, indeed, existed in more ancient times; but their business was confined to the furnishing of post-horses to persons who were desirous of travelling expeditiously, and to the despatching extraordinary packets upon special occasions. In 1635 Charles I. erected a letter office for England and Scotland; but this extended only to a few of the principal roads, the times of carriage were uncertain, and the postmasters on each road were required to furnish horses for the conveyance of the letters at the rate of 2½*d.* per mile. This establishment did not succeed; and at the breaking out of the civil war great difficulty was experienced in the forwarding of letters. At length a post-office, or establishment for the *weekly* conveyance of letters to all parts of the kingdom, was instituted in 1649, by Mr. Edward Prideaux, Attorney-General for the Commonwealth, the immediate consequence of which was a saving to the public of 7,000*l.* a-year on account of postmasters. In 1657 the Post-office was established nearly on its present footing, and the rates of postage that were then fixed were continued till the reign of Queen Anne. (Blackstone's *Com.* book i. c. 8.)

From the establishment of the Post-office by Cromwell down to 1784, mails were conveyed either on horseback, or in carts made for the purpose; and instead of being the most expeditious and safest conveyance, the post had become, at the latter period, one of the slowest and most easily robbed of any in the country. In 1784 it was usual for the diligences between London and Bath to accomplish the journey in *seventeen* hours, while the post took *forty* hours; and on other roads their rate of travelling was in about the same proportion. In consequence of this difference in point of despatch, a very great number of letters were sent by those conveyances; the law being very easily evaded by giving them the form of small parcels.

Under these circumstances, it occurred to Mr. John Palmer, of Bath, afterwards Comptroller-General of the Post-office, that a very great improvement might be made in the conveyance of letters, in respect of economy as well as of speed and safety, by contracting with the proprietors of the coaches for the carriage of the mail; the latter being bound to perform the journey in a specified time, and to take a guard with the mail for its protection. Mr. Palmer's plan encountered much opposition, but was at length carried into effect. The consequence proved most beneficial: the use of mail coaches was extended to every part of the empire; and while the mail was conveyed in less than half the time required under the old system, the coaches by which it was conveyed afforded, by their regularity and speed, a most desirable mode of travelling. Mr. Palmer was the author of several other improvements in the economy of the Post-office; nor is there any other individual to whose exertions this department owes so much. (Macpherson's *Hist. of Commerce*, anno 1784.)

The Scotch Post-office was established on its present footing in 1710; but, owing to the backward state of Scotland, the limited amount of its trade and population, and the extreme badness of the roads [ROADS], it was very defective in most parts of the country till after the American war. In proof of this, we may mention that the first mail-coach, from London to Glasgow direct, arrived at the latter on July 7, 1788. Previously to that period, the course of post from London to Glasgow was five days; this, however, is not to be entirely ascribed to the slowness of the conveyance by horseback; for the mail came round by Edinburgh, and was detained there *twelve hours*, or till the usual Edinburgh despatch was made up for Glasgow in the evening.

The construction of railways between most of the great towns of the empire has, within these few years, gone far to supersede the use of mail-coaches on the principal lines of road, and has added prodigiously to the facilities of correspondence and travelling. The journey from London to Liverpool, which had been accomplished by the mail, when in its most improved state, in about 20 or 22 hours, is now accomplished by railway in 9 or 10 hours; and on other roads in the same proportion. The principal expense of the Post-office consists, however, not so much in the conveyance of letters from place to place, though that amounts to a very large sum, as in their previous collection, and their subsequent distribution. This necessitates the establishment of a vast number of subordinate offices in the remoter parts of the kingdom, many of which do not repay their expenses. This is particularly the case in Ireland, and in the Highlands and Islands of Scotland.

It does not really seem, though the contrary has been sometimes contended, that the Post-office could be so well conducted by anyone else as by Government. It is indispensable to its satisfactory working that it should be conducted with the greatest regularity and precision; and that all the departments should be made subservient to each other, and conducted on the same plan. It is plain that such results could not be obtained in any extensive country otherwise than by the agency of Government; and the interference of the latter is also required to make arrangements for the safe and speedy conveyance of letters to, from, and through foreign countries.

The organisation of the Post-office supplies one of the most striking examples of the advantages resulting from the division and combination of employments. 'Nearly the same exertions that are necessary to send a single letter from Falmouth to New York will send 50,000. If every man were to effect the transmission of his own correspondence, the whole life of an eminent merchant

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might be passed in travelling without his being able to deliver all the letters which the Post-office forwards to him in a single evening. The labour of a few individuals, devoted exclusively to the forwarding of letters, produces results which all the exertions of all the inhabitants of Europe could not effect, each person acting singly.' (Senior *On Political Economy.*)

Rates of Postage.—Previously to the introduction of the new system of a uniform penny rate of postage in 1839, under the provisions of the Act 2 & 3 Vict. c. 52, the following rates of postage, increasing progressively according to the distance, were charged on all letters (not privileged) conveyed by post from place to place in Great Britain and in Ireland, and from places in Great Britain to places in Ireland, and conversely:—

Great Britain.

	Postage of a Single Letter
	d.
From any post-office in Great Britain to any place not exceeding 8 miles from such office - -	2
For any distance above 8 miles, and not exceeding 15 miles - -	4
15 " 20 " - -	5
20 " 30 " - -	6
30 " 50 " - -	7
50 " 80 " - -	8
80 " 120 " - -	9
120 " 170 " - -	10
170 " 230 " - -	11
230 " 300 " - -	12

And so on in proportion, the postage increasing progressively 1*d.* for a single letter for every 100 miles.

Letters containing one enclosure charged with 2 single rates. Letters containing more than one enclosure, and not exceeding 1 ounce, charged with three single rates. Letters exceeding 1 ounce, whatever the contents may be, were charged with 4 single rates; and for every ¼ ounce above that weight, an additional single rate was chargeable.

Ireland.

	Postage of a Single Letter
	d.
From any post-office in Ireland to any place within the same, not exceeding 7 Irish miles from such office - -	2
Exceeding 7 and not exceeding 15 Irish miles -	3
15 " 25 " -	4
25 " 35 " -	5
35 " 45 " -	6
45 " 55 " -	7
55 " 65 " -	8
65 " 95 " -	9
95 " 120 " -	10
120 " 150 " -	11
150 " 200 " -	12
200 " 250 " -	13
250 " 300 " -	14

And for every 100 miles, Irish measure, above 300 miles, a further sum of 1*d.* Double and treble letters charged according to the same scale of advance as in England.

Great Britain and Ireland.

Rates of Postage taken in the Currency of the United Kingdom for the Port and Conveyance of Letters and Packets by Post, from any Place in Great Britain to any Place in Ireland, or from any Place in Ireland to any Place in Great Britain.

Distance	Single Letter	Double Letter	Treble Letter or other under an Ounce Weight	For every Ounce Weight and for every Packet not exceeding an Ounce in Weight
	s. d.	*s. d.*	*s. d.*	*s. d.*
Not exceeding 15 miles, British measure - -	0 4	0 8	1 0	1 4
Exceeding 15 and not exceeding 20 such miles -	0 5	0 10	1 3	1 8
20 " 30 " -	0 6	1 0	1 6	2 0
30 " 50 " -	0 7	1 2	1 9	2 6
50 " 80 " -	0 8	1 4	2 0	2 8
80 " 120 " -	0 9	1 6	2 3	3 0
120 " 170 " -	0 10	1 8	2 6	3 4
170 " 230 " -	0 11	1 10	2 9	3 8
230 " 300 " -	1 0	2 0	3 0	4 0
300 " 400 " -	1 1	2 2	3 3	4 4
400 " 500 " -	1 2	2 4	3 6	4 8
500 " 600 " -	1 3	2 6	3 9	5 0
600 " 700 " -	1 4	2 8	4 0	5 4
700 - - - -	1 5	2 10	4 3	5 8

Exclusive of an additional charge for the packets plying between the two countries.

On comparing the number of non-privileged letters conveyed by the general post with the gross amount of postage, it appears that under the old system they paid an average rate of about 7*d.* or 7½*d.* each.

Exclusive, however, of these rates of postage, letters posted in London and other large towns for delivery in such towns, were charged 2*d.* each in London, and 1*d.* each in the other towns in which such local posts were established.

In addition, too, to the letters on which postage was charged, all the principal officers of Government, and the members of both Houses of Parliament, enjoyed (either to a greater or less extent) the privilege of 'franking,' or of sending and receiving letters by the post free of postage, and this privilege was very extensively exercised.

Post-office Revenue.—The gross produce, deducting overcharges, of the Post-office revenue of Great Britain, exclusive of Ireland, in the undermentioned years, was—

Years	Duty	Years	Duty
	£		£
1738	207,804	1830	2,053,749
1755	210,663	1835	2,107,677
1775	345,581	1837	2,103,994
1798	745,836	1838	2,116,798
1800	1,043,950	1839	2,167,913
1810	1,675,076	1840	1,449,248
1814	2,025,987	1841	1,349,134
1820	1,893,983	1842	1,449,169
1825	2,160,390		

The progress of the Scotch branch of the Post-office revenue has been quite extraordinary. In 1698, Sir Robert Sinclair, of Stevenson, had a grant from William III. of its entire produce, with an extra allowance of 300*l.* a-year, on condition of his keeping up the post; but, after trial, he abandoned the undertaking as disadvantageous. In 1709 the Scotch Post-office revenue was under 2,000*l.*; whereas its amount in 1838 was 223,491*l. gross*, and 211,548*l. nett*—having increased more than a *hundredfold* in little more than a century. In 1781 the Glasgow post-office produced only 4,341*l.* 4*s.* 9*d.*, while in 1839 it produced 47,527*l.* (Stark's *Picture of Edinburgh*, p. 144; Cleland's *Statistics of Glasgow*; *Finance Book for* 1838 *and* 1839; &c.)

The expenses of collecting the Post-office revenue amounted, under the old system, to from 24 to 30 per cent. on the gross receipts. In 1842, however, they amounted, for the United Kingdom, to 966,759*l.*, being no less than 60 per cent. on the gross revenue.

Introduction of the New System.—The increase of the Post-office revenue, as evinced by the foregoing statements, has been very remarkable. It is mostly, no doubt, to be ascribed to the increase of population, the diffusion of education, and the growing intercourse among all classes of the community; though a good deal must also be ascribed to the efforts made in the early part of the reign

of George III. to suppress some of the grosser abuses that had grown out of the privilege of franking, and still more to the additions that were repeatedly made to the rates of postage. Unfortunately, however, the latter were, in the end, carried far beyond their proper limits, imposing a heavy burden on the public, without any corresponding advantage to the revenue. This is obvious from the fact of the post-office revenue having continued stationary for the 20 years ending with 1839; though, from the great increase of population and commerce during that period, it is obvious, had the rates of postage not been so high as to force recourse to other channels, the revenue must have rapidly increased from the termination of the war downwards. When the rates of postage are moderate, the greater despatch and security of their conveyance by post prevent any considerable number of letters being sent through other channels. But when the rates become oppressive—when, for example, a postage (as under the late system) of 11*d.* is charged on the conveyance of a single letter between London and York, of 13*d.* between London and Edinburgh, and so on—a serious interruption is given to that facility of intercourse which is so important, at the same time that a very large proportion of the correspondence which is carried on is unavoidably forced into private channels. It was, no doubt, attempted to prevent the transfer of letters from the post, by forbidding, under heavy penalties, their conveyance by private parties. But, as might have been anticipated, this prohibition could not be enforced, and had little or no effect. Considering, indeed, the facilities which have long existed for the transmission of letters in parcels between different parts of the country, and the oppressive rates of postage, the wonder is, not that the post-office revenue was nearly stationary previously to 1839, but that it did not fall off. Although, however, the rates of postage then existing—amounting, as already stated, to an average charge of about 7*d.* or 7½*d.* on all single letters conveyed by the general post—were very decidedly too high, it did not therefore follow that an invariable charge of 1*d.*, whether a letter were conveyed 1 mile or 1,000 miles, or singly or with 10,000 others, was the precise charge that should have been imposed. But, notwithstanding this was rushing blindfold from one extreme, or rather absurdity, to another, and endangering a large amount of revenue without any equivalent advantage, the ingenious project, brought forward by Mr. Rowland Hill, for a uniform penny postage, to be paid in advance, was eagerly adopted. It must be admitted, too, that it had *various* recommendations in its favour. Being calculated to obviate trouble and save expense to the public, it could not fail to be generally acceptable (what reduction of taxation is not?), especially to mercantile men and others having an extensive correspondence. No doubt, however, the scheme was far more indebted for its popularity to the oppressiveness of the old rates of postage, than to any intrinsic merits of its own. Had these rates been properly reduced in 1837 or 1838—that is, had the postage of letters of ½ oz. weight passing between Scotland and Ireland and London been reduced to 4*d.* or 6*d.*, and other letters in proportion, and mercantile circulars, advertisements, and notices of sales &c. been allowed to pass under covers open at the ends at 1*d.* or 2*d.* each—we venture to say that the clamour for a uniform penny postage would never have made any way. But Government, though hostile to the project, took no step calculated to stop the agitation in its favour. They neither reduced the old rates of postage, nor attempted to give any increased facilities for the conveyance of letters by post. And it happened on this, as it all but invariably happens on similar occasions, that those who decline making reasonable and necessary concessions at the outset, are, in the end, compelled to concede a great deal more than would have at first been satisfactory. Such, at all events, was the case in this instance. The clamour for a uniform penny rate became too powerful to be resisted; and Parliament, whether it were so inclined or not, was obliged to lend its sanction to the measure. The Act 2 & 3 Vict. c. 52, for regulating the duty on postage, did not indeed enact that the charge for conveying letters of a given weight should in all cases be reduced to 1*d.*; but it was introduced for the avowed purpose of enabling the Treasury to take the necessary steps to bring the change about with the least inconvenience to all parties. In this view it gave the Treasury power to alter and reduce the rates of postage, without reference to the distance which letters may be conveyed, according to the weight of the letters, and not to the number or description of their enclosures; it also gave them power to adopt such regulations as they might think expedient as to stamped covers or envelopes, to suspend parliamentary franking &c.

In virtue of the powers so conveyed, regulations were issued (sanctioned by the Act 3 & 4 Vict. c. 96) and since slightly modified, by which all inland letters, without regard to the number of enclosures or the distance conveyed, provided they be paid when posted or despatched, are:—

If not exceeding ½ oz. weight, charged 1*d.*, 1 oz. 2*d.*, 1½ oz. 3*d.*, and so on, 1*d.* being added for every additional ½ oz. At the outset of the system all packets that weighed more than 16 oz were sent to the Dead Letter Office, except—

1. Parliamentary petitions and addresses to her Majesty.
2. Parliamentary proceedings.
3. Letters and packets addressed to or received from places beyond sea.
4. Letters and packets to and from public departments.
5. Deeds, if sent open, or in covers open at the sides. They may be tied with string and sealed, in order to prevent inspection of the contents; but they must be open at the sides, that it may be seen they are entitled to the privilege.
6. Bankers' parcels despatched from London, and specially delivered at the General Post Office, under certain regulations.

But now (1869) there are no limits to the weight, but merely to the bulk of the parcels sent by post.

All letters not paid when they are posted or despatched are charged *double the above rates*; and if the payment in advance be insufficient, double the deficiency is charged.

All parliamentary and official franking has been put an end to; but members of either House of Parliament are entitled to receive petitions and addresses to her Majesty, and petitions to Parliament, free of charge, provided such petitions and addresses be sent in covers open at the ends, and do not exceed 32 oz. weight.

The punctual delivery of letters may be insured by getting them *registered* when posted. A fee of 4*d.*, in the shape of additional stamps of that amount, is charged for the registration of each letter over and above the rate of postage to which it may be liable.

To facilitate the working of the plan, Government furnish adhesive stamps of 1*d.* &c. each, which being pasted on letters, they are of course

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delivered to those to whom they are addressed free of any further charge for postage; and it also furnishes stamped envelopes at the low rate of 24 for 2*s.* 3*d.*, the 3*d.* being for the paper and manufacture. Hence, as any quantity of stamps or stamped envelopes may, in most parts of the country, be procured beforehand, the necessity that must otherwise have existed of paying the postage at the moment when letters are posted, has been pretty generally obviated.

Such are the more prominent features of the new system; and no doubt it has the recommendations of simplicity (if we may apply such a phrase to a uniform charge for services costing widely different sums) and cheapness in its favour, and has greatly facilitated correspondence. But it may, notwithstanding, be easily shown that its adoption was most unwise. It is, no doubt, very convenient for merchants, bankers, middlemen, retail dealers, and indeed for most persons, to get letters for 1*d.* that previously cost them 7*d.* or 7½*d.*; but their satisfaction is not the only thing to be attended to in forming a fair estimate of the measure. The public exigencies require that a sum of about 70 millions a year should be raised, one way or other; and so long as we are pressed by an unreasoning necessity of this sort, it is not much to say in favour of the repeal or diminution of any tax, that those on whom it fell with the greatest severity are delighted with the reduction. Sugar has, in England, become a necessary of life; and its consumption, to say the least, is quite as indispensable to the bulk of the people, and especially to the labouring classes, as the writing of letters. But would it, therefore, be a wise measure to repeal the duty on sugar, or to reduce it to 1*s.* per cwt.? It has been alleged, indeed, that taxes on the transmission of letters are objectionable on principle, and should therefore be repealed, independently altogether of financial considerations. But it is easier to make an allegation of this sort than to prove it. All taxes, however imposed, if they be carried (as was the case with the old rates of postage) beyond their proper limits, are objectionable; but, provided these be not exceeded, we have yet to learn why a tax on a letter should be more objectionable than a tax on the food of the writer, or on fifty other things.

It was contended, when the plan was under discussion, that there would be no loss of revenue, and that the increase of correspondence growing out of the reduction of the postage would be so vast as fully to balance the reduced rate of charge. But, though there has been a great increase in the number of letters, it has fallen far short of this. Notwithstanding all that has been said about the *furor scribendi*, letter-writing is generally looked upon as a duty rather than a pleasure; and it does not follow, when the expense of postage is reduced, that the occasions for writing letters are proportionally increased.

The annexed table gives the total amount of the gross and nett revenue from the Post-office, and the total cost of management, in each of the years ending December 31, 1862, 1863, and 1864:

Years	Gross Revenue (after deducting for Returned and Mis-sent Letters, Overcharges &c.)	Cost of Management	Nett Revenue (including the Postage charged on the Public Departments)
	£	£	£
1862	3,633,589	2,074,573*	1,559,016
1863	3,874,299	2,082,463*	1,791,836
1864	4,109,086	2,136,574*	1,972,492

* These sums are exclusive of the cost of the packet service, which amounted to 544,961*l.* in 1862; 649,147*l.* in 1863, and 908,917*l.* in 1864.

The following is the amount, from the several sources, of the gross revenue from the Post-office in Great Britain and Ireland, distinguishing the deductions for returned letters, overcharges &c, in each of the years ending December 31, 1862, 1863, and 1864:—

Sources of Revenue	1862	1863	1864
	£	£	£
Sale of postage stamps by postmasters, receivers, and windowmen	2,303,981	2,414,683	2,656,426
Ditto Inland Revenue Department	703,320	747,175	767,742
Money for postage taken by country postmasters	128,241	127,930	133,787
Do. metropolitan postmasters	114,785	109,597	107,791
Commission received on money orders	156,954	144,226	151,979
Miscellaneous receipts	14,781	15,956	17,457
Postage charged against public departments	162,367	189,235	195,452
Postage collected by postmasters and agents in the colonies, and foreign countries not having postal treaties with Great Britain	142,318	166,283	173,545
Postage collected in Great Britain for credit of colonial offices not under the control of the Imperial post office	40,757	40,099	40,534
Balance for United Kingdom	101,561	126,184	133,011
Postage collected under postal treaties by foreign post offices for Great Britain	187,255	216,591	212,963
Ditto by Great Britain for foreign post offices	201,643	228,141	244,414
Balance against U. Kingdom	14,650	11,547	31,451
Total receipts	3,650,486	3,886,741	4,122,791
Deductions for letters returned, mis-sent, and redirected, and for overcharges and returns	16,897	12,442	13,705
Total gross revenue	3,633,589	3,874,299	4,109,086

We subjoin a detailed statement of the post office expenditure in 1866 and 1867:—

Force and Expenditure.

	1866	1867
Force.		
Effective.—Staff officers, postmasters, clerks, sorters, stampers, messengers, guards, letter carriers	23,504	23,908
Non-Effective.—Pensioners	1,025	1,550
Cost of Collection and Delivery, of Management, and of Money Order Business.		
Salaries, wages, pensions, travelling allowance, percentage on sale of stamps, commission on money order business, cost of uniform clothing, mileage expenses, and cost of substitutes during annual holidays or sickness of officers and men, official postage, law charges, and incidental expenses	£ 1,368,157	£ 1,494,854
Manufacture of postage stamps, &c. printing, paper, and miscellaneous charges	23,251	23,681
Stationery	56,949	53,053
Buildings and repairs, rents, rates, taxes, fuel, and light	189,627	236,592
Total cost of collection, delivery, and management, and of money order business	1,609,007	1,715,163
Cost of Conveyance of Mails.		
Conveyance by coaches, carts, and omnibuses	130,885	140,059
Conveyance by railways	586,085	559,575
Cost of supply and repair of mail bags and boxes, tolls, and ferryage, cost of apparatus for exchange of bags conveyed by railway, and miscellaneous expenses	21,536	22,434
Conveyance of mails by private ships and by packets under contract with admiralty or post office	817,167	783,845
Conveyance of mails over Isthmus of Suez and Isthmus of Panama and in other foreign parts, and salaries of admiralty agents and other officers in charge of foreign and colonial mails	27,508	25,764
Total cost of conveyance	1,583,181	1,531,677
Total cost of post office service	3,201,681	3,246,840

The total *gross* receipt of the post-office revenue of the United Kingdom, deducting overcharges and returned letters, amounted in 1838 (before the changes began) to 2,346,278*l.*, while the expenses of the establishment for the same year amounted to 686,768*l.*, leaving a *nett* revenue of 1,659,510*l.* In 1867, however, 29 years after the new system had been in full operation, and the Post-office had been converted into a great carry-

ing establishment for the conveyance of books, &c., its gross revenue amounted to only 4,668,214*l.*, while the expenses of the establishment for the same year amounted to 3,246,850*l.*, leaving a nett revenue of only 1,421,364*l.*, being no less than 238,146*l.* under its amount in 1838.

Account of the Gross and Nett Post-Office Revenue, 1856–1867, from the 14th Report of the Postmaster-General.

Years	Total Postal Revenue	Total Cost of Post Office Services	Nett Revenue
	£	£	£
1856	3,035,954	2,438,732	597,222
1857	3,195,713	2,570,901	624,812
1858	3,211,535	2,894,418	317,117
1859	3,461,924	2,907,760	554,764
1860	3,531,165	2,831,137	700,028
1861	3,765,128	3,261,411	503,717
1862	3,764,004	2,932,095	831,909
1863	3,999,455	2,972,451	1,027,004
1864	4,231,558	3,078,297	1,153,261
1865	4,425,008	2,941,086	1,482,922
1866	4,599,667	3,201,681	1,397,986
1867	4,668,214	3,246,850	1,421,364

It is plain, therefore, that the adoption of the new post-office system for a long time occasioned the sacrifice of from 238,146*l.* to 600,000*l.* a year of revenue, as compared with the revenue of 1838. And, considering the extraordinary progress of the country in the interval, and especially the increase of population and commerce, the loss will immediately be seen to be very much greater—perhaps more than double that amount. And though it be true that a sacrifice of this amount might not, under other circumstances, have been of much consequence, it is to be borne in mind that it was incurred when the revenue was already inadequate to meet the expenditure, and when, consequently, the deficiency had to be otherwise provided for, though probably in some more onerous way. We should not, however, have thought the loss of revenue, nor even the introduction of a uniform penny rate, a valid objection to the new plan, had there been no means other than its adoption of getting rid of the inconveniences attached to the old system. But such was not the case. All its defects might have been effectually obviated without any, or with but a very inconsiderable, loss of revenue. Had franking been abolished, and the old rates of postage so reduced that the average charge might have been about 2½*d.* or 3*d.* a letter, the revenue would probably not have lost anything, while every really advantageous object effected by the present system would have been secured. Indeed, we see no good reason why the present rates of postage should not, and very many why they should, be doubled, or increased to 2*d.* for a letter weighing ½ oz., 4*d.* for one weighing 1 oz., and so on. We are well convinced that, were this done, and the troublesome practice of forcing the prepayment of letters abandoned, the revenue would be nearly doubled, with little or no inconvenience to the public.

It redounds nothing to the credit of the new system that the post-office revenue increases while it is maintained; for this must necessarily follow from the increasing population, wealth, commerce, and education of the country. The revenue would increase quite as fast under any reasonably well-contrived system; all taxes on articles in general use are sure, provided they be not excessive, to increase with every increase of population and wealth.

The abolition of franking—which, however, is in nowise connected with a penny rate of postage—was by far the least exceptionable of the alterations introduced in 1837. Franked letters were in most instances addressed to those who could best afford to pay the expense of postage, and who in this way escaped a burden that fell with its full weight on their less opulent and less known neighbours.

Money Orders.—The granting of money orders at the different post-offices, for the payment of sums of 10*l.* and under, is a very great accommodation to the public, and is very extensively resorted to. Such orders cost 3*d.* if for 2*l.* or under, 6*d* for sums between 2*l.* and 5*l.*, 9*d.* for those from 5*l.* to 7*l.*, and 1*s.* for those from 7*l.* to 10*l.* As orders are not paid unless the parties in whose favour they are drawn, or other parties well known to the postmaster by whom they are payable, appear to receive payment, there is no risk of the money getting into improper hands.

Despatching of Letters.—Full details as to the posting of letters in London and elsewhere may be found in the *Postal Guide*, published quarterly—a useful and valuable publication, to which we beg to refer. It is sufficient here to state that, speaking generally, letters may be put into the receiving-boxes of the different post-offices throughout the country at all hours of the day, and mostly, also, of the night. The mails for particular places are made up at certain specified hours, of which public intimation is given in the *Postal Guide*, and letters put in after those hours are not of course despatched till next mail.

We abridge from the *Postal Guide* the following statements, viz.:—

Inland Letters.—The rates of postage on inland letters depend on weight only, and are as follows, if paid in advance:—

Letter weighing not more than ½ oz. - - - 1*d.*
more than ½ oz. and not exceeding 1 oz. - 2*d.*
more than 1 oz. and not exceeding 1½ oz. - 3*d.*

and so on; 1*d.* being charged for every additional ½ ounce, or fraction of ½ ounce.

As a general rule, the postage, if not paid in advance, is doubled; and if the payments in advance be insufficient, double the deficiency is charged.

Petitions and addresses to her Majesty, forwarded direct, are exempted from postage; and such petitions and addresses, and petitions to either House of Parliament, if sent to a member, are likewise exempted, provided they do not weigh more than 2 lb., and are without covers, or are in covers open at the ends.

Newspapers and other periodical Publications bearing the Newspaper Stamp.—Although the exclusive privilege of the post-office extends only to letters, all periodical publications, including newspapers, published in the United Kingdom, at intervals not exceeding 31 days, and which bear a stamp or stamps denoting the stamp duty, may be transmitted and re-transmitted through the post within the United Kingdom free of postage under the following rules:—

Stamps impressed on the Publication	Greatest Number of Sheets	Greatest Superficial Extent of Letterpress on One Side
One penny - -	Two - -	2,295 inches
Three-halfpence -	Three - -	3,443 "
Twopence - -	Four - -	4,590 "

No publication, or portion thereof, can pass through the post unless the stamp which it bears be of the value of 1*d.* at least.

The title and date of the publication must be printed at the top of every page.

It must be folded in such a manner that the whole of the stamp or stamps shall be exposed to view, and be distinctly visible on the outside.

It must not be printed on pasteboard or cardboard.

It must be posted within 15 days from the date of issue.

If these rules be infringed, the publication will be charged double, as an unpaid book-packet.

It must have either no cover or be open at the ends.

It must not contain any enclosure.

It must have no writing or other mark thereon but the name and address of the person to whom it is sent; nor anything on the cover but such name and address, the printed title of the publication, and the printed name and address of the publisher or vendor who sends it.

If the publication be addressed to any person in the place where it is posted, it is liable to a postage of 1*d.* prepaid, or 2*d.* if not prepaid.

Stamped publications can also be forwarded per book post, but then the impressed stamp does not count.

Newspapers may also be sent abroad by the post-office. But the regulations and postage to which they are liable vary so often, that it would be useless to mention them here.

Parliamentary Proceedings.—Printed proceedings of Parliament, without covers, or in covers open at the ends, circulate within the United Kingdom, 1*d.* being charged for every ¼ lb. or fraction of ¼ lb.

The words Parliamentary Proceedings must be written or printed on the cover of the packet; otherwise it is liable to the letter-rate of postage.

Prepayment when the circulation is within the United Kingdom is optional; and if it be made in part, the difference only is charged.

Parliamentary proceedings may be sent as books to all the colonies, and to those foreign states between which and this country there is a book post.

Book Post, including Newspapers and other periodical Publications, and also Parliamentary Proceedings.—The postage is 1*d.* for every ¼ lb. or fraction of ¼ lb.

The postage must be prepaid in full, by means of postage stamps.

Every packet must be sent either without a cover, or in a cover open at the ends or sides.

A book-packet may contain any number of separate books or other publications (including printed or lithographed letters), photographs, unglazed prints, or maps, and any quantity of paper, parchment, or vellum. And the books &c. may be bound or unbound &c.

No book-packet to contain anything sealed or otherwise closed against inspection; nor any letter, nor any communication of the nature of a letter (beyond the name of the sender), unless such letter or communication be printed.

No book-packet must exceed 2 feet in length, or 1 foot in width or depth; and if any packet of greater dimensions be presented at a post-office, it will not be received.

Any packet not open at the ends or sides, or which has any written letter or any communication of the nature of a letter written in it, or upon its cover, will be charged with the 'unpaid' letter postage.

Except that the rates of postage are higher, books can be sent to all British colonies and to the various foreign countries enumerated in the *Postal Guide*.

Pattern and Sample Post.—Patterns and samples may be transmitted by the inland, colonial, and foreign posts, subject to regulations similar to those affecting the book post.

Registration.—By the prepayment of a fee of 4*d.*, paid in stamps, any letter, newspaper, book, or other packet on which the postage has been prepaid in stamps, may be registered to any place in the United Kingdom. The registration of a packet makes its transmission more secure, by rendering it practicable to trace it, when inland, from its receipt to its delivery; and when colonial, if not to its delivery, at least to the port of despatch. The post-office does not guarantee the safe delivery of the letter.

For the rules and rates of registration of foreign letters, see table of colonial and foreign postage in the *Postal Guide*.

Money Orders.—Applicants for money orders should use printed 'Application Forms,' which save time, and afford greater security than verbal messages, against mistakes. These forms are supplied gratuitously at all money order offices.

The commission on a money order not exceeding 2*l.* is 3*d.*; 2*l.* to 5*l.*, 6*d.*; 5*l.* to 7*l.*, 9*d.*; and 7*l.* to 10*l.*, 1*s.*

No order is allowed to contain a fractional part of a penny.

With few exceptions, no money order is issued unless the applicant furnish, in full, the surname and at least the initial of one Christian name both of the remitter who sends the order, and the payee (or person to whom the money is to be paid) together with the remitter's address.

An order once issued cannot be cancelled.

Money orders do not require a receipt stamp.

Payment of an order must be obtained before the end of the second calendar month after that in which it was issued (for instance, if issued in January it must be paid before the end of March); otherwise the order becomes lapsed, and a new order will be necessary, for which a second commission will be charged. Persons presenting lapsed orders are furnished with copies of a printed notice headed 'Lapsed Money Orders,' containing directions how to proceed. If the order be not paid before the end of the twelfth calendar month after that in which it was issued (for instance, if issued in January, and not paid before the end of next January), all claim to the money is lost.

No application is entertained for compensation for alleged injury from the non-payment of a money order at the expected time; and after once paying a money order, by whomsoever presented, the office is not liable to any further claim.

Money orders are issued at all money order offices in the United Kingdom on money order offices in Alexandria, Bahia, Buenos Ayres, Constantinople, Gibraltar, Hong Kong, Malta, Monte Video, Pernambuco, Rio Janeiro, Shanghai, Suez, and Yokohama, at a charge equal to threefold the commission on inland money orders; and orders on money order offices in our West Indian, North American, Australian, and West and South African colonies, the Falkland Islands, and St. Helena, at a charge equal to fourfold such commission.

All necessary information with regard to the sailing of packets, the postage to foreign countries &c., may be found in the *Postal Guide*, in Kelly's *Post-office Directory*, and other publications.

Local *Postal Guides*, price one penny, containing information special to the locality, are issued at the post-offices at Birmingham, Belfast, Bristol, Cork, Dublin, Edinburgh, Glasgow, Leeds, Liverpool, Manchester, and Sheffield.

Offences against the Post-office.—The laws relative to offences against the post-office were consolidated by the Act 1 Vict. c. 36, of the more important parts of which we subjoin an abstract.

Contravening the Privilege of Post-office.—Every person who shall convey otherwise than by the post a letter not exempted from the exclusive

Account of the Number of Letters, and of Books, Newspapers, and Patterns, delivered by the Post-offices throughout the United Kingdom, and Amount of Money Orders paid, in 1865–1867. Extracted from 14th Report (1868) of the Postmaster-General.

	Total Number of Letters delivered in the Year			Number of Book Packets (including chargeable Newspapers), Free Newspapers, and Packets sent by the Pattern Post, delivered in the Years			Amount of Money Orders paid		
	1865	1866	1867	1865	1866	1867	1865	1866	1867
							£	£	£
England and Wales -	597,277,616	623,400,000	640,285,400	74,132,903	76,802,094	78,137,591	15,121,459	16,079,615	16,467,939
Scotland - -	67,048,891	70,100,000	75,148,500	11,199,514	11,489,743	11,475,568	1,559,890	1,636,350	1,707,328
Ireland - -	56,140,500	56,500,000	58,897,500	12,906,465	13,492,349	12,659,342	1,463,195	1,501,941	1,513,439
The United Kingdom -	720,467,007	750,000,000	774,831,000	98,538,882	101,784,185	102,273,501	18,144,550	19,217,906	19,688,706

privilege of the postmaster-general shall for every letter forfeit 5*l.*, and every person who shall be in the practice of so conveying letters not so exempted shall, for every week during which the practice shall be continued, forfeit 100*l.*; and every person who shall perform otherwise than by the post any services incidental to conveying letters from place to place, whether by receiving, taking up, collecting, ordering, despatching, carrying, re-carrying, or delivering a letter not exempted from the exclusive privilege of the postmaster-general, shall forfeit for every letter 5*l.*; and every person who shall be in the practice of so performing any such incidental services shall, for every week during which the practice shall be continued, forfeit 100*l.*; and every person who shall send a letter not exempted from the exclusive privilege of the postmaster-general otherwise than by the post, or shall cause a letter not so exempted to be sent or conveyed other than by post, or shall tender or deliver a letter not so exempted in order to be sent otherwise than by post, shall forfeit for every letter 5*l.*; and every person who shall be in the practice of committing any of the acts last mentioned shall, for every week during which the practice shall be continued, forfeit 100*l.*; and every person who shall make a collection of exempted letters for the purpose of conveying or sending them otherwise than by the post, or by the post, shall forfeit for every letter 5*l.*; and every person who shall be in the practice of making a collection of exempted letters for either of these purposes, shall forfeit, for every week during which the practice shall be continued, 100*l.* And be it declared, that the term post shall herein include all post communications by land or by water (except by outward-bound vessels not employed by the post-office or the Admiralty to carry post letters); and the above penalties shall be incurred whether the letter be sent singly or with anything else, or such incidental service be performed in respect to a letter either sent or to be sent singly or together with some other letter or thing; and in any prosecution for the recovery of any such penalty the onus shall lie upon the party prosecuted to prove that the act, in respect of which the penalty is alleged to have been incurred, was done in conformity to the post-office laws. (Sec. 2.)

Ship Letters retained after delivering of Letters to Post-office.—Every person, being either the master of a vessel inward-bound, or one of the officers, or one of the crew, or a passenger thereof, who shall knowingly have any letter in his possession not exempted from the privilege of the postmaster-general, after the master shall have sent any part of his ship's letters to the post-office, shall forfeit for every letter 5*l.*; and every such person who shall detain any such letter after demand made, either by the officer of the customs or by a person authorised by the postmaster-general to demand ship's letters, shall forfeit for every letter 10*l.* Sec. 3.)

Penalties on Masters of Ships not taking Letter Bags.—Every master of a vessel bound to Ceylon, the Mauritius, the East Indies, or the Cape of Good Hope, who shall refuse to take a post letter bag delivered or tendered to him by an officer of the post-office for conveyance, shall forfeit 200*l.*; the 3 & 4 Vict. c. 96 extends this penalty to the master of *every* vessel *outward* bound who shall refuse to take a post letter bag delivered or tendered to him for conveyance. And every master of a vessel who shall open a sealed letter bag, with which he shall be intrusted for conveyance, shall forfeit 200*l.*; and every master of a vessel who shall take out of a letter bag with which he shall have been intrusted for conveyance a letter or any other thing shall forfeit 200*l.*; and every master of a vessel who shall not duly deliver a letter bag with the contents at the post-office on his arrival in port, without wilful or unavoidable delay on his arrival, shall forfeit 200*l.*; and every person to whom letters may have been intrusted by the master of a vessel to bring on shore who shall break the seal, or in any manner wilfully open the same, shall forfeit 20*l.*; and every master of a vessel who shall refuse or wilfully neglect to make declaration of having delivered his ship's letters to the post-office, shall forfeit 50*l.*; and every collector, comptroller, or officer of the customs who is required by the Act 1 Vict. c. 34 to prohibit any vessel reporting until the requisites of such Act have been complied with, who shall permit such vessel to report before the requisites of such Act shall have been complied with, shall forfeit 50*l.*; and every master of a vessel (not having been able to send his letters ashore previous to his arrival at the port where the vessel is to report) who shall break bulk or make entry before all letters on board shall be sent to the post-office shall forfeit 20*l.*; and every master of a vessel, or any other person on board any ship liable to the performance of quarantine, who shall neglect or refuse to deliver to the person or persons appointed to superintend the quarantine all letters in his possession, shall forfeit 20*l.* (Sec. 6.)

Penalties on the Carelessness of Persons engaged or employed in carrying, conveying &c. Letters.—Every person employed to convey or deliver a post letter bag or a post letter, who shall, whilst so employed, or whilst the same shall be in his custody, care, or possession, leave a post letter bag or a post letter, or suffer any person, not being the guard or person employed for that purpose, to ride in the place appointed for the guard in or upon any carriage used for the conveyance of a post letter bag or post letter, or to ride in or upon a carriage so used and not licensed to carry passengers, or upon a horse used for the conveyance on horseback of a post letter bag or a post letter, or if any such person shall be guilty of any act of drunkenness, or of carelessness, negligence, or other misconduct, whereby the safety of a post letter bag or a post letter shall be endangered, or who shall collect or receive, or

convey or deliver, a letter otherwise than in the ordinary course of the post, or who shall give any false information of an assault or attempt at robbery upon him, or who shall loiter on the road or passage, or wilfully misspend his time so as to retard or delay the progress or arrival of a post letter bag or a post letter, or who shall not use due and proper care and diligence safely to convey a post letter bag or a post letter at the rate of speed appointed by and according to the regulations of the post-office for the time being, being thereof convicted, shall forfeit 20*l*. (Sec. 7.)

Clauses 8 to 24 inclusive impose penalties on hackney carriages plying for hire opposite the general post-office in London or Dublin; exempt mail coaches from toll; and direct how penalties shall be sued for.

Opening or delaying Post Letters a Misdemeanor.—Every person employed by or under the post-office who shall, contrary to his duty, open or procure or suffer to be opened a post letter, or shall wilfully detain or delay, or procure or suffer to be detained or delayed, a post letter, shall in England and Ireland be guilty of a misdemeanor, and in Scotland of a crime and offence, and being convicted thereof shall suffer such punishment, by fine or imprisonment, or by both, as to the court shall seem meet: provided always, that nothing herein contained shall extend to the opening or detaining or delaying of a letter returned for want of a true direction, or of a letter returned by reason that the person to whom the same is directed is dead or cannot be found, or shall have refused the same, or shall have refused or neglected to pay the postage thereof; nor to the opening or detaining or delaying of a post letter in obedience to an express warrant in writing under the hand (in Great Britain) of one of the principal secretaries of state, and in Ireland under the hand and seal of the lord-lieutenant of Ireland.

Embezzlement &c. of any Letter or Packet, Felony.—Every person employed under the post-office who shall steal, or shall for any purpose whatever embezzle, secrete, or destroy a post letter, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and shall, at the discretion of the court, either be transported beyond the seas for the term of 7 years, or be imprisoned for any term not exceeding 3 years; and if any such post letter so stolen or embezzled, secreted or destroyed, shall contain therein any chattel or money whatsoever, or any valuable security, every such offender shall be transported beyond the seas for life. (Sec. 26.)

Stealing Money &c. from or out of Letters, Felony.—Every person who shall steal from or out of a post letter any chattel or money or valuable security, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and shall be transported beyond the seas for life.

Persons stealing Post Letter Bags &c. to be transported for Life.—Every person who shall steal a post letter bag, or a post letter from a post letter bag, or shall steal a post letter from a post-office, or from an officer of the post-office or from a mail, or shall stop a mail with intent to rob or search the same, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and shall be transported beyond the seas for life.

Persons stealing Post Letter Bags or Post Letters to be transported for 14 *Years.*—Every person who shall steal or unlawfully take away a post letter bag sent by a post-office packet, or who shall steal or unlawfully take a letter out of any such bag, or who shall unlawfully open any such bag, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and shall be transported beyond the seas for any term not exceeding 14 years.

Receivers of Property sent by the Post, and stolen or embezzled, guilty of Felony.—Every person who shall receive any post letter or post letter bag, or any chattel or money or valuable security, the stealing or taking or embezzling or secreting whereof shall amount to a felony under the Post-office Acts, knowing the same to have been feloniously stolen, taken, embezzled, or secreted, and to have been sent or intended to be sent by the post, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and may be indicted and convicted either as an accessory after the fact or for a substantive felony, and, in the latter case, whether the principal felon shall or shall not have been previously convicted, or shall or shall not be amenable to justice; and every such receiver, howsoever convicted, shall be liable to be transported beyond the seas for life.

Fraudulently retaining, after Delivery thereof &c.—Every person who shall fraudulently retain, or shall wilfully secrete or keep or detain, or being required to deliver up by an officer of the post-office, shall neglect or refuse to deliver up a post letter which ought to have been delivered to any other person, or a post letter bag or post letter which shall have been sent, whether the same shall have been found by the person secreting, keeping, or detaining, or neglecting or refusing to deliver up the same, or by any other person, shall in England and Ireland be guilty of a misdemeanor, and in Scotland of a crime and offence, and on conviction shall be liable to be punished by fine and imprisonment.

Stealing &c. printed Votes or Proceedings in Parliament &c.—Every person employed in the post-office who shall steal, or shall for any purpose embezzle, secrete, or destroy, or shall wilfully detain or delay in course of conveyance or delivery thereof by the post, any printed votes or proceedings in parliament, or any printed newspaper, or any other printed paper whatever, sent by the post without covers, or in covers open at the sides, shall in England and Ireland be guilty of a misdemeanor, and in Scotland of a crime and offence, and on conviction shall suffer such punishment by fine or imprisonment, or both, as the court shall direct.

Forging the Handwriting of the Receiver-General in England or Ireland, Felony.—Every person who shall knowingly and wilfully forge or counterfeit, or cause or procure to be forged or counterfeited, the name or handwriting of the receiver-general for the time being of the general post-office in England or Ireland, or of any person employed by or under him, to any draft, instrument, or writing whatsoever, for or in order to the receiving or obtaining of any money in the hands or custody of the governor and company of the bank of England or Ireland on account of the receiver-general of the post-office, or shall forge or alter, or shall offer, utter, dispose of, or put off, knowing the same to be forged or altered, any draft, warrant, or order of such receiver-general, or of any person employed by or under him, for money or for payment of money, with intent to defraud any person whomsoever, shall be guilty of felony, and on conviction shall be transported beyond the seas for life.

The remaining clauses relate to the punishment of accessaries, determine the mode in which the postage duties shall be sued for, define terms &c.

Irish Post-office.—The most gross and scandalous abuses were long prevalent in every department of the Irish post-office. The Commissioners of Revenue Inquiry exerted themselves to abate the nuisance; but, as it would appear from the evidence of the Duke of Richmond before the committee of the House of Commons on public salaries, without much effect. His Grace, however, and subsequent postmasters, have laboured with laudable activity and zeal to introduce something like honesty, order, and responsibility into this department.

United States.—We subjoin an account of the rates of postage in the United States, under Act of Congress of March 3, 1863.

Rates of Domestic Postage on Letters.

Standard weight of single rate ½ oz. avoirdupois.	
Postage on single-rate letter, throughout the United States	3 cents.
For each additional ½ oz. or fraction	3 "
Postage on 'drop' letters for local delivery, for ½ oz.	2 "
For each additional ½ oz. or fraction	2 "
Postage on all domestic letters must be prepaid by stamps.	

Rates of Newspaper Postage (Domestic).

Postage on papers to subscribers, when prepaid quarterly or yearly:—

Daily (7 times a week)	33 cents per quarter.
(6 ")	30 "
Tri-weekly	15 "
Semi-weekly	10 "
Weekly	5 "

Weekly newspapers (one copy only) sent by the publisher to actual subscribers within the county where printed and published, free.

Standard weight for a single rate, 4 oz. avoirdupois. For each additional weight of 4 oz. or fraction thereof, an additional rate is charged.

Postage per quarter on newspapers and periodicals *issued less frequently than once a week*, sent to actual subscribers in any part of the United States:—

Semi-monthly, not over 4 oz.	6 cents per quarter.
over 4 oz. and not over 8 oz.	12 "
over 8 oz. and not over 12 oz.	18 "
Monthly, not over 4 oz.	3 "
over 4 oz. and not over 8 oz.	6 "
over 8 oz. and not over 12 oz.	9 "
Quarterly, not over 4 oz.	1 "
over 4 oz. and not over 8 oz.	2 "
over 8 oz. and not over 12 oz.	3 "

Postage as above must be paid quarterly or yearly in advance, either at the office of mailing or delivery.

POST ENTRY. When goods are weighed or measured, and the merchant has got an account thereof at the Custom-house, and finds his entry, already made, too small, he must make a *post* or additional *entry* for the surplusage, in the same manner as the first was done. As a merchant is always in time, prior to the clearing of the vessel, to make his post, he should take care not to over-enter, to avoid as well the advance, as the trouble of getting back the overplus. However, if this be the case, and an over-entry has been made, and more paid or bonded for customs than the goods really landed amount to, the customs officer must signify the same, upon oath made, and subscribed by the person so over-entered, that neither he, not any other person, to his knowledge, had any of the said goods over-entered on board the said ship, or anywhere landed the same without payment of custom; which oath must be attested by the collector or deputy, who then computes the duties, and sets down on the back of the certificate, first in words at length, and then in figures, the several sums to be paid. Post entries are now almost solely confined to cargoes of grain.

POTASH (Dan. potaske; Fr. potasse; Ger. pottasche; Ital. sale alcali; Span. potasa; Russ. potasch). If vegetables be burned, the ashes lixiviated, and the solution boiled to dryness in iron vessels, the mass left behind is the *potash* of commerce—the impure carbonate of potass of chemists.

It is intensely alkaline, solid, and coloured brown by the admixture of a small portion of vegetable inflammable matter, which generally becomes moist. When potash is calcined in a reverberatory furnace, the colouring matter is destroyed, it assumes a spongy texture, and a whitish pearly lustre; whence it is denominated *pearl-ash*. The latter generally contains from 60 to 83 or 84 per cent. of pure carbonate of potass.

The ashes of those vegetables only which grow at a distance from the sea are employed in the manufacture of potash. Herbaceous plants yield the largest portion, and shrubs more than trees. It is principally manufactured in America, Russia, and Poland, the vast forests of which furnish an inexhaustible supply of ashes.

In the year 1865, exclusive of nitrate &c. of potash, 143,779 cwt. of pearl and potash were imported into the United Kingdom. Of these 113,915 cwt. were the produce of British North America; the remainder of the United States and France. The highest price was realised on the colonial produce. The potash imported in 1867 consisted of 178,619 cwt. of muriate, chiefly from Hamburg, 3,042 cwt. of prussiate, 33,214 cwt. of sulphate, and 108 cwt. of bichromate of potash.

Ashes from Canada have always been duty free; but those from Russia and the United States used to pay a duty of 6*s.* per cwt., which, after being reduced in 1842 to 6*d.*, was finally repealed in 1845.

POTATOES (Ger. kartoffeln; Dutch, aardappelen; Fr. pommes de terre, Ital. patate, pomi de terra; Span. patatas manchegas; Russ. jabloki semlenüe). The roots of the *Solanum tuberosum*, of innumerable varieties, and too well known to require any description.

1. *Historical Notice.*—The potato, which is at present to be met with everywhere in Europe, and forms a principal part of the food of a considerable proportion of its inhabitants, was entirely unknown in this quarter of the world till the latter part of the 16th century. It is a native of America, but whether of both divisions of that continent is doubtful. (Humboldt, *Nouvelle Espagne*, liv. iv. c. 9.) Some authors affirm that it was first introduced into Europe by Sir John Hawkins, in 1545; others, that it was introduced by Sir Francis Drake, in 1573; and others, again, that it was for the first time brought to England from Virginia, by Sir Walter Raleigh, in 1586. But this discrepancy seems to have arisen from confounding the common, or Virginian potato (the *Solanum tuberosum* of Linnæus), with the sweet potato (*Convolvulus battatas*). The latter was introduced into Europe long before the former, and it seems most probable that it was the species brought from New Granada by Hawkins. Sweet potatoes require a warm climate, and do not succeed in this country; they were, however, imported in considerable quantities, during the 16th century, from Spain and the Canaries, and were supposed to have some rather peculiar properties. The kissing comfits of Falstaff, and suchlike confections, were principally made of battatas and eringo roots. (See Collins' elaborate note to *Troilus and Cressida*, act v. scene 2.) On the whole, we are inclined to think that we are really indebted for the potato (as well as for tobacco) to Sir Walter Raleigh, or the colonists planted by him in Virginia. Gerarde, an old English botanist, mentions, in his *Herbal*, published in 1597, that he had planted the potato in his garden at London about 1590; and that it succeeded there as well as in its native soil, Virginia, whence he had received it. Potatoes were at

first cultivated by a very few, and were looked upon as a great delicacy. In a manuscript account of the household expenses of Queen Anne, wife of James I., who died in 1618, and which is supposed to have been written in 1613, the purchase of a very small quantity of potatoes is mentioned at the price of 2*s.* per pound. The Royal Society, in 1663, recommended the extension of their cultivation, as a means of preventing famine. Previously, however, to 1684, they were raised only in the gardens of the nobility and gentry; but in that year they were planted, for the first time, in the open fields in Lancashire, a county in which they have long been very extensively cultivated.

Potatoes, it is commonly thought, were not introduced into Ireland till 1610, when a small quantity was sent by Sir Walter Raleigh to be planted in a garden on his estate in the vicinity of Youghal. Their cultivation extended far more rapidly than in England, and has long furnished from three-fifths to four-fifths of the entire food of the people of Ireland.

Potatoes were not raised in Scotland, except in gardens, till 1728, when they were planted in the open fields by a person of the name of Prentice, a day-labourer at Kilsyth, who died at Edinburgh in 1792.

The extension of the potato cultivation has been particularly rapid during the present century. The quantity that is now raised in Scotland is supposed to be from 10 to 12 times as great as the quantity raised in it at the end of the American war; and though the increase in England has not been nearly so great as in Scotland, it has been greater than during any previous period of equal duration. The increase on the Continent has been similar. Potatoes are now very largely cultivated in France, Prussia, and Austria: there having been devoted to their cultivation, in France, 3,087,017 English acres, in 1862; Prussia, 3,418,610 acres, in 1867; and Austria (ex Galicia), 1,308,148 acres, in 1866. They were introduced into India towards the end of last century; and are now successfully cultivated in Bengal, and have been introduced into the Madras provinces, Java, the Philippines, and China. But the common potato does not thrive within the tropics unless it be raised 3,000 or 4,000 feet above the level of the sea, so that it can never come into very general use in these regions. This, however, is not the case with the sweet potato, which has also been introduced into tropical Asia: and with such success, that it already forms a considerable portion of the food of the people of Java and some other countries. So rapid an extension of the taste for, and the cultivation of, an exotic, has no parallel in the history of industry; it has had, and will continue to have, the most powerful influence over the condition of mankind. (For further details with respect to the history of the potato, see Sir F. M. Eden *On the State of the Poor*, vol. i. p. 508; Humboldt, *Essai sur la Nouvelle Espagne*, iii. 460–465, 2nd ed.; Sir Joseph Banks *On the Introduction of the Potato*; Phillips's *History of Cultivated Vegetables*, vol. ii. art. 'Potato.')

2. *Influence of the Cultivation of the Potato on the Number and Condition of the People.*—There is a considerable discrepancy in the statements of the best authors as to the number of individuals that might be supported on an acre of land planted with potatoes, as compared with those that might be supported on an acre sown with wheat; some stating the proportion as high as *six* to *one*, and others at only *two* to *one*. According to Mr. Arthur Young, 1 lb. of wheat is about equal in nutritive power to 5 lb. of potatoes. But Mr. Newenham, who has carefully investigated this subject, states that '3 lb. of good mealy potatoes are, undoubtedly, more than equivalent to 1 lb. of bread' (Newenham *On the Population of Ireland*, p. 340); and his estimate is rather above Mr. Wakefield's. Supposing, however, that 1 lb. of wheat is fully equal to *four* lb. of potatoes, still the difference in favour of the superior quantity of food derived from a given quantity of land planted with the latter is very great. According to Mr. Young, the average produce of potatoes in Ireland may be taken at 82 barrels the Irish acre; which, at 20 stone the barrel, is equal to 22,960 lb.; and this being divided by *four*, to bring it to the same standard, in point of nutritive power, as wheat, gives 5,740 lb. Mr. Young further estimates the average produce of wheat, by the Irish acre, at 4 quarters; which, supposing the quarter to weigh 480 lb., gives in all 1,920 lb., or about ⅓ part of the solid nourishment afforded by an acre of potatoes. (*Tour in Ireland*, Appen. pp. 12, 24 &c. 4to. ed.) This estimate must, however, be somewhat modified, when applied to Great Britain; the soil of which, while it is better adapted to the growth of wheat, is generally supposed not to be quite so suitable for the potato as that of Ireland. But it notwithstanding admits of demonstration, that even here, '*an acre of potatoes will feed double the number of individuals that can be fed from an acre of wheat.*' (*General Report of Scotland*, vol. i. p. 571.)

It is clear, therefore, on the most moderate estimate, that the population of a potato-feeding country may become, *other things being about equal*, from 2 to 3 times as dense as it would be were the inhabitants fed wholly on corn. But it is exceedingly doubtful whether an increase of population, brought about by the substitution of the potato for wheat, be desirable. Its use as a subordinate or subsidiary species of food is attended with the best effects—producing both an increase of comfort and security; but there are certain circumstances inseparable from it, which would seem to oppose the most formidable obstacles to its advantageous use as a *prime* article of subsistence. The discussion of this subject can hardly be said properly to belong to a work of this sort; but its importance may, perhaps, excuse us for making a few observations with respect to it.

It is admitted on all hands, that the rate of wages is principally determined by the species of food made use of in a country. Now, as potatoes form that species which is produced at the very least expense, it may be fairly presumed, on general grounds, that wages will be reduced to a minimum wherever the labouring classes are mainly dependent on potatoes; and the example of Ireland shows that this conclusion is as consistent with fact as with principle. It is clear, however, that when the crop of potatoes happens to be deficient in a country thus situated, the condition of its inhabitants must be in the last degree unfortunate. During a period of scarcity, men cannot go from a low to a high level: if they would elude its pressure, they must leave the dearer and resort to cheaper species of food. But to those who subsist on potatoes this is not possible; they have already reached the lowest point in the descending scale. Their wages being determined by the price of the least expensive sort of food, they cannot, when it fails, buy that which is dearer; so that it is hardly possible for them to avoid falling a sacrifice to absolute want. The history of Ireland abounds, unfortunately, in examples of this sort. Nothing is more common than to see the price of potatoes in Dublin, Limerick &c. rise, be-

cause of a scarcity, to 5 or 6 times their ordinary price, and the people to be involved in the extreme of suffering; and yet it rarely happens, upon such occasions, that the price of corn is materially affected, or that any less quantity than usual is exported to England.

It may be said, perhaps, that, had potatoes not been introduced, wheat, or barley, or oats would have been the lowest species of food; and that, whenever they happened to fail, the population would have been as destitute as if they had been subsisting on potatoes. It must, however, be observed, that the proportion which the price of wheat, or any species of grain, bears to the price of butchers' meat, tea, beer &c., is always decidedly greater than the proportion which the price of potatoes bears to these articles; and it therefore follows, that a people who have adopted wheat, or any species of corn, for the principal part of their food, are much better able to make occasional purchases of butchers' meat &c.; and will, consequently, be more likely to have their habits elevated, so as to consider the consumption of a certain quantity of animal food &c. as indispensable to existence. And hence it appears reasonable to conclude, that a people who chiefly subsist on corn would, in most cases, subsist partially on butchers' meat, and would enjoy a greater or less quantity of other articles; so that it would be possible for them, in a period of scarcity, to make such retrenchments as would enable them to elude the severity of its pressure.

But, though the population in corn-feeding countries were dependent on the cheapest species of grain, not for a part only, but for the whole of their food, their situation would, notwithstanding, be less hazardous than that of a population subsisting wholly on potatoes.

In the *first* place, owing to the impossibility, as to all practical purposes at least, of preserving potatoes, the surplus produce of a luxuriant crop cannot be stored up or reserved as a stock to meet any subsequent scarcity. The whole crop must necessarily be exhausted in a single year; so that, when the inhabitants have the misfortune to be overtaken by a scarcity, its pressure cannot be alleviated, as is almost uniformly the case in corn-feeding countries, by bringing the reserves of former harvests to market. Every year is thus left to provide subsistence for itself. When, on the one hand, the crop is luxuriant, the surplus is of comparatively little use, and is wasted unprofitably; and when, on the other hand, it is deficient, famine and disease necessarily prevail.

In the *second* place, the general opinion seems to be, that the variations in the quantities of produce obtained from land planted with potatoes are greater than the variations in the quantities of produce obtained from land on which wheat, or any other species of grain, is raised.

And *lastly*, owing to the great bulk and weight of potatoes and the difficulty of preserving them on shipboard, the expense of conveying them from one country to another is so very great, that a scarcity can never be materially relieved by importing them from abroad. In consequence, those who chiefly depend on potatoes are practically excluded from participating in the benevolent provision made by nature for equalising the variations in the harvest of particular countries by means of commerce, and are thrown almost wholly on their own resources.

We should, therefore, be warranted in concluding, even though we were not possessed of any direct evidence on the subject, from the circumstance of the potato being a crop that cannot be kept on hand, from its natural fickleness, and from the incapacity of importing it when sufficient, or of exporting it when in excess, that the oscillations in its price must be greater than in the price of wheat; and such, in point of fact, is the case. The oscillation in wheat is thought great when its price is doubled; but in a scarce year the potato is not unfrequently *six* times as dear as in a plentiful one. (*Minutes of Evidence taken before the Agricultural Committee of* 1821, p. 212.) And the comparatively frequent recurrence of scarcities in Ireland, and the destitution and misery in which they involve the population, afford but too convincing proofs of the accuracy of what has now been stated.

It is, therefore, of the utmost consequence to the well-being of every people, and to their protection in years of scarcity, that they should not subsist principally on the potato. In this country, the pressure of a scarcity is evaded by resorting to inferior species of food, such as potatoes, and a lower standard of comfort; but if our people were habitually fed on the potato, this would be impracticable. The chances of famine would thus be vastly increased; while, owing to the low value of the potato as compared with most other things, the labourers would have less chance of preserving or acquiring a taste for animal food, or other necessaries and luxuries; and, consequently, of changing at any future period their actual condition for a better.

It is not easy to form any very accurate estimate of the profit and loss attending the cultivation of potatoes to the farmer, as compared with other crops. This is a point as to which the statements of those best qualified to give an opinion differ very considerably. Mr. Loudon says, 'They require a great deal of manure from the farmer; while, generally speaking, little is returned by them; they are a bulky, unhandy article, troublesome in the lifting and carrying processes, and interfering with the seed season of wheat—the most important one to the farmer. After all, from particular circumstances, they cannot be vended unless when raised in the vicinity of large towns; hence they are, in most respects, an unprofitable article to the agriculturist. To him, the real criterion is the profit which potatoes will return in feeding beasts; and here we apprehend the result will be altogether in favour of turnips and *rutabaga*, as the most profitable articles for that purpose.'

It seems difficult to reconcile this statement with the rapid progress of the potato cultivation: but those who assent to what has been previously advanced with respect to the mischievous consequences that arise from the mass of the population becoming dependent on the potato as a principal article of food, will not regret though it should turn out to be accurate.

Dr. Colquhoun estimated the entire value of the potatoes annually consumed in Great Britain and Ireland, at the close of the war (ended 1815), at *sixteen millions* sterling. But it is needless to say that there are no materials by which to form an estimate of this sort with any pretensions to accuracy. The one in question has been suspected, like most of those put forth by the same learned person, of exaggeration: and we incline to think that, had he estimated the value of the yearly produce of potatoes in the empire at *twelve millions*, he would have been nearer the mark. But on a point of this sort it is not possible to speak with anything like confidence.

In 1867, we imported 1,374,223 cwt. of potatoes, chiefly from France and Holland, valued at

397,144*l.*, and exported 719 cwt.; while in the same year, according to the parliamentary returns, there were in the United Kingdom 1,500,624 acres devoted to potatoes, of which the share of Ireland was 1,001,545. In 1868 the latter had 1,034,853 acres devoted to that crop.

POTTERY. [EARTHENWARE; PORCELAIN.]

POUNCE. [SANDARACH.]

POUND. The name given to a weight used as a standard to determine the gravity and quantity of bodies. [WEIGHTS AND MEASURES.]

POUND. A money of account = 20*s.*

POWDER, GUN. [GUNPOWDER.]

PRATIQUE. [BILLS OF HEALTH; QUARANTINE.]

PRECIOUS METALS. A designation frequently applied to gold and silver. We have given, under the articles GOLD and SILVER, a short account of each metal; and we now propose laying before the reader some details with respect to their supply and consumption.

To enter fully into this interesting and difficult subject would require a long essay, or rather a large volume. Mr. Jacob published, in 1831, an *Historical Inquiry into the Production and Consumption of the Precious Metals*, in which he takes up the subject at the earliest period, and continues it to the above epoch. And, though far from being so learned, complete, or satisfactory as might have been expected, this work contains a good deal of valuable information, and deserves the attention of those who take an interest in such enquiries. But within the last eight or ten years the subject has acquired an interest and importance with which it was not previously invested.

Supply of the Precious Metals.—Since the discovery of America by far the greater part of the supplies of gold and silver have been derived from that continent. Previously to the publication of Humboldt's great work, *Essai politique sur la Nouvelle-Espagne*, several estimates, some of them framed by individuals of great intelligence, were in circulation, of the quantities of gold and silver imported from America. They, however, differed widely from each other, and were all framed from comparatively limited sources of information. Humboldt (*Essai sur la Nouvelle-Espagne*, tome iii. p. 412) brought these estimates together as follows:—

Authors	Epochs	Dollars
Ustariz	1492-1724	5,536,000,000
Solorzano	1492-1628	1,500,000,000
Moncada	1492-1695	2,000,000,000
Navarete	1519-1617	1,536,000,000
Raynal	1492-1780	5,154,000,000
Robertson	1492-1776	8,800,000,000
Necker	1763-1777	701,000,000
Gerboux	1724-1800	1,600,000,000
The author of *Les Recherches sur le Commerce*, Amst. 1779.	1492-1775	5,072,000,000

But these have been wholly superseded by the more extensive and laborious investigations of Humboldt himself. This illustrious traveller, besides being acquainted with all that had been written on the subject, and having ready access to official sources of information unknown to the writers already alluded to, was well versed in the theory and practice of mining, and critically examined several of the most celebrated mines. He was, therefore, incomparably better qualified for forming correct conclusions as to the past and present productiveness of the mines than any of those who had hitherto speculated on the subject. His statements have, indeed, been accused of exaggeration; and we incline to think that there are grounds for believing that this charge is, in some measure, well founded, particularly as respects the accounts of the profits made by mining, and of the extent to which the supplies of the precious metals may be increased. But this criticism applies, if at all, in a very inferior degree, to the accounts Humboldt has given of the total produce of the mines, and the exports to Europe. And making every allowance for the imperfection inseparable from such investigations, it is still true that the statements in question, and the enquiries on which they are founded, are among the most valuable contributions that have been made to statistical science.

According to Humboldt (*Essai sur la Nouvelle-Espagne*, iii. 428, 2nd ed.) the annual average supplies of the precious metals derived from America have been as follow:—

	Dollars a Year at an Average.
From 1492 to 1500	250,000
1500 1545	3,000,000
1545 1600	11,000,000
1600 1700	16,000,000
1700 1750	22,500,000
1750 1803	32,500,000

The following is Humboldt's estimate of the annual produce of the mines of the New World at the beginning of the present century:—

Political Divisions	Gold		Silver		Value of the Gold and Silver in Dols.
	Marcs of Castile	Kilogs.	Marcs of Castile	Kilogs.	
Vice-royalty of New Spain	7,000	1,609	2,338,220	537,512	23,000,000
Vice-royalty of Peru	3,400	782	611,090	140,478	6,240,000
Captain-Generalship of Chili	12,212	2,807	29,700	6,827	2,060,000
Vice-royalty of Buenos Ayres	2,200	506	481,830	110,764	4,850,000
Vice-royalty of New Granada	20,505	4,714	—	—	2,990,000
Brazil	29,900	6,573	—	—	4,360,000
Total	75,217	17,991	3,460,840	795,581	43,500,000

Taking the dollar at 4*s.* 6*d.*, this would give 9,666,000*l.* as the total annual produce of the American mines. Humboldt further estimated the annual produce of the European mines of Hungary, Saxony &c., and those of Northern Asia, at the same period at about 1,000,000*l.* more, making in round numbers their entire produce nearly 11,000,000*l.*

The *quantity* of gold produced in America at the beginning of the century was to the quantity of silver as 1 to 46; in Europe the proportions were as 1 to 40. The *value* of equal quantities of gold and silver was then in the proportion of 15 or 15½ to 1.

From 1800 to 1810 the yield of the American mines continued to increase; and their produce, and that of the European and Russian mines, were then probably rather above than below 11,000,000*l.* But in the last-mentioned year the contest began which terminated in the dissolution of the connection between Spain and her American colonies. The convulsions and insecurity arising out of this struggle—the proscription of the old Spanish families, to whom the mines principally belonged, who repaired, with the wrecks of their fortunes, some to Cuba, some to Spain, and some to Bordeaux and the south of France—caused the abandonment of several of the mines, and an

extraordinary falling off in the amount of their produce. There are no means of estimating the precise extent of this decline: but according to Jacob, who collected and compared all the existing information on the subject, the total average produce of the American mines, inclusive of Brazil, during the 20 years ending with 1829, may be estimated at 4,036,838*l.* a-year; being less than ½ their produce at the beginning of the century. (Jacob, ii. 267.)

It has, however, been supposed that Jacob rather exaggerated the falling off. And, at all events, the supplies of bullion obtained from Mexico and South America began to increase soon after the publication of his work (1831).

It appears from the *Returns* sent home by the British consuls, that the coinage of gold and silver in the Mexican mints amounted in 1847 to 16,923,948 dols., in 1848 to 19,506,754 dols.; and, according to Mr. Secretary of Legation Middleton, it amounted, in the first 3 months of 1867, to 3,916,070 dols. (See his valuable *Report* of July 10, 1868.) But it is well known that considerable quantities of these metals are raised and exported from Mexico without being brought to the mints to be coined. Taking this item into account, we shall not, perhaps, be very wide of the mark if we estimate the entire produce of the Mexican mines in 1847 and 1848 at about 19 and 21½ million dollars, of which from 17 to 20½ millions were in silver. And, notwithstanding the anarchy that has continued to prevail in the country, there has on the average been a considerable increase in the interval.

In 1850 the produce of the Peruvian mines was estimated at about 6,000,000 dols.; and it is not supposed to have varied much in the intervening period.

The produce of the Bolivian mines is usually estimated at about ½ of the produce of those of Peru.

In 1857 the value of the gold and silver in coin, bars, and ore, exported from Chili, amounted, according to the Custom-house returns, to 4,185,284 dols.; and we believe we shall not be far wrong if we estimate the total produce of the Chilian mines at 5,000,000 dols.

The elaborate estimates of Birkmyre, Chevalier (*Monnaie*, p. 228), and other authorities, in regard to the produce of the mines of Brazil and other parts of America, differ very widely; and there is, in truth, little besides conjecture on which to form an estimate. Probably, however, it may amount (ex California) to about 4,000,000 dols. The above results, when brought together, give for

	dollars		dollars
Mexico - -	23,000,000	Chili - -	5,000,000
Peru - -	6,000,000	All other parts -	4,000,000
Bolivia - -	2,000,000	Total -	40,000,000

Birkmyre's estimate of the production of the precious metals in 1846 and 1850, one of the most elaborate and valuable hitherto published, appeared in the *Times* of May 19, 1851. We subjoin some of its principal portions.

Comparative Table, showing the Annual Produce (approximate Calculation) in Value of Fine Gold and Silver for 1846 *and* 1850, *the first being Two Years before the Discovery of the Rich Deposits of Gold in California; the latter, Two Years after the Discovery.*

Countries	1846			1850		
	Gold	Silver	Total	Gold	Silver	Total
	£	£	£	£	£	£
California - - -	—	—	—	12,000,000	62,088	12,062,088
United States - - -	237,536	1,864	239,250	115,450	11,444	126,874
Mexico - - -	249,753	3,457,020	3,706,773	582,901	5,183,353	5,766,254
New Granada - - -	224,407	42,929	295,336	224,407	42,929	295,336
Peru - - -	96,241	1,000,583	1,096,824	96,241	1,000,585	1,096,824
Bolivia - - -	60,357	460,191	520,548	60,357	460,191	520,548
Chili - - -	145,585	297,029	442,614	145,585	297,029	442,614
Brazil - - -	259,871	2,003	261,874	289,068	2,227	291,295
Total of North and South America -	1,301,560	5,261,619	6,563,179	13,341,989	7,259,821	20,601,813
Russia - - -	5,414,427	167,831	5,582,258	4,175,860	171,817	4,347,477
Norway - - -	—	32,346	32,346	—	35,607	35,607
North Germany - - -	357	138,022	138,379	357	138,022	138,379
Saxony - - -	—	198,200	198,200	—	198,200	198,200
Austria - - -	282,750	282,954	565,404	288,708	286,971	575,679
Piedmont - - -	17,841	7,444	25,285	17,841	7,444	25,285
Spain - - -	2,498	227,460	229,997	2,498	440,210	442,708
United Kingdom -	—	109,089	109,089	—	160,000	160,000
Africa - - -	203,900	1,056	204,956	203,900	1,056	204,956
Borneo - - -	303,900	1,584	305,484	305,850	1,584	307,434
Asia - - -	100,000	517	100,517	100,000	517	100,517
Malacca - - -	72,240	374	72,614	72,240	374	72,614
Sumatra - - -	63,719	330	64,049	63,719	330	64,049
Annam or Tonquin -	30,585	53,460	84,045	30,585	53,460	84,045
Various countries *	50,975	33,000	83,975	50,975	33,000	83,975
Total of Europe, Africa, and Asia - -	4,545,192	1,264,506	5,799,498	5,312,533	1,548,592	6,840,975
Total of North and South America -	1,301,560	5,261,619	6,563,179	13,341,989	7,259,824	20,601,813
Total - -	5,846,752	6,515,925	12,362,677	18,654,522	8,788,416	27,442,788

* Exclusive of China and Japan, which produce large quantities of gold and silver, the amount of which is quite unknown to Europeans.

'The quantities of gold and silver produced at the under-mentioned epochs were:—

'In 1801 the quantity of pure gold produced in America was 46,331 lb.; in Europe and Northern Asia (exclusive of China and Japan), 4,916 lb.: total produce, 51,247 lb. = 55,910 lb. British standard gold = 2,612,200*l.*

'In 1846 the quantity of pure gold produced in America was 25,503 lb.; in Europe, Africa, and Asia (exclusive of China and Japan), 89,171 lb.; total produce, 114,674 lb. = 125,108 lb. British standard gold = 5,846,772*l.*

'In 1850 the quantity of pure gold produced in America was 261,731 lb.; in Europe, Africa, and Asia (exclusive of China and Japan), 104,219 lb.; total produce, 365,950 lb. = 399,247 lb. British standard gold = 18,654,322*l.*

'The above quantities are probably less than the actual production. The duties on gold in Russia on the produce of the private mines are heavy, varying from 12 to 24 per cent.; in Austria they amount to 10 per cent., in Brazil to 5 per cent., and are understood to lead to a great deal of smuggling. In other countries, such as the United States, where there are no duties, the gold and silver stated in the table are only the

quantities brought to the mints to be coined, there being no means of determining the quantity used in jewellery and other arts and manufacture.' The fixed duties on silver in Mexico were (in 1867) above 17¼ per cent.

It is, perhaps, unnecessary to observe that all investigations into matters of this sort are liable to be affected by so many sources of error, that even when they are most skilfully and cautiously conducted their results are not always to be depended on. But speaking generally, we are disposed to think that the foregoing estimates are rather within than beyond the mark. And it is worthy of notice that they do not differ much from Humboldt's estimate (43,500,000 dols.) of the produce of the American mines at the beginning of this century.

Russian Mines.—Small supplies of the precious metals have for a lengthened period been obtained from Russia. But since 1830, and more especially since 1840, the produce of the Russian mines and washings, but principally the latter, has been rapidly and largely increased. Thus the produce of gold from the Siberian washings and the mines of the Ural, which amounted (according to the official returns) to 3,875 kilog. in 1826, had increased in 1840 to 8,736 kilog., and in 1847 to 27,362 kilog. Since then, however, the produce has rather fallen off; and during the 3 years ending with 1854 their average yield amounted to only 22,768 kilog. a-year. (Otreschkoff, *De l'Or et de l'Argent etc.* i. 179. The author was a councillor of state in the service of the Czar.) Formerly the value of the silver supplied by Russia greatly exceeded that of the gold; but since 1830 this has not been the case; for while the produce of gold has been so very greatly increased, that of silver has varied but little (from 17,000 to 18,000 kilog. a-year), so that the value of the former is now about twenty times that of the latter. The following table, extracted from the work of M. Otreschkoff, is founded on official returns, and gives a view of the production of the precious metals in Russia down to 1855:—

Account of the Quantity and Value of the Precious Metals produced in Russia from 1810 *to* 1855.

Years	Gold		Silver		Annual Average of Total Produce
	kilog.	francs	kilog.	francs	francs
1810 to 1825	16,485	51,830,448	189,189	42,067,480	6,152,856
1825 1848	231,543	772,445,780	443,262	98,503,008	37,869,948
1848 1851	75,547	252,034,380	53,959	11,998,348	88,000,808
1851 1855	92,095	307,006,156	68,426	15,215,200	80,605,339
Totals - -	415,610	1,386,316,764	754,836	167,814,036	

The Russian authorities have ascribed the falling off in the produce of the mines and washings since 1847 to the exhaustion of the deposits and the unskilfulness of those engaged in the business. But though this be most probably the case to some extent, it is believed that it has been in part also occasioned by the heavy taxes imposed on the gold raised by private parties. These vary in amount, according to the productiveness of the mines and washings, from about 12 to 24 or 25 per cent., and are most oppressive.

While, however, it may be fairly assumed that these heavy duties have tended to lessen the produce of gold, there can be little doubt that their principal effect has been to defeat themselves by tempting the parties concerned to adopt every means for their evasion, which the notorious corruption of the revenue officers renders an easy matter. And in addition to the influence of these circumstances over the private mines, the depredations and carelessness of the parties employed to work the crown mines tell quite as much on their produce; so that we need not be surprised that it has been doubted whether from a third to a half, or more, of the gold furnished by the Russian mines and washings be not omitted in the official returns. But, taking the deficit at a fourth part only, and supposing the official produce of the washings and mines to amount at present (1869) to about 70,000,000 fr. a-year, the real produce would be equal to 87,500,000 fr., or 3,000,000*l.* sterling. It is said that the Russian Government intend to throw open the crown mines and washings to the public, and at the same time to make a large reduction in the duties on the produce obtained from the private mines. This would be sound policy; and if it be adopted, a considerable increase in the supplies of gold and silver may be anticipated.

Produce of Gold and Silver in other parts of Europe.—It might have been supposed that the late extraordinary influx of the precious metals from California and Australia would have given a serious check to their production in Europe: such, however, has not been the case, but on the contrary it has considerably increased within the last ten or twelve years.

Lead ore always contains a greater or less quantity of silver; and when the value of the latter is sufficient to repay the expense, it is usual to extract it by means of the process of 'refining.' This process has latterly been much improved, and is now profitably applied to ores to which it was formerly unsuitable. And as silver in Europe is mostly obtained from lead, this has been a principal source of its late increase.

In 1845 some rich mines of argentiferous lead were discovered in the provinces of Murcia and Granada in Spain, not far from Alicant; the yield of silver from which, and the mines in other parts of the peninsula, is believed to amount to 500,000*l.* or 600,000*l.* a-year. The produce of the Austrian and German gold and silver mines has also increased; those of Austria alone, in 1864, being valued at upwards of 6,100,000 florins, of which Hungary and Transylvania contributed 98 per cent., and small quantities are furnished by Italy, France, Sweden, and other parts of the Continent.

The reader may perhaps be surprised to learn that, in consequence principally of the improved process of refining already referred to, no fewer than 805,394 oz. of silver, worth 215,400*l.*, were obtained from lead in the United Kingdom in 1867. During 1866 we imported 5,495 tons silver ore, mostly from Chili, which were valued at 275,599*l.*; and in 1867, 3,393 tons. This, however, is to be reckoned in the produce of Chili rather than of England.

The total production of the precious metals in Europe, exclusive of Russia, may be roughly estimated to have amounted in 1866 to 1,400,000*l.* or 1,500,000*l.*

On the whole, therefore, it may reasonably be concluded that the aggregate production of the precious metals (excluding the produce of the Californian and Australian gold fields) in America, Asiatic Russia, and Europe in 1866, amounted to about 15,000,000*l.*, viz.:—

America	£10,000,000
Asiatic Russia	3,500,000
Europe	1,500,000
Total	£15,000,000

And deducting from this sum the total estimated produce of the same countries in 1809, when the American mines had attained the maximum of their productiveness previously to the revoltuionary disturbances (12,500,000*l.*), there is an increase of 2,500,000*l.*

In addition to the supplies of the precious metals already specified, further quantities are supplied by China and other parts of Asia, Japan, the Eastern Archipelago &c., and also by various parts of Africa. There is, however, no authentic information in regard to this produce; and excepting small supplies of gold dust brought from some parts of the African coast, the bullion of the countries referred to has but little influence in the markets of the civilised world. M. Otreschkoff estimates, or rather conjectures, that the produce of gold and silver in Asia (exclusive of Russia), the Eastern Archipelago, Oceanica &c. amounted, at an average of the four years ending with 1854, to 114,527,820 fr. (4,581,000*l.*) a-year, and that of Africa to 13,980,672 fr. (560,000*l.*) a-year. (*De l'Or et de l'Argent etc.* i. 287, 293.)

Supplies of Gold from California and Australia.—The gold in these regions is found in the débris of the quartz rocks in which it has been embedded, and in the rocks themselves. In the former case it is found in the hollows to which it has been carried down by rains or streams, at different depths, sometimes in grains or *flakes*, and sometimes in lumps or *nuggets* of varying but occasionally very considerable magnitude. Gold may be sought or dug for (hence *diggings*) either by single or associated individuals; but when quartz rock is crushed to obtain gold, expensive machinery is usually employed, and the work is for the most part carried on by companies. The business of the diggings has very much of the character of a lottery, with many blanks and a few large prizes; but in the crushing of quartz the returns are less irregular, and the business partakes more of the character of an ordinary branch of industry.

The Californian deposits were discovered late in May or early in June 1848; and notwithstanding the remoteness of the country, and the fact of its being almost destitute of inhabitants, above 5,000 persons were attracted to the spot by the end of the season, who are said to have realised above 1,000,000*l.* sterling. The news of the discovery and of the unexampled richness of the gold-fields having spread on all sides with electrical rapidity, occasioned an extraordinary influx of immigrants from most parts of the world into California. The supplies of gold attained to an unexampled magnitude; cities rose in the wilderness as if by enchantment; the great bay of San Francisco, which had hitherto been entirely deserted, was crowded with ships and steamers from the most distant countries; and California speedily became one of the States of the Union, and had in 1860 a population of 305,439.

But here, as elsewhere, we have to regret the want of accurate information in regard to the production of gold. It appears, however, from Mr. Consul Booker's *Report*, that during the years 1866 and 1867 treasure of the value of 8,402,830*l.* and 8,335,250*l.* was shipped from San Francisco. Again, Mr. Booker states that the receipts of gold and silver from the interior of California and the neighbouring State of Nevada amounted to 8,773,000*l.*, and by sea from the northern parts of California, Oregon, and Territories of Washington and Idaho, to 1,888,100*l.* In 1867 the receipt of gold and silver the produce of California and the adjoining States of Oregon and Nevada, and the Territories of Washington, Idaho, and Montana, amounted to 10,319,500*l.* exclusive of 793,860*l.* worth received from British Columbia and Mexico. The portion received from Nevada, valued at 3,600,000*l.*, consisted mainly of the produce of the silver-bearing lodes of that State. (Mr. Consul Booker's *Reports* for 1866 and 1867.) And, in addition to these quantities, large amounts, of which no account is taken, are conveyed away by parties returning to Mexico, to the Eastern States, Europe, and China. Of these various estimates have been made; but the prevalent opinion in the best informed quarters seems to be that, when they are included, and allowance is also made for the quantity retained at home, the total yield of gold in California in 1866 and 1867 may be moderately reckoned at 60,000,000 dols., or 12,000,000*l.* at an average.

But vast as it certainly is, this production has been equalled and sometimes surpassed by that of Australia. The deposits in the latter were not discovered till 1851, and they were so very rich, and the influx of immigrants so extraordinary, that the gold fields of Victoria only are estimated to have produced in 1852 no fewer than 4,247,152 oz.; which, at the then price of 70*s.* per oz., gives a gross amount of 14,866,799*l.* This, however, has been the maximum amount of production hitherto attained. In 1858 the same gold fields furnished only 2,421,461 oz. According to the carefully compiled and valuable returns of Mr. Khull of Melbourne, the yield of gold in Victoria from 1852 to 1858 was as follows, viz.:—

Years	Ascertained Ounces	Unrecorded Ounces	Total Ounces	Price per Ounce	Value
				s.	£
1852	3,159,322	1,088,325	4,247,152	70	14,866,799
1853	2,271,152	816,199	3,090,342	75	11,588,782
1854	1,831,454	361,264	2,192,699	80	8,770,796
1855	2,234,296	729,864	2,964,073	80	11,856,296
1856	2,530,383	1,003,144	3,533,527	80	14,134,102
1857	2,341,117	264,893	2,606,040	80	10,424,168
1858	2,253,117	168,344	2,421,461	80	9,685,840

The following table, from the *Emigration Circular* of 1868, shows the quantity of gold *obtained* in Victoria from 1859 to June 30, 1866:—

Years	Per Escort	Exported	Value at 80*s.* per oz.
	oz.	oz.	£
1859	2,202,012	2,280,950	9,123,800
1860	2,008,843	2,156,660	8,626,640
1861	1,832,887	1,967,120	7,868,480
1862	1,520,518	1,658,207	6,632,828
1863	1,420,301	1,626,872	6,507,488
1864*	—	1,541,694	6,166,776
1865	—	1,543,801	6,175,204
1866	—	1,479,194	5,916,776

* The escorts from Castlemaine, Sandhurst, and Ballarat were discontinued on March 31, 1864, and since that date the only escorts arriving in Melbourne are those from the Beechworth and Wood's Points Districts; therefore, the returns being incomplete are omitted.

In addition to the gold obtained from Victoria, a supply which in 1852 amounted to 3,600,000*l.* was obtained from the Sydney or New South Wales district. The produce from this source, however, declined for several years. The annual value of the exports from New South Wales averaged in the 4 years ending with 1867, 2,500,000*l.*, while the value of the exports from New Zealand exceeded 2,000,000*l.* in each of 1862 and 1863, the 2 years immediately following the discovery of the Otago mines.

The following is an estimate of the production of gold and silver throughout the world in 1866, extracted from Ross and Browne's *Reports to Congress on the Mineral Resources of the United States*:—

	Gold	Silver	Total
	dols.	dols.	dols.
United States - -	60,000,000	20,000,000	80,000,000
Mexico and South America	5,000,000	35,000,000	40,000,000
Australia - - -	60,000,000	1,000,000	61,000,000
British America - -	5,000,000	500,000	5,500,000
Siberia - - -	15,000,000	1,500,000	16,500,000
Elsewhere - - -	5,000,000	2,000,000	7,000,000
	150,000,000	60,000,000	210,000,000

We incline to think that the produce of America, Australia, and Siberia is over-estimated in this statement, and would offer the following as a more approximate estimate of the entire produce of the precious metals in different parts of the civilised world in 1868, viz.:—

America, excluding California - -	£10,000,000
Asiatic Russia - - - -	3,000,000
Europe - - - -	2,000,000
California - - - -	12,000,000
Australia - - - -	12,000,000
Asia and Africa - - -	1,000,000
Total - -	£40,000,000

The question in regard to the probable continuation, increase, or diminution of this supply is of the greatest interest. Unfortunately, however, nothing but the vaguest conjectures can be offered with respect to it. Those who think that the supplies of the precious metals are likely to increase may allege that, being very widely diffused, fresh deposits will be successively brought to light; that the processes followed in the diggings, in the crushing of quartz rocks, and in the smelting and refining of the metals, will be further improved; and that the increase of population will make a still greater amount of labour be devoted to the search after these metals. But while we admit that there is a good deal of probability in these statements, still we question whether the result which they point at will be realised. Though gold be very generally distributed, it is extremely doubtful whether there be many places in which the deposits are so rich and so extensive as in California and Australia; and even in these the produce, as already seen, is either stationary or has begun to decline. The myriads of adventurers that are attracted to prolific diggings being all animated by the *auri sacra fames*, and putting forth their entire energies, can hardly fail, in no very lengthened period, to rifle the richest beds. And when this is done—when the excitement inspired by the original discovery is worn off, and the great prizes in the gigantic lottery recur only at distant intervals—then, unless new and equally promising discoveries should be made, a serious check will be given to the gold-seeking mania. The process of quartz-crushing is believed to produce only moderate profits, and is not of a kind to collect crowds of competitors. The few fortunes that have been realised in California and Australia have not been made by the miners, but by the merchants and others who have supplied their real or imaginary wants, and bought their gold-dust and nuggets on advantageous terms. Of those engaged on their own account in the search for gold, very few have retired from the pursuit with anything like a competence. The great majority have hardly realised the wages current in the districts before the deposits were discovered; and the conviction seems to be everywhere gaining ground that more is to be made by cultivating the surface of the earth than by digging in its bowels or crushing its rocks.

Consumption of the Precious Metals.—In order to form a reasonable conjecture in regard to the probable influence of this vast supply of the precious metals, it is necessary to enquire into their uses and probable consumption. And this enquiry, we regret to say, is still more difficult, and more likely to be infected with errors, than the enquiry in regard to their production.

The precious metals are used as coin or currency to facilitate exchanges; as wealth which may be conveniently kept or hoarded: and they are used in the arts in the shape of plate, and in gilding, and so on.

The quantities employed in these functions are very large indeed. They vary, however, in different countries and periods with the circumstances peculiar to each; such, for example, as the greater or less abundance of paper money, and the degree in which the use of coins is lessened by the various devices resorted to for economising currency; the fashion as to plate and furniture; the feeling of security at the time; and a number of other circumstances, all liable to great and sometimes sudden changes.

The gold and silver employed in this country as currency, and in the customary reserves in the hands of the bankers, is supposed to amount to from 70,000,000*l.* to 75,000,000*l.* It has been estimated as high as 90,000,000*l.*; but the best authorities look upon this estimate as greatly beyond the mark. In France, the precious metals employed in the same way probably amount to nearly double the sum now mentioned, or to 130,000,000*l.* or 140,000,000*l.* It has been estimated by Levasseur (p. 106) and others at no less than 160,000,000*l.* But this includes a portion of the coins that have been hoarded, and which can no longer be reckoned in the currency. And we believe that we may safely estimate the entire sum employed as currency in Europe, America (North and South), Australia, the Cape of Good Hope, and Algeria, at from 490,000,000*l.* to 510,000,000*l.*, or 500,000,000*l.* as a medium. It would be inconsistent with the objects of this article, and with the limits within which it must be confined, to engage in a discussion of the numerous and often conflicting statements and details on which this estimate has been founded. Some information with respect to it may be found in Chevalier's valuable treatise *De la Monnaie* (p. 326 &c.), Paris 1850; in Stirling's *Gold Discoveries*, p. 182; in the learned and excellent tract of Tegoborski, *Essai de la Découverte des Gîtes aurifères en Californie et en Australie etc.* p. 65; Levasseur, *De la Question de l'Or*, p. 106; in the work of Otreschkoff, *De l'Or et de l'Argent*, and a host of other publications. The precious metals in circulation in Russia in the early part of 1851 were estimated in the *Petersburg Gazette* (October 12, 1852) at 826,000,000 roubles, equal, at 40*d.* per rouble, to 53,800,000*l.* The greater part (190,000,000 roubles) of this currency consisted of gold. Now, supposing this sum to be employed as above stated, as currency, we have first to enquire into its probable wear and tear and loss, and then into the probable rate of its increase. And taking into account the extraordinary extension of navigation and emigration, and the proportional risk of loss from shipwreck and other casualties, we are disposed to think that the annual wear and tear and loss of coin may be estimated at about 1½ per cent. of the entire mass of the currency; which, taking the latter at 500,000,000*l.*, would amount to 7,500,000*l.* a-year.

It is difficult to form any probable estimate of the rate at which the bullion used as currency may be likely to increase, supposing its value not to fall off. The extremely rapid increase of refinement and population in most parts of the civilised world, and especially in America and Australia, is known to everyone. And it seems pretty certain that some important countries which have hitherto made comparatively little progress, are about to enter on a new career of industry and enterprise.

In Russia, for example, the measures that are in progress for the construction of railways and the emancipation of the peasantry can hardly fail to awaken the dormant energies of the latter, and give new vigour to their exertions. And the capacities of that country are so very great, that it is not easy to imagine, were its resources at all developed, to what an extent its wealth and population might be increased.

Again, some of the finest, best situated, most extensive, and of old the most populous and flourishing countries in the world, at present groan under the deadly influence of the superannuated but destructive despotism of the Turks. It is difficult, however, to suppose, despite the efforts that may be made to bolster it up, that this miserable fabric of superstition and tyranny should hold together much longer. And were it overthrown, and anything like an efficient government established in its stead, a fruitful and all but boundless field would be laid open to industry and enterprise.

But without insisting on such prospective considerations, and looking only to the advances that are now being made, we do not think that we shall exaggerate if we estimate the increase of currency that is now going on at 2 per cent. on its gross amount (500,000,000*l.*), or at 10,000,000*l.* a-year.

It is impossible, however, supposing this estimate not to be very wide of the mark at present, to conjecture how long the currency will go on increasing in this ratio. It may, as we have seen, be safely taken for granted that the sphere of civilisation and commerce is destined rapidly to extend. But its expansion will no doubt be accompanied with various contrivances for economising the use of metallic money; so that the quantity of it in circulation may not increase for any very lengthened period at the rate above stated. If it did, it would absorb an immense supply of gold. In barbarous countries, and in those which are entering on the career of civilisation, the coins afloat may increase at the rate of 3 or 5 per cent., or more; but in countries which are more advanced, their increase may be nothing, or less perhaps than even 1 per cent.

It is equally difficult to acquire any satisfactory information in regard to the quantity of bullion consumed in the arts. Jacob estimated its amount in Europe and America in 1830 at about 5,900,000*l.* a-year. But it has since been repeatedly shown by various intelligent writers that this estimate was in many respects wide of the mark, and that on the whole it was a good deal underrated. And, supposing the consumption of the precious metals in the arts to have amounted to 6,500,000*l.* or 7,000,000*l.* in 1830, it must now be very much greater. Everywhere, indeed, but more especially in England, America, Germany, and Russia, there has been an extraordinary increase of population and wealth during the last eight-and-thirty years. Plate and plated articles for use and ornamental purposes are now in extensive demand among all but the very lowest orders. Vastly more persons are raising themselves from poverty to competence and affluence than at any former period; and these are universally large buyers of plate and other costly articles. A taste for gilded saloons, magnificent glasses, and the gorgeous furniture of the age of Louis XIV., is at present all but universally diffused, and must have added greatly to the consumption of gold, which has been still further augmented by its increased outlay on the gilding of earthenware and china, harness, books &c. At the first blush of the matter, some of these items may not appear to the careless observer to be of much importance; but those who reflect a little on the subject, and who consider the immense and rapidly increasing demand for the articles referred to in this country and Europe generally, and in America and Australia, will be satisfied that the total consumption of the precious metals, and especially of gold, in the way now mentioned, must be quite immense. Estimates indeed have been made of the expenditure upon some of these items, but the data on which they are founded are too vague to entitle them to much attention.

We incline to think that the value of the precious metals in Great Britain in 1869 in the shape of plate, watches, jewels, and trinkets of all descriptions, may be safely estimated at about 4*l.* to each individual of the entire population, making in the aggregate a sum of about 100,000,000*l.*, to which if we add 12,000,000*l.* for Ireland, the whole will amount to 112,000,000*l.* And vast as this sum may appear, we believe it is inside the mark. Silver spoons and forks, silver tea-services, with trays &c. are now universally met with throughout the middle as well as the upper classes; while most families, of any antiquity or consideration of any kind, possess large quantities of ornamental as well as useful plate. In the Continent and the United States the bullion invested in the way now stated is very great indeed. In Italy and Spain and some other countries the lower classes, especially the women, though not generally so well off as in England, spend more money upon massive rings, chains, brooches, and such like articles, which they regard much as girls in England do their deposits in the savings bank, as a reserve fund or capital.

We are aware that Jacob says, that 'in the present day in this country, the quantity of gold and silver in actual existence, including utensils, ornaments, jewellery, trinkets, and watches, is three or four times as great as the value of those metals which exists in the form of money.' (*Historical Inquiry*, i. 210.) And as the value of the precious metals in Great Britain, in the shape of coin, is certainly not less at present (1869) than 70,000,000*l.* or 75,000,000*l.*, the value of the bullion in plate, jewellery &c. ought, on this hypothesis, to amount to at least 210,000,000*l.* or 280,000,000*l.* Yet there can be no manner of doubt that the lowest of these sums would be far beyond the mark. Tegoborski, indeed (*Gîtes aurifères etc.* p. 66), who is supported by Humboldt (*Essai sur la Nouvelle-Espagne*, iii. p. 465, ed. 1827), estimates the value of the bullion vested in plate, watches, jewellery &c. at only half the amount vested in coin. This estimate, though not perhaps very far wrong if applied to the poorer countries of Europe, would undoubtedly, if applied to Great Britain, be as much under as that of Jacob is above the mark.

But, without pretending to an accuracy which, on such subjects, is unattainable, we run little risk in concluding that the expenditure of bullion in the arts—i.e. in plate, jewellery, gilding &c.—in Europe, America, and Australia, cannot at present (1869) be under, if it do not exceed, 15,000,000*l.* or 16,000,000*l.* a-year. Now of this a portion, estimated at about $\frac{1}{5}$ or 20 per cent., is supposed to be obtained from the fusion of old plate, the burning of gold and silver lace &c. And hence, if we deduct from the 15,000,000*l.* used in the arts 20 per cent. for the old bullion, we have 12,000,000*l.* for the total quantity of the supplies from the mines annually disposed of in this way; a considerable portion of which, including that used in the gilding of rooms, earthenware, books, harness, buttons &c., cannot be again recovered or applied to any useful purpose.

And however great it may appear to be, this

amount will be largely increased with the increase of population and the spread of refinement in the arts, and still more by anything like a considerable fall in the value of bullion.

Hence it would appear, putting these items together, that the annual consumption of bullion as currency, and in the arts, amounts to about 29,500,000*l.* viz.:—

Wear and tear and loss of coin - -	£7,500,000
Increase of currency - - -	10,000,000
Used in the arts - - - -	12,000,000
Total - -	£29,500,000

It will be difficult to show that these estimates are beyond the mark; and supposing them to be nearly correct, it follows, deducting the above sum from the previously estimated produce of the mines (40,000,000*l.*—29,500,000*l.*), that we have a surplus of 10,500,000*l.* to defray the sums required for hoarding, for exportation to the East &c. And there certainly seems to be little reason for thinking that a supply of this amount will do much more than meet the demands upon it.

It may be said, perhaps, that we must have exaggerated the consumption of the precious metals, inasmuch as the sum which we suppose is annually consumed considerably exceeds the entire produce of the mines previously to the supplies from California and Australia. But, while we admit the fact to be as stated, we deny the inference which is attempted to be drawn from it. The truth is, that while the discovery of the Californian and Australian deposits has added in so great a degree to the supply of bullion, it has also added very largely to its consumption. It has given an unparalleled stimulus to emigration and commerce. The population of California and Victoria has increased in a ratio hitherto unheard of, or from next to nothing 20 years ago, the former to 379,994 in 1860, and the latter to 653,744 on September 30, 1867. But despite this increase, wages, owing to the general desire to speculate on one's own account, continue to be extravagantly high. In California in 1867 miners readily obtained from 10*s.* to 14*s.* a day, according to their skill and capacity for enduring fatigue; common labourers from 6*s.* to 8*s.* a day; and house servants from 4*l.* to 10*l.* a month. (Mr. Consul Booker's *Report* for 1867.) For a while most articles were proportionally high, so that these extravagant wages were not so advantageous to the parties receiving them as might have been supposed. But there has latterly been a great fall in the price of manufactured goods and colonial produce: while, owing to the progress of agriculture, provisions have also been greatly reduced. Lodgings are still very dear, but not so exorbitant as formerly. In Australia the state of things for a while after the discovery of the gold fields was not very dissimilar; wages, however, though still very high, are a good deal lower than in California; while in other respects there is but little difference between the two. And if, in addition to these unprecedented circumstances, we take into account the unsettled character of the population, with the absorbing pursuit of wealth on the one hand, and the utter recklessness of expenditure on the other, we must be satisfied that the currency of these countries cannot be otherwise than excessive as compared with their population.

Still the powerful influence of the late gold discoveries is not confined to California and Australia. The emigration to these countries, and the new and rapidly increasing markets which they afford, have told effectually here, and indeed in every commercial country. In England the rise of wages cannot be estimated at less than from 10 to 30 per cent., while in Ireland it has been a good deal more. And though the rise of wages in the latter be in part ascribable to the famine of 1846–47, and in a still greater degree to the emigration to the United States, yet, as this emigration has been powerfully promoted by the efflux of emigrants from the Atlantic States to California, it is clear that the gold of the latter has been at bottom a prominent cause of the improvement in the condition of the Irish peasantry. The same may be said of the emigration from Germany, which has latterly become of first-rate importance. At an average of the seven years ended with 1852, it amounted to 103,591 individuals a-year; the numbers in 1851 and 1852 being respectively 120,708 and 155,730, of which by far the greater portion was destined for the United States. (*Report of Emig. Com.* for 1853, p. 104.) The number of emigrants from Bremen alone, in 1866, was 62,254, nine-tenths of whom were destined for the United States (Mr. Vice-Consul Schwoon's *Report* for 1866); and the emigrants from this country to the United States in 1867 numbered 159,275.

The rise of wages consequent on these extraordinary mutations, and the increased exports of produce which they have occasioned, have exercised a powerful influence in the United States as well as in Europe. And there, consequently, as well as here, a greater supply of bullion will be required to serve as currency. Again, while this influence is operating on the one hand, on the other the swarms of *parvenus* who are every day rising to opulence contribute to swell the demand for all sorts of things, but especially for plate and plated goods, jewellery, and such like articles. What is probably of still greater importance, the metallic basis of the currency is everywhere being enlarged; and the conviction is rapidly gaining ground in the United States as well as in Europe, that no paper currency can be safe unless effectual measures be taken to maintain such a supply of the precious metals in the countries in which it circulates as may be necessary to ensure its immediate conversion into coin.

Burying of Gold and Silver.—It is singular that, in estimating the consumption of gold and silver, Jacob did not make any allusion to the practice, which has uniformly prevailed in all countries harassed by intestine commotions or exposed to foreign invasion, of burying treasure in the earth. Of the sums so deposited a very considerable proportion has been altogether lost; and this has no doubt been one of the principal means by which the stock of the precious metals has been kept down to its present level. Every one is aware that during the middle ages treasure trove, or money dug from the ground, formed no inconsiderable part of the revenue of this and most other countries. (Blackstone, *Com.* b. 1. c. 8. s. 13.) And though the burying of money has long ceased in Great Britain, such has not been the case among our neighbours. Wakefield tells us that down to 1812 the practice was common in Ireland (*Account of Ireland*, i. p. 593); and though much fallen off in the interval, it continues to this day to be occasionally resorted to in that part of the kingdom. It has always prevailed, sometimes to a less and sometimes to a greater extent, in almost every part of the Continent. (Storch, *Économie politique*, i. p. 222, 1823.) The anarchy and brigandage that accompanied the Revolution of 1789 made the practice to be carried to an extraordinary extent in France; and there, owing to various causes which are too obvious to require being pointed out, it still maintains a considerable footing.

So much was this the case after 1848, that a distinguished authority says, 'En France nous enfouissons notre argent dans nos coffres, ou nous le cachons dans les murs de nos maisons et les sillons de nos champs, selon les vieilles coutumes de l'Orient. Il y a peut-être un milliard (FORTY *millions sterling*) de notre numéraire rendu ainsi stérile.' Dupuynode, *De la Monnaie, du Crédit etc.* i. p. 182, Paris 1853; one of the best of the late French publications on the important subjects of which it treats.) And yet we doubt whether the burying of treasure be at present as prevalent in France as in many parts of Germany and in Hungary, Russia, Italy, Spain, and European Turkey. The feeling of insecurity that has prevailed in all these countries, especially since 1848, has given a stimulus to this practice which nothing can countervail. Of the many millions that were distributed among the countries round the Black Sea during the Crimean War, the greater portion is believed to be as much withdrawn from circulation as if it had never been dug from the mine. But the burying of treasure in Europe is trifling compared to what it is in the East. There the practice has prevailed from the remotest antiquity down to the present time, and has been and is carried to an enormous extent. Bernier, indeed, and all the most intelligent travellers and enquirers who have visited India, Persia, China, and the East, generally concur in thinking that this burying of the precious metals is a main cause of their continued drain to India &c., where they never seem to become more abundant. But as we have already noticed this part of our subject at considerable length (ante, EAST INDIA COMPANY, *Exportation of the Precious Metals to India* &c.), it is needless to dwell further upon it.

It is impossible, of course, to form any estimate of the sums thus annually placed, as it were, in mortmain. They vary from year to year, and are always greatest when wars or revolutionary disturbances are in progress, or when their occurrence is anticipated, or but little confidence is placed in the permanence of existing institutions. There can, at all events, be no question that the sums which have been disposed of in the way now stated in the different Continental and Oriental countries of late years have been quite enormous, and have far exceeded those absorbed by any of the other channels of expenditure.

Exportation of Gold and Silver to the East.—Humboldt estimated that, of the entire produce of the American mines at the beginning of this century, amounting, as already seen, to 43,500,000 dollars, no less than 25,500,000 were sent to Asia, 17,500,000 by the Cape of Good Hope, 4,000,000 by the Levant, and 4,000,000 through the Russian frontier. Probably, however, this estimate was a good deal beyond the mark. 'Humboldt, cela n'est plus douteux, estimait trop haut la valeur de l'or et de l'argent, qui s'écoulaient au commencement de ce siècle d'Europe en Asie, et portaient trop bas la déperdition qu'ils éprouvaient, dans le même temps, par le frottement et leur conversion en objets d'orfévrerie et de bijouterie.' (Dupuynode, *De la Monnaie etc.* i. p. 35.) There is no longer, we believe, any doubt in regard to the accuracy of the latter part of this statement; and it is pretty generally supposed that the first part is also well founded. But some years ago this immense drain began to diminish, and in 1832 and 1833 it actually set in an opposite direction. Then for a time it fluctuated, sometimes inclining to the one side and sometimes to the other. With the exception, however, of the bullion received in payment of the 21,000,000 dollars due to us by China, under the treaty of 1842, there was not for some years any very decided movement of bullion from Europe to the East, or from the East to Europe, though, on the whole, the imports into the latter appear to have exceeded the exports; at least, this was certainly the case during the 5 years from 1844–45 to 1848–49, both inclusive. But more recently, or since 1850, the drain for bullion for the East set in with renewed force; and for 7 years down to the crisis of 1866 the average was only 10,000,000*l.* This is evident from the following statements:—

Total Exports of Bullion from Great Britain to the East.

Years	Gold	Silver
	£	£
1859	615,895	16,004,028
1860	1,701,886	5,124,236
1861	796,195	7,281,872
1862	1,019,621	10,710,209
1863	3,371,806	8,840,842
1864	2,059,794	6,508,368
1865	580,262	5,808,260
1866	457,941	2,537,930
1867	241,919	645,415

It is to be borne in mind that although India did not, for several years prior to 1850, derive any considerable supply of bullion from Europe, she drew during that period large supplies from China. This was a consequence of the vast increase of the importations of opium into the latter. With the exception of tea and silk, China has few native products, other than the precious metals, fit for foreign markets. And the exports of the former being for some years not much more than sufficient to pay for the products sent to her from Europe and America, a very considerable part of the cotton and opium she imported from India was paid for in bullion, the increased exports of which were said to have latterly brought her into serious difficulties. But the circumstances are now (1869) entirely changed. The demand for the silks, teas &c. of China, in this and other western countries, has latterly become so immense, and has so far exceeded the value of the produce exported by them to China, that the balance in bullion received by the latter on her trade with them, has enabled her to meet with little or no difficulty the drain for bullion occasioned by the increased imports of opium from India. The following statements set these results in a sufficiently clear point of view:—

Account of the Total Value of the Exports from India to China, and of those from China to India, in each of the 6 Years ending with 1866, showing the Excess of the former over the latter.

Years	Exports from India to China	Exports from China to India	Excess of Indian Exports
	£	£	£
1861	11,089,966	2,590,365	8,899,601
1862	10,467,229	4,396,068	6,071,161
1863	12,127,527	4,567,803	7,559,724
1864	10,595,235	3,819,961	6,775,274
1865	*10,874,652	*4,278,965	6,595,687
1866	11,739,565	*8,845,238	2,885,327

* Including Japan.

Comparison between the Balance due by China to India, and by the United Kingdom to China.

Years	China to India	United Kingdom to China
	£	£
1861	8,899,601	4,129,998
1862	6,071,161	8,899,750
1863	7,559,724	10,087,525
1864	6,775,687	10,683,971
1865	6,595,687	6,175,001
1866	2,885,327	3,451,098
Total	38,787,187	43,427,343

Account of the Total Value of the Exports from the United Kingdom to India and China, and of the Total Value of Imports from India and China into the United Kingdom, in each of the 7 Years ending with 1867, showing the Balance in favour of the latter.

Years	Exports			Imports			Excess of Imports
	To India	To China	Total	From India	From China	Total	
	£	£	£	£	£	£	£
1861	17,053,355	4,940,446	21,993,801	21,968,752	9,070,445	31,039,197	9,045,396
1862	15,346,426	3,237,336	18,583,762	34,133,551	12,137,095	46,270,646	27,686,884
1863	20,817,109	4,098,785	24,916,194	48,434,740	14,186,310	62,621,050	37,704,856
1864	20,755,864	4,980,059	25,735,923	57,295,499	15,675,930	67,969,529	42,233,706
1865	18,833,191	5,276,062	24,109,253	37,295,152	11,451,063	48,816,515	24,737,262
1866	20,671,319	7,677,633	28,348,952	36,901,997	11,128,661	48,030,658	19,681,706
1867	22,862,395	7,671,104	30,533,799	25,487,786	9,583,776	35,071,562	4,477,763

Account of the Total Value of the Exports from the United Kingdom to China, and of those from China to the United Kingdom, in each of the 7 Years ending with 1867, showing also the Excess of the latter over the former.

Years	Exports from United Kingdom to China	Exports from China to United Kingdom	Excess of Chinese Exports
	£	£	£
1861	4,940,446	9,070,445	4,129,998
1862	3,237,336	12,137,095	8,899,759
1863	4,098,785	14,186,310	10,087,525
1864	4,980,059	15,675,930	10,695,871
1865	5,276,062	11,451,063	6,175,001
1866	7,677,633	11,128,661	3,451,028
1867	7,671,104	9,523,776	1,852,372

Account of the Total Value of the Exports from the United Kingdom to India, and of those from India to the United Kingdom, in each of the 7 Years ending with 1867, showing the Excess of the latter.

Years	Exports from United Kingdom to India	Exports from India to United Kingdom	Excess of Indian Exports
	£	£	£
1861	17,053,355	21,968,752	4,915,397
1862	15,346,426	34,133,551	18,787,125
1863	20,817,109	48,434,740	27,617,331
1864	20,755,864	57,295,499	36,539,635
1865	18,833,191	37,295,152	18,462,261
1866	20,671,319	36,901,997	16,230,678
1867	22,862,395	25,487,786	2,625,391

It is plain from these statements:—

I. That, taking India and China together, the imports from them into this country have greatly exceeded the exports, leaving a heavy balance to be discharged by shipments of bullion.

II. In regard to China, the imports from which so greatly exceed the exports, except in 1866 and 1867, which, in consequence of the commercial crisis, have been exceptional, it is difficult to form any anticipation of what may take place in future. There can, indeed, be little or no doubt that, great as the imports of silk and tea now are, they will become much greater in future. The real question is, Will the demand for British products in China extend in the same, in a less, or in a greater proportion? And though the question be by no means free from difficulty, we incline to think that the influence of the late treaty, and the greater facilities it affords for the importation of foreign products into China, will increase the amount of the imports. But we have no idea that they will, if ever, at least for many years to come, be equal to the exports; or that the balance between China and England will cease to be largely against the latter.

III. It is equally difficult to cast the horoscope of the future trade between India and China. The importation of opium into the latter is now legalised, and an increase of imports may, in consequence, be expected. But, on the other hand, opium is beginning to be extensively grown in China; and, if its home culture succeed, it is next to certain that the importation from India will be lessened. These, however, are matters which must be left to time and experience to clear up and decide.

IV. On the whole, however, it appears to be sufficiently plain, in whatever way bullion may be distributed among the Eastern countries, that they will continue, as hitherto, to import large supplies from the Western world. In truth it is much cheaper here than in the East; and, being so, it is advantageous to export it. There is therefore every prospect that the drain of bullion from the West to the East will go on, with occasional oscillations, for the time to come as it has done in times gone by; and that it will continue to absorb a very large proportion of the produce of the mines, perhaps as much as 5 or 6 millions a-year. Though a considerable reduction in the amounts of late years might be anticipated, were we to become less indebted to India for supplies of cotton.

It is seen from the previous statements that silver forms by far the larger portion of the bullion exported to the East. But this depends on peculiar circumstances; and it is by no means clear, nor indeed very likely, that silver will permanently continue, as heretofore, to be sent to India and China in preference to gold. On the contrary, it seems to be extremely probable, provided there be any material or indeed sensible decline in the value of gold, as compared with silver, that it will begin to be largely exported to these countries. It is extensively used in Hindostan for ornaments, and is preferred by many, both in India and China, to silver, as being more portable and better suited for hoarding. In the event, too, of these great countries becoming, as it is all but certain they will do, richer and more commercial, gold will no doubt be employed, whether legal tender or not, to a less or greater extent, in the settlement of pecuniary transactions. And, on the whole, we should be inclined to anticipate that anything like a considerable fall in the value of gold would make it go far gradually to supersede silver in shipments to the East, and open for it in that quarter an all but boundless market.

In all speculations in regard to the probable future supply of gold, it should be carefully borne in mind that any considerable fall in its value would unavoidably check its production, and, consequently, tend to lessen or prevent its further fall. It is plain, for example, that a decline of 10 per cent. in the value of gold would, cæteris paribus, occasion the abandonment of all those mines, diggings, washings &c., which only yield a nett profit of that amount. We are aware, that owing to the production of gold, as at present carried on, having more of a gambling character than pertains to most branches of industry, the principle now stated would not operate so speedily as might, perhaps, be anticipated. But of its ultimate operation there can be no question. And it may, therefore, be laid down that any reduction in the value of gold, which is not accompanied by a corresponding improvement in the methods of

its production, inevitably tends to correct itself, or to check or hinder its further reduction.

Substitution of Gold for Silver.—Hitherto both gold and silver coins have been legal tender in the United States, France, and some other countries. Wherever such is the case, the value of the coins in respect of each other has to be fixed by authority; that is, it has to be enacted that debts may be discharged by payments either of gold or silver money, at the rate of so many dollars to the eagle, francs to the Napoleon d'or, shillings to the sovereign, and so on, as laid down in the mint regulations of the different countries. But however correct at the periods when they are made, these valuations speedily become incorrect; and whenever such is the case, it is for everybody's advantage to make all his payments in the metal which happens to be overvalued as compared with the other. And hence the use of gold as money in preference to silver in England, and of silver in preference to gold, down to a comparatively late period, in France and the United States.

In the improbable event of the mint valuations of gold and silver continuing for any considerable period to be nearly identical with their real values, the former would be sure to be preferred as money to the latter in all but petty transactions. Being much more valuable in proportion to its bulk and weight than silver, gold is more easily concealed and carried about. When notes circulate of a low value, the advantage now referred to on the side of gold is less obvious. But such low notes are in all respects most objectionable; and where, as in England, there are no notes in circulation for less than 5*l*., and in France for less than 50 francs, the use of gold as money is accompanied with so many advantages, that we are disposed to think it would maintain its place even though it were somewhat underrated as compared with silver. Inasmuch, however, as gold has so many natural grounds of preference on its side, the true plan is to make it the only standard, and to use silver merely as a subsidiary currency. This plan has been followed since 1817 in this country with the most complete success; and there is no reason to doubt that it may be elsewhere adopted with equal advantage.

The late extraordinary demand for silver in India has been quite enough to make gold be substituted for it in those countries in which they are equally legal tender. In France, for example, where the metallic currency consisted, down to 1850, almost wholly of silver, it now consists principally of gold. This is evident from the following account of the gold and silver coinage in that empire from 1850 down to 1857, both inclusive:—

Years	Gold	Silver	Total
	fr.	fr. c.	fr. c.
1850	85,192,590	86,458,485 20	171,650,875 20
1851	269,709,570	59,327,308 90	329,036,878 90
1852	27,028,270	71,918,445 50	98,946,715 50
1853	312,964,080	20,099,488 20	333,063,568 20
1854	526,528,200	2,123,847 20	528,652,047 20
1855	447,427,580	25,500,305 50	472,928,125 50
1856	508,281,096	54,422,214 —	562,701,209 —
1857	572,561,225	3,809,611 —	576,370,836 —
Total	2,749,693,491	323,659,745 50	3,073,353,235 50*
Equal in sterling to	£109,987,740	£12,946,389	£122,934,129

* Levasseur, *Question de l'Or*, 8vo. p. 105, Paris 1858.

In the United States the coinage of gold has increased in a somewhat similar ratio, having risen from 9,007,761 dols. in 1849 to 62,614,492 dols. in 1851, and 59,343,465 dols. in 1856. In 1866 the value of the gold coin produced by the United States Mint was 28,217,187 dols., while the value of the silver coin issued was but 986,871 dols. Hence gold coin is now used in these two countries, as it is used in England, in all considerable payments which are not effected by notes or cheques; while large portions of the silver coin that has in consequence been disengaged have found their way to the East.

This substitution of gold for silver, while it materially enlarges the field for the employment of the former, proportionally narrows that for the employment of the latter. And hence a very considerable permanent addition may be made to the comparative supply of gold without its value, measured in silver, being materially affected. In the end, no doubt, the values of both metals will be proportioned, independently of variations of demand, to the respective costs of their production. But before this equalisation can take place, they must be distributed among the various countries of the world according to the circumstances peculiar to each, including therein their peculiar aptitudes for different purposes, and the novel conditions of their supply.

In India, where wages have always been very low, the great bulk of the coin in circulation has consisted of silver: and in 1835 it was made the only legal tender. But though not legal tender, gold coins continued to circulate in India: and a proclamation issued in 1841 directed them to be received at the public treasuries. Little attention was paid to this measure at the time; but after the discovery of the gold deposits in Australia, it became obvious, if gold coins continued to be received by the public departments, that eventually none else would be paid into them; that silver would cease to be employed except in petty payments; and that Government, as well as individuals, would be injured by any fall that might take place in the value of gold. This contingency appears to have alarmed the Government; and notice was accordingly given on December 22, 1852, that from and after January 1, 1853, gold coins would not be received on account of taxes or other payments due to the public. Silver has, consequently, again become in fact as well as in law the sole legal tender of India.

But these appear to be most inadequate grounds for the course that was adopted. There are no sufficient reasons for supposing that any material, or indeed sensible, injury, would have resulted either to the Government or to individuals from the contingencies referred to; and there are at the same time various circumstances which make it much to be regretted that an attempt should have been made to exclude gold from the currency of India. Silver coins, being the only ones fitted to serve the purposes of the great bulk of the inhabitants, must always be in extensive demand in all parts of the peninsula. But had gold also been allowed to circulate as coin, it is most likely that it would have been extensively employed in making large payments, and it would also have been extensively hoarded. Even as it is, leaf and bar gold have been of late largely imported into India from China, to be used in the arts or buried. In 1855–6, for example, the imports in question amounted to no less than 1,508,541*l*.; the fair presumption being, that but for the suppression of gold as currency, they would have been very much greater. And if so, the increased demand for gold would, on the one hand, have in so far counteracted that fall in its value which has been so generally apprehended; while, on the other, it would, by lessening the demand for silver, have checked any tendency it may have had to rise. And for these, and other reasons that will readily suggest them-

selves to the reader, it would be good policy to re-introduce a gold currency. It is contrary to all principle, and indeed to the plainest dictates of common sense, to exclude it by forcible means from a field where it would otherwise be largely used, the more especially as by doing this we create an unnatural demand for silver at the very time when it is supposed to be rising in value as compared with gold.

A further substitution of gold for silver may probably be effected by using gold coins of less value than formerly. In the United Kingdom, for instance, gold might be advantageously coined into 5*s.* pieces. The French have set us the example by coining gold 5 franc pieces. It would be inconvenient, perhaps, to have gold coins worth less than this; but of this value their employment is beneficial, as well by economising the use of silver, as by their being more convenient and easily carried about.

Supposing that the substitution of gold for silver now referred to were fully effected, and that the production of gold as compared with silver were to go on as it has done since the discovery of the Californian and Australian gold-fields, the value of silver, measured in gold, could hardly fail to rise. This, however, will in great measure depend on the demand for silver for the East continuing at about its late average amount, or on its not falling off, which it would be sure to do were gold again made legal tender. And there are, besides, but slender grounds for thinking that gold and silver will continue for any considerable period to be produced in the same proportions that they have been during the last 20 years. The presumption, indeed, appears to be rather in favour of the future increase of silver than of gold.

We may, perhaps, before proceeding further, notice in this place the following estimate, which the Bank of England laid before the Committee of the House of Commons on Banks in 1857–58 :—

Years	Imports from Producing Countries		Exports to the East from Great Britain and the Mediterranean	
	Gold	Silver	Gold	Silver
	£	£	£	£
1851	8,654,000	4,076,000	102,000	1,716,000
1852	15,191,000	4,712,000	922,000	2,630,000
1853	22,135,000	4,335,000	974,000	5,559,000
1854	22,077,000	4,199,000	1,222,000	4,585,000
1855	19,875,000	3,717,000	1,192,000	7,931,000
1856	21,275,000	4,761,000	479,000	11,108,000
1857	21,566,000	4,050,000	529,000	20,146,000
Total -	130,876,000	29,850,000	5,420,000	56,676,000

Gold.

	£
The total import of gold in seven years to 1856 has been, say - - - - -	124,000,000
The exports of gold bullion and British gold coin to India, China, Australia, the Cape, Brazils, the West Indies, United States &c. may be taken at - -	18,000,000
Which would leave as the increase to the European stock of gold - - - - -	106,000,000

Silver.

	£	£
The exports of silver to India and China have been - - -	40,000,000	
The imports from the producing countries	44,000,000	
Making the amount of silver added to the European stock - - - - - -		4,000,000
And the estimated increase in the European stock of bullion - - - - -		110,000,000

In some respects this estimate might be advantageously modified. But supposing it to be, as it may be presumed it is, nearly accurate, still it is obvious that, to get the total addition made to the stock of European bullion during the 7 years ending with 1856, we must add the bullion produced in Europe during the above period. And the latter being taken at 1,500,000*l.*, a-year, makes an aggregate sum of 10,500,000*l.*, which added to the above balance of 110,000,000*l.*, makes the total increase amount to 120,500,000*l.*

But, though immense, the demands which this fund has had to sustain have been equally immense. We have already seen that the coinage of gold in France during the 8 years ending with 1857 amounted to no less than 109,987,740*l.*; and during the 7 years ending with 1857, the period referred to in the Bank of England estimate, it amounted to 87,085,201*l.* A portion of this gigantic sum was derived from Dutch, English, and other European coin imported into France, and very considerable portions were exported, partly to the Crimea, and thence to the adjacent Asiatic countries, for supplies for the French forces in that quarter, and partly to the East by way of Egypt, Smyrna &c. Still, however, we feel satisfied that we shall be far within the mark if we assume that France has absorbed 35,000,000*l.* of new gold, during the period in question, in the shape of coin, which is partly employed as currency and partly hoarded. (See, in confirmation of the statement now made, Levasseur, *La Question de l'Or*, p. 106.) And if we be nearly right in this assumption, it follows that only 56,550,000*l.*, or 8,080,000*l.* a-year, remains to supply all Europe,—1st, with new coins (ex France), and to make good the wear and loss of the old coins; 2nd, to supply the sums required for use in the arts; and 3rd, to supply those that are hoarded and carried away in the pockets of emigrants &c. &c. A very considerable addition has been made to the metallic currency of the United Kingdom during the 10 years ending with 1866, viz. 51,865,783*l.* of gold, and 3,714,109*l.* of silver; total, 55,579,892*l.* Owing, however, to our gold coins being exempted from seignorage, they have no greater value than an equal weight of standard bullion, and are exported indifferently with the latter. Hence the accounts of the sums coined throw, if taken by themselves, little or no light on the increase or diminution of the currency.

The item of coins carried away by emigrants is of much more importance than is generally supposed. Taking the entire number of emigrants from Europe to the United States, Australia, and all other places at 400,000 a-year, it is pretty certain that they do not take with them, at an average, less than 2*l.* to 3*l.* in coin, besides plate, watches, rings &c. Some estimates make the exports of bullion by emigrants much greater than this; but even on this very moderate hypothesis it will amount to 1,000,000*l.* a-year in coin only.

Hence, as compared with the outgoings, the supply of bullion in Europe during the last seven or eight years, far from being in excess, has been scanty rather than otherwise. And without a diminution of the former, or an increase of the latter, most people amongst us will be but little sensible of the influence of Californian and Australian gold.

Past and probable future influence of the increased supply of bullion on prices and on its value.—The previous statements seem to be sufficient to show that the present supply of the precious metals is not more than adequate to meet the average existing demand, and that therefore there is no ground for anticipating a fall in their value unless the supply should be increased or the demand diminished.

It is now (1869) 21 years since the increased supplies of gold from California, and 18 since those from Australia, have been poured into the markets of Europe and America; and yet there has not, during that period, been anything like a general rise of prices. On the contrary, the prices

of the majority of articles are as low at this moment as they were at the same time in 1850, while several are lower. And of those that have risen in price since the latter epoch, there is not one of which the rise may not be satisfactorily explained by something peculiar to itself, and affecting either its demand or the conditions of its supply, or both. Thus, the rise that has taken place in the rate of wages in Great Britain and in Ireland is ascribable, partly to the greater demand for labour, partly to the extent to which emigration has been carried, and partly to the potato rot and the consequent famine in Ireland, and may be fully accounted for in this way. There is, in truth, nothing whatever, in comparing the prices of to-day with those of 20 years ago, to entitle any one to affirm that the value of gold and silver has undergone any appreciable change in the interval.

That there is but little probability that prices will be raised by a continuance of the present supplies of gold and silver, may be inferred from what took place after the discovery of America in 1492. It appears from the researches of Adam Smith (*Wealth of Nations*, 1 vol. 8vo. p. 88), and other authorities, that the influx of the precious metals had exerted its full effect upon prices previously to or about 1640; and yet this influx was much greater then and subsequently than it had been at any previous period. According to the best information attainable, the average annual importation of the precious metals from America into Europe, from 1492 down to 1810, may be estimated as follows:—

			£
From 1492 to	1500	- - -	51,300 a-year
1500	1545	- - -	651,600 ,,
1545	1600	- - -	2,389,200 ,,
1600	1700	- - -	3,175,200 ,,
1700	1750	- - -	4,887,030 ,,
1750	1803	- - -	7,667,160 ,,
1803	1810	- - -	9,016,920 ,,

Annual average of the entire period (1492-1810), 4,109,191*l.*

In 1640 or 1650, when the bullion of America had produced its full effect on prices in Europe, its annual influx amounted to about 3,000,000*l.* And yet, though its influx was nearly trebled between that epoch and 1803, it is admitted on all hands that, down to the last-mentioned year, there was no general rise of prices. The increased demand of Europe was fully sufficient to take off this great increase of supply without any fall taking place in the value of silver. Indeed, it is contended by some high authorities that, instead of falling, it rose in value during the period referred to. Prices rose in this country subsequently to 1793; but this was entirely owing to the difficulties which the war then commenced threw in the way of importation, the waste of capital and the shock given to industrial undertakings which it occasioned, and the disorders of all sorts incident to national struggles.

There can be no manner of doubt, not merely that the quantity of the precious metals employed in Europe and America is incomparably greater now than in the seventeenth and eighteenth centuries, but that the demand for additional quantities is also incomparably greater. And when it is seen that their value continued stationary from 1650 to 1800, despite the immense additional supplies that were thrown upon the market, there is, it is plain, little ground for wonder that their late increase, great as it has been, has not affected their value, or for anticipating that it will materially decline in the course of the next half-century.

A fall in the value of the precious metals would, on the whole, be advantageous.—Should it turn out that we are mistaken in these conclusions, and that a considerable fall in the value of the precious metals is about to commence, it is satisfactory to know that there are no really tenable grounds for supposing that such fall will be publicly injurious. It is indeed impossible for any change to take place in the measure of value without its exercising an injurious influence over a greater or less number of individuals. But if the loss it may inflict on A, B, and C, be countervailed by the advantages which it confers on X, Y, and Z, its effect in a public point of view may not be perceptible. It is easy to see that, in the case now under consideration, the inconveniences resulting from a fall in the value of gold and silver would be a good deal more than compensated by the advantages of which it would be productive.

1. In the first place, we may observe that the mischievous influence resulting from a fall in the value of the precious metals depends in great measure on the rapidity with which it is brought about. If it were to take effect suddenly, and without giving any distinct warning of its approach, it would be much more injurious than if it took effect slowly and gradually; for, in the former case, it is difficult to take any measures by which to mitigate or avert the impending evil, whereas, in the latter, abundant opportunities are afforded for that being done; and though these were not taken advantage of, a change that is brought about by a slow and all but insensible progress is but little felt, at least when compared with one that takes place suddenly or rapidly. Now it is sufficiently certain, supposing the value of the precious metals to be in the end reduced, that that reduction will be a very slow process; and that anyone likely to be injuriously affected by its occurrence will have ample time to concert measures to secure himself, as far as may be practicable, against its operation. That we are warranted in coming to this conclusion is obvious. When an unprecedented influx of bullion has been going on for twenty years without having had any appreciable influence over its value, it would be contradictory to suppose that it is at all likely to be speedily and seriously affected by a continuance of the influx.

2. But supposing that these anticipations should not be realised, and that the supplies of the precious metals should be largely and rapidly increased, and their value reduced, the results are not of a kind that should be deprecated. 'In every kingdom,' says Hume, 'into which money begins to pour in greater abundance than formerly, everything takes a new face: labour and industry gain life, the merchant becomes more enterprising, the manufacturer more diligent and skilful, and even the farmer follows his plough with greater alacrity and attention. But when gold and silver are diminishing, the workman has not the same employment from the manufacturer and merchant, though he pays the same price for everything in the market; the farmer cannot dispose of his corn and cattle, though he must pay the same rent to the landlord: the poverty, beggary, and sloth that must ensue are easily foreseen.' (*Essay on Money.*)

Hume appears to have supposed that the stimulus he has so well described, which is given by an influx of money to industry, is occasioned by the additional money coming first into the hands of capitalists, and enabling them to extend their businesses and employ more work-people. But though this would have some influence, the philosophical historian seems to have overlooked the mode in which an increase in the quantity, and a fall in the value of money, principally contribute to excite industry and enterprise. Such fall proportionally diminishes the many fixed money

payments that are borne by the industrious classes. The prices of commodities vary with variations in the value of money; whereas taxes, rents, mortgages, and other pecuniary burdens, continue stationary for longer or shorter periods. The latter are rated or specified in certain amounts of money—those to whom these are due being obliged to receive them in payment, though the value of money should have fallen 5 to 10, or even 50 per cent. since the date of the contract or engagement in which the payments originate; while those by whom they are due are bound to pay them, however much the value of money may have risen. Hence the powerful influence of variations in its value over the different classes of society. When it declines, the debtor portion, or those who have fixed money payments to make, are benefited at the expense of the creditor portion, or those who have such payments to receive; and conversely when it rises. Fundholders, annuitants of all sorts, landowners during the currency of the leases of their estates, mortgagers, the army and navy, civil service &c., suffer according to the diminution in the value of money; for, though their incomes and claims continue nominally the same, their value is really reduced, and they no longer have their former command over necessaries and conveniences. But while the farmer pays the same rent for his farm, and the same taxes to Government, he sells his produce for a price increased proportionally to the reduced value of money. And while merchants, manufacturers, and tradesmen pay the same duties on their goods, the same port and market dues, the same tolls, the same rent for shops and warehouses, the same rate of interest for capital borrowed, and so on, they obtain increased prices for whatever they have to sell. In other words, the condition of these classes is improved at the expense of their landlords and creditors, and of annuitants, and other receivers of incomes which are either temporarily or permanently reduced through the fall in the value of money. The greater the fall, the more advantageous for them; and conversely.

Now, as fixed or stationary payments include the interest of the public debt, as well as the many outgoings of Government which do not readily accommodate themselves to changes in the value of money, with the rents of farms and houses let on lease, or under equivalent agreements, feu-duties, the interest of mortgages, and other stationary loans, the payments to private annuitants and clergymen, the fees of lawyers, physicians &c., it is obvious that, in a country like this, they must amount in the aggregate to a vast sum. No doubt it sometimes, and indeed not unfrequently happens, that individuals belong to both classes, or that they have fixed payments to receive as well as to make, and that therefore neither the gain to the one party, nor the loss to the other, from fluctuations in the value of money, is so great as might be at first supposed. Still, however, there is no room for doubting that the greater proportion by far of fixed payments is made to the classes not engaged in business or in industrial undertakings by those who are; and hence the advantage which any considerable fall in the value of money confers on the latter—that is, on those whose well-being, and that of the public, are commonly supposed to be identical. Such fall, by lightening the burden of taxation and of all fixed charges, increases universally the productiveness of industry and the rate of profit. And it is hardly necessary to add that this increased profit operates as a spur to production, that it quickens all the operations of trade, and occasions an increased demand for labour.

The opposite effects follow when, instead of falling, the currency becomes more valuable. Taxes and fixed charges being then augmented in an equal degree, the profits of those by whom they are principally borne are proportionally reduced, industry is depressed, and the situation of the productive classes changed for the worse. But though there cannot, as it appears to us, be a doubt that a fall in the value of money, however injurious to large classes, is on the whole advantageous, we hope it will not be thence inferred that we are disposed to approve in any degree of an intentional reduction of its value. Money being the standard or measure of value, to interfere with it, whether in the way of increase or diminution, would be an act of extreme injustice. Government is bound to protect, in as far as possible, the rights and interests of all classes of its subjects; and it cannot, without trampling on its most sacred duty, adopt, to benefit one part of them, any measure which might be injurious to another part. But a fall in the value of the precious metals caused by the greater facility of their production, or by the discovery of new sources of supply, is a wholly different matter. It depends in no degree on the theories of philosophers or the decisions of statesmen or legislators, but is the result of circumstances that are beyond human control. And though, like a fall of rain after a long course of dry weather, it may be prejudicial to certain classes, it is beneficial to an incomparably greater number, including all who are actively engaged in industrial pursuits; and is, speaking generally, of great public or national advantage.

On the whole, therefore, we are warranted in concluding—1. That there has been no fall in the value of the precious metals, and more especially in that of gold, during the 20 years ending with 1868; 2. That there do not appear to be any good grounds for anticipating a speedy or considerable fall in the value either of gold or silver; and 3. That supposing a fall in the value of gold were to take place, its advantages would much more than countervail its disadvantageous influence.

PREMIUM. [INSURANCE.]

PRICES. By the price of a commodity is meant its value estimated in money, or, simply, the quantity of money for which it will exchange. The price of a commodity rises when it fetches more, and falls when it fetches less money.

1. *Price of freely produced Commodities.*—The exchangeable value of commodities—that is, their power of exchanging for or buying other commodities—depends, at any given period, partly on the comparative facility of their production, and partly on the relation of the supply and demand. If any two or more commodities respectively required the same outlay of capital and labour to bring them to market, and if the supply of each were adjusted exactly according to the effectual demand—that is, were they all in sufficient abundance, and no more, to supply the wants of those able and willing to pay the outlay upon them, and the ordinary rate of profit at the time—they would each fetch the same price, or exchange for the same quantity of any other commodity. But if any single commodity should happen to require less or more capital and labour for its production, while the quantity required to produce the others continued stationary, its value, as compared with them, would, in the first case, fall, and in the second, rise; and, supposing the cost of its production not to vary, its value might be increased by a falling off in the supply, or by an increase of demand, and conversely.

But it is of importance to bear in mind that all

variations of price arising from any disproportion in the supply and demand of such commodities as may be *freely produced in indefinite quantities*, are *temporary* only; while those that are occasioned by changes in the cost of their production are *permanent*, at least as much so as the cause in which they originate. A general mourning occasions a transient rise in the price of black cloth: but supposing that the fashion of wearing black were to continue, its price would not permanently vary; for those who previously manufactured blue and brown cloths &c. would henceforth manufacture only black cloth; and the supply being in this way increased to the same extent as the demand, the price would settle at its old level. Hence the importance of distinguishing between a variation of price originating in a change of fashion or other accidental circumstance—such, for example, as a deficient harvest—and a variation occasioned by some change in the cost of production. In the former case, prices will, at no distant period, revert to their old level; in the latter, the variation will be lasting.

When the *price* of a freely produced commodity rises or falls, such variation may evidently be occasioned either by something affecting its value, or by something affecting the value of money. But when the generality of commodities rise or fall, the fair presumption is that the change is not in them, but in the money with which they are compared. This conclusion does not, however, apply in all cases; and we believe that most part of that fall in the price of commodities, which has taken place since the peace of 1815, and which has been so generally ascribed to a rise in the value of money, occasioned by a decline in the productiveness of the mines, has been caused by the increased productiveness of industry, arising from the abolition of oppressive restraints on commerce, the opening of new and more abundant sources of supply, and the discovery of new means and improved methods of production. [Precious Metals.]

2. *Price of monopolised Commodities.*—Exclusive, however, of the commodities now alluded to, there is a considerable class whose producers or holders enjoy either an *absolute* or a *partial* monopoly of the supply. When such is the case, prices depend entirely or principally on the proportion between the supply and demand, and are not liable to be influenced, or only in a secondary degree, by changes in the cost of production. Antique statues and gems; the pictures of the great masters; wines of a peculiar flavour, produced in small quantities, in particular situations; and a few other articles, exist under what may be called absolute monopolies;—their supply cannot be increased; and their price must, therefore, depend entirely on the competition of those who may wish to buy them, without being in the slightest degree influenced by the cost of their production.

Monopolies are sometimes established by law; as when the power to supply the market with a particular article is made over to one individual or society of individuals, without any limitation of the price at which it may be sold; which, of course, enables those possessed of the monopoly to exact the highest price for it that the competition of the buyers will afford, though such price may exceed the cost of production in any conceivable degree. Monopolies of this sort used to be common in England, particularly in the reign of Elizabeth: but they were finally abolished by the famous Act of the 21 Jas. I. c. 3—an Act which, by establishing the freedom of competition in all businesses carried on at home, has been productive of the greatest advantage. [Monopoly.]

The corn laws established a partial monopoly of the supply of Great Britain with corn in favour of the agriculturists; but, as competition was carried to as great an extent in agriculture as in any other business, this monopoly did not enable them to obtain a higher price for their produce than was sufficient to pay the expenses of its production, though, owing to the peculiar circumstances under which this country is placed, this price was higher than the price in the surrounding countries. Hence it resulted that the monopoly was injurious to the public, without being of any advantage to those engaged in the business of agriculture. Neither, indeed, could it be truly said to be advantageous to the landlords. [Corn Laws and Corn Trade (*Principles of the Corn Laws*).]

The rights conveyed by patents sometimes establish a valuable monopoly; for they enable the inventors of improved methods of production to maintain, during the continuance of the patent, the price of the article at a level which may be much higher than is required to afford them the ordinary rate of profit. This advantage, however, by stimulating invention, and exciting to new discoveries, of which it is the natural and appropriate reward, instead of being injurious, is beneficial to the public. [Patents.]

There are also partial monopolies, depending upon situation, connection, fashion &c. These, and other inappreciable circumstances, sometimes occasion a difference of 30 per cent. or more in the price of the same article in shops not very distant from each other.

Generally speaking, the supply of monopolised commodities is less liable to vary than the supply of those which are freely produced; and their prices are commonly more steady. But there are various exceptions to this rule, and of these the corn monopoly is one. The great variations in the harvests of particular countries, and their average equality throughout the world, expose a nation which shuts foreign corn out of its ports to destructive vicissitudes of price, from which it would enjoy a comparative exemption were the ports open. [Corn Laws and Corn Trade, &c.] Sometimes the expiration of a monopoly—a patent, for example—has occasioned a sudden and extraordinary increase of supply, and consequent fall of price; entailing, of course, a serious loss on the holders of large stocks of goods produced under the monopoly.

3. *New Sources of Supply.*—The effects on prices produced by the opening of new markets, or new sources of supply, are familiar to every one. The fall that has taken place in the price of pepper, and of most sorts of commodities brought from the East, since the opening of the trade in 1814, is a conspicuous proof of what is now stated.

4. *Influence of War on Prices.*—The effect of war in obstructing the ordinary channels of commercial intercourse, and occasioning extreme fluctuations in the supply and price of commodities, is well known. In this respect, however, the latter part of the war ended 1815 is, perhaps, entitled to a pre-eminence. We had then to deal with an enemy who had extended his sway over most part of the Continent; and who endeavoured, by every means in his power, to shut us out of the Continental markets. Mr. Tooke has given, in his elaborate and valuable work on *High and Low Prices*, a variety of details which strikingly illustrate the effect that the regulations then adopted by the belligerent powers had on prices. 'Among the means,' says Mr. Tooke, 'devised by the ingenuity and enterprise of adventurers to elude

or overcome the obstacles presented by the decrees of the enemy, one in particular, which was resorted to on an extensive scale, deserves mention, as illustrating in a striking manner the degree in which those obstacles were calculated to increase the cost to the consumer. Several vessels laden with sugar, coffee, tobacco, cotton twist, and other valuable commodities, were despatched from England, at very high rates of freight and insurance, to Salonica, where the goods were landed, and thence conveyed on mules and horses through Servia and Hungary to Vienna, for the purpose of being distributed over Germany, and, possibly, into France. Thus it might happen that the inhabitants of that part of the Continent most contiguous to this country could not receive their supplies from us without an expense of conveyance equivalent to what it would be if they were removed to the distance of a sea voyage twice round the globe, but not subject to fiscal and political regulations.' And in consequence of these, and other causes of the same sort, Mr. Tooke mentions that the price of sugar in France, and other parts of the Continent, during the latter years of the war already referred to, was as high as 5*s.* and 6*s.* a pound; that coffee rose to 7*s.*, indigo to 18*s.*, and so on.

But the sums charged for freight and insurance were the most extraordinary. Mr. Tooke states that he has known instances in which the license, freight, and other charges on account of a vessel of about 100 tons burden, making a voyage from Calais to London and back, have amounted to the almost incredible sum of 50,000*l.*! A ship, of which the whole cost and outfit did not amount to 4,000*l.*, earned during the latter period of this war a gross freight of 80,000*l.* on a voyage from Bordeaux to London and back. The freight of indigo from London to the Continent does not at present exceed 1*d.* a pound; whereas it amounted, at the period referred to, to about 4*s.* 6*d.* (*High and Low Prices*, 2nd ed. p. 212.)

5. *Influence of Taxes on Prices.*—It is unnecessary to dilate on a topic so familiar to every one. When a tax is laid on a commodity, its price necessarily rises in a corresponding proportion: for otherwise the producers would not obtain the ordinary rate of profit, and would, of course, withdraw from the business. The rise in the price of several of the articles in the annexed table is principally to be ascribed to the temporary increase of taxation.

These statements will probably suffice to give our readers a general idea of the principles which determine the value of commodities. To go deeper into the subject would involve us in discussions that belong to political economy, and are among the most intricate in that science. The influence of speculation on prices must not, however, be passed over in a work of this sort.

6. *Influence of Speculation on Prices.*—It very rarely happens that either the actual supply of any species of produce in extensive demand, or the intensity of that demand, can be exactly measured. Every transaction in which an individual buys produce in order to sell it again, is, in fact, a speculation. The buyer anticipates that the demand for the article he has purchased will be such, at some future period, either more or less distant, that he will be able to dispose of it with a profit; and the success of the speculation depends, it is evident, on the skill with which he has estimated the circumstances that must determine the future price of the commodity. It follows, therefore, that in all highly commercial countries, where merchants are possessed of large capitals, and where they are left to be guided in the use of them by their own discretion and foresight, the prices of commodities will frequently be very much influenced, not merely by the actual occurrence of changes in the accustomed relation of the supply and demand, but by the anticipation of such changes. It is the business of the merchant to acquaint himself with every circumstance affecting the particular description of commodities in which he deals. He endeavours to obtain, by means of an extensive correspondence, the earliest and most authentic information with respect to everything that may affect their supply or demand, or the cost of their production; and if he learned that the supply of an article had failed, or that, owing to changes of fashion, or to the opening of new channels of commerce, the demand for it had been increased, he would most likely be disposed to become a buyer, in anticipation of profiting by the rise of price, which, under the circumstances of the case, could hardly fail of taking place; or, if he were a holder of the article, he would refuse to part with it unless for a higher price than he would previously have accepted. If the intelligence received by the merchant had been of a contrary description—if, for example, he had learned that the article was now produced with greater facility, or that there was a falling off in the demand for it, caused by a change of fashion, or by the shutting up of some of the markets to which it had previously been admitted—he would have acted differently: in this case he would have anticipated a fall of prices, and would either have declined purchasing the article, except at a reduced rate, or have endeavoured to get rid of it, supposing him to be a holder, by offering it at a lower price. In consequence of these operations, the prices of commodities, in different places and periods, are brought comparatively near to equality. All abrupt transitions, from scarcity to abundance, and from abundance to scarcity, are avoided; an excess in one case is made to balance a deficiency in another, and the supply is distributed with a degree of steadiness and regularity that could hardly have been deemed attainable.

It is obvious, from what has now been stated, that those who indiscriminately condemn all sorts of speculative engagements, have never reflected on the circumstances incident to the prosecution of every undertaking. In truth and reality, they are all speculations. Their undertakers must look forward to periods more or less distant; and their success depends entirely on the sagacity with which they have estimated the probability of certain events occurring, and the influence which they have ascribed to them. Speculation is, therefore, really only another name for foresight; and though fortunes have sometimes been made by a lucky hit, the character of a successful speculator is, in the vast majority of instances, due to him only who has skilfully devised the means of effecting the end he had in view, and who has outstripped his competitors in the judgment with which he has looked into futurity, and appreciated the operation of causes producing distant effects. Even in the securest businesses, such as agriculture and manufactures, there is, and must be, a great deal of speculation. An unlooked-for change of season frequently disappoints the apparently reasonable expectations of those who undertake the former; while the equally capricious variations of fashion have to be encountered by those engaged in the latter; and each is, besides, liable to be affected by legislative enactments, by new discoveries in the arts, and by an endless variety of circumstances which it is always very difficult, and sometimes quite

impossible, to foresee. On the whole, indeed, the gains of the undertakers are so adjusted, that those who carry them on obtain, at an average, the common and ordinary rate of profit. But the inequality in the gains of individuals is most commonly very great; and while the superior tact, industry, or good fortune of some enables them to realise large fortunes, the want of discernment, the less vigilant attention, or the bad fortune of others frequently reduces them from the situation of capitalists to that of labourers.

The great cotton speculation of 1825 took its rise partly and chiefly from a supposed deficiency in the supply of cotton, partly from an idea that there was a greatly increased demand for raw cotton in this country and the Continent, and partly from a belief that the stocks on hand were unusually low. Now it is obvious that the success of those who embarked in this speculation depended entirely on two circumstances; viz. *first*, that they were right in the fundamental supposition on which the whole speculation rested, that the supply of cotton was no longer commensurate with the demand; and *second*, that their competition did not raise the price so high as to diminish the consumption by the manufacturers in too great a degree to enable them to take off the quantity to be actually brought to market. If the merchants had been well founded in their suppositions, and if their competition had not raised the price of cotton too high, the speculation would certainly have been successful. But, instead of being well founded, the hypothesis on which the whole thing rested was perfectly visionary. There was no deficiency in the supply of cotton, but, on the contrary, a great superabundance; and though there had been such a deficiency, the excess to which the price was carried must have checked consumption so much as to occasion a serious decline. The falling off in the imports of cotton from America in 1824 seems to have been the source of the delusion. It was supposed that this falling off was not accidental, but that it was a consequence of the price of cotton having been for a series of years so low as to be inadequate to defray the expenses of its cultivation. The result showed that this calculation was most erroneous. And besides, in entering on the speculation, no attention was paid to Egypt and Italy —countries from which only about 1,400,000 lb. of cotton were obtained in 1824, but from which no less than 23,800,000 lb. were obtained in 1825. This unlooked-for importation was of itself almost enough to overturn the combination of the speculators; and, coupled with the increased importation from America and other countries, actually occasioned a heavy glut of the market.

The risk to which merchants are exposed when they either sell off any commodity at a reduced price in anticipation of a fall, or buy at an advanced price in anticipation of a future rise, is a consequence principally of the extreme difficulty of ascertaining the true state of the fact with respect to the grounds on which an abundant or a deficient supply, or an increasing or decreasing demand, may be expected. Rules can here be of no service; everything depends upon the talent, tact, and knowledge of the party. The questions to be solved are all practical ones, varying in every case from each other; the skill of the merchant being evinced by the mode in which he conducts his business under such circumstances, or by his sagacity in discovering coming events, and appreciating their character and the extent of their influence. Priority, but, above all, accuracy of intelligence, is, in such cases, of the utmost consequence. Without well-authenticated data to go upon, every step taken may only lead to error. The instances, indeed, in which speculations, apparently contrived with the greatest judgment, have ended in bankruptcy and ruin, from a deficiency in this essential requisite, are so very numerous, that every one must be acquainted with them. Hence the importance of selecting acute and cautious correspondents; and hence, also, the necessity of maturely weighing their reports, and of endeavouring, by the aid of information gleaned from every authentic accessible source, to ascertain how far they may be depended upon.

When a few leading merchants purchase in anticipation of an advance, or sell in anticipation of a fall, the speculation is often pushed beyond all reasonable limits by the operations of those who are influenced by imitation only, and who have never, perhaps, reflected for a moment on the grounds on which a variation of price is anticipated. In speculation, as in most other things, one individual derives confidence from another. Such a one purchases or sells, not because he has any really accurate information as to the state of the demand and supply, but because some one else has done so before him. The original impulse is thus rapidly extended; and even those who are satisfied that a speculation, in anticipation of a rise of prices, is unsafe, and that there will be a recoil, not unfrequently adventure, in the expectation that they will be able to withdraw before the recoil has begun.

It may, we believe, speaking generally, be laid down as a sound practical rule, to avoid having anything to do with a speculation in which many have already engaged. The competition of the speculators seldom fails speedily to render an adventure that might have been originally safe, extremely hazardous. If a commodity happen to be at an unusually reduced price in any particular market, it will rise the moment that different buyers appear in the field; and supposing, on the other hand, that it is fetching an unusually high price, it will fall, perhaps far below the cost of production, as soon as supplies begin to be poured in by different merchants. Whatever, therefore, may be the success of those who originate a speculation, those who enter into it at an advanced period are almost sure to lose. To have been preceded by others ought not, in such matters, to inspire confidence; on the contrary, it ought, unless there be something special in the case, to induce every considerate person to decline interfering with it.

The maintenance of the freedom of intercourse between different countries, and the more general diffusion of sound instruction, seem to be the only means by which those miscalculations, that are often productive of great national as well as private loss, can be either obviated or mitigated. The effects consequent on such improvident speculations being always far more injurious to the parties engaged in them than to any other class, the presumption is that they will diminish, both in frequency and force, according as the true principles of commerce come to be better understood. But, whatever inconvenience may occasionally flow from them, it is abundantly plain, that instead of being lessened, it would be very much increased, were any restraints imposed on the freedom of adventure. When the attention of many individuals is directed to the same line of speculation; when they prosecute it as a business, and are responsible in their own private fortunes for any errors they may commit; they acquire a knowledge of the various circumstances

An Account of the Contract Prices of the following Articles of Provision &c. at the Royal Hospital, Greenwich, for the Years undermentioned. (Partly extracted from 'Parliamentary Papers,' and partly furnished by the Authorities at the Hospital.)

It may be right to observe that, in the infancy of the Institution, the clothes and bedding were contracted for in suits; and it is so stated in the account. It is also necessary to remark, that the blue cloth now used for the pensioners' coats is of a quality very inferior to the ancient pattern. In the case of carpenters' wages, from 1836 to 1841, the rates were subject to a deduction of 10 per cent.; and in the case of bricklayers', masons', and plumbers' wages, to a deduction of 7½ per cent.

Years	Flesh, per cwt.	Bread, per lb.	Flour, per sack	Butter, per lb.	Cheese, per lb.	Peas, per bushel	Oatmeal, per bshl.	Salt, per bushel	Malt, per quarter	Hops, per cwt.	Beer, per barrel	Carpenters, per day	Bricklayers, per day	Masons, per day	Plumbers, per day	Candles, per doz. lb.	Shoes, per pair	Coals, per chaldron	Mops, each	Stockings, per pair	Hats, each	Complete Suits of Bedding	Suits of Clothes	Coats, each
	£ s. d.	average	£ s. d.	s. d.	s. d.	s. d.	£ s. d.	s. d.	£ s. d.	£ s. d.	£ s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	£ s. d.	£ s. d.	s. d.	s. d.	£ s. d.	£ s. d.	£ s. d.
1729	1 5 8	1d. for 10 6/16 oz.	—	0 4½	0 3½	4 0	0 4 6	5 0	1 9 0	2 5 0	—	—	—	—	—	6 5	4 0	1 8 5	0 0 10½	1 9	2 8	3 5 0	2 12 0	—
1730	1 5 8	1d. for 14½ oz.	—	0 8	0 3½	4 0	0 4 6	5 0	1 0 6	2 5 10	0 3 9	Carps. 2 6 Joiners 2 6	2 6	2 6	3 0	6 4	4 0	1 4 6	per dozen 0 10 0	1 6	2 8	2 13 0	2 12 0	—
1735	0 16 11	1d. for 12½ oz.	—	0 5½	0 8½	3 6	0 4 0	4 0	1 0 3	3 9 6½	0 4 11½	Carps. 2 6 Joiners 2 8	2 6	2 6	3 0	4 2	4 0	1 5 0	0 10 6	1 6	2 3	Blankets, each 0 4 0	2 2 6	—
1740	1 8 0	1d. for 9 13/16 oz.	—	0 5	0 7½	3 6	0 4 0	4 0	1 7 3½	2 10 7½	0 5 2½	Carps. 2 6 Joiners 2 8	2 6	2 8	3 0	5 6	3 10	1 9 0	0 10 0	1 6	2 0	0 4 6	2 3 6	—
1745	1 2 2	1d. for 15 9/16 oz.	—	0 3½	0 2½	3 6	0 4 0	4 0	1 3 1	3 11 1	0 5 1½	Carps. 2 6 Joiners 2 8	2 6	2 8	2 6	6 0	3 6	1 10 0	0 11 0	1 6	2 0	0 4 6	—	1 2 4
1750	1 6 6	1d. for 13½ oz.	—	0 5½	0 5½	3 6	0 4 0	4 0	1 4 0	5 4 0	0 5 8½	Carps. 2 6 Joiners 2 8	2 6	2 8	2 6	6 2	3 9	1 7 7½	0 10 9	1 6	2 0	0 4 6	—	1 1 5
1755	1 7 9½	1d. for 14 6/16 oz.	—	0 5½	0 3½	3 6	0 4 0	4 0	1 2 0	2 15 0	0 4 5½	Carps. 2 6 Joiners 2 8	2 6	2 8	2 6	6 10	4 0	1 8 7½	0 11 0	1 8	2 0	0 4 4½	—	1 1 6
1760	1 11 6	1d. for 13½ oz.	—	0 5½	0 3½	3 6	0 4 0	4 0	1 4 9	4 13 4	0 5 7½	Carps. 2 6 Joiners 2 8	2 6	2 8	2 6	6 6	4 0	1 12 8	0 12 0	1 8	2 0	0 4 4½	—	1 1 0
1765	1 7 3	1d. for 9½ oz.	—	0 5½	0 3½	3 6	0 4 0	4 0	1 10 8	7 3 6	0 7 2½	Carps. 2 6 Joiners 2 8	2 4	2 8	3 0	6 2	4 0	1 12 4½	0 11 3	1 8	2 6	0 4 6	—	1 1 6
1770	1 8 6	1d. for 11 3/16 oz.	—	0 6½	0 5½	4 3	0 4 9	4 8	1 8 3	5 16 4	0 5 10	Carps. 2 6 Joiners 2 8	2 4	2 8	3 0	6 10½	4 0	1 9 1½	0 11 0	1 6	2 6	0 4 6	—	1 0 5
1775	1 13 5	1d. for 9 5/16 oz.	—	0 6½	0 3½	7 6	0 5 3	4 8	1 17 3	4 16 6	0 7 1½	Carps. 2 6 Joiners 2 8	2 4	2 10	3 0	6 3	3 10	1 10 11½	0 10 6	1 4	2 2	0 5 4½	—	0 19 11
1780	1 12 6	1d. for 11 6/16 oz.	—	0 6½	0 3½	7 6	0 5 3	4 8	1 11 1	2 14 8	0 7 3½	Carps. 2 6 Joiners 2 8	2 4	2 10	3 0	6 9½	3 11½	1 17 5½	0 12 0	1 6	2 2	0 5 4½	—	0 19 5
1785	1 17 6½	1d. for 10½ oz.	—	0 6½	0 3½	7 6	0 5 3	4 8	2 0 3	5 6 4	0 8 2½	Carps. 2 6 Joiners 2 8	2 4	2 10	3 3	6 6	3 6	1 14 2½	0 11 0	1 6	2 4	0 5 4½	—	1 0 3
1790	1 16 10	—	2 3 4	0 6½	0 4	7 6	0 5 3	4 8	1 15 6	6 13 9	0 8 7	Carps. 2 6 Joiners 2 10	2 4	2 10	3 3	7 9	3 11½	1 14 4½	0 14 0	1 6	2 6	0 5 4½	—	1 0 8
1795	2 2 10	—	3 5 8	0 8½	0 5½	9 6	0 6 4½	6 1½	2 8 3	7 7 10	0 10 4½	Carps. 2 6 Joiners 2 10	3 0	2 10	3 3	9 2	4 0	1 19 9	0 15 0	1 6	2 3	0 6 6	—	1 0 2
1800	3 4 4	—	4 16 0	0 11½	0 6½	13 5	0 14 0	14 0	4 4 0	16 15 9	1 0 4½	Carps. 2 10 Joiners 3 2	3 0	2 10	3 3	10 4	5 8	2 11 7	0 15 0	1 6	2 3	0 6 6	—	1 0 0
1805	3 0 4	—	4 2 3	0 11½	0 7½	7 9	0 12 0	16 10½	4 5 7	6 11 6	0 17 9½	4 6	4 10	5 0	4 6	10 7	5 9	2 11 8½	0 17 0	2 2	3 0	0 8 9	—	1 1 10
1806	3 1 0	—	3 9 6½	0 11½	0 7½	8 4½	0 10 3	19 9	3 16 0	6 7 9	0 16 3½	4 6	4 8	5 0	4 6	10 3	5 9	2 13 4	0 17 0	2 2	3 0	0 8 9	—	1 1 10
1807	3 3 0	—	3 3 8½	1 0½	0 7½	14 4½	0 9 4½	19 9	3 13 1½	5 19 0	0 15 5	5 0	4 8	5 0	4 6	9 10	5 0	2 14 0	0 12 0	2 2	3 0	0 8 9	—	1 1 6
1808	3 3 0	—	3 9 10½	1 0½	0 7½	19 2½	0 10 10	19 9	3 16 1½	4 12 6	0 16 5½	5 0	5 0	5 0	4 6	13 2½	5 0	2 15 9½	0 17 0	2 2	3 0	0 8 9	—	1 1 4
1809	3 6 6	—	1 5 1½	1 1 0	8	14 10½	0 11 9	19 9	4 4 5½	7 6 8	0 17 0	5 4	5 1	5 1	5 5	14 5½	5 6	3 0 9½	0 17 0	2 2	3 0	0 8 9	—	1 1 4
1810	3 12 0	—	4 8 4	1 1½	0 8½	9 5	0 11 7	19 9	4 4 5	7 6 8	0 17 10	5 8	5 2	5 3	5 9	12 0	5 6	3 0 8	0 17 0	2 2	3 0	0 8 9	—	1 1 4
1811	3 14 0	—	4 11 0	1 2½	0 8½	8 9	0 11 6	19 9	3 13 6	7 13 6	0 16 3½	5 6	5 5	5 9	5 9	10 9½	4 11	3 1 6	0 17 0	2 2	3 0	0 8 9	—	1 2 2
1812	3 18 0	—	5 7 5	1 3½	0 8½	12 8½	0 13 3	19 9	4 18 6	9 17 0	1 0 9½	5 6	5 5	5 9	5 9	12 6	4 11	2 16 1	0 17 0	2 6	3 0	0 8 9	—	1 2 2

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Account of Contract Prices of Articles of Provision &c. at Greenwich Hospital—continued.

Years	Flesh, per cwt.	Bread, per lb.	Flour, per sack	Butter, per lb.	Cheese, per lb.	Peas, per bushel	Oatmeal, per bshl.	Salt, per bushel	Malt, per quarter	Hops, per cwt.	Beer, per barrel	Carpenters, per day	Brick layers, per day	Masons, per day	Plumbers, per day	Candles, per doz. lb.	Shoes, per pair	Coals, per chaldron	Mops, each	Stockings, per pair	Hats, each	Complete Suits of Bedding	Suits of Clothes	Coats, each
	£ s. d.	average	£ s. d.	s. d.	s. d.	s. d.	£ s. d.	s. d.	£ s. d.	£ s. d.	£ s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	£ s. d.	£ s. d.	s. d.	s. d.	£ s. d.	£ s. d.	£ s. d.
1843	2 0 1	1½ 21/360	2 1 3½	0 8½	—	6 9	0 15 0	1 6	2 16 0	—	Porter 1 2 6	5 8	5 2	5 5	5 0	5 8	3 1½	0 17 10	0 1 1	1 7 8/12	2 1	2 2 11½	2 2 4½	1 1 6½
1844	2 0 10	1½ 344/360	2 0 5	0 8	†—	7 0	0 15 0	1 6	3 2 8½	{7 16 0 / 7 15 0}	1 3 4	5 8	4 6	5 5	5 9	5 2	2 11½	0 17 2	0 1 1½	1 7	2 1	2 0 0	2 2 4½	1 1 6½
1845‡	2 6 9	1½ 312/360	1 19 7½	0 9½	—	6 9	0 14 0	1 2	2 19 9	6 16 0	Beer 0 14 2½	4 8	4 6	4 7	5 0	4 7	2 1 ½	0 18 9	0 1 1½	1 7	2 1	2 0 0	2 3 3½	1 1 11
1846	2 15 4½	1½ 76/360	2 9 9½	0 9½	—	9 6	0 15 6	1 5	3 4 4½	4 6 0	0 14 7½	4 8	4 6	4 7	5 0	4 10	3 10	0 16 0	0 1 1	1 7	2 1	2 9 5½	2 3 9½	1 1 11
1847	2 14 6	1½ 230/360	2 13 4½	0 10½	—	9 0	1 2 0	1 4	3 10 9½	3 11 6	0 15 7½	4 8	4 6	4 7	5 0	5 9	3 10	0 17 8	0 1 0½	1 5½	2 1	2 9 5½	2 3 9½	1 1 11
1848	2 11 7½	1½ 292/360	1 19 6	0 10½	—	8 6	—	1 5	3 0 6	4 10 0	0 13 4½	4 8	4 6	4 7	5 0	5 6	3 8	0 16 11	0 1 0½	1 5½	2 1	2 8 3	2 1 9½	1 1 3½
1849	2 1 5½	1 350/360	1 13 4½	0 10	—	7 0	0 16 0	1 2	2 19 9	9 15 0	0 14 0	4 8	4 9	4 7	5 0	5 6	3 8	0 14 9	0 1 0½	1 2½	2 1	2 8 3	2 1 8	1 1 3½
1850	2 2 1	1 100/360	1 10 0½	0 8½	0 7	6 0	0 16 0	1 2	2 13 9	7 0 0	0 14 0	4 8	4 9	4 8	5 0	4 10	3 6	0 17 11	0 1 0½	1 2½	2 1	2 3 4	2 2 3½	1 3 0
1851	2 0 9	1 185/360	1 9 11	0 10	0 7	6 0	0 15 6	1 2	2 15 1½	11 16 0	1 2 0	4 8	4 9	4 8	5 0	4 8	3 7½	0 16 5	0 1 0½	1 4	2 1	2 3 8	2 3 0	1 3 3
1852	2 3 4½	1 205/360	1 10 3½	0 9	0 6	6 1	0 12 0	0 9	2 15 0	6 2 0	0 19 8½	4 8	4 9	4 8	5 0	4 8	3 7	0 16 6	0 1 0½	1 4½	2 1	2 4 11	1 13 4	0 18 6
1853	2 14 4	1½ 353/360	2 0 7½	0 9½	0 6	7 0	0 12 0	0 11	3 3 10	13 15 0	1 3 5½	4 8	4 9	4 8	5 0	5 8	3 9	0 18 5	0 1 0½	1 5½	{2 1 / 4 1½}	2 5 8	1 15 7	0 19 6
1854	3 0 0½	1½ 160/360	2 13 4½	1 0½	0 8	10 9	0 13 0	0 11	3 8 0	7 10 0	1 1 10½	4 10	5 0	5 0	5 0	7 5	3 9	1 1 5	0 1 0	1 5½	{2 1 / 4 1½}	—	1 18 3	0 17 4
1855	2 19 6½	2½ 203/360	2 16 11½	0 11½	0 8	9 7½	0 13 0	0 11	3 12 6	7 10 0	1 4 5	4 10	5 0	5 0	5 0	6 0	3 9	1 1 11	0 0 11½	1 5½	{2 1 / 4 1½}	—	1 18 3	0 17 4
1856	2 14 3½	2	2 11 2	1 0	0 7½	9 6	1 0 0	0 11	3 13 6	5 12 0	1 6 9½	4 10	5 0	5 0	5 0	7 5	3 9	0 18 3	0 0 11½	1 5½	{2 1 / 4 1½}	—	1 18 3	0 17 4
1857	2 12 10½	1½	2 4 2½	1 0½	0 7½	8 3	1 0 0	0 10	3 12 0	5 4 0	1 3 9½	4 10	5 0	5 0	5 0	6 8	3 9	0 18 6	0 1 0½	1 11	{2 1 / 4 1½}	—	1 18 3	0 17 4
1858	2 10 2½	1½	1 11 11½	0 11½	0 8	7 10½	0 15 0	0 10	3 6 8	4 2 6	1 3 6½	4 10	5 0	5 0	5 0	6 6	5 2	0 18 6	0 1 0	1 4½	{2 1 / 4 1½}	—	1 18 3	0 17 4
1859	2 15 3½	1½	1 10 6½	0 11½	0 7½	7 7½	0 15 6	0 10½	3 8 0	4 10 0	1 1 11½	4 10	5 0	5 0	5 6	6 0	—	0 18 5	0 1 0	1 7½	{2 1 / 4 1½}	—	1 18 3	0 17 4
1860	2 17 8½	1½	1 18 3½	1 0	0 8	7 1½	0 15 6	0 11	3 16 0	4 15 0	1 1 8	4 10	5 0	5 0	5 6	6 3	5 2	0 17 9	0 0 11½	1 9½	{2 1 / 4 1½}	—	2 1 5	0 18 0½
1861	3 0 4	1½	2 4 0½	0 11½	0 7½	7 4½	0 19 0	0 11½	3 11 9	9 16 9	1 3 11½	4 10	5 0	5 0	5 6	6 6	—	1 0 0	0 0 11	1 9½	{2 1 / 4 1½}	—	2 4 7	0 18 9
1862	2 17 3½	1½	2 3 11½	0 11½	0 7½	7 1½	0 16 0	0 11	3 10 0	6 15 9	1 5 8½	4 10	5 0	5 0	5 6	6 3	6 9	0 18 2	0 0 10½	1 9½	{2 1 / 4 6½}	—	2 4 7	0 18 9
1863	2 16 10½	1½	1 17 10½	0 11½	0 7½	6 10½	0 15 0	0 11½	3 6 4	6 14 6	1 4 8½	5 0	5 0	5 0	5 6	5 8	6 3	0 18 2	0 0 11	1 9	{2 1 / 4 8}	—	2 4 7	0 18 9
1864	3 2 8½	1½	1 13 6	0 11½	0 7	6 6	0 17 0	0 11½	3 2 6	7 15 0	1 4 1½	5 0	5 0	5 0	5 6	5 1	—	0 18 10	0 0 11½	1 11	2 8	—	1 19 10	0 14 8½
1865	3 12 7	1½	1 10 10	0 11½	0 7½	6 6	0 17 0	1 0	2 19 0	‖	1 1 4½	5 0	5 0	5 0	5 6	5 3	—	0 19 9	0 1 0	1 10½	2 8	—	1 19 10	0 14 8½
1866	3 5 4	1½	2 1 4	1 0½	0 8	7 4	0 19 0½	1 4	—	—	1 6 0	{5 0 / 5 7½}	{5 0 / 5 7½}	5 0 / 6 1	5 6 / 6 2½	8 0	6 2	1 4 9	0 1 0	1 6½	2 8	—	1 19 6	0 14 8
¶ 1867	3 7 11	2	2 11 0	0 11	0 8½	7 7½	0 19 0½	1 5	—	—	1 6 0	5 7½	5 7½	6 1	6 2½	8 0	6 2	1 1 8	0 1 0	1 0	2 8	—	1 19 6	0 14 8
1868	3 5 8	2	2 12 6	0 10	0 8	7 10½	0 16 9½	1 5	—	—	1 6 0	5 7½	5 7½	6 1	6 2½	7 6	6 2	1 0 10	0 1 0	1 4	2 8	—	2 1 1	0 14 9

* Less 7½ per cent. artificers' wages.

† No contract for 1844 to 1849.

‡ From 1815 to 1865 the nett prices of artificers' wages are given.

§ Round hats 1*s.* 1½*d.* from 1853 to 1860. Cock hats 2*s.* 1*d.* from 1853 to 1856, and 2*s.* 4*d.* from 1857 to 1865, when discontinued.

‖ Brewing at Greenwich Hospital discontinued in 1865.

¶ Works and repairs now done by contract. The artificers' wages are according to the Admiralty Schedule, with 12½ per cent. added.

influencing prices and give by their combinations a steadiness to them which it is easy to see could not be attained by any other means. It is material, too, to bear in mind, as was previously stated, that many, perhaps it might be said *most*, of those who press so eagerly into the market, when any new channel of commerce is opened, or when any considerable rise of price is anticipated, are not merchants, but persons engaged in other businesses, or living, perhaps, on fixed incomes, who speculate in the hope of suddenly increasing their fortune. This tendency to gambling seldom fails to break out upon such occasions; but, fortunately, these are only of comparatively rare occurrence; and in the ordinary course of affairs mercantile speculations are left to be conducted by those who are familiar with business, and who, in exerting themselves to equalise the variations of price caused by variations of climate and of seasons, and to distribute the supply of produce proportionally to the effective demand, and with so much providence that it may not at any time be wholly exhausted, perform functions that are in the highest degree important and beneficial. They are, it is true, actuated only by a desire to advance their own interests; but the results of their operations are not less advantageous than those of the agriculturist who gives greater fertility to the soil, or of the mechanist who invents new and more powerful machines.

7. *Tables of Prices.*—It is superfluous, perhaps, to observe, that the precious metals are liable to all the variations of value already alluded to. Not only, therefore, are prices, as was already remarked, affected by variations in the cost and supply of commodities, but they are also affected by changes in the cost and supply of gold and silver, whether arising from the exhaustion of old or the discovery of new mines, improvements in the art of mining, changes of fashion &c. Hence it is that tables of the prices of commodities extending for a considerable period communicate far less solid information than is generally supposed, and, unless the necessary allowances be made, may lead to the most unfounded conclusions. The cost or real value of any commodity depends on the quantity of labour required for its production; but supposing that we were to set about inferring this cost, or the ultimate sacrifice required to obtain the commodity, from its price, it might happen (had the quantity of labour required for its production declined, but in a less degree than the quantity required to produce gold and silver) that its value would appear to rise, when it had really been diminished. When, however, the rate of wages, as well as the price of commodities, is given upon authentic data, a table of prices is valuable, inasmuch as it shows the extent of the command over the necessaries and conveniences of life enjoyed by the bulk of the community during the period through which it extends. The table embodied in this article, of the prices of various commodities, and of the wages paid to different descriptions of tradesmen, at Greenwich Hospital, extending over more than 100 years, is the most complete of the sort that has been published, and is one of the few that are founded upon data the accuracy of which cannot be questioned. Unfortunately, it applies only to a small part of the country. But many important conclusions may, notwithstanding, be deduced from it. The reader will find, under the more important articles described in this work, pretty ample accounts of their prices. Sometimes, as in the case of corn, these accounts go back to a very distant period.

Those desirous of detailed information as to the prices of commodities in Great Britain, in remoter ages, may consult the elaborate tables in the 3rd volume of Sir F. M. Eden's work on the *Poor*; and the 4th volume of Macpherson's *Annals of Commerce*. Arbuthnot's *Tables of Ancient Coins, Weights, Measures, Prices &c.* are well known; but the statements are not much to be depended upon. The *Traité de Métrologie* of M. Paucton, 4to. Paris 1780, is the best work on this curious and difficult subject.

PRICE CURRENT. A list or enumeration of various articles of merchandise, with their prices, the duties (if any) payable thereon when imported or exported, with the drawbacks occasionally allowed upon their exportation &c. Lists of this description are published periodically, generally once or twice a week, in most great commercial cities and towns.

PRIMAGE. A certain allowance paid by the shipper or consignee of goods to the mariners and master of a vessel for loading the same. In some places it is 1*d.* in the pound; in others 6*d.* for every pack or bale; or otherwise, according to the custom of the place.

PRINTS. Impressions on paper, or some other substance, of engravings on copper, steel, wood, stone &c., representing some particular subject or composition.

Prints, like paintings, embrace every variety of subject, and differ very widely in the manner in which they are engraved. Their prices vary according to the style of the engraving, the fineness of its execution, the goodness of the impression, its rarity &c. The art seems to have taken its rise in the 15th century. But, as a dissertation on one of the most beautiful of the fine arts would be singularly out of place in a work of this sort, we have introduced it for the purpose merely of stating the law with respect to the copyright of prints.

This is laid down in the Acts 8 Geo. II. c. 13, 7 Geo. III. c. 38, 17 Geo. III. c. 57, 6 & 7 Wm. IV. c. 59, and 15 & 16 Vict. c. 12. By these Acts, the copyright of all sorts of prints, including maps and charts, is secured to the engraver, or author, for *twenty-eight* years. The 17 Geo. III. c. 57 declares that every individual who shall, within the said 28 years, engrave, etch, or work, or in any other manner copy in the whole or in part, by varying, adding to, or diminishing from the main design; or shall print, reprint, or import for sale, or shall publish, sell, or otherwise dispose of any copy of any print whatever, which has been or shall be engraved, etched, drawn, or designed in Great Britain, without the express consent of the proprietor thereof first obtained in writing, signed by him with his own hand, in the presence of, and attested by, two or more credible witnesses—then every such proprietor may, by a special action upon the case to be brought against the person so offending, recover such damages as a jury, on the trial of such action, or on the execution of a writ of enquiry thereon, shall give or assess, together with double costs of suit.

In questions as to the piracy of prints, the courts proceed upon the same principles that are followed in those with respect to the piracy of books. (Books; see also Mr. Godson's excellent work on the *Law of Patents and Copyright*, pp. 287–301.) The piracy of prints by photographic copies is punishable by fine and imprisonment.

Regulations as to Importation.—Formerly, where prints or maps were contained in and formed part of a book, and served merely to explain or illustrate the subject of such book, they were to be deemed a part of the work, and be charged with duty, by weight, as books; but when prints or maps were bound or stitched together without

letter-press, or when the letter-press was merely descriptive of the prints or maps, then they were to be charged with duty by tale, as prints or maps. (*Min. Com. Cus.* September 5, 1829.) But if satisfactory proof was adduced that prints or maps, though imported separately, really formed part of a work, they might be charged with the book duty by weight; but in other cases they were to be charged with duty by tale. (*Treas. Order*, June 2, 1830.)

Pictures, sketches, and drawings, brought from the Continent, and accompanied by the proprietor, were to be admitted to enter free of duty, upon proof, by oath of the proprietor, that the same were wholly executed by him for his amusement, and not intended for sale in this country. (*Treas. Order*, August 5, 1817.) All duties on imported prints have been abolished. The importation of prints and photographs is considerable, amounting in 1867 to 2,847,973, of the value of 62,825*l.*

PRISAGE or BUTLERAGE was a right of taking 2 tuns of wine from every ship importing into England 20 tuns or more; which was changed by Edward I. into a duty of 2*s.* for every tun imported by merchant strangers, and called butlerage, because paid to the king's butler. The term is now fallen into disuse. (Blackstone.)

PRIVATEERS. Ships of war fitted out by private individuals, to annoy and plunder the public enemy. But before commencing their operations, it is indispensable that they obtain *letters of marque and reprisal* from the Government whose subjects they are, authorising them to commit hostilities, and that they conform strictly to the rules laid down for the regulation of their conduct. All private individuals attacking others at sea, unless empowered by letters of marque, are to be considered pirates; and may be treated as such, either by those they attack, or by their own Government.

1. *Policy of Privateering.*—The policy of this system is very questionable. It seems to be a remnant of that species of private war which is exercised by all individuals in early ages, but which gradually disappears as society advances. And though by injuring individuals, it aggravates the suffering inseparable from national struggles, it has little or no tendency to accelerate their termination. Privateers rarely attack ships of war. Their object is merely to plunder and destroy merchantmen. And experience has shown that it is not possible, whatever precautions may be adopted, to prevent them from attacking neutrals and perpetrating all sorts of abuses. The wish to amass plunder is the only principle by which they are actuated; and such being the case, it would be idle to suppose that they should be very scrupulous about abstaining from excesses. A system of this sort, if it be ever useful, can be so only to nations that have little trade, and that may expect to enrich themselves during war by fitting out privateers to plunder the merchant ships of their enemies. In all other cases it seems to be productive only of mischief; though it is, of course, most injurious to those states that have the greatest mercantile navy. Instead, therefore, of encouraging the practice of privateering, a due regard to the rights and interests of humanity has lately suggested to the great Powers the expediency of abolishing it altogether. A few efforts had, indeed, been already made towards this desirable object. Thus it was stipulated in the treaty between Sweden and the United Provinces, in 1675, that neither party should, in any future war, grant letters of marque against the other. In 1767 Russia abstained from licensing privateers; and in the treaty between the United States and Prussia, in 1785, a stipulation was inserted as to privateers, similar to that in the treaty between Sweden and the United Provinces in 1675. (Martens, *Essai concernant les Armateurs*, 1794.) But it required some such convention and agreement among the great Powers as that which was happily come to at Paris in 1856, to effect its general abolition. [NEUTRALITY.] Inasmuch, however, as the United States have not subscribed the declaration of 1856 against privateering, it is not possible to say what might be the effect were a quarrel to occur, if these continue the practice; and hence the following statements may be allowed to keep their place:—

2. *Appointment of Privateers.*—The captain of a privateer is nominated by the owners, who may dismiss him at pleasure. The commission or letters of marque given to the owners authorise them to attack and seize the ships of the Power or Powers specified therein; but they are not to look upon them as their property, or to appropriate them, or any part of them, to their own use, *till they have been legally condemned.* Besides the stimulus afforded by the hope of booty, Government has been in the habit of allowing them 5*l.* for every man they may capture on board such enemy's ships of war or privateers. (33 Geo. III. c. 66.) A privateer cruising under letters of marque against one state may, on obtaining authentic information of hostilities being commenced by her Government against another, capture its ships with full advantage to herself. The king has in all cases the right to release any prize previously to its condemnation; this being an implied exception in the grant of prizes by the Crown. (Chitty *on Commercial Law*, vol. i. c. 8.)

In some privateering adventures, the crew are engaged on the terms no prize no pay; and, in such cases, the produce of whatsoever prizes may be taken goes half to the ship (for the owners), and half to the men, divided among them according to the articles of agreement; but when the men sail for wages, the captures belong entirely to the owners, except a small share, which is commonly stipulated to be given to the crew, over and above their wages, in order to stimulate their enterprise. Both ways of arming are regulated by the articles entered into between the owners and crews.

Privateers are forbidden from doing anything contrary to the law of nations, as to assault an enemy in a port or haven, under the protection of any prince or republic, be he friend, ally, or neutral; for the peace of such place must be preserved inviolable. (Molloy, *de Jure Maritimo*, book i. c. 3.)

When letters of marque are granted, it is usual, in most countries, to exact security that the regulations with respect to the conduct of privateers shall be observed. In Great Britain, a bond must be given, as explained in Art. XV. of the annexed regulations.

If privateers wilfully commit any spoil, depredation, or other injury, on friendly or neutral ships, or on the ships or goods of their fellow subjects, they are to be punished, according to the crime either with death or otherwise; and the vessels are subject to forfeiture.

Whether or not a ship taken be lawful prize, shall be tried in the Admiralty Court; and no ship or cargo, or part of a ship or part of a cargo, is to be sold, or disposed of in any way, till after judgment has been obtained.

If two ships with letters of marque accidentally meet with a prize at sea, though only one attack and take her, yet the other, being in sight, shall have an equal share of the prize, though he

afforded no assistance in the capture; because his presence may be presumed to have struck terror into the enemy, and made him yield; which perhaps he would not have done, had his conqueror been single: so that all ships that are in sight, though they cannot come up to assist in the engagement, are entitled by the *common law* to a distribution of the spoil. (Beawes, *Lex Mercatoria*, art. 'Privateers.')

If those to whom letters of marque are granted, should, instead of taking the ship and goods appertaining to that nation against which the said letters are awarded, *wilfully* take or spoil the goods of another nation in amity with us, this would amount to *piracy*; and the persons so offending would, for such fault, forfeit their vessel, and the penalties in which their securities are, according to custom, bound on taking out such letters. But such penalties would not follow unless the capture were made in a piratical manner. For if the circumstances incident to the captured vessel were such as to afford a strong presumption that she really belonged to the country against which the letters were granted, the captors would not be liable to punishment, though they might be to damages. 'It being possible,' says Beawes, 'always to determine an affair of this sort at sea, it is allowable to bring a dubious capture into port, in order to more nice and just scrutiny and inspection; otherwise the goods of an enemy would often escape. However, to guard against unlawful seizures, the Government have wisely directed sufficient caution to be given (as before mentioned) for the due observance of the letters according to law, before they permit their issuing; and when there is a breach committed, the penalties are inflicted.' (*Lex Mercatoria*, art. 'Privateers.')

8. *Regulations for the Government of Privateers &c.*—The following instructions to privateers were issued under an order in council, at the commencement of the last war with France, May 16, 1803:—

Art. I. *Against what, and where, Letters of Marque may act Hostilely.*—It shall be lawful for the commanders of ships authorised by letters of marque and reprisals for private men-of-war, to set upon by force of arms, and subdue and take, the men-of-war, ships and vessels, goods, wares, and merchandises, belonging to the French republic, or to any persons being subjects to the French republic, or inhabitants within any of the territories of the French republic; but so that no hostility be committed, nor prize attacked, seized, or taken within the harbours of princes or states in amity with us, or in their rivers or roads, within the shot of their cannon, unless by permission of such princes or states, or their commanders or governors in chief of such places.

Art. II. *Captures to be brought into Port.*—The commanders of the ships and vessels so authorised as aforesaid shall bring all ships, vessels, and goods, which they shall seize and take, into such port of *England*, or some other port of our dominions, as shall be most convenient for them, in order to have the same legally adjudged by our High Court of Admiralty of *England*, or before the judge of any other admiralty court, lawfully authorised, within our dominions.

Art. III. *Conduct of the Captors after the Capture is brought into Port.*—After such ships, vessels, and goods shall be taken and brought into any port, the taker, or one of his chief officers, or some other person present at the capture, shall be obliged to bring or send, as soon as possibly may be, 3 or 4 of the principal of the company (whereof the master, supercargo, mate, or boatswain, to be always 2) of every ship or vessel so brought into port, before the judge of our High Court of Admiralty of *England*, or his surrogate, or before the judge of such other admiralty court as within our dominions, lawfully authorised aforesaid, or such as shall be lawfully commissioned in that behalf, to be sworn and examined upon such interrogatories as shall tend to the discovery of the truth, concerning the interest or property of such ship or ships, vessel or vessels, and of the goods, merchandises, and other effects found therein; and the taker shall be further obliged, at the time he produceth the company to be examined, and before any monition shall be issued, to bring in and deliver into the hands of the judge of the High Court of Admiralty of *England*, his surrogate, or the judge of such other admiralty court within our dominions, lawfully authorised, or others commissioned as aforesaid, all such papers, passes, sea-briefs, charterparties, bills of lading, cockets, letters, and other documents and writings, as shall be delivered up or found on board any ship: the taker, or one of his chief officers, or some other person who shall be present at the capture, and saw the said papers and writings delivered up, or otherwise found on board at the time of the capture, making oath that the said papers and writings are brought and delivered in as they were received and taken, without any fraud, addition, abduction, or embezzlement whatever, or otherwise to account for the same upon oath to the satisfaction of the court.

Art. IV. *Not to break Bulk before Judgment.*—The ships, vessels, goods, wares, merchandises, and effects taken by virtue of letters of marque and reprisals as aforesaid, shall be kept and preserved, and no part of them shall be sold, spoiled, wasted, or diminished, and the bulk thereof shall not be broken, before judgment be given in the High Court of Admiralty of *England*, or some other court of admiralty, lawfully authorised in that behalf, that the ships, goods, or merchandises are lawful prize.

Art. V. *Privateers to assist Ships in Distress.*—If any ship or vessel belonging to us, or our subjects, shall be found in distress by being in fight set upon or taken by the enemy, or by reason of any other accident, the commanders, officers, and company of such merchant ships or vessels as shall have letters of marque and reprisals as aforesaid, shall use their best endeavours to give aid and succour to all such ship and ships, and shall, to the utmost of their power, labour to free the same from the enemy, or any other distress.

Art. VI. *Application to the Admiralty for Letters of Marque.*—The commanders or owners of such ships and vessels, before the taking out letters of marque and reprisals, shall make application in writing, subscribed with their hands, to our high admiral of *Great Britain*, or our commissioners for executing that office for the time being, or the lieutenant or judge of the said High Court of Admiralty, or his surrogate, and shall therein set forth a particular, true, and exact description of the ship or vessel for which such letter of marque and reprisal is requested, specifying the burden of such ship or vessel, and the number and nature of the guns, and what other warlike furniture and ammunition are on board the same, to what place the ship belongs, and the name or names of the principal owner or owners of such ship or vessel, and the number of men intended to be put on board the same, and for what time they are victualled; also the names of the commanders and officers.

Art. VII. *Correspondence with the Admiralty.*—The commanders of ships and vessels having

letters of marque and reprisals as aforesaid shall hold and keep, and are hereby enjoined to hold and keep, a correspondence, by all conveniences and upon all occasions, with our high admiral of *Great Britain*, or our commissioners for executing that office for the time being, or their secretary, so as from time to time to render or give him or them, not only an account or intelligence of their captures and proceedings by virtue of such commission, but also of whatever else shall seem unto them, or be discovered and declared to them, or found out by them, or by examination of, or conference with, any mariners or passengers of or in the ships or vessels taken, or by any other ways or means whatsoever, touching or concerning the designs of the enemy, or any of their fleets, ships, vessels, or parties, and of the stations, seaports, and places, and of their intents therein; and what ships or vessels of the enemy bound out or home, or where cruising, as they shall hear of; and of what else material in these cases may arrive at their knowledge; to the end such course may be thereon taken, and such orders given, as may be requisite.

Art. VIII. *What Colours a Privateer is to wear.*—No commander of any ship or vessel having a letter of marque and reprisal as aforesaid shall presume, as they will answer it at their peril, to wear any jack, pendant, or other ensign or colours usually borne by our ships; but, beside the colours usually borne by merchants' ships, they shall wear a red jack, with the union jack described in the canton, at the upper corner thereof near the staff.

Art. IX. *Not to ransom any Capture.*—No commander of any ship or vessel having a letter of marque and reprisal as aforesaid, shall ransom, or agree to ransom, or quit or set at liberty, any ship or vessel, or their cargoes, which shall be seized and taken.

Art. X. *To deliver their Prisoners to the proper Commissioners.*—All captains or commanding officers of ships having letters of marque and reprisals shall send an account of, and deliver over, what prisoners shall be taken on board any prizes, to the commissioners appointed, or to be appointed, for the exchange of prisoners of war, or the persons appointed in the seaport towns to take charge of prisoners; and such prisoners shall be subject only to the orders, regulations, and directions of the said commissioners: and no commander or other officer of any ship, having a letter of marque or reprisal as aforesaid, shall presume, upon any pretence whatsoever, to ransom any prisoner.

Art. XI. *Commission forfeited for acting contrary hereto.*—In case the commander of any ship, having a letter of marque and reprisal as aforesaid, shall act contrary to these instructions, or any such further instructions of which he shall have due notice, he shall forfeit his commission to all intents and purposes, and shall, together with his bail, be proceeded against according to law, and be condemned to costs and damages.

Art. XII. *Copies of Journals.*—All commanders of ships and vessels having letters of marque and reprisals shall, by every opportunity, send exact copies of their journals to the Secretary of the Admiralty, and proceed to the condemnation of the prizes as soon as may be, and without delay.

Art. XIII. *To observe all Orders.*—Commanders of ships and vessels having letters of marque and reprisals shall, upon due notice being given to them, observe all such other instructions and orders as we shall think fit to direct from time to time for the better carrying on this service.

Art. XIV. *Violating these Instructions.*—All persons who shall violate these or any other of our instructions shall be severely punished, and also required to make full reparation to persons injured contrary to our instructions, for all damages they shall sustain by any capture, embezzlement, demurrage, or otherwise.

Art. XV. *Bail to be given.*—Before any letter of marque or reprisal for the purpose aforesaid shall issue under seal, bail shall be given with sureties, before the lieutenant and judge of our High Court of Admiralty of *England*, or his surrogate, in the sum of 3,000*l.* sterling, if the ship carries above 150 men; and if a less number, in the sum of 1,500*l.* sterling; which bail shall be to the effect and in the form following:—

Which day, time, and place, personally appeared and who submitting themselves to the jurisdiction of the High Court of Admiralty of *England*, obliged themselves, their heirs, executors, and administrators, unto our Sovereign Lord the King, in the sum of pounds of lawful money of *Great Britain* to this effect; that is to say, that whereas is duly authorised by letters of marque and reprisals, with the ship called the of the burden of about tons, whereof he the said goeth master, by force of arms to attack, surprise, seize, and take all ships and vessels, goods, wares, and merchandises, chattels and effects, belonging to the French republic, or to any persons being subjects of the French republic, or inhabiting within any of the territories of the French republic; excepting only within the harbours or roads within shot of the cannon of princes and states in amity with his Majesty. And whereas he the said hath a copy of certain instructions, approved of and passed by his Majesty in council, as by the tenor of the said letters of marque and reprisals, and instructions thereto relating, more at large appeareth: if, therefore, nothing be done by the said or any of his officers, mariners, or company, contrary to the true meaning of the said instructions, and of all other instructions which may be issued in like manner hereafter, and whereof due notice shall be given him; but that such letters of marque and reprisals aforesaid, and the said instructions, shall in all particulars be well and duly observed and performed, as far as they shall the said ship, master, and company any way concern; and if they shall give full satisfaction for any damage or injury which shall be done by them or any of them to any of his Majesty's subjects, or of foreign states in amity with his Majesty, and also shall duly and truly pay, or cause to be paid, to his Majesty, or the customers or officers appointed to receive the same for his Majesty, the usual customs due to his Majesty, of and for all ships and goods so as aforesaid taken and adjudged as prize; and moreover if the said shall not take any ship or vessel, or any goods or merchandise, belonging to the enemy, or otherwise liable to confiscation, through consent or clandestinely, or by collusion, by virtue, colour, or pretence of his said letters of marque and reprisals, that then this bail shall be void and of none effect; and unless they shall so do, they do all hereby severally consent that execution issue forth against them, their heirs, executors, and administrators, goods and chattels: wheresoever the same may be found, to the value of the sum of pounds before mentioned; and in testi-

mony of the truth thereof, they have hereunto subscribed their names.

By his Majesty's command.

(Signed) PELHAM.

PROMISSORY NOTES. [BANKS AND BANKING; EXCHANGE, BILLS OF.]

PROTECTION. In Commercial Legislation, means the protecting or bolstering up of certain branches of domestic industry by prohibiting the importation of the produce of such branches from abroad, or loading it when imported with heavy duties. This policy was at one time universally prevalent. But its extremely injurious influence having been demonstrated over and over again, it has been abandoned by all intelligent statesmen. And notwithstanding the powerful interests by which it was supported, it has nearly, if not entirely, disappeared from our legislation; and it will, no doubt, eventually disappear from the legislation of all countries.

In Mercantile Navigation, protection is a privilege granted to certain descriptions of seamen, by which they are secured against impressment. [IMPRESSMENT.]

PROVISIONS. Under this term, taken in its most extensive sense, in reference to man, may be comprised all those articles used as food by the inhabitants of this and other countries; but among British merchants and in parliamentary language it is understood to comprise only fresh and salted butchers' meat, hams and bacon, butter and cheese, eggs, and a few other articles. We shall, however, include with these, in the following statement, an account of the imports of cattle.

Our readers are aware that previously to July 9, 1842, the importation of cattle, sheep, and hogs, and of all sorts of fresh butchers' meat, was prohibited; and that a duty of 12*s.* per cwt. was imposed on all foreign salt meat when entered for consumption, and of 28*s.* per cwt. on bacon and hams. But in the Tariff Act of 1842, which came into operation at the above date, the prohibition of importing foreign cattle, sheep, hogs, and fresh meat was repealed, and their entry for home consumption admitted under reasonable duties; the duty on salted meat being, at the same time, reduced from 12*s.* to 8*s.*, and that on bacon and hams from 28*s.* to 14*s.* per cwt. We published at the time a short tract (*Memorandums on the proposed Introduction of Foreign Beef and Cattle*), in which we endeavoured to show, by comparing the prices of cattle in the adjoining countries and in England, that this wise and liberal measure would not have the effects that were anticipated in reducing the price of stock in this country. Experience showed that we were right in this anticipation, the imports of cattle and sheep being comparatively inconsiderable. Sir Robert Peel, profiting by this experience, repealed, in 1846, the duties imposed in 1842 on the importation of cattle, sheep &c. And the result has more than justified the soundness of the principles on which that great minister proceeded in taking this step. The imports of stock have been considerably, but not greatly, increased in the interval. And, far from being injured by his liberal proceedings, the grazing farmers have gained immensely; and it is admitted, on all hands, that cattle and sheep have paid better of late years (except during the cattle plague) than ever they did at any antecedent period. It is, in truth, much easier to import supplies of corn than of beef or mutton; and the probability seems to be that our farmers will in time to come apply themselves rather to the production of the latter than of the former. The taxes on butter, cheese, and eggs were repealed in 1860.

Account of the Numbers and Values of the Cattle, Sheep, Hogs &c. Imported into the United Kingdom in 1867.

Articles		Imported	Value	Chief Sources
			£	
Oxen, bulls, cows, and calves	No.	177,918	3,054,310	Holland, Hanse Towns, Schleswig, and France.
Sheep and lambs	"	540,326	945,661	Hamburg, Belgium, and Holland.
Bacon and hams	cwt.	337,114	1,391,779	United States and Hamburg.
Beef	"	246,767	623,192	United States and Holland.
Pork	"	150,285	351,871	Hamburg, Denmark, United States, France, and Belgium.
Butter	"	1,112,262	5,854,271	Holland, France, and Hamburg.
Cheese	"	905,476	2,538,265	Holland and United States.
Eggs	No.	397,934,580	989,837	France.
Lard	cwt.	216,939	621,182	United States, Hamburg, and Italy.
Poultry and game (1866)	value	—	174,971	Belgium and France.
Total		—	—	

It is impossible to say in how great a degree these importations may be increased in time to come; but it is most probable that they will be gradually augmented according as foreigners become better acquainted with the qualities suitable for our markets. But we have no idea that they will ever amount to any considerable proportion of our supply. The cheapness of cattle and provisions in foreign markets, of which we used to hear so much, was in great part imaginary; and where it did occur, it depended more on the difficulty of conveying them to other markets, or on their inferiority, than on anything else. The imports of fat cattle, though they were trebled, would not do our graziers the smallest injury; and the importation of lean cattle, far from being injurious, would be highly for their interest. The great existing desideratum in our agriculture at this moment is, in truth, the want of markets whence we might import lean or half-fed stock. The demand in this country for all sorts of butchers' meat is quite immense; and the land suitable to the rearing of cattle is too circumscribed to afford a sufficient supply. Hence the high price of beef and mutton as compared with corn. [BREAD; FISH; FRUIT; VEGETABLES.]

PRUNES AND PRUNELLOES. A species of dried plums, of which there are many varieties. The finest are imported from France, in the south of which this fruit is very abundant. The best prunes are packed in hampers or baskets made of white osiers, weighing from 6 to 10 lb. each; the second quality in quarters, and the third in puncheons. The duty on prunes, which was previously fixed at the extravagant rate of 27*s.* 6*d.* per cwt., was most properly reduced in 1834 to 7*s.* per cwt., the present rate. This reduced duty produced, in 1867, 6,878*l.*, showing that 19,647 cwt. had been entered for consumption. Previously to the reduction of the duty, the entries seldom exceeded 6,000 cwt.

PRUSSIA. [KÖNIGSBERG; MEMEL; STETTIN; ZOLLVEREIN; &c.]

PRUSSIAN BLUE or PRUSSIATE OF IRON (Ger. Berlinerblau; Fr. bleu de Prusse; Ital. azzurro prussiano; Span. azul de Prusia;

Russ. lasor Bexlinskaja). A beautiful deep blue powder, accidentally discovered at Berlin in 1710. It is of considerable importance in the arts, being extensively used by painters: it is manufactured in this country. Many attempts have been made to render Prussian blue available for the dyeing of broad cloths, but without much success. The difficulty is to diffuse the colour equally over the surface; for, from its extraordinary vivacity and lustre, the slightest inequalities strike and offend the eye. Prussian blue resists the air and sun extremely well; but it cannot be used in the dyeing of cottons, or any sort of stuff that is to be washed with soap, as the alkali contained in the soap readily dissolves and separates the colouring matter. (Bancroft *On Colours*, vol. ii. pp. 60—94.)

Blue is a favourite colour with the Chinese, and in 1810-11 the imports of Prussian blue into Canton from England amounted to 1,899 piculs, or 253,200 lb. But for some years past the Chinese have not imported a single pound weight. The cause of the cessation of the trade deserves to be mentioned. A common Chinese sailor who came to England in an East Indiaman, having frequented a manufactory where the drug was prepared, learned the art of making it; and on his return to China he established a similar work there, with such success that the whole empire is now amply supplied with native Prussian blue. The West has derived many important arts from the East; but we incline to think that this is the first well-authenticated instance of any art having ever been carried from the West to the East, by a native of the latter. But, in all that respects industry, ingenuity, and invention, the Chinese are incomparably superior to every other people to the east of the Indus.

PRUSSIAN or GERMAN COMMERCIAL UNION. [Zollverein.]

PUBLICANS. Persons authorised by license to retail beer, spirits, or wines. Under the term publicans are comprised inn keepers, hotel keepers, alehouse keepers, keepers of wine vaults &c. An inn differs from an alehouse in this—that the former is a place intended for the lodging as well as the entertainment of guests, whereas the latter is intended for their entertainment only. If, however, ale or beer be commonly sold in an inn, as is almost invariably the case, it also is an alehouse; and if travellers be furnished with beds, lodged, and entertained in an alehouse, it also is an inn. It is not material to the character of an innkeeper that he should have any sign over his door; it is sufficient that he makes it his business to entertain passengers and travellers, providing them with lodgings and other accommodations.

1. *Licensing of Publicans.*—The provisions with respect to the licensing of public houses are embodied in the 9 Geo. IV. c. 61, of which we subjoin an abstract.

General Meetings.—There shall be annually holden in county divisions, cities, and towns, a special session of justices, to be called the '*General Annual Licensing Meeting*,' for the purpose of granting licenses to persons keeping or about to keep inns, alehouses &c.; such meetings to be held, in Middlesex and Surrey, within the first 10 days of the month of March; and in every other place between August 20 and September 14, both inclusive.

Notice of General Meeting.—Within every division, 21 days before the annual licensing meeting, a petty session of justices to be held, a majority of whom shall fix the day and hour for holding the general annual meeting; and shall direct a precept to the high constable, requiring him, within 5 days after the receipt thereof, to order the petty constables to affix on the door of the church, chapel, or other public place, a notice of such annual meeting, and give or leave at the dwelling-house of each justice acting for the division, and of each person keeping an inn, or who shall have given notice of his intention to apply for a license to keep an inn, a copy of such notice. (Sec. 2.)

The annual meeting may be adjourned, but the adjourned meeting is not to be held on any of the 5 days immediately following the adjournment, and every adjournment to be held in the month of March in Middlesex and Surrey, and in August or September in every other county. (Sec. 3.)

Sessions for Transfer of Licenses.—At the annual meeting, justices to appoint not less than 4 nor more than 8 special sessions, to be held as near as possible at equidistant periods, for the purpose of transferring licenses. (Sec. 4.)

Notice of holding any adjourned meetings, or of any special session for the transfer of licenses, to be given in the same manner and to the same parties as mentioned above. (Sec. 5.)

Justices disqualified.—No justice who is a common brewer, distiller, maker of malt for sale, or retailer of malt or any exciseable liquor, shall act or be present at any annual licensing meeting, or adjournment, or special session for transferring licenses, or take part in the adjudication upon any application for a license, or upon an appeal; nor in the case of licensing any house, of which he is owner, or agent of the owner, or of any house belonging to any common brewer, maker of malt &c. to whom he shall be, either by blood or marriage, the father, son, or brother, or with whom he shall be partner in *any other trade*: in any of these cases knowingly or wilfully to act, subjects to a penalty of 100*l*. But disqualification does not arise, where a justice, having no *beneficial interest* in a house licensed or about to be licensed, holds only the legal estate therein as trustee or for a charitable or public use. (Sec. 6.)

When in any liberty, city, or town, 2 qualified justices do not attend, the county justices may act. (Sec. 7.)

The power given to county justices not to extend to the Cinque Ports. (Sec. 8.)

Questions respecting licenses to be determined, and licenses to be signed, by a majority of the justices present. (Sec. 9.)

Application for a License.—Persons intending to apply for a license to a house *not before licensed* to affix a notice on the door of such house, and on the door of the church or chapel of the parish, and, where there shall be no church or chapel, on some other conspicuous place within the parish, on *three several Sundays*, between January 1 and the last day of February in the counties of Middlesex and Surrey, and elsewhere between June 1 and the last day of July, at some time between the hours of 10 in the forenoon and 4 in the afternoon, and shall serve a copy of such notice upon one of the overseers of the poor, and upon one of the constables or peace-officers of the parish, within the month of February in the counties of Middlesex and Surrey, and elsewhere within the month of July, prior to the annual meeting; such notice to be in a legible hand, or printed and signed by the applicant. The application must state the Christian and surname of the party, with the place of his residence, and his trade or calling during the 6 months previous to the serving of the notice. (Sec. 10.)

Notice to transfer License.—Persons desirous of transferring a license, and intending to apply to the next special sessions, must, 5 days previously,

serve a notice upon one of the overseers and one of the constables of the parish. Persons hindered, by sickness or other reasonable cause, from attending any licensing meeting, on proof thereof adduced *on oath*, may thorise anothers person to attend for them. (Sec. 12.)

Licenses to be in force, in Middlesex and Surrey, from April 5; elsewhere from October 10, for one whole year. (Sec. 13.)

Provision for Death or other Contingency.—If any person licensed shall die, or become incapable, or a bankrupt or insolvent, or if he or his heirs, executors, or assigns, shall remove or neglect to apply for a continuation of his license, the justices at special session may grant a license to the heirs, executors, or assigns of such party, or to any new tenant; or if any man's house should be, or be about to be, pulled down for a public purpose, or rendered, by fire, tempest, or other unforeseen calamity, unfit for the purposes of an inn, license may be granted to the occupier, if he intend to open another house as an inn. Such transferred licenses shall continue only in force to the end of the year; and in case of removal to another house, notice must be given on some Sunday, within 6 weeks before the special session, in the manner and form before described. (Sec. 14.)

Fees for Licenses.—The clerk of the justices may lawfully receive from every person to whom a license is granted, for trouble and *all expenses*, the following sums:—

	s.	*d.*
For constable or officer serving notices - - -	1	0
For clerk of justices for license - - -	5	0
For precept to the high constable, and notices to be delivered by the petty constable - - - -	1	6

Clerks demanding or receiving more than these fees to forfeit 5*l.* (Sec. 15.)

No sheriff's officer, or officer executing the process of any court of justice, qualified to hold or use any license under this Act. (Sec. 16.)

Excise Licenses.—No license for the sale of any exciseable liquors, to be consumed on the premises, shall be granted by the excise to any person, unless such person be previously licensed under this Act. (Sec. 17.)

Penalties.—Any person *without a license* selling or exchanging, or for valuable consideration disposing of any exciseable liquor by retail, to be consumed on his premises; *or with a license*, and so selling on premises other than those specified in his license, shall for every offence, on conviction before one justice, forfeit not exceeding 20*l.* nor less than 5*l.* with costs; but the penalty not to attach in case of death or insolvency, and sale by the heir or assigns, prior to the next special sessions. (Sec. 18.)

Every licensed person shall, if required, sell all liquors by retail (except in quantities less than ½ pint) by the gallon, quart, pint, or ½ pint, sized according to the standard; in default thereof to forfeit the illegal measure, and pay not exceeding 40*s.* with costs, to be recovered within 30 days before 1 justice. (Sec. 19.)

In cases of riot, or probability of riot, houses licensed in the neighbourhood may be closed by the order of 2 justices. (Sec. 20.)

Any person convicted of a *first offence*, before 2 justices, against the tenor of his license, to forfeit not exceeding 5*l.* with costs; guilty of a *second offence* within 3 years of the first, to forfeit not exceeding 10*l.* with costs; and guilty of a *third offence* within 3 years, to forfeit not exceeding 50*l.* with costs: or the case in the last instance may be adjourned to the petty sessions, for the annual meeting, or the general quarter sessions; and if the offender is found guilty by a *jury*, he may be fined 100*l.*, or adjudged to forfeit his license, or both, and rendered incapable of selling any exciseable liquor in any inn kept by him for 3 *years*. (Sec. 21.)

Proceedings at the session in certain cases may be directed by the justices to be carried on by the constable, and the expenses defrayed out of the county rates. (Sec. 22.)

Witnesses refusing to attend without lawful excuse may be fined not more than 10*l.* (Sec. 23.)

Penalties against justices may be sued for in any court of Westminster; a moiety to the king and a moiety to the party suing. (Sec. 24.)

Penalties adjudged by justices may be recovered by distress or the party imprisoned, 1, 3, or 6 calendar months. (Sec. 25.)

The next sections relate to the mode of prosecuting actions.

The last section of the Act enacts that the word '*inn*' shall include any inn, alehouse, or victualling house, in which is sold by retail any exciseable liquor, to be drunk or consumed on the premises; and the words exciseable liquor are to include all such fermented or spirituous liquors as may now or hereafter be charged with any custom or excise duty. (Sec. 37.)

The Act does not affect the Universities, nor the privileges of the Vintners' Company, except those freemen who have obtained their freedom by redemption; and it does not alter the time of granting licenses in the city of London.

Innkeepers are bound by the tenor of their license to keep order in their houses, to prevent drunkenness and disorderly conduct, and gambling. If they fail in these respects, they forfeit their license, and subject themselves to the penalties mentioned before. Allowing seditious or immoral books to be read in an inn also forfeits the license, and subjects to penalties. (39 Geo. III. c. 79 s. 31.)

So far as Scotland is concerned, this Act has been amended by the 16 & 17 Vict. c. 67, and 25 & 26 Vict. c. 35.

The closing of public houses in England is regulated on Sundays by 18 & 19 Vict. c. 118, and on other days by the Public House Closing Acts of 1864 and 1865.

2. *Duties of Innkeepers.*—Innkeepers are bound by law to receive guests coming to their inns, and they are also bound *to protect their property when there.* They have no option to reject or refuse a guest, unless their house be already full, or they are able to assign some other reasonable and sufficient cause. Neither can they impose unreasonable terms on such as frequent their houses: if they do, they may be fined, and their inns indicted and suppressed. An innkeeper who has stables attached to his premises may be compelled to receive a horse, although the owner does not reside in his house; but he cannot, under such circumstances, be compelled to receive a trunk or other dead thing. By the annual Mutiny Act, constables, or, in their default, justices of the peace, may quarter soldiers in inns, livery-stables, alehouses &c., under the conditions and regulations set forth in the statute.

3. *Responsibility of Innkeepers.*—An innkeeper is bound to keep safely whatever things his guests deposit in his inn, or in his custody as innkeeper, and until 1863 he was civilly liable for all losses except those arising from *irresistible force*, or what is usually termed the act of God and the king's enemies. The law on this subject, however, was altered by the 26 & 27 Vict. c. 41. It provides that the innkeeper shall not be liable beyond 30*l.* for loss or injury to goods or property brought to the inn, except—1st, when the goods or property shall be stolen, lost, or injured, through the wilful

act or neglect of the innkeeper or his servant; and, 2nd, where such goods or property shall have been deposited expressly for safe custody with such innkeeper. 'It has long been holden,' says Sir William Jones, 'that an innkeeper is bound to restitution, if the trunks or parcels of his guests, committed to him either personally or through one of his agents, be damaged at his inn, or stolen out of it by any person whatever (except the servant or companion of the guest); nor shall he discharge himself of this responsibility by a refusal to take care of the goods, because there are suspected persons in the house, for whose conduct he cannot be answerable: it is otherwise, indeed, if he refuse admission to a traveller because he really has no room for him, and the traveller, nevertheless, insist upon entering, and place his baggage in a chamber without the keeper's consent. Add to this, that if he fail to provide honest servants and honest inmates, according to the confidence reposed in him by the public, his negligence in that respect is highly culpable, and he ought to answer civilly for their acts, even if they should rob the guests that sleep in their chambers. Rigorous as this law may seem, and hard as it may actually be in one or two particular instances, it is founded on the great principle of public utility, to which all private considerations ought to yield; for travellers, who must be numerous in a rich and commercial country, are obliged to rely almost implicitly on the good faith of innholders, whose education and morals are usually none of the best, and who might have frequent opportunities of associating with ruffians, or pilferers, while the injured guest could never obtain legal proof of such combinations, or even of their negligence, if no actual fraud had been committed by them. Hence the prætor declared, according to Pomponius, his desire of securing the public from the dishonesty of such men; and by his edict gave an action against them, if the goods of travellers or passengers were lost or hurt by any means except by inevitable accident (*damno fatali*): and Ulpian intimates that even this severity could not restrain them from knavish practices or suspicious neglect.' (*Essay on the Law of Bailments*, 2nd ed. pp. 95, 96.)

Even if an innkeeper bid the guest take the key of his chamber and lock the door, telling him that he cannot undertake the charge of the goods, still, if they be stolen, he is held to be responsible. In all such cases it is not competent to the innkeeper to plead that he took *ordinary* care, or that the *force* which occasioned the loss was truly irresistible. A guest is not bound to deliver the goods in special custody to the innkeeper, nor, indeed, to acquaint him that he has any. If he have property with him, or about his person, the innkeeper must be responsible for it to the extent of 30*l.* without communication. But the innkeeper may require that the property of his guest be delivered into his hands, in order that it may be put into a secure place; and if the guest refuse, the innkeeper is not liable for its safety. The guest exonerates the innkeeper from liability when he takes upon himself the exclusive custody of the goods, so as to deprive the innkeeper of having any care over them; thus, if a guest demand and have exclusive possession of a room, for the purpose of a shop or warehouse, he exonerates the landlord from any loss he may sustain in the property which he keeps in that apartment: but it is otherwise if he have not *the exclusive possession of the room*. The innkeeper cannot oblige the guest to take charge of his own goods; for this, in effect, would be a refusal to admit them into the inn. And it is no excuse for an innkeeper to say that he delivered the key of the chamber whence the property was stolen to the guest, who left the door open. A case of this sort occurred a few years ago at Brighton. A lady having left the door of her bedroom, of which she had the key, open for a few minutes, 50*l.* were abstracted from her reticule. The innkeeper contended that the plaintiff, by selecting particular apartments, and taking the key, had exonerated him from his liability. The jury found for the plaintiff; and upon a motion for a new trial, Lord Tenterden said, 'By the common law of this country, and also by the civil law, the principle of the liability of innkeepers was founded on two reasons: first, to compel the landlord to take care that no improper company was admitted into his house; and secondly, to prevent collusion. The principle, as stated in the civil law, was this—"Ne quisquam putet graviter hoc in eos constitutum esse; nam est in ipsorum arbitrio nequem recipient; et nisi hoc esset statutum, materia daretur cum furibus, adversus eos quos recipiunt, coeundi: cum ne nunc quidem abstinent hujusmodi fraudibus." It was true that, in the present state of society, it was very difficult to prevent the intrusion of improper company into inns. But still the principle was such as he had stated it to be, and it would be dangerous to relax it; and he did not think that the taking rooms in this way was sufficient to discharge the landlord. Then, as to the objection that the cases did not extend to money, it was clear that money was as much within the principle as goods, and that no substantial distinction could be made. He was therefore of opinion that the verdict was right.' —Rule refused.

A landlord may exempt himself from liability if he can show that the loss was occasioned by the misconduct of the guest; as, if his goods are stolen by his own servant or companion.

It has been decided that a man is a guest at an inn, if he leave his horse at it, though he has not gone into it himself. If a man come to an inn, and make a contract for lodging for a set time, and do not eat or drink there, he is no guest, but a lodger, and, as such, not under the innkeeper's protection; but if he eat and drink, or pay for his diet there, it is otherwise. Any innkeeper or alehouse keeper, knowingly receiving and harbouring any person convicted of an offence against the revenue laws, for which he has been in prison, or for which he has fled, shall forfeit 100*l.* and have no license for the future.

4. *Remedy of an Innkeeper against his Guest.*—An innkeeper may, without any agreement to that effect, detain the person of a guest who has eaten in his house, until payment; and he may do the same by the horses in his stable.

An innkeeper is not entitled to recover for spirits supplied to his guests, of the value of 20*s.* and upwards, unless supplied or contracted for at one time. (23 Geo. II. c. 40.)

By the custom of London and Exeter, if a man commit a horse to an hostler, and the expense of his keep become equivalent to his price, the hostler may appropriate the horse to himself upon the appraisement of four of his neighbours, or may have him sold. But innkeepers in other parts of the country have no power to sell horses detained by them.

A horse committed to an innkeeper cannot be detained as a security for the board of his master.

It is enacted by 11 & 12 Wm. III. c. 15 that innkeepers, alehouse keepers &c. refusing to specify in an account the number of pints or quarts for which demand is made, or selling in unmarked measures, shall have no power to detain any goods or other things belonging to the person

from whom demand is made, but shall be left to their action for recovery of the same.

PUMICE STONE (Ger. bimstein; Fr. pierre-ponce; Ital. pietra pomice; Span. piedra pomez; Lat. pumex). A light, spongy, vitreous stone, found usually in the neighbourhood of volcanoes. It is used for polishing metals and marble, and smoothing the surface of wood and pasteboard. It is said to form a good glaze for pottery. The lighter pumice stones swim on water, their specific gravity not exceeding 9·14. The island of Lipari, in the Mediterranean, is chiefly formed of pumice stone, and may be said to be the magazine whence all Europe is supplied with this useful article. There are several species of pumice stones; but those only that are light and spongy are exported. In 1867 we imported 525 tons of pumice stone, valued at 2,364*l.*

PUTCHOCK. An article of this name is imported in considerable quantities from the north-west coast of India into China, and is regularly quoted in the Canton price currents. It is the root of a plant that grows abundantly in Sinde. When burned, it yields a fine smoke, and a grateful and diffusive smell. The Chinese beat it into a fine powder, which they burn as incense in the temples of their gods. (Hamilton's *New Account of the East Indies*, vol. i. p. 126.)

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QUARANTINE. A regulation by which all communication with individuals, ships, or goods, arriving from places infected with the plague, or other contagious disease, or supposed to be peculiarly liable to such infection, is interdicted for a certain definite period. The term is derived from the Italian *quaranta*, forty; it being generally supposed that if no infectious disease break out within 40 days, or 6 weeks, no danger need be apprehended from the free admission of the individuals under quarantine. During this period, too, all the goods, clothes &c. that might be supposed capable of retaining the infection, are subjected to a process of purification. This last operation, which is a most important part of the quarantine system, is performed either on board ship, or in establishments denominated *lazarettos*. (See post.)

Policy of Quarantine.—The regulations as to quarantine are entirely precautionary; they have their origin in the belief that various diseases, but especially the plague, are contagious; and supposing such to be the case, the propriety of subjecting those coming from an infected or suspected place to a probation is obvious. Indeed, no Government could, until the belief in question be proved to be ill founded, abstain from enforcing precautionary measures, without rendering itself liable to the charge of having culpably neglected one of its most important duties—that of providing, by every means in its power, for the safety of its subjects. Latterly, however, it has been contended that the plague is never imported; that it is always indigenous; originating in some peculiar state of the atmosphere, or in something peculiar in the condition of the people; and that, consequently, quarantine regulations merely impose a heavy burden on commerce, without being of any real utility. But though there does not seem to be any reason for doubting that infectious diseases have originated in the way described, the fact that they have, in innumerable instances, been carried from one place to another, seems to be established beyond all question. Even if the evidence as to the importation of infectious diseases were less decisive than it is, or the opinions of medical men more divided, it would not warrant the repeal of the restraints on the intercourse with suspected ports. This is not a matter in which innovations should be rashly introduced; wherever there is doubt, it is proper to incline to the side of security. In some cases, perhaps, quarantine regulations have been carried to a needless extent; but they have more frequently, we believe, been improperly relaxed.

Institution of Quarantine.—The notion that the plague was imported from the East into Europe seems to have prevailed in all ages. But it would appear that the Venetians were the first who endeavoured to guard against its introduction from abroad, by obliging ships and individuals from suspected places to perform quarantine. The regulations upon this subject were, it is most probable, issued for the first time in 1484. (Beckmann, *Hist. of Invent.* vol. ii. art. 'Quarantine.') They have since been gradually adopted in every other country. Their introduction into England was comparatively late. Various preventive regulations had been previously enacted; but quarantine was not systematically enforced till after the alarm occasioned by the dreadful plague at Marseilles in 1720. The regulations then adopted were made conformably to the suggestions of the celebrated Dr. Mead, in his famous *Discourse concerning Pestilential Contagion.*

Lazarettos or *Pest-houses* are establishments constructed to facilitate the performance of quarantine, and particularly the purification of goods. They have usually a port in which ships from a suspected place may anchor; and, when perfect, are provided with lodgings for the crews and passengers, where the sick may be separated from the healthy; and with warehouses, where the goods may be deposited; all intercourse between the lazaretto and the surrounding country being, of course, interdicted, except by permission of the authorities. The lazarettos at Leghorn, Genoa, and Marseilles are the most complete of any in Europe. The facilities they afford to navigation are very great; for, as ships from suspected places may discharge their cargoes in the lazaretto, they are not detained longer than they would be were there no quarantine regulations. The goods deposited in the lazaretto, being inspected by the proper officers, and purified, are then admitted into the market.

Compared with these, the quarantine establishments in this country are exceedingly defective. There is not, even in the Thames, a lazaretto where a ship from a suspected place may discharge her cargo and refit: so that she is detained, frequently at an enormous expense, during the whole period of quarantine; while, if she have perishable goods on board, they may be very materially injured. It is singular that nothing should hitherto have been done to obviate such grievances. The complaints as to the oppressiveness of quarantine regulations are almost wholly occasioned by the want of proper facilities for its performance. Were these afforded, the burdens it imposes would be rendered comparatively light; and we do not know that many more important services could be rendered to the commerce of the

country than by constructing a proper quarantine establishment on the Thames.

Bills of Health.—The period of quarantine varies, as respects ships coming from the same place, according to the nature of their bills of health. These are documents, or certificates, signed by the consul or other competent authority in the place which the ship has left, describing its state of health at the time of her clearing out. A *clean* bill imports that, at the time of her sailing, no infectious disorder was known to exist. A *suspected*, or, as it is more commonly called, a *touched* bill, imports that rumours were afloat of an infectious disorder, but that it had not actually appeared. A *foul* bill, or the *absence of clean bills*, imports that the place was infected when the vessel sailed. [Bills of Health.] The duration of the quarantine is regulated by the nature of these instruments. They seem to have been first issued in the Mediterranean ports in 1665, and are obviously of great importance.

Quarantine Regulations.—The existing quarantine regulations are embodied in the Act 6 Geo. IV. c. 78, and the different orders in council issued under its authority. These orders specify what vessels are liable to perform quarantine; the places at which it is to be performed; and the various formalities and regulations to be complied with. The publication in the *Gazette* of any order in council with respect to quarantine is deemed sufficient notice to all concerned; and no excuse of ignorance is admitted for any infringement of the regulations. To obviate, as far as possible, any foundation for such plea, it is ordered that vessels clearing out for any port or place with respect to which there shall be at the time any order in council subjecting vessels from it to quarantine, are *to be furnished* with an abstract of the quarantine regulations; and are *to furnish themselves* with quarantine signal flags and lanterns, and with materials and instruments for fumigating and immersing goods. The following are the clauses in the Act as to signals:—

Every commander, master, or other person having the charge of any vessel liable to quarantine, shall, at all times, when such vessel shall meet with any other vessel at sea, or shall be within 2 leagues of the coast of the United Kingdom, or the islands of Guernsey, Jersey, Alderney, Sark, or Man, hoist a signal to denote that his vessel is liable to quarantine; which signal shall in the day time, if the vessel shall have a clean bill of health, be a large yellow flag, of 6 breadths of bunting, at the main-topmast-head; and if such vessel shall not have a clean bill of health, then a like yellow flag, with a circular mark or ball, entirely black, in the middle thereof, whose diameter shall be equal to 2 breadths of bunting; and in the night time, the signal shall in both cases be a large signal lantern with a light therein (such as is used on board his Majesty's ships of war), at the same mast-head: and such commander, master, or other person, shall keep such signals hoisted during such time as the said vessel shall continue within sight of such other vessel, or within 2 leagues of the said coast or islands, and while so in sight, or within such distance, until such vessel so liable to quarantine shall have arrived at the port where it is to perform quarantine, and until it shall have been legally discharged from the performance thereof; on failure whereof such commander, master, or other person shall forfeit 100*l.* (Sec. 8.)

Every commander, master, or other person having the charge of any vessel on board whereof the plague or other infectious disease highly dangerous to the health of his Majesty's subjects shall actually be, shall at all times, when such vessel shall meet with any other vessel at sea, or shall be within 2 leagues of the coast of the United Kingdom, or the islands of Guernsey, Jersey, Alderney, Sark, or Man, hoist a signal, to denote that a vessel has the plague or other infectious disease; which signal shall be in the day time a flag of yellow and black, borne quarterly, of 8 breadths of bunting, at the main-topmast-head; and in the night time, the signal shall be 2 large signal lanterns, commonly used on board ships of war, one over the other, at the same mast-head: and such commander, master, or other person shall keep such signal hoisted during such time as the said vessel shall continue within sight of such other vessel, or within 2 leagues of the coasts or islands aforesaid, while so in sight, or within such distance, until such vessel shall have arrived at the port where it is to perform quarantine, and until it shall have been legally discharged from the performance thereof; on failure whereof such commander, master, or other person shall forfeit 100*l.* (Sec. 9.)

If any commander, master, or other person, knowing that the same is not liable to the performance of quarantine, shall hoist such signal, by day or night, such commander or other person shall forfeit 50*l.* (Sec. 10.)

But, instead of printing the Act, and the various orders in council that have grown out of it, it will be sufficient to lay the following abstract of them before the reader. This abstract has been prepared by the Custom-house, and contains a distinct summary of the various rules and regulations to be complied with.

Abstract of Quarantine Regulations.

It is in the first place to be observed that all persons are presumed to know, and are bound to take notice, not only of the quarantine regulations established by Act of Parliament (as they are of any other public Act), but likewise of every order in council made for the performance of quarantine, and published in the *London Gazette*; and as it is easily in their power to inform themselves of such regulations, and particular care is taken by this and other means to promulgate such of them as apply to their respective situations, *previously to their being actually put under quarantine*, when they will receive directions for their guidance from the quarantine officers, no plea of ignorance will be admitted as an excuse for any neglect, breach, or violation thereof; but, for the sake of example, and for the security of the public health, the pains, penalties, and punishments of the law will be enforced with the utmost severity.

Duty of Commanders and Masters of Vessels.

Upon arrival off the coast of the United Kingdom, or the islands of Guernsey, Jersey, Alderney, Sark, or Man,

To deliver to the pilot who shall go on board, a written paper, containing a true account of the name of the place at which his ship loaded, and of all the places at which he touched on the homeward voyage. Neglecting or refusing to deliver such papers, or making any false representation or wilful omission therein, subjects him to a penalty of 100*l.*

Upon entering, or attempting to enter any port, and being spoke by any quarantine officers,

To give a true answer in writing or otherwise, and upon oath or not upon oath (according as he shall be required), to the preliminary questions put to him by such quarantine officer, for the purpose of ascertaining whether his vessel is or is not liable to quarantine. Neglecting or refusing

to bring his vessel to as soon as it can be done with safety, in obedience to the requisition of the quarantine officer, subjects him to a penalty of 100*l.*

Refusing to answer such questions, or giving any false answer thereto (if not upon oath), subjects him to a penalty of 200*l.*

If upon oath, to the punishment for wilful and corrupt perjury.

If any infectious disease shall appear on board, the master is to repair to such place as her Majesty shall direct, and make known his case to the officer of customs, and he is to remain at that place until directions are given by the Lords of the Privy Council. He is not to permit any of the crew or passengers on board to go on shore, and he, his crew and passengers, are to obey such directions as are received from the Lords of the Privy Council.

Not acting in conformity to the regulations herein directed, or acting in disobedience to such directions as shall be received from the Privy Council, he incurs the penalty of 100*l.*

If informed by the pilot that his vessel has become liable to quarantine by reason of any proclamation made subsequent to his departure, to hoist and keep hoisted a like signal, under the same penalty of 100*l.*

To give to the pilot coming on board a written paper, containing a true account of the different articles composing his cargo. Neglecting or refusing to do so, or making a false representation or wilful omission, subjects him to a penalty of 50*l.*

Masters of vessels liable to quarantine, and other persons on board them or having communication with them, are to repair to the appointed quarantine stations, and may be compelled to do so by force.

The master of any vessel having disease on board, on meeting with any other vessel at sea, or within two leagues of the coast of the United Kingdom, or the islands of Guernsey, Jersey, Alderney, Sark, or Man, is to hoist a signal to denote that his vessel has such disease on board, and is to keep such signal hoisted during such time as he shall continue within sight of such vessel, or within 2 leagues of the coast or islands aforesaid, while so in sight or within such distance, until the vessel shall arrive at the port where she is to perform quarantine, and until she shall be legally discharged from the performance thereof. Failing herein, the master incurs the penalty of 100*l.*

If he shall refuse or omit to disclose the circumstances of such infection prevailing either at any place at which he has been, or on board his vessel, in his answers to the preliminary questions put to him by the quarantine officer, or if he shall wilfully omit to hoist, and to keep hoisted, the proper quarantine signal to denote that his ship is liable to quarantine, he incurs the penalty of 300*l.*

Upon attempting to enter any port which is not the port at which he ought to perform quarantine, he may be compelled to desist therefrom, in order that he may proceed to the proper quarantine ports, by guns being fired upon the ship, or any other kind of force being used that may be necessary for the attainment of that object.

Quitting or knowingly suffering any seaman or passenger to quit his ship, by going on shore, or by going on board any other vessel or boat, before discharged from quarantine; or,

Not repairing to the proper quarantine station within a convenient time after due notice given, incurs a penalty of 100*l.*

To repair in all cases to the proper quarantine port, as hereinafter stated in the Appendix, according as he shall or shall not be furnished with a clean bill of health, and according to the port or place to which he shall be bound, as herein stated.

But if through ignorance, or by stress of weather, damage, loss, or accidents of the seas, he shall have passed the proper quarantine port, he may (having a clean bill of health on board, and upon giving satisfactory proof thereon upon oath, and by the oath of the pilot, if any on board, and that the same was not wilfully or intentionally done or occasioned) be permitted to proceed to some other quarantine port, in the discretion of the quarantine officer, keeping the proper quarantine signal hoisted during the whole time.

Upon his arrival at the proper quarantine port, to give true answers upon oath to all the quarantine questions, and to make oath to the truth of his log-book, and the times at which the entries were therein made: failing herein, he incurs the penalty of wilful and corrupt perjury.

He is also to repair to the particular station which shall be appointed by the quarantine officer for the said ship or vessel,

To deliver up to the quarantine officer his bill of health, manifest, log-book, and journal.

Wilfully refusing or neglecting so to do, subjects him to a penalty of 100*l.*

If not bound to any port of the United Kingdom, or the islands aforesaid, and attempting to enter any port thereof (except to wait for orders, or in consequence of stress of weather or accidents of the seas), he shall give satisfactory proof thereof to the quarantine officer, and give true answers upon oath to the preliminary questions, and strictly conform to all such directions as he shall receive from the quarantine officer, touching his continuance at such port, or departure from thence, or repairing to any other; and also with respect to all other quarantine regulations; in default of which, he may be compelled to proceed to sea by any means or by any kind of force that shall be necessary for that purpose.

Having performed quarantine in any foreign lazaret, the vessel is to be put under quarantine at some of the ports hereinafter appointed, until the master shall produce to the quarantine officer the proper documents in proof thereof; upon production whereof the said vessel shall not be obliged to perform quarantine, but shall remain at such station until released by order in council.

Unshipping, or moving in order to unship, any goods from on board any vessel liable to quarantine, subjects to a penalty of 500*l.*

Clandestinely conveying, or secreting or concealing for the purpose of conveying, any letter, goods, or other articles, from any vessel actually performing quarantine, subjects to a penalty of 100*l.*

Note.—Every commander or master of any vessel clearing out or about to sail for any port or place in the Mediterranean, or in the West Barbary on the Atlantic Ocean, or for any port or place respecting which there shall at the time be any order of his Majesty in council in force, subjecting vessels coming from thence to quarantine, is to receive from the principal officer of the customs at such port or place this printed Abstract of the Quarantine Regulations, which such commander or master is to cause to be affixed on some convenient and conspicuous part of his said vessel, and to remain so affixed until his return with his said vessel to some port or

place in the United Kingdom or the islands aforesaid.

And every such commander and master is likewise to provide and take on board 1 at least of each of the proper quarantine signal flags and lanterns, and likewise materials and instruments for fumigation and immersion, and to keep the same on board, to be used upon his return to the United Kingdom or the islands aforesaid.

Duty of Pilots.

Pilots are strictly to observe the following directions:—

To receive an account in writing from every commander or master of any vessel coming from foreign parts, of the places at which his vessel loaded, and at which he touched on his said homeward voyage.

To give notice to such commander or master of any proclamation, or order in council, made after the departure of such vessel from the United Kingdom or the islands aforesaid, and then in force, by which vessels coming from any place mentioned in such account shall be liable to quarantine. Neglecting or omitting to give such notice subjects them to a penalty of 100*l.*

To give a like notice of any proclamation then in force, by which vessels having on board any of the articles mentioned in the master's account shall be liable to quarantine. Neglecting or omitting to give such notice subjects them to a penalty of 100*l.*

To remain on board in the same manner as any of the officers, crew, or passengers, and not to quit the said vessel before or after the arrival, either by going on shore, or by going on board any other vessel or boat with intent to go on shore, until she is regularly discharged from quarantine; and they may be compelled by any persons whatsoever, and by any kind of necessary force, to return on board the same. If they offend herein, they incur a penalty of 300*l.* and 6 months' imprisonment.

Not to bring any such vessel into any port or place other than the port or place appointed for the reception of vessels so liable to quarantine as stated in the Appendix, unless compelled by stress of weather, adverse winds, or accidents of the seas, of which the pilot, as well as the commander or master of the vessel, is to give satisfactory proof upon oath. If they offend herein, they incur a penalty of 200*l.*

To bring the ship to, as soon as it can be done with safety, in obedience to the requisition of the quarantine officer. Failing herein subjects them to a penalty of 100*l.*

Duty of other Persons.

When any infectious disease actually appears on board any vessel, all persons on board are to obey the direction of the privy council, under a penalty of 100*l.*

Not to quit such vessel, either by going on shore, or by going on board any other vessel or boat with intent to go on shore, until regularly discharged from quarantine: and if they quit the ship, they may be compelled by any persons whatsoever, and by any kind of necessary force, to return on board the same; and are also liable to a penalty of 300*l.* and 6 months' imprisonment.

Whether liable to quarantine, or actually performing quarantine, or having had any intercourse or communication with any such persons so liable to or under quarantine, all persons are to obey all such orders as they shall receive from the quarantine officer, and to repair to the lazaret, vessel, or place appointed for the performance of quarantine. Wilfully refusing or neglecting to repair forthwith, when required so to do by such officers, or escaping from or out of such lazaret, vessel, or place, may be compelled to repair or return thereto by any kind of necessary force, and are subject to a penalty of 200*l.*

Landing or unshipping, or moving in order to the landing or unshipping, of any goods, packets, packages, baggage, wearing apparel, books, letters, or any other articles whatever, from vessels liable to quarantine, are liable to a penalty of 500*l.*

Clandestinely conveying, or secreting or concealing for the purpose of conveying, any goods, letters, or other articles as aforesaid, from any vessel actually performing quarantine, or from the lazaret or other place where such goods or other articles shall be performing quarantine, are liable to a penalty of 100*l.*

Having quitted or come on shore from any vessel liable to or under quarantine, or having escaped from any lazaret or other place appointed in that behalf, may be seized and apprehended by any constable or other peace officer, or by any other person whatever, and carried before a justice of the peace, who may grant his warrant for conveying such person to the vessel, lazaret, or other place from which he shall have escaped, or for confining him in any place of safe custody (not being a public gaol) until directions can be obtained from the privy council.

Knowingly and wilfully forging or counterfeiting, interlining, erasing, or altering, or procuring to be forged &c., any certificate directed by any order in council touching quarantine, or publishing the same as true, or uttering any such certificate with intent to obtain the effect of a true certificate, knowing its contents to be false, are guilty of felony.

What Vessels are liable to Quarantine.

All vessels (as well ships of war as all others) with or without clean bills of health, coming—

From or having touched at any place in the Mediterranean, or the West Barbary on the Atlantic Ocean.

From any other place from which his Majesty shall from time to time adjudge it probable (and shall so declare by proclamation or order in council) that the plague, or any other infectious disease or distemper highly dangerous to the health of his Majesty's subjects, may be brought.

Note.—They are considered as liable to quarantine from the time of their leaving any of the said places.

All vessels having communication with any of the before-mentioned ships or vessels, or receiving—

Any person whatever from or out of such vessel, whether such person shall have come from any of the said places, or shall have gone on board of such vessel, either in the course of her voyage, or upon her arrival off the coast of the United Kingdom &c.—Or,

Any goods, wares, or merchandise, packets, packages, baggage, wearing apparel, goods, letters, or any other articles whatever, from or out of such ship or vessel.

Note.—They are liable to quarantine from the time of their receiving any such persons or goods.

All vessels coming from any port or place in Europe without the Straits of Gibraltar, or on the continent of America, and having on board—

Any of the articles enumerated (a *list* of which articles see in the Appendix);

And not producing a declaration upon oath, made by the owner, proprietor, shipper, or consignee,

stating either that such articles are not the growth, produce, or manufacture of Turkey, or of any place in Africa within the Straits of Gibraltar, or in the West Barbary on the Atlantic Ocean, or stating of what place they are the growth, produce, or manufacture.

All vessels and boats receiving—

Any of the said goods, wares, and merchandise, or other articles enumerated.

Signals.

For vessels with the plague or other highly infectious disease actually on board—

In the day time—A flag of yellow and black, borne quarterly, of 8 breadths of bunting, at the main-topmast-head.

In the night time—Two large signal lanterns, with a light therein, such as are commonly used on board his Majesty's ships of war, one over the other, at the same mast-head.

For vessels with clean bills of health—

In the day time—A large yellow flag, of 6 breadths of bunting, at the main-topmast-head.

In the night time—A large signal lantern, with a light therein, such as is commonly used on board his Majesty's ships of war, at the same mast-head.

For vessels without clean bills of health—

In the day time—A large yellow flag, with a circular mark or ball, entirely black, in the middle thereof, whose diameter shall be equal to 2 breadths of bunting, at the main-top-mast-head.

In the night time—Same as for vessels with clean bills of health.

Note.—Every commander or master of a vessel about to sail for the Mediterranean, or for any place respecting which an order in council shall be in force, subjecting vessels coming from thence to quarantine, to be provided with the quarantine signals above mentioned, and to keep the same on board, to be used on his return to the United Kingdom.

Any commander or master hoisting either of the said quarantine signals, by day or night, knowing that his vessel is not liable to quarantine, incurs a penalty of 50*l.*

APPENDIX.

A List of Articles enumerated, considered as most liable to Infection.

Apparel of all kinds
Artificial flowers
Bast, of any articles made thereof
Beads, bracelets, or necklaces, in strings
Beds and bed ticks
Books
Brooms of all kinds
Brushes of all sorts
Bustles
Camlets
Canvas
Carmenia wood
Carpets
Cordage, not tarred
Cotton wool
Cotton yarn
Cotton thread
All articles wholly made of or mixed with cotton, silk, wool, thread, or yarn
Down
Feathers
Furs
Furriers' waste
Goats' hair
Gold or silver on thread, cotton, hair, wool, or silk, or any other substance hereinbefore mentioned
Grogram
Hats, caps, or bonnets of straw, chip, cane, or any other material
Hemp
Hoofs
Horn and horn tips
Hair of all sorts
Leather
Linen
Lute strings, bathings or harp strings
Maps
Mattresses
Mats and matting
Mohair yarn
Nets, new or old
Paper
Packthread
Parchment
Pelts
Platting of bast, chip, cane, straw, or horse hair
Quills
Rags
Sail and sail cloths
Silk, viz.—crapes and tiffanies, husks and knubs, raw silk, thrown and organzine silk, waste silk, raw silk
Skins, hides, and furs, and parts or pieces of skins, hides, and furs, whether undressed or in part or wholly tanned, tawed, or dressed
Sponges
Straw, or any article made or mixed with straw
Stockings of all sorts
Thread, tow, vellum, whisks, wool, whether raw or anywise wrought
Yarn of all sorts
And all other goods whatsoever, if they shall have arrived in or with packages consisting, wholly or in part, of any of the said articles

QUARANTINE PORTS.

For Vessels liable to Quarantine not coming from any Place actually infected, nor having any Infection actually on Board.

Without Clean Bills of Health.

All vessels, ships of war &c. as hereinafter specified, to perform quarantine at *Standgate Creek* or *Milford Haven.*

Ships of war, transports, or other ships in the actual service of Government, under the command of a commissioned officer in the service of his Majesty's navy, whithersoever bound, to perform quarantine at the *Motherbank*, near *Portsmouth*, at a place marked out by yellow buoys.

With Clean Bills of Health.

All ships and vessels bound to the following places, to perform quarantine at *Standgate Creek*:—

London, Rochester, Faversham, or any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *Whitebooth Road*, between *Hull* and *Grimsby*:—

Leigh	Yarmouth	Bridlington
Maldon	Blakeney and Cley	Scarborough
Colchester	Wells	Whitby
Harwich	Lynn	Stockton
Ipswich	Wisbeach	Sunderland
Woodbridge	Boston	Newcastle
Aldborough	Grimsby	Berwick
Southwold	Hull	

And any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *Bamboro' Pool* near *Liverpool*, or *Milford Haven*:—

Carlisle	Preston	Beaumaris
Whitehaven	Liverpool	Isle of Man
Lancaster	Chester	

And any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at the *Motherbank*, near *Portsmouth*:—

Sandwich	Newhaven	Portsmouth
Deal	Shoreham	Southampton
Dover	Arundel	Cowes
Rye	Chichester	

And any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *St. Just's Pool*, within the mouth of the harbour of *Falmouth*:—

Poole	Plymouth	Penryn
Weymouth	Looe	Truro
Lyme	Fowey	Penzance
Exeter	Falmouth	Scilly
Dartmouth	Gweek	

And any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *King Road* and *Portshute Pill*:—

Bridgewater	Gloucester	Cardiff
Minehead	Chepstow	Swansea
Bristol		

And any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *Milford Haven*:—

St. Ives	Ilfracombe	Milford
Padstow	Lianelly	Cardigan
Bideford	Pembroke	Aberystwith
Barnstaple		

Or any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at the *Motherbank*, near *Portsmouth*, or *St. Just's Pool*, within the mouth of the harbour of *Falmouth*:—

Jersey	Sark
Guernsey	Alderney

Or either of them, or any part of them, or either of them.

All ships and vessels bound to the following places, to perform quarantine at *Inverkeithing Bay*:—

The eastern coasts of Scotland, comprehending the ports of Leith	Anstruther	prehending the ports of Inverness
Burrowstoness	Prestonpans	Zetland
Alloa	Dundee	Orkney
Dunbar	Perth	Caithness
Kirkcaldy	Montrose	Stornaway
	Aberdeen	
	The northern ports of Scotland, com-	

Or any member, creek, or other place belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *Holy Loch*, in the *Frith of Clyde*:—

The western coast of Scotland, comprehending the ports of Glasgow	Irvine	Ayr
Greenock	Campbell Town	Port Patrick
	Oban	Stranraer
	Rothesay	Wigtown
	Fort William	

The south-west ports of Scotland, comprehending the ports of Dumfries and Kirkcudbright, or any member, creek, or other place belonging to or within any or either of the above ports.

Preliminary Questions.

1. What is the name of the vessel, and the name of the commander or master?

2. Are you the commander or master? Where does she belong?

3. From whence do you come?

4. To what place are you bound?

5. At what ports have you touched since you left the port of your lading on your homeward voyage?

6. What vessels have you had intercourse or communication with on your passage, and from whence did they come?

7. Did the plague or any other infectious disease or distemper prevail in any degree at the place whence you sailed on your homeward voyage or at any of the places at which you have touched? If at any, say at which, and when. Are any persons on board your ship suffering under any infectious disease? or have any persons died or been ill of a disease of that nature on the homeward passage? and if any, what number? And if any have died or been ill of such disease, were their bedding and clothes destroyed?

[If the vessel shall have sailed from any port in Europe without the Straits, or on the continent of America.]

8. Have you on board any goods enumerated in this list?

[Handing up a list of articles enumerated.]

If you have, specify the same, and whether they are of the growth, produce, or manufacture of Turkey, or of any place in Africa within the Straits of Gibraltar, or in the West Barbary on the Atlantic Ocean, or of what other place? Have you any declaration to prove of what place they are the growth, produce, or manufacture?

[If the vessel comes from the Mediterranean, or from any other place respecting which there is any order in council in force concerning quarantine.]

9. Have you any, and what, bill of health?

10. What number of officers, mariners, and passengers have you on board?

[And in cases of vessels coming from or having touched at any port or place on the continent of America, or the islands adjacent thereto, or coming from or having touched at any ports in the West Indies, the following questions are to be put, in addition to the aforesaid questions:]

11. In the course of your voyage have any persons on board suffered from sickness of any kind? What was the nature of such sickness? and when did it prevail? How many persons were affected by it? and have any of them died in the course of the voyage?

12. How long after sailing from your port of lading, or having touched at any port on the continent of America or the islands adjacent thereto, or any of the ports in the West Indies, was the first appearance of disease observed?

13. How had the persons attacked been employed before they came on board?

14. Had they been employed in loading or unloading the vessel before they left the port?

15. Had the place which they inhabited, before they sailed, the reputation of being healthy? or was it subject particularly to the fever incident to the country?

16. Had the fever been frequent in the place before the vessel sailed?

17. Did the persons who were ill on board your vessel fall sick nearly about the same time, or within a few days of each other? Or, did the disorder spread successively from one to another, and increase considerably? Or, did it abate gradually, and cease to multiply as the distance from the ports you sailed from or touched at as aforesaid increased?

18. What was the greatest number of persons ill at the most sickly period of your voyage?

19. What was the whole number of persons on board your vessel when you sailed?

20. What is the whole number of persons now ill on board your vessel?

21. Can you state what were the symptoms of illness with which your crew were first attacked; and what was the daily succession and change in them till their death?

22. Whether any and what medicines have been used? and what methods have been adopted to prevent its spreading among the crew?

23. Whether attention has been paid to cleanliness and ventilation on board your vessel?

24. When did you sail from the port or place whence you took on board your outward cargo? and at what place did you touch before you arrived at the port or place where you took in your present cargo?

25. Did you carry any bill of health with you to the port or place where you took in the cargo you have now on board? From what place? Were the said bills of health clean, unclean, or suspected?

Quarantine Questions.

1. What is the name of the vessel, and the name of her commander or master?

2. Are you the commander or master?

3. To what port or place does she belong?

4. When did you sail from the port or place whence you took on board your outward cargo? and at what places did you touch before you arrived at the port or place where you took in your present cargo?

5. Did you carry any bill or bills of health with you to the port or place where you took in the cargo you have now on board? From what

places? Were the said bills of health clean, unclean, or suspected?

6. From what port or place does she now come? When did you sail from such port or place? and at what place or places have you touched in the course of the voyage?

7. Have you any bill or bills of health on board? From what place or places? Are the same clean, unclean, or suspected? Produce them.

[If the vessel shall have sailed from any port or place in Europe without the Straits, or on the continent of America.]

8. Of what articles does your cargo consist? Have you on board any goods enumerated in this list?

[Handing up a list of articles enumerated.]

If you have, specify the same, and whether they are of the growth, produce, or manufacture of Turkey, or of any place in Africa, within the Straits of Gibraltar, or in the West Barbary on the Atlantic Ocean, or of what other place. Have you any declaration to prove of what place they are the growth, produce, or manufacture?

9. At what place or places was the cargo or any part thereof taken on board? On what day did you arrive at the place or places where you took in the whole, or any and what part of the cargo? And on what day did you sail from such place or places? And what part of your cargo was taken in at each place, and when?

10. Did the plague or any other infectious disease or distemper prevail in any degree at the places whence you sailed, or at any of the places at which your cargo was taken on board, or at which you touched? If at any, say at which, and when.

11. Did you hear of any report, or are you aware of any suspicion having existed, at the time of your sailing, that the plague or any other infectious disease prevailed at the place whence you sailed, or at any other place in the Mediterranean (or in America or the West Indies, as the case may be)?

12. What number of officers, mariners, passengers, or other persons have you on board? Describe the number of each.

13. At what port did you take on board your passengers?

14. Were they residents at the place, or had they been embarked as passengers on board any other vessel from any other places? and from what places and at what time?

15. Do the said officers, mariners, passengers, and other persons consist of the same individuals as were on board at the port from which you sailed upon your homeward voyage? If any other persons have been taken on board, or if any of your officers, crew, or passengers have quitted your vessel since you sailed from such port, or before your arrival at this place, or if any other alterations in that respect have taken place, specify the same, the causes, and the time or times, of such alterations.

16. What number of persons (if any) have died on board during the voyage outwards and homewards, or at any port at which you have touched? When, and in what part of the voyage, did such person or persons die? Of what disease or distemper?

17. Have any of your officers, mariners, or other persons of your crew, who sailed with you on your outward voyage, died or left the vessel?

18. In the course of your voyage outwards or homewards, or at any port at which you have touched, have any persons on board suffered from sickness of any kind? What was the nature of such sickness? When did it prevail? How many persons were affected by it? Are there any convalescents on board? Or, are all persons on board at present in good health?

19. Were any of those who died, or who have been sick in the course of the voyage, or any port at which you have touched, affected, or suspected to have been affected, by any infectious disease or distemper? Were the bedding and clothes of such diseased and sick persons destroyed? If so, when and in what manner were any of the persons immediately employed about the sick afterwards taken ill? If so, of what disease? and in how many days after having been so employed?

20. At what precise time did such deaths happen? In how many days after being indisposed did the sick die? What were the most obvious appearances of the disease?

21. Have you spoken to or otherwise had any communication with any vessels at sea during the voyage? What were the names of such vessels? and to what country, port, or place did they belong? From what ports or places were they coming, or at what ports or places had they touched on their voyage? and to what country, ports, or places were they bound? What was the nature of the communication held? What do you know respecting the state of health on board such vessels?

22. Have there been any letters, parcels, or other articles delivered out of or received into your vessel, from any vessel or boat met with on the voyage, or before or since your arrival at this place? And what were such letters, parcels, or articles? And where were the same delivered or received? and into or out of what vessel or boat?

23. Have you any packages or parcels which you have taken charge of? If so, what are their contents? and when and where did you take them on board?

24. What pilots or other persons from the shores of the United Kingdom, or from the islands of Scilly, Guernsey, Jersey, Alderney, Sark, or Man, have been, or are now, on board your vessel, or have had any communication whatever with the ship's company, or any of the passengers, during the voyage homewards, or before or since your arrival at this place? If any such pilots or other persons have come on board, and have afterwards quitted your vessel, specify the names of such persons, and the time, manner, and circumstances of their so quitting your vessel.

25. Did you leave any British vessels at any of the ports you sailed from? If you did, mention their names and the names of their commanders.

26. Were such vessels loading? were they near their departure? and whither were they bound?

27. Did you meet with any British vessels at any of the places you touched at? If you did, say when, where, and what were the names and destinations of such vessels; and to what ports or places did they belong?

28. Do you know whether any foreign vessels loading at the port from which you sailed were bound beyond the Straits of Gibraltar? And if so, what were they? and whither were they bound?

29. Do you know whether any person whatever employed in loading your vessel, or in bringing any articles into it, or having any communication on board thereof, was taken ill during such employment or communication? or whether, by the absence of such person or persons in the course of such employment, any suspicion was entertained of their having been ill? If so, of what disease?

30. Do you know whether or not your cargo, or any part thereof, had been long in warehouse before its being taken on board? If you do, say how long. Have you any knowledge of its being packed or handled on shore, or conveyed from shore, or stowed on board, by persons affected with the plague or any other infectious disease or distemper?

The Public Health Act (29 & 30 Vict. c. 90 s.52) enacts that 'Every vessel having on board any person affected with a dangerous or infectious disorder, shall be deemed to be within the provisions of the Act 6 Geo. IV. c. 78, although such vessel has not commenced her voyage or has come from or is bound for some place in the United Kingdom.' On account of the prevalence of yellow fever in the West Indies, several orders in council were issued in 1866 and 1867, but these were revoked by order of February 23, 1869.

The protection of the coasts of the Baltic against the introduction of the plague is entrusted to the Swedish quarantine establishment at Kinso in the Cattegat. See regulations in Board of Trade notice of January 18, 1865, published in the *London Gazette*. See also Quarantine Regulations &c., treated of under heads of various ports.

For quarantine regulations consequent on the cattle plague, see CATTLE and SHEEP. Further legislation on this branch of the subject is looked for during the session of 1869.

QUASSIA (Ger. quassienholz; Fr. bois de quassie; Span. leño de casia). A beautiful tall tree (*Quassia amara*), growing in North and South America, and the West Indies. The wood is dense, tough, of a pale yellow colour, and inodorous. Taste intensely and purely bitter. (*British Pharmacopœia*, 1867.)

It is pretty extensively employed in the *materia medica*; and it is said by Dr. Cullen that 'it will do all that any pure and simple bitter can do.' (Rees's *Cyclopædia*, art. 'Quassia.') It has been alleged that it is sometimes used by the brewers of pale and other ales, instead of or along with hops; but the use of it for this purpose is prohibited under severe penalties. [ALE AND BEER.] When imported it is in billets, which, previously to their being infused, are reduced to chips, or rasped by the druggists. Its price in bond varies from 20*s.* to 30*s.* per cwt. A prohibitory duty of 8*l.* 17*s.* 6*d.* per cwt. was imposed on quassia down to 1842, when it was reduced by Sir Robert Peel to 10*s.* 6*d.* (10*s.* + 5 per cent.); and after being reduced in 1853 to 1*s.* per cwt., it was abolished in 1860. In 1867 the imports and exports of the article amounted respectively to 1,055 and 715 cwt., valued at 296*l.* and 200*l.*

QUEBEC. The capital of Quebec, formerly Canada East, or Lower Canada, on the north-west bank of the river St. Lawrence, about 340 miles from its mouth, in lat. 46° 49′ 1″ N., long. 71° 13′ W. Population in 1861, 51,109.

Quebec is situated on a ridge, or promontory, formed by the St. Lawrence on the S. and W., and the river St. Charles on the E. The extremity of this headland, called Cape Diamond, is about 345 feet above the level of the water, and on it the citadel is built. The town extends from the citadel, principally in a north-east direction, down to the water; and is, from the difference of elevation, divided into the upper and lower towns. The fortifications, which are very strong, extend across the peninsula; the circuit within them being about 2¾ miles. From their situation many of the streets are uneven; they are also, for the most part, narrow; but they are either well-paved or macadamised. The greater number of the houses are built of stone, with shingle roofs. Some of the public buildings are elegant, and well adapted for their purposes. The harbour, or basin, lies between the town and the island of Orleans. It is safe and commodious: the water is about 28 fathoms deep, with a tide rising from 17 to 18 feet; and at springs from 23 to 25. Quebec was founded by the French in 1608. In 1629 it was taken by the English, but was restored in 1632. It was again taken by the English under General Wolfe, who fell in the engagement, in 1759; and was finally ceded to us by the treaty of Paris in 1763.

The rapid increase of population in, and of emigration to, Upper Canada has occasioned a proportional increase of intercourse between Quebec and Montreal, and the Canadian ports on Lakes Ontario, Erie &c. The first steamboat that plied on the St. Lawrence was launched in 1812; but there are now a great many steamers, some of them of large burden, employed in the conveyance of goods and passengers between Quebec and Montreal, and in the trade between Quebec and Halifax in Nova Scotia. It now possesses, too, the advantages of railways. And by means of the Rideau and Welland Canals, an uninterrupted line of steam communication is formed between the Atlantic and Amherstburg, one of the remote settlements of Upper Canada, a distance of more than 1,500 miles; which is now extended through Lake Huron to the western extremity of Lake Superior, about 700 miles beyond Amherstburg; giving to Quebec a command of internal navigation *inferior only* to that of New Orleans. The navigation at Quebec closes at the end of November or beginning of December, and opens in April. Below Quebec the river is seldom frozen over; but the masses of floating ice, kept in constant agitation by the flux and reflux of the tide, render navigation impracticable. The waters of the St. Lawrence are very pure; and in point of depth and magnitude it is one of the noblest rivers in the world. (Bouchette's *British Dominions in America*, vol. i. p. 272.) Quebec is a free warehousing port.

The trade of Quebec is very extensive. It engrosses, with Montreal, almost the entire trade of the province with the mother country, the West Indies &c. It has a regular intercourse, by means of steamers, with Montreal and other ports higher up the St. Lawrence, and with Halifax and other ports on the Atlantic. Still, it must not be forgotten, that, in so far as the United Kingdom is concerned, the trade with Canada and Quebec is, in some degree, forced and factitious, and has not been a source of profit, but the reverse. In former years it was, in fact, mainly a consequence of the discriminating duties laid in our ports on timber from the North of Europe; and but for this preposterous arrangement, the trade between Great Britain and Quebec would have been extremely unimportant. Now, however, some branches of the trade appear to have acquired a solid footing for notwithstanding the reduction of the discriminating duties in favour of Baltic timber, and the subsequent abolition of the timber duties in 1866, the imports from Canada and other parts of British America of red pine, and of pine and spruce planks, especially the latter, have of late very largely increased. Corn, furs, butter, and ashes are the most important articles sent from Canada, excepting timber. A considerable part of the corn and flour exported from Quebec is the growth of the United States. The principal articles of import into Canada consist of corn, cottons, woollens, silk, and other manufactured goods; glass ware, spirits and wines, iron and

Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture Exported from the United Kingdom to Canada in 1865, 1866, and 1867.

Principal Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Alkali, of all sorts	cwt.	39,256	55,918	64,879	18,999	31,144	28,101
Apparel and haberdashery	value	—	—	—	[illegible]	[illegible]	480,000
Beer and ale	barls.	1,472	1,778	2,385	7,324	[illegible]	17,348
Books, printed	cwt.	2,000	3,500	4,077	[illegible]	21,[illegible]	41,968
Coals, cinders, and culm	tons	141,721	176,429	168,484	[illegible]	50,[illegible]	[illegible]
Copper, wrought and unwrought	cwt.	2,570	4,[illegible]	3,761	[illegible]	17,480	11,586
Cordage and twine	,,	2,857	3,418	3,[illegible]	[illegible]	16,[illegible]	[illegible]
Cottons, entered by the yard	yards	20,387,[illegible]	26,551,822	25,[illegible]	[illegible]	580,[illegible]	492,[illegible]
at value	value	—	—	—	51,051	61,[illegible]	54,[illegible]
Drugs and chemical products	,,	—	—	—	[illegible]	10,[illegible]	[illegible]
Earthenware and porcelain	,,	—	—	—	[illegible]	61,[illegible]	[illegible]
Glass manufactures	,,	—	—	—	17,[illegible]	25,359	[illegible]
Hardwares and cutlery, unenumerated	cwt.	16,500	[illegible]	[illegible]	[illegible]	137,160	[illegible]
Iron, wrought and unwrought	tons	4[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lead and shot	,,	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Leather, wrought and unwrought	value	—	—	—	[illegible]	[illegible]	[illegible]
Linens, entered by the yard	yards	2,[illegible]	4,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
at value	value	—	—	—	[illegible]	[illegible]	[illegible]
Machinery and mill work	,,	—	—	—	[illegible]	[illegible]	[illegible]
Oil, seed	tun	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Painters' colours (not otherwise described)	value	—	—	—	[illegible]	[illegible]	[illegible]
Paper of all sorts	cwt.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pickles and sauces	value	—	—	—	[illegible]	[illegible]	[illegible]
Plate, plated ware, jewellery, and watches	,,	—	—	—	[illegible]	[illegible]	[illegible]
Salt	tons	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Silk manufactures	value	—	—	—	[illegible]	[illegible]	[illegible]
Soap	cwt.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stationery, other than paper	value	—	—	—	[illegible]	[illegible]	[illegible]
Sugar, refined	cwt.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tin plates	value	—	—	—	[illegible]	[illegible]	[illegible]
Woollens, entered by the yard	yards	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
at value	value	—	—	—	[illegible]	[illegible]	[illegible]
All other articles	,,	—	—	—	[illegible]	[illegible]	[illegible]
Total		—	—	—	[illegible]	[illegible]	[illegible]

Account of the Quantities and Values of the Principal and other Articles Imported into the United Kingdom from Canada in 1865, 1866, and 1867.

Principal Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Ashes, pearl and pot	cwt.	113,915	69,882	57,954	181,[illegible]	126,512	104,035
Bacon	,,	9,188	3,031	12,128	[illegible]	8,405	27,541
Beef and pork, salted	,,	1,118	6,482	15,921	[illegible]	14,842	34,183
Butter	,,	31,560	38,442	35,245	167,997	163,345	118,601
Cheese	,,	10,253	16,868	33,522	29,986	54,334	87,817
Copper ore	tons	217	1,756	1,059	2,953	14,048	10,205
Corn—Wheat	cwt.	306,765	5,039	683,127	138,344	2,385	542,309
Oats	,,	57,056	847,077	189,142	22,433	335,338	89,906
Peas	,,	280,923	560,379	791,949	113,245	235,169	361,696
Maize or Indian corn	,,	302,173	858,578	358,038	97,914	288,378	140,847
Other kinds	,,	—	123,124	378,582	—	61,252	35,802
Wheatmeal and flour	,,	177,257	39,659	120,185	113,148	32,498	124,711
Oatmeal	,,	359	51,474	82,009	166	23,672	63,634
Cotton, raw	,,	529	2,980	4,878	5,925	22,200	21,962
Fish	,,	98	132	12,285	197	328	6,246
Fruit—apples, raw	bshl.	3,356	5,679	30,799	2,490	2,997	15,285
Hams	cwt.	1,077	1,300	2,617	2,955	3,433	6,197
Hides, tanned, tawed, curried, or dressed	lb.	276,135	291,877	73,914	9,188	10,147	2,484
Iron and steel, wrought or manufactured	value	—	—	..	4,235	5,088	10,263
Lard	cwt.	356	226	2,721	1,503	769	6,982
Oil-seed cake	tons	1,481	2,295	1,242	14,241	24,788	15,529
Skins and furs—							
Beaver	No.	21,669	34,646	62,916	12,370	15,298	20,580
Fox	,,	2,065	3,385	11,875	1,014	2,[illegible]6	6,114
Marten	,,	13,087	13,980	18,948	7,242	10,661	14,206
Otter	,,	2,251	3,357	4,370	2,459	2,623	025
Other sorts	value	—	—	—	13,896	17,130	42,605
Tallow	cwt.	—	6,066	1,152	—	13,657	519
Tobacco, manufactured, and cigars	lb.	1,181	62,865	2,455	50	1,765	84
Wood and timber:							
Not sawn or split	loads	613,105	505,763	421,132	1,876,186	1,756 98	1,536,501
Deals, battens &c. sawn or split	,,	317,636	298,599	243,397	946,912	841 75	659,258
Staves	,,	19,385	25,252	20,451	155,124	241 19	185,[illegible]
Lathwood	,,	14,285	2,541	7,569	19,797	12 60	9,503
Walnut wood	tons	1,463	1,567	909	10,097	11 25	6,390
Wool, sheep or lambs'	lb.	2,800	205,819	117,330	187	14 79	6,963
All other articles	value	—	—	—	30,903	32 70	53,633
Total		—	—	—	4,015,372	4,402,922	4,[illegible]

Value, in Dollars, of Total Exports of Domestic Produce from, and of Total Imports into Canada, in 1864–67.

	1864–65	1865–66	1866–67
	dols.	dols.	dols.
Exports	42,481,151	54,440,541	48,498,145
Imports	44,620,169	53,798,880	59,048,987

hardware, sugar and tea &c. The total value of the exports from the United Kingdom to Canada in 1867 amounted to 4,245,552*l*. When the imports from exceed the exports to this country the excess is principally paid for by the Treasury at home, and should be regarded as the means sent out by England to pay the troops and meet the other heavy expenses she has to incur in the preservation of this great but unprofitable colony.

Reciprocity Treaty with United States.—It must be obvious to anyone who takes up a map of North America, and observes the long continuous frontier of Canada and the United States, and the magnificent lakes, or great inland seas, by which they are in part divided, that the trade between them can hardly fail to be most extensive. And such is the case. Down, indeed, to a comparatively late period, the intercourse between the two countries was subjected to various regulations and duties, contrived for the most part in

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Summary Statement of the Business of the Welland, St. Lawrence, Chambly, Burlington, Ottawa and Rideau Canals, St. Ours and St. Ann's Locks, showing the Total Quantity of each description of Property passed through and on the same, and the Amount of Tolls collected, during the Fiscal Year ended June 30, 1867.

Articles	Welland Canal		St. Lawrence Canal		Chambly Canal and St. Ours Lock		Burlington Bay Canal		St. Ann's Lock		Ottawa and Rideau Canals	
	Tons	Tolls	Tons	Tolls	Tons	Tolls	Tons	Tolls	Tons	Tolls	Tons	Tolls
		dols.		dols.		dols.		dols.		dols.		dols.
Vessels of all kinds -	993,938	21,229	1,122,916	8,841	418,614	4,959	282,718	1,073	450,942	1,127	574,614	4,588
Passengers (No.) -	7,173	664	35,326	2,417	1,747	29	9,951	199	20,796	52	2,225	65
Produce of forest -	298,225	28,846	548,529	15,927	351,445	23,632	40,310	1,402	318,201	5,116	427,990	9,390
Farm Stock -	260	63	1,796	185	211	11	56	5	443	22	14	1
Animal Produce -	2,052	735	4,894	925	196	27	2,055	349	7 6	56	1,521	91
Vegetable food -	341,975	64,947	81,500	13,759	5,667	582	40,885	4,928	4,172	126	6,137	314
Agricultural products	12,268	2,956	45,862	7,630	12,915	1,088	17,312	2,696	1,071	55	1,08	154
Manufactures -	103,940	22,553	98,791	13,607	8,176	1,038	31,675	4,040	11,592	489	20,035	899
Merchandise -	136,686	29,685	51,135	6,380	31,787	5,121	42,175	4,619	7,104	500	15,009	736

a petty and jealous spirit, by which its development was cramped and impeded. But in 1854 the Reciprocity Treaty introduced a better and more liberal system, but this, since its termination by notice from the United States, has not been renewed. It admitted the free transit of several most important articles from the United States into Canada and the other provinces of British North America, and conversely, and the reciprocal use of their seas, rivers, and canals. This judicious and well-considered measure led to a vast extension of the trade between the United States and what is now called the Dominion of Canada, or British North America, and has been of signal advantage to both. We subjoin a list of the articles which passed freely across the frontier: 'Grain, flour, and bread stuffs of all kinds; animals of all kinds; fresh, smoked, and salted meats; cotton wool, seeds, and vegetables; undried fruits, dried fruits; fish of all kinds; products of fish and of all other creatures living in the water; poultry; eggs; hides, furs, skins or tails undressed; stone or marble in its crude or unwrought state; slate; butter, cheese, tallow; lard, horns, manures; ores of metals of all kinds; coal; pitch, tar, turpentine; ashes; timber and lumber of all kinds, round, hewed, or sawed, unmanufactured in whole or in part; firewood; plants, shrubs, and trees; pelts, wool; fish-oil; rice, broom corn, and bark; gypsum, ground or unground; hewn or wrought or unwrought burr or grindstones; dye stuffs; flax, hemp, and tow unmanufactured; unmanufactured tobacco; rags.'

The following table shows the rapid increase of the trade between Canada and the United States under the Reciprocity Act.

Imports from United States into Canada.

Years	Total
1851 - - - -	7,929,140 dollars
1852 - - - -	6,717,061 ,,
1853 - - - -	7,829,009 ,,
1854 - - - -	12,360,705 ,,
1855 - - - -	14,750,534 ,,
1856 - - - -	20,883,241 ,,
1857 - - - -	16,871,895 ,,
1866-67 - - - -	30,272,907 ,,

Exports from Canada to United States.

Years	Total
1851 - - - -	4,926,171 dollars
1852 - - - -	4,589,969 ,,
1853 - - - -	5,272,116 ,,
1854 - - - -	6,721,539 ,,
1855 - - - -	12,184,514 ,,
1856 - - - -	17,488,197 ,,
1857 - - - -	15,221,854 ,,
1866-67 - - - -	25,583,600 ,,

Quebec is a principal port for the importation of immigrants, 20,863 having been landed there in 1856, and 31,281 in 1857, and the total number landed in Canada in 1867 was 30,757, most of them re-emigrating to the United States. In 1867 there were 15,503 emigrants from this country to our North American colonies, the great majority of whom landed at Quebec.

Value of Exports from and Imports into Quebec.

Years	Exports	Imports
	do's.	dols.
1864-65	10,671,861	4,470,207
1865-66	9,029,829	5,088,185
1866-67	8,864,570	5,268,771

Canadian Tariff of Customs, as in Force on October 1, 1868.

Acid, sulphuric, ½c. per lb.
Acetic acid, 15 p.c. ad val.
Advertising pamphlets, 15 p.c. ad val.
Alabaster ornaments, 15 p.c. ad val.
Alcohol, on every gallon of the strength of proof of Sykes' hydrometer, and so in proportion for any greater strength and for every less quantity than a gallon, 80c. per gal.
Ale, in casks, 10 p.c. and 5c. per gal.
in bottles (5 quarts or 10 pints to gallon) 10 p.c. and 7c. per gal.
Atlases (not elsewhere mentioned) 15 p.c. ad val.
Axes, 15 p.c. ad val.
Bagatelle boards, 15 p.c. ad val.
Beer, in casks, 10 p.c. and 5c. per gal.
in bottles (5 quarts or 10 pints to gallon), 10 p.c. and 7c. per gal.
Benzole, 15c. per gal.
Bibles, Testaments, prayer-books and devotional books, 5 p.c. ad val.
Billiard tables, 15 p.c. ad val.
Bill-heads, &c. 15 p.c. ad val.
Bills, printed, lithographed, or copper-plate, 15 p.c. ad val.
Bitters containing spirit, vermouth, and other spirituous liquors, of whatever strength, not otherwise specified, on every gallon of the strength of proof of Sykes' hydrometer, and so in proportion for any greater strength, and for every less quantity than a gallon, 80c. per gal.
Blacking, 15 p.c. ad val.
Bonnets, 15 p.c. ad val.
Books, copyright reprints of, 12½ p.c. ad val.
which are copyrighted in Canada, 15 p.c. ad val.
printed periodicals and pamphlets, not being foreign reprints of British copyright works, nor blank account books, copy books, nor books to be written or drawn upon, nor school or other books copyrighted in Canada, nor printed sheet music, 5 p.c. ad val.
Boots, 15 p.c. ad val.
Bracelets, 15 p.c. ad val.
Brads, 15 p.c. ad val.
Braid &c. made of hair, 15 p.c. ad val.
Brandy (on every gallon of the strength of proof of Sykes' hydrometer, and so in proportion for any greater strength, and for every less quantity than a gallon), 80c. per gal.
Britannia metal ware, 15 p.c. ad val.
Bronze ornaments, 15 p.c. ad val.
Brooms and brushes of all kinds, 15 p.c. ad val.
Butter, 4c per lb.
Cabinet ware or furniture, 15 p.c. ad val.
Cables, hemp and grass, for ships only, 15 p.c. ad val.
Cameos or mosaics, 15 p.c. ad val.
Candles and tapers of tallow, wax, or any other material, 15 p.c. ad val.
Candy sugar, brown or white, 1c. per lb. and 25 p.c. ad val.
Cane juice, ½c. per lb. and 25 p.c. ad val.
Caps, 15 p.c. ad val.
Carpets, 15 p.c. ad val.
Carriages, not elsewhere specified, 15 p.c. ad val.
Cassia, ground, 25 p.c. ad val.
unground, 15 p.c. ad val.
Cement, hydraulic, ground, and calcined, 15 p.c. ad val.
Chandeliers, 15 p.c. ad val.
Charts, not elsewhere mentioned, 15 p.c. ad val.
Cheese, 5c. per lb.
Chicory, or other root or vegetable used as coffee, raw or green, 3c. per lb.
Chicory, kiln-dried, roasted or ground, 4c. per lb.
China ware, 15 p.c. ad val.
Chocolate, 15 p.c. ad val.
Cider, 15 p.c. ad val.
Cigars, value not over 10 dol. per mille, 3 dol. per mille
value over 10 dol. and not over 20 dol., 4 dol. per mille
value over 20 and not over 40 dol., 5 dol. per mille
value over 40 dol., 6 dol. per mille

Canadian Tariff of Customs—continued.

Cinnamon, ground, 25 p.c. ad val.
unground, 15 p.c. ad val.
Clocks, 15 p.c. ad val.
Cloth, silver and gold, 15 p.c. ad val.
Clothing or wearing apparel, made by hand or sewing machine, 15 p.c. ad val.
Coach and harness furniture, 15 p.c. ad val.
Coal oil, distilled, purified and refined, 15c. per gal.
Cocoa, 15 p.c. ad val.
Coffee, green, 3c. per lb.
roasted or ground, 4c. per lb.
Colours, not otherwise specified, 15 p.c. ad val.
Common soap, 1 dol. per 100 lb.
Confectionary, 1c. per lb. and 25 p.c. ad val.
Cordials, 1d. 20c. per gal.
Corks, 15 p.c. ad val.
Cottons, 15 p.c. ad val.
Cotton warp, cotton twist, and cotton yarn, 15 p.c. ad val.
Crockery, 15 p.c. ad val.
Cutlery, polished, of all sorts, 15 p.c. ad val.
Dried fruits, 15 p.c. ad val.
Drugs, not elsewhere specified, 15 p.c. ad val.
Earthenware, 15 p.c. ad val.
Edge tools, 15 p.c. ad val.
Embroideries, silken, woollen, worsted and cotton, 15 p.c. ad val.
Engravings, 15 p.c. ad val.
Essences, not elsewhere specified, 15 p.c. ad val.
Essential oils of all kinds, 15 p.c. ad val.
Fancy goods and millinery, 15 p.c. ad val.
Fancy goods and millinery, viz.:—articles embroidered with gold, silver, or other metals, 15 p.c. ad val.
Fancy and ornamental cases and boxes, 15 p.c. ad val.
Fans, 15 p.c. ad val.
Feathers and flowers, 15 p.c. ad val.
Firearms, of all kinds, from Great Britain only, 15 p.c. ad val.
Firescreens, 15 p.c. ad val.
Fireworks, 15 p.c. ad val.
Fish, preserved, 15 p.c. ad val.
salted and smoked, 1c. per lb.
Forks, 15 p.c. ad val.
Fruits, green or dried, 15 p.c. ad val.
Furnishings, not elsewhere specified, 15 p.c. ad val.
Furniture or cabinet ware, 15 p.c. ad val.
Gas-fittings, 15 p.c. ad val.
Gin (on every gallon of strength of proof of Sykes' hydrometer, and so in proportion for any greater strength and for every less quantity than a gallon, 80c. per gal.
Ginger, ground, 25 p.c. ad val.
unground, 15 p.c. ad val.
Girandoles, 15 p.c. ad val.
Glass and glass ware, plate, and silvered, stained, painted or coloured, 15 p.c. ad val.
Glass paper and glass cloth, 15 p.c. ad val.
Grindstones, 15 p.c. ad val.
Gunpowder, 15 p.c. ad val.
Guns, from Great Britain, 15 p.c. ad val.
Hardware, not elsewhere specified, 15 p.c. ad val.
Harness and harness furniture, 15 p.c. ad val.
Hams, 1c. per lb.
Hat plush, 15 p.c. ad val.
Hats, 15 p.c. ad val.
Hoes, 15 p.c. ad val.
Hosiery, 15 p.c. ad val.
Horses, 15 dol. per head
Horned cattle, 10 dol. per head
Imitation of leather, 15 p.c. ad val.
Inks of all kinds, except printing inks, 15 p.c. ad val.
Iron castings, 15 p.c. ad val.
Iron of the descriptions following, viz.:—
Canada plates and tin plates, 5 p.c. ad val.
sheet, 5 p.c. ad val.
wire, nail, and spike rod, round, square, or flat, 5 p.c. ad val.
bar, rod, or hoop, 5 p.c. ad val.
boiler plate, 5 p.c. ad val.
rolled plate, 5 p.c. ad val.
Japanned tinware, 15 p.c. ad val.
Jewellery, 15 p.c. ad val.
Kerosine oil, distilled, purified, and refined, 15c. per gal.
Lard, 1c. per lb.
Leather, sole and upper leather, and cow hides, split and kip, not elsewhere specified, 10 p.c. ad val.
Leather, viz. sheep, calf, goat, and chamois skins, dressed, varnished, or enamelled, 15 p.c. ad val.
Linen, 15 p.c. ad val.
Locomotive engines, 15 p.c. ad val.
Mace, 25 p.c. ad val.
Macaroni, 15 p.c. ad val.
Machines, mowing, thrashing and reaping, 15 p.c. ad val.
Malt, 40c. per bush.
Mantelpieces, 15 p.c. ad val.
Manufactures of bone, shell, horn, pearl, ivory, brass, copper, casutchouc, india-rubber, gutta percha, cashmere, fur, or of which fur is the principal part, gold, silver, electroplate, argentine, albata, German silver, and plated and gilded ware of all kinds, of grass, osier, palm leaf and straw, hair, mohair, imitations of marble, other than rough sawn slabs or blocks, leather, including boots and shoes, harness and saddlery, straw, except plaits, whalebone, willow, and of wood, not elsewhere specified, 15 p.c. ad val.
Manufactures of papier-mâché, 15 p.c. ad val.
Manufactures of refined sugar, including succades and confectionary, 1c. per lb. and 25 p.c. ad val.
Maps, not elsewhere mentioned, 15 p.c. ad val.
Marble head and foot stones, squared or cut to order, or columns, shafts, or parts thereof, 15 p.c. ad val.
Meats, fresh, salted, or smoked, 1c. per lb.
preserved, 15 p.c. ad val.
Meiado, ½c. per lb. and 25 p.c. ad val.
Millinery, 15 p.c. ad val.
Molasses, if used for refining or for the manufacture of sugar, 75c. per 100 lb.
Molasses, if not so used, 25 p.c. ad val.
concentrated, or syrup of, ½c. per lb. and 25 p.c. ad val.
Mowing, reaping, and thrashing machines, 15 p.c. ad val.
Musical boxes, 15 p.c. ad val.
instruments, 15 p.c. ad val.
Mustard, 15 p.c. ad val.
Music, sheet, 15 p.c. ad val.
Nails, 15 p.c. ad val.
Naphtha, 15c. per gal.
Newspapers, foreign, sent otherwise than through post-office, 15 p.c. ad val.
Nuts, dried, 15 p.c. ad val.
Nutmegs, 25 p.c. ad val.
Ochres, when ground or calcined, 15 p.c. ad val.
Oil cloths, 15 p.c. ad val.
Oils, any way rectified, pumped, racked, bleached, or pressed, not elsewhere specified, 15 p.c. ad val.
Oils, coal and kerosine, distilled, purified and refined, 15c. per gal.
Opium, 15 p.c. ad val.
Ornaments of bronze, alabaster, terracotta, composition, 15 p.c. ad val.
Packages—bottles, jars, demijohns, brandy casks, barrels or other packages, in which spirituous liquors, wines and malt liquors are contained, and carboys containing sulphuric acid, 15 p.c. ad val.
Paints, 15 p.c. ad val.
Paper and paper hangings, 15 p.c. ad val.
Paper, book, map, or news-printing, 15 p.c. ad val.
Patent medicines, commonly called patent medicines, or any medicine or preparation of which the receipts kept secret, recommended by advertisement, bill or label, for the relief or cure of any disorder or ailment, 25 p.c. ad val.
Parasols, 15 p.c. ad val.
Pepper, ground, 25 p.c. ad val.
unground, 15 p.c. ad val.
Perfumery, not elsewhere specified, 25 p.c. ad val.
Perfumed spirits, 1d. 20c. per gal.
Petroleum, crude, 6c. per gal.
refined, purified &c., 15c. per gal.
Pickles and sauces, 15 p.c. ad val.
Pimento, ground, 25 p.c. ad val.
unground, 15 p.c. ad val.
Pipes, tobacco, 15 p.c. ad val.
Plaster of Paris, ground and calcined, 15 p.c. ad val.
Plate, rolled iron, 5 p.c. ad val.
Plates, boiler, 5 p.c. ad val.
Canada and tin, 5 p.c. ad val.
Playing cards, 25 p.c. ad val.
Porter, in casks, 5c. per gal. and 10 p.c. ad val.
in bottles (5 quarts or 10 pints to a gallon), 7c. per gal. and 10 p.c. ad val.
Portable printing presses, 15 p.c. ad val.
Poultry, preserved, 15 p.c. ad val.
Preserved meats, 15 p.c. ad val.
Prints and engravings, 15 p.c. ad val.
Products of petroleum, coal shale and lignite, not otherwise specified, 10c. per gal.
Railroad cars, 15 p.c. ad val.
Rakes, 15 p.c. ad val.
Rice, 15 p.c. ad val.
Rifles, 15 p.c. ad val.
Rod, nail and spike, round, square and flat iron, 5 p.c. ad val.
Rugs, hearth, 15 p.c. ad val.
Rum (on every gallon of strength of proof of Sykes' hydrometer, and so in proportion for every greater strength, and for every less quantity than a gallon) 80c. per gal.
Saddlery, 15 p.c. ad val.
Sails, ready made, 15 p.c. ad val.
Satins, 15 p.c. ad val.
Scythes, 15 p.c. ad val.
Sewing silk, 15 p.c. ad val.
Shawls, 15 p.c. ad val.
Sheep, 1 dol. per head.
Shellac, 15 p.c. ad val.
Shoes, 15 p.c. ad val.
Shovels, 15 p.c. ad val
Silks, 15 p.c. ad val.
Silk twist and silk and mohair twist, 15 p.c. ad val.
Small wares, 15 p.c. ad val.
Snaths and scythes, 15 p.c. ad val.
Snuff and snuff flour, dry, damp, moist, or pickled, 15c. per lb. and 5 p.c. ad val.
Soap, fancy and perfumed, 25 p.c. ad val.
common, 1c. per lb.
Spades, 15 p.c. ad val.
Spices, including ginger, pepper, pimento, unground, 15 p.c. ad val.
including ginger, pepper, pimento, ground, 25 p.c. ad val.
not elsewhere enumerated, 15 p.c. ad val.
Spirits, perfumed, 1d. 20c. per gal.
Spirits of turpentine, 15 p.c. ad val.
Spirits of wine (on every gallon of strength of proof of Sykes' hydrometer, and so in proportion for any greater strength, and for every less quantity than a gallon, 80c. per gal.
Sprigs, 15 p.c. ad val.
Starch, 2c. per lb.
Stationery, 15 p.c. ad val.
Stoves, 15 p.c. ad val.
Succades, 1c. per lb. and 25 p.c. ad val.
Sugar candy, brown or white, 1c. per lb. and 25 p.c. ad val.
Sugar—all sugar equal to or above No. 9, Dutch standard, 1c. per lb. and 25 p.c. ad val.
Sugar—all sugar equal to or below No. 9, Dutch standard, ½c. per lb. and 25 p.c. ad val.
Syrup of sugar or of sugar cane, ½c. per lb. and 25 p.c. ad val.
Swine, 2 dol. per head.
Tacks, 15 p.c. ad val.
Tallow, 1c. per lb.
Tabour work, 15 p.c. ad val
Tapers of tallow &c., 15 p.c. ad val.
Tea, green and Japan, 7c. per lb. and 15 p.c. ad val.
black, 5½c. per lb. and 15 p.c. ad val.
Thread, and other articles embroidered with gold, or for embroider, 15 p.c. ad val.
Thread, lace and insertions, 15 p.c. ad val.
Tinctures, 63c. per gal.
Tin, Japanned ware, 15 p.c. ad val.
Tobacco, manufactured, 15c. per lb. and 5 p.c. ad val.
pipes, 15 p.c. ad val.
Toys, 15 p.c. ad val.
Type, 5 p.c. ad val.
Umbrellas, 15 p.c. ad val.
Varnish, other than bright or black, 15 p.c. ad val.
Vegetables, preserved, 15 p.c. ad val.
Velvets, 15 p.c. ad val.
Vermicelli, 15 p.c. ad val

Canadian Tariff of Customs—continued.

Vinegar, 15 p.c. ad val.
Watches, 15 p.c. ad val.
Wearing apparel, made by hand or sewing machine, 15 p.c. ad val.
Whiskey (on every gallon of the strength of proof of Sykes' hydrometer, and so in proportion for any greater strength, and for every less quantity than a gallon), 80c. per gal.
Wines of all kinds, including ginger, orange, lemon, gooseberry, strawberry, raspberry, elder and currant wine (5 quarts and 10 pint bottles to contain a gallon), 10c. per gal. and 25 per cent. ad valorem.
Wire, flat, for crinoline, covered, 15 p.c. ad val.
Woollens, 15 p.c. ad val.
Writing desks, 15 p.c. ad val.

Rates of Pilotage for and below the Harbour of Quebec.

From	To	For each foot of draught of water			
		From May 1 to Nov. 10	From Nov. 10 to Nov. 19	From Nov. 19 to March 1	From March 1 to May 1
Bic Island, or any other place below the anchorage of the Brandy Pots, off Hare Island	—	18s. 0d.	23s. 0d.	28s. 0d.	20s. 6d.
The anchorage ground at the Brandy Pots, off Hare Island, or any place above the said anchorage ground and below St. Roch's Point	—	⅓ of this sum	⅓ of this sum	⅓ of this sum	⅓ of this sum
St. Roch's Point, or any place above this point and below the 'Pointe-aux-Pins' on Crane Island	Anchorage or mooring ground in the basin or harbour of Quebec	½ "	½ "	½ "	½ "
'Pointe-aux Pins' on Crane Island, or any place below St. Patrick's Hole	—	⅔ "	⅔ "	⅔ "	⅔ "
The anchorage or mooring ground in the basin or harbour of Quebec	Bic Island, or the place where the pilot shall be discharged in the river below Quebec.	15s. 9d.	20s. 9d.	25s. 9d.	18s. 3d.

Table of Prohibitions.—The following articles are prohibited to be imported under a penalty of 50*l.* together with the forfeiture of the parcel or package of goods in which the same may be found: books and drawings, paintings or prints of an immoral or indecent character; coin, base or counterfeit.

Money.—Previously to 1859 accounts were kept in what was usually called currency, the 1*l.* sterling being reckoned at 1*l.* 4*s.* 4*d.* But in the course of that year a new description of currency was issued on the decimal plan. The 1*l.* currency, on which it is raised, contains 101·321 grs. standard gold, or 92·877 grs. pure gold. The 1*l.* sterling contains 123·274 gr. standard gold, and 113·001 gr. pure gold. Hence, 1*l.* 4*s.* 4*d.* : 1*l.* :: 123·274 : 101·321, and 1*l.* 4*s.* 4*d.* : 1 : : 113·001 : 92·877. The pound is divided into 100 centimes; and the new gold coins are for 100 and 50 centimes, with silver coins for 20, 10, and 5 ditto. The value of these coins agrees pretty closely, but not quite, with the values of the corresponding American coins. And it is supposed by some that it would have been better, seeing the intimate connection between the two countries, that the value of the Canadian coins should have been made to coincide exactly with that of the coins of the United States.

List of Banks in Canada, with Statement of authorised and paid-up Capital of each, on August 31, 1868.

Banks	Capital Authorised	Capital paid up
	dols.	dols. cts.
Bank of Montreal	6,000,000	6,000,000 00
Quebec Bank	3,000,000	1,478,350 00
City Bank	1,200,000	1,200,000 00
Gore Bank	1,000,001	800,280 00
Bank of British North America	4,866,666	4,866,666 00
Banque du Peuple	1,600,000	1,600,000 00
Niagara District Bank	400,000	305,224 88
Molson's Bank	1,000,000	1,000,000 00
Bank of Toronto	2,000,000	800,000 00
Ontario Bank	2,000,000	2,000,000 00
Eastern Townships Bank	400,000	400,000 00
Banque Nationale	1,000,000	1,000,000 00
Banque Jacques Cartier	1,000,000	992,040 00
Merchants' Bank	6,000,000	3,113,280 15
Royal Canadian Bank	2,000,000	1,103,850 00
Union Bank of Lower Canada	2,000,000	980,990 98
Mechanics' Bank	1,000,000	275,300 00
Canadian Bank of Commerce	1,000,000	956,185 00
Bank of New Brunswick	600,000	600,000 00
St. Stephen's Bank	200,000	200,000 00
Total	35,966,666	29,681,717 01

Weights same as in England.

Measures.—Standard wine gallon, liquid measure of the province. The Canada minot for all grain &c. except where specially agreed upon to the contrary; and this measure is about ¼ larger than the Winchester bushel. The English Winchester bushel, when specially agreed for. The Paris foot, for all measures of lands granted previous to the conquest, and all measures of length, except an agreement is made to the contrary. The English foot, for measure of lands granted since the conquest, and wherever specially agreed upon. The standard English yard for measuring all cloths or stuffs sold by the yard or measure of length. The English ell, when specially agreed upon.

MONTREAL is situated on the south side of an island of the same name, in the St. Lawrence, about 180 miles above Quebec, in lat. 45° 31′ N., long. 73° 35′ W. Population, in 1861, 91,000, being very considerably greater than that of Quebec, or of any other town in British America. The harbour is not large, but it is safe and commodious; the facilities for navigation afforded by the noble river on which it is situated being such, that vessels of 600 tons burden may ascend thus far without difficulty. The North American fur trade principally centres in Montreal, which also enjoys the principal share of the commerce between Canada and the United States. It is increasing faster than Quebec, or than any city in the Dominion of Canada. The imports into Montreal in 1866–7 were valued at 28,139,283 dollars, and the exports at 8,104,622 dollars.

QUEENSLAND. [BRISBANE; COLONIES; IMPORTS AND EXPORTS; TARIFFS, COLONIAL.]

QUERCITRON BARK. The bark of a species of oak growing in many parts of North America. It is used in dyeing yellow colours. [BARK.]

QUICKSILVER. [MERCURY.]

QUILLS (Fr. plumes à écrire; Ger. posen, federn, kiele; Ital. penne da scrivere; Russ. stivoli; Span. cañones para escribir). The hard and strong feather of the wings of geese, ostriches, swans, turkeys, crows &c. used in writing. They are classified according to the order in which they are fixed in the wing. The first is a pinion, now totally unused (at one time millions were annually imported), the second and third are the best and in general use. Crow quills are chiefly used for drawing, and turkey quills for engrossing. The goodness of quills is judged partly by the size and thickness of the barrels, in the unmanufactured state by the weight: hence the denomination of quills of 14, 15 &c. lots per mille, each

mille consisting of 1,000 quills. The old duty on goose quills of 2*s.* 6*d.* per 1,000, after being reduced to 6*d.* in 1842, was wholly repealed in 1848.

In 1867, 14,619,200 goose, and 45,500 swan, quills were imported, valued at 15,904*l.*, and of these 2,970,000 goose quills were re-exported.

Quills are principally imported from Riga, St. Petersburg, and Hamburg. The best are from Riga: their strength and durability render them preferable to any others from the Baltic ports. Those imported by the Hudson's Bay Company and sold at their sales are for strength superior to all others.

We subjoin an account of the prices of the various descriptions of unmanufactured quills in the London markets in August 1868:—

	£	s.	d.	£	s.	d.	
Undressed goose quills, imported from the Baltic and assorted into lots	0	1	6	to 3	0	0	per mille
Swan quills, imported from the Baltic and assorted into lots	0	5	0	1	2	0	per 100
Goose quills, mixed, imported by the Hudson's Bay Company and sold at their annual sale	0	2	6	5	0	0	per mille
Mixed swan quills, by the same	3	0	0	7	0	0	,,
Irish goose quills, mixed	0	0	6	0	1	0	per lb.
Turkey quills, mixed	0	4	0	0	7	0	,,
English crow ,,				0	7	0	,,
English duck ,,	0	2	6	0	4	0	,,

[PENS.]

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RAGS (Dutch, lompen, vodden: Fr. chiffes, chiffons, drapeaux, drilles; Ger. lumpen; Ital. straccj; Russ. trepje; Span. trapos, harapos). Shreds or fragments of worn linen, woollen, or cotton cloth. Though commonly held in little estimation, rags are of great importance in the arts, being used for various purposes, but especially in the manufacture of paper, most of which is entirely prepared from them. As the mode in which British rags are collected must be well known to everyone, the following statements apply only to the trade in foreign rags.

Woollen Rags.—Woollen rags are imported in considerable quantities from the continent of Europe, and from Sicily. They are chiefly used for manure, especially in the culture of hops; but rags of loose texture, and not too much worn or decayed, are unravelled and mixed up with fresh wool in the making of shoddy; a practice more favourable to the cheapness than to the strength and durability of the fabrics into which this old wool is introduced. Woollen rags are also used for making flocks or stuffing for beds &c.: this process is performed chiefly by the aid of the same kind of engines that prepare pulp for paper; these wash the rags thoroughly, at the same time that they grind and tear them out into separate threads and fibres. The chief importation of woollen rags is from Hamburg and Bremen; and there are some got from Rostock, but the quantity is trifling. The price ranges from 3*l.* 10*s.* to 4*l.* per ton for such as are used for manure; and from 14*l.* 12*s.* to 26*l.* for woollen rags.

Linen Rags are principally imported from Prussia, Hamburg, France, Russia, and Austria. The imports amounted in 1867 to 13,509 tons, worth, at an average, from 21*l.* to 22*l.* 4*s.* per ton, freight included. Exclusive of the very large quantity collected at home, all the rags imported were, until very recently, employed in the manufacture of paper; but the Americans, who have for some years been large importers from the Mediterranean and Hamburg, occasionally come into the London market, and purchase large quantities. The duty on rags was abolished in 1845.

The imported rags are different in appearance to the English; but, being almost exclusively linen, they are stronger, and bear a price disproportioned to the apparent difference in quality: this disproportion has been materially augmented since the introduction of the process of boiling the rags in ley, and afterwards bleaching them with chlorine, has rendered foreign rags fit for making fine paper, and indeed, in some respects, preferable for that purpose, by their affording greater strength of texture combined with equal whiteness of colour.

There is considerable variety in the appearance of rags from different ports; but, in general, those from the north of Europe are darker and stronger than those from the Mediterranean ports. The latter are chiefly the remains of outer garments, and have become whitened by exposure to the sun and air; but since the improvements in bleaching, this does not enhance their value in the British market.

Considerable quantities of rags are imported from Turkey, Egypt, India, Australia, and Japan, generally consisting of cotton and linen mixed. The Japan rags are mostly strong blue cotton prints, very serviceable for paper-making. (Dr. Bristowe's *Reports on Enquiries whether the Rag Trade is of Influence in Spreading Infectious Disease.*)

It is a remarkable circumstance, that though the increase in the manufacture of paper within the last 50 years is more than fourfold, the price of fine rags has fallen from 95*s.* to 23*s.* per cwt. in consequence of the extensive use made of esparto (Spanish grass), straw, wood, and other fibrous products in the manufacture of ordinary paper. [PAPER.]

Freight.

Paid from France, about 30*s.* per ton.
Trieste and Mediterranean, 50*s.* per ton.
Baltic, 50*s.* per ton.

RAILROAD, TRAM or WAGGON ROAD. A species of road having tracks or ways formed of iron, stone, or other solid material, on which the wheels of the carriages passing along it run. The object in constructing such roads is, by diminishing the friction, to make a less amount of power adequate either to impel a carriage with a greater velocity, or to urge forward a greater load. For conveying passengers along railways the locomotive engine is now the power universally used.

Construction of Railroads.—The friction on a perfectly level railroad, properly constructed, is estimated to amount to from $\frac{1}{15}$ to $\frac{1}{7}$ only of the friction on an ordinary level road; so that, supposing the same force to be applied in both cases, it would move a weight from 10 to 7 times as great on the former as on the latter. But if there be a very moderate ascent, such as 1 foot in 50, which in an ordinary road would hardly be perceived, a great increase of power on the railroad is required to overcome the resistance that is thus occasioned. The reason is, that the ordinary load

on a *level* railroad is about *seven times as great* as on a common turnpike road; so that when the force of gravity is brought into operation by an ascending plane, its opposing power, being *proportioned to the load*, is 7 times as great as on a common road. Hence the vast importance of having railroads either level or as nearly so as possible.

It is also of great importance that railroads should be straight and level, or, at least, free from any abrupt curves or acclivities. Carriages being kept on the road by *flanges* on the wheels, it is obvious that where the curves are quick, the friction on the sides of the rails, and consequent retardation, must be very great. In the Manchester and Liverpool Railroad, the curves form segments of a circle which, if extended, would embrace a circumference of 15 miles.

Iron railroads, the kind now generally used, are of two descriptions. The *flat rail*, or *tram road*, consists of cast-iron plates about 3 feet long, 4 inches broad, and ½ inch or 1 inch thick, with a flaunch, or turned up edge, on the inside, to guide the wheels of the carriage. The plates rest at each end on *sleepers* of stone or wood, sunk into the earth, and they are joined to each other so as to form a continuous horizontal pathway. They are, of course, double; and the distance between the opposite rails is from 3 to 4½ feet, according to the breadth of the carriage or waggon to be employed. The *edge rail*, which is found to be superior to the tram rail, is made either of wrought or cast iron: if the latter be used, the rails are about 3 feet long, 3 or 4 inches broad, and from 1 to 2 inches thick, being joined at the ends by cast metal sockets attached to the sleepers. The upper edge of the rail is generally made with a convex surface, to which the wheel of the carriage is attached by a groove made somewhat wider. When wrought iron is used, which is in many respects preferable, the bars are made of a smaller size, of a wedge shape, and from 12 to 18 feet long; but they are supported by sleepers at the distance of every 3 feet. In the Liverpool Railroad the bars are 15 feet long, and weigh 35 lb. per lineal yard. The waggons in common use run upon 4 wheels of from 2 to 3 feet in diameter. Railroads are usually made double, one for going and one for returning; and when single they are made with *sidings*, where the carriages may pass each other. (See the able and original *Essays on Railroads*, by Charles Maclaren, Esq., in the *Scotsman* for 1824; see also Mr. Booth's pamphlet *On the Liverpool and Manchester Railroad*; the articles on Railways in the *Encyc. Britannica*, the *Penny Cyclopædia*; Brande and Cox's *Dictionary of Science*; &c.)

Speed of Carriages on Railroads &c.—The effect of railroads in diminishing friction is familiar to every one; and they have long been used in various places of this and other countries, particularly in the vicinity of mines, for facilitating the transport of heavy loads. But it is only since the application of locomotive engines as a moving power that they began powerfully to attract the public attention, and that their value has been fully appreciated. These engines were first brought into use on the Darlington and Stockton Railroad, opened on December 27, 1825; but it was not till the opening of the railway between Manchester and Liverpool that the vast importance of this novel means of intercourse was fully perceived. This splendid work, though now far surpassed in magnitude by other railroads, cost nearly a million sterling. It has the advantage of being nearly level; for, with the exception of a short distance at Rainhill, where it is inclined at the rate of 1 foot in 96, there is no greater inclination than in the ratio of 1 foot in 880. The length of the railway is about 31 miles; and it was usual, from its opening, to perform this journey in handsome carriages attached to the locomotive engines, in 1½ hour, or less. So far, indeed, as respects the facility of passing from the one to the other, this railway has brought Manchester and Liverpool as near to each other as the western part of London is to the eastern part.

The opening of this railway having more than verified the most sanguine anticipations as to the success of such undertakings, and gone far, in fact, to strike time and space out of the calculations of the traveller, gave an unprecedented stimulus to similar undertakings in all parts of the country; and, in no long period, there were hardly any two considerable places in Great Britain, how distant soever, which it was not proposed to connect by railways. An immense number of companies were formed, and a very large amount of capital subscribed, for carrying on these undertakings; and though, as was to be anticipated, not a few of them appear to have been commenced without due consideration, and hold out very indifferent prospects to the subscribers, there can be no doubt that the country has profited very greatly by the extraordinary facilities of intercourse which have been afforded by the railway system, which is now in action in all parts of the civilised world.

Among the greater lines of railway now (1869) existing in this country, may be specified that from London to Manchester, Liverpool, and Glasgow; which, taking it as it at present stands, is one of the greatest public works ever executed in any country, and is a striking result of the wealth, science, and civilisation of modern times. The Great Western Railway from London to Bath, Bristol, and Exeter is also a magnificent work, and is in some respects superior to any other in the kingdom. Among the other leading railways may be specified the Direct or Great Northern line from London to Edinburgh; the lines from London to Southampton, Brighton, and Dover; the line from Chester to Holyhead, with the tubular bridge over the Menai Straits; the Great Eastern; and the railways from Edinburgh to Glasgow and Ayr, and from Edinburgh to Aberdeen and Inverness.

The whole of these, except the Great Western, are on what is called the narrow gauge, having the rails 4 feet 8½ inches asunder. The Great Western now (1869) uses this as well as the broad gauge of 7 feet.

Railway Legislation.—But, notwithstanding the vast advantages which the opening of so many new and improved lines of communication has conferred on the country, we cannot help thinking that these advantages might have been much greater, and that, in the instance of railway legislation, the public interests have been overlooked to a degree that is not very excusable. It is, we admit, no easy matter to decide how far the interference of Government should be carried in matters of this sort; but, at all events, this much is obvious, that when Parliament is called upon to pass an Act authorising private parties to execute a railway or other public work, it is bound to provide, in as far as practicable, that the public interests shall not be prejudiced by such Act, and that it should be framed so that it should not, either when passed or at any future period, stand in the way of the public advantage. We believe, however, that a little consideration will serve to satisfy most persons that this im-

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portant principle has, in the case of railways, and indeed of most descriptions of public works, been, in this country, all but wholly neglected.

The practice is for a railway Act to authorise the company in whose favour it is granted to appropriate a certain line of road, and to charge certain specified rates of toll on the passengers and goods to be conveyed by such road, not for 15, 20, or even 50 years, but *in all time to come.* Now, as it appears to us, this is a singularly injudicious arrangement on the part of the public. There is, between any two or more places that may be named, a certain railway line that is preferable to any other which can be pointed out. The probability is that this line will in all cases be the first to be selected; and the Act that gives it up to a company confers on the latter a virtual and substantial monopoly. The rates of charge imposed by the Act are calculated to remunerate the projectors, supposing everything to remain on its present footing: but the probability is that manufactures and population, in the places communicating by most lines of railway, will continue to increase in time to come as they have done in time past; and it is all but certain that great improvements will be effected in the construction of roads and engines. Whatever, therefore, may be the chances of success at the outset, the fair presumption is that most great lines of road will in the end be exceedingly productive. But, if we continue to abide by the present system, the public will be effectually excluded from all participation in these prospective advantages; and a few private associations will be able to make enormous profits by monopolising improvements, and keeping up the expense of transit at an exorbitantly high level. It is idle to trust to competition to remedy a grievance of this sort. There may only be one practicable line of railway between two places; and if so, no other can, of course, come into competition with it. But though this were not the case, a company in possession of the best line might, if an opposition were threatened, reduce its rates till the opposition was defeated, and then raise them to the old level. Supposing, however, that a second road is made, its managers would most likely come to an understanding with the first, so that the tolls, instead of being reduced by the instrumentality of the new road, may be raised; and were it otherwise, the question is, was the second road really necessary? Could not the first road have sufficed for the whole traffic to be carried on by both lines? If this be the case, it is clear the second road has been merely resorted to as a device for reducing the tolls charged on the first; as a means, in fact, for doing that, by an outlay of some hundreds of thousands, or, it may be, millions of pounds, which might have been quite as effectually done by limiting the duration of the Act authorising the first road, or by inserting a clause in it providing for the periodical revision of the tolls.

We are clear, indeed, that no Act authorising a private association to construct a railway or canal, to lay down gas pipes, to convey water into a town, or for any such purpose, should ever be passed without reserving to Parliament power periodically to revise the tolls granted under it. Such revision would secure to the public a participation in future improvements, not in the contemplation of the parties when the project was entered upon; and it would do this without in any degree clogging the spirit of enterprise. Undertakings of this sort are not engaged in because there is a vague expectation, or even a considerable probability, of their yielding 20 or 30 per cent. profit some 30 or 40 years hence, but because it is believed that they will immediately, or in the course of a few years, yield a reasonable profit; that is, a return of 8, 10, or 12 per cent. The chances of realising more than this at the distance of 20 or 25 years are rarely taken into account, and are worth very little indeed. This, however, is *all* that would be taken away by the revision in question; and while a reservation of this sort would not stand in the way of any legitimate enterprise, the history of several of our existing companies shows that it may come to be of essential service to the public. Had this principle been formerly acted upon in the formation of companies for the execution of public works, the charges on some of the principal lines of canal might, long since, have been reduced to less than half their present amount. The water brought into the city of London by the New River Company might have been sold for less than one-fourth part what it now costs; and so in a vast number of cases.

It has been objected to the proposal now made, that the reserving to the public of power to revise the charges on railways, and other public works, would be of no use, inasmuch as the parties would contrive so to swell their charges as to make their revenue appear not more than a fair return on their outlay. And such, most probably, would be the case, were the statements of the parties to be taken without examination. But who ever proposed that this should be done? If charges are to be revised, Government must be authorised to appoint parties to enquire carefully into the management of all concerns with which it is proposed to interfere: and it would be the duty of such parties to proscribe every useless expense, and to ascertain how the railway could be carried on, supposing it were wrought under a system of open competition, and at the least expense, and to frame their report accordingly.

And this principle, we are glad to say, was sanctioned in 1844 by the 7 & 8 Vict. c. 85, which gives to Government the option of purchasing, on certain conditions, at the expiration of 21 years from their construction, all railways formed subsequently to the passing of the Act. This statute also provides for the publication of railway accounts, for the running of cheap trains &c.

Regulations for the Prevention of Accidents.—Considering the immense extent of railways in this country, and the vast number of passengers conveyed by them, the fewness of accidents is most remarkable. Indeed their greater security appears to be nowise inferior to their greater speed. Still, however, this is a matter in which as little as possible should be left to accident or individual discretion; and considering the number of persons frequently conveyed by a single train, and the tremendous consequences that might ensue from a collision or other chance, all that it is possible to do should be done with a view to secure the safety of travellers by railways. And, should an accident occur, either through the neglect of regulations for their guidance or from not complying with their provisions, the offending parties should be subjected to penalties of a severe and stringent description. A Government which neglects enforcing precautions of this sort neglects one of its most important functions, and allows the lives of those whom it is bound to protect to be endangered or sacrificed by the cupidity, ignorance, or carelessness of the managers and servants (how incompetent soever they may be) of every railway association in the kingdom.

Railway Mania of 1845.—The summer and autumn of 1845 and the earlier portion of 1846 witnessed the rise and development of a most gigantic railway speculation or mania. Various circumstances conspired to bring this about. The advantages which railways conferred on the country generally, and especially on the districts through which they passed, recommended them to the public patronage and support. Most branches of industry were also, in 1845, in a more than ordinarily prosperous condition; and large dividends (whether really derived from profits is questionable) being paid by some of the principal lines, their stock rapidly rose to a high price. These circumstances inflamed the cupidity of the public, who began to imagine that speculation in railway shares afforded the shortest and easiest means of acquiring wealth. Hence an extraordinary stimulus was given to all sorts of projects, which were multiplied with an almost inconceivable rapidity. Of these a few were well devised and judicious, and were patronised by gentlemen of wealth, respectability, and experience. But the great majority were of a totally opposite description, being got up by parties anxious only to profit by the credulity of the public, and founded on plans which could not be executed, or which, if executed, would be ruinous. And yet such was the disposition of the public to take *omne ignotum pro magnifico*, that shares in these swindling devices—for such was their real character—were greedily bought up at high premiums, which, of course, went into the pockets of the members of Parliament, attorneys, and engineers, by whom the traps had been set and the hooks baited. It is difficult, indeed, to imagine any more disgraceful exhibition of fraud and quackery on the one part, and of folly and voracity on the other, than was displayed during the autumn of 1845 and the spring of 1846 by the manufacturers and buyers of railway shares. Some 700 or 800 new projects, requiring, it was stated, a capital of about as many hundred millions, were spawned during this gambling saturnalia; and of these it would be a high estimate to say there were 100 which held out any legitimate prospect of remunerating their projectors. The great majority of the others were never, indeed, intended to do more than to transfer the money of the unwary dupes who bought shares into the pockets of the crafty directors by whom they were issued; and thus far some of them answered the views of their projectors. Luckily, however, this was not the case with others; not a few of those who dug the pit-falls having themselves fallen into them.

But despite the number of schemes that were abandoned, it is nevertheless true that in 1845 and 1846 no fewer than 347 Acts were carried through Parliament, authorising the construction of 7,654 miles of railway, at an estimated cost of 190,344,087*l.* sterling.

Under any circumstances, such gigantic, and generally ill-advised, undertakings must have involved the parties in vast loss. In this case the depressing influence of the heavy railway calls on the money market, having been increased by the failure of the potato crop of 1846, occasioned the greatest difficulty in obtaining pecuniary accommodation, and led to the crisis of 1847. In consequence many of the projects for which Acts had been obtained sunk into oblivion, while others have been very imperfectly carried out. An extraordinary fall has also taken place in the value of the stock even of the best lines. And this is not to be wondered at. The vast expenses which many companies have incurred in overcoming the opposition to their undertakings, and in the construction of their lines, occasioned an outlay which, if it were to be met at all, could only be met by enforcing the severest economy in the management of the lines. This, however, even when there is a desire to enforce it, is carried out with difficulty. And in the case of railways, the interests of the engineers and others concerned in their management are usually opposed to those of the companies; so that it would be idle to expect that the affairs of the latter should generally exhibit any considerable portion of the care, vigilance, and economy manifested in private undertakings.

The recklessness, too, with which the directors of the great or leading railways have engaged in subsidiary undertakings, or in the construction or purchase of branch lines many of which have been attended with heavy losses, has had a powerful influence in depressing the value of their property. For a while, too, all railway companies suffered more or less from the discredit and suspicion which, however undeservedly, have attached to railway boards. It was found that some leading directors, in whose sagacity and honesty the public reposed all but unlimited confidence, had been, in fact, nothing but gigantic swindlers; their sole object (in which it is to be hoped they have been disappointed) having been to enrich themselves by defrauding and robbing their constituents and the public. And these disclosures

Traffic on Railways.—Comparative Statement of the Traffic on the chief Railways in the United Kingdom in the 15 *Years ending* 1867.

Years	Length of Line open at the end of each Year	Total Capital Paid up (Shares, Loans &c.) at the end of each Year	Number of Passengers Conveyed (including Season Ticket Holders)		Total of Traffic Receipts		Total of Working Expenses	Nett Receipts
			Total	Per mile	Total	Per mile		
	miles	£	No.	No.	£	£	£	£
1853	7,686	273,321,514	102,286,660	13,318	18,035,879	2,346	Cannot be given previous to 1854.	
1854	8,054	286,068,794	111,206,707	13,807	20,215,724	2,510	9,206,205	11,009,519
1855	8,210	297,584,709	118,595,135	14,323	21,507,599	2,597	10,299,709	11,207,890
1856	8,707	307,595,096	129,347,592	14,855	23,185,491	2,660	10,857,456	12,328,035
1857	9,094	317,157,258	139,008,888	15,305	24,174,610	2,659	11,240,239	12,934,371
1858	9,542	325,375,907	139,193,099	14,587	23,956,749	2,516	11,668,225	12,288,524
1859	10,004	334,302,928	149,807,144	14,980	25,743,502	2,573	(Not ascertained.)	
1860	10,433	348,130,127	165,483,572	15,669	27,766,672	2,661	13,187,368	14,579,254
1861	10,869	364,327,338	173,773,218	15,988	28,565,355	2,628	13,843,337	14,722,018
1862	11,551	385,218,038	180,485,727	15,625	29,128,558	2,522	14,168,409	14,960,149
1863	12,322	401,215,302	204,699,466	16,612	31,156,397	2,528	15,027,234	16,129,163
1864	12,789	425,719,613	229,548,664	17,953	33,911,547	2,651	16,600,308	17,311,239
1865	13,289	455,478,143	251,959,862	18,960	35,751,655†	2,691	17,149,073	18,602,582
1866	13,854	481,872,184*	276,403,825	19,734	38,166,334	2,754	18,511,673	19,392,661
1867	14,217	502,262,887	297,688,113	20,894	39,479,999	2,771	19,848,352	19,631,047

* Several companies made no return for 1866 to the Board of Trade, but according to their last returns their total capital paid up on shares loans &c. amounted to 1,058,159*l.*, which is not included in these figures.

Note.—The total capital includes subscriptions by some of the railway companies to other undertakings.

† Exclusive of 26,564*l.*, the total traffic receipts of the Cork and Youghal, which company made no return of working expenditure for 1865, and of 111,903*l.*, the aggregate traffic receipts of two companies which made no return to the Board of Trade of their working expenditure for 1865, owing to their lines being worked by contract.

Account, showing the Extent in Miles of each of the chief Railways in the United Kingdom open on December 31, 1866, and the Extent of the Traffic and Receipts on each in that Year.

Name of Railway Company	Length of line open Dec. 31, 1866	Number of Passengers	Number of Trains run			Number of Miles travelled by Trains	Receipts		
			Passenger Trains	Goods Trains	Total		From Passengers	From Goods	Total
England.	miles						£	£	£
Bristol and Exeter	134	1,433,470	49,944	7,185	56,129	1,201,913	235,385	128,102	363,487
Cambrian	135	818,680	11,393	4,156	15,549	606,817	51,815	54,048	105,863
Great Eastern	795	19,807,184	194,204	78,219	272,220	6,812,228	971,803	888,112	1,859,915
Great Northern	458	7,579,151	93,761	41,082	64,843	3,621,777	840,557	1,170,532	2,011,089
Great Western	1,362	19,504,172	295,447	109,696	405,143	13,907,501	1,947,066	1,960,403	3,907,469
Lancashire and Yorkshire	451	22,456,670	272,010	167,653	439,663	8,122,256	984,842	1,414,126	2,398,968
London and North-Western	1,519	25,330,341	438,960	379,053	817,933	21,725,967	2,816,500	3,837,647	6,654,147
London and South-Western	602	11,475,189	217,201	51,509	268,710	5,414,514	1,090,005	457,779	1,547,784
London, Brighton, and South Coast	396	16,741,845	274,164	46,294	320,458	4,170,847	881,865	259,202	1,141,067
London, Chatham, and Dover	133	10,869,584	71,555	7,315	101,670	2,009,837	397,196	97,817	495,013
Manchester, Sheffield, and Lincolnshire	246	5,197,170	77,847	67,888	145,555	1,751,940	292,145	659,153	951,598
Midland	780	12,220,594	197,766	194,542	392,308	19,173,159	997,036	1,942,859	2,939,895
North Eastern	1,218	13,690,020	227,110	325,259	552,369	15,778,755	1,079,338	1,659,011	2,738,349
North Staffordshire	150	2,548,550	42,511	34,576	76,687	1,380,755	107,571	225,645	333,216
South Devon	154	1,095,022	21,614	11,818	33,462	801,295	189,871	79,706	269,580
South-Eastern	508	17,124,150	177,169	20,032	197,201	3,610,196	935,276	539,964	1,474,236
Scotland.									
Caledonian	627	9,127,203	113,512	136,841	250,353	6,675,909	638,376	1,146,341	1,784,717
Glasgow and South-Western	234	2,886,928	40,283	75,395	115,678	2,954,322	189,040	381,765	570,805
Great North of Scotland	299	1,536,216	31,217	10,382	41,629	885,737	87,342	84,997	172,339
Highland	212	946,461	15,059	3,875	18,934	887,191	108,219	81,974	190,193
North British	735	8,196,291	158,117	181,839	339,956	6,148,949	561,185	813,517	1,374,702
Ireland.									
Belfast and Northern Counties	151	1,280,524	18,018	2,564	20,612	572,538	74,441	59,773	134,214
Great Southern and Western	457	1,414,124	19,477	8,669	28,146	1,915,332	293,484	200,016	493,500
Irish North-Western	195	471,489	11,746	3,861	15,607	724,547	54,558	56,016	107,604
Midland Great Western of Ireland	341	744,922	14,429	5,677	20,106	1,278,921	149,446	134,865	284,111
Ulster	121	1,217,156	13,997	5,654	19,651	648,698	84,011	69,233	153,247
Waterford and Limerick	191	671,925	13,718	2,695	16,143	563,915	55,622	64,556	120,178

also showed that, if the boards of directors associated with the parties now referred to did not actively assist them in their fraudulent schemes, they, at all events, opposed no effectual obstacle to their development. Hence the just discredit that has attached to most railway companies. Some of them put forward detailed statements of their affairs; but these, how accurate soever, obtained very little confidence. This ignorance was alike prejudicial to the public interests, and to those of all really well managed companies, and was at once an incentive to and a cloak for all sorts of nefarious practices. This state of things is now, however, considerably improved. But a vast deal still remains to be done before the constitution of railway companies and the management of railways be placed on a satisfactory footing.

At present (March 1869) the shares of by far the greater number of railways are at a heavy discount; and at an average, the dividends derived from them are not supposed to amount to 3 per cent.

Account, showing the Number and Description of Persons Killed and Injured on all the Railways open for Public Traffic in the United Kingdom during the Years 1866 and 1867.

Description of Persons	1866		1867	
	Killed	Injured	Killed	Injured
Passengers killed or injured from causes beyond their own control	15	540	19	689
Passengers killed or injured owing to their own misconduct or want of caution	16	7	17	8
Total number of passengers killed or injured	31	547	36	697
Servants of companies or of contractors killed or injured from causes beyond their own control	17	70	15	62
Servants of companies or of contractors killed or injured owing to their own misconduct or want of caution	85	11	90	28
Other persons crossing at level-crossings	20	5	10	2
Trespassers	53	3	51	5
Suicide	5	..	6	0
Miscellaneous	6	..	1	1
Total	216	634	209	795
Total number of passengers conveyed	274,403,895		287,807,903	

The number of miles of railway open in the United Kingdom on December 31, 1857, amounted to 9,116; the number open on December 31, 1866, was 13,851; and on December 31, 1867, 14,217.

The total capital (in shares and loans) raised and paid up to December 31, 1867, amounted to 502,262,287*l.*

A duty is paid to Government, by railway companies, of 5 per cent. on all sums received by them for the conveyance of passengers at fares above 1*d.* per mile; the receipts derived from passengers by cheap trains, or from fares not exceeding 1*d.* per mile, being exempted from the duty. In the year ended March 31, 1868, the railway tax produced 485,136*l.* This, however, is insufficient to indemnify the companies for the expenses of conveying the mails; the charge for this service having amounted, in 1867, to no less than 559,575*l.* When the Post-office and a railway company differ as to the sum to be paid to the latter for conveying the mail, the matter is referred to arbitration.

Continental Railways.—The railway system has made great progress on the Continent and in the United States. Paris, Rouen, and Havre have long been united by railway. Lines have also been constructed from Paris to Orleans, Tours and Bordeaux, and from Paris to Lyons,

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and thence to Marseilles. This last has been of peculiar importance to this country, from its influence in facilitating the correspondence with the East. A large amount of English capital has been invested in the European railways, and many of them have been constructed by English engineers.

Belgium, as everybody knows, has numerous railways; and they have been extended in Germany, Italy, Russia, Norway and Sweden, and even Spain, to a degree that one could hardly have anticipated. At present, some very extensive railways are being constructed in Russia.

The railways open in India extended to 3,452 miles in 1866, and most of our colonies have adopted them, more or less.

The railways of the United States are exceedingly numerous, and some of them are of great length. But, speaking generally, they are not so substantially executed, and have not been nearly so expensive, as those of this country. Many of them consist only of a single pair of rails, with double pairs at certain intervals to admit of the trains passing.

The following statement, which we have compiled from the most authentic sources accessible, shows the length of railroad constructed and in operation at the end of 1866 in each country into which they have been introduced, and their relation to the extent and population of the countries respectively. We believe it to be as nearly accurate as it is possible to make such a summary.

Countries	Miles of Railroad	Area in square miles		Population	
		Absolute	To Mile of Railroad	Absolute	To Mile of Railroad
North America.					
Canada	2,148·5	357,822	166	3,091,440	1,439
New Brunswick	198·2	27,704	140	285,084	1,439
Nova Scotia	92·8	18,746	202	368,781	3,974
United States	36,896·3	3,001,002	81	36,896,300	1,000
Mexico	78·3	772,672	9,858	8,259,080	105,480
West Indies.					
Cuba	396·5	47,278	119	1,449,264	3,659
Jamaica	13·8	6,250	453	441,264	198
South America.					
Venezuela	32·0	426,700	13,334	1,565,000	48,906
New Granada	47·5	521,900	10,987	2,797,473	58,894
British Guiana	59·9	96,500	1,608	135,026	2,583
Brazil	433·3	2,973,400	68,599	10,045,000	23,198
Paraguay	46·2	86,200	1,866	1,337,431	28,895
Peru	55·3	498,700	9,018	2,500,000	45,200
Chili	336·7	249,900	742	1,714,319	5,091
Argentine Republic	251·0	1,126,300	4,876	1,459,355	6,319
Europe.					
Great Britain and Ireland	13,286·0	122,550	9	29,070,936	2,189
France	8,952·5	213,200	24	37,472,732	4,178
Spain	3,116·4	189,150	60	16,031,267	5,144
Portugal	433·3	35,250	81	3,987,561	9,198
Switzerland	824·2	15,270	18	2,510,194	3,167
Italy	3,213·2	109,280	34	24,269,628	7,553
Austria	3,830·9	240,250	62	32,573,002	8,502
South Germany (elsewhere)	2,540·1	44,220	17	8,523,460	3,355
Prussia	5,791·8	135,840	23	23,577,939	4,068
North Germany (elsewhere)	1,092·5	24,677	23	5,670,391	5,198
Belgium	1,595·1	11,400	7	4,940,570	3,099
Holland	700·7	13,600	19	3,735,682	5,336
Denmark	295·1	14,720	50	1,608,095	5,451
Sweden	1,023·4	170,099	166	4,114,141	4,021
Norway	43·5	123,228	2,833	1,701,478	39,114
Russia	2,775·2	1,565,200	564	65,863,181	23,734
Turkey in Europe	170·6	203,380	1,189	13,700,000	91,713
Asia.					
Turkey in Asia	142·9	668,990	4,808	16,000,000	111,966
British India	3,379·1	1,465,300	43	180,500,000	55,418
Java	101·4	51,300	505	13,917,000	13,721
Ceylon	36·9	24,660	616	2,342,098	63,470
Africa.					
Egypt	281·2	659,000	2,345	7,465,000	26,550
Algeria	27·7	85,500	303	3,000,000	108,300
Cape Colony	84·5	104,930	159	267,100	4,140
Natal	2·0	14,400	7,200	156,200	78,100
Australasia.					
Victoria	331·5	86,940	262	574,331	1,732
New South Wales	145·5	323,437	2,230	378,935	2,613
South Australia	73·6	383,328	5,215	140,416	1,900
Queensland	41·2	678,000	15,998	59,712	1,449
New Zealand (Canterbury)	16·5	106,759	6,440	175,357	10,627

The following is a recapitulation of the above table, so far as length of railroad is concerned; but as relates to area and population, substituting the total of each grand division for those of the countries named above.

Divisions	Miles of Railroad	Area in square miles		Population	
		Absolute	To Mile of Railroad	Absolute	To Mile of Railroad
North America	39,414·1	7,600,000	192·8	52,000,000	1,309·3
West Indies	410·3	100,000	243·7	3,500,000	8,529·8
South America	1,041·9	7,100,000	6,814·4	21,500,000	21,295·1
Total America	40,866·3	14,800,000	362·1	78,000,000	1,908·6
Europe	50,117·5	3,600,000	71·8	235,000,000	4,688·6
Asia	3,660·3	17,400,000	4,753·7	780,000,000	213,097·5
Africa	375·4	11,700,000	31,166·7	280,000,000	832,765·1
Australasia	647·7	3,200,000	5,266·7	1,660,000	2,652·8
Total of world	95,727	50,700,000	530·8	1,344,660,000	13,993·8

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Account of the Capital, Amount per Share, Sums paid up, of the Principal Railways of the United Kingdom in 1866, and the Selling Price per Share in 1868.

Name of Railway Company	Total Authorised Capital by Shares and Loans	Share	Amount Paid	Average Selling Price, August 1868	Average Dividend on Ordinary Capital
England and Wales.	£	£	£	£	
Bristol and Exeter	4,964,500	100	100	83	4½
Cambrian	4,345,890	100	100	25	..
Great Eastern	29,961,958	100	100	57½	..
Great Northern	22,024,401	100	100	106¼	6½
Great Western	48,510,053	100	100	48½	1
Lancashire and Yorkshire	25,562,311	100	100	129½	6¾
London and North-Western	53,015,939	100	100	116	6¾
London and South-Western	17,656,107	100	100	90	4½
London, Brighton, and South Coast	18,357,500	100	100	58½	4
London, Chatham, and Dover	18,167,899	100	100	19½	..
Manchester, Sheffield, and Lincolnshire	16,070,208	100	100	42½	2½
Midland	35,100,003	100	100	106¼	6½
North-Eastern	45,674,550	100	100	102	4
North Staffordshire	7,087,600	100	100	58	4
South Devon	3,354,386	100	100	46	2½
South-Eastern	15,829,975	100	100	76	2*l.* 18*s.* 9*d.*
Scotland.					
Caledonian	21,799,272	100	100	75½	6 1-10
Glasgow and South-Western	7,875,100	100	100	96	6½
Great North of Scotland	3,266,029	100	100	15½	..
Highland	3,029,880	..	..	..	1
North British	21,669,312	100	100	55	..
Ireland.					
Belfast and Northern Counties	1,235,833	50	50	..	4½
Great Southern and Western	6,340,705	100	100	97½	4½
Irish North-Western	1,200,000	50	50	..	..
Midland Great Western of Ireland	3,452,200	100	100	61½	2½
Ulster	1,540,000	50	50	..	3½
Waterford and Limerick	1,328,100	50	50	10	1

RAISINS (Fr. raisins secs, ou passés; Ger. rosinen; Ital. uve passe; Port. passas; Russ. issum; Span. pasas). The dried fruit of the vine. They are produced from various species of vines; deriving their names partly from the place where they grow, as Smyrnas, Valencias &c.; and partly from the species of grape used, as muscatels, blooms, sultanas &c. Their quality appears, however, to depend more on the method of their cure than on anything else. The finest raisins are cured in two methods: either by cutting the stalk of the bunches half through, when the grapes are nearly ripe, and leaving them suspended on the vine till the watery part be evaporated, and the sun dries and candies them; or by gathering the grapes when they are fully ripe, and dipping them in a ley made of the ashes of the burnt tendrils; after which they are exposed to the sun to dry. Those cured in the first way are most esteemed, and are denominated raisins of the sun. The inferior sorts are very often dried in ovens. (Thomson's *Dispensatory*; Brande and Cox's *Dictionary*.)

Raisins are imported in casks, barrels, boxes, and jars. The finest come in jars and ¼ boxes weighing about 25 lb. Some of the inferior sorts are brought to us in mats.

Malaga raisins are in the highest estimation. The muscatels from Malaga fetch fully a third more than any other description of raisins; and the Smyrna black is the cheapest variety. The price depends much on the season, and the period of the year. [Malaga.]

The duty on raisins, which formerly amounted to 20*s.* per cwt. on the inferior sorts, and to 42*s.* 6*d.* on the finest, was reduced in 1834 to 15*s.* per cwt. on all classes. We took occasion in a former edition of this work to remark on this measure as follows: 'This reduction has occasioned a very considerable increase of consumption; but the truth is that the duty is still quite exorbitant, being no less than 100 per cent. ad valorem (and sometimes more) on the price of most descriptions. Raisins are a luxury that can at present be enjoyed only by the richer classes. But were the duty reduced as it should be to 10*s.* per cwt., we are well assured that they would be very largely consumed by the middle and even lower classes. Nothing but the magnitude of the duties prevents them from becoming of very considerable importance as an article of food: and it is really quite monstrous that the public should be debarred from the use of a desirable article on the pretence of its being necessary, in order to keep up the revenue, that it should be loaded with an oppressive duty. We admit the importance of keeping up the revenue; but so far from exorbitant duties having such an effect, they contribute more than anything else to its reduction. They invariably limit the consumption of the articles on which they are laid to the richest classes, or cause them to be clandestinely supplied, or force recourse to other articles; reducing the revenue as well as the consumption far below the level to which it would attain were the duties moderate. But it is needless to reason speculatively on such a point. Have we not seen the revenue derived from spirits increased by reducing the duty from 5*s.* 6*d.* per gallon to 2*s.* 6*d.*? and the revenue derived from coffee quadrupled by reducing the duty from 1*s.* 7*d.* per lb. to 6*d.*? And, as most qualities of raisins are but little less overtaxed, have we not every reason to expect that a like effect would be produced by an adequate reduction of the duties by which they are burdened?'

This view of the matter was taken by Mr. Gladstone, who, in 1853, reduced the duty on raisins from 15*s.* 9*d.* (15*s.* + 5 per cent.) to 10*s.* per cwt., and in 1860 to 7*s.*, the present rate.

Exclusive of raisins, a considerable quantity of undried grapes is annually imported from Spain and Portugal in jars packed in sawdust. The duty on these grapes, which produced, in 1857, 78*l.*, is 2*d.* per bushel.

Since 1862 the imports of raisins have been as follows, viz.:—1862, 278,740 cwt.; 1863, 421,796 cwt.; 1864, 327,051 cwt.; 1865, 368,106 cwt.; 1866, 359,216 cwt.; 1867, 392,322 cwt.

Of the imports in 1867, no fewer than 290,163 cwt. were brought from Spain, 93,949 cwt. from Turkey. Computed value of the imports 563,709*l.*, varying from 1*l.* 2*s.* 4*d.* to 1*l.* 8*s.* 10*d.* per cwt. Entries for consumption 312,543 cwt.

RANGOON. A commercial port and town of British Burmah, about 26 miles from the sea, on the left bank of the eastern branch of the river Irawaddy, in lat. 16° 46′ N., long. 96° 17′ E.

The town and suburbs extend lengthwise about 1 mile along the bank of the river, running about ¾ of a mile inland; but the houses are very unequally scattered over this area. The town, with the rest of Pegu, was taken by the British from the Burman empire in 1852. It appears, from a census taken a short time previously to the commencement of the war in 1824, that the population was 18,000: it is now (1869) estimated at 25,000.

Rangoon is the chief port of foreign trade in British Burmah. This province, constituted in 1862, extends from 20° 50′ N. to 10° 50′ S. lat., containing an area of about 90,000 square miles, with a population of 2,330,453. The situation of Rangoon is extremely convenient for commercial purposes. Though distant from the sea, it is easy of access, and commands the navigation of the Irawaddy, which extends to Ava, a distance of nearly 500 miles. Rangoon is accessible to ships of even 1,200 tons burden; the navigation, while somewhat intricate, being safe and practicable with the assistance of the ordinary native pilots. A lighthouse has been erected on Alguada reef, near the centre of the river.

The town has many advantages for ship building. At neaps the tide rises and falls about 18 feet, and at springs from 25 to 30 feet. The principal teak forests are, at the same time, at a comparatively short distance, and there is a water conveyance for the timber nearly the whole way. Ship-building has, in fact, been carried on at Rangoon since 1786, and in the 38 years which preceded our capture of it, there had been built 111 square-rigged vessels of European construction, the total burden of which amounted to above 35,000 tons. Several of these were of from 800 to 1,000 tons. Under the direction of European masters, the Burmese were found to make dexterous and laborious artisans, in this respect greatly surpassing the natives of our other Indian provinces.

There are two considerable markets, where the ordinary necessaries of life, according to Burmese usage, are cheap and abundant: these are rice, excellent fish, and poultry.

Money.—Before its annexation to British India the currency here, as in the Birman empire generally, consisted, for small payments, of lead; for larger ones, of gold and silver, but chiefly of the latter. There were no coins. At every payment the metal had to be weighed, and very generally assayed—a rude and very inconvenient state of things. The weights used in the weighing of money were the same as those used on ordinary occasions; the kyat or tical, and the paiktha or vis, being by far the most frequent. Silver might be considered as the standard. Gold was generally held to be about 17 times more valuable than silver. The weighing and assaying of the metals used as currency gave employment to a class of persons as brokers, money changers, and assayers. Every new assay cost the owner, if the metal were silver, 2½ per cent., 1½ per cent. being the established commission of the assayers, while 1 per cent. was lost, or supposed to be lost, in the operation. If repeated 40 times, it follows that the original amount was wholly absorbed—a fact which shows the enormous waste of metal arising out of this rude substitute for coin.

Now that Rangoon forms part of the new province of British Burmah, its silver and copper coinage is that fixed by the Act No. XIII. of 1862, viz. the Government rupee and its fractional parts, and the double pice, pice, ½ pice, and pie or ¼ pice. [CALCUTTA.]

Weights.—The weights in use at Rangoon, besides the British Indian [CALCUTTA], are as follow:

2 Small Rwés (red beans)	=	1 *Large Rwé.*
4 Large do.	=	1 Bai.
2 Bais	=	1 Mu.
2 Mus	=	1 Mat'ha.
4 Mat'hs	=	1 Kyat, *vulgo* Tical.

100 Kyats = 1 Paiktha, *vulgo* Vis = 3·6[illegible] avoir.

Measures of capacity are as follow:—

2 Lamyetes	=	1 Lamé.	2 Pyis	=	1 Samt.
2 Lamés	=	1 Salé.	2 Samts	=	1 Salt.
4 Salés	=	1 Pyi.	4 Salts	=	1 Ten.

This last measure is what is usually called by us 'a basket,' and ought to weigh 16 vis of clean rice, or 58·4 lb. avoirdupois: it has commonly been reckoned at ½ a cwt. All grains, pulses, certain fruits, natron, salt, and lime are bought and sold by measure, other commodities by weight.

The Customs Tariff is that of 1867, given in detail under CALCUTTA.

Commerce.—A considerable intercourse is carried on between the Burmese and Chinese dominions by an annual caravan, of which the merchants are all Chinese. The imports from China consist of manufactured articles, the chief export from Burmah being cotton wool. The trade seaward is carried on with the ports of Chittagong, Dacca, and Calcutta in Bengal; Madras, and Masulipatam on the Coromandel coast; the Nicobar Islands, in the Bay of Bengal; Penang, in the Straits of Malacca; and occasionally with the Persian and Arabian Gulfs. The largest trade is with Calcutta, owing to the great consumption of teak timber in the latter, and the facility with which she supplies the demand of the Burmese for Indian and British cotton goods. The articles exported from Rangoon are the following: Teak wood, terra japonica, or catechu, stick lac, bees' wax, raw cotton, orpiment, commonly called in India hurtal, gold, silver, rubies, sapphires, elephants' teeth, and horses, or rather the small, hardy ponies of the country, which are much esteemed, particularly at Madras. By far the most important of these commodities is teak timber; the quantity of this wood annually exported is said to be equal to 7,500 full-sized trees, which, for the most part, consist of what Indian ship-builders call *shinbin*, which are planks hewn out of the log with the adze at an immense waste. The teak forests of Pegu are by far the most abundant in India. The teak is nowhere to be found in the low alluvial lands to which the tide reaches, but abounds in the high lands beyond its influence. It seems to be very generally disseminated throughout the Burmese dominions. In the territory ceded to the British in Martaban, there are some fine forests, the timber of which is cut down for exportation, and where saw-mills have recently been established by some European settlers. The most accessible and extensive forests of teak in the Burmese dominions are in the province of Sarawadi, about 150 miles to the north of Rangoon, with which there is a water communication. The principal imports into Burmah are cotton piece goods from India and Britain, British woollens, iron, steel, quicksilver, copper, cordage, borax, sulphur, gunpowder, saltpetre, fire-arms, coarse porcelain, English glass ware, opium, tobacco, cocoa and areca nuts, sugar, and spirits. Of these, by far the most important is cotton piece goods. The Burmese have few cotton manufactures of their own, and appear, from very early times, to have been furnished with the principal part of their supply from the Coromandel coast. To these were afterwards added the cheaper fabrics of Bengal; and both are now, in a great measure, superseded by British manufactures, the use of which has spread very rapidly since the opening of the trade in 1814, and especially since the capture of Rangoon in 1852. In 1826–7 the exports and imports of the

Table, showing the Value in Rupees of the Exports and Imports of British Burmah by Sea for the Year 1866–7, *compared with* 1865–6.

		Home Ports	Foreign Ports	British Burmah Ports	Grand Total
Exports					
		rupees	rupees	rupees	rupees
Merchandise	1865–6	92,88,636	2,81,67,056	34,58,235	4,09,13,929
	1866–7	69,44,192	1,23,25,111	38,68,014	2,31,40,617
Increase		..	..	4,09,779	..
Decrease		23,44,144	1,58,35,947	..	1,77,75,312
Treasure	1865–6	25,12,564	60,404	38,52,971	64,25,939
	1866–7	69,07,724	3,81,909	17,41,641	90,30,274
Increase		43,94,160	3,21,505	..	26,04,335
Decrease		..	..	21,11,330	..
Imports					
		rupees	rupees	rupees	rupees
Merchandise	1865–6	1,52,92,230	74,89,877	36,87,340	2,64,69,447
	1866–7	1,42,72,821	72,07,374	40,72,653	2,55,52,848
Increase		..	..	4,05,313	..
Decrease		10,19,409	2,82,503	..	8,96,599
Treasure	1865–6	1,36,52,967	15,68,880	30,63,102	1,80,64,949
	1866–7	65,96,902	6,03,465	11,79,951	83,80,318
Increase		..	..	..	..
Decrease		70,56,065	7,65,415	18,83,151	96,84,631

Trade with Burmah Proper, or Native Burmah (by the Rivers Irawaddy and Sittang), which passes through the Frontier Custom-houses of Thayetmyo and Toungoo, 1865–6 *and* 1866–7.

Customs		Export	Import	Total
		rupees	rupees	rupees
Thayetmyo	1865–6	75,40,434	61,94,121	1,37,34,555
	1866–7	64,73,319	47,01,379	1,11,74,698
Increase		..	..	..
Decrease		10,67,115	14,92,742	25,59,857
Toungoo	1865–6	7,85,556	10,60,942	18,44,498
	1866–7	7,85,372	9,32,132	17,15,504
Increase		..	..	..
Decrease		184	1,28,810	1,28,994

port of Rangoon were estimated each at the rate of 300,000*l.*

The exports from British Burmah in 1865–6 and 1866–7 by sea, included the following articles, the values of which are given in pounds sterling.

Articles	1865–6	1866–7
	£	£
Rice	2,437,433	1,961,996
Timber	892,272	426,427
Cotton, raw	172,112	92,767
Petroleum	16,507	6,239
Catch	43,263	36,952

Values of the Principal Imports of Cotton and Silk Piece Goods, during the Years 1865–6 *and* 1866–7, *in Pounds Sterling.*

Articles	1865–6	1866–7
	£	£
Piece goods, cotton	588,050	467,617
silk	283,900	193,670
woollen	142,261	116,411
Cotton twist and yarn	231,484	258,441
Raw silk	62,549	67,908

From the above it will be seen that there has been a considerable falling off in the trade through Thayetmyo; even if allowance be made for the month of April, the total decrease in the value of import and export trade through Thayetmyo would be about 92,000*l.* The rebellion was the chief cause of this falling off, and the depression in trade has continued ever since.

It is a curious fact that the late Mr. John Crawfurd, who supplied us with materials which he gathered on the spot, for the account of Rangoon in previous editions of this work, does not even allude to rice as an article of export. But, such has been the change in the interval, that it is now the principal article shipped from the town. And while in the earlier part of this century the exports of rice were little or nothing, they amounted to 58,563 tons in 1856, and the value of the exports of rice from British Burmah (chiefly from Rangoon), in the year 1865–6, was 2,437,433*l.* [Maulmain; Rice.]

RAPE. A biennial plant of the turnip kind (*Brassica napus*, Linn.), but with a woody fusiform root scarcely fit to be eaten. It is indigenous, flowers in May, and ripens its seed in July. It is cultivated in many parts of England, particularly in Lincoln and Cambridge; partly on account of its seed, which is crushed for oil, and partly for its leaves as food for sheep. The culture of rape for seed has been much objected to by some, on account of its supposed great exhaustion of the land; but Mr. Loudon says that, where the soil and preparation are suitable, the after-culture properly attended to, and the straw and offal, instead of being burnt, as is the common practice converted to the purposes of feeding and littering cattle, it may, in many instances, be the most proper and advantageous crop that can be employed by the farmer. The produce, when the plant succeeds well, and the season is favourable for securing the seed, amounts to from 40 to 50 bushels an acre. The seed is sold by the last of 10 quarters; and is crushed in mills constructed for that purpose. (Loudon's *Ency. of Agriculture.*)

In 1867 we imported 620,782 qrs. rape-seed, of the estimated value of 1,597,289*l.* The imports from India were 429,134 qrs., being much more than half the supply. The residue was principally supplied by Denmark, Russia, and Wallachia. The exports during the same year amounted to 222,842 qrs.

The duties on rape-seed and rape-seed oil were repealed in 1845.

Rape Cake is the adhering masses of the husks of rape-seed, after the oil has been expressed. They are reduced to powder by a malt-mill or other machine; and are used either as a top-dressing

for crops of different kinds, or are drilled along with turnip seed. 5,057 tons were imported in 1867.

RATTANS or CANES. The long slender shoots of a prickly bush (*Calamus rotang*, Linn.), one of the most useful plants of the Malay peninsula and the Eastern islands. They are exported to Bengal, to Europe, and above all to China, where they are consumed in immense quantities. For cane work they should be chosen long, of a bright pale yellow colour, well glazed, and of a small size, not brittle, or subject to break. They are purchased by the bundle, which ought to contain 100 rattans, having their ends bent together, and tied in the middle. In China they are sold by the picul, which contains from 9 to 12 bundles. Such as are black or dark coloured, snap short, or from which the glazing flies off on their being bent, should be rejected. When stowed as dunnage, they are generally allowed to pass free of freight. (Milburn's *Orient. Com.*; &c.)

In 1867 we imported 15,262,295 canes, whereof 7,294,254 were from British India, Singapore, and the Straits Settlements. The exports are inconsiderable.

'The rattan,' says Mr. Crawfurd, 'is the spontaneous product of all the forests of the Archipelago; but exists in great perfection in those of the islands of Borneo, Sumatra, and of the Malayan peninsula. The finest are produced in the country of the *Batahs* of Sumatra. The wood-cutter who is inclined to deal in this article proceeds into the forest without any other instrument than his *parang* or cleaver, and cuts as much as he is able to carry away. The mode of performing the operation is this: he makes a notch in the tree at the root of which the rattan is growing, and cutting the latter, strips off a small portion of the outer bark, and inserts the part that is peeled into the notch. The rattan now being pulled through, as long as it continues of an equal size, is by this operation neatly and readily freed from its *epidermis*. When the wood-cutter has obtained by this means from 300 to 400 rattans—being as many as an individual can conveniently carry in their moist and undried state—he sits down, and ties them up in bundles of 100, each rattan being doubled before being thus tied up. After drying, they are fit for the market without further preparation. From this account of the small labour expended in bringing them to market, they can be sold at a very cheap rate. The Chinese junks obtain them in Borneo at the low rate of 5 Spanish dollars per 100 bundles, or 5 cents for each 100 rattans, or 27 for 1*d*. The natives always vend them by tale; but the European residents and the Chinese sell them by weight, counting by piculs. According to their quantity, and the relative state of supply and demand, the European merchants dispose of them at from 1½ to 2½ dollars the picul. In China the price is usually about 3½ dollars per picul, or 75 per cent. above the average prime cost. In Bengal they are sold by tale, each bundle of about 100 rattans bringing about 20½*d*.' (*Indian Archipelago*, vol. iii. p. 423.)

REAL. In the Spanish monetary system, a real is of two sorts; viz. a *real of plate*, and a *real vellon*. The former is a silver coin, varying in value from about 6½*d*. to 5*d*. [COINS.] A real vellon is a money of account, worth about 2½*d*.

REAM. A quantity of paper. The ream of writing paper consists of 20 quires, each of 24 sheets; but the ream of printing paper, or, as it is sometimes called, the *printer's ream*, extends to 21½ quires, or 516 sheets. Two reams of paper make a *bundle*.

RECEIPT. An acknowledgment in writing of having received a sum of money, or other valuable consideration. It is a voucher either of an obligation or debt discharged, or of one incurred.

In 1795 duties were imposed on all notes, memorandums, or writings, given in acknowledgment of the receipt of money in payment of debt. And parties writing receipts on unstamped paper, or giving receipts for smaller sums than those actually received, were subjected to penalties. These duties have undergone various mutations. They usually varied according to the amounts received; but they were not fair ad valorem duties, the sums charged on receipts for small amounts being proportionally much greater than those charged on receipts for larger amounts. Thus, while a receipt for 10*l*. was charged with a duty of 3*d*., a receipt for 1,000*l*. was charged with a duty of 10*s*., whereas had the fair ad valorem principle been properly carried out, it should have been charged with a duty of 25*s*.

In 1852 the receipt duty produced 180,491*l*., including 143,467*l*. for England, 16,103*l*. for Scotland, and 20,921*l*. for Ireland.

A good deal of dissatisfaction having been long prevalent with the receipt duty, and being also very extensively evaded, it was changed in 1853 to a duty of 1*d*. on all receipts for sums of 2*l*. and upwards. A new duty of 1*d*. was at the same time, and by the same Act, 16 & 17 Vict. c. 59, imposed on all drafts or orders payable to order on demand. Such duty did not, however, apply to drafts or orders payable *at sight*; nor to checks or drafts payable to bearer, drawn within 15 miles of the bank at which they were to be paid, but by 21 Vict. c. 20 the duty was extended to all checks. In the year ending March 31, 1859, these duties produced 418,619*l*. nett, being 390,615*l*. for Great Britain, and 28,004*l*. for Ireland. The nett revenue of the United Kingdom from receipt, draft, and other 1*d*. inland revenue stamps, in the year ended March 31, 1868, was 562,547*l*.

By the 16 & 17 Vict. c. 59 the following shall be deemed drafts or orders for the payment of money within the intent and meaning of this Act, and of any Act or Acts relating to the stamp duties on bills of exchange, drafts, or orders, and shall be chargeable accordingly with the stamp duties imposed by this Act, or any such Act or Acts; viz.:—

'All documents or writings usually termed letters of credit, or whereby any person to whom any such document or writing is or is intended to be delivered or sent shall be entitled, or be intended to be entitled, to have credit with, or in account with, or to draw upon any other person for, or to receive from such other person any sum of money therein mentioned.'

The Act also grants the following exemptions from the duty on receipts, viz.: 'Receipts given for money deposited in any bank, or in the hands of any banker, to be accounted for, whether with interest or not: provided the same be not expressed to be received of or by the hands of any other than the person to whom the same is to be accounted for: provided always that this exemption shall not extend to receipts or acknowledgments for sums paid or deposited for or upon letters of allotment of shares, or in respect of calls upon any scrip or shares of or in any joint-stock or other company, or proposed or intended company, which said last-mentioned receipts or acknowledgments, by whomsoever given, shall be liable to the duty by this Act charged on receipts.'

Stamps denoting the Duty of 1d. on Receipts and Drafts may be impressed or affixed.—The duties

of 1*d.* by this Act granted on receipts and on drafts or orders for the payment of money respectively may be denoted either by a stamp impressed upon the paper whereon any such instrument is written, or by an adhesive stamp affixed thereto, and the Commissioners of Inland Revenue shall provide stamps of both descriptions for the purposes of denoting the said duties. (16 & 17 Vict. c. 59 s. 3.)

Where adhesive Stamps are used to denote the Duties on Receipts &c.—In any case where an adhesive stamp shall be used for the purpose aforesaid on any receipt or upon any draft or order respectively chargeable with the duty of 1*d.* by this Act, the person by whom such receipt shall be given or such draft or order signed or made shall, before the instrument shall be delivered out of his hands, custody, or power, cancel or obliterate the stamp so used, by writing thereon his name or the initial letters of his name so and in such a manner as to show clearly and distinctly that such stamp has been made use of, and so that the same may not be again used; and if any person who shall write or give any such receipt or discharge or make or sign any such draft or order with any adhesive stamp thereon, shall not bonâ fide in manner aforesaid effectually cancel or obliterate such stamp, he shall forfeit the sum of 10*l.* (Sec. 3.)

Penalty for committing Frauds in the Use of Stamps.—If any person shall fraudulently get off or remove, or cause or procure to be gotten off or removed, from any paper whereon any receipt or any draft or order shall be written, any adhesive stamp, or if any person shall affix or use any such stamp which shall have been gotten off or removed from any paper whereon any receipt or any draft or order shall have been written, to or for any receipt, draft, or order, or any paper whereon any such receipt, draft, or order, shall be or be intended to be written; or if any person shall do or practise or be concerned in any fraudulent act, contrivance, or device whatever, not specially provided for by this or some other Act of Parliament, with intent or design to defraud her Majesty of any duty by this Act granted upon receipts or upon drafts or orders, every person so offending in any of the said several cases shall forfeit the sum of 20*l.* (Sec. 5.)

REGISTRY. In Commercial Navigation, the registration or enrolment of ships at the Custom-house, so as to entitle them to be classed among, and to enjoy the privileges of, British-built ships.

The registry of ships appears to have been first introduced into this country by the Navigation Act (12 Ch. II. c. 18. anno 1660). Several provisions were made with respect to it by the 7 & 8 Wm. III. c. 22; and the whole was reduced into a system by the 27 Geo. III. c. 19, but this has since been materially altered. To be admitted to registry, and consequently to enjoy the privileges and advantages that exclusively belong to a British ship, all that is now required is, that such ship be bonâ fide the property of one or more of her Majesty's subjects in the United Kingdom or some of its dependencies.

The great, and, perhaps, the only original object of the registration of ships was to facilitate the exclusion of foreign ships from those departments in which they were prohibited from engaging by the navigation laws, by affording a ready means of distinguishing such as were really British. It has also been considered advantageous to individuals, by preventing the fraudulent assignment of property in ships. Lord Tenterden, however, has observed in reference to this supposed advantage, that 'the instances in which fair and honest transactions are rendered unavailable through a negligent want of compliance with the forms directed by these and other statutes requiring a public register of conveyances, make the expediency of all such regulations, considered with reference to private benefit only, a matter of question and controversy.' (*Law of Shipping*, part i. c. 2.) But these results are ascribable rather to the mode of registration than to the registry itself. The latter appears to be necessary to give certainty of title; a national and distinctive character to shipping; and for the establishment of a uniform system of admeasurement, the charges on shipping being almost always dependent on the registered tonnage.

The existing regulations as to the registry of ships are embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104 (modified by the 18 & 19 Vict. c. 91, 25 & 26 Vict. c. 63, and 31 & 32 Vict. c. 129), as follows, viz.:—

Registrars of British Ships.—The following persons are required to register British ships, and shall be deemed registrars for the purposes of this Act, viz.:—

1. At any port or other place in the United Kingdom or Isle of Man approved by the commissioners of customs for the registry of ships, the collector, comptroller, or other principal officer of customs for the time being.

2. In the islands of Guernsey and Jersey, the principal officers of her Majesty's customs, together with the governor, lieutenant-governor, or other person administering the government of such islands respectively.

3. In Malta, Gibraltar, and Heligoland, the governor, lieutenant-governor, or other person administering the government of such places respectively.

4. At any port or place so approved, as aforesaid, within the limits of the charter but not under the government of the East India Company, and at which no custom-house is established, the collector of duties, together with the governor, lieutenant-governor, or other person administering the government.

5. At the ports of Calcutta, Madras, and Bombay, the master attendants, and at any other port or place so approved as aforesaid within the limits of the charter and under the government of the East India Company, the collector of duties, or any other person of six years' standing in the civil service of the said company who is appointed by any of the governments of the said company to act for this purpose.

6. At every other port or place so approved as aforesaid within her Majesty's dominions abroad, the collector, comptroller, or other principal officer of customs or of navigation laws, or if there is no such officer resident at such port or place, the governor, lieutenant-governor, or other person administering the government of the possession in which such port or place is situate. (Sec. 30.)

Substitution of Governor abroad for Commissioners of Customs &c.—The governor, lieutenant-governor, or other person administering the government in any British possession where any ship is registered under the authority of this Act shall, with regard to the performance of any act or thing relating to the registry of a ship or of any interest therein, be considered in all respects as occupying the place of the commissioners of customs; and any British consular officer shall, in any place where there is no justice of the peace, be authorised to take any declaration hereby required or permitted to be made in the presence of a justice of the peace. (Sec. 31.) The governor

or officer administering the government in any British possession is authorised by 31 & 32 Vict. c. 129 to grant 6 months terminable certificates of registry to vessels under 60 tons and to appoint surveyors of crew spaces. (Secs. 1, 2, & 3.)

Registrar to keep Register Books.—Every registrar shall keep a book, to be called 'the register book,' and enter therein the particulars hereinafter required to be registered. (17 & 18 Vict. c. 104 s. 32.)

Port of Registry of Ship.—The port or place at which any British ship is registered for the time being shall be considered her port of registry, or the port to which she belongs. (Sec. 33.)

Name of Ship.—The following rules shall be observed with respect to the names of British registered ships (that is to say):

1. Before registry the name of each ship, and of the port to which she belongs, shall be painted on a conspicuous part of her stern, on a dark ground, in white or yellow letters of a length not less than 4 inches.

2. No change shall be made in the name of any registered ship.

3. No concealment, absence, or avoidable obliteration of the above names shall be permitted, except for the purpose of escaping capture by an enemy.

4. The ship shall not be described, by or with the knowledge of the owner or master, by any name other than the one by which she is registered.

And for every breach of the above rules, or any of them, the owner and master shall each incur a penalty not exceeding 100*l.* (Sec. 34.)

Application for Registry, by whom to be made.—Every application for the registry of a ship shall in the case of individuals be made by the person requiring to be registered as owner, or by some one or more of such persons if more than one, or by his or their duly authorised agent, and in the case of bodies corporate by their duly authorised agent; the authority of such agent, if appointed by individuals, to be testified by some writing under the hands of the appointors, and if appointed by a body corporate, by some instrument under the common seal of such body corporate. (Sec. 35.)

Survey of Ship.—Before registry, the ship shall be surveyed by a person duly appointed under this Act; and such surveyor shall grant a certificate specifying her tonnage, build, and such other particulars descriptive of the identity of the ship as may from time to time be required by the Board of Trade; and such certificate shall be delivered to the registrar before registry. (Sec. 36.)

Rules as to Entries in Register Book.—The following rules shall be observed with respect to entries in the register book (that is to say):

1. The property in a ship shall be divided into 64 shares.

2. Subject to the provisions with respect to joint owners or owners by transmission hereinafter contained, not more than 32 individuals shall be entitled to be registered at the same time as owners of any one ship; but this rule shall not affect the beneficial title of any number of persons or of any company represented by or claiming under or through any registered owner or joint owner.

3. No person shall be entitled to be registered as owner of any fractional part of a share in a ship; but any number of persons not exceeding 5 may be registered as joint owners of a ship, or of a share or shares therein.

4. Joint owners shall be considered as constituting one person only as regards the foregoing rule relating to the number of persons entitled to be registered as owners, and shall not be entitled to dispose in severalty of any interest in any ship or in any share or shares therein in respect of which they are registered.

5. A body corporate may be registered as owner by its corporate name. (Sec. 37.)

Declaration of Ownership by individual Owner.—No person shall be entitled to be registered as owner of a ship or any share therein until he has made and subscribed a declaration in the form marked B. in the schedule annexed to this Act, referring to the ship as described in the certificate of the surveyor, and containing the following particulars (that is to say):

1. A statement of his qualification to be an owner of a share in a British ship.

2. A statement of the time when and the place where such ship was built, or (if the ship is foreign-built, and the time and place of building not known) a statement that she is foreign-built, and that he does not know the time or place of her building; and in addition thereto, in the case of a foreign ship, a statement of her foreign name, or (in the case of a ship condemned) a statement of the time, place, and court at and by which she was condemned.

3. A statement of the name of the master.

4. A statement of the number of shares in such ship of which he is entitled to be registered as owner.

5. A denial that, to the best of his knowledge and belief, any unqualified person or body of persons is entitled as owner to any legal or beneficial interest in such ship or any share therein.

The above declaration of ownership shall be made and subscribed in the presence of the registrar if the declarant reside within 5 miles of the custom-house of the port of registry, but if beyond that distance, in the presence of any registrar or of any justice of the peace. (Sec. 38.)

Declaration of Ownership by Body Corporate.—No body corporate shall be entitled to be registered as owner of a ship or of any share therein until the secretary or other duly appointed public officer of such body corporate has made and subscribed in the presence of the registrar of the port of registry a declaration in the form marked C. in the schedule annexed to this Act referring to the ship as described in the certificate of the surveyor, and containing the following particulars; viz.:—

1. A statement of such circumstances of the constitution and business of such body corporate as prove it to be qualified to own a British ship.

2. A statement of the time when and the place where such ship was built, or (if the ship is foreign-built, and the time and place of building unknown) a statement that she is foreign-built, and that he does not know the time or place of her building; and in addition thereto in the case of a foreign ship, a statement of her foreign name, or (in the case of a ship condemned) a statement of the time, place, and court at and by which she was condemned.

3. A statement of the name of the master.

4. A statement of the number of shares in such ship of which such body corporate is owner.

5. A denial that, to the best of his knowledge and belief, any unqualified person or body of persons is entitled as owner to any legal or beneficial interest in such ship or any share therein. (Sec. 39.)

Evidence to be produced on Registry.—Upon the first registry of a ship there shall, in addition to the declaration of ownership, be produced the following evidence; viz.:—

1. In the case of a British-built ship, a

certificate (which the builder is hereby required to grant under his hand) containing a true account of the proper denomination and of the tonnage of such ship, as estimated by him, and of the time when and of the place where such ship was built, together with the name of the party (if any) on whose account he has built the same, and, if any sale or sales have taken place, the bill or bills of sale under which the ship or share therein has become vested in the party requiring to be registered as owner.

2. In the case of a foreign-built ship, the same evidence as in the case of a British-built ship, unless the person requiring to be registered as owner, or, in the case of a body corporate, the duly-appointed officer, declares that the time or place of her building is unknown, or that the builder's certificate cannot be procured, in which case there shall be required only the bill or bills of sale under which the ship or share therein became vested in the party requiring to be registered as owner thereof.

3. In the case of a ship condemned by any competent court, an official copy of the condemnation of such ship. (Sec. 40.)

Penalty on Builder for false Certificate.—If any builder wilfully makes a false statement in any certificate hereby required to be granted by him, he shall for every such offence incur a penalty not exceeding 100*l.* (Sec. 41.)

Particulars of Entry in Register Book.—As soon as the foregoing requisites to the due registry of a ship have been complied with, the registrar shall enter in the register book the following particulars relating to such ship; viz.:—

1. The name of the ship, and of the port to which she belongs.

2. The details as to her tonnage, build, and description comprised in the certificate hereinbefore directed to be given by the surveyor.

3. The several particulars as to her origin stated in the declaration or declarations of ownership.

4. The names and descriptions of her registered owner or owners, and if there is more than one such owner, the proportions in which they are interested in such ship. (Sec. 42.)

No Notice taken of Trusts.—No notice of any trust, express, implied, or constructive, shall be entered in the register book, or receivable by the registrar; and, subject to any rights and powers appearing by the register book to be vested in any other party, the registered owner of any ship or share therein shall have power absolutely to dispose in manner hereinafter mentioned of such ship or share, and to give effectual receipts for any money paid or advanced by way of consideration. (Sec. 43.) See also sec. 3 of 25 & 26 Vict. c. 63.

Certificate of Registry to be granted.—Upon the completion of the registry of any ship, the registrar shall grant a certificate of registry in the form marked D. in the schedule to the Act (annexed to this article), comprising the following particulars, viz.:—

1. The name of the ship and of the port to which she belongs.

2. The details as to her tonnage, build, and description comprised in the certificate hereinbefore directed to be given by the surveyor.

3. The name of her master.

4. The several particulars as to her origin stated in the declaration or declarations of ownership.

5. The names and descriptions of her registered owner or owners, and if there is more than one such owner, the proportions in which they are respectively interested, indorsed upon such certificate. (17 & 18 Vict. c. 104 s. 44.)

Change of Owners to be indorsed on Certificate of Registry.—Whenever any change takes place in the registered ownership of any ship, then, if such change occurs at a time when the ship is at her port of registry, the master shall forthwith deliver the certificate of registry to the registrar, and he shall indorse thereon a memorandum of such change; but if such change occurs during the absence of the ship from her port of registry, then upon her first return to such port the master shall deliver the certificate of registry to the registrar, and he shall indorse thereon a like memorandum of the change; or if she previously arrives at any port where there is a British registrar, such registrar shall, upon being advised by the registrar of her port of registry of the change having taken place, indorse a like memorandum thereof on the certificate of registry, and may for that purpose require the certificate to be delivered to him, so that the ship be not thereby detained; and any master who fails to deliver to the registrar the certificates of registry a hereinbefore required shall incur a penalty not exceeding 100*l.* (Sec. 45.)

Change of Master to be indorsed on Certificate of Registry.—Whenever the master of any British registered ship is changed, the following persons, viz. if such change is made in consequence of the sentence of any naval court, the presiding officer of such court, but if the change takes place from any other cause, the registrar, or if there is no registrar, the British consular officer resident at the port where such change takes place, shall indorse on the certificate of registry a memorandum of such change, and subscribe his name to such indorsement, and forthwith report the change of master to the Commissioner of Customs in London; and the officers of customs at any port situate within her Majesty's dominions may refuse to admit any person to do any act at such port as master of any British ship, unless his name is inserted in or indorsed upon the certificate of registry of such ship as the last appointed master thereof. (Sec. 46.)

Power to grant new Certificate.—The registrar may, with the sanction of the Commissioner of Customs, upon the delivery up to him of the former certificate of registry, grant a new certificate in the place of the one so delivered up. (Sec. 47.)

Provision in case of Loss of Certificate.—In the event of the certificate of registry of any ship being mislaid, lost, or destroyed, if such event occurs at any port in the United Kingdom, the ship being registered in the United Kingdom, or at any port in any British possession, the ship being registered in the same British possession, then the registrar of the report of registry shall grant a new certificate of registry in lieu of and as a substitute for her original certificate of registry; but if such event occurs elsewhere, the master, or some other person having knowledge of the circumstances, shall make a declaration before the registrar of any port having a British registrar at which such ship is at the time or first arrives after such mislaying, loss, or destruction; and such declaration shall state the facts of the case, and the names and descriptions of the registered owners of such ship, to the best of the declarant's knowledge and belief; and the registrar shall thereupon grant a provisional certificate as near to the form appointed by this Act as circumstances permit, and shall insert therein a statement of the circumstances under which such provisional certificate is granted. (Sec. 48.)

Provisional Certificate to be delivered up.—Every such provisional certificate shall, within 10 days after the first subsequent arrival of the ship at her port of discharge in the United Kingdom, if registered therein, or if registered elsewhere, at her port of discharge in the British possession within which her port of registry is situate, be delivered up to the registrar thereof, who shall thereupon grant a new one, as near to the form appointed by this Act as circumstances permit; and if the master neglects to deliver up such certificate within such time he shall incur a penalty not exceeding 50*l.* (Sec. 49.)

Custody of Certificate.—The certificate of registry shall be used only for the lawful navigation of the ship, and shall not be subject to detention by reason of any title, lien, charge, or interest whatsoever which any owner, mortgagee, or other person may have or claim to have on or in the ship described in such certificate; and if any person whatever, whether interested or not in the ship, refuses on request to deliver up such certificate when in his possession or under his control to the person for the time being entitled to the custody thereof for the purposes of such lawful navigation as aforesaid, or to any registrar, officer of the customs, or other person legally entitled to require such delivery, it shall be lawful for any justice, by warrant under his hand and seal, or for any court capable of taking cognisance of such matter, to cause the person so refusing to appear before him and to be examined touching such refusal; and unless it is proved to the satisfaction of such justice or court that there was reasonable cause for such refusal, the offender shall incur a penalty not exceeding 100*l.*; but if it is made to appear to such justice or court that the certificate is lost, the party complained of shall be discharged, and such justice or court shall thereupon certify that the certificate of registry is lost. (Sec. 50.)

Mode of proceeding if detaining Party abscond.—If the person charged with such detainer or refusal is proved to have absconded, so that the warrant of the justice or process of the court cannot be served upon him, or if he persists in his refusal to deliver the certificate, such justice or court shall certify the fact, and the same proceedings may then be taken as in the case of a certificate of registry mislaid, lost, or destroyed, or as near thereto as circumstances permit. (Sec. 51.)

Penalty for using improper Certificate.—If the master or owner of any ship uses or attempts to use for the navigation of such ship a certificate of registry not legally granted in respect of such ship, he shall be guilty of a misdemeanor, and it shall be lawful for any commissioned officer on full pay in the military or naval service of her Majesty, or any British officer of customs, or any British consular officer, to seize and detain such ship, and to bring her for adjudication before the High Court of Admiralty in England or Ireland or any court having admiralty jurisdiction in her Majesty's dominions; and if such court is of opinion that such use or attempt at use has taken place, it shall pronounce such ship, with her tackle, apparel, and furniture, to be forfeited to her Majesty, and may award such portion of the proceeds arising from the sale of such ship as it may think just to the officer so bringing in the same for adjudication. (Sec. 52.)

Certificate of Ship lost or ceasing to be British to be delivered up.—If any registered ship is either actively or constructively lost, taken by the enemy, burnt, or broken up, or if by reason of a transfer to any persons not qualified to be owners of British ships, or of any other matter or thing, any such ship as aforesaid ceases to be a British ship, every person who at the time of the occurrence of any of the aforesaid events owns such ship or any share therein shall, immediately upon obtaining knowledge of any such occurrence, if no notice thereof has already been given to the registrar at the port of registry of such ship, give such notice to him, and he shall make an entry thereof in his register book; and, except in cases where the certificate of registry is lost or destroyed, the master of every ship so circumstanced as aforesaid shall immediately, if such event occurs in port, but if the same occurs elsewhere, then within 10 days after his arrival in port, deliver the certificate of registry of such ship to the registrar, or, if there be no registrar, to the British consular officer at such port, and such registrar, if he is not himself the registrar of her port of registry, or such British consular officer, shall forthwith forward the certificate so delivered to him to the registrar of the port of registry of the ship; and every owner and master who, without reasonable cause, makes default in obeying the provisions of this section shall for each offence incur a penalty not exceeding 100*l.* (Sec. 53.)

Provisional Certificate for Ship becoming vested in British Owners at Foreign Port.—If any ship becomes the property of persons qualified to be owners of British ships at any foreign port, the British consular officer resident at such port may grant the master of such ship, upon his application, a provisional certificate, stating—

The name of the ship;

The time and place of her purchase, and the names of her purchasers;

The name of her master;

The best particulars as to her tonnage, build, and description that he is able to obtain;

And he shall forward a copy of such certificate, at the first convenient opportunity, to the Commissioners of Customs in London: the certificate so granted shall possess the same force as a certificate of registry until the expiration of 6 months, or until such earlier time as the ship arrives at some port where there is a British registrar; but upon the expiration of such period, or upon arrival at such port, shall be void to all intents. (Sec. 54.)

Transfers and Transmissions.

Transfer of Ships or Shares therein.—A registered ship or any share therein, when disposed of to persons qualified to be owners of British ships, shall be transferred by bill of sale; and such bill of sale shall contain such description of the ship as is contained in the certificate of the surveyor, or such other description as may be sufficient to identify the ship to the satisfaction of the registrar, and shall be according to the form marked E. subjoined to this Act, or as near thereto as circumstances permit, and shall be executed by the transferee in the presence of and be attested by one or more witnesses. (Sec. 55.)

Declaration to be made by Transferee.—No individual shall be entitled to be registered as transferee of a ship or any share therein until he has made a declaration stating his qualification to be registered as owner of a share in a British ship, and containing a denial similar to the denial before required to be contained in a declaration of ownership by an original owner; and no body corporate shall be entitled to be registered as transferee of a ship or any share therein until the secretary or other duly appointed public officer of such body corporate has made a declaration, stating the name of such body corporate, and such circumstances of its constitution and business as may prove it to be qualified to own a British ship, and

containing a denial similar to the denial hereinbefore required to be contained in a declaration of ownership made on behalf of a body corporate: in the case of an individual, the above declaration shall be made, if he reside within 5 miles of the custom-house of the port of registry in the presence of the registrar, but if beyond that distance in the presence of any registrar or of any justice of the peace: in the case of a body corporate, the declaration shall be made in the presence of the registrar of the port of registry. (Sec. 56.)

Registration of Transfer.—Every bill of sale for the transfer of any registered ship, or of any share therein, when duly executed, shall be produced to the registrar of the port at which the ship is registered, together with the declaration before required to be made by a transferee; and the registrar shall thereupon enter in the register book the name of the transferee as owner of the ship or share comprised in such bill of sale, and shall indorse on the bill of sale the fact of such entry having been made, with the date and hour thereof; and all bills of sale of any ship or shares in a ship shall be entered in the register book in the order of their production to the registrar. (Sec. 57.)

Transmission of Shares by Death, Bankruptcy, or Marriage.—If the property in any ship or in any share therein becomes transmitted in consequence of the death or bankruptcy or insolvency of any registered owner, or in consequence of the marriage of any female registered owner, or by any lawful means other than by a transfer according to the provisions of this Act, such transmission shall be authenticated by a declaration of the person to whom such property has been transmitted, and containing the several statements before required to be contained in the declaration of a transferee, or as near thereto as circumstances permit, and, in addition, a statement describing the manner in which and the party to whom such property has been transmitted; and such declaration shall be made and subscribed, if the declarant resides at or within 5 miles of the custom-house of the port of registry, in the presence of the registrar, but if beyond that distance, in the presence of any registrar or of any justice of the peace. (Sec. 58.)

Mortgages.

Mortgages of Ships and Shares therein.—A registered ship or any share therein may be made a security for a loan or other valuable consideration; and the instrument creating such security, hereinafter termed a 'mortgage,' shall be in the form marked I., subjoined to this Act, or as near thereto as circumstances permit; and on the production of such instrument, the registrar of the port at which the ship is registered shall record the same in the register book. (Sec. 66.)

Mortgages to be registered.—Every such mortgage shall be recorded by the registrar in the order of time in which the same is produced to him for that purpose; and the registrar shall, by memorandum under his hand, notify on the instrument of mortgage that the same has been recorded by him, stating the date and hour of such record. (Sec. 67.)

Entry of Discharge of Mortgage.—Whenever any registered mortgage has been discharged, the registrar shall, on the production of the mortgage deed, with a receipt for the mortgage money indorsed thereon, duly signed and attested, make an entry in the register book to the effect that such mortgage has been discharged; and upon such entry being made, the estate, if any, which passed to the mortgagee shall vest in the same person or persons in whom the same would, having regard to intervening acts and circumstances, if any, have vested if no such mortgage had ever been made. (Sec. 68.)

Priority of Mortgages.—If there is more than one mortgage registered of the same ship or share therein, the mortgagees shall, notwithstanding any express, implied, or constructive notice, be entitled in priority one over the other according to the date at which each instrument is recorded in the register books, and not according to the date of each instrument itself. (Sec. 69.)

Mortgagee not to be deemed Owner.—A mortgagee shall not by reason of his mortgage be deemed to be the owner of a ship or any share therein, nor shall the mortgagor be deemed to have ceased to be owner of such mortgaged ship or share, except in so far as may be necessary for making such ship or share available as a security for the mortgage debt. (Sec. 70.) See also sec. 3 of 25 & 26 Vict. c. 63.

Mortgagee to have Power of Sale.—Every registered mortagee shall have power absolutely to dispose of the ship or share in respect of which he is registered, and to give effectual receipts for the purchase money; but if there are more persons than one registered as mortgagees of the same ship or share, no subsequent mortgagee shall, except under the order of some court capable of taking cognisance of such matters, sell such ship or share without the concurrence of every prior mortgagee. (17 & 18 Vict. c. 104 s. 71.)

Rights of Mortgagee not affected by Bankruptcy of Mortgagor.—No registered mortgage of any ship or of any share therein shall be affected by any act of bankruptcy committed by the mortgagor after the date of the record of such mortgage, notwithstanding such mortgagor at the time of his becoming bankrupt may have in his possession and disposition and be reputed owner of such ship or share thereof; and such mortgage shall be preferred to any right, claim, or interest in such ship or any share thereof which may belong to the assignees of such bankrupt. (Sec. 72.)

Transfer of Mortgages.—A registered mortgage of any ship or share in a ship may be transferred to any person, and the instrument creating such transfer shall be in the form marked K., subjoined to the Act, and on the production of such instrument the registrar shall enter in the register book the name of the transferee as mortgagee of the ship or shares therein mentioned, and shall, by memorandum under his hand, record on the instrument of transfer that the same has been recorded by him, stating the date and hour of such record. (Sec. 73.)

Transmission of Interest of Mortgagee by Death, Bankruptcy, or Marriage.—If the interest of any mortgagee in any ship or in any share therein becomes transmitted in consequence of death, bankruptcy, or insolvency, or in consequence of the marriage of any female mortgagee, or by any lawful means other than by a transfer according to the provisions of this Act, such transmission shall be authenticated by a declaration of the person to whom such interest has been transmitted, and containing a statement describing the manner in which and the party to whom such property has been transmitted; and such declaration shall be made and subscribed, if the declarant resides at or within 5 miles of the custom-house of the port of registry, in the presence of the registrar, but if beyond that distance, in the presence of any registrar or of any justice of the peace, and shall be accompanied by such evidence as is hereinbefore required to authenticate a corresponding transmission of property from one registered owner to another. (Sec. 74.)

Entry of transmitted Mortgage.—The registrar, upon the receipt of such declaration and the production of such evidence as aforesaid, shall enter the name of the person or persons entitled under such transmission in the register book as mortgagee or mortgagees of the ship or share in respect of which such transmission has taken place. (Sec. 75.)

Certificates of Mortgage and Sale.

Powers of Mortgage and Sale conferred by Certificate.—Any registered owner, if desirous of disposing by way of mortgage or sale of the ship or share in respect of which he is registered at any place out of the country or possession in which the port of registry of such ship is situate, may apply to the registrar, who shall thereupon enable him to do so by granting such certificates as are after mentioned, to be called respectively certificates of mortgage or certificates of sale, according as they purport to give a power to mortgage or a power to sell. (Sec. 76.)

Requisites for Certificates of Mortgage and Sale.—Previously to any certificate of mortgage or sale being granted, the applicant shall state to the registrar, to be by him entered in the register book, the following particulars; viz.:—

1. The names of the persons by whom the power mentioned in such certificate is to be exercised, and in the case of a mortgage, the maximum amount of charge to be created, if it is intended to fix any such maximum, and in the case of a sale, the minimum price at which a sale is to be made, if it is intended to fix any such minimum.

2. The specific place or places where such power is to be exercised, or if no place be specified, then that it may be exercised anywhere, subject to the provisions hereinafter contained.

3. The limit of time within which such power may be exercised. (Sec. 77.)

Restrictions on Certificates of Mortgage and Sale.—No certificate of mortgage or sale shall be granted so as to authorise any mortgage or sale to be made—

At any place within the United Kingdom, if the port of registry of the ship be situate in the United Kingdom; or at any place within the same British possession if the port of registry is situate within a British possession; or

By any person not named in the certificate. (Sec. 78.)

Forms of Certificates of Mortgage and Sale.—Certificates of mortgage and sale shall contain a statement of the several particulars hereinbefore directed to be entered in the register book, and in addition thereto an enumeration of any registered mortgages or certificates of mortgage or sale affecting the ships or shares in respect of which such certificates are given. (Sec. 79.)

Rules as to Certificates of Mortgage.—The following rules shall be observed as to certificates of mortgage, viz.:—

1. The power shall be exercised in conformity with the directions contained in the certificate.

2. A record of every mortgage made thereunder shall be indorsed thereon by a registrar or British consular officer.

3. No mortgage bonâ fide made thereunder shall be impeached by reason of the person by whom the power was given dying before the making of such mortgage.

4. Whenever the certificate contains a specification of the place or places at which, and a limit of time not exceeding twelve months within which, the power is to be exercised, no mortgage bonâ fide made to a mortgagee without notice shall be impeached by reason of the bankruptcy or insolvency of the person by whom the power was given.

5. Every mortgage which is so registered as aforesaid on the certificate shall have priority over all mortgages of the same ship or share created subsequently to the date of the entry of the certificate in the register book; and if there be more mortgages than one so indorsed, the respective mortgagees claiming thereunder shall, notwithstanding any express, implied, or constructive notice, be entitled one before the other according to the date at which a record of each instrument is indorsed on the certificate, and not according to the date of the instrument creating the mortgage.

6. Subject to the foregoing rules, every mortgagee whose mortgage is registered on the certificate shall have the same rights and powers and be subject to the same liabilities as he would have had and been subject to if his mortgage had been registered in the register book instead of on the certificate.

7. The discharge of any mortgage so registered on the certificate may be indorsed thereon by any registrar or British consular officer, upon the production of such evidence as is hereby required to be produced to the registrar on the entry of the discharge of a mortgage in the register book; and upon such indorsement being made, the estate, if any, which passed to the mortgagee shall vest in the same person or persons in whom the same would, having regard to intervening acts and circumstances, if any, have vested if no such mortgage had been made.

8. Upon the delivery of any certificate of mortgage to the registrar by whom it was granted, he shall, after recording in the register book in such manner as to preserve its priority any unsatisfied mortgage registered thereon, cancel such certificate, and enter the fact of such cancellation in the register book; and every certificate so cancelled shall be void to all intents. (Sec. 80.)

Rules as to Certificates of Sale.—The following rules shall be observed as to certificates of sale, viz.:—

1. No such certificate shall be granted except for the sale of an entire ship.

2. The power shall be exercised in conformity with the directions contained in the certificate.

3. No sale bonâ fide made to a purchaser for valuable consideration shall be impeached by reason of the person by whom the power was given dying before the making of such sale.

4. Whenever the certificate contains a specification of the place or places at which, and a limit of time not exceeding twelve months within which, the power is to be exercised, no sale bonâ fide made to a purchaser for valuable consideration without notice shall be impeached by reason of the bankruptcy or insolvency of the person by whom the power was given.

5. Any transfer made to a person qualified to be the owner of British ships shall be by bill of sale in the form hereinbefore mentioned, or as near thereto as circumstances permit.

6. If the ship is sold to a party qualified to hold British ships, the ship shall be registered anew; but notice of all mortgages enumerated on the certificate of sale shall be entered in the register book.

7. Previously to such registry anew there shall be produced to the registrar required to make the same the bill of sale by which the ship is transferred, the certificate of sale, and the certificate of registry of such ship.

8. Such last-mentioned registrar shall retain the

certificates of sale and registry; and after having indorsed on both of such instruments an entry of the fact of a sale having taken place, shall forward the said certificates to the registrar of the port appearing on such certificates to be the former port of registry of the ship, and such last-mentioned registrar shall thereupon make a memorandum of the sale in his register book, and the registry of the ship in such book shall be considered as closed, except as far as relates to any unsatisfied mortgages or existing certificates of mortgage entered therein.

9. On such registry anew, the description of the ship contained in her original certificate of registry may be transferred to the new register book without her being re-surveyed, and the declaration to be made by the purchaser shall be the same as would be required to be made by an ordinary transferee.

10. If the ship is sold to a party not qualified to be the owner of a British ship, the bill of sale by which the ship is transferred, the certificate of sale, and the certificate of registry shall be produced to some registrar or consular officer, who shall retain the certificates of sale and registry, and, having indorsed thereon the fact of such ship having been sold to persons not qualified to be owners of British ships, shall forward such certificates to the registrar of the port appearing on the certificate of registry to be the port of registry of such ship; and such last-mentioned registrar shall thereupon make a memorandum of the sale in his register book, and the registry of the ship in such book shall be considered as closed, except so far as relates to any unsatisfied mortgages or existing certificates of mortgage entered therein.

11. If, upon a sale being made to an unqualified person, default is made in the production of such certificates as are mentioned in the last rule, such unqualified person shall be considered by British law as having acquired no title to or interest in the ship; and further, the party upon whose application such certificate was granted, and the persons exercising the power, shall each incur a penalty not exceeding 100*l.*

12. If no sale is made in conformity with the certificate of sale, such certificate shall be delivered to the registrar by whom the same was granted; and such registrar shall thereupon cancel it, and enter the fact of such cancellation in the register book; and every certificate so cancelled shall be void to all intents. (Sec. 81.)

Power of Commissioners of Customs in case of Loss of Certificate of Mortgage or Sale.—Upon proof at any time to the satisfaction of the Commissioners of Customs that any certificate of mortgage or sale is lost or so obliterated as to be useless, and that the powers thereby given have never been exercised, or if they have been exercised, then, upon proof of the several matters and things that have been done thereunder, it shall be lawful for the registrar, with the sanction of the said commissioners, as circumstances may require, either to issue a new certificate, or to direct such entries to be made in the register book, or such other matter or thing to be done, as might have been made or done if no such loss or obliteration had taken place. (Sec. 82.)

Revocation of Certificates of Mortgage and Sale.—The registered owner for the time being of any ship or share therein in respect of which a certificate of mortgage or sale has been granted, specifying the place or places where the power thereby given is to be exercised, may, by an instrument under his hand, authorise the registrar by whom such certificate was granted to give notice to the registrar or consular officer, registrars or consular officers, at such place or places, that such certificate is revoked; and notice shall be given accordingly; and all registrars or consular officers receiving such notice shall record the same, and shall exhibit the same to all persons who may apply to them for the purpose of effecting or obtaining a mortgage or transfer under the said certificate of mortgage or sale: and after such notice has been so recorded, the said certificate shall, so far as concerns any mortgage or sale to be thereafter made at such place, be deemed to be revoked and of no effect; and every registrar or consular officer recording any such notice shall thereupon state to the registrar by whom the certificate was granted whether any previous exercise of the power to which such certificate refers has taken place. (Sec. 83.)

Registry anew, and Transfer of Registry.

Alteration in Ship to be registered.—Whenever any registered ship is so altered as not to correspond with the particulars relating to her tonnage or description contained in the register book, then, if such alteration is made at a port where there is a registrar, the registrar of such port, but if made elsewhere, the registrar of the first port having a registrar at which the ship arrives after her alteration, shall, on application made to him, and on the receipt of a certificate from the proper surveyor specifying the nature of such alteration, either retain the old certificate of registry and grant a new certificate of registry containing a description of the ship as altered, or indorse on the existing certificate a memorandum of such alteration, and subscribe his name to such indorsement; and the registrar to whom such application as aforesaid is made, if he is the registrar of the port of registry of the ship, shall himself enter in his register book the particulars of the alteration so made, and the fact of such new certificate having been granted or indorsement having been made on the existing certificate; but if he is not such last-mentioned registrar, he shall forthwith report such particulars and facts as aforesaid, accompanied by the old certificate of registry in cases where a new one has been granted, to the registrar of the port of registry of the ship, who shall retain such old certificate (if any), and enter such particulars and facts in his register book accordingly. (Sec. 84.)

On Alteration, Registry anew may be required.—When the registrar to whom application is made in respect of any such alteration as aforesaid is the registrar of the port of registry, he may, if he think fit, instead of registering such alteration, require such ship to be registered anew in manner hereinbefore directed on the first registry of a ship; and if he is not such registrar as lastly hereinbefore mentioned, he may nevertheless require such ship to be registered anew; but he shall, in such last-mentioned case, grant a provisional certificate or make a provisional indorsement of the alteration made in manner hereinbefore directed in cases where no registry anew is required, taking care to add to such certificate or indorsement a statement that the same is made provisionally, and to insert in his report to the registrar of the port of registry of the ship a like statement. (Sec. 85.)

Grant of Provisional Certificate in respect of Alteration.—Every such provisional certificate, or certificate provisionally indorsed, shall, within 10 days after the first subsequent arrival of the ship at her port of discharge in the United Kingdom if registered in the United Kingdom, or, if registered elsewhere, at her port of discharge in the British possession within which her port of registry is situate, be delivered up to the registrar thereof, who shall thereupon cause such ship to be regis-

tered anew in the same manner in all respects as hereinbefore required on the first registry of any ship. (Sec. 86.)

Consequence of Omission to Register anew.—On failure of such registry anew of any ship or registry of alteration of any ship so altered as aforesaid, such ship shall be deemed not duly registered, and shall no longer be recognised as a British ship. (Sec. 87.)

On Change of Owners, Registry anew may be granted.—If upon any change of ownership in any ship the owner or owners desire to have such ship registered anew, although such registry anew is not required by this Act, it shall be lawful for the registrar of the port at which such ship is already registered, on the delivery up to him of the existing certificate of registry, and on the other requisites to registry, or such of them as the registrar thinks material, being duly complied with, to make such registry anew, and grant a certificate thereof. (Sec. 88.)

Registry may be transferred from Port to Port.—The registry of any ship may be transferred from one port to another upon the application of all parties appearing on the register to be interested in such ship, whether as owners or mortgagees; such application to be expressed by a declaration in writing made and subscribed, if the party so required to make and subscribe the same resides at or within 5 miles of the custom-house of the port from which such ship is to be transferred, in the presence of the registrar of such port, but if beyond that distance, in the presence of any registrar or of any justice of the peace. (Sec. 89.)

Manner of Transfer of Registry.—Upon such application being made as is hereinbefore mentioned, and upon the delivery to him of the certificate of registry, the registrar of the port at which such ship is already registered shall transmit to the registrar of the port at which such ship is intended to be registered notice of such application having been made to him, together with a true copy of all particulars relating to such ship, and the names of all the parties appearing by his book to be interested as owners or mortgagees in such ship; and such last-mentioned registrar shall, upon the receipt of such notice, enter all such particulars and names in his book of registry, and grant a fresh certificate of registry, and thenceforth such ship shall be considered as registered at and belonging to such last-mentioned port, and the name of such last-mentioned port shall be substituted on the stern of such ship in lieu of the name of the port previously appearing thereon. (Sec. 90.)

Transfer of Registry not to affect Rights of Owners.—The transfer of the registry of any ship in manner aforesaid shall not in any way affect the rights of the several persons interested either as owners or mortgagees in such ship, but such rights shall in all respects be maintained and continue in the same manner as if no such transfer had been effected. (Sec. 91.)

Registry, Miscellaneous.

Inspection of Register Books.—Every person may, upon payment of a fee to be fixed by the Commissioners of Customs, not exceeding 1*s.*, have access to the register book for the purpose of inspection at any reasonable time during the hours of official attendance of the registrar. (Sec. 92.)

Indemnity to Registrar.—No registrar shall be liable to damages or otherwise for any loss accruing to any person by reason of any act done or default made by him in his character of registrar, unless the same has happened through his neglect or wilful act. (Sec. 93.)

Return to be made by Registrars to Commissioners of Customs.—Every registrar in the United Kingdom shall at the expiration of every month, and every other registrar shall without delay, or at such stated times as may be fixed by the Commissioners of Customs, transmit to the Custom-house in London a full return in such form as they may direct of all registries, transfers, transmissions, mortgages, and other dealings with ships which have been registered by or communicated to them in their character of registrars, and the names of the persons who have been concerned in the same, and such other particulars as may be directed by the said Commissioners. (Sec. 94.)

Clause 95 directs the mode in which registration fees are to be applied; and clauses 96 to 99 inclusive give power to Commissioners of Customs, registrars &c. to act in certain specified circumstances.

Liabilities of Owners.—Whenever any person is beneficially interested, otherwise than by way of mortgage, in any ship or share therein registered in the name of some other person as owner, the person so interested shall, as well as the registered owner, be subject to all pecuniary penalties imposed by this or by any other Act on owners of ships or shares therein, so nevertheless that proceedings may be taken for the enforcement of any such pecuniary penalties against both or either of the aforesaid parties, with or without joining the other of them. (Sec. 100.)

Forgery.

Punishment for Forgery.—Any person who forges, assists in forging, or procures to be forged, fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any register book, certificate of surveyor, certificate of registry, declaration of ownership, bill of sale, instrument of mortgage, certificate of mortgage or sale, or any entry or indorsement required by this Act to be made in or on any of the above documents, shall for every such offence be deemed to be guilty of felony. (Sec. 101.)

National Character.

National Character of Ship to be declared before Clearance.—No officer of customs shall grant a clearance or transire for any ship until the master of such ship has declared to such officer the name of the nation to which he claims that she belongs, and such officer shall thereupon inscribe such name on the clearance or transire; and if any ship attempts to proceed to sea without such clearance or transire, any such officer may detain her until such declaration is made. (Sec. 102.)

Penalties.—The offences hereinafter mentioned shall be punishable as follows: (that is to say)

1. If any person uses the British flag and assumes the British national character on board any ship owned in whole or in part by any persons not entitled by law to own British ships, for the purpose of making such ship appear to be a British ship, such ship shall be forfeited to her Majesty, unless such assumption has been made for the purpose of escaping capture by an enemy or by a foreign ship of war in exercise of some belligerent right; and in any proceeding for enforcing any such forfeiture, the burden of proving a title to use the British flag and assume the British national character shall lie upon the person using and assuming the same.

2. If the master or owner of any British ship

Certificate of Registry (ante, s. 44).

No. _____ *Date of Registry.*

Name of Ship	British or Foreign built	Port of Registry	How propelled
			By Steam or Sails, and if by Steam, whether by Paddle or Screw.

Number of Decks		Build	*Carvel or Clincher.*
Number of Masts	*Nature of, and whether standing or running bowsprit.*	Gallery	*Description of.*
Rigging		Head	*Kind of.*
Stern	*Round, square, or other description.*	Framework	*Wood or other Material.*

Measurements.	Feet	Tenths
Length from the Forepart of Stem under the Bowsprit to the Aftside of the Head of the Sternpost		
Main Breadth to Outside of Plank		
Depth in Hold from Tonnage Deck to Ceiling at Midships		

Tonnage.	No. of Tons
Tonnage under Tonnage Deck	
Close-in-Spaces above the Tonnage Deck, if any, viz.:—	
Space or Spaces between Decks	
Poop	
Roundhouse	
Other inclosed Spaces, if any, naming them	
Total	

**Additional Particulars for Steamers.*	Tons / Feet / Tenths / Number / No. of Horses-power
Deduction for Space required for Propelling Power (say whether 37-100ths or 32-100ths, or as measured)	Tons
Length of Engine Room (if measured)	Feet / Tenths
Engines	Number of Engines
Combined Power (estimated Horse-power)	No. of Horses-power
Register Tonnage (after making deduction for space for propelling power in steamers).*	

* Omit this part if she has no Steam Power.

I, the undersigned *A.B.*, registrar of the port of , hereby certify that,—
1. The ship, the description of which is prefixed to this my certificate, has been duly surveyed, and that the above description is true.
2. *C.D.* of is the master of the said ship.
3. The said ship was built at [*naming the country and place*] on the and her foreign name is [*these words to be added if the ship is foreign.*], or {is foreign-built, and the time when and the place where she was built are not known, and her foreign name is} or {was condemned by the court of [*naming court*], on the day of at}
4. The several persons and bodies corporate whose names are hereunder written [*or endorsed*] are owners of the above ship, in the proportions set opposite their respective names.

(Signed) _____ Registrar.

Names of the several Owners above [*or within*] mentioned	Number of sixty-fourth Shares held by each Owner
[*Name.*]	*Thirty two.* *Sixteen.* *Eight.* *Eight.*

(Signed) _____ Registrar.

Dated at _____
the day of 18

Notice.—A certificate of registry granted under the Merchant Shipping Act, 1854, is not a document of title. It does not necessarily contain notice of *all* changes of ownership; and in no case does it contain an official record of any mortgages affecting the ship.

does or permits to be done any matter or thing, or carries or permits to be carried any papers or documents, with intent to conceal the British character of such ship from any person entitled by British law to enquire into the same, or to assume a foreign character, or with intent to deceive any such person as lastly hereinbefore mentioned, such ship shall be forfeited to her Majesty; and the master, if he commits or is privy to the commission of the offence, shall be guilty of a misdemeanor.

3. If any unqualified person, except in the case of such transmitted interests as are hereinbefore mentioned, acquires as owner any interest, either legal or beneficial, in a ship using a British flag and assuming the British character, such interest shall be forfeited to her Majesty.

4. If any person, on behalf of himself or any other person or body of persons, wilfully makes a false declaration touching the qualification of himself or such other person or body of persons to own British ships or any shares therein, the declarant shall be guilty of a misdemeanor; and the ship or share in respect of which such declaration is made, if the same has not been forfeited under the foregoing provision, shall, to the extent of the interest therein of the person making the declaration, and, unless it is shown that he had no authority to make the same, of the parties on behalf of whom such declaration is made, be forfeited to her Majesty.

And in order that the above provisions as to forfeitures may be carried into effect, it shall be lawful for any commissioned officer on full pay in the military or naval service of her Majesty, or any British officer of customs, or any British consular officer, to seize and detain any ship which has, either wholly or as to any share therein, become subject to forfeiture as aforesaid, and to bring her for adjudication before the High Court of Admiralty in England or Ireland, or any court having admiralty jurisdiction in her Majesty's dominions; and such court may thereupon make such order in the case as it may think fit, and may award to the officer bringing in the same for adjudication such portion of the

proceeds of the sale of any forfeited ship or share as it may think right. (Sec. 103.)

Officer not liable for any Seizure made on reasonable Grounds.—No such officer as aforesaid shall be responsible, either civilly or criminally, to any person whomsoever, in respect of the seizure or detention of any ship that has been seized or detained by him in pursuance of the provisions herein contained, notwithstanding that such ship is not brought in for adjudication, or, if so brought in, is declared not to be liable to forfeiture, if it be shown, to the satisfaction of the judge or court before whom any trial relating to such ship or such seizure or detention is held, that there were reasonable grounds for such seizure or detention; but if no such grounds are shown, such judge or court may award payment of costs and damages to any party aggrieved, and make such other order in the premises as it think just. (Sec. 104.)

Penalty for carrying improper Colours.—If any colours usually worn by her Majesty's ships, or any colours resembling those of her Majesty, or any distinctive national colours, except the red ensign usually worn by merchant ships, or except the union jack with a white border, or if the pendant usually carried by her Majesty's ships, or any pendant in anywise resembling such pendant, are or is hoisted on board any ship or boat belonging to any subject of her Majesty without warrant for so doing from her Majesty or from the Admiralty, the master of such ship or boat, or the owner thereof, if on board the same, and every other person hoisting or joining or assisting in hoisting the same, shall for every such offence incur a penalty not exceeding 500*l.*; and it shall be lawful for any officer on full pay in the military or naval service of her Majesty, or any British officer of the customs, or any British consular officer, to board any such ship or boat, and to take away any such jack, colours, or pendant; and such jack, colours, or pendant shall be forfeited to her Majesty. (Sec. 105.)

Effect of Declaration that a Ship shall not be recognised as a British Ship.—Whenever it is declared by this Act that a ship belonging to any person or body corporate, qualified according to this Act to be owners of British ships, shall not be recognised as a British ship, such ship shall not be entitled to any benefits, privileges, advantages, or protection usually enjoyed by British ships, and shall not be entitled to use the British flag or assume the British national character; but, so far as regards the payment of dues, the liability to pains and penalties, and the punishment of offences committed on board such ship or by any person belonging to her, such ship shall be dealt with in the same manner in all respects as if she were a recognised British ship. (Sec. 106.)

REPORT. In Commercial Navigation, a paper delivered by the masters of all ships arriving from parts beyond seas to the custom-house, containing an account of the cargo on board, &c. (16 & 17 Vict. c. 107 ss. 50-54; ante, IMPORTATION AND EXPORTATION.)

REPRISALS. Where the people of one nation have unlawfully seized and detained property belonging to another state, the subjects of the latter are authorised, by the law of nations, to indemnify themselves by seizing the property of the subjects of the state aggressing. This is termed making reprisals; and commissions to this effect are issued from the Admiralty. [PRIVATEERS.]

RESPONDENTIA. [BOTTOMRY AND RESPONDENTIA.]

REVENUE AND EXPENDITURE. Though not properly belonging to a work of this sort, we believe we shall do an acceptable service to our readers by laying before them a Table of the Revenue and Expenditure of the United Kingdom.

Subjoined is an account of the gross public income of the United Kingdom of Great Britain and Ireland, in the year ended the 31st day of March 1868, and of the actual issues within the same period, exclusive of sums applied to the redemption of funded or paying off unfunded debt, and of the advances and repayments for local works, &c.

Table No. I.

Income

	£	s.	d.	£	s.	d.
Customs				22,650,000	0	0
Excise				20,162,000	0	0
Stamps				9,541,000	0	0
Taxes (land and assessed)				3,509,000	0	0
Property tax				6,177,000	0	0
Post office				4,650,000	0	0
Crown lands (nett)				345,000	0	0
Miscellaneous:						
Military and naval extra receipts and proceeds of old stores sold	866,380	3	3			
Amount received from the revenues of India on account of the effective and non-effective charges of British troops serving in that country	850,500	0	0			
Allowance out of profits of issue, received from the Bank of England, per Act 24 Vict. c. 3	138,578	0	0			
Other miscellaneous receipts	730,260	1	0			
				2,586,218	4	1
Total revenue				69,600,218	4	1
Excess of total expenditure over income in the year ended March 31, 1868				2,166,023	13	6
Grand total			£	71,766,241	17	7

Expenditure

	£	s.	d.	£	s.	d.
Interest and management of the permanent debt	22,868,923	16	7			
Terminable annuities	3,117,270	0	2			
Interest of exchequer bonds	87,250	0	0			
Interest of exchequer bills	165,918	15	0			
Interest of Bank advances for deficiency	2,387	10	0			
				26,571,750	1	9
CHARGES ON CONSOLIDATED FUND:						
Civil list	405,721	5	0			
Annuities and pensions	280,839	1	10			
Salaries and allowances	143,419	8	0			
Diplomatic salaries and pensions	174,053	1	4			
Courts of justice	672,559	13	8			
Miscellaneous charges	211,305	13	7			
				1,893,298	5	5
SUPPLY SERVICES:						
Army	15,418,581	17	1			
Navy	11,168,949	0	9			
Abyssinian expedition	2,000,000	0	0			
Miscellaneous civil services	8,491,341	11	7			
Salaries, superanns. &c. of customs and inland revenue	2,181,152	0	2			
Do. of post office	2,402,051	9	2			
Packet service	808,517	13	8			
				42,770,593	18	8
Total ordinary expenditure				71,236,241	17	7
Expenses of fortifications provided for by money raised per Act 28 & 29 Vict. c. 61				530,000	0	0
Total expenditure			£	71,766,241	17	7

Table No. II. is an account of the balances of the public money remaining in the exchequer on the 31st day of March, 1867; the amount of money raised by additions to the funded or unfunded debt, and the amount applied towards the redemption of funded or paying off unfunded debt in the year ended the 31st day of March, 1868; the total amount of advances and repayments on account of local works &c., in the same period; and the balances in the exchequer on the 31st day of March, 1868.

Table No. II.

Income	£ s. d.	£ s. d.
Balances in the exchequer on March 31, 1867:		
At the Bank of England -	*5,893,691 13 6	
At the Bank of Ireland -	1,400,459 16 10	7,294,151 10 0
Money raised in the year ended March 31, 1868:		
Funded debt:		
By the creation of terminable annuities, per Act 28 & 29 Vict. c. 61 (to provide for the expense of constructing certain fortifications), to expire on April 5, 1885, as follows:		
Annuity commencing April 6, 1867, £		
July 15, 1867 - 6,096	80,000 0 0	
Annuity commencing October 11, 1867, £		
Sept. 28, 1867 - 11,781	150,000 0 0	
Oct. 31, „ - 3,912	50,000 0 0	
Nov. 11, „ - 7,813	100,000 0 0	
Jan. 16, 1868 - 7,751	100,000 0 0	480,000 0 0
Unfunded debt:		
Exchequer bonds (series N.), per Act 30 Vict. c. 31, dated December 12, 1867, and payable December 12, 1869 - - -	700,000 0 0	
Exchequer bonds (series O.), per Act 30 Vict. c. 31, dated March 27, 1868, and payable March 27, 1870 -	1,000,000 0 0	1,700,000 0 0
Repayments on account of advances for the purchase of bullion, and for local works &c. -		1,555,965 18 10
Repayments on account of advances for New Courts of Justice - - - -		375,000 0 0
Repayments on account of advances for Greenwich Hospital - - - -		115,445 8 7
Total - - -		£11,557,660 17 5

Expenditure.	£ s. d.	£ s. d.
Issued to the commissioners for the reduction of the National Debt, to be applied to the redemption of the public debt -	1,790,404 9 4	
Deduct—amount applied in repayment of Bank advances for deficiency -	901,638 9 4	888,766 0 0
Exchequer bonds paid off, viz.:		
Series K. dated November 8, 1864 - - -	700,000 0 0	
Series M. dated March 27, 1866 - - -	1,000,000 0 0	1,700,000 0 0
Exchequer bills paid off in money - - -	—	45,709 0 0
Advances for purchase of bullion, and for local works &c. - - -	—	1,122,880 2 2
Advances for New Courts of Justice - -	—	317,000 0 0
Advances for Greenwich Hospital - -	—	215,445 8 7
Excess of total expenditure over income in the year ended March 31, 1868 -	—	5,160,023 13 6
Balances in the exchequer on March 31, 1868:		
At the Bank of England -	13,723,917 19 3	
At the Bank of Ireland -	1,057,927 13 11	4,781,845 13 2
Total - -	—	11,557,660 17 5

* Including 50,000*l.* of the money raised for fortifications.

† No balance remaining of the money raised for fortifications.

A more comprehensive and instructive table than that marked No. I. was framed according to the suggestion, and printed for several years upon the motion, of Mr. Pusey; and there are not very many Members who can refer to so useful a memorial of their Parliamentary career. This was continued by Mr. W. Williams, but dropped on his death. Annexed is a

Statement, showing the Estimated or Actual Revenue and Expenditure of several Foreign Countries at different recent Periods. (Extracted from Reports of Secretaries of Legations on Finance.)

Countries		Years	Revenue	Expenditure
			£	£
Austria -	estimated	1867	40,729,700	43,349,600
Denmark -	actual	1866-7	2,923,801	2,814,693
France -	„	1867	88,686,302	96,761,784
Holland -	„	1866	9,533,107	8,823,644
Russia -	estimated	1867	52,946,113	59,180,022
Spain -	„	1868-9	25,846,747	26,364,787
Turkey -	„	1864-5	14,589,855	14,425,525
United States	actual	1867-8	67,101,931	61,773,772
	estimated	1868-9	50,600,000	47,700,000
Mexico -	„	1867	5,494,583	6,017,708
Peru -	„	1867	2,689,083	3,105,421

RHUBARB (Dutch, rabarber; Fr. rhubarbe; Ital. rabarbaro, reobarbaro; Span. ruibarbo; Russ. bewen; Arab. rawend; Chin. ta-hwang). The root of a plant, a native of China and Tartary. Three varieties of rhubarb are known in the shops; viz. Russian, Turkey, and East Indian or Chinese rhubarb. The first two resemble each other in every respect. They are, in fact, the same article, being both derived from Tartary. The portion designed for the Petersburg market being selected and sorted at Kiachta, acquires the name of Russian rhubarb: while the portion that is sent from Tartary to Smyrna and other places in Turkey is called Turkey rhubarb. The best pieces only are sent to Petersburg; and according to the contract with the Government, on whose account it is bought, all that is rejected must be burnt; and that which is approved undergoes a second cleaning before being finally packed up for Petersburg. The best pieces of Russian and Turkey rhubarb are roundish, and perforated with a large hole, of a reddish or yellow colour on the outside, and when cut or broken exhibit a mottled texture, and alternate streaks of red and grey. Its odour is peculiar. It is finely gritty under the teeth, and its taste bitter, faintly astringent, and aromatic. It should not be porous, but rather compact and heavy. East Indian or Chinese rhubarb is in oblong flat pieces, seldom perforated; has a stronger odour and is more nauseous to the taste than the other; it is heavier, more compact, breaks smoother, and affords a powder of a redder shade. (Thomson's *Dispensatory*; Ainslie's *Mat. Indica*; *British Pharmacopœia*, 1867; &c.)

In 1867 the imports of rhubarb amounted to 227,663 lb. valued at 61,906*l.*, chiefly from France, and the exports to 211,221 lb. It was formerly charged with a duty, which, after being reduced in 1842, was repealed in 1845.

RICE (Fr. riz; Ital. riso; Arab. aruz; Hin. chawl). One of the most valuable of the cereal grasses, the *Oryza sativa* of botanists. It is raised in immense quantities in India and China, and most Eastern countries; in the West Indies, Central America, and the United States; and in some of the southern countries of Europe. It, in fact, occupies the same place in most intertropical regions as wheat in the warmer parts of Europe, and oats and rye in those more to the north. Forming, as it does, the principal part of the food of the most civilised and populous Eastern nations, it is more extensively consumed than any other species of grain. It is light and wholesome, but it is said to contain less of the nutritive principle than wheat. When rough, or in its natural state in the husk, it is called *paddy*. There is an immense variety in the qualities of rice. That which is principally exported from Bengal has received the name of *cargo* rice. It is of a coarse reddish cast, but is sweet and large-grained, and is preferred by the natives to every other sort. It is not kiln-dried, but is parboiled in earthen pots or caldrons, partly to destroy the vegetative prin-

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ciple, so that it may keep better, and partly to facilitate the process of husking. Patna rice is more esteemed in Europe than any other sort of rice imported from the East. It is small-grained, rather long and wiry, and remarkably white. But the rice raised on the low marshy grounds of South Carolina is unquestionably very superior to any brought from any part of India. It may, perhaps, be worth mentioning, that rice, like wheat, oats, and barley, is not indigenous to America. It was first raised in South Carolina from seeds brought from Madagascar near the end of the 17th century. Its culture increased so rapidly that in 1724 no fewer than 18,000 tierces, or barrels, were exported. (Pitkin's *American Statistics*, 1835, p. 100.) According to the returns under the census of 1840, the total annual produce of rice in the United States was estimated at 80,841,422 lb., whereas under the census of 1850 it was estimated at 215,312,710 lb., or above 96,000 tons, of which 159,930,613 lb. were raised in South Carolina. However, this crop seems to have been diminished by the Civil War, and the value of the exports of rice from the United States amounted, in 1865, to 63,430 dols.

The produce of lands naturally or artificially irrigated is, as far as rice is concerned, from 5 to 10 times greater than that of dry land having no command of water; and hence the vast importance of irrigation in all countries where this grain is cultivated. But it is worthy of remark, that, owing to the not unfrequent occurrence of severe droughts, there is a greater variation in the crops of rice than in those of many other species of grain. Those who, like the Hindoos, depend almost entirely on it for subsistence, are consequently placed in a very precarious situation. There can be no doubt that famines are at once more frequent and severe in Hindostan than in any other country, Ireland excepted.

The exports of rice from India have greatly increased since 1861.

Table, showing the Value of Exports of Rice from India in the 10 Years ending with 1866.

	£		£
1857 -	2,501,182	1862 -	3,635,075
1858 -	3,449,172	1863 -	5,378,196
1859 -	2,433,145	1864 -	3,976,565
1860 -	2,276,296	1865 -	5,675,537
1861 -	2,562,497	1866 -	4,909,562

For a considerable number of years our supplies of cleaned rice were principally derived from Bengal; but now we get much the larger proportion from Pegu. We subjoin—

An Account of the Imports of Rice into the United Kingdom in 1867, specifying the Quantities brought from each Country.

	cwt.
Bremen - - -	26,759
Holland - - -	25,033
United States - - -	9,505
Brazil - - -	11,767
British Possessions in South Africa	21,186
India &c. - - -	2,621,022
Cochin China - - -	37,724
Mauritius - - -	15,429
Other parts - - -	10,529
Total - -	2,778,754

During the same year 44,943 qrs. of rough rice were imported, of which ⅔ came from India. We make these imports from being in possession of a method of detaching the husk, which throws out the grain clean and unbroken. Carolina rice sells in London at from 35*s.* 8*d.* per cwt. when Bengal rice sells at from 14*s.* 7*d.* per do.

The duty on foreign rice was formerly quite excessive, having amounted, previously to 1842, to 15*s.* per cwt., while that charged on rice from a British possession was only 1*s.* In 1842 Sir Robert Peel reduced the former to 6*s.* 3*d.* and the latter to 6½*d.*; and in 1846 he further reduced the duty on foreign rice to 1*s.*, and that on colonial do. to 6*d.* per cwt. In 1853 Mr. Gladstone equalised the duties at 4½*d.* per cwt. A like course was followed with the duty on rough rice, which in 1842 amounted to 20*s.* per qr. on that from a foreign country, and to only 1*d.* per do. on that from a colony. Sir Robert Peel reduced the former in 1842 to 7*s.* 4½*d.*, and in 1846 to 1*s.*: it was afterwards fixed at 9*d.* per qr. without reference to its origin. The duties on both were abolished in 1860.

In consequence of the reduction and eventual abolition of the duties, the consumption of rice has been greatly increased; formerly it rarely exceeded (except in 1847, when it was largely imported into Ireland) 550,000 cwt., whereas it amounted, at an average of 1866 and 1867, to 2,523,240 cwt. a-year, exclusive of 44,263 qrs. of rice in the husk.

RIGA. A city of European Russia, the capital of Livonia, on the Dvina, about 9 miles from the sea, lat. 56° 57′ N., long. 24° 6′ 5″ E. Population in 1863, excluding garrison, 77,468.

Harbour.—A lighthouse has been erected on Fort Comet, on the western side of the mouth of the river. It has 2 lights: the first, elevated about 104 feet (English) above the level of the sea, may be seen under favourable circumstances at the distance of 4 leagues; and the second, lighted in 1863, may be seen at the distance of 5 miles. The bar at the mouth of the river has usually from 12 to 13 feet water; and vessels drawing more than this frequently load and unload part of their cargoes by means of lighters at Bolderaa, a small town on the west side of the river, near its mouth. There is a fairway beacon without the bar, in 5 fathoms water; and within the channel is buoyed with black and white buoys; the black being left on the right or starboard side when entering, and the white on the larboard. Vessels bound for Riga take pilots at Bolderaa, who carry them to their anchorage. No ballast is allowed to be discharged except at Poderague. Regulations as to clearing &c. similar to those at Petersburg. (Coulier *Sur les Phares*, 2nd ed.; *Regulations of Russian Authorities*; *Admiralty List*, 1869.)

Trade.—Owing to its advantageous situation near the mouth of a great navigable river, the trade of Riga is very extensive; being, of the Russian towns on the Baltic, in this respect second only to Petersburg. The trade is chiefly carried on by foreign merchants, particularly by the English. The principal exports are flax and hemp, linseed and hemp-seed, timber, corn, tobacco, hides, wool, tallow &c.; the imports are salt, sugar, coffee, and groceries of all sorts, herrings, indigo, dye-woods, cotton and cotton twist, silks, hardware, iron, coals, wines &c.

The mast trade is extensive. The burghers of Riga send persons who are called mast brokers into the provinces to mark the trees, which are purchased standing. They grow mostly in the districts which border on the Dnieper, are sent up that river to a landing-place, transported 30 versts to the Duna, when, being formed into rafts of from 50 to 200 pieces, they descend the stream to Riga. The tree which produces the largest masts is the Scotch fir. Those pieces which are from 18 to 25 inches in diameter are called masts; under those dimensions, spars; or, in England, Norway masts, because Norway exports no trees more than 18 inches in diameter. Great skill is required in distinguishing those masts that are sound from those which are in the least internally decayed. They are usually from 70 to 80 feet in length.

The best kind of flax shipped from Riga is grown in White Russia, and is called Druana rakitzer; its colour is very white, and the threads long, fine, and loose, but it has sometimes black spots; the next quality, coming from the province of Trockic in Lithuania, is called Lithuanian rakitzer, and is very little inferior to Druana, but its colour is a little brown: of this kind the best sort is Thiesenhausen. The best kind of Courland flax shipped from Riga is Marienburg; that grown in Livonia is inferior. There are two kinds of linseed: that of the last crop, which is used for sowing; and that of former years, for crushing. To prevent deception, the year of its growth is stamped on the barrel by sworn inspectors (*brackers*). Hemp-seed is mostly shipped for Holland. Riga wheat is inferior to that of Dantzic. Two descriptions are shipped—one the growth of Russia, the other of Courland; the last is the best, being larger-bodied and of a brighter colour than the Russian: still, however, it makes but indifferent flour. Oats are of a good quality, and are largely exported; peas are also occasionally exported.

In shipping masts, the rest of the cargo generally consists of deals and wainscot logs: the latter are much exported to England, and are very superior.

Money.—For the moneys of Riga, see PETERSBURG.

Weights and Measures.—The commercial pound is divided into 2 marcs, or 32 loths; and also into halves, quarters &c. It contains 6,452 English grains. Hence 100 lb. of Riga = 92·17 lb. avoirdupois = 41·8 kilog. = 86·32 lb. of Hamburg = 84·64 lb. of Amsterdam. The lispound = 20 lb.; the shippound = 20 lispounds.

The loof is the measure for grain: 48 loofs = 1 last of wheat, barley, or linseed; 45 loofs = 1 last of rye; and 60 loofs = 1 last of oats, malt, and beans. According to Kelly, the loof = 1·9375 Winchester bushel; and consequently the last of wheat = 11·625 quarters. Nelkenbrecher does not value the last quite so high as Kelly.

The fuder, the measure for liquids, is divided into 4 ahms, 24 ankers, 120 quarts, or 720 stoofs. The anker = 10 English wine gallons.

The foot of Riga = 10·79 English inches. The ell = 2 feet; the clafter = 6 feet.

The number of British vessels of all classes arriving at this port during the years from 1861 to 1867 inclusive was as follows:—

Years	Vessels	Tonnage	Crews
1861	330	65,607	2,931
1862	364	70,152	3,013
1863	363	74,315	3,111
1864	585	115,906	4,780
1865	496	105,234	4,240
1866	475	106,615	4,245
1867	451	101,782	—

The number of vessels of all nations arriving at this port during the years from 1861 to 1867 inclusive has been as follows:—

Years	Vessels	Tonnage
1861	1,570	285,900
1862	1,764	280,502
1863	1,714	283,385
1864	1,950	338,328
1865	2,304	432,808
1866	2,327	429,575
1867	2,069	375,792

Value of Export Trade of Riga 1861–67.

	silv. roub.		silv. roub.
1861 -	21,203,300	1865 -	31,466,250
1862 -	23,007,410	1866 -	38,177,200
1863 -	22,257,965	1867 -	27,249,700
1864 -	33,295,000		

The total import trade of Riga during the year 1867 shows a marked increase as compared with 1866, the figures being respectively 7,678,600 silver roubles in 1866, and 12,958,800 silver roubles in 1867.

Account of the Quantity of the Principal Articles Exported from Riga in 1865, *distinguishing those sent to different Countries.*

Countries	Flax	Hemp	Crushing and Sowing Seed	Hempseed	Tobacco	Corn and Grain	Masts and Bowsprits	Planks and Deals	Timber	Logs, Yats and Pipe Staves
	tons	tons	imp. qrs.	imp. qrs.	tons	qrs.	pieces	pieces	pieces	pieces
Great Britain - -	40,280	12,966	43,688	7,199	..	49,112	462	433 013	58,351	37,451
France - -	8,196	2,278	14 803	41,515	..	..	352	102,186	15,618	117,739
Belgium - -	5,019	216	18,665	20,253	..	..	51	111,702	45,497	28,307
Spain and Portugal -	858	587	6	..	..	..	187	6,532	599	184,628
Sweden and Norway -	726	3,230	11,241	280	21	1,686	..	..	..	..
Denmark - -	616	1,058	4,123	261	266	..	..	2,292	380	14,765
Holland - -	584	1,352	37,495	6,461	..	52,472	245	287,542	75,022	20,028
Hanse Towns - -	44	1,040	270	121	8	105	..	452,925	2,222	1,400
Divers - -	136	1,333	4,196	900	40	727	884	55,138	162	610
Total - -	56,160	24,060	134,790	77,100	335	103,700	2,182	1,487,660	197,631	405,058

The quality of timber denominated 'crown fir timber' has latterly become very scarce, so that the greater part of the Riga exports consists of the second quality, or what is called 'Verschiffungs brack timber.' There is no essential difference in the quality of crown timber and timber of the second quality, except that the latter is knottier than the former.

By decision of the Council of the Empire, of April 10 (22), 1867:—

I. Seven descriptions of taxes borne by the commerce and navigation of Riga were abolished.

II. On account of the tax for the benefit of the city of Riga, only ½ per cent. to be levied from January 1, 1868, on all goods imported and exported, the town taking upon itself to keep up the mercantile courts and police of Riga; to increase the police and fire brigade as may be necessary.

III. The commerce and navigation of Riga will continue to pay the following taxes:—

1. *For the Benefit of the Crown.*—(1) A lastage duty of 5 copecks per last on all vessels measuring 10 lasts and upwards; (2) A tax of 90 copecks for the stamped paper used for ship's pass, and 15 copecks on the declaration of the captain; (3) A tax of ¼ per cent. on the value of merchandise descending the Duna by river carriage.

2. *Taxes levied to be administered by the Exchange Committee.*—(1) The second ¼ per cent. on the value of imports and exports, on the condition that the ministers of the interior and finance shall watch that the amount received shall be especially applied to the payment of the interest, and to extinguish the loans raised by the body of merchants for the construction of the Winter Harbour, the building and furnishing of the Exchange, or for other expenses directly beneficial to commerce and navigation; (2) The third and fourth taxes of ¼ per cent., as well as that of ⅛ per cent. on the value of imports and exports, under the condition that the local authorities shall report to the minister of the interior relative to the possibility of suppressing these three taxes, so soon

as the loans to the payment of which they are to be applied shall have been disposed of, or shall propose their reduction, should the keeping the harbour in a satisfactory condition render a permanent tax necessary; (3) The tax of 1 copeck per last on all outgoing vessels for the benefit of the Marine Hospital and the construction of the Hospize.

3. *With the Character of a Voluntary Contribution*, the tax for the benefit of the seamen's widow and orphan fund, and of the Riga Seamen Society; the amount of this tax is left to be decided by the shipowners of Riga, without placing shipowners of other ports under the obligation of subscribing to it.

4. The temporary tax of 15 copecks per last on all merchants' vessels quitting the port, applied to deepening the navigable canal of the river, is changed into a tax of 10 copecks per last, which shall be levied equally on all merchants' vessels entering and quitting the port, on the condition, however, that the produce of this tax shall be exclusively applied to deepening the bed of the river and to no other purpose.

5. To replace the taxes which have been suppressed, and especially the tax of 5 copecks per last, the quay, shore, and bridge duties, as well as the tax called Bewilligungsgelder, there is provisionally established, for the benefit of the city of Riga, a single tax of 23 copecks per last, to be levied on each vessel which shall have actually made use of the town preparations for the use of ships, the town engaging on its part, (1) To establish and keep in good order, and free from danger, the bridges and quays necessary for mooring the ships; (2) To furnish masters of vessels, without cost, the beams and planks necessary for constructing the stages for loading and discharging; (3) To exempt from all bridge payments, and other similar charges, all merchandise carried to and from vessels.

For Customs Tariff of 1869, see PETERSBURG.

RIO DE JANEIRO. The capital of Brazil, on the Atlantic, in lat. 22° 54′ 7″ S., long. 43° 9′ W. Population, in 1867, 420,000, of which 100,000 are slaves. The harbour of Rio is one of the finest in the world, both as respects capaciousness and security for all sorts of vessels. In coming from the N.E. it is usual to make Cape Frio, about 4 leagues nearly E. of Rio. The entrance to the harbour is marked by a remarkable hill in the form of a sugarloaf, 900 feet high, close to its west side; while on the east, or opposite side of the bay, at the distance of about 1½ mile, is the fort of Santa Cruz. But the accompanying engraving, taken from a chart published by order of the Brazilian authorities, gives a much better idea of this noble harbour than could be obtained from any description.

Entrance to the Harbour.—Vessels bound for Rio, coming from the N., should, after rounding Cape Frio, steer due W., keeping about 3 leagues from the coast, until they come within 5 or 6 miles of the *Ilha Raza*, or Flat Island, lying almost due S. from the mouth of the harbour, at the distance of about 3 leagues. A lighthouse, the lantern of which is said to be elevated nearly 300 feet above the level of the sea, was erected on this island in 1828. The light is a revolving one, finishing its revolution in 2½ minutes, and exhibiting alternately a white and red light. There is also a lighthouse in the fort of Santa Cruz, the light of which is fixed, and elevated about 50 feet above the level of the sea. (Coulier *Sur les Phares*, 3rd ed.; *Admiralty List*, 1869.) Having got within 5 or 6 miles of the Ilha Raza, ships may enter by day or night, the dotted line in the engraving marking the fairway into the harbour. There are no pilots to be met with; and as there are no hidden dangers of any kind, their services are not wanted. On entering, vessels must pass within hail of Fort Santa Cruz, to be ready to answer any questions that may be put to them. They then proceed to Fort Vilganhon, below or opposite to which they must bring to, or come to anchor, allowing no boats to come alongside but those of the Government, until they have received *pratique*, when they will be permitted to proceed to the usual place of anchorage for the merchant shipping.

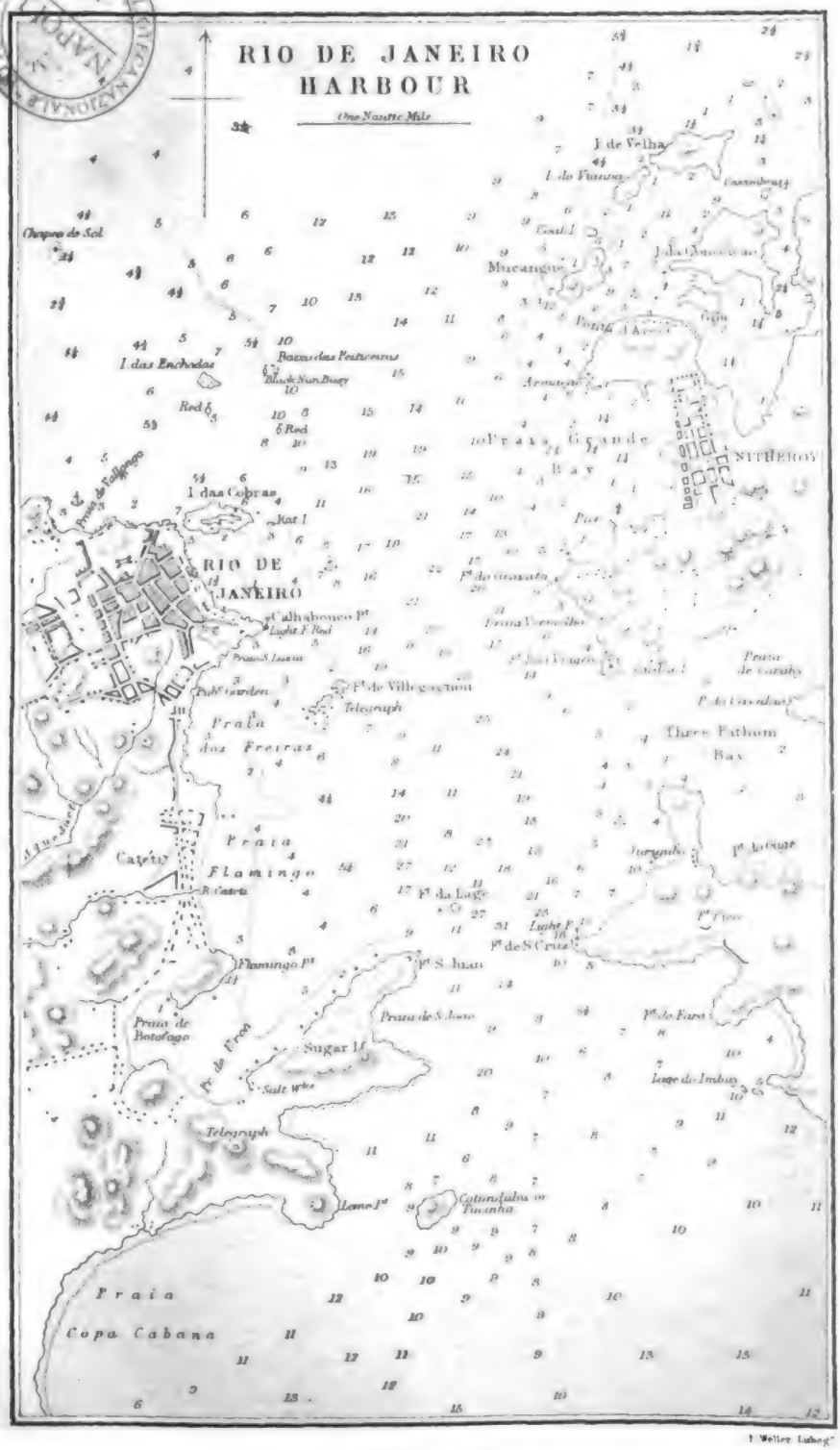
The sea breeze generally sets in about 11 A. M., and last still about sunset. It is strong enough to enable ships to overcome the ebb. High water at full and change at 2 in the afternoon.

Trade.—The trade of Rio is extensive and has increased rapidly of late years. It is now by far the greatest mart for the export of coffee. The shipments of this important article, which in 1830 amounted to 396,785 bags, have increased with such unexampled rapidity, that in 1867, they amounted to 424,531,680 lb., valued at 8,776,590*l.*, or 2,653,323 bags (taking the bag at 160 lb.), or 189,523 tons; being more than all the exports of coffee from all the other ports in the world. Sugar was formerly an important article of export from Rio, but latterly it has decreased, having amounted to only 8,980,960 lb. in 1867, whereas in 1852 it amounted to 13,960 cases, 13 cwt. each. The other great articles of export from Rio are cotton, hides, tobacco, rum, tapioca, and other inferior articles. The export of gold, diamonds &c., though very considerable, is mostly clandestine. Diamonds are principally exported from Bahia. We subjoin—

An Account of the Vessels cleared out, and of the Quantities of the Principal Articles of Native Produce Exported from Rio during each of the following Years, ending with 1867.

Years	Cleared Outwards		Coffee	Sugar	Hides	Horns	Tanned half Hides	Rice	Rum	Rose-wood	Ipecacuanha	Tobacco	Tapioca
	ves.	tons	bags (154 lb.)	cases (13 cwt.)	no.	no.	no.	bags	pipes	doz.	lb.	rolls &c.	brl.
1845	584	174,320	1,208,062	14,539	215,689	508,608	18,599	27,274	4,725	2,182	17,681	15,003	7,454
1846	668	199,858	1,511,096	8,115	324,586	345,199	17,291	15,915	5,664	1,836	49,784	18,483	4,701
1847	658	198,508	1,641,560	8,311	268,492	447,607	6,162	20,021	3,985	809	23,901	21,707	1,970
1848	716	213,363	1,710,707	5,848	315,848	285,527	11,657	9,809	2,984	1,521	16,508	28,290	1,733
1849	656	212,576	1,453,980	5,979	302,220	385,685	11,139	20,717	4,380	1,905	11,676	26,909	9,545
1850	618	196,148	1,549,851	13,239	186,616	282,524	17,872	25,554	5,010	2,240	11,676	26,909	16,955
1851	773	258,640	2,037,305	12,832	171,973	260,149	12,884	8,734	5,982	3,067	12,722	29,666	18,074
1852	711	239,865	1,908,336	13,960	120,603	214,739	4,089	8,992	1,988	2,125	61,087	29,514	11,003
1853	614	205,343	1,639,215	8,326	87,684	220,964	5,431	10,198	1,510	2,894	37,382	35,100	7,408
1854	636	219,470	1,986,089	6,128	83,088	196,268	16,242	6,621	1,028	2,712	54,835	25,861	3,798
1855	739	269,089	2,109,543	8,260	105,371	128,691	7,838	16,870	2,610	1,616	67,174	20,922	6,880
1867	..	..	2,756,890	6,168	4,450,000	116,860	..	..	5,865	..	..	51,615	11,291

Anchorage Dues.—1. From and after July 1, 1852, the anchorage duty upon vessels trading between foreign ports and the ports of Brazil were reduced to 300 reis the ton; and the same class of duty previously levied upon coasting vessels was abolished.


RIO DE JANEIRO HARBOUR
One Nautic Mile
I. de Velha
I. da Pinuna
Chapeo do Sol
Mucanguê
I. das Enchadas
Red
Praia Grande
NITHEROY
Bay
I. das Cobras
RIO DE JANEIRO
Praia dos Freiras
Praia Flamingo
Praia Copa Cabana
Three Fathom Bay
Sugar L.
Telegraph
Salt Wks
Lighte F. Red
Lighte F.
Flamingo Pt.
Pt. de S. Cruz
Pt. do Faro
Lago de Imbuy
Lemo Pt.
Praia de Botafogo
Praia de S. Joam
Pt. da Lage
Pt. de Villegagnon
Pt. S. Joam
Pt. Gravata
Pt. Cavalho
Pt. Gravatahy
Pt. Jurujuba
Pt. de Lage
Pt. Cara
Pt. Cara
Pt. Cara

2. That part of the provisions of April 26, July 20, and November 15, 1844, which has not been altered by decree continues in force.

Money, Weights, and Measures.—Payments are made in paper money, which has been over-issued, and is excessively depreciated. But the average rate of exchange may be assumed at about 2*s.* 3*d.* sterling per milreis. A new copper coinage was introduced in 1868.

Weights and Measures.

The Libra	= 1·012 lb. avoir.
Arroba	= 32·38 „
Quintal	= 129·54 „
Alquiere (*of Rio*)	= 1 imp. bush.
„ or Cantar	= 1·82 imp. gal.
Oitava	= 55·55 grains

Statement of the Value of the Principal and Other Articles (including Bullion and Specie) Exported from Brazil in each of the Years 1861–2, 1862–3, *and* 1863–4.

Articles		1861-2	1862-3	1863-4
		milreis	milreis	milreis
Spirits		858,371	819,231	650,271
Cotton, raw		7,786,151	16,817,409	88,335,609
Sugar, white		7,399,630	6,009,865	4,602,756
brown		15,936,169	13,271,162	15,742,087
Hair, human and horse		345,013	318,932	431,941
Coffee		58,746,993	56,574,935	54,130,684
Cocoa		1,417,059	1,578,937	1,308,742
Hides, salted		5,859,751	4,831,589	5,226,074
dry		2,933,770	2,115,845	2,721,618
Diamonds		4,241,248	4,116,175	4,128,724
Tobacco		4,878,619	6,202,010	3,512,635
India-rubber		2,458,159	3,275,913	3,695,373
Jacaranda (plank)		927,837	782,057	670,232
Paraguay tea		1,401,576	1,511,781	1,510,408
Gold in dust and bar		2,121,399	777,625	114,036
Other articles		5,507,397	3,170,131	3,189,569
Total	milreis	120,719,942	122,479,996	129,470,699
	£	13,580,993	13,778,999	14,565,453

The following is the estimated quantity and value of exports from Rio de Janeiro during the year 1867. (Taken from the *Report* of Mr. Pakenham, Secretary of the British Legation.)

		Quantity	Value
			£
Coffee	lb.	424,531,680	8,776,590
Sugar	„	8,980,960	106,652
Cotton	„	9,240,000	350,000
Rum	pipes	3,865	40,000
Salted hides	no.	4,200,000	57,540
Dry hides	„	250,000	8,250
Tapioca	barrels	11,204	25,066
Horns	no.	116,860	1,519
Tobacco	bales	61,615	134,845
Diamonds	oitavas	5,704	37,000
Total		—	9,558,287

The exports from Pernambuco, Pará, Bahia, Santos, and Rio Grande do Súl during the same period amount to about 7,000,000*l.*

Exports of Sugar.—Though the exports of sugar from Rio have decreased, that is not the case with the exports from Bahia and other ports of the empire. In proof of this, we beg to subjoin the following account of the sugar exported from Brazil in the undermentioned years, ending June 30.

	lb.		lb.
1840-41	211,348,532	1851-52	238,759,728
1841-42	144,162,491	1852-53	341,803,008
1842-43	166,711,089	1853-54	256,510,048
1843-44	181,855,385	1854-55	254,765,504
1844-45	239,241,174	1855-56	236,580,929
1845-46	227,500,928	1861-62	342,320,388
1846-47	227,162,452	1862-63	318,793,113
1847-48	246,241,984	1863-64	253,625,610
1848-49	272,180,768	1864-65	237,048,669
1849-50	255,794,752	1865-66	284,360,265
1850-51	317,051,720		

The Brazilians are great eaters of sugar, and much is wasted in the interior. Hence the magnitude of the exports is not influenced merely by the state of the crops, but also by the prices in Europe and the United States. When they are high, a larger proportion of the produce is exported.

The Bank of Brazil has its head-quarters in Rio. It has power to issue notes; and all disputed property belonging to dead or absent parties is entrusted to its keeping. It charges 2 per cent. for its trouble.

The principal article of import consists of cotton goods, the value of which amounts to about a third part of the total value of the imports. Next to cottons are woollen, linen, and silk manufactures, wines, jewellery, and ironmongery; flour, meat, fish, butter, and other articles of provision; spirits, salt, earthenware, paper, and a host of other articles.

The exports have increased materially within the last few years; notwithstanding labour has become scarcer and dearer, in consequence of the greatly increased difficulties thrown in the way of the importation of slaves. The exports of cotton were, for a lengthened period, nearly stationary. They are now, however, pretty extensive, and supplied us in 1866 with 611,808 cwt. Hides are a very important article of export.

Value of Imports (including Bullion and Specie) into Brazil from various Countries, in each of the Years 1863–4, 1864–5, *and* 1865–6.

Countries		1863-4	1864-5	1865-6
		milreis	milreis	milreis
Great Britain and British Possessions		64,335,109	63,638,014	73,751,334
France and French Possessions		23,110,413	30,646,087	22,150,410
Hanse Towns		5,453,869	4,941,909	5,769,412
Portugal and Portuguese Possessions		6,346,413	6,289,430	7,114,844
Spain and Spanish Possessions		2,250,074	2,187,816	2,180,035
Belgium		1,805,904	2,518,566	1,082,778
Sweden and Norway		409,958	401,696	137,244
Italy		778,404	760,526	426,559
United States		6,259,491	6,326,936	6,505,722
Chili		146 682	373,409	175,508
Peru		22,979	—	250
Rio de la Plata		9,062,371	11,700,203	13,672,305
Russia		—	7,242	13,900
Austria		776,543	1,017,781	1,184,135
Denmark		132,420	50,542	52,944
Holland and Dutch Possessions		116,092	70,250	88,000
China		—	—	1,050
Ports of the Empire not specified		986,597	746,548	836,724
Africa		270,013	25,465	2,483,671
Fisheries		269,624	217,478	169,146
		9,896	249	—
Total	milreis	123,045,875	131,594,157	138,095,965
	£	13,842,661	14,801,342	15,535,795

Value of Principal and other Articles (including Bullion and Specie) Imported into Brazil, in 1863-4, 1864–5, *and* 1865–6.

Articles		1863-4	1864-5	1861-2
		milreis	milreis	milreis
Oils		1,150,425	847,551	841,305
Cod, and other fish		1,389,333	1,104,039	1,166,956
Spirits		1,721,050	1,592,105	1,658,664
Hosiery		1,382,583	1,628,062	1,590,401
Meat		7,174,500	7,441,309	9,621,336
Coals (stone)		1,935,092	3,699,217	4,042,726
Hats		1,481,562	1,881,296	2,264,318
Hides and leather		959,314	926,593	744,276
Drugs		1,734,670	1,488,980	1,310,174
Wheat, flour		4,258,093	5,625,364	5,487,593
Cutlery and hardware		4,942,692	6,605,201	5,842,227
Iron, raw		686,906	1,285,268	1,367,067
Glass and glassware		1,559,135	1,930,041	1,505,508
Machinery		834,604	869,528	1,237,296
Butter		2,105,211	1,978,689	2,304,629
Cotton manufactures		26,947,944	35,371,455	30,303,062
Woollen „		4,433,187	5,711,692	5,870,222
Linen „		3,191,088	3,965,555	4,647,266
Silk „		2,481,897	2,456,863	1,573,100
Mixed „		3,291,698	3,644,184	4,933,429
Coin		20,074,937	8,476,465	22,669,071
Gold and silver work		1,587,187	2,945,311	1,575,941
Silver in bars		765,238	873,826	799,583
Paper		1,246,950	1,384,815	1,016,513
Gunpowder		595,911	580,511	460,610
Apparel		1,550,979	1,910,097	1,047,218
Salt		1,332,321	939,790	1,049,575
Wine		5,925,661	5,626,554	6,943,099
Other articles		18,375,047	17,759,865	15,577,595
Total	milreis	125,613,655	131,600,164	138,095,965
	£	14,131,536	14,805,052	15,535,795

Port Regulations.—The captain of every ship entering Rio, or any other port of Brazil, is ordered by a law enacted in 1836—

1. To go directly with his vessel from the entrance of the harbour to the anchorage ground in Franquia; and if, on account of the tide, contrary wind, or any other just cause, he should be

compelled to come to anchor, and shall remain anchored for 12 hours after said hindrances are removed (except in case of being quarantined), he shall pay a fine of 100,000 reis, and shall be compelled, by the fort, or by a Government vessel of war, whichever may be nearest), to proceed immediately to the Franquia anchoring ground.

2. He shall not suffer any kind of vessel to board him, nor any person to come on board or leave his vessel, before he has been visited from the custom-house, excepting only the pilot, health officer, the head officer at the entrance, when there is one, and in the case of shipwreck, or for the saving of lives.

3. Even after the custom-house visit on arrival, and until the vessel is discharged, he shall allow no person to come on board without a written permission from the inspector of the customs; and this permission shall be given in the following cases, viz.:—

(*a*) To allow the buyers of goods to go on board to examine the cargo they wish to purchase, when sufficient specimens cannot be seen on shore.

(*b*) To workmen or labourers necessary to put the cargo in order, taking care to have them examined when they go on board and return. In case of the infraction of the above regulations, a fine shall be imposed on him from 100,000 to 200,000 reis for every vessel he allows to board him, and of 500,000 for each person who shall enter or leave his vessel without license, unless he be a passenger or belonging to the crew: and every other person who goes on board or leaves the vessel shall pay 100,000 reis fine, and be kept in custody until payment is made. The one-third part of these fines shall be divided amongst the watchmen or military who shall have taken up the offender.

4. He shall deliver to the *guarda-mor* (chief customs officer), when he makes his visit on arrival, his passport and cargo-book.

5. He shall deliver to the commander of the guard boat without the port, if he be there, or at the Franquia, if he be there, the manifest as described below.

6. He shall enter at the custom-house, within 24 hours after the *guarda-mor* has been on board, not counting the days on which the custom-house is shut, and present himself to the inspector, and swear, or affirm, that he has not on board of his vessel any merchandise other than what is described in the manifest he has delivered, and that he has no further declaration to make; and if he do not enter within the 24 hours, he shall pay 100,000 reis for each day's delay additional.

7. If he shall detain his vessel at either of the anchorages more than 24 hours, when he shall be directed by the *guarda-mor*, or his representative, to remove thence, he shall pay 100,000 reis for every day he delays.

8. He shall discharge no part of his cargo but by an order in writing from the inspector; and if he land any without such order, he shall pay 100,000 reis for each package so landed.

9. He shall give notice to the officer attending the discharge of the vessel, as soon as his cargo is discharged, that he has nothing remaining on board. If he omit to do this on the same day, so that the vessel may be immediately examined, he shall be fined 100,000 reis.

10. The master of every vessel going with a cargo to any part of the empire, must have two manifests of the cargo, exact copies of each other, exhibiting the name, class, and tonnage of the vessel; the name of the captain, whose signature must follow the date; the name of the port where the articles stated in the manifest were taken on board; the name of the port or ports for which the vessel is destined; the marks or counter marks and numbers of the packages, and their description, as bales, cases, pipes, half-pipes, barrels &c.; a declaration of the quantity and quality of the merchandise of each package, or several similar ones of the same mark, and also of what is on board in bulk; the names of the consignees, or to order; all to be written in length, except the numbers of the packages.

11. When the vessel has taken in her cargo at more than one port, there must be two manifests from each port.

12. At the end of the manifest, the captain shall declare the number of passengers, whether cabin or steerage, and the baggage for the use of each, and in addition any declaration necessary for his security; and in good faith he shall declare whether he has any package to add to the manifest, or whether any are deficient, with the cause of it, as no after declaration will relieve him from responsibility, for he will not be exempted upon the vague declarations frequently made, which do not account for deficiencies or differences.

13. The captain of any vessel bound to Brazil, when he has completed his cargo in the port or ports from which he is to sail, and made the manifests, as required in the 9th article, shall present his documents to the Brazilian counsel residing in the port, who shall examine them, and if agreeable to these regulations, certify them.

14. In those ports where there is no Brazilian consul or substitute, the manifests shall be certified by two Brazilian resident merchants; or, if there be none, by two merchants of the place: in either case, the signature to be authenticated by legal authority.

15. Should any greater quantity of goods be found on board than are stated in the manifest or the declaration of the captain, the overplus shall be seized and divided amongst those who seize them, after paying the duties, and the captain shall pay a fine of half the value of the goods.

16. If there are any goods missing of those stated in the manifest or declaration of the captain, they shall be reputed to be concealed or smuggled, and he shall pay the value thereof to those who have discovered the deficiency, and half the value to the national treasury. These condemnations shall take place on the simple fact of there being an overplus or deficiency of goods, without further proof being required.

17. For each difference in the quality or mark of the passage, the captain shall pay 2,000 reis, although in every other respect the goods discharged may agree with the manifest.

18. The captain whose manifests are not conformable to these regulations, shall be fined from 100,000 reis to one *conto de reis*, at the will of the collector, according to the degree of culpability that shall appear, and he cannot discharge until the fine is paid.

19. In case the captain brings no manifest, he may still be allowed to discharge, by paying 5 per cent. on the value of the cargo, in addition to the usual duties.

Franquia.—Vessels proceeding to Brazil, and when it is wished to dispose of their cargoes at different ports, must clear out for 'Brazil and other ports,' or for 'Pernambuco, Bahia, Rio de Janeiro, and other ports.' They are then entitled to the privilege of Franquia, and may land a part of their cargoes at one port, paying duties only on the goods so landed, and proceed with the remainder to other ports. But if they clear out for one port only, they are compelled to make a complete entry, and discharge the whole of the cargo.

In proceeding from one Brazilian port to another, it is necessary that a bill of health should be taken from the local authorities of each port; and where any part of the cargo is landed, the same must be noted on the original manifest by the customs officer of the port.

Anchorage.—Foreign vessels pay, in all parts of the empire, 10 reis per ton per day, from the 5th day after their entry.

Lighthouse.—The lighthouse duty, 100 reis per ton, for all vessels over 40 tons departing from ports where there is a lighthouse. Vessels under 40 tons are exempted from this duty.

Port-duty.—On all vessels not crossing the bar of the harbour of Rio de Janeiro, the following charges are levied, viz. of 3 masts, 12,800 reis; of 2 masts, 9,600 reis; and of 1 mast, 6,400 reis.

Seal.—The duty is 40 reis for every written half-sheet.

Health.—Visit of the physician is fixed at 8,200 reis: but in case the vessel is made to perform quarantine, then another sum of 8,200 reis is payable on the admission of the vessel to free pratique.

Hospitals.—A vessel of 3 masts pays 6,000 reis; brigs, corvettes, and yachts, 4,000; pinnaces, 2,560; barks, 1,280.

Each one of the ship's company of vessels sailing for a foreign port pays 400 reis.

Usages of Merchants.—It is customary that the expense of landing and shipping a cargo on freight shall be paid by the vessel, unless the contrary be stipulated in the bills of lading.

When hard Spanish dollars are bargained for, in contracts of freight, they should be so expressed in the instrument of contract, to prevent dispute.

Purchases of produce are paid for in cash, and sales are made on stipulated credit, but nominally for cash.

If bills on London are sent out for the purchase of produce in Brazil, the credit must have the confirmation of the London house.

Anchorage Dues in Brazilian Ports.—The anchorage dues fixed by law of October 22, 1836, are now superseded by a tax of 3 rix-dollars per ton, payable, one-half on entering, and one-half on sailing, by all merchant vessels on foreign trading, with the following restrictions:—

Ships arriving in ballast, and going away the same, will pay the old anchorage; if taking cargoes, they will pay half the present dues.

Ships entering to get fresh provisions, or in Franquia, to try the market, but not discharging, pay only the old anchorage. If they merely discharge part of cargo, pay only half of present dues.

Ships entering under average or in distress, pay nothing if they do not discharge, or only discharge the necessary for repairing.

Ships carrying colonists subject to some modification.

Ships entering three times in one year, only pay anchorage dues the first two voyages.

The Government is authorised to modify the impost as soon as the treaty with Great Britain expires, as may seem most suitable for the encouragement of the national shipping trade to foreign ports, or to the whale fisheries. The anchorage dues on foreign shipping may not be increased.

Rio, June 26, 1843.

Rates of Commission charged at Rio.

	per cent.
On sales of merchandise	5
On purchase of merchandise, with funds in hand, on amount of cost and charges	2½
Guaranty on amount of sales on credit	2½
For drawing or endorsing, and negotiating bills	2½
On purchase or sale of vessels by private contract	2½
On amount of vessels condemned by surveyors	5
On procuring or collecting freights	2½
On disbursements of vessels in common cases, with funds in hand	2½
On disbursements of vessels when funds are advanced, or in case of condemnation, or in vessels entering for repairs only	5
On receiving and forwarding goods	1
On amount of responsibilities incurred thereon	2½
On receiving and paying money on which no other commission is derived	1½
On purchase or sale of specie	½
For effecting marine insurance on the amount insured; and when the premium exceeds 10 per cent., 5 per cent. on the amount of premium	2½
On remittances on bills not endorsed	½
On consignments of merchandise withdrawn or reshipped, full commission to be charged to the extent of advances or responsibilities incurred, and half commission on the residue of the value.	
On all cash advanced, per month	1
No interest allowed on money on deposit.	
Storage on all dry goods	1
In the case of discharging and reshipping the cargoes of vessels in distress, on the invoice amount	2½

2½ per cent., or half the commission charged on sales of merchandise, will be returned to supercargoes, but nothing on investments or other business.

Remarks on the Trade, Finances &c. of Brazil.—The imports into Brazil, which, excepting flour from the United States, are chiefly from Great Britain, consist principally of our cottons, woollens, linens, iron and steel, hardware, machinery, butter, gunpowder, coal, and other articles, amounting in all (of British produce), in 1866, as seen on p. 1188,

Account of the Quantities and Values of the Principal Articles Imported from Brazil into the United Kingdom in each of the 3 Years ending with 1867.

Principal Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Annatto, roll and flag	cwt.	379	638	1,559	2,393	5,973	7,452
Balsam, capivi	"	1,702	1,821	953	15,789	18,409	9,110
Bones of animals and fish (except whalebone)	tons	6,503	5,518	12,782	42,498	32,336	78,201
Brazil wood	"	—	—	117	—	—	2,029
Caoutchouc	cwt.	45,015	37,114	40,424	345,822	284,215	389,965
Cocoa	lb.	853,595	413,804	315,885	15,835	11,603	7,123
Coffee	"	10,999,553	9,621,491	17,442,145	310,615	241,236	413,563
Cotton, raw	cwt.	491,671	611,808	628,761	4,373,511	4,806,065	5,341,106
Guano	tons	—	—	244	—	—	1,952
Hair, horse	cwt.	2,542	2,101	1,486	12,834	11,260	8,716
Hides, not tanned	"	163,149	135,152	124,039	412,723	338,968	337,321
Horns, horn tips, and pieces of horns	tons	356	210	318	11,489	6,832	8,515
Ipecacuanha	lb.	53,973	30,501	43,055	24,287	17,804	19,318
Isinglass	cwt.	680	693	761	12,409	14,877	15,763
Nuts and kernels, not particularly enumerated	value	—	—	—	19,056	4,860	28,189
Oil, palm	cwt.	4,034	—	461	7,069	—	893
Precious stones	value	—	—	—	—	100	300
Rosewood	tons	1,134	205	311	11,709	1,894	3,705
Sugar, unrefined	cwt.	1,019,607	1,333,296	1,091,730	1,017,217	1,221,719	1,083,475
Tallow	"	29,642	17,854	25,950	63,934	40,675	58,677
Tapioca	"	2,764	3,105	5,066	6,404	8,024	15,812
Tobacco, unmanufactured, manufactured, and cigars	lb.	21,979	210	17,037	456	4	376
Wool, sheep and lamb'	lb.	86,541	256,875	126,169	4,325	8,065	3,600
All other articles	value	55,670	158,583	109,795	2,852	5,942	5,463
		—	—	—	83,932	57,492	67,943
Total		—	—	—	6,797,841	7,237,725	6,9[illegible],011

Account of the Quantities and Values of the Principal Articles of British Produce Exported from the United Kingdom to Brazil during each of the 3 Years ending with 1867.

Principal Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Alkali, soda	cwt.	20,782	31,627	45,158	10,225	21,725	24,563
Apparel and haberdashery	value	..	..	..	111,474	114,558	132,475
Arms and ammunition: fire arms (small)	no.	10,545	1,919	612	16,172	5,102	1,095
gunpowder	lb.	1,111,711	1,263,523	3,586,201	43,848	40,304	102,820
Beer and ale	barrels	16,969	19,468	18,101	95,063	106,152	87,907
Butter	cwt.	21,327	19,886	16,103	115,755	107,867	81,069
Coals, cinders, and culm	tons	222,385	231,886	210,279	131,766	155,661	139,379
Copper, wrought and unwrought	cwt.	14,212	12,598	12,552	60,940	59,053	56,317
Cottons, entered by the yard	yards	116,835,221	177,994,195	148,240,134	2,720,568	4,055,087	2,889,091
at value	value	..	..	..	113,471	161,381	128,522
Earthenware and porcelain	..	..	..	..	87,548	60,332	96,957
Glass manufactures	..	..	..	..	21,998	30,752	33,015
Hardwares and cutlery, unenumerated	cwt.	48,501	47,207	45,807	253,827	185,340	168,486
Iron, wrought and unwrought	tons	20,736	15,035	20,615	240,243	201,161	228,876
Jute manufactures	value	..	..	..	6,792	21,819	15,754
Lead and shot	tons	1,477	1,885	2,015	33,818	44,763	43,570
Leather, wrought and unwrought	value	..	..	..	161,310	105,758	82,469
Linens, entered by the yard	yards	12,130,586	16,062,552	14,189,535	394,619	485,365	418,944
at value	value	..	..	..	4,012	4,953	1,989
Machinery: steam engines	..	..	..	..	19,137	22,779	16,283
all other sorts	..	..	..	..	55,168	56,977	41,556
Musical instruments	..	..	..	..	1,225	2,139	1,172
Oil, seed	gallons	151,349	151,630	151,501	16,085	21,696	24,989
Painters' colours	value	..	..	..	10,004	12,879	14,112
Plate, plated ware, jewellery, and watches	..	..	..	..	4,071	6,772	6,422
Silk manufactures	..	..	..	..	9,706	21,398	7,893
Tin plates	cwt.	..	..	..	16,183	21,339	31,521
Umbrellas and parasols	..	..	..	..	15,856	19,939	12,597
Woollens, entered by the yard	yards	5,661,672	7,401,637	5,221,605	435,011	605,395	437,666
at value	value	..	..	..	25,470	30,011	32,975
All other articles	..	..	..	..	394,268	419,068	372,514
Total	..	..	..	..	5,654,940	7,221,733	5,694,557

to 7,224,733*l.*, but in1867 to only 5,694,557*l.* There can, however, be little doubt that they will continue progressively to augment with the increase of population and the diffusion of civilisation.

The commercial policy of Brazil is, on the whole, decidedly liberal. The duties on imports and exports have been mostly moderate, and have been imposed more for the sake of revenue than of protection. She has made a large reduction in the tonnage duties on the foreign shipping frequenting her ports, has repealed a duty of 15 per cent. imposed in some provinces on the exportation of hides, and has evinced a desire to adopt generally a free commercial system. The repeal of the discriminating duty formerly imposed in this country on slave-grown sugar, and the equalisation of the duties on foreign and colonial sugar and coffee, while it was advantageous to ourselves, has been a great boon to Brazil, and has considerably extended her trade with the United Kingdom.

The trade of Brazil was formerly much injured by the wretched state of her currency and her finances; and though the former remains in a very unsatisfactory condition, it has latterly been a good deal improved, while her finances have been, down to the Paraguayan war, comparatively flourishing.

Financial Condition of Brazil.—The finances as well as the trade of the empire have been for some years past in an improving condition, and contrast most favourably with those of other South American states. For several years previous to the commencement of the long and unsatisfactory war in which she and her allies were engaged with Paraguay, there was an almost continuous increase in the revenue. In 1837 it amounted to 1,495,282*l.*, while the amount for 1868–9 is estimated at about 5,900,000*l.* This has resulted, not from any increase of taxation, but from the growing civilisation of the country, and the progressive development of its resources under a free commercial system.

It is, also, highly creditable to the Brazilian Government that they have regularly paid the interest due on the public debt of the empire, and made besides, effectual provision for its redemption. But the entire debt of the empire, which amounted to about 12,000,000*l.* sterling in 1858, was in 1867 estimated at 47,595,318*l.*

ROADS. Pathways formed through the country, with more or less art and care, for facilitating the transit of individuals, carriages, &c. between different places. They are of every variety of form—from rude, narrow, rugged, and unformed paths, carried over mountains, interrupted by every petty rivulet, and almost impracticable to any but foot passengers, to smooth, broad, and level ways, formed of solid materials, winding round or cut through mountains, and carried over swamps and rivers at an immense expense, and admitting of the easy passage of carriages and of all sorts of goods.

The laying out of improved roads, and their construction, forms an important part of what is denominated the science of civil engineering. But as it would be quite foreign to our purpose to enter into any details as to the formation of roads, we shall satisfy ourselves with laying before the reader the following statements as to their importance in a commercial point of view.

Importance and Utility of improved Roads.—Next to the introduction of money, and weights and measures, the formation of good roads and bridges gives the greatest facility to commerce, and contributes more powerfully, perhaps, than anything else to the progress of improvement. They have been denominated national veins and arteries; and the latter are not more indispensable to the existence of individuals, than improved communications are to a healthy state of the public economy. It were vain to attempt to point out in detail the various advantages derived from the easy means of communication that exist in Great Britain. There is not a single district that is not indebted to others for a large part of its supplies, even of some of the bulkiest commodities. Besides the coals, metals, minerals, timber, corn, &c. conveyed from one part of the empire to another by sea, immense quantities are conveyed from place to place in the interior, by roads and canals; and every improvement effected in the means of conveyance has obviously the same effect upon the cost of commodities that have to be conveyed, as an improvement in the methods by which they are raised or manufactured.

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Wherever the means of internal communication are deficient in a country, the inhabitants must unavoidably disperse themselves over the surface. Cities were originally founded by individuals congregating more, perhaps, for the sake of mutual defence and protection, than for any other cause. But in countries where good government is established, and property is secure, men resort to cities only from a sense of the advantages they afford. The scale on which business is conducted in them presents facilities that cannot be elsewhere afforded for making a fortune; and the extent to which the sub-division of employments is carried opens a field for the exercise of all sorts of talent, at the same time that it improves and perfects all sorts of arts, whether subservient to industrious or scientific pursuits or to those of pleasure and dissipation. It is this that attracts the aspiring, the industrious, the gay, and the profligate, to cities—that fills them with the best and the worst part of the species. The competition that takes place in a great town, the excitement that is constantly kept up, the collision of so many minds brought into immediate contact, and all endeavouring to outstrip each other in their respective departments, develops all the resources of the human mind, and renders a great city a perpetually radiating focus of intelligence and invention. There are, however, considerable clogs upon the continued increase of cities. The food and fuel made use of by the inhabitants, and the raw products on which their industry is to be exerted, must all come from the country; and according as the size of a city increases, the distances from which its supplies have to be brought become so much the greater, that ultimately the cost of their conveyance may be so great as to balance or exceed the peculiar advantages resulting from a residence in town. Hence the impossibility of a large or even a considerable city existing anywhere without possessing extensive means of communication either with the surrounding country, or with other countries; and hence, too, the explanation of the apparently singular fact, of almost all large cities having been founded on or near the sea, or a navigable river. Had London been an inland town, 50 miles from the shore, it is abundantly certain that she could not have attained to one-third part her present size; but the facilities afforded, by her admirable situation on the Thames, for the importation of all sorts of produce from abroad, as well as from other parts of England, will enable her, should her commerce continue to prosper, to add to her colossal magnitude for centuries to come.

But all towns cannot be founded on the sea coast, or the banks of navigable rivers: and the growth of those in inland situations must, in all cases, depend on their means of communicating with the surrounding country. Without our improved roads, the great inland manufacturing towns with which England is studded, such as Manchester, Leeds, Birmingham, Sheffield, Bolton, Preston &c., could not exist. They enable the inhabitants to obtain the rude products of the soil and the mines almost as cheap as if they lived in country villages. There is thus nothing, or next to nothing, to detract from the advantages which the inventive and enterprising artisan may expect to realise from resorting to those great hives of industry. And, owing to the gigantic scale on which all sorts of industry are conducted in them, the scope afforded for the employment of the most powerful machines, and the appropriation of particular sets of workmen to every separate process, however minute, manufacturing industry is carried to a degree of perfection that almost exceeds belief.

The influence which the growth of a large town exercises upon agriculture is great and striking. 'In the neighbourhood,' says Paley, 'of trading towns, and in those districts which carry on a communication with the markets of trading towns, the husbandmen are busy and skilful, the peasantry laborious; the land is managed to the best advantage, and double the quantity of corn or herbage (articles which are ultimately converted into human provision) raised from it, of what the same soil yields in remoter and more neglected parts of the country. Wherever a thriving manufactory finds means to establish itself, a new vegetation springs up around it. I believe it is true, that agriculture never arrives at any considerable, much less at its highest, degree of perfection, when it is not connected with trade; that is, when the demand for the produce is not increased by the consumption of trading cities.' (*Moral Philosophy*, book vi. c. 11.)

But the fact of their being mainly conducive to the growth of cities, is not the only advantage which improved roads confer upon agriculture. Without their aid it would be impossible to carry to distant places sufficient supplies of such bulky and heavy articles as lime, marl, shells, and other manures necessary to give luxuriance to the crops of rich soils, and to render those that are poor productive. Not only, too, would inferior roads lessen the market for farm produce, and consequently the quantity raised, but a larger proportional number of horses or other cattle would be required to convey the diminished produce to market. It is plain, therefore, that good roads are both directly and indirectly a prime source of agricultural improvement; directly, by increasing the quantity and reducing the cost of manure, and by increasing the quantity and reducing the cost of conveying farm produce to market; and indirectly, by providing for the growth and indefinite extension of cities and towns, that is, of the markets for agricultural produce.

Increased speed of conveyance is one of the principal advantages that have resulted from the formation of good roads, the invention of steam packets &c. Suppose that it takes 2 days to travel by an uneven, ill-made road between any 2 places; and that, by improving the road, the journey may be accomplished in 1 day; the effect is the same as if the distance were reduced one half; and there is not only a great saving of time to travellers, but also a great saving of cost from the more speedy conveyance of commodities. This latter is a point of much more importance than is commonly supposed. It is not possible to form any correct estimate of the value of the products that are constantly in the act of being carried from place to place in Great Britain and Ireland. It is certain, however, that it is very great; and every additional facility of conveyance, by bringing such products more rapidly to their destination, and enabling them to be sooner applied to the purposes for which they are intended, renders large quantities of capital available for industrious purposes, that would otherwise be locked up.

Mode of defraying Costs of Roads.—Roads of one sort or other must, of course, exist in every country emerged from barbarism—but in England, the statute of the 28th of Philip and Mary, which is still in force, is the first legislative enactment in which a regular provision was made for the repair of the roads. The preamble to this statute declares, that the roads were tedious and noisome to travel on, and dangerous to passengers

and carriages: and therefore it enacts, that in every parish 2 surveyors of the highways shall be annually chosen, and the inhabitants of all parishes obliged, according to their respective ability, to provide labourers, carriages, tools &c. for *four* days each year, to work upon the roads, under the direction of the surveyors. This system, though in many respects exceedingly defective, was at the time justly considered a great improvement, and answered pretty well till the reign of Charles II., when, owing to the increase of carriages, particularly about London, it became necessary to adopt more efficient measures for the formation and repair of roads; and the plan of imposing tolls upon those who made use of them began then to be adopted. But this system was not carried into full effect, and placed upon a solid footing, till about 1767, when it was extended to the great roads to all parts of the country; the contributions of labour under the Act of Philip and Mary being then appropriated entirely to the cross or country roads. A money payment is now, however, very frequently made, in the case of the latter, instead of a contribution in labour.

When the plan for extending turnpike roads from the metropolis to distant parts of the country was in agitation, the counties in the neighbourhood of London petitioned Parliament against it, alleging that the remoter counties would be able, from the comparative cheapness of labour in them, to sell their produce in London at a lower rate than they could do; and that their rents would be reduced, and cultivation ruined, by the measure. Luckily this interested opposition proved ineffectual; and instead of being injurious to the counties adjoining the metropolis, the improvement of the roads has been quite as beneficial to them as to those at a distance, inasmuch as, by providing for the indefinite extension of the city, it has rendered it a far better market for their peculiar productions, than it would have been had its growth been checked; which must have been the case long ago, had the improvements in question not been made.

The plan of making and repairing roads by contributions of labour is not peculiar to England, but was at one period general all over Europe. By an Act of the Scotch Parliament, passed in 1669, all persons engaged in husbandry were obliged to labour six days each year, before or after harvest, upon the public roads: the farmers and landlords being, at the same time, obliged to furnish horses, carts &c. according to the extent of land occupied by them. The inconveniences of such a system are many and obvious. Those who get no pay for their work, and who perform it against their will, waste their time and industry; and there is, besides, a great loss incurred by the interruption of the regular pursuits of the labourer. A sense of these disadvantages led, in the early part of the reign of George III., to a commutation of the labour contribution for a money tax on land, rated according to its valuation in the cess books. This measure has been productive of the best effects. Previously to its taking place, the roads, even in the best-cultivated districts of Scotland, were in the worst possible state, whereas they are now about the very best in Europe.

A similar system has been followed on the Continent. When Turgot entered on his administration, he sent a circular letter to the road surveyors and engineers of the different provinces of France, desiring them to transmit estimates, framed on the most liberal scale, of the sums of money for which the usual repairs might be made on the old roads, and the ordinary extent of new ones constructed. The average of the estimates showed that a money contribution of about 10,000,000 livres a-year would suffice for these objects; whereas Turgot showed, that the execution of these repairs and constructions, by contributions of forced labour, or *corvées*, cost not less than 40,000,000 livres. (Art. 'Taxation,' *Ency. Brit.*)

There is still, however, a great deal of labour performed on the cross and country roads of England under the system established by the Act of Philip and Mary. Its continuance is most probably to be ascribed to the want of any ready means for its commutation.

It is the duty of Government to furnish assistance towards the formation of roads and bridges in parts of the country where they are necessary, and where the funds required for their formation cannot otherwise be obtained. But it is in such cases extremely desirable, in order to prevent Government from being deceived by interested representations, that those more immediately concerned in the undertaking should be bound to contribute a considerable portion of its expense. This has been done in the case of the Highland roads. Down to a very recent period, large tracts in the Highlands were quite inaccessible, and were, consequently, in a great measure shut out from all improvement; while the rugged nature of the country and the poverty of the inhabitants rendered any attempt to construct improved roads an undertaking beyond their means. Under these circumstances, Government came forward and engaged to advance half the expense of making roads and bridges in certain districts, on condition that the landlords and others interested should advance the other half, and that the work should be executed under the direction of parliamentary commissioners and engineers. This arrangement has been highly beneficial. Through its means above 600 miles of excellent roads have been constructed; and, in consequence of the easy means of communication they afford, a spirit of improvement has been excited even in the wildest and least-frequented districts.

Adam Smith seems to have inclined to the opinion, that the roads of a country would be better attended to, and more economically managed, were they placed under the control of Government, than when they are left to be planned and superintended by private individuals. But this opinion does not seem to rest on any good foundation. It is, perhaps, true that a few of the great roads between the principal towns of a country might be better laid out by government surveyors, than by surveyors appointed by the gentlemen of the different counties through which they pass. But these great roads bear but a very small proportion to the total extent of cross and other roads with which every country either is, or should be, intersected; and, besides, it is abundantly certain, that when the formation of the great roads is left, as in Great Britain, to the care of those who, either by themselves or their tenants, have to defray the greater part of the expense of their construction and repair, they will be managed, if not with greater skill, at least with far more economy, than if they were entrusted to the agents of Government. M. Dupin has set this matter in the clearest point of view, in his remarks on the administration of the roads in France and England. In the former they are entirely under the control of Government; and the consequence is, that while there is a useless expenditure upon a few great roads, the cross roads are almost entirely neglected, and the facilities of internal intercourse are incomparably inferior to ours.

Sir Henry Parnell, who published the best treatise on road-making in the English language,

while he approves of the system of local trusts, proposes that measures should be taken for increasing the responsibility of the trustees, and that every trust should be obliged to submit its accounts to the inspection of some public board. We have no doubt that this plan would be in several respects advantageous. Perhaps, however, the object in view, in obliging trustees to submit their accounts to a public board, might be attained by the erection of local tribunals for their inspection. We should be extremely jealous of any plan, how advantageous soever in other respects, that might lead to the employment of government surveyors generally in the laying out of roads, or to any material abridgment of the powers of the private trusts.

Length of Roads, Cost &c.—The total length of the different paved streets and turnpike roads in England and Wales amounts to about 20,000 miles. The expenditure by the trustees, on account of these roads, in 1866, amounted to 1,071,773*l.*; the revenue for the same year being 1,053,094*l.*: of the total expenditure, 112,078*l.* went to defray interest of debt. The length of the various cross roads and other highways, exclusive of turnpikes, is estimated at about 95,000 miles. In 1866, the expenditure on turnpike roads in Scotland was 204,907*l.*, and the revenue 213,280*l.*

Statement extracted from the 17th General Report on the Turnpike Trusts of England and North Wales, showing the Comparative Condition of the Trusts in England and North Wales in the Year 1837, when the Highest Amount of Revenue from Tolls was received, and in 1849, 1861, and 1866 respectively.

Years	1837	1849	1861	1866
Receipts.	£	£	£	£
Tolls	1,509,985	1,097,482	1,038,980	945,458
Parish aid	21,952	27,714	30,610	31,214
Money borrowed	134,044	11,662	19,475	2,225
Other receipts	30,447	41,123	27,084	37,394
Total receipts	1,699,428	1,177,981	1,116,149	1,016,291
Expenditure.				
Repairs	933,940	609,200	676,831	580,866
Improvements	202,799	41,200	46,960	31,212
Salaries	93,684	87,432	79,652	74,862
Law charges	32,133	26,525	20,943	25,138
Interest of debt	291,726	254,160	150,023	108,971
Bonded debt paid off	121,261	120,297	135,216	179,194
Other payments	61,694	49,381	30,784	34,874
Total expenditure	1,742,237	1,188,995	1,149,409	1,035,117
Bonded debt	7,011,989	6,582,647	4,532,895	3,536,575
Unpaid interest	1,019,568	1,587,010	710,919	383,404

Tolls.—In fixing the rate of tolls, great care should be taken to keep them as low as possible. When they are either too much multiplied, or too high, they have a very pernicious influence. They then operate as a most oppressive and unequal tax on commerce; and obstruct that intercourse they are intended to promote. The same remark is applicable to all sorts of dock and harbour dues, lighthouse dues &c. When confined within due bounds, they cannot justly be objected to; for nothing can be fairer than that those who benefit by such increased facilities and security in the prosecution of their business should pay for them. But whenever they exceed the proper limits, they tempt the navigator to resort to ports where the charges are lower, and to direct his course through more insecure but less costly channels.

Improvement of Roads.—It is not easy for those accustomed to travel along the smooth and level roads by which every part of this country is now intersected, to form any accurate idea of the difficulties the traveller had to encounter a century ago. Roads were then hardly formed; and, in summer, not unfrequently consisted of the bottoms of rivulets. Down to the middle of last century, most part of the goods conveyed from place to place in Scotland, at least where the distances were not very great, were carried, not by carts or wagons, but on horseback. Oatmeal, coals, turf, and even straw and hay, were conveyed in this way. At that period, and for a long time previously, single-horse traffickers (cadgers) regularly plied between different places, supplying the inhabitants with such articles as were then most in demand, as salt, fish, poultry, eggs, earthenware &c.: these were usually conveyed in sacks or baskets, suspended one on each side the horse. But in carrying goods between distant places, it was necessary to employ a cart, as all that a horse could carry on his back was not sufficient to defray the cost of a long journey. The time the *carriers* (for such was the name given to those who used carts) usually required to perform their journeys seems now almost incredible. The common carrier from Selkirk to Edinburgh, *thirty-eight* miles distant, required a *fortnight* for his journey between the two places, going and returning. The road originally was among the most perilous in the whole country; a considerable extent of it lay in the bottom of that district called Gala-water, from the name of the principal stream, the channel of the water being, when not flooded, the track chosen as the most level, and easiest to travel in.

Even between the largest cities, the means of travelling were but little superior. In 1678, an agreement was made to run a coach between Edinburgh and Glasgow, a distance of 44 miles, which was to be drawn by *six* horses, and to perform the journey from Glasgow to Edinburgh and back again in *six* days. Even so late as the middle of last century, it took 1½ day for the stage coach to travel from Edinburgh to Glasgow—a journey which is now accomplished in 4½ or 5 hours.

So late as 1768, there was but one stage coach from Edinburgh to London, and it set out only once a month, taking from 12 to 14 days to perform the journey. Before the opening of the railways, by which they have been in a great measure superseded, there were, exclusive of steam packets, smacks &c., 8 or 4 coaches which set out each day from Edinburgh for London, and conversely, performing the journey in from 45 to 48 hours. (Robertson's *Rural Recol.* pp. 39—44.)

The effects of this extraordinary improvement in the means of travelling, especially since the introduction of railways, have been as striking on the manners as on the industry of all classes. The remark of Smith, that 'man is the least transportable species of luggage,' is no longer true as applied to Great Britain. During spring, the metropolis is crowded with visitors of all ranks and orders from the remotest provinces; and during summer and autumn vast numbers of the citizens are

spread over the country. Hence it is, that manners, as well as prices, are reduced nearly to the same standard. A respectable family in Penzance or Inverness live very much in the same way as a respectable family in London. Peculiarities of all sorts have disappeared; everything is, as it were, brought to a level; the fashions and opinions of the metropolis are immediately diffused over every part of the country, while those which originate in the latter powerfully influence the former.

ROPE consists of hemp, hair &c. spun into thick yarn, of which several strings are twisted together by means of a wheel. When made very small, it is called a cord; and when very thick, a cable. All the different kinds of this manufacture, from a fishing-line, or whip-cord, to the cable of a first-rate ship of war, go by the general name of cordage. [CABLE.]

ROSES (OIL, ESSENCE, or ATTAR OF). An oil obtained by distilling the leaves of damask roses. It is limpid, of a light orange colour, and has an extremely grateful and powerful perfume. This, which is the most expensive article of Oriental luxury, used to be principally made at Tunis and Ghazipore in India. But though it be still very extensively produced at these places, and more especially at the latter, what may be called the foreign demand for the oil is now almost wholly supplied by the districts of Eski Zara and Hassanlik in Bulgaria. There, the culture of roses is carried on upon a very large scale. Inasmuch, however, as it is said to require about 300,000 roses to yield an ounce of oil, the quantity produced does not exceed 4,500 lb. in a good and 3,000 lb. in an ordinary year. The genuine article fetches an enormous price; and is in consequence very generally, or rather, we should say, uniformly adulterated. When the adulteration is effected by means of the oil of geraniums and other fine volatile oils, the fraud is not easily detected except by connoisseurs, unless the foreign matter be in excess. Sometimes it is alleged that attar of roses has been sold as genuine when above 80 per cent. of other oils was mixed up with it. That which is hawked about the streets of Constantinople and Smyrna is seldom anything better than olive oil scented with roses. Some of the more expert dealers in the article will tell within 2 per cent. the foreign oil in any parcel given them to examine. The value of the exports of this curious product from Turkey has been estimated at from 400,000 to 500,000 dollars a-year. (Blanqui, *Voyage en Bulgarie*, p. 230; Hunt's *Commercial Magazine*.)

ROSEWOOD (Ger. rosenholz; Fr. bois de rose, de Rhode; Ital. legno di rosa; Span. leño de rosa; Port. pão de rosa) is produced in Brazil; the Canary Islands; in Siam, whence it is pretty largely exported by the Chinese; and in other places. It is in the highest esteem as a fancy wood. The width of the log imported into this country averages about 22 inches, so that it must be the produce of a large tree. Rosewood has a slightly bitterish, somewhat pungent, balsamic taste, and fragrant smell, whence its name. It should be chosen sound, heavy, of the deepest colour, in the largest pieces that can be procured, and of the most irregular knotty grain. The small, light-coloured and large shivered pieces should be rejected. The more distinct the darker parts are from the purple red, which forms the ground, the more is the wood esteemed. It is usually cut into veneers of nine to an inch. (Milburn's *Orient. Com.*; &c.)

Rosewood, which is one of the dearest as well as most beautiful of the fancy woods, is principally used in veneering. Its consumption has increased from about 277 tons in 1822, to 558 in 1867. This increase is principally owing to the abolition of the duties. These, after being reduced in 1826 from 10*l.* to 6*l.* per ton, and in 1842 to 1*l.*, were repealed in 1846. But 1*s.* per ton having been imposed on its import in 1860, this tax was abolished in 1866. The price varies from 9*l.* 17*s.* 6*d.* to 10*l.* 12*s.* 6*d.* per ton.

ROSIN. 'This substance is obtained from different species of fir; as the *Pinus abies, sylvestris, larix, balsamea*. It is well known that a resinous juice exudes from the *Pinus sylvestris*, or common Scotch fir, which hardens into tears. The same exudation appears in the *Pinus abies*, or spruce fir. These tears constitute the substance called *thus*, or frankincense. When a portion of the bark is stripped off these trees, a liquid juice flows out, which gradually hardens. The juice has obtained different names, according to the plant from which it comes. The *Pinus sylvestris* yields common turpentine; the *larix*, Venice turpentine [TURPENTINE]; the *balsamea*, balsam of Canada [BALSAM] &c. All these juices, which are commonly distinguished by the name of turpentine, are considered as composed of two ingredients; namely, oil of turpentine, and rosin. When the turpentine is distilled, the oil comes over, and the rosin remains behind. When the distillation is continued to dryness, the residuum is known by the name of common rosin or *colophonium*; but when water is mixed with it while yet fluid, and incorporated by violent agitation, the mass is called *yellow rosin*. During winter, the wounds made in the fir trees become incrusted with a white brittle substance, called *barras* or *galipot*, consisting of rosin united to a small portion of oil. The yellow rosin, made by melting and agitating this substance in water, is preferred for most purposes, because it is more ductile, owing, probably, to its still containing some oil. The uses of rosin are numerous and well known.' (Thomson's *Chemistry*.)

In 1867 we imported, chiefly from the United States and France, 696,117 cwt. of rosin, valued at 371,770*l.*; the average prices being from 10*s.* to 11*s.* per cwt.

ROSTOCK. Long one of the Hanse towns and now the principal commercial city of the Grand Duchy of Mecklenburg Schwerin, on the Warnow, about 9 miles above where it falls into the Baltic, lat. 54° N., long. 12° 12′ E. Population, in 1864, 26,396. A large fair for merchandise is annually held at Whitsuntide; and there are wool fairs at other seasons of the year.

The outport of Rostock is at Warnemunde, at the mouth of the Warnow. The depth of water at the latter varies from 10½ to 12 feet; but at the end of the west pier it varies from 12 to 14 feet. In the river from Warnemunde up to Rostock there is usually from 8 to 9 feet; so that vessels drawing more than this must be lightened to get up the latter. Rostock has a good harbour and commodious quays.

Money.—Rostock and all Mecklenburg reckon by rix-dollars new, two-thirds of 48 schillings. The rix-dollar contains 199·1 grains pure silver, and is worth nearly 2*s.* 4*d.* (2*s.* 3·8*d.*) sterling.

Weights.—The commercial weights are the same as those of HAMBURG. There are, however, other weights, introduced in 1757, which are 5 per cent. heavier than the above. They are principally used in the trade with Russia.

Measures.—The Rostock foot = 11·38 Eng. inches. The ell = 2 feet. The last contains 96 scheffels: the last used in the measuring of oats = 14½ imp. quarters = 42 hectolitres: the last

used in the measuring of other grain = 1·4 imp. quarters or 37·3 hectolitres. (Kelly's *Cambist.*)

We subjoin an account of the quantities and values of the principal articles imported from Mecklenburg Schwerin into the United Kingdom during each of the 4 years ending with 1867.

Principal and other Articles		Quantities				Computed Real Value			
		1864	1865	1866	1867	1864	1865	1866	1867
Bones of animals and fish (except whalebone)	tons	95	95	..	196	£ 549	£ 507	£ ..	£ 937
Corn: wheat	cwt.	669,701	617,685	733,571	651,884	331,936	337,403	452,810	490,370
barley	"	1,760	2,610	2,689	..	550	850	1,253	..
other kinds of corn and grain	cwt.	4,465	3,450	2,183	29,835	1,742	1,371	939	13,156
Oil-seed cake	tons	516	321	264	185	2,993	2,196	1,810	1,480
Seeds, rape	qr.	..	..	2,455	..	..	..	6,571	..
All other articles	value	..	..	..	..	2,428	2,775	861	2,697
Total		..	..	..	..	340,198	345,102	463,664	508,570

The value of the total direct exports from this country to Mecklenburg, though increasing, is much less considerable, having been in 1867 90,858*l.*

Imports.—The principal articles of import are refined sugar, coffee, and other colonial products; cottons, woollens; with iron and hardware, coal, earthenware, salt, horses &c. from England; hemp, flax, tallow, oil, sail-cloth &c. from Russia; alum, deals, timber, lime, tar &c. from Sweden; herrings and fish oil from Norway; wine, brandy, molasses, drugs &c. from France; with rice, rum, groceries &c. from Copenhagen and Hamburg. The total value of the imports by sea may be estimated at about 300,000*l.*

Exports.—These consist chiefly of very good red wheat, with smaller quantities of barley, peas, rape-seed, and oats; wool, rags of a superior quality, oil cake, rape oil, bones &c. At an average the value of the exports may be estimated at 600,000*l.*

Shipping.—The port of Rostock had, in January 1868, 390 ships, 376 of which measured 49,775 lasts or 149,325 tons. These trade with most European nations, the United States, and Brazil.

At the beginning of the same year Wismar had 57 ships, of which 53 measured 6,502 lasts or 19,506 tons.

Port Charges.—These on a vessel of 100 tons burden are as follow, viz.:—

	Privileged		Not Privileged	
	rix-dol.	sch.	rix-dol.	sch.
Inward with cargo	10	2	10	2
Outward ditto	23	44	32	6
Inward in ballast	12	6	12	6
Outward ditto	19	56	31	10
Ditto without either	17	32	25	42

Duties.—Previous to the annexation of Mecklenburg to the Prussian Customs Union, these were extremely moderate. On most imported articles they amounted to only 3 per cent. ad valorem. An export duty of about 5*d.* per quarter was charged on corn, and of about 4*s.* 8*d.* per hogshead on wine. Wool was not subject to any duty on export. Goods imported in vessels not privileged paid 50 per cent. additional on the above duties; that is, they paid 4½ instead of 3 per cent. ad valorem. For existing duties see ZOLLVEREIN.

Wismar, the second sea-port town of Mecklenburg, at the confluence of the river Stor with the sea, in lat. 53° 53′ 5″ N., long. 11° 27′ 7″ E. Population 13,133 in 1864. The harbour of Wismar is commodious and safe, being nearly land-locked by the islands of Poel and Walfisch. Close to the town there is from 8 to 8½ feet water; in the inner roads there is from 12 to 13 feet; and in the outer from 16 to 20 feet. The port charges on a native or privileged vessel of 100 tons amount to about 30 rix-dollars. The articles of import and export are the same at Wismar as at Rostock; but owing to the proximity of Lubeck, from which Wismar is not more than 27 miles distant, her foreign trade is comparatively limited.

General Remarks on the Trade of the Duchies.—Mecklenburg is essentially an agricultural, wool-growing, grazing, and breeding country. In some places it is sandy and barren; but it is for the most part fertile, and the crops and pastures are both luxuriant. Having few manufactures, her imports necessarily consist principally, as already stated, of manufactured goods, and her exports of raw produce. Owing to the circumstance of the south-western part of the province being bounded by the Elbe, and approaching to within 30 miles of Hamburg, most of the manufactured goods, as well as a large proportion of the colonial products used by the population (560,123 in 1867), are imported by way of Hamburg. Hence, in Mecklenburg, as in Prussia, the direct foreign trade carried on by the sea frontier forms but a limited part of the entire trade of the country. It is impossible, however, to form any precise estimate of what the latter may amount to. Probably there was no European country so little fettered by customs regulations as Mecklenburg, down to its incorporation in the Zollverein. The duties on articles imported by sea amounted only, as already stated, to about 3 per cent. ad valorem; and those entering by the land frontier were subject merely to a trifling charge, on account of toll, of which we have not seen any account. It is impossible, indeed, that any commercial system could be bottomed on more liberal principles; and this enlightened policy, and her situation near the mouth of the Elbe, and on the western frontier of the Prussian League or Zollverein, gave to Mecklenburg far greater importance, as a commercial state, than was indicated by the amount of her population, or her internal consumption.

ROTTERDAM, on the north bank of the Maese, in lat. 51° 55′ 19″ N., long. 4° 29′ 14″ E. Population, December 31, 1863, 112,728. Rotterdam is the second commercial city of Holland. It is more advantageously situated than Amsterdam; being nearer the sea, and the canals which intersect it are so deep as to admit of the largest vessels coming up to the quays and warehouses of the merchants. Its commerce, during the last 25 years, has increased more rapidly than that of any town in Holland. The exports and imports are similar to those of Amsterdam. The white Zealand wheat shipped here is of a peculiarly fine quality; and it is the best market for madder and geneva. Our imports of madder from Holland in 1867 amounted to 20,244 cwt., most part of which came from Rotterdam. [MADDER.] Geneva is sold by the aam; but it used, for the convenience of smuggling to England, to be divided into ankers and ½ ankers. The legitimate imports of

geneva from Holland in 1867 amounted to 237,505 gallons. Rotterdam has a regular and frequent intercourse, by means of steamers, with London, Liverpool, Hull, Leith, Havre, Hamburg &c.

N.B.—The channel from the sea to Rotterdam is exhibited in the chart of the Dutch coast in the map of Europe in this work.

The works to improve the sea entrance for Rotterdam, carried out on Government account, were started in 1863. They are estimated to cost 6,300,000 flors.: since 1863, 2,700,000 flors. have been spent. The works are to be finished this year (1869).

Moneys, Weights, and Measures.—See the article AMSTERDAM, for an account of the current moneys, weights, and measures of Holland.

Two different commercial lbs. were formerly used at Rotterdam: one was the Amsterdam weight, 100 lb. of which = 108·93 lb. avoirdupois; the other, used by retailers, was 5 per cent. lighter, 100 lb. of it being = 103·48 lb. avoirdupois.

The Rotterdam last of corn = 10·642 Winchester bushels.

The aam = 40 English wine gallons very nearly.

A hogshead of flax-seed contains from 7½ to 8 Winchester bushels. Rock salt is sold per great hundred of 404 maaten, containing from 21 to 22 tons. Coals per hoed = ⅛ a chaldron of Newcastle.

The liquid measures were divided in the same manner as at Amsterdam, but were larger; thus, 100 stoops of Rotterdam were = 67¾ English wine gallons. Brandies were sold per 30 viertels; whale oil per 90 stoops; vegetable oils per 300 stoops.

The ell is the same as at Amsterdam. 100 feet of Rotterdam = 109½ feet of Amsterdam, or 102 English feet.

We borrow from Sir R. F. Turing's *Consular Report* of April 29, 1868, the following account of the imports and stock of the principal articles of commerce at Rotterdam during the years 1865, 1866, and 1867.

Articles	Imported during			Stocks on December 31		
	1865	1866	1867	1865	1866	1867
Hides, East India cow and buffalo No.	150,930	106,600	108,300	16,262	18,650	8,383
East India "	16,445	12,000	11,000	13,595	10,000	4,844
Cotton, North America bales	6,410	25,610	28,010	..	499	650
West India &c. "	93,600	101,400	89,680	2,028	2,450	1,150
Coffee, East India bags	441,900	334,320	427,000	96,800	8,300	62,800
West India "	28,000	..	7,900	6,300	2,800	5,500
Pepper "	11,597	11,176	19,400	5,062	1,356	3,700
Petroleum casks	15,000	45,300	107,800	500	8,300	36,100
Rice, East India bags	106,200	315,000	393,000	2,200	4,000	8,000
Saltpetre, Chili "	11,427	26,093	16,661	5,177	10,005	13,418
Sugar, Havannah cases	..	5,258	..	..	..	..
Brazil chests	635	1,485	238	251	494	494
Java baskets	215,850	194,488	169,372	32,159	21,471	16,527
sundries bales and mats	12,445	19,137	6,393	5,067	1,134	2,794
" hhds.	375	434	159	55	..	..
of all descriptions combined tons	47,700	44,800	37,000	7,400	5,100	4,100
Tobacco, American hhds.	2,968	7,225	6,790	2,964	2,231	935
sundries packages	9,381	6,126	4,148	1,977	2,206	964
Java "	56,690	56,365	53,695	966	7,791	18,518
Tea, of all descriptions ¼-chests	22,950	18,800	26,400	7,650	2,100	1,550
Tin, Banca slabs	105,881	91,123	60,424	58,905	23,425	19,372

Tares and Allowances.

Articles	Tares	Drafts	Allowances
		per cent.	per cent.
Coffee:			
Surinam, St. Domingo	6 per cent.	1	1
Bourbon	10 lb. per bale	1	1
Mocha	24 lb. "	1	1
Java	14 lb. per bale of 270 lb.	1	3
Sugar:			
Jamaica	18 per cent.	1	1
Surinam	20 "		
East India, in bags	10 "		
Havre chests below 454 lb.	80 lb. per chest	1	1
above	13 per cent.	1	1
Martinique, St. Domingo	18 per cent.	1	1
Cotton	6 "	1	1
Hides, Buenos Ayres	2 lb. per hide	2	1
Tobacco, Virginia	3 per cent.	2	3
Logwood	3 "	1	1
Pimento	real tare	1	1
Indigo	3 per cent.	0	2
Pepper	5 lb. per bale	1	0
Whale oil	1 per cent.	0	1
Madders	real tare	0	1

With the exception of the shipping interest, the trade of Rotterdam, and of Holland generally, is now, on the average of years, in a comparatively flourishing state. The judicious management of the Netherlands Bank, the only establishment in the country authorised to issue notes, and the prudent conduct of the merchants, caused her to be comparatively little affected by the crises of 1857 and 1866, though she suffered in 1866 and 1867 by the stagnation consequent on the war in Germany and the commercial crisis. The depressed state of the shipping interest in particular is a consequence partly of the extremely injudicious encouragement given by Government to the trading company, but far more to that mania for ship-building which prevailed for some years in Holland, as it did here and in the United States. Hence there is everywhere a glut of shipping; and it is idle to seek, in want of reciprocity, or anything else than this, a reason for the low rate of freight, and the inadequate demand for shipping, so universal during the last two or three years. On January 1, 1867, the total Netherlands mercantile marine comprised 2,178 ships of 270,042 tons (*Report* of Mr. Secretary of Legation Ward, of February 15, 1867). It may be worth while to mention that the iron steamers built here and at Amsterdam are said to be quite equal to the best of those built on the Clyde and the Thames. For a detailed account of the trade of the United Kingdom with Holland down to 1865, see AMSTERDAM.

By way of supplement we add a statement of the value of our imports from and total exports to Holland in 1866 and 1867:—

	Imports	Exports
1866	£11,768,913	£14,877,753
1867	10,922,528	14,948,821

In the first ten months of 1868, Holland imported from Java 84,261,000 ponds of raw sugar, 52,243,000 ponds of coffee, 12,103,000 ponds of rice, and 1,586,000 ponds of tobacco, showing a decrease in her supplies from that colony in all these items, except sugar and rice.

RUBY. A precious stone, very highly esteemed; but under this name a variety of minerals have not unfrequently been sold, which differ essentially in their characters.

The *Oriental Ruby* is, in fact, a red variety of the sapphire. When perfect, its colour is a cochineal red, presenting a richness of hue the most

exquisite and unrivalled: it is, however, in general, more or less pale. The blue variety, or sapphire, is frequently met with; but the most valuable tint is that particular shade called by the jewellers the pigeon's blood, which is a pure deep rich red, without any admixture of blue or yellow. A ruby of 4 carats is worth from 400*l.* to 450*l.* It is harder than any other mineral, except the diamond. Easily frangible. Specific gravity from 3·916 to 4·283. Infusible before the blowpipe. Oriental rubies of 10 carats are extremely rare and valuable. One of 22 grains has been sold for 160*l.* Rubies in lots, Indian cut, or small sizes, and of different qualities, are at all times to be had, and sell at from 15*s.* to 65*s.* a carat; but a perfect stone of a carat, or 6 grains, may be deemed rare, and falls little short of the value of the diamond: nay, in some cases, rubies of 2, 3, or 4 carats, if *very fine*, are much scarcer, and even more valuable, than diamonds of equal weight. The finest ruby in England, or perhaps in Europe, was in the collection of the late Mr. Hope, the author of 'Anastasius.'

There are two other stones resembling the ruby, called the *Spinelle* and *Balais* rubies, but Mr. Emanuel states that they are stones of an entirely different nature and form of crystallisation. He adds that the terms ruby and carbuncle were in ancient times applied indiscriminately to all red stones. Its colour is a fine full carmine or rose red, but it never presents that rich mellow tinge attending the Oriental ruby. It is also inferior to the latter in hardness and specific gravity. Stones of 3 carats and upwards are rare and valuable.

The so-called *Balais Ruby* is a pale variety of the Spinelle. It varies in colour from light red to yellowish red. Though not so rare as the Spinelle, it is by no means common. It is much admired for its agreeable tinge of colour; and, when pure and perfect, fetches a high price, though considerably less than the other varieties.

Rubies are not found in any considerable quantity except in Ava, and the very finest are Burmese. Hence, one of the titles of the King of Burmah is Lord of the Rubies. [SAPPHIRE.] (Mawe *On Diamonds*, 2nd ed., pp. 90, 101; Emanuel *On Precious Stones*, pp. 104–7; Thomson's *Chemistry*.)

RUM. A well known and highly esteemed spirituous liquor imported from the West Indies, of which it forms one of the staple products. It is obtained by means of fermentation and distillation, from molasses, the refuse of the cane juice, and portions of the cane, after the sugar has been extracted. The flavour and taste peculiar to rum are derived from the essential oils carried over in distillation. When the distillation has been carelessly performed, the spirit contains so large a quantity of the grosser and less volatile part of the oil as to be unfit for use till it has attained a considerable age. When it is well rectified, it mellows much sooner. Rum of a brownish transparent colour, smooth oily taste, strong body and consistence, good age, and well kept, is the best. That which is clear and limpid, and has a hot pungent taste, is either too new, or mixed with other spirits. Jamaica rum is the first in point of quality; the Leeward Island rum, as it is called, being always inferior to it, in flavour, strength, and value. The price of the latter is usually 20 per cent. below that of the former. We import almost all our rum in puncheons, containing from 84 to 90 gallons each. It is customary, in some of the West India islands, to put sliced pine-apples in puncheons of rum: this gives the spirit the flavour of the fruit; and hence the designation, *pine-apple rum*.

Rum is also produced in and imported from the Mauritius and the East Indies. But that of the latter is more nearly allied to arrack than to genuine rum.

Rum is said to be much adulterated by the retail dealers in England, sometimes with corn spirit; but if done with molasses spirit, the tastes of both are so nearly allied, that the cheat is not easily discovered.

Consumption of, and Duties upon, Rum &c.— The following tables show the quantities of rum consumed in the United Kingdom at different periods since 1824, the rates of duty charged upon it, and the produce of the duties.

Account, stated in Imperial Proof Gallons, of the Rum annually entered for Home Consumption in the United Kingdom, from 1824 *to* 1842 *and* 1856 *to* 1867 *both inclusive, with the Rates of Duty payable thereon, and the Produce of the Duties.*

Years	Retained for Consumption	Rate of Duty per Gal.	Nett Produce of the Duties
	United Kingdom	United Kingdom	
	gals.	*s.* *d.*	£ *s.* *d.*
1824	2,551,646	12 7½	1,606,924 13 7
1825	2,095,687	..	1,284,627 18 5
1826	4,305,316	8 6	1,828,678 8 9
1827	3,288,606	..	1,396,576 8 11
1828	3,277,653	..	1,393,153 17 2
1829	3,375,866	..	1,434,782 13 1
1830	3,658,958	9 0	1,560,331 9 11
1831	3,624,497	..	1,629,881 9 5
1832	3,515,965	..	1,580,380 3 9
1833	3,492,193	9 0	1,570,797 0 0
1834	3,345,177	9 0	1,505,139 16 7
1835	3,416,966	9 0	1,537,693 18 9
1836	3,324,749	9 0	1,496,155 14 1
1837	3,184,255	9 0	1,432,929 0 0
1838	3,131,651	9 0	1,411,066 0 0
1839	2,830,263	9 0	1,273,627 0 0
1840	2,512,960	To May 5 9 0 From do. 9 0	1,155,613 0 0
1841	2,277,970	9 0	1,063,087 0 0
1842	2,087,747	9 0	978,959 0 0
		Great Britain	Gross
1856	3,424,078	8 2	1,389,113 0 0
		Ireland	
1857	3,397,115	6 4	1,378,244 0 0
		U. Kingdom	
		April 19	Nett
1858	3,427,405	8 2	1,396,087 0 0
1859	3,575,680		1,459,796 0 0
1860	3,729,171	March 6 8 3 July 17 10 2	1,692,173 0 0
1861	3,452,575		1,754,514 0 0
1862	3,320,356		1,687,490 0 0
1863	3,419,500		1,738,022 0 0
1864	3,730,316	10 2	1,895,590 0 0
1865	3,698,855		1,879,632 0 0
1866	4,128,615		2,097,503 0 0
1867	4,316,058		2,191,966 0 0

Though rum has not been so much over-taxed as brandy, geneva, and wine, still it is pretty obvious that, even in its case, taxation was carried beyond its proper limits. During the 3 years ending with 1802, when the duty in Great Britain was about 9*s.* per gallon, and in Ireland 6*s.* 8¾*d.*, the consumption of the United Kingdom amounted to 3,150,000 gallons a-year: while, notwithstanding the great increase of population, during the 3 years ending with 1823, when the duty in Great Britain was 13*s.* 11½*d.* per gallon, and in Ireland 12*s.* 8¾*d.*, the annual consumption amounted to only 2,307,000 gallons. The reduction of the duty in 1826 to 8*s.* 6*d.* increased the consumption from about 2,500,000 to about 3,500,000 gallons.

The falling off in the consumption in 1839 and the immediately subsequent years was not owing to the trifling addition of 4*d.* per gallon then made to the duty, but to the scarcity and high price of rum itself.

From 1800 down to 1813, the duties on rum in Ireland were much lower than in Britain, and the

consumption in the former appears then to have been much greater than afterwards, when the duties were raised in Ireland to the same level as here. But though there can be no manner of doubt that the increase of duty in Ireland tended to reduce its consumption, we have no idea that it did so to anything like the extent which appears on the face of the account. The truth is, that while the duty was lower in Ireland than in Britain, rum was extensively smuggled from the former into the latter; and this smuggling having ceased when the duties were equalised, the apparent, though not the real, consumption of rum in Ireland, was proportionally diminished.

In 1847 Government was induced, in compliance with the representations of the West Indians, to assimilate the duties on colonial rum to the duties on home-made spirits, which varied in the different divisions of the United Kingdom. But the facility with which clandestine distillation may be carried on in Scotland and Ireland was the only excuse (and its validity was very doubtful) for the duty on spirits having been less in them than in England. No such pretence could be put forward for varying the duties on rum; and it would be in all respects quite as reasonable to reduce the duties on the brandy, tea, and sugar used in Scotland and Ireland below the English level as the duty on rum. The scheme, in fact, was neither more nor less than a clumsy, underhand device to compensate the West Indians, without appearing to do so, for some small portion of the injustice of which they have been the victims. We are glad, therefore, to have to add that from April 21, 1855, the duty on rum in Scotland was raised to the level of that in England, or to 8*s.* 2*d.* per gallon; and in 1858 (from April 19) the duty on rum in Ireland was, also, raised to the same level; so that, both in respect of home and of colonial and foreign spirits, the duties are now (1869), though increased in the interval, the same in all parts of the United Kingdom. We subjoin—

An Account of the Quantities of Rum Imported into the United Kingdom, Exported as Merchandise, delivered from Ships' Stores, and for the use of the Navy or Army, with the Quantities retained for Home Consumption, the Rates of Duty chargeable thereon, and Nett Amount of Duty received, in each Year from 1843 *to* 1867, *both inclusive.*

Years	Quantities imported into the United Kingdom	Quantities exported as Merchandise	Quantities Shipped as Stores	Quantities delivered for the use of the Navy or Army	Quantities retained for Consumption in the United Kingdom	Rates of Duty, per Gallon, on the Quantities entered for Consumption: Of British West Indies, Mauritius, or those British Possessions in the East Indies into which the importation of Foreign Sugar is prohibited	Foreign Produce	Nett Amount of Duty received
	proof gals.	proof gals.	proof gals.	proof gals.	proof gals.	*s.* *d.*	£ *s.* *d.*	£
1843	3,729,754	1,079,250	244,699	309,811	2,103,715	9 4	1 2 10	281,902
1844	3,149,010	741,211	263,777	359,924	2,188,592		..	1,026,067
1845	4,808,798	778,954	255,707	416,947	2,469,135		..	1,152,340
1846	3,855,464	795,908	228,076	407,502	2,683,701	8 10	0 15 0	1,219,532
1847	6,612,907	974,614	216,232	366,796	3,328,985	In England 8 7 Scotland 4 5 Ireland 4 5	..	1,316,140
1848	6,858,981	1,263,290	207,267	287,547	2,986,979	In England 8 2 Scotland 4 0 Ireland 3 0	..	1,154,281
1849	5,306,927	1,618,485	205,629	341,686	3,039,862		..	1,140,931
1850	4,191,683	1,187,095	187,571	361,823	2,902,064		..	1,099,950
1851	4,745,244	1,310,737	184,377	70,701	2,880,425		..	1,097,950
1852	5,490,421	2,199,997	205,216	191,631	2,899,684		..	1,105,584
1853	4,206,248	2,022,786	213,079	183,650	3,232,457	From April 21 { In England 8 2; Scotland 5 0; Ireland 3 8 }	..	1,253,003
1854	8,623,907	3,105,333	208,609	936,607	3,226,394	In England 8 2 Scotland—from May 8 to 26 6 0 from May 26 6 4 Ireland—from May 8 4 4	..	1,276,533
1855	8,714,337	3,209,004	246,156	1,104,523	3,223,575	From April 21 { In England 8 2; Scotland 8 2; Ireland 6 4 }	..	1,200,451
1856	7,169,005	3,916,443	215,884	235,502	3,425,407		..	1,348,849
1857	6,515,683	2,454,250	205,464	21,902	3,596,537		..	1,378,079
1858	7,311,219	2,257,504	173,178	21,306	3,427,039	From April 19, United Kingdom 8 2	..	1,396,093
1859	7,078,586	1,926,594	168,810	831,186	3,575,680	From March 8, 1860, „ „ 8 3	..	1,459,796
1860	7,319,073	2,148,852	160,674	515,069	3,729,471	From July 17, 1860, „ „ 10 2	0 10 5	1,692,175
1861	8,114,823	2,337,689	159,548	217,025	3,452,575		..	1,754,514
1862	7,765,099	2,599,100	161,067	270,220	3,360,356		..	1,687,490
1863	7,191,738	2,447,721	167,467	255,645	3,419,800		..	1,758,022
1864	5,499,872	2,127,045	155,902	297,159	3,730,316		..	1,895,590
1865	6,898,599	2,102,948	149,823	282,530	3,698,855		..	1,879,632
1866	7,685,180	1,976,108	155,218	270,859	4,108,415		..	2,097,805
1867	6,845,502	2,468,478	161,210	316,244	4,316,058		..	2,191,966

Account, showing the Quantities of Rum Imported into the United Kingdom in 1867, *the Countries whence they came, the Entries for Consumption, with the assumed Prices at which their Values were estimated, and their Values.*

Countries whence Imported	Imports	Entries for Consumption	Rates of Valuation of Imports	Total Value of Imports
	proof gals.	proof gals.	*s.* *d.*	£
Cuba	728,828	41,015	1 9	63,470
Dutch Guiana	36,230	13,969	1 8	3,003
Mauritius	268,374	45,776	1 7	20,659
Porto Rico	27,144	2,105	1 9	2,376
Straits Settlements	89,807	57,309	1 7½	7,393
British West India Islands	2,742,421	1,688,859	2 5½	234,833
British Guiana	2,886,175	2,078,850	1 9½	265,072
Other Parts	72,024	10,752	1 7½	5,858
Mixed in Bond	—	377,963	—	—
Total	6,845,503	4,316,058	—	602,366

The following were the prices of rum in bond in London, in Sept. 1868:—

	s. *d.*	*s.* *d.*
Rum in bond (duty 10*s.* 2*d.* per gal.)		
Jamaica, very fine	5 0	to 6 6
30 to 36 per ct. o. pf.	3 0	4 6
21 28 „		none
Demerara proof	1 9	1 10
Leeward Island, proof	1 7	1 8
East India, proof	1 7	1 8
Foreign, 5 to 10 per ct. o. pf.	1 8	1 9
proof and under	1 7	—

Rum may not be imported unless in ships of 50 tons burden at least, and in casks or other vessels capable of containing liquids, each of such casks or other vessels being of the size or content of 20 gallons at the least, and duly reported, or in glass bottles or stone bottles not exceeding the size of three-pint bottles, and being really part of the cargo of the importing ship, and duly reported. (16 & 17 Vict. c. 107 s. 44.)

Before any rum shall be entered as being the

produce of any British possession abroad, the master of the ship importing the same must deliver a certificate of origin to the collector or comptroller that the goods are the produce of such place. (16 & 17 Vict. c. 107 s. 77 &c.)

N.B.—The duty upon all kinds of rum, whether from British possessions or from foreign ports, of direct importation, is now 10*s.* 2*d.* per proof gallon: if not imported direct, 10*s.* 5*d.* per proof gallon; and there is now no differential duty between England, Scotland, and Ireland.

RUSSIA COMPANY. A regulated company originated for conducting the trade with Russia. It was first incorporated by charter of Philip and Mary, sanctioned by Act of Parliament in 1566. The statute 10 & 11 Wm. III. c. 6 enacts that every British subject desiring admission into the Russia Company shall be admitted on paying 5*l.*; and every individual admitted into the Company conducts his business entirely as a private adventurer, or as he would do were the Company abolished. In truth for business purposes this Company has ceased to exist, its only meeting now being an annual social gathering.

RUSSIA LEATHER (Fr. cuir de Russie; Ger. juchten; Ital. cuojo di Russia; Pol. jachta; Russ. youft; Span. cuero de Moscovia). The tanned hides of oxen and other kine, denominated by the Russians *youfts* or *juffs*—a designation said to be derived from their being generally manufactured in pairs. The business of tanning is carried on in most towns of the empire, but principally at Moscow and Petersburg. Russia leather is soft, has a strongly prominent grain, a great deal of lustre, and a powerful and peculiar odour. It is principally either red or black: the former is the best, and is largely used in this and other countries in bookbinding; for which purpose it is superior to every other material. The black is, however, in very extensive demand in Russia; large quantities being made up into boots and shoes. The process followed by the Russians in the preparation of this valuable commodity has been frequently described; but notwithstanding this circumstance, and the fact that foreigners have repeatedly engaged in the business in Russia, with the intention of making themselves masters of its details, and undertaking it at home, the efforts made to introduce the manufacture into other countries have hitherto entirely failed. One of the best tests of genuine Russia leather is its throwing out a strong odour of burnt hide upon being rubbed a little. (Ricard, *Traité Général du Commerce*, tome i. p. 275, ed. 1781.)

We borrow from Mr. Borrisow's work on the *Commerce of Petersburg* the following details with respect to this article:—Russia leather forms one of the principal export commodities of Petersburg. But since the ports of the Black Sea have been opened, the exports of leather from this port have considerably decreased; Italy, the principal consumer, supplying its wants from Odessa and Taganrog more easily, cheaply, and expeditiously than from Petersburg. The chief exportation from the latter is to Prussia, Germany, and England. Frankfort on the Maine and Leipzig are of great importance as respects the trade in Russia leather, on account of the fairs held in them.

Juffs are never bought on contract, but always on the spot at cash prices. It nevertheless often happens that agents, in order to secure a lot of juffs, pay a certain sum in advance, and settle for the amount at the first market prices; no prices being fixed in the months of January, February March, and sometimes even April.

Juffs are assorted or *bracked* when received according to their different qualities, into *Gave*, *Rosval*, *Malja*, and *Domashna*. The first three sorts are again divided into *heavy* and *light Gave*, *heavy* and *light Rosval* &c. Domashna is the worst, and consequently the cheapest sort. It often happens that juffs are bought unassorted, and then the prices are regulated according as the quantity of Domashna contained in the lot is greater or less. Persons well acquainted with the nature of Russia leather prefer purchasing it in this state.

Juffs are sold by the pood, which consists, as it is commonly expressed, of 4, 4½, 4¾, 5, 5¼, and 5½ hides. By this is understood that so many hides make a pood, calculated upon the whole lot; and it is to be observed that the lightest juffs are esteemed the best in quality. Heavy juffs, or those of 4 and 4½ hides, are shipped for Italy: the Germans, on the contrary, prefer the lighter sort.

Juffs are packed in rolls, each containing 10 hides; and from 10 to 15 of these rolls are packed together in a bundle, which is well secured by thick matting. There are red, white, and black juffs; but the red are most in demand. Their goodness is determined by their being of a high red colour, of equal size, and unmixed with small hides; they must also be free from holes, well stretched, and equally thin. In a well-finished lot no thick head or feet parts should be found. If spots resembling flowers are seen on the red hides, it is an additional sign of their good quality; and they are then called *bloomed juffs*. The inside should be clean, soft, and white, and, when taken in the hand, should feel elastic. The best connoisseurs of Russia leather can nearly determine the quality by the smell alone.

Great attention must be paid, in shipping juffs, to secure them from being wetted, as damp air alone is sufficient to injure them.

Sixty rolls of juffs make a last; 88 poods nett weight, when shipped for Italy, make a last; and 44 poods a ton in England.

The value of the Russia leather exported from Asiatic Russia, in 1863, amounted to 533,205 silver roubles.

In 1867 we imported 132,393 lb. of Russia leather, of the value of 17,100*l.*, direct from Russia, and 14,669 lb. from other parts.

RYE (Ger. roggen, rocken; Dutch, rog, rogge; Fr. seigle; Ital. segale, segala; Span. centeno; Russ. rosch, sel, jar; Lat. secale), according to some, is a native of Crete; but it is very doubtful if it be found wild in any country. It has been cultivated from time immemorial, and is considered as coming nearer in its properties to wheat than any other grain. It is more common than wheat in many parts of the Continent; being a more certain crop, and requiring less culture and manure. It is the bread corn of Germany and Russia. In Britain it is now very little grown, being no longer a bread corn, and therefore of less value to the farmer than barley, oats, or peas. (Loudon's *Ency. of Agriculture.*) In 1867, 100,457 cwt. of rye were imported into the United Kingdom, the chief sources of supply being Russia, Prussia, Turkey, and the United States.

[For the regulations as to the importation and exportation of rye, see CORN LAWS AND CORN TRADE.]

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SABLE (Ger. zobel; Fr. zibeline; Ital. zibellino; Russ. sohol). An animal of the weasel tribe, found in the northern parts of Asiatic Russia and America, hunted for the sake of its fur. Its colour is generally of a deep glossy brown, and sometimes of a fine glossy black, which is most esteemed. Sable skins have sometimes, though very rarely, been found yellow, and white. The finer sorts of the fur of sables are very scarce and dear; 5,159 skins, valued at 6,495*l.*, were imported into the United Kingdom in 1867, chiefly from Hamburg and Holland. [Fur Trade.]

SADDLES (Fr. selles; Ger. sättel; Ital. selle; Russ. sädla; Span. sillas). Seats adapted to the horse's back, for the convenience of the rider. Those made in England are reckoned the best. Sherborne and Lynn used to be remarkable for this manufacture; but it is now principally carried on in London.

In 1867 we exported saddlery and harness (chiefly to Australia, India, and South America), valued at 219,802*l.*

SAFFLOWER or BASTARD SAFFRON (Ger. saflor, safflor; Dutch, saffloer, basterd saffran; Fr. safran bâtard; Ital. zaffrone; Span. alazor, azafran bastardo; Russ. polerroi, prostoi schafran). The flower of an annual plant (*Carthamus tinctorius*, Linn.) growing in India, Egypt, America, and some of the warmer parts of Europe. It is not easily distinguished from saffron by the eye, but it has nothing of its smell or taste.

The flowers which are sometimes sold under the name of *saffranon* are the only parts employed in dyeing. They yield two sorts of colouring matter: one soluble in water, and producing a yellow of but little beauty; the other is *resinous*, and best dissolved by the fixed alkalies: it is this last which alone renders safflower valuable in dyeing; as it affords a red colour exceeding in delicacy and beauty, as it does in costliness, and which can be obtained even from cochineal, though much inferior to the latter in durability. The colour of safflower will not bear the action of soap, nor even that of the sun and air for a long time; and being very costly, it is principally employed for imitating upon silk the fine scarlet (*ponceau* of the French) and rose colours dyed with cochineal upon woollen cloth.

The fine rose colour of safflower, extracted by crystallised soda, precipitated by citric acid, then slowly dried, and ground with the purest talc, produces the beautiful *rouge* known by the name of *rouge végétale*.

Safflower should be chosen in flakes of a bright pink colour, and of a smell somewhat resembling tobacco. That which is in powder, dark coloured, or oily, ought to be rejected. (Hasselquist's *Voyages*, Eng. ed. p. 352; Bancroft's *Permanent Colours*, vol. i. pp. 286–289; Milburn's *Orient. Com.*)

In 1867, 9,319 cwt. of safflower, valued at 54,469*l.*, were imported into the United Kingdom, and 6,956 cwt. exported. The duty of 1*s.* per cwt. formerly charged on its importation was repealed in 1845.

SAFFRON (Ger. safran; Dutch, saffraan; Ital. zafferano; Span. azafran; Fr. safran; Russ. schafran). A sort of cake, prepared from the stigmas, with a proportion of the style, of a perennial bulbous plant (*Crocus sativus*, Linn.) cultivated to a small extent in Cambridgeshire.

It is also imported from France, Spain, and Italy; but the English, as being fresher, more genuine, and better cured, is always preferred. When good, saffron has a sweetish, powerful aromatic odour; a warm, pungent, bitterish taste; and a rich, deep orange yellow colour. It should be chosen fresh, in close, tough, compact cakes, moderately moist, and possessing in an obvious degree all the above-mentioned qualities. Its being of a whitish-yellow or blackish colour indicates that it is bad, or too old. Saffron is used in medicine, and in the arts; but in this country the consumption seems to be diminishing. It is employed to colour butter and cheese, and also by painters and dyers. (*British Pharmacopœia*, 1867; Thomson's *Dispensatory*; Loudon's *Ency. of Agriculture*.)

In 1867 we imported 9,401 lb. of saffron, valued at 17,963*l.*, and exported 5,290 lb.

SAGAPENUM (Arab. sugbenuj). A concrete gum resin, the produce of an unknown Persian plant. It is imported from Alexandria, Smyrna &c. It has an odour of garlic; and a hot, acrid, bitterish taste. It is in agglutinated drops or masses, of an olive or brownish-yellow colour, slightly translucent, and breaking with a horny fracture. It softens and is tenacious between the fingers, melts at a low heat, and burns with a crackling noise and white flame, giving out abundance of smoke, and leaving behind a light spongy charcoal. It is used only in medicine. (Thomson's *Dispensatory*.)

SAGO (Malay, sagu; Jav. sagu). A species of meal, the produce of a palm (*Metroxylon sagu*) indigenous to and abundant in such of the Eastern islands as produce spices, where it supplies a principal part of the farinaceous food of the inhabitants.

The tree, when at maturity, is about 30 feet high, and from 18 to 22 inches in diameter. Before the formation of the fruit, the stem consists of an external wall about 2 inches thick, the whole interior being filled up with a sort of spongy medullary matter. When the tree attains to maturity, and the fruit is formed, the stem is quite hollow. Being cut down at a proper period, the medullary part is extracted from the trunk, and reduced to a powder like sawdust. The filaments are next separated by washing. The meal is then laid to dry; and being made into cakes and baked, is eaten by the islanders. For exportation, the finest sago meal is mixed with water, and the paste rubbed into small grains of the size and form of coriander seeds. This is the species principally brought to England, for which market it should be chosen of a reddish hue and readily dissolving in hot water into a fine jelly. A process has been invented by the Chinese for refining sago, so as to give it a fine pearly lustre; and the sago so cured is in the highest estimation in all the European markets. It is a light, wholesome, nutritious food. It is sent from the islands where it is grown to Singapore, where it is granulated and bleached by the Chinese. The export trade to Europe and India is now principally

confined to that settlement. The sago palm seems to thrive on the northern coast of Sarawak. (Ainslie's *Mat. Indica*; Crawford's *East. Archip.* vol. ii. pp. 383—393, vol. iii. p. 348; Bell's *Review of the Commerce of Bengal*; *Parl. Returns*; *Consular Reports* of 1864; &c.)

Account of the Quantities of Sago Imported into and Re-exported from the United Kingdom during each Year from 1845 *to* 1867.

Years	Total Imports	Re-exports from United Kingdom	Quantities retained for Consumption
	cwt.	cwt.	cwt.
1845	43,213	1,238	45,208
1846	38,595	631	45,964
1847	55,165	2,703	41,429
1848	65,501	2,412	67,226
1849	83,711	5,317	72,979
1850	89,884	3,862	84,624
1851	93,355	6,056	80,918
1852	85,258	5,468	93,140
1853	94,703	2,325	81,108
1854	128,789	8,373	121,046
1855	92,800	4,842	108,199
1856	137,068	4,580	130,696
1857	149,416	10,706	134,066
1858	172,513	7,269	138,863
1859	168,805	16,272	154,810
1860	179,925	16,454	164,927
1861	149,462	7,346	172,521
1862	184,582	8,517	137,779
1863	146,084	10,040	160,334
1864	145,901	11,357	128,158
1865	148,642	7,407	157,324
1866	164,989	7,676	139,746
1867	164,122	7,972	188,407

Previously to March 19, 1845, the duty was 1*s.* per cwt., plus 5 per cent.; since that date to 1855 it was 6*d.* per cwt., and since that period 4½*d.* per cwt.

It is seen from this table that the consumption of sago has much increased since 1845; and the increase will appear still greater if we go a little further back: for, at an average of 1820 and 1821, the consumption amounted to only about 1,300 cwt. a-year. This extraordinary increase is in part to be ascribed to the effectual reduction of the heavy duties with which sago was formerly burdened; but more, perhaps, to its being found to be a desirable article of food. It is said to be employed to some extent in the adulteration of sugar. The price of common sago varies from 8*s.* to 15*s.*, while pearl sago fetches from 16*s.* to 16*s.* 10*d.* per cwt.; but the price is liable to great fluctuation.

SAILS. Coarse linen or canvas sheets attached to the masts and yards of ships, the blades of windmills &c., to intercept the wind and occasion their movement.

Sails, when formerly imported, were charged with an ad valorem duty of 10 per cent. But this duty was repealed in 1853, and their importation is now free. The duty on cordage was then, also, repealed.

SALEP. A species of powder prepared from the dried roots of a plant of the orchis kind (*Orchis mascula*, Linn.). That which is imported from India is in white oval pieces, hard, clear, and pellucid, without smell, and tasting like tragacanth. As an article of diet, it is said to be light, bland, and nutritious. The plant thrives in England, but it is not cultivated to any extent: and very little is imported. (Ainslie's *Mat. Indica*; Milburn's *Orient. Com.*)

SALMON (Ger. salm; Fr. saumon; Ital. salmone, sermone; Span. salmon; Russ. lemga). This excellent fish is too well known to require any description. It is found only in northern seas, being unknown in the Mediterranean and other warm regions. In this country it is an article of much value and importance. It is said to be exceedingly abundant in Japan and Kamtschatka.

'Salmon fisheries,' Marshall observes, 'are copious and constant sources of human food; they rank next to agriculture. They have, indeed, one advantage over every other internal produce—their increase does not lessen other articles of human subsistence. The salmon does not prey on the produce of the soil, nor does it owe its size and nutritive qualities to the destruction of its compatriot tribes. It leaves its native river at an early state of growth; and going, even naturalists know not where, returns of ample size, and rich in human nourishment; exposing itself in the narrowest streams, as if nature intended it as a special boon to man. In every stage of savageness and civilisation, the salmon must have been considered as a valuable benefaction to this country.'

Such salmon as are taken in estuaries or rivers are, of course, the property of those to whom the estuaries or rivers belong, the fisheries in them frequently letting for very large sums; but of late very considerable quantities of salmon have been taken in bays and in the open sea, where the fishing is free to any one who chooses to engage in it. The London market, where the consumption is immense, has been, since 1790, principally supplied from the Scotch rivers. The Tweed fishery is the first in point of magnitude of any in the kingdom; the take is sometimes quite astonishing, several hundreds having been frequently taken by a single sweep of the net. Salmon are despatched in steamers or fast sailing vessels from the Spey, the Tay, the Tweed, and other Scotch rivers, for London, packed in ice, by which means they are preserved quite fresh. When the season is at its height, and the catch greater than can be taken off fresh, it is salted, pickled, or dried for winter consumption at home, and for foreign markets. Formerly, such part of the Scotch salmon as was not consumed at home, was pickled and kitted after being boiled, and was in this state sent up to London under the name of Newcastle salmon; but the present method of disposing of the fish has so raised its value, as to have nearly deprived all but the richer inhabitants in the environs of the fishery of the use of salmon. Within the memory of many, now living, salted salmon formed a material article of household economy in all the farm-houses in the vale of the Tweed; insomuch that in-door servants used to stipulate that they should not be obliged to take more than two weekly meals of salmon. Its ordinary price was then 2*s.* per stone of 19 lb.; but it is now never below 12*s.*, often 36*s.*, and sometimes 42*s.* per stone. This rise in the price of the fish has produced a corresponding rise in the value of the salmon fisheries, some of which are very valuable. There are considerable fisheries in some of the Irish and English rivers; but inferior to those of Scotland. (*General Report of Scotland*, vol. iii. p. 327.) The Scotch salmon fisheries seem to have attained their maximum value towards the end of the last war, when the fisheries in the Tweed were let for from 15,000*l.* to 18,000*l.* a-year; and those of the Tay, Dee, Spey &c. were proportionally valuable. But the value of the Scotch salmon fisheries has, speaking generally, declined greatly of late years; in consequence, partly and principally, of a diminished supply of fish in the rivers, but in some degree, also, from the greater facility of the communication between London and Liverpool, and the consequent importation of Irish salmon into the London markets.

Decrease of the Supply of Salmon, Poaching &c.—The decrease of salmon in the English and Scotch rivers, particularly of late years, is a fact as to which there can be no manner of doubt. (*Report of Committee of House of Commons on Scotch Salmon Fishery in* 1843.) Much unsatisfactory discussion took place as to its causes, which were,

Statement of the Quantities of Salmon received in London (boxes of say 1 cwt. each) from 1863 to 1868, the Sources whence derived, and its Price per lb.

Years	Scotch	Irish	Dutch	Norwegian	Welsh	Total	Gross price per lb.
							s. d.
1863 - - - -	24,279	8,183	1,227	180	663	34,550	1 0
1864 - - - -	22,603	8,744	1,204	837	752	33,740	1 0½
1865 - - - -	19,009	6,858	1,479	1,069	868	29,283	1 2
1866 - - - -	21,725	9,526	1,772	1,632	1,563	36,018	1 1
1867 - - - -	23,006	5,411	973	1,296	2,405	33,091	1 1½
1868 - - - -	28,020	3,487	807	407	1,725	34,446	1 2½
Total - - - -	138,642	41,609	7,464	5,421	7,976	201,129	..
Total arrivals of salmon in London from 1854 to 1862, both years inclusive - - -	653,786	114,912	11,101	2,829	3,149	785,810	..
Grand Total - -	792,428	156,551	18,566	8,250	11,125	986,938	..
Annual average for 35 years -	22,641	4,473	530	236	318	28,198	..

probably, of a very diversified character. A good deal has been ascribed to the increase of water machinery on the banks of the different rivers; but we hardly think that this could have much influence, except, perhaps, in the case of the smaller class of rivers. *Weirs*, or salmon traps, have also been much objected to; though, as we have been assured, with still less reason. On the whole, we are inclined to think that the falling off in the supply of this valuable fish is principally to be ascribed to the temptation to over-fish the rivers, caused by the high price of salmon; to the prevalence of poaching; and more than all, to the too limited duration of the *close time*. In 1828, after a great deal of discussion and enquiry, an Act was passed (9 Geo. IV. c. 39), which has done a good deal to remedy these defects—in so far, at least, as respects the Scotch fisheries. The rivers were shut up from September 14 to February 1; and every person catching or attempting to catch fish during that period forfeited not less than 1*l.* and not more than 10*l.* for every offence, besides the fish, if he caught any, and such boats, nets, or other implements, as he might have made use of. Pecuniary penalties were also inflicted upon poachers and trespassers, and provision made for the watching of the rivers. This Act had a very good effect; though it is believed that it would be better were the *close time* extended from September 1 to the middle of February.

After public attention had long been turned to the question, inspectors of English salmon fisheries were appointed under the Act 24 & 25 Vict. c. 109, and they have already done much to put down poaching and other practices destructive of the fish.

The close season in England and Wales, so far as net fishing was concerned, was fixed by that Act from September 1 to February 1 following.

Similar Acts were passed for Scotland, viz. 25 & 26 Vict. c. 97; 26 & 27 Vict. c. 50; 27 and 28 Vict. c. 118, and 28 & 29 Vict. c. 119, the Act of 31 & 32 Vict. c. 123 being the latest.

By the 26 & 27 Vict. c. 10 the exportation of salmon caught in close time is prohibited.

In Mr. Buckland's *Report* of March 14, 1868, it would appear that 8,790 men were then employed in the salmon fisheries of England and Wales; and in the previous year 254 prosecutions had been instituted for breaches of the laws for protection of the fish.

In Mr. Walpole's *Report* of March 14, 1868, the average wholesale prices obtained for salmon by one of the dealers in Billingsgate in the following months of 1867 were:—

	s.	d.	
February - - -	2	3	per lb.
March - - -	2	1½	,,
April - - -	2	0½	,,
May - - -	1	8½	,,
June - - -	1	5½	,,
July - - -	0	11	,,
August - - -	1	1	,,

Previously to 1842 the importation of foreign salmon was prohibited; but among the important and beneficial changes effected by the Tariff Act of that year, the repeal of this prohibition, and the admission of foreign salmon to our markets on payment of a duty of 10*s.* 6*d.* (including the 5 per cent.) per cwt., was one of the foremost. The importation has not, however, been nearly so great as was anticipated.

In 1852 the imports of salmon of foreign taking amounted to only 326 cwt. The imports during the same year of salmon of British taking were 2,298 cwt. In 1853 the duty on the former was repealed; and salmon, however taken, may now, like any other fish, be imported duty free. Foreign salmon is principally brought from Holland, Norway, and Denmark. These supplies have increased very much, for we find that in 1867 we imported 138,604 cwt. of fresh fish not of British taking, and valued at 156,460*l.*, a considerable portion of which was salmon.

SALONICA. A large city and seaport of European Turkey, at the north-east extremity of the gulf of the same name, lat. 40° 38′ 47″ N., long. 22° 57′ 13″ E. Population estimated at 70,000 in 1860. (*Almanach de Gotha.*)

This city, originally called Therma and afterwards Thessalonica, is celebrated both in sacred and profane history. It was visited by St. Paul, who has addressed two of his epistles to the Thessalonians. In the days of its prosperity it had an amphitheatre, an extensive hippodrome, numerous temples and triumphal arches, the ruins of which sufficiently attest its ancient splendour. (Clarke's *Travels*, vii. 441—478, 8vo. ed.)

Being the principal emporium of Macedonia, Salonica has always had a considerable trade; and to this circumstance may be ascribed its continued and comparatively prosperous existence notwithstanding the many vicissitudes it has undergone.

There is no port at Salonica, but there is excellent anchorage in the roads opposite to the town. The access to them is by no means difficult, and pilots are seldom employed. The exports principally consist of wheat, of which large quantities are sometimes shipped (the price per quarter, free on board, being 35*s.* in 1866), barley, and Indian corn, raw cotton, wool, raw silk, tobacco, olives, and olive oil &c. The imports are sugar, coffee, dyewoods, indigo, muslins, calicoes, cotton twist, iron, coal, lead, tin, watches &c.

The following is a statement of the average price (free on board) of grain and of some articles of raw produce, at the port of Salonica, during 1866:—

		s.	d.
Wheat - - - -	per quarter	35	0
Barley - - - -	,,	17	0
Maize - - - -	,,	20	0
Cotton - - - -	per lb.	0	10½
Wool - - - -	,,	0	6½
Silk - - - -	,,	29	0

Account of the Number and Tonnage of the Vessels of different Nations Entered and Cleared at Salonica in 1866.

Countries	Inwards		Outwards	
	Ships	Tons	Ships	Tons
British	22	5,807	22	5,807
Steamers	1	432	1	432
French	5	1,122	5	1,122
Steamers	110	59,600	110	59,600
Austrian	34	7,971	33	7,789
Steamers	27	13,892	27	13,892
Italian	36	7,871	38	8,100
Steamers	1	713	1	713
Hellenic	150	21,060	149	20,985
Steamers	26	7,800	26	7,800
Russian	5	1,281	4	952
Prussian	2	494	2	494
Ottoman	158	19,145	158	19,145
Steamers	84	54,600	84	54,600
Totals	661	181,788	660	181,103

A considerable number of small vessels under the Ottoman and Hellenic flags, the former owned and navigated by Christian subjects of the Porte, are employed in the coasting trade, chiefly in carrying grain, charcoal, timber, firewood, and fruit; 3,954 of these vessels under the Ottoman flag, of an aggregate burden of 57,812 tons, and 121 vessels under the Hellenic flag, of an aggregate burden of 3,637 tons, arrived at Salonica in 1866.

According to the statement of the English consul, the aggregate values of the imports and exports by sea in 1866 were as follow: imports, 636,614*l.*; exports, 1,244,082*l.* When Ubicini's valuable work on Turkey was published (*Lettres sur la Turquie*, i. 425), the imports and exports amounted jointly to 18,950,000 fr. The trade of the subordinate ports of La Cavale and Volo amounted during the same year to 7,509,768 fr. (Ubicini, p. 420; Mr. Consul Wilkinson's *Report* of April 27, 1867.)

Money, Weights, and Measures.—Accounts are kept in piastres of 40 paras, or 120 aspers. The coins are those of Constantinople.

The weights and measures are the same as those of Smyrna, except that the kisloz, killow or corn measure of Salonica = 3·78 kisloz of Smyrna.

Quarantine Regulations.—On the arrival of a vessel at the port, she is visited by the boat of the health office, with the Turkish flag in the stern, and the yellow flag in the bow. The captain of the entering ship may, however, put a yellow flag in the bow of his boat, and go with his papers to the quarantine station (if he is much pressed for time), where he will obtain *pratique*, if with a clean bill, after he has answered the usual interrogations. The masters of vessels, on their arrival, must deliver up their bills of health to the quarantine officer, and they will be returned to them, upon application, before sailing. It is required that masters of vessels going from one Turkish port to another furnish themselves with Turkish bills of health, otherwise they will subject themselves to the same quarantine as vessels with foul bills.

Cost of Turkish Bills of Health.

	piast.	s.	d.	
Vessels of 25 tons	2 =	0	4½	ex. 100*s.*
25 tons to 75 ,,	6 =	1	0½	
75 ,, 125 ,,	10 =	1	9½	
125 ,, 175 ,,	12 =	2	5½	
175 ,, 250 ,,	16 =	3	2½	
250 ,, 300 ,,	20 =	3	10½	
300 and upwards	24 =	4	7	

Harbour, Depth of Water, Tides.—Vessels anchor very near the walls of the town, though it is prudent not to come too close in, owing to the number of small craft at anchor. The depth of water a cable's length from the shore varies from 3½ to 4, and at 2 cables' length from 7 to 8 fathoms, whence to Cape Carabourum it varies from 12 to 17 fathoms. There is very little rise: owing to the rivers which empty themselves into the gulf, the currents setting out are at times strong, and in light winds sufficient to impede the way of the vessel.

Ballast, consisting of wet sand, may be had at 15 piastres (2*s.* 8½*d.*) per boat of from 2½ to 3 tons; engagements may be made for a lump sum, to put the vessel down to a certain mark. If a master require much ballast, the latter plan is the best, for the ballast-men are all Jews, and it is the only means of having any check upon them.

Ship Bread.—Masters wanting ship bread must apply for a permit, which is obtained through the consul, for which the Turkish authorities charge 10 piastres.

Freights are payable either at the last rate of exchange received from Constantinople prior to the arrival of the vessel, or if the post come in after the ship's arrival, at the latter rate.

Bills.—Bills on London are at 3 months' date. The exchange on London varied in 1866 from 109½ to 111 piastres per pound sterling. At that period there was no bank in Macedonia other than a branch of the Imperial Ottoman.

Commission.—Commission on freights 3 per cent.

The gates of the town are opened at sunrise and closed at sunset.

Water is excellent: there is a fountain at or near the wharf, and two others a short distance from it.

SALT (Ger. salz; Dutch, zout; Fr. sel; Ital. sale; Span. sal; Russ. sol; Lat. sal; Arab. melh; Chin. yen; Hin. nimmuck; Per. nun), the *chloride of sodium* of modern chemists, has been known and in common use as a seasoner and preserver of food from the earliest ages. Immense masses of it are found in this and many other countries, which require only to be dug out and reduced to powder. In that state it is called rock salt. The water of the ocean also contains a great deal of salt; to which, indeed, it owes its taste, and the power which it possesses of resisting freezing till cooled down to 28·5°. When this water is sufficiently evaporated, the salt precipitates in crystals. This is the common process by which it is obtained in many countries. There are various processes by which it may be obtained quite pure. Common salt usually crystallises in cubes. Its taste is universally known, and is what is strictly denominated *salt*. Its specific gravity is 2·125. It is soluble in 3·82 times its weight of cold water, and in 2·76 times its weight of boiling water. (Thomson's *Chemistry*; Watt's *Dictionary of Chemistry*.)

Besides its vast utility in seasoning food, in preserving meat both for domestic consumption and during the longest voyages, and in furnishing muriatic acid and soda, salt forms a glaze for coarse pottery, by being thrown into the oven where it is baked; it improves the whiteness and clearness of glass; it gives hardness to soap; in melting metals, it preserves their surface from calcination by defending them from the air, and is employed with advantage in some assays; it is used as a mordant, and for improving certain colours; and enters more or less into many other processes of the arts. Many contradictory statements have been made as to the use of salt as a manure. Probably it may be advantageous in some situations, and not in others.

Salt Mines, Springs &c.—The principal salt mines are at Wielitska in Poland, Catalonia in Spain, Altemonte in Calabria, Loowur in Hungary, in many places in Asia, Africa, and America, and in Cheshire in this country. The mines at Wielitska are upon a very large scale; but the statements that have frequently been published,

of their containing villages inhabited by colonies of miners who never saw the light, are altogether without foundation. These mines have been wrought for more than 600 years. (Coxe's *Travels in the North of Europe*, vol. i. 149, 8vo. ed.; Mr. Secretary Middleton's *Report on the Salt-producing Districts of Mexico* of December 31, 1867.)

The salt mines in the neighbourhood of Northwich in Cheshire are very extensive. They have been wrought since 1670; and the quantity of salt obtained from them is greater, probably, than is obtained from any other salt mines in the world. In its solid form, when dug from the mine, Cheshire salt is not sufficiently pure for use. To purify it, it is dissolved in sea water, from which it is afterwards separated by evaporation and crystallisation. The greater part of this salt is exported. There were sent from Cheshire down the river Weaver, in the year ended March 31, 1868, 918,438 tons, being considerably above the average quantity, while Worcestershire produced 225,250 tons. (Hunt's *Mineral Statistics*, 1867.)

Salt springs are met with in several countries. Those in Cheshire and Worcestershire furnish a large proportion of the salt made use of in Great Britain. The brine, being pumped up from very deep wells, is evaporated in wrought-iron pans from 20 to 30 feet square and 10 or 12 inches deep, placed over a furnace.

Most of the salt used in Scotland, previous to the repeal of the duty, was obtained by the evaporation of sea water nearly in the way now mentioned; but most part of the Scotch salt works have since been relinquished. 15,797 tons of Irish salt were exported from Belfast in 1867.

In warm countries, salt is obtained by the evaporation of sea-water by the heat of the sun; and the crystals of salt made in this way are more perfect, and purer, from the greater slowness of the process. French salt is manufactured in this mode, and it has always been in considerable demand in this and other countries; but the principal imports of foreign salt into Great Britain at present are from Portugal. In 1867 the total import was 16,149 tons, valued at 16,149*l*.

Consumption of Salt.—The consumption of salt in this country is immense. Necker estimated the consumption in those provinces of France which had purchased an exemption from the *gabelle* (*pays francs rédimés*) at about 19½ lb. (Eng.) for each individual. (*Administration des Finances*, tome ii. p. 12.) From all that we have been able to learn on the subject, we believe that the consumption of the people of this country may be estimated a little higher, or at 22 lb.; the difference in our food and habits, as compared with the French, fully accounting for this increased allowance. On this supposition, and taking the population at 30,000,000, the entire consumption will amount to 660,000,000 lb., or upwards of 294,600 tons.

Exclusive of this immense home consumption, we annually export very large quantities, the export in 1867 having been 724,343 tons, of the value of 445,941*l*.

Account of the Quantities and Value of the Salt Exported from the United Kingdom during each of the 4 Years ending with 1867.

Countries	1864		1865		1866		1867	
	Quantity	Declared Value	Quantity	Declared Value	Quantity	Declared Value	Quantity	Declared Value
	tons	£	tons	£	tons	£	tons	£
Russia	72,801	37,941	56,141	28,381	46,223	28,157	72,897	46,183
Norway	9,207	4,152	12,163	6,218	14,092	8,802	—	—
Denmark	17,648	6,159	9,790	5,021	15,933	7,357	—	—
Schleswig-Holstein	2,111	1,386	3,941	1,935	—	—	—	—
Prussia	46,655	24,960	53,110	25,271	40,740	22,164	49,916	30,953
Holland	23,226	8,126	21,215	6,321	24,639	7,719	27,653	8,688
Belgium	25,591	7,890	26,112	7,736	24,211	7,595	27,668	9,100
Western Africa (foreign)	21,055	10,797	17,452	9,874	15,210	9,081	13,635	10,093
United States: North Atlantic Ports	76,403	35,202	68,173	37,210	82,526	37,587	96,114	63,715
South Atlantic Ports	9,375	5,191	71,497	32,269	78,161	43,619	65,214	38,126
Pacific Ports	350	226	170	94	590	612	2,271	1,506
British India: Bengal and Pegu	—	—	—	—	—	—	210,539	135,617
British Possessions in South Africa	2,390	2,338	1,158	1,117	—	—	—	—
India, Singapore, and Ceylon	183,138	81,032	112,803	48,548	132,512	79,231	—	—
Australia	20,647	17,567	14,337	14,015	20,608	19,585	18,500	18,470
British North America	68,908	21,697	82,911	27,857	82,106	51,203	85,045	44,550
Other countries	23,574	15,501	18,817	12,086	27,859	21,643	55,891	38,010
Total	596,510	276,559	579,050	274,651	601,440	364,455	724,343	445,941

The cheapness of this important necessary of life is not less remarkable than its diffusion. Its present cost may be estimated, at a medium, at from 12*s*. to 14*s*. per ton.

Duties on Salt.—In ancient Rome, salt was subjected to a duty (*vectigal salinarum*; see Burman, *Dissertatio de Vectigalibus Pop. Rom.* c. 6); and it has been heavily taxed in most modern States. The *gabelle*, or code of salt laws, formerly established in France, was most oppressive. From 4,000 to 5,000 persons are calculated to have been sent annually to prison and the galleys for offences connected with these laws, the severity of which had no inconsiderable share in bringing about the Revolution. (Young's *Travels in France*, vol. i. p. 598.) In this country, duties upon salt were imposed in the reign of William III. In 1798 they amounted to 5*s*. per bushel; but were subsequently increased to 15*s*. per bushel, or about *thirty times* the cost of the salt. So exorbitant a duty was productive of the worst effects, and occasioned, by its magnitude, and the regulations for allowing salt, duty free, to the fisheries, a vast deal of smuggling. The opinion of the public and of the House of Commons having been strongly pronounced against the tax, it was finally repealed in 1823.

That the repeal of so exorbitant a duty has been productive of great advantage, no one can doubt; but seeing that a large revenue must be raised, we question whether Government acted wisely in totally relinquishing the tax. Had the duty been reduced to 2*s*. or 2*s*. 6*d*. per bushel, and no duty-free salt allowed for the fisheries, but a drawback given on the fish exported, a revenue of 1,000,000*l*. a-year might have been derived from this source with but little injury. It was not the nature of the salt tax, but the absurd extent to which it had been carried, that rendered it justly odious. When at the highest, it produced about 1,500,000*l*. a-year.

SALTPETRE or NITRATE OF POTASH (Ger. salpeter; Fr. nitre, salpêtre; Ital. nitro, salnitro; Span. nitro, salitre; Russ. senitra; Lat. nitrum; Arab. ubikr; Hin. shorah). A salt well known in commerce, and of very great im-

portance. It may be regarded both as a natural and an artificial production; being found on the surface of the soil in many parts of India, Egypt, Italy &c.; but in these and other places all that is known in commerce is obtained by an artificial process, or by lixiviating earth that has been formed into *nitre* beds. The saltpetre consumed in England is brought from Bengal in an impure state, but crystallised, in bags, each containing 164 lb. Saltpetre forms the principal ingredient in the manufacture of gunpowder, and is used in various arts. It is also of great utility in the commerce of India, from its furnishing a large amount of dead weight for the shipping engaged in it. Saltpetre possesses considerable antiseptic power. That which is of the best quality and well refined is in long transparent crystals; its taste is sharp, bitterish, and cooling; it flames much when thrown upon burning coals; is very brittle; specific gravity 1·933. It is not altered by exposure to the air.

Beckmann contends, in a long and elaborate dissertation (*Hist. of Invent.* vol. iv. pp. 525—586, Eng. ed.), that the ancients were unacquainted with saltpetre, and that their *nitrum* was really an alkaline salt. But as saltpetre is produced naturally in considerable quantities in Egypt, it is difficult to suppose that they could be entirely ignorant of it; though it would appear that they confounded it with other things. It has been known in the East from a very early period. Beckmann concurs in opinion with those who believe that gunpowder was invented in India, and brought by the Saracens from Africa to the Europeans, who improved its manufacture, and made it available for warlike purposes. (Vol. iv. p. 571.)

The consumption of saltpetre during periods of war is very great. Its price is consequently liable to extreme fluctuation. In remarking on the varieties in the price of saltpetre, Mr. Tooke observes, 'It reached its greatest height in 1795, viz. 170*s.* per cwt.; in 1796 it fell at one time to 45*s.*, and rose again to 96*s.* It seems to have been affected considerably by the scale of hostilities on the Continent. But in consequence of the discoveries in chemistry, by which the French were enabled to dispense with a foreign supply, and by the increased importation from India to this country, by which we were enabled to supply the rest of the Continent at a reduced cost, the price declined permanently after 1798–9, when it had reached 145*s.*; and never after was so high as 100*s.*, except during the short interval of speculation in export, during the peace of 1814, and again upon the breaking out of the war terminated by the battle of Waterloo.' The price of rough saltpetre in the London market varied, in 1867, from 12*s.* 9*d.* to 18*s.* 8*d.* per cwt.

During 1867 we imported 214,604 cwt. saltpetre, of which 199,105 were from India. The exports from the United Kingdom during the same year amounted to 81,758 cwt.

Exclusive of saltpetre, we import considerable quantities of nitre, or nitrate of soda, consisting of nitric acid and soda, whereas saltpetre consists of nitric acid and potash. Like saltpetre, it is found native in various countries, but especially in the deserts of Tarapaca, in Chili, and Atacama, along the coast of Southern Peru. The deserts in question consist of a vast sandy plain, extending between the shore and the foot of the Andes for between 400 and 500 miles. This plain is more than 3,000 feet above the level of the sea; no rain ever falls upon it; and except along the banks of a few streams by which it is intersected, it is quite sterile. In most parts, however, it abounds with nitrate of soda, which sometimes appears on the surface, but is more commonly covered with a stratum of clay and sand, with which the salt is frequently mixed. The principal mines are within about 24 miles of the Peruvian port of Iquique, in 21° 50′ S. lat. and 71° 42′ W. long. After being dug up, the salt is pulverised, dissolved in boiling water, and allowed to crystallise in shallow wooden troughs. Its price, free on board, including an export duty of about 4 per cent., varies from 2 to 2½ or 3 dols. the quintal of 100 lb. Having a tendency to attract moisture, it is not so suitable as saltpetre for the manufacture of gunpowder; but it is extremely serviceable in various departments of the arts, and is particularly valuable in a commercial point of view, from its affording a return cargo for ships which might otherwise have had to come home in ballast.

During 1867 the imports and exports of nitre (cubic nitrate of soda or cubic saltpetre) amounted respectively to 1,217,752 cwt., valued at 667,356*l.*, and 31,902 cwt. The price during the same year was about 11*s.* per cwt. The duty formerly charged on saltpetre and nitre was suppressed in 1845. (Watt's *Dictionary of Chemistry.*)

SALVAGE, as the term is now understood, is an allowance or compensation made to those by whose exertions ships or goods have been saved from the dangers of the seas, fire, pirates, or enemies.

The propriety and justice of making such an allowance must be obvious to everyone. It was allowed by the laws of Rhodes, Oleron, and Wisby; and in this respect they have been followed by all modern maritime states. At common law, the party who has saved the goods of another from loss or any imminent peril has a *lien* upon them, and may retain them in his possession till payment of a reasonable salvage.

Salvage upon Losses by Perils of the Sea.—In fixing the rate of salvage, regard is usually had, not only to the labour and peril incurred by the salvors, but also to the situation in which they may happen to stand in respect of the property saved, to the promptitude and alacrity manifested by them, and to the value of the ship and cargo, as well as the degree of danger from which they were rescued. In some cases as much as *a half* of the property saved has been allowed as salvage; and in others not more than *a tenth* part.

The crew of a ship are not entitled to salvage, or any unusual remuneration for the extraordinary efforts they may have made in saving her; it being their duty, as well as interest, to contribute their utmost upon such occasion, the whole of their possible services being pledged to the master and owners. Neither are passengers entitled to claim anything for the *ordinary assistance* they may be able to afford to a vessel in distress. But a passenger is not bound to remain on board a ship in the hour of danger, provided he can leave her; and if he perform any *extraordinary services*, he is entitled to a proportional recompense.

All cases with respect to proceedings for salvage may be brought either in the first instance, or by appeal, before the Court of Admiralty, provided, in the last case, the sum in dispute exceeds 50*l.* But the delays and expenses attending the proceedings of this court are such, that they have occasioned much dissatisfaction among commercial men. To obviate them, efforts which had been previously made were renewed and extended in 1846 by the 9 & 10 Vict. c. 99. This statute authorised salvage claims, for sums under 200*l.*,

to be decided by the award of two justices or their nominee, on the spot; and it also gave power to the Admiralty to appoint salvage commissioners in different ports to decide upon such claims. These attempts to expedite and cheapen salvage proceedings have not, however, hadall the success that was anticipated. And a strong conviction has grown up of the desirableness either of shortening and reducing the cost of Admiralty proceedings, or of bringing salvage cases before some less dilatory and less expensive tribunal. The Vice Admiralty Court Acts of 1863 and 1867 (26 Vict. c. 24, and 30 & 31 Vict. c. 45) have been passed to facilitate the appointment of Vice Admiralty Courts abroad and to extend their jurisdiction over claims to salvage &c. The existing rules and regulations as to salvage are embodied in the Merchant Shipping Act, the 17 & 18 Vict. c. 104, part viii.; the 24 & 25 Vict. c. 10; the Merchant Shipping Amendment Act, 25 & 26 Vict. c. 63; and the 27 & 28 Vict. c. 24 & 25, and are given below.

It appears from the preamble of the earliest Act in regard to salvage, the 12 Anne, stat. 2, c. 18, that the infamous practices, once so common, of plundering ships driven on shore, and seizing whatever could be laid hold of as lawful property—[Wreck], had not been then wholly abandoned; or that, if the property was restored to the owner, the demand for salvage was so exorbitant, that the inevitable ruin of the trader was the immediate consequence. To remedy those mischiefs in future, it was enacted that if a ship was in danger of being stranded, or being run ashore, the sheriffs, justices, mayors, constables, or officers of the customs, nearest the place of danger, should, upon application made to them, summon and call together as many men as should be thought necessary to the assistance and for the preservation of such ship in distress, and cargo; and that if any ship, man-of-war, or merchantman should be riding at anchor near the place of danger, the constables and officers of the customs might demand of the superior officers of such ship the assistance of her boats, and such hands as could be spared; and that, if the superior officer should refuse to grant such assistance, he should forfeit 100*l.*

And a clause to the same effect has been embodied in the Merchant Shipping Act.

We subjoin the clauses in this latter and the later statutes which have reference to salvage.

Salvage for Services rendered in the United Kingdom.—In the following cases, viz.:—

Whenever any ship or boat is stranded or otherwise in distress on the shore of any sea or tidal water situate within the limits of the United Kingdom, and services are rendered by any person,

1. In assisting such ship or boat:
2. In saving the lives of the persons belonging to such ship or boat:
3. In saving the cargo or apparel of such ship or boat, or any portion thereof:

And whenever any wreck is saved by any person other than a receiver within the United Kingdom:

There shall be payable by the owners of such ship or boat, cargo, apparel, or wreck, to the person by whom such services or any of them are rendered or by whom such wreck is saved, a reasonable amount of salvage, together with all expenses properly incurred by him in the performance of such services or the saving of such wreck, the amount of such salvage and expenses to be determined in case of dispute in manner hereinmentioned. (Sec. 458.)

Salvage for Life may be paid by Board of Trade.—Salvage for the preservation of the life or lives of any person or persons belonging to any ship or boat shall be payable by the owners of the ship or boat in priority to all other claims for salvage; and in cases where such ship or boat is destroyed, or where the value thereof is insufficient, after payment of the actual expenses incurred, to pay the amount of salvage due in respect of any life or lives, the Board of Trade may in its discretion award to the salvors of such life or lives out of the Mercantile Marine Fund such sum or sums as it deems fit, in whole or part satisfaction of any amount of salvage so left unpaid in respect of such life or lives. (Sec. 459.)

Disputes as to Salvage, how to be settled.—Disputes with respect to salvage arising within the boundaries of the Cinque Ports shall be determined in the manner in which the same have hitherto been determined; but whenever any dispute arises elsewhere in the United Kingdom, between the owners of any such ship, boat, cargo, apparel, or wreck as aforesaid, and the salvors, as to the amount of salvage, and the parties to the dispute cannot agree as to the settlement thereof by arbitration or otherwise,

Then, if the sum claimed does not exceed 200*l.*, such dispute shall be referred to the arbitration of any two justices of the peace resident as follows; viz.:—

In case of wreck, resident at or near the place where such wreck is found.

In case of services rendered to any ship or boat, or to the persons, cargo, or apparel belonging thereto, resident at or near the place where such ship or boat is lying, or at or near the first port or place in the United Kingdom into which such ship or boat is brought after the occurrence of the accident by reason whereof the claim to salvage arises.

But if the sum claimed exceeds 200*l.*,

Such dispute may, with the consent of the parties, be referred to the arbitration of such justices as aforesaid, but if they do not consent, shall in England be decided by the High Court of Admiralty of England, in Ireland by the High Court of Admiralty of Ireland, and in Scotland by the Court of Session; subject to this proviso, that if the claimants in such dispute do not recover in such Court of Admiralty or Court of Session a greater sum than 200*l.*, they shall not, unless the court certifies that the case is a fit one to be tried in a superior court, recover any costs, charges, or expenses incurred by them in the prosecution of their claim.

And every dispute with respect to salvage may be heard and adjudicated upon on the application either of the salvor or of the owner of the property salved, or of their respective agents. (17 & 18 Vict. c. 104 s. 460.)

Extension and Amendment of summary Jurisdiction in small Salvage cases by 25 & 26 Vict. c. 63 s. 49.—The provisions contained in the eighth part of the principal Act for giving summary jurisdiction to two justices in salvage cases, and for preventing unnecessary appeals and litigation in such cases, shall be amended as follows (that is to say)—

1. Such provisions shall extend to all cases in which the value of the property saved does not exceed 1,000*l.*, as well as to the cases provided for by the principal Act:
2. Such provisions shall be held to apply whether the salvage service has been rendered within the limits of the United Kingdom or not:
3. It shall be lawful for one of her Majesty's

principal secretaries of state, or in *Ireland* for the Lord Lieutenant or other chief governor or governors, to appoint out of the justices for any borough or county a rota of justices by whom jurisdiction in salvage cases shall be exercised:

4. When no such rota is appointed, it shall be lawful for the salvors, by writing addressed to the justice's clerk, to name one justice, and for the owner of the property saved in like manner to name the other:
5. If either party fails to name a justice within a reasonable time, the case may be tried by two or more justices at petty sessions:
6. It shall be competent for any stipendiary magistrate, and also in *England* for any county court judge, in *Scotland* for the sheriff or sheriff substitute of any county, and in *Ireland* for the recorder of any borough in which there is a recorder, or for the chairman of quarter sessions in any county, to exercise the same jurisdiction in salvage cases as is given to two justices:
7. It shall be lawful for one of her Majesty's principal secretaries of state to determine a scale of costs to be awarded in salvage cases by any such justices or court as aforesaid:
8. All the provisions of the principal Act relating to summary proceedings in salvage cases, and to the prevention of unnecessary appeals in such cases, shall, except so far as the same are altered by this Act, extend and apply to all such proceedings, whether under the principal Act or this Act, or both of such Acts.

Manner in which Justices may decide Disputes.—Whenever, in pursuance of this Act, any dispute as to salvage is referred to the arbitration of two justices, they may either themselves determine the same, with the power to call to their assistance any person conversant with maritime affairs as assessor, or they may, if a difference of opinion arise between them, or without such difference, if they think fit, appoint some person conversant with maritime affairs as umpire to decide the point in dispute; and such justices or their umpire shall make an award as to the amount of salvage payable, within the following times, that is to say, the said justices within 48 hours after such dispute has been referred to them, and the said umpire within 48 hours after his appointment, with power nevertheless for such justices or umpire by writing under their or his hands or hand to extend the time within which they and he are hereby respectively directed to make their or his award. (17 & 18 Vict. c. 104 s. 461.)

Costs of Arbitration.—There shall be paid to every assessor and umpire who may be so appointed as aforesaid, in respect of his services, such sum, not exceeding 5*l.*, as the Board of Trade may from time to time direct; and all the costs of such arbitration, including any such payments as aforesaid, shall be paid by the parties to the dispute, in such manner and in such proportions as the said justices or umpire may direct by their or his award. (Sec. 462.)

Clause 463 authorises justices or their umpire to call for documents, and administer oaths.

Receiver may appoint a Valuer in Salvage Cases.—Whenever any salvage question arises, the receiver of wreck for the district may, upon application from either of the parties, appoint a valuer to value the property in respect of which the salvage claim is made, and shall, when the valuation has been returned to him, give a copy of the valuation to both parties; and any copy of such valuation, purporting to be signed by the valuer, and to be attested by the receiver, shall be received in evidence in any subsequent proceeding; and there shall be paid in respect of such valuation, by the party applying for the same, such fee as the Board of Trade may direct.

Appeal to Courts of Admiralty.—If any person is aggrieved by the award made by such justices or umpire, he may in England appeal to the High Court of Admiralty of England, in Ireland to the High Court of Admiralty of Ireland, and in Scotland to the Court of Session; but no such appeal shall be allowed unless the sum in dispute exceed 50*l.*, nor unless within 10 days after the date of the award the appellant gives notice to the justices of his intention to appeal, nor unless the appellant proceeds to take out a monition, or to take such other proceeding as according to the practice of the court of appeal is necessary for the institution of an appeal, within 20 days from the date of the award. (17 & 18 Vict. c. 104 s. 464.)

Extending 17 & 18 *Vict. c.* 104, *as to Claims for Salvage of Life.*—All the provisions of 'the Merchant Shipping Act 1854,' in regard to salvage of life from any ship or boat within the limits of the United Kingdom, shall be extended to the salvage of life from any *British* ship or boat, wheresoever the services may have been rendered, and from any foreign ship or boat, where the services have been rendered either wholly or in part in *British* waters.

Jurisdiction of Court of Session in Salvage Cases.—The words 'Court of Session' in the 468th section of the principal Act shall be deemed to mean and include either division of the Court of Session or the lord ordinary officiating on the bills during vacation.

Clause 465 of 17 & 18 Vict. c. 104 directs the justices to transmit copy of proceedings and certificate of value to court of appeal.

Payment of Salvage, to whom made in case of Dispute.—Whenever the aggregate amount of salvage payable for salvage services rendered in the United Kingdom has been finally ascertained either by agreement or by the award of such justices or their umpire, but a dispute arises as to the appointment thereof amongst several claimants, then, if the amount does not exceed 200*l.*, it shall be lawful for the party liable to pay the amount to apply to the receiver of the district for liberty to pay the amount to him; and he shall, if he think fit, receive the same accordingly, and grant a certificate under his hand, stating the fact of such payment and the services for which it is made; and such certificate shall be a full discharge and indemnity to the person or persons to whom it is given, and to their ship, boats, cargo, apparel, and effects, against the claims of all persons whomsoever in respect of the services therein mentioned; but if the amount exceeds 200*l.*, it shall be apportioned in manner after mentioned. (Sec. 466.)

Apportionment of Salvage.—Upon the receipt of any such amount as aforesaid, the receiver shall with all convenient speed proceed to distribute the same among the several persons entitled thereto, upon such evidence and in such shares and proportions as he thinks fit, with power to retain any moneys that may appear to him to be payable to any absent parties; but any distribution made in pursuance of this section shall be final and conclusive against the rights of all persons claiming to be entitled to any portion of the moneys so distributed. (Sec. 467.)

Manner of enforcing Payment of Salvage.—Whenever any salvage is due to any person

under this Act, the receiver shall act as follows: viz.:—

1. If the same is due in respect of services rendered in assisting any ship or boat, or in saving the lives of persons belonging to the same, or the cargo or apparel thereof,

He shall detain such ship or boat and the cargo and apparel belonging thereto until payment is made, or process has been issued by some competent court for the detention of such ship, boat, cargo, or apparel.

2. If the same is due in respect of the saving of any wreck, and such wreck is not sold as unclaimed in pursuance of the provisions hereinafter contained,

He shall detain such wreck until payment is made, or process has been issued in manner aforesaid.

But it shall be lawful for the receiver, if at any time previously to the issue of such process security is given to his satisfaction for the amount of salvage due, to release from his custody any ship, boat, cargo, apparel, or wreck detained by him; and in cases where the claim for salvage exceeds 200*l.* it shall be lawful in England for the High Court of Admiralty of England, in Ireland for the High Court of Admiralty of Ireland, and in Scotland for the Court of Session, to determine any question that may arise concerning the amount of the security to be given or the sufficiency of the sureties; and in all cases where bond or other security is given to the receiver for an amount exceeding 200*l.*, it shall be lawful for the salvor or for the owner of the property salved, or their respective agents, to institute proceedings in such last-mentioned courts for the purpose of having the questions arising between them adjudicated upon, and the said courts may enforce payment of the said bond or other security, in the same manner as if bail had been given in the said courts. (Sec. 468.)

Power of Receiver to sell Property salved.—Whenever any ship, boat, cargo, apparel, or wreck is detained by any receiver for non-payment of any sums so due as aforesaid, and the parties liable to pay the same are aware of such detention, then, in the following cases; viz.:—

1. In cases where the amount is not disputed, and payment thereof is not made within 20 days after the same has become due:

2. In cases where the amount is disputed, but no appeal lies from the first tribunal to which the dispute is referred, and payment thereof is not made within 20 days after the decision of such first tribunal:

3. In cases where the amount is disputed, and an appeal lies from the decision of the first tribunal to some other tribunal, and payment thereof is not made within such 20 days as last aforesaid, or such monition as hereinbefore mentioned is not taken out within such 20 days, or such other proceedings as are according to the practice of such other tribunal necessary for the prosecution of an appeal are not instituted within such 20 days,

The receiver may forthwith sell such ship, boat, cargo, apparel, or wreck, or a sufficient part thereof, and out of the proceeds of the sale, after payment of all expenses thereof, defray all sums of money due in respect of expenses, fees, and salvage, paying the surplus, if any, to the owners of the property sold, or other the parties entitled to receive the same. (Sec. 469.)

Subject to Payment of Expenses &c., Owner entitled to Wreck.—Subject to the payment of such expenses, fees, and salvage as aforesaid, the owner of any wreck who establishes his claim thereto to the satisfaction of the receiver within 1 year from the date at which such wreck has come into the possession of the receiver, shall be entitled to have the same delivered up to him. (17 & 18 Vict. c. 104 s. 470.)

Delivery of Wreck by Receiver not to prejudice Title.—Upon delivery of wreck or of the proceeds of wreck by any receiver to any person in pursuance of the provisions of the eighth part of the principal Act, such receiver shall be discharged from all liability in respect thereof, but such delivery shall not be deemed to prejudice or affect any question concerning the right or title to the said wreck which may be raised by third parties, nor shall any such delivery prejudice or affect any question concerning the title to the soil on which the wreck may have been found.

None of the previously mentioned clauses have any force within the Cinque Ports; but the Lord Warden is directed by stat. 1 & 2 Geo. IV. c. 76 to appoint three or more substantial persons in each of these towns, who are authorised to decide upon all claims for services of any sort or description rendered to any vessel, or for saving or preserving, within the jurisdiction, any goods or merchandise wrecked, stranded, or cast away, or bringing anchors or cables ashore &c. No commissioner can act for any other place than that in which, or within a mile of which, he is resident. Either party may, within 8 days of the award, declare his intention of bringing the matter before some competent Court of Admiralty; selecting, as he may judge best, the Admiralty of England, or that of the Cinque Ports. The provisions in this statute have been eulogised by Lord Tenterden for the cheap and easy means they afford for settling such questions.

Salvage by Ships of War.—A good deal of discussion has taken place in regard to the claims preferred by ships of war for salvage. In periods of war, when British merchantmen that have been captured by enemy's ships are re-captured by British ships of war, the latter are allowed a salvage of one-eighth part of the re-captured ships and cargoes. (Stat. 43 Geo. III. c. 160.) The same statute allows a salvage of one-sixth part of their value on ships re-captured by privateers. We subjoin the clause of the Act:—

'If any ship or vessel taken as prize, or any goods therein, shall appear, in the Court of Admiralty, to have belonged to any of his Majesty's subjects, which were before taken by any of his Majesty's enemies, and at any time afterwards retaken by any of his Majesty's ships, or any privateer, or other ship or vessel under his Majesty's protection, such ships, vessels, and goods shall, in all cases (save as hereafter excepted), be adjudged to be restored, and shall be accordingly restored, to such former owner or owners, he or they paying for salvage, if retaken by any of *his Majesty's ships*, *one-eighth* part of the true value thereof, to the flag officers, captains &c., to be divided as the same Act directs; and if retaken by any *privateer*, or other ship or vessel, *one-sixth* part of the true value of such ships and goods, to be paid to the owners, officers, and seamen of such privateer or other vessel, without any deduction; and if retaken by the joint operation of one or more of his Majesty's ships, and one or more private ships of war, the judge of the Court of Admiralty, or other court having cognisance thereof, shall order such salvage, and in such proportions, to be paid to the captors by the owners, as he shall, under the circumstances of the case, deem fit and reasonable; but if such recaptured ship or vessel shall appear to have

been set forth by the enemy as a ship or vessel of war, the said ship or vessel shall not be restored to the former owners, but shall in all cases, whether retaken by any of his Majesty's ships or any privateer, be adjudged lawful prize for the benefit of the captors.'

Now, it is contended that if salvage from perils of the sea be allowed to Queen's ships, it should not in any case exceed this amount. But it is argued by others, that salvage to Queen's ships, even to this extent, is objectionable; that they are employed by the public for their security and protection; and that when they are assisting in saving lives or property from shipwreck or other casualty, they are merely doing their duty, and are not entitled to any peculiar gratuity or reward. And on general principles we are inclined to think that this is the correct view of the matter; and that it is the bounden duty of Queen's ships to render gratuitously every assistance in their power to merchantmen in distress.

This, however, is a practical rather than a theoretical question. And the zeal of sailors in the discharge of a perilous duty may, perhaps, be sharpened by their being aware that by its successful performance they will entitle themselves, not merely to the public thanks, but to a considerable pecuniary reward. But it could not surely be meant that officers and men belonging to the royal navy were to be allowed equal claims for salvage as private parties, or that they were to be enriched at the expense of those whose property they had done their duty in helping to save. And yet cases have occurred which it is very difficult to explain on any other principle than this. It is not, therefore, surprising that the claims for salvage put forward by Queen's ships should, of late years, have been much canvassed and objected to. We subjoin the regulations which the Merchant Shipping Act of 1854 has laid down in regard to the making up and prosecution of such claims. But though it has amended some of the abuses complained of, it will not suffice for their eradication. Nothing would be so effectual for this purpose as to limit the *maximum* claim for salvage put forward by Queen's ships to one-eighth part of the value of the property saved, as in cases of re-capture. It is difficult to see what greater merit can attach to saving property from shipwreck than to recovering it from an enemy.

Salvage by her Majesty's Ships.—In cases where salvage services are rendered by any ship belonging to her Majesty or by the commander or crew thereof, no claim shall be made or allowed for any loss, damage, or risk thereby caused to such ship, or to the stores, tackle, or furniture thereof, or for the use of any stores or other articles belonging to her Majesty supplied in order to effect such services, or for any other expense or loss sustained by her Majesty by reason of such services. (Sec. 484.)

Claims for Salvage by her Majesty's Officers not to be determined without Consent of Admiralty.—No claim on account of any salvage services rendered to any ship or cargo or to any appurtenances of any ship by the commander or crew or part of the crew of any of her Majesty's ships shall be finally adjudicated upon unless the consent of the Admiralty has first been obtained, such consent to be signified by writing under the hand of the secretary to the Admiralty; and if any person who has originated proceedings in respect of any such claim fails to prove such consent to the satisfaction of the court, his suit shall stand dismissed, and he shall pay all the costs of such proceedings; provided that any document purporting to give such consent and to be signed by the secretary to the Admiralty shall be primâ facie evidence of such consent having been given. (Sec. 485.)

Steps to be taken when Salvage Services have been rendered &c.—Whenever services for which salvage is claimed are rendered to any ship or cargo, or to any part of them, or to any appurtenances of any ship, at any place out of the United Kingdom and the four seas adjoining thereto, by the commander or crew or part of the crew of any of her Majesty's ships, the property alleged to be salved shall, if the salvor is justified by the circumstances of the case in detaining it at all, be taken to some port where there is either a consular officer or a vice-admiralty court; and within 24 hours after arriving at such port, the said salvor and the master or other person in charge of the property alleged to be salved shall each deliver to the consular officer or vice-admiralty judge there, a statement verified on oath, specifying, so far as they respectively can, and so far as the particulars required apply to the case,

1. The place, condition, and circumstances in which the said ship, cargo, or property was at the time when the services were rendered for which salvage is claimed.

2. The nature and duration of the services rendered.

And the salvor shall add to his statement,

3. The proportion of the value of said ship, cargo, and property, and the freight which he claims for salvage, of the values at which he estimates the said ship, freight, cargo, and property respectively, and the several amounts that he claims for salvage in respect of the same.

4. Any other circumstances he thinks relevant to the said claim.

And the said master or other person in charge of the said ship, cargo, or property, shall add to his statement,

3. A copy of the certificate of registry of the said ship, and of the indorsements thereon, stating any change which (to his knowledge or belief) has occurred in the particulars contained in such certificate; and stating also, to the best of his knowledge and belief, the state of the title to the ship for the time being, and of the incumbrances and certificates of mortgage or sale, if any, affecting the same, and the names and places of business of the owners and incumbrancers.

4. The name and place of business or residence of the freighter (if any) of the said ship, and the freight to be paid for the voyage she is then on.

5. A general account of the quantity and nature of the cargo at the time the salvage services were rendered.

6. The name and place of business or residence of the owner of such cargo and of the consignee thereof.

7. The value at which the said master estimates the said ship, cargo, and property, and the freight respectively, or, if he thinks fit, in lieu of such estimated value of the cargo, a copy of the ship's manifest.

8. The amounts which the master thinks should be paid as salvage for the services rendered.

9. An accurate list of the property saved, in cases where the ship is not saved.

10. An account of the proceeds of the sale of the said ship, cargo, or property in cases where the same or any of them are sold at such port as aforesaid.

11. The number, capacities, and condition of the crew of the said ship at the time the said services were rendered.

12. Any other circumstances he thinks relevant to the matters in question.

13. A statement of his willingness to execute a bond, in the form in the table marked W. in the schedule to this Act, in such amount as the said consular officer or vice-admiralty judge may fix. (Sec. 486.)

Consular Officer or Judge to fix Amount for which a Bond is to be given.—The said consular officer or judge, as the case may be, shall, within 4 days after receiving the aforesaid statements, fix the amount to be inserted in the said bond at such sum as he thinks sufficient to answer the demand for the salvage services rendered; but such sum shall not exceed one-half of the value which in his estimation the said ship, freight, and cargo, or any parts thereof in respect of which salvage is claimed, are worth; and the said officer or judge may, if either of the aforesaid statements is not delivered to him within the time hereby required, proceed ex-parte, but he shall in no case under this Act require the cargo to be unladen; and the said consular officer may, in any proceeding under this Act relating to salvage, take affidavits and receive affirmations. (Sec. 487.)

On Master executing Bond, the Right of Detention to cease.—The said consular officer or judge shall send notice of the sum which he has fixed as aforesaid to the said salvor and the said master; and upon such master executing a bond in form as aforesaid, with the said sum inserted therein, in the presence of the said officer or judge (who shall attest the same), and delivering the same to the said salvor, the right of the said salvor to detain or retain possession of the said ship, cargo, or property, or any of them, in respect of the said salvage claim, shall cease. (Sec. 488.)

Provision for additional Security in Case of Ships owned by Persons out of her Majesty's Dominions.—If the ship, cargo, or property in respect of which the claim for salvage is made is not owned by persons domiciled in her Majesty's dominions, the right of the salvor to detain or retain possession thereof shall not cease unless the master procures, in addition to the said bond, such security for the due performance of its conditions as the said officer or judge considers sufficient for the purpose, and places the same in the possession or custody of the said officer or judge, or, if the salvor so desires, in the possession or custody of the said officer or judge jointly with any other person whom he appoints for the purpose. (Sec. 489.)

Documents to be sent to England.—The said consular officer or judge shall at the earliest opportunity transmit the said statements and documents so sent to him, and a notice of the sum he has fixed as aforesaid, to the High Court of Admiralty of England, or if the said salvor and the said master or other person in charge as aforesaid agree that the said bond shall be adjudicated upon by any vice-admiralty court, to such court. (Sec. 490.)

Whom the Bond shall bind.—The said bond shall bind the respective owners of the said ship, freight, and cargo, and their respective heirs, executors, and administrators, for the salvage adjudged to be payable in respect of the said ship, freight, and cargo. (Sec. 491.)

Clause 492 specifies the court in which such bonds are to be adjudicated on.

Clause 493 gives power to the High Court of Admiralty to enforce bonds.

Saving Clause.—Any salvor of any ship, cargo, or property who elects not to proceed under this Act shall have no power to detain the said ship, cargo, or property, but may proceed otherwise for the enforcement of his salvage claim as if this Act had not been passed; and nothing in this Act contained shall abridge or affect the rights of salvors, except in the cases by it provided for. (Sec. 494.)

Documents free from Duty.—All bonds, statements, agreements, and other documents made or executed in pursuance of the eighth part of this Act [WRECK AND SALVAGE], shall, if so made or executed out of the United Kingdom, be exempt from stamp duty. (Sec. 495.)

Punishment for Forgery and false Representations.—Every person who, in any proceeding under the provisions contained in this Act relating to salvage by her Majesty's ships, forges, assists in forging, or procures to be forged, or fraudulently altered, any document, and every person who in any such proceeding puts off or makes use of any such forged or altered document, knowing the same to be so forged or altered, or who gives or makes, or assists in giving or making, or procures to be given or made, any false evidence or representation, knowing the same to be false, shall be punishable with imprisonment, with or without hard labour, for any period not exceeding 2 years, or, if summarily prosecuted and convicted, by imprisonment, with or without hard labour, for any period not exceeding 6 months. (Sec. 496.)

Voluntary Agreement may be made which shall have the same Effect as the Bond above mentioned.—Whenever services for which salvage is claimed are rendered either by the commander or crew or part of the crew of any of her Majesty's ships or of any other ship, and the salvor voluntarily agrees to abandon his lien upon the ship, cargo, and property alleged to be salved, upon the master or other person in charge thereof entering into a written agreement attested by two witnesses to abide the decision of the said High Court of Admiralty or of any vice-admiralty court, and thereby giving security in that behalf to such amount as may be agreed on by the parties to the said agreement, such agreement shall bind the said ship and the said cargo and the freight payable therefor respectively, and the respective owners of the said ship, freight, and cargo for the time being, and their respective heirs, executors, and administrators, for the salvage which may be adjudged to be payable in respect of the said ship, cargo, and freight respectively to the extent of the security so given as aforesaid, and may be adjudicated upon and enforced in the same manner as the bonds previously provided for in the case of detention for salvage services rendered by her Majesty's ships; and upon such agreement being made, the salvor and the master or other person in charge as aforesaid shall respectively make such statements as before required to be made by them in case of a bond being given, except that such statements need not be made upon oath; and the salvor shall, as soon as practicable, transmit the said agreement and the said statements to the court in which the said agreement is to be adjudicated upon. (Sec. 497.)

Powers for Courts to apportion Salvage.—Whenever the aggregate amount of salvage payable in respect of salvage services rendered in the United Kingdom has been finally ascertained, and exceeds 200*l.*, and whenever the aggregate amount of salvage payable in respect of salvage services rendered elsewhere has been finally ascertained, whatever such amount may be, then if any delay or dispute arises as to the apportionment thereof, any court having admiralty jurisdiction may cause the same to be apportioned amongst the persons entitled thereto in such manner as it thinks just; and may for that purpose, if it think fit, appoint any person to carry such apportionment into effect,

and may compel any person in whose hands or under whose control such amount may be, to distribute the same, or to bring the same into court, to be there dealt with as the court may direct, and may for the purposes aforesaid issue such monitions or other processes as it thinks fit. (17 & 18 Vict. c. 104 s. 498.)

The agent for her Majesty's ship or his sub-agent is authorised to take steps and proceedings on the part of the officers and crew in case of salvage services rendered to any ship or cargo, or otherwise, within the meaning of the enactments for the time being in force relating to merchant shipping. (27 & 28 Vict. c. 24 s. 12.)

Distribution of Salvage, Bounty, Prize, and other Money.

Taxation and Payment of Costs of Officers and Crew, Agents &c.—Where, in any of the several cases aforesaid, any money is distributable among the officers and crew of any of her Majesty's ships of war, the costs, charges, and expenses of the officers and crew and of the ship's agent, and all other (if any) costs, charges, or expenses properly chargeable against that money, shall be paid thereout before distribution thereof, all such costs, charges, and expenses being first taxed and allowed by the proper officer of the court having jurisdiction in the case, and if there is no such court, then by the Registrar of the High Court of Admiralty.

Salvage, Bounty, Prize, and other Money to be distributed according to Order in Council &c.—In the several cases aforesaid, money distributable among the officers and crew of any of her Majesty's ships of war, so far as full provision respecting the distribution thereof is not made by or under any Act of Parliament other than this Act, shall be distributed under the direction of the Lords of the Admiralty in the shares in that behalf specified in any royal proclamation or order in council.

Prize Salvage.

Salvage to Re-captors of British Ship or Goods from Enemy.—Where any ship or goods belonging to any of her Majesty's subjects, after being taken as prize by the enemy, is or are retaken from the enemy by any of her Majesty's ships of war, the same shall be restored by decree of a prize court to the owner, on his paying as prize salvage one-eighth part of the value of the prize to be decreed and ascertained by the court, or such sum, not exceeding one-eighth part of the estimated value of the prize, as may be agreed on between the owner and the re-captors, and approved by order of the court; provided that where the re-capture is made under circumstances of special difficulty or danger, the prize court may, if it thinks fit, award to the re-captors as prize salvage a larger part than one-eighth part, but not exceeding in any case one-fourth part, of the value of the prize.

Provided also, that where a ship after being so taken is set forth or used by any of her Majesty's enemies as a ship of war, this provision for restitution shall not apply, and the ship shall be adjudicated on as in other cases of prize.

Permission to re-captured Ship to proceed on Voyage.—Where a ship belonging to any of her Majesty's subjects, after being taken as prize by the enemy, is retaken from the enemy by any of her Majesty's ships of war, she may, with the consent of the re-captors, prosecute her voyage, and it shall not be necessary for the re-captors to proceed to adjudication till her return to a port of the United Kingdom.

The master or owner, or his agent, may, with the consent of the re-captors, unload and dispose of the goods on board the ship before adjudication.

In case the ship does not within six months return to a port of the United Kingdom, the re-captors may nevertheless institute proceedings against the ship or goods in the High Court of Admiralty, and the court may thereupon award prize salvage as aforesaid to the re-captors, and may enforce payment thereof, either by warrant of arrest against the ship or goods, or by monition and attachment against the owner.

In the case of neutral ships captured by an enemy and retaken by British men-of-war or privateers, the Courts of Admiralty have a discretionary power of allowing such salvage, and in such proportions, as, under the circumstances of each particular case, may appear just; but there is no positive law or binding regulation to which parties may appeal, for ascertaining the rate of such salvage. 'The maritime law of England,' says Lord Stowell, 'having adopted a most liberal rule of restitution on salvage, with respect to the re-captured property of its own subjects, gives the benefit of that rule to its allies, till it appears that they act towards British property on a less liberal principle; *in such case it adopts their rule*, and treats them according to their own measure of justice.' (Rob. *Adm. Rep.* 54.)

Salvage is one of those charges which are usually provided against by insurance. When, however, the salvage is very high, and the object of the voyage so far defeated, the insured is, by the laws of this and all other maritime nations, allowed to abandon, and to call upon the insurer as for a total loss. [ABANDONMENT.]

For further information with respect to salvage, see Abbott *On the Law of Shipping*, part iii. c. 10, and Maude and Pollock on do., c. 10.

SAMPLE. A small quantity of a commodity exhibited at public or private sales, as a specimen. Sugars, spirits, wine, coffee, and, indeed, most species of merchandise, are sold by sample. If an article be not, at an average, equal to the sample by which it is sold, the buyer may cancel the contract, and return the article to the seller.

Subjoined is a list of most articles that may be warehoused, and of the quantities that may be taken out as samples. (*Customs Min.*, Oct. 11, 1825.)

Arrowroot	1 lb. per package.
Coffee	2 oz. per bag.
Currants	1 lb. per package.
Raisins	1 lb. each mark.
Sago	2 lb. per pile.
Spirits	3 gills from each cask.
Sugar, foreign	2 oz. per bag. 4 oz. per box not exceeding 5 cwt. 8 oz. per box or chest exceeding 5 cwt.
Ditto, British plantation	1½ lb. per hogshead. 1 lb. per tierce. ½ lb. per chest. 12 oz. per barrel. ½ lb. molasses per hhd. or cask.
Tapioca	1 oz. per package.
Tea	2 oz. of each description and quality.

But in London samples are allowed according to the scale following, viz.:—

		lb.	oz.
From 10 chests or	20 small catty boxes	0	6
20 "	40 "	0	12
40 "	80 "	1	2
80 "	100 "	1	8
81 and upwards, or 101 and upwards		2	0

But other regulations exist, founded on the requirements of the trade.

Wine	3 gills per each cask.
Vermicelli	1 oz. per package.

Note.—Samples of spirits and of wine are of 3 gills each; but additional samples are allowed duty free, as the goods are required—for home consumption, removal under bond, or exportation.

SANDAL WOOD. The wood of a tree (*Santalum album*, Linn.) having somewhat of the appearance of a large myrtle. It is of a deep yellow colour, and yields an agreeable perfume. The tree, when cut down, is usually about 9 inches in diameter at the root, but sometimes considerably more. After

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being felled, it is barked, cut into billets, and buried in a dry place for about a couple of months, during which time the white ants eat off the outer wood, without touching the heart, which is the sandal. It is then taken up and sorted, according to the size of the billets. The deeper the colour, and the nearer the root, the higher is the perfume. Reject such pieces as are of a pale colour, small, decayed, or have white wood about them; and take especial care that it be not mixed with wood resembling sandal, but without its perfume. (Milburn's *Orient. Com.*)

Sandal wood is extensively employed by the Hindoos as a perfume, in their funeral ceremonies. But the Chinese are its principal consumers. They manufacture it into fans, and small articles of furniture, and use it, when ground into powder, as a cosmetic. During the year ended Dec. 31, 1848, there were imported by British vessels into Canton 20,732 piculs of sandal wood, valued at 207,400 dollars (see ante, CANTON); and the imports in some years are more than twice this amount. The average importation into Calcutta is about 200 tons a-year. It grows principally in Malabar, in the mountainous country at a little distance from the low sea coast; in Timor; and in the Fejee Islands in the South Sea. Calcutta is principally supplied from Malabar, while China derives the larger portion of her supplies from Timor and the other islands. It is seldom brought to Europe, except by individuals for their own use, or as presents for their friends. (Bell's *External Com. of Bengal*, pp. 49 and 85; Crawfurd's *Indian Archipelago*, vol. iii. p. 421 &c.)

There is also a red sandal wood which is used for dyeing, of which we imported 1,191 tons in 1867, valued at 5,870*l.*

SANDARACH. A resinous substance, commonly met with in loose granules a little larger than a pea, of a whitish yellow colour, brittle, inflammable, of a resinous smell, and acrid aromatic taste. It exudes, it is said, in warm climates, from cracks and incisions in the common juniper bush. It is used as a varnish, dissolved in spirits of wine, and the powder is used under the name of pounce, to give writing paper a surface after erasure. (Ainslie's *Mat. Indica*; Brande and Cox's *Dictionary of Science.*)

SANDWICH ISLANDS. This remote but interesting group is situated in the midst of the Pacific Ocean, between 18° 50′ and 22° 20′ N. lat., and 155° and 160° W. long. It comprises 8 inhabited and 4 uninhabited islands; Owhyhee, where Captain Cook was killed, being the most considerable. They are of volcanic formation, and mountainous, some of the peaks rising in Owhyhee to between 13,000 and 14,000 feet in height. By census of 1861 the total population was 69,800, of whom 67,084 were natives. It is a curious fact that the native population has been rapidly decreasing for some years past. The islanders are honourably distinguished among the Polynesian nations by the advances they have made in civilisation, and particularly by their progress in manufactures, navigation, and commerce. Christianity was introduced by the American missionaries in 1820, and is now the religion of the state; schools have been established, churches have been built, and the forms of religion are pretty well observed. European usages have become fashionable; and the costume of the better classes, women as well as men, closely resembles that of the Americans. The chief products of the islands are sugar, wool, cotton, coffee, oranges &c.

The principal port is Honolulu or Honororu, on the south side of the island of Woahoo, in lat. 21° 30′ N., long. 158° W. Population estimated at 14,000 in 1863, Americans, and other foreigners. The harbour, to which the place owes all its importance, has a narrow entrance, but it is easy of access at all times of the tide to vessels not drawing more than 18 or 19 feet water. The Hawaiian Government completed in 1866 the erection of a most excellent wharf suitable for steamers. The bar at its mouth, on which there is a depth of 21 feet, being narrow and composed of soft coral, it might easily be made accessible even for line-of-battle ships. Coal could be had here in 1866 at from 44*s.* to 56*s.* per ton.

The Sandwich Islands have been visited for a considerable number of years past by the whaling ships and traders in the Pacific. Since the settlement of Oregon and California, and the discovery of the gold fields in the latter, they have acquired great additional importance, from their peculiar aptitude to serve as a station for the ships and steamers engaged in the trade between these countries, Australia, and China. In consequence, the town of Honolulu has increased so that the ground around the harbour is entirely occupied with houses and warehouses. The produce of the islands has also risen rapidly in value from its being in great demand for the provisioning of ships; and in the view of increasing its supply and of making up for the deficiency of the native population, it has been proposed to introduce Chinese labourers into the islands. The frequency of desertion among their crews has been the principal obstacle in the way of ships touching at Honolulu; but this, no doubt, will only be a temporary evil, and will end with the cessation of the peculiar circumstances to which it owes its origin. A considerable number of ships belong to the port, owned partly by natives, but principally by foreigners.

From the *Report* for 1866 of the British Consul-General resident at Honolulu, it would appear that the trade with the United States is steadily increasing, and that both the exports and imports for 1866 were greater than those of 1865, the exports of cotton, in particular, having doubled.

The actual expense of producing sugar on an old plantation, free from encumbrance, probably does not exceed 3 cents (equal to 1½*d.*) per lb. for all grades manufactured.

According to a table published in the 'Commercial Advertiser' of Honolulu, 33 sugar plantations are in operation or getting ready, 30 of which report 10,266 acres planted with cane, and the monthly expenses 49,917 dollars, equalling in English money about 9,801*l.*

The capital invested, including two estates not reported in the above, is over 2,000,000 dollars, or in English money 400,000*l.* (Mr. Consul-General Wodehouse's *Report.*)

A newspaper in the English language is published in the town, in which we have noticed advertisements of ladies' shoes from Paris, eau de Cologne, ices &c. The sovereignty of these islands was ceded, in February 1843, to the British; but the cession was declined by the admiral commanding in chief in the Pacific. King Kamehameha V. at present (1869) reigns over them. (*Geographical Dictionary*, art. 'Polynesia;' Simpson's *Sandwich Islands; Consular Report.*)

SAN FRANCISCO. A city and seaport of the United States, in California, on the south promontory, dividing the great bay of San Francisco from the Pacific, inside the bay, and a short way to the south of its entrance. The latter, now called the Golden Gate, little more

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than a mile in width, has, on its south side, an old Spanish fort, with a light, in lat. 37° 48′ 31″ N., long. 122° 27′ 38″ W. There are also lights on Bonita and Alcatras Island. Having passed the fort, the course to the town is nearly E. from 3 to 4 m., and then S. and W. about as much more. The city is at the bottom of a bay, skirted by extensive flats, some of which have been formed into docks. Its growth has been quite extraordinary. Early in 1848 it consisted only of a few rude cabins; whereas it has now an exchange, a theatre, a custom-house, sundry churches and other public buildings, with great numbers of private houses, many of wood, but many, also, of *adobe* (sun-dried) and burnt bricks, and a vast number of tents and booths. And while such is the metamorphosis on shore, her waters, formerly quite deserted, are crowded with ships and steamers from all parts of the world. Over 100 steamers are employed in the inland waters of the State, 87 of which, measuring 20,460 tons, are registered in San Francisco; and the customs receipts in 1867 amounted to 7,442,881 gold dollars: the total internal revenue for the same year being 3,899,626 dollars currency. San Francisco is indebted, as everyone knows, for this all but miraculous transformation, to the discovery of gold deposits in the beds of the tributaries of the San Joaquin and Sacramento rivers, which fall into her bay, and in the quartz of the contiguous mountains. Such, however, are the advantages of her situation and the fertility of the adjacent country, that the exhaustion of the gold deposits, though it might check for a while, would not permanently affect the growth of the city, or the extent of her trade.

To obviate the shallowness of the water close to the town, a wharf 2,300 feet in length has been projected into the bay, and to it all sorts of vessels are safely moored; and besides docks, every effort is being made to provide the accommodation necessary for the rapidly increasing trade of the town. San Francisco stands on a sandy level; and during the rainy season, when it is most crowded, the streets were at first mere puddles, into which carriages sunk to the axles; while, in the dry season, the annoyance from dust was all but intolerable. These inconveniences have to a great extent been obviated by flooring the streets, or covering them with stout planks—a process which has been carried to a great extent, and has had the most complete success. The city has suffered much from fires, by which, indeed, it has been repeatedly laid waste. These, however, have been speedily repaired; and in a few weeks no traces are seen of the most destructive conflagrations. As houses of brick or stone are substituted for those of wood and for tents, fires will doubtless become less frequent and less destructive.

The population of San Francisco is the most motley that can be imagined; for, though Americans predominate, a large admixture is to be seen of adventurers from all parts of the world. Gambling is very prevalent, and is, perhaps, carried on to a greater extent here, during the rainy season, than in any other place either of the New or the Old World. But this is the natural result of the circumstances under which the population has been brought together; and the passion will, no doubt, abate as the circumstances in which it originated change or lose their influence. Lynch law has been here reduced to a system, and carried to a greater extent than anywhere else. Yet, despite the gross abuses to which it unavoidably leads, it is the general opinion that it could not have been dispensed with. A sense of its necessity has led, not only to its being adopted, but to its being generally approved. And the fewness of the crimes, considering the many desperate characters in the place and the temptations in their way, is ascribed to the promptitude and severity of the punishment with which they are mostly followed.

Nowhere in the world was there so great a disparity between the sexes as in San Francisco; there being at one time from 3 to 5 men for 1 woman. But this disparity has greatly lessened, as will be seen from the annexed table, and with it some of the worst features in the condition of the population.

The population of the city differs widely at different periods, the wet and dry seasons. The following statement, extracted from the local Directory, is given in Mr. Consul Booker's *Report* of March 1868:—

White males over 21 years of age	45,000
White females over 15 years of age	27,000
White males and females under legal age	40,000
Chinese males and females	5,600
Coloured males and females	2,500
Floating population	15,000
Total	131,100

Though by far the largest and most important town in the State, it is not its capital. That distinction has been conferred on San José, because of its more central situation.

The newspaper press is as active and flourishing in San Francisco as in the other great cities of the Union. The *Alta California*, in particular, and some of the other papers, display considerable ability.

The bay of San Francisco, though, as already stated, it has a narrow entrance, expands within into one of the noblest basins that is anywhere to be met with, having a coast line of about 275 miles. The town has become the seat of a very extensive trade, and will continue, most likely, to be the grand emporium of the vast territory belonging to the United States on the Pacific. The trade with China, Australia, the Eastern Archipelago, and the Polynesian Islands, is even now very extensive, and several ships have been fitted out for the whale-fishery. In 1867 was established regular steam communication with Hong-Kong in six days. At present, the principal trade of the city is with Panama on the one hand, and Oregon on the other; bringing immigrants and all sorts of manufactured goods from the former, and corn and other raw produce from the latter, the steam passage to the former being from ten to fifteen days. But she has also an extensive trade with Chili, the Eastern portion of the United States, and with Europe by Cape Horn as well as by Panama. The importation of many sorts of products has been completely overdone, and occasionally some varieties of manufactured goods have been bought in San Francisco as cheap as in Liverpool or Havre. This, however, is a species of miscalculation incident to the opening of all new markets, and will speedily correct itself. Gold bullion, with small but increasing quantities of quicksilver, and hides, have hitherto been the all but exclusive articles of export.

Exports of Gold.—It is extremely difficult, if it be not impossible, to form any very accurate estimate of the exports of gold from California. But it appears that the following amounts have been manifested and shipped in steamers and sailing vessels, viz.:—

	dols.
From April 1, 1849, to December 31, 1850	34,570,255
In 1851	34,494,634
In 1852	45,801,322
In 1853 (first 6 months)	28,999,553
Making a total of	143,865,764

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Again in the 5 years 1863-67 the exports were:—

	£
1863	9,228,790
1864	11,141,150
1865	9,112,650
1866	8,802,850
1867	8,335,250

The value of the receipts from all points, at this port, of the precious metals was as follows, viz.:—

	£
1863	9,631,000
1864	10,702,600
1865	10,773,370
1866	11,089,751

But to this have to be added the large sums, of which no account is taken, carried by miners and others leaving San Francisco for other parts of the United States, Mexico, Chili, China, and elsewhere. This has been variously estimated; but it is believed that in taking it at 15 per cent. we shall be considerably within the mark: on this hypothesis the total exports in 1867 will have been 9,585,538*l.* It has been estimated by well-informed persons that the total shipments in the course of 1868 would not be less than from 70 to 80 million dollars.

Account of the Value and Destination of Exports from San Francisco, other than Treasure, in the 5 Years ending with 1867.

	1863	1864	1865	1866	1867
	£	£	£	£	£
Eastern Ports of the Union	918,450	1,033,250	1,254,080	1,148,875	1,337,075
Great Britain	339,565	191,170	235,130	521,850	1,663,730
Australian Colonies	97,540	125,950	109,560	633,290	12,600
China	249,250	274,820	246,750	303,840	265,070
Japan	8,800	9,900	24,510	26,750	162,200
Sandwich Islands	71,475	131,900	149,630	178,980	135,075
British Columbia	349,360	502,150	251,400	212,670	195,800
Mexico	363,930	443,125	416,850	340,650	398,575
South America	56,540	52,225	104,300	76,225	154,100
Other countries	23,650	79,775	115,050	117,700	155,925
Total	2,408,560	2,644,265	2,910,760	3,460,830	4,493,150

The Value of the Imports from Great Britain into San Francisco in 1866 *and* 1867.

	1866	1867
	£	£
Malt liquors	47,303	58,101
Cotton goods	534,539	562,402
Linen goods	561,967	599,212
Bagging goods	25,978	38,809
Woollen goods	385,758	391,781
Hardware	155,709	162,599
Wines and liquors	35,256	42,102
Coal	28,166	37,747
Sundries	1,747,146	1,812,148
Total	3,520,021	3,704,911

The chief imports in 1867 other than these from the United Kingdom were: sugar 832,891 cwt.; tea 2,027,332 lb.; coffee 90,012 cwt.; rice 141,415 cwt.

The most noticeable features in the exports from San Francisco are the great increase in the value of shipments to England, and the extension of trade with Japan: the former is caused by the large shipments of wheat and flour, and the latter by the new steam communication. The value of the principal articles of Californian produce exported in 1867 was as follows:—

Flour	£615,475	Hides	£65,800
Wheat	1,890,540	Quicksilver	186,250
Barley	13,570	Ores	100,500
Oats	2,900	Tallow	6,000
Wool	245,100	Wine	27,400

Passengers.—Arrivals at San Francisco by sea in 1867, 35,683. Passengers leaving San Francisco by sea, 20,419. Excess of arrivals by sea 15,264.

Port Charges.—Pilotage (half to be paid if no pilot be employed): vessels under 500 tons, 6 dollars per foot draught; vessels over 500 tons, 7 dollars per foot; harbour dues, 4 cents (2*d.*) per ton. Wharf tolls: vehicles drawn by one horse, 25 cents each; by two, 50 cents; by four, 1 dollar. All goods landed on the wharf and taken therefrom in lighters, or taken direct from the ship in lighters, pay 12½ cents per ton. The port wardens charge 15 dollars for each survey, but the total charge on each vessel must not exceed 75 dollars; for all separate certificates of survey required by the consignees of cargo, a charge of $2\frac{50}{100}$ dollars is made, and for each order of sale 10 dollars. The coasts of California, Oregon, and Washington boast 17 fixed lights and 8 revolving lights, and two more were in 1868 in course of erection.

Account, showing the Number of Vessels that arrived at San Francisco in 1867, *their Nationality, their Tonnage, and the Value of their Cargoes.*

Nationality	Vessels	Tonnage	Value of Cargoes
			£
United States	223	230,666	2,150,400
United Kingdom	117	71,051	967,750
France	13	5,921	430,300
Russia	5	1,854	7,500
Belgium	1	285	450
Hamburgh	10	4,516	57,750
Italy	6	2,617	41,000
Prussia	10	3,557	47,500
Bremen	7	3,710	85,500
Spain	1	337	6,500
Austria	1	177	4,100
Norway and Sweden	2	707	7,000
Holland	2	1,189	22,500
Mexico	4	569	1,700
Columbia	4	1,032	16,500
Sandwich Islands	17	6,225	38,900
Georgian Islands	3	408	2,900
San Salvador	3	2,418	3,800
Guatemala	1	579	1,200
Total	430	337,621	3,842,350

Dockage.

	dols.
Vessels from 100 tons to 150 tons per register	7½ per day
150 " 200 "	10 "
200 " 250 "	12½ "
250 " 300 "	15 "
300 " 400 "	17 "
400 " 500 "	20 "
500 " 600 "	22 "
600 " 700 "	24 "
700 " 800 "	26 "
800 " 1,000 "	28 "
1,000 " 1,250 "	34 "
1,250 " 1,500 "	41 "
1,500 " 1,750 "	49 "
1,750 " 2,000 "	56 "
2,000 " 2,500 "	60 "

Rate of Interest on Money.—By an Act passed March 13, 1850, the rate of interest on money was fixed at 10 per cent. where there was no special contract, but 'parties may agree in writing for the payment of any rate of interest whatever on money due, or to become due on any contract. Any judgment rendered on such contract shall conform thereto, and shall bear the interest agreed upon.'

We are much indebted in the compilation of this article to the *Reports* of Mr. Consul Booker.

SAPAN WOOD is obtained from a species of the same tree that yields the Brazil wood (*Cæsalpinia Sapan*, Linn.). It is a middle-sized forest tree, indigenous to Siam, Pegu, the Philip-

pine Islands &c. It has been employed for dyeing in the greater part of Asia for many centuries. It found its way into Europe some time before the discovery of America; and the imports are now very considerable. Its colouring matter differs little from that of Brazil wood, but the best sapan wood does not yield more than half the quantity that may be obtained from an equal weight of Brazil wood, and the colour is not quite so bright. (Bancroft *On Colours*, vol. ii. p. 329.) In 1867 the imports of sapan wood amounted to 1,489 tons, valued at 14,843*l*.

SAPPHIRE (Ger. saphir; Dutch, saffiersteen; Fr. saphire; Ital. zaffiro; Span. zafiro, zafir; Russ. jachant; Lat. sapphirus). A precious stone, in very high estimation. It is identically the same stone as the ruby. It differs in name from the latter on account of its colour, which varies from white to the deepest blue or black. (Emanuel *On Diamonds &c.*) It occurs in blunt-edged pieces, in roundish pebbles, and crystallised. Varies from transparent to translucent. Refracts double. After diamond, it is the hardest substance in nature. Brittle; specific gravity 4 to 4·2.

It is found principally in Ceylon, and also in Bohemia, Saxony, France &c.; but the red sapphire, or Oriental ruby, is not found in any considerable quantity anywhere except in Ava. Next to diamond, sapphire is the most valuable of the gems. The white and pale blue varieties, by exposure to heat, become snow white, and, when cut, exhibit so high a degree of lustre, that they are used in place of diamonds. The most highly prized varieties are the crimson and carmine red; these are the Oriental *ruby* of the jeweller; the next is *sapphire*; and last, the yellow or Oriental *topaz*. The *asterias*, or star-stone, is a very beautiful variety, in which the colour is generally of a reddish violet, and the form of a rhomboid, with truncated apices, which exhibit an opalescent lustre. Professor Jameson says, in his *Mineralogy*, that some peculiarly beautiful sapphires are found in the Capelan mountains, in Pegu. But we are not aware that there are any such mountains in any part of the world; and, in point of fact, there are no mountains in Pegu, nor have any precious stones been ever found in it. [RUBY.]

The Russian treasury possesses some sapphires of enormous size.

Mr. Crawford gives the following details with respect to the sapphire and ruby mines of Ava: 'The precious stones ascertained to exist in the Burmese territory are chiefly those of the sapphire family and the spinelle ruby. They are found at two places, not very distant from each other, called Mogaut and Kyatpëan, about five days' journey from the capital, in an E.S.E. direction. From what I could learn, the gems are not obtained by any regular mining operations, but by digging and washing the gravel in the beds of rivulets or small brooks. All the varieties of the sapphire, as well as the spinelle, are found together, and along with them large quantities of corundum. The varieties ascertained to exist are the Oriental sapphire; the Oriental ruby, or red stone; the opalescent ruby, or cat's eye ruby; the star ruby; the green; the yellow and the white sapphires; and the Oriental amethyst. The common sapphire is by far the most frequent, but, in comparison with the ruby, is very little prized by the Burmese, in which they agree with other nations. I brought home with me several of great size, the largest weighing no less than 3,630 grains, or above 907 carats. The spinelle ruby (zebu-gaong) is not unfrequent in Ava, but is not much valued by the natives. I brought with me to England a perfect specimen, both as to colour and freedom from flaws, weighing 22 carats. The sapphire and ruby mines are considered the property of the king; at least he lays claim to all stones that exceed in value a viss of silver, or 100 ticals. The miners, it appears, endeavour to evade this law by breaking the large stones into fragments. In the royal treasury there are, notwithstanding, many fine stones of both descriptions. The year before our visit, the king received from the mines a ruby weighing 124 grains; and the year preceding that, 8 good ones, but of smaller size. No stranger is permitted to visit the mines; even the Chinese and Mohammedans residing at Ava are carefully excluded.' (*Journal of an Embassy to the Court of Ava*, p. 442.)

SARCOCOLLA. A subviscid, sweetish, and somewhat nauseous gum resin. It is brought from Arabia and Persia in small grains of a pale yellow colour; the whitest, as being the freshest, is preferred. It is but seldom imported. (Milburn's *Orient. Com.*)

SARDINES or SARDINIAS (Ger. sardellen; Fr. sardines; Ital. sardelle; Span. sardinas). A species of fish of the herring tribe, but smaller. They are taken in considerable quantities on our coasts, and are exceedingly plentiful on the coasts of Algarve in Portugal, Andalusia and Granada in Spain, and along the shores of Italy. The small sardines, caught on the coast of Provence, in France, are esteemed the best. From 1,000 to 1,200 fishing smacks are engaged in catching these fish on the coast of Brittany, from June to the middle of October. The French frequently cure them in red brine; and when thus prepared, designate them *anchoisées*, or *anchovied sardines*. These are packed in vessels previously employed for holding wine, and exported to the Levant. When perfectly fresh, sardines are accounted excellent fish; but if kept for any time, they entirely lose their flavour and become quite insipid.

SARDONYX. A precious stone, of reddish-brown colour, consisting of alternate layers of chalcedony and carnelian. Its name is derived from the union of the sard and the onyx. (Emanuel *On Diamonds &c.*)

The ancients selected this substance to engrave upon, no doubt, from its possessing two peculiar and necessary qualities, viz. hardness and tenacity, by which it is capable of receiving the finest touch or stroke of the tool without chipping, and showing the art of the engraver to the highest perfection. (Mawe *On Diamonds*, 2nd ed. p. 121.)

They are much used for signet rings, and for cups, vases, knife handles, beads &c. (Emanuel *On Diamonds &c.*)

SARSAPARILLA (Ger. sasaparille; Fr. salsepareille; Ital. salsapariglia; Span. zarzaparrilla). The root of the *Smilax Sarsaparilla*, a plant growing in Central and South America, and the West Indies, Ceylon &c. It is imported in bales. It is known in the London market by the names of Lisbon, Honduras, and Vera Cruz, but it is also brought from Jamaica. The Lisbon root, which is the produce of Brazil, has a reddish or dark brown cuticle, is internally farinaceous, and more free from fibre than the other kinds: the Honduras has a dirty brown, and sometimes whitish, cuticle; it is more fibrous, and has more ligneous matter, than the Lisbon and Vera Cruz. It has long slender roots, covered with a wrinkled brown cuticle, and has a small woody heart. The Jamaica differs from the others, in having a deep red cuticle of a close texture; and the red colour partially diffused through the ligneous part. The root is scentless, and has a mucilaginous, very slightly bitter taste: the bark is the only useful part of the plant; the ligneous part being taste-

less, inert, woody fibre. (*British Pharmacopœia* Thomson's *Dispensatory.*) A duty of 6*d.* per lb. on its importation, after being reduced in 1842 to 1*d.*, was repealed in 1845. The imports and exports in 1867 were respectively 315,643 lb., valued at 14,927*l.*, and 210,765 lb.

SASSAFRAS (Ger. and Fr. sassafras; Ital. sassafrasso; Span. salsafras). A species of laurel (*Laurus Sassafras*, Linn.), a native of the southern parts of North America, Cochin-China, and several of the Indian islands. Sassafras wood, root, and bark have a fragrant odour, and a sweetish aromatic taste. The wood is of a brownish-white colour; and the bark ferruginous within, spongy, and divisible into layers. Their sensible qualities and virtues depend on an essential oil, which may be obtained separate by distilling the chips or the bark with water. It is very fragrant, hot, and penetrating to the taste, of a pale yellow colour, and heavier than water. It is used only in the materia medica. (Thomson's *Dispensatory.*) Imports and exports in 1866, respectively, 823 and 74 cwt.

SAUNDERS (RED), (Arab. sundal-ahmer; Hin. ruckut-chundum). The wood of a lofty tree (*Pterocarpus santalinus*), indigenous to various parts of India, Ceylon, Timor &c. The wood is brought to Europe in billets, which are very heavy, and sink in water. It is extremely hard, of a fine grain, and a bright garnet red colour, which brightens on exposure to the air. It is employed to dye lasting reddish-brown colours on wool. It yields its colouring matter to ether and alcohol, but not to water. (Thomson's *Dispensatory*; Bancroft *On Colours*, vol. ii. p. 236.) The quantity imported is inconsiderable.

SAVINGS BANKS. [BANKS.]

SCAMMONY (Ger. skammonium; Fr. scammonée; Ital. scammonea; Span. escamonea). A gum-resin, the produce of a species of convolvulus, or creeper plant, which grows abundantly in Syria. When an incision is made into the living roots, they yield a milky juice, which being kept, grows hard, and is the scammony of the shops. It is imported from Aleppo in what are called drums, weighing from 75 to 125 lb. each; and from Smyrna in cakes like wax, packed in chests. The former is light and friable, and is considered the best; that from Smyrna is more compact and ponderous, less friable, and fuller of impurities. It has a peculiar heavy odour, not unlike that of old cheese; and a bitterish, slightly acrid taste. The colour is blackish when dry, changing to dirty white, or lathering when the surface is rubbed with a wet finger. Its specific gravity is 1·235. It is very liable to be adulterated; and when of a dark colour, heavy, and splintery, it ought to be rejected. It is used only in medicine. (*British Pharmacopœia*, 1867; Thomson's *Dispensatory.*) The duty on scammony, after being reduced in 1832 and 1843, was abolished in 1845. Imports, in 1867, 58,421 lb., valued at 80,901*l.*; and exports 816 lb.

SCULPTURES. Figures cut in stone, metal, or other solid substance, representing or describing some real or imaginary object. The art of the sculptor, or statuary, was carried to the highest pitch of excellence in ancient Greece. Fortunately, several of the works of the Grecian sculptors have been preserved, and serve at once to stimulate and direct the genius of modern artists.

Models are casts or representations of sculptures.

The Act 54 Geo. III. c. 56 vests the property of sculptures, models, copies, and casts in the proprietor for 14 years; provided he cause his name, with the date, to be put on them before they are published; with the same term in addition, if he should be living at the end of the first period. In actions for piracy, double costs to be given. The Act was amended and extended by 13 & 14 Vict. c. 104, which provided also for the Registration of Sculpture Models &c.

SEAL (Lat. sigillum). A stone, piece of metal, or other solid substance, generally round or elliptical, on which is engraved the arms, crest, name, device &c. of some state, prince, public body, or private individual. It is employed as a stamp to make an impression on sealing-wax, thereby authenticating public acts, deeds &c., or to close letters or packets. Seals were very early invented, and much learning has been employed in tracing their history, and explaining the figures upon them. (See particularly the work of Hopkinck, *De Sigillorum Prisco et Novo Jure*, 4to. 1642.) They are now very generally used.

The best are usually formed of precious stones, on which the crest or arms, or the initials of the person's name, are engraved, set in gold. But immense numbers are formed of stained glass, and set in gilt copper. They are manufactured at London, Birmingham &c., and are extensively exported.

SEAL FISHERY. The seal (Lat. phoca; Fr. veau marin), an amphibious animal, of which there are many varieties, is found in vast numbers in the seas round Spitzbergen, and on the coasts of Labrador and Newfoundland. As it frequents the British shores, it is well known, and has been repeatedly described. Seals are principally hunted for their oil and skins. When taken in the spring of the year, at which time they are fattest, a full-grown seal will yield from 8 to 12 gallons of oil, and a small one from 4 to 5 gallons. The oil, if extracted before putrefaction has commenced, is beautifully transparent, free from smell, and not unpleasant in its taste. The skin, when tanned, is extensively employed in the making of shoes; and when dressed with the hair on, serves for the covering of trunks &c. For an account of the imports of seal-skins see SKINS.

'To the Esquimaux the seal is of as much importance as bread to a European. Its flesh forms their most usual food; the fat is partly dressed for eating, and partly consumed in their lamps; the liver, when fried, is esteemed, even among sailors, as an agreeable dish. The skin, which the Esquimaux dress by processes peculiar to themselves, is made waterproof. With the hair off, it is used as coverings, instead of planks, for their boats, and as outer garments for themselves; shielded with which, they can invert themselves and canoes in the water, without getting their bodies wet. It serves also for coverings for their tents, and for various other purposes. The jackets and trousers made of seal-skin by the Esquimaux are in great request among the whale fishers for preserving them from oil and wet.' (Scoresby's *Arctic Regions*, vol. i. p. 510.)

Seals in fine weather prefer the ice to the water, and vast herds of them are frequently found lying on the field ice; the places where they are met with being thence called 'seal meadows.' The seal hunters endeavour to surprise them while sleeping, and to intercept their retreat to the water. They attack them with muskets and bludgeons, but principally the latter, they being easily despatched by a blow on the nose.

The seal fishery has long been prosecuted to a considerable extent in the northern seas by ships from the Elbe and the Weser; but very few ships have been sent out from England for *sealing* only,

though occasionally some of the whale ships have taken large quantities of seals. Latterly, however, the seal fishery has been prosecuted on a large scale, and with extraordinary success, by vessels of from 60 to 120 tons each, having crews of from 16 to 30 men, fitted out from the ports of Newfoundland, Nova Scotia &c. The business is attended with a good deal of risk, and instances frequently occur of the vessels being crushed to pieces by the collision of the fields of ice. We borrow the following details from Mr. Bliss's tract on the *Trade, Statistics &c. of Canada and our North American Possessions.*

'There is another department of the colonial fishery which has originated within no distant period, and is now of great extent and importance. The large fields of ice which, in the months of March and April, drift southward from the Polar seas, are accompanied by many herds of seals; these are found sleeping in what are called the seal meadows of the ice, and are there attacked and slaughtered in vast numbers. For this purpose the fishers of Newfoundland, from which island these voyages are principally made, without waiting till the return of spring shall have opened their harbours, saw channels through the ice for their vessels, and set sail in quest of those drifting fields, through the openings of which they work a passage, attended with great difficulties and dangers, till they encounter their prey on the seal meadows. This bold and hazardous enterprise seems well compensated by its success. The number of seals thus taken is almost incredible, and is greatly on the increase' (p. 70). There were captured by the Newfoundland fishermen, in 1838, 375,361 seals; in 1839, 437,501. Large quantities are also taken by the Nova Scotia and Labrador fishermen.

See also M'Gregor's *British America*, 2nd edit. vol. i. p. 197 &c. There is a good account of the seal in Laing's *Voyage to Spitzbergen*. For the price of seal oil, see OIL.

SEALING WAX (Ger. siegellack; Fr. cire d'Espagne, cire à cacheter; Ital. cera lacca, cera di Spagna; Span. lacre; Russ. surgutsch). The wax used for sealing letters, legal instruments &c. It is a composition of gum lac, melted and incorporated with resin, and afterwards coloured with some pigment, as vermilion, verditer, ivory black &c. [LAC.]

SEAMEN. The individuals engaged in navigating ships, barges &c. upon the high seas. Those employed for this purpose upon rivers, lakes, or canals, are denominated watermen.

Formerly a *British seaman* was a natural born subject of her Majesty; or was naturalised by Act of Parliament; or made a denizen by letters of denization; or had become a British subject by the conquest or cession of some newly acquired territory; or (being a foreigner) had served on board her Majesty's ships of war, in time of war, for the space of 2 or 3 years. But these distinctions were entirely done away in 1855. It is no longer necessary that British ships should be either wholly or in part manned by British subjects. In this respect the greatest possible license has been given to our shipowners, who are at full liberty to employ all descriptions of hands, whether native or foreign, in navigating their ships. Hence the term 'seamen' now includes all persons (except masters, pilots, and apprentices duly indentured and registered), without regard to their origin, 'employed or engaged in any capacity on board of any ship.' (17 & 18 Vict. c. 104, Introd.)

Various regulations have been enacted with respect to the hiring of seamen, their conduct while on board, and the payment of their wages. These regulations differ in different countries; but in all, they have been intended to obviate the disputes that might otherwise arise between masters and seamen in regard to the terms of the contract between them, to secure due obedience to the orders of the former, and to interest the latter in the completion of the voyage.

The more important particulars in the law of England in regard to seamen are embodied in the 17 & 18 Vict. c. 104, and will be found in the following article, with some occasional remarks and notices of alterations in the law effected by subsequent statutes, the Merchant Shipping Act and Amendment, 25 & 26 Vict. c. 63 &c. In the first place it is necessary to enquire by whom they may be hired.

1. *Who may hire Seamen.*—Seamen have long been subjected to imposition from the fraudulent practices of persons offering to find them employment, by falsely representing themselves as agents for, or as having an interest in certain ships, and engaging or pretending to engage seamen to serve therein. In the view of obviating such practices in future, it is laid down in the Merchant Shipping Act, the 17 & 18 Vict. c. 104, that the Board of Trade may grant licenses to such individuals as it thinks fit, empowering them to engage or supply seamen or apprentices to merchant ships. But, with the exception, 1st, of the parties so licensed; 2nd, of the owner, master, or mate, or persons in the bonâ fide and constant employment of the owner of a ship requiring men or apprentices; and 3rd, of a regularly appointed shipping master, all other parties are prohibited, under a penalty of 20*l.*, from engaging or supplying seamen. The following are the clauses having reference to this subject.

Board of Trade may license Persons to procure Seamen.—The Board of Trade may grant to such persons as it thinks fit licenses to engage or supply seamen or apprentices for merchant ships in the United Kingdom, to continue for such periods, to be upon such terms, and to be revocable upon such conditions, as such Board thinks proper. (17 & 18 Vict. c. 104 s. 146.)

Penalties for supplying Seamen without License &c.—The following offences shall be punishable as herein mentioned; viz.:—

(1) If any person not licensed as aforesaid, other than the owner or master or a mate of the ship, or some person who is bonâ fide the servant and in the constant employ of the owner, or a shipping master duly appointed as aforesaid, engages or supplies any seaman or apprentice to be entered on board any ship in the United Kingdom, he shall, for each seaman or apprentice so engaged or supplied, incur a penalty not exceeding 20*l.*:

(2) If any person employ any unlicensed person, other than persons excepted as above, for the purpose of engaging or supplying any seaman or apprentice to be entered on board any ship in the United Kingdom, he shall, for each seaman or apprentice so engaged or supplied, incur a penalty not exceeding 20*l.*, and if licensed, shall in addition forfeit his license:

(3) If any person knowingly receives or accepts to be entered on board any ship any seaman or apprentice who has been engaged or supplied contrary to the provisions of this Act, he shall, for every seaman or apprentice so engaged or supplied, incur a penalty not exceeding 20*l.* (Sec. 147.)

Penalty for receiving Remuneration from Seamen.—If any person demands or receives, either directly or indirectly, from any seaman or apprentice, or from any person seeking employment as a seaman or apprentice, or from any person on his

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behalf, any remuneration whatever, other than the fees hereby authorised for providing him with employment, he shall, for every such offence, incur a penalty not exceeding 5*l.* (Sec. 148.)

2. *Conditions under which Seamen are to be engaged.*—In 1835 an Act was passed (5 & 6 Wm. IV. c. 19) of much importance to seamen, and to persons connected with navigation. It laid down the various forms and regulations to be observed in hiring, paying, and discharging seamen; established an office for their registry; and prescribed the mode in which lists of crews were to be transmitted to the registrar. It also regulated the conditions under which seamen might, in certain cases, be left in foreign parts, with a variety of other particulars: at the same time that it repealed sundry statutes, the provisions of which had become obsolete.

Further modifications were made in this system in 1844, by the 7 & 8 Vict. c. 112, and again by the Mercantile Marine Act of 1850, 13 & 14 Vict. c. 93. The existing law regulating the conditions in the agreements to be made with seamen, is embodied in the Merchant Shipping Act, 17 & 18 Vict. c. 104, and the Merchant Shipping Amendment Act, 25 & 26 Vict. c. 63 and 30 & 31 Vict. c. 124, and is as follows, viz.:—

Agreements to be made with Seamen.—The master of every ship, except ships of less than 80 tons registered tonnage, exclusively employed in trading between different ports on the coasts of the United Kingdom, shall enter into an agreement with every seaman whom he carries to sea from any port in the United Kingdom as one of his crew in the manner aftermentioned; and every such agreement shall be in a form sanctioned by the Board of Trade, and shall be dated at the time of the first signature thereof, and shall be signed by the master before any seamen signs the same, and shall contain the following particulars as terms thereof, viz.:—

(1) The nature, and, as far as practicable, the duration of the intended voyage or engagement:

(2) The number and description of the crew, specifying how many are engaged as sailors:

(3) The time at which each seaman is to be on board, or begin to work:

(4) The capacity in which each seaman is to serve:

(5) The amount of wages which each seaman is to receive:

(6) A scale of the provisions which are to be furnished to each seaman:

(7) Any regulations as to conduct on board, and as to fines, short allowance of provisions, or other lawful punishments for misconduct, which have been sanctioned by the Board of Trade, as regulations proper to be adopted, and which the parties agree to adopt:

And every such agreement shall be so framed as to admit of stipulations, to be adopted at the will of the master and seaman in each case, as to advance and allotment of wages, and may contain any other stipulations which are not contrary to law; provided that if the master of any ship belonging to any British possession has an agreement with his crew made in due form according to the law of the possession to which such ship belongs or in which her crew were engaged, and engages single seamen in the United Kingdom, such seamen may sign the agreement so made, and it shall not be necessary for them to sign an agreement in the form sanctioned by the Board of Trade. (Sec. 149.)

Agreements for Foreign-going Ships to be made before and attested by a Shipping Master.—In the case of all foreign-going ships, in whatever part of her Majesty's dominions the same are registered, the following rules shall be observed with respect to agreements, viz.:—

(1) Every agreement made in the United Kingdom (except in the cases of agreements with substitutes hereinafter provided for) shall be signed by each seaman in the presence of a shipping master:

(2) Such shipping master shall cause the agreement to be read over and explained to each seaman, or otherwise ascertain that each seaman understands the same before he signs it, and shall attest each signature:

(3) When the crew is first engaged the agreement shall be signed in duplicate, and one part shall be retained by the shipping master, and the other part shall contain a special place or form for the descriptions and signatures of substitutes or persons engaged subsequently to the first departure of the ship, and shall be delivered to the master:

(4) In the case of substitutes engaged in the place of seamen who have duly signed the agreement, and whose services are lost within 24 hours of the ship's putting to sea, by death, desertion, or other unforeseen cause, the engagement shall, when practicable, be made before some shipping master duly appointed in the manner hereinbefore specified; and whenever such last-mentioned engagement cannot be so made, the master shall, before the ship puts to sea, if practicable, and if not, as soon afterwards as possible, cause the agreement to be read over and explained to the seamen; and the seamen shall thereupon sign the same in the presence of a witness, who shall attest their signatures. (Sec. 150.)

Foreign-going Ships making short Voyages may have running Agreements.—In the case of foreign-going ships making voyages averaging less than 6 months' duration, running agreements with the crew may be made to extend over two or more voyages, so that no such agreement shall extend beyond the next following 30th of June, or 31st day of December, or the first arrival of the ship at her port of destination in the United Kingdom after such date, or the discharge of cargo consequent upon such arrival; and every person entering into such agreement, whether engaged upon the first commencement thereof or otherwise, shall enter into and sign the same in the manner hereby required for other foreign-going ships; and every person engaged thereunder, if discharged in the United Kingdom, shall be discharged in the manner hereby required for the discharge of seamen belonging to other foreign-going ships. (Sec. 151.)

Engagement and Discharge of Seamen in the meantime.—The master of every foreign-going ship for which such a running agreement as aforesaid is made shall, upon every return to any port in the United Kingdom before the final termination of the agreement, discharge or engage before the shipping master at such port any seaman whom he is required by law so to discharge or engage, and shall upon every such return indorse on the agreement a statement (as the case may be) either that no such discharges or engagements have been made, or are intended to be made, before the ship again leaves port, or that all such discharges or engagements have been duly made as hereinbefore required, and shall deliver the agreement so indorsed to the shipping master; and any master who wilfully makes a false statement in such indorsement shall incur a penalty not exceeding 20*l.*; and the shipping master shall also sign an indorsement on the agreement, to the effect that the provisions of this Act relating to such agreement have been complied with, and shall re-

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deliver the agreement so indorsed to the master. (Sec. 152.)

Duplicates of running Agreements.—In cases in which such running agreements are made, the duplicate agreement retained by the shipping master upon the first engagement of the crew shall either be transmitted to the registrar-general of seamen immediately, or be kept by the shipping master until the expiration of the agreement, as the Board of Trade directs. (Sec. 153.)

Fees to be paid on such running Agreements.—For the purpose of determining the fees to be paid upon the engagement and discharge of seamen belonging to foreign-going ships which have running agreements as aforesaid, the crew shall be considered to be engaged when the agreement is first signed, and to be discharged when the agreement finally terminates, and all intermediate engagement and discharges shall be considered to be engagements and discharges of single seamen. (Sec. 154.)

In Home Trade Ships Agreement to be entered into before a Shipping Master &c.—In the case of home trade ships, crews or single seamen may, if the master thinks fit, be engaged before a shipping master in the manner hereinbefore directed with respect to foreign-going ships; and in every case in which the engagement is not so made, the master shall, before the ships put to sea, if practicable, and if not, as soon afterwards as possible, cause the agreement to be read over and explained to each seaman, and the seaman shall thereupon sign the same in the presence of a witness, who shall attest his signature. (Sec. 155.)

Special Agreements for Home Trade Ships belonging to same Owners.—In cases where several home trade ships belong to the same owner, the agreement with the seamen may, notwithstanding anything herein contained, be made by the owner instead of by the master, and the seamen may be engaged to serve in any two or more of such ships, provided that the names of the ships and the nature of the service are specified in the agreement; but with the foregoing exception, all provisions herein contained which relate to ordinary agreements for home trade ships shall be applicable to agreements made in pursuance of this section. (Sec. 156.)

Penalty for Shipping Seamen without Agreement duly executed.—If in any case a master carries any seaman to sea without entering into an agreement with him in the form and manner, and at the place and time hereby in such case required, the master in the case of a foreign-going ship, and the master or owner in the case of a home trade ship, shall for each such offence incur a penalty not exceeding 5*l.* (Sec. 157.)

Changes in Crew to be reported.—The master of every foreign-going ship of which the crew has been engaged before a shipping master, shall before finally leaving the United Kingdom sign and send to the nearest shipping master a full and accurate statement, in a form sanctioned by the Board of Trade, of every change which takes place in his crew before finally leaving the United Kingdom, and in default shall for each offence incur a penalty not exceeding 5*l.*; and such statement shall be admissible in evidence, subject to all just exceptions. (Sec. 158.)

Seamen engaged in the Colonies to be shipped before some Shipping Master &c.—Every master of a ship who, if such ship is registered in the United Kingdom, engages any seaman in any British possession, or if such ship belongs to any British possession, engages any seaman in any British possession other than that to which the ship belongs, shall, if there is at the place where such seaman is engaged any official shipping master or other officer duly appointed for the purpose of shipping seamen, engage such seaman before such shipping master, and if there is no such shipping master or officer, then before some officer of customs; and the same rules, qualifications, and penalties as are hereinbefore specified with respect to the engagement of seamen before shipping masters in the United Kingdom, shall apply to such engagements in a British possession; and upon every such engagement such shipping master or officer as aforesaid shall indorse upon the agreement an attestation to the effect that the same has been signed in his presence, and otherwise made as hereby required; and if in any case such attestation is not made, the burden of proving that the seaman was duly engaged as hereby required shall lie upon the master. (Sec. 159.)

Seamen engaged in Foreign Ports to be shipped with the Sanction and in the Presence of the Consul.—Every master of a British ship who engages any seaman at any place out of her Majesty's dominions in which there is a British consular officer shall, before carrying such seaman to sea, procure the sanction of such officer, and shall engage such seaman before such officer; and the same rules as are hereinbefore contained with respect to the engagement of seamen before shipping masters in the United Kingdom, shall apply to such engagements made before consular officers; and upon every such engagement the consular officer shall indorse upon the agreement his sanction thereof, and an attestation to the effect that the same has been signed in his presence, and otherwise made as hereby required; and every master who engages any seaman in any place in which there is a consular officer, otherwise than as hereinbefore required, shall incur a penalty not exceeding 20*l.*; and if in any case the indorsement and attestation hereby required is not made upon the agreement, the burden of proving the engagement to have been made as hereinbefore required shall lie upon the master. (Sec. 160.)

Rules as to Production of Agreements and Certificates.—The following rules shall be observed with respect to the production of agreements and certificates of competency or service for foreign-going ships, viz.:—

(1) The master of every foreign-going ship shall, on signing the agreement with his crew, produce to the shipping master before whom the same is signed the certificates of competency or service which the said master and his first and second mate or only mate, as the case may be, are required to possess; and upon such production being duly made, and the agreement being duly executed as hereby required, the shipping master shall sign and give to the master a certificate to that effect.

(2) In the case of running agreements for foreign-going ships, the shipping master shall, before the second and every subsequent voyage made after the first commencement of the agreement, sign, and give to the master, on his complying with the provisions herein contained with respect to such agreements, and producing to the shipping master the certificate of competency or service of any first, second, or only mate then first engaged by him, a certificate to that effect.

(3) The master of every foreign-going ship shall, before proceeding to sea, produce the certificate so to be given to him by the shipping master as aforesaid, to the collector or comptroller of customs; and no officer of customs shall clear any such ship outwards without such production; and if any such ship attempts to go to sea without a clearance, any such officer may detain her until such certificate as aforesaid is produced.

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(4) The master of every foreign-going ship shall, within 48 hours after the ship's arrival at her final port of destination in the United Kingdom, or upon the discharge of the crew, whichever first happens, deliver such agreement to a shipping master at the place; and such shipping master shall thereupon give to the master a certificate of such delivery; and no officer of customs shall clear any foreign-going ship inwards without the production of such certificate.

And if the master of any foreign-going ship fails to deliver the agreement to a shipping master at the time and in the manner hereby directed, he shall for every default incur a penalty not exceeding 5*l*. (Sec. 161.)

Rules as to Production of Agreements and Certificates for Home Trade Ships.—The following rules shall be observed with respect to the production of agreements and certificates of competency or service for home trade ships, viz.:—

(1) In the case of home trade ships of more than 80 tons burden, no agreement shall extend beyond the next following 30th of June or 31st of December, or the first arrival of the ship at her final destination in the United Kingdom after such date, or the discharge of cargo consequent upon such arrival.

(2) The master or owner of every such ship shall, within 21 days after the 30th of June and the 31st of December in every year, transmit or deliver to some shipping master in the United Kingdom every agreement made within 6 calendar months next preceding such days respectively, and shall also, in the case of home trade passenger ships, produce to the shipping master the certificates of competency or service which the said master and his first or only mate, as the case may be, are hereby required to possess.

(3) The shipping master shall thereupon give to the master or owner a certificate of such delivery and production; and no officer of customs shall grant a clearance or transire for any ship as last aforesaid without the production of such certificate; and if any such ship attempts to ply or go to sea without such clearance or transire any such officer may detain her until the said certificate is produced.

And if the agreement for any home trade ship is not delivered or transmitted by the master or owner to a shipping master at the time and in the manner hereby directed, such master or owner shall for every default incur a penalty not exceeding 5*l*. (Sec. 162.)

Alterations to be void unless attested to have been made with the Consent of all Parties.—Every erasure, interlineation, or alteration in any such agreement with seamen as is required by the third part of this Act (except additions so made as hereinbefore directed for shipping substitutes or persons engaged subsequently to the first departure of the ship) shall be wholly inoperative, unless proved to have been made with the consent of all the persons interested in such erasure, interlineation, or alteration by the written attestation (if made in her Majesty's dominions) of some shipping master, justice, officer of customs, or other public functionary or (if made out of her Majesty's dominions) of a British consular officer, or, where there is no such officer, of two respectable British merchants. (Sec. 163.)

Penalty for falsifying Agreement.—Every person who fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, or makes, or assists in making, or procures to be made, any false entry in, or delivers, assists in delivering, or procures to be delivered, a false copy of any agreement, shall for each such offence be deemed guilty of a misdemeanor. (Sec. 164.)

Seamen not to be bound to produce Agreement.—Any seaman may bring forward evidence to prove the contents of any agreement or otherwise to support his case, without producing or giving notice to produce the agreement, or any copy thereof. (Sec. 165.)

Copy of Agreement to be made accessible to Crew.—The master shall at the commencement of every voyage or engagement cause a legible copy of the agreement (omitting the signatures) to be placed or posted up in such part of the ship as to be accessible to the crew, and in default shall for each offence incur a penalty not exceeding 5*l*. (Sec. 166.)

Seamen discharged before Voyage to have Compensation.—Any seaman who has signed an agreement, and is afterwards discharged before the commencement of the voyage, or before one month's wages are earned, without fault on his part justifying such discharge and without his consent, shall be entitled to receive from the master or owner, in addition to any wages he may have earned, due compensation for the damage thereby caused to him, not exceeding one month's wages, and may, on adducing such evidence as the court hearing the case deems satisfactory of his having been so improperly discharged as aforesaid, recover such compensation as if it were wages duly earned. (Sec. 167.)

The statute does not render a verbal agreement for wages absolutely void; but it imposes a penalty on the master if a written agreement be not made. And no written agreement contrary to the Act, by which a seaman should renounce any just right, such as his claim to wages in the case of the loss of the ship, to salvage &c., would be valid. When a written agreement is made conformably to the Act, it becomes the only evidence of the contact between the parties; and a seaman cannot recover anything agreed to be given in reward for his services, which is not specified in the articles.

A seaman who has engaged to serve on board a ship, is bound to exert himself to the utmost in the service of such ship; and, therefore, a promise made by the master of a ship in distress, to pay an extra sum to a seaman, as an inducement to extraordinary exertion on his part, is wholly void.

3. *Conduct of Seamen.*—It is essential to the business of navigation that the most prompt and ready obedience should be paid to the lawful commands of the master. To this effect it is covenanted in the articles of agreement previously referred to, that 'the crew engage to conduct themselves in an orderly, faithful, honest, careful, and sober manner; and to be at all times diligent in their respective duties and stations, and to be obedient to the lawful commands of the master in everything relating to the said ship, and the materials, stores, and cargo thereof, whether on board such ship, in boats, or on shore.'

In case of disobedience or disorderly conduct, on the part of the seamen, the master may correct them in a reasonable manner. Such authority is absolutely necessary for the safety of the ship and of those on board. It, however, behoves the master to employ it with great deliberation, and not to pervert the powers with which he is intrusted for the good of the whole, to cruel or vindictive purposes. Masters abusing their authority must answer at law for the consequences; and, except under very grave and urgent circumstances, the infliction of chastisement without previous enquiry should be carefully avoided. But in cases of

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actual or open mutiny, or of gross misconduct by the crew or any part of them, it may be incumbent on the master to act at once with all the energy and decision of which he is capable. In such unfortunate cases his resistance becomes an act of self-defence, and is to be considered in all its consequences in that point of view. The Ordinances of Oleron and Wisby declare that a mariner who strikes the master shall either pay a fine or lose his right hand; a singular as well as barbarous alternative, unknown in modern jurisprudence.

But although the master may by force restrain the commission of crimes, he has no judicial authority over or right to punish the criminal, but is bound to secure his person and bring him before a proper tribunal. And all justices of the peace are empowered to receive informations touching any murder, piracy, felony, or robbery upon the sea, and to commit the offenders for trial.

Offences of Seamen and Apprentices and their Punishment.—Whenever any seaman who has been lawfully engaged or any apprentice to the sea service commits any of the following offences he shall be liable to be punished summarily as follows, viz.:—

(1) For desertion he shall be liable to imprisonment for any period not exceeding 12 weeks, with or without hard labour, and also to forfeit all or any part of the clothes and effects he leaves on board, and all or any part of the wages or emoluments which he has then earned, and also, if such desertion takes place abroad, at the discretion of the court, to forfeit all or any part of the wages or emoluments he may earn in any other ship in which he may be employed until his next return to the United Kingdom, and to satisfy any excess of wages paid by the master or owner of the ship from which he deserts to any substitute engaged in his place at a higher rate of wages than the rate stipulated to be paid to him.

(2) For neglecting or refusing, without reasonable cause, to join his ship, or to proceed to sea in his ship, or for absence without leave at any time within 24 hours of the ship's sailing from any port either at the commencement or during the progress of any voyage, or for absence at any time without leave and without sufficient reason from his ship or from his duty not amounting to desertion or not treated as such by the master, he shall be liable to imprisonment for any period not exceeding 10 weeks, with or without hard labour, and also, at the discretion of the court, to forfeit out of his wages a sum not exceeding the amount of 2 days' pay, and in addition, for every 24 hours of absence, either a sum not exceeding 6 days' pay, or any expenses which have been properly incurred in hiring a substitute.

(3) For quitting the ship without leave after her arrival at her port of delivery and before she is placed in security, he shall be liable to forfeit out of his wages a sum not exceeding 1 month's pay.

(4) For wilful disobedience to any lawful command he shall be liable to imprisonment for any period not exceeding 4 weeks, with or without hard labour, and also, at the discretion of the court, to forfeit out of his wages a sum not exceeding 2 days' pay.

(5) For continued wilful disobedience to lawful commands, or continued wilful neglect of duty, he shall be liable to imprisonment for any period not exceeding 12 weeks, with or without hard labour, and also, at the discretion of the court, to forfeit, for every 24 hours' continuance of such disobedience or neglect, either a sum not exceeding 6 days' pay or any expenses which have been properly incurred in hiring a substitute.

(6) For assaulting any master or mate he shall be liable to imprisonment for any period not exceeding 12 weeks, with or without hard labour.

(7) For combining with any other or others of the crew to disobey lawful commands, or to neglect duty, or to impede the navigation of the ship or the progress of the voyage, he shall be liable to imprisonment for any period not exceeding 12 weeks, with or without hard labour.

(8) For wilfully damaging the ship, or embezzling or wilfully damaging any of her stores or cargo, he shall be liable to forfeit out of his wages a sum equal in amount to the loss thereby sustained, and also, at the discretion of the court, to imprisonment for any period not exceeding 12 weeks, with or without hard labour.

(9) For any act of smuggling of which he is convicted, and whereby loss or damage is occasioned to the master or owner, he shall be liable to pay to such master or owner such a sum as is sufficient to reimburse the master or owner for such loss or damage; and the whole or a proportionate part of his wages may be retained in satisfaction or on account of such liability without prejudice to any further remedy. (Sec. 243.)

Entry of Offences to be made in Official Log.—Upon the commission of any of the offences enumerated in the last preceding section an entry thereof shall be made in the official log book [Log, Official], and shall be signed by the master and also by the mate or one of the crew; and the offender, if still in the ship, shall, before the next arrival of the ship at any port, or if she is at the time in port, before her departure, either be furnished with a copy of such entry or have the same read over distinctly and audibly to him, and may thereupon make such reply thereto as he thinks fit; and a statement that a copy of the said entry has been so furnished, or that the same has been so read over as aforesaid, and the reply (if any) made by the offender, shall likewise be entered and signed in manner aforesaid; and in any subsequent legal proceedings the entries hereinbefore required shall, if practicable, be produced or proved, and in default of such production or proof the court hearing the case may, at its discretion, refuse to receive evidence of the offence. (Sec. 244.)

Seamen &c. whom Masters of Ships are compelled to convey, to be subject to Penalties for Breach of Discipline.—Every seafaring person whom the master of any ship is, under the authority of this Act or of any other Act of Parliament, compelled to take on board and convey, and every person who goes to sea in any ship without the consent of the master or owner or other person entitled to give such consent, shall, so long as he remains in such ship, be subject to the same laws and regulations for preserving discipline, and to the same penalties and punishments for offences constituting or tending to a breach of discipline, to which he would be subject if he were a member of the crew and had signed the agreement. (Sec. 245.)

Master or Owner may apprehend Deserters, without Warrant.—Whenever, either at the commencement or during the progress of any voyage, any seaman or apprentice neglects or refuses to join or deserts from or refuses to proceed to sea in any ship in which he is duly engaged to serve, or is found otherwise absenting himself therefrom without leave, the master or any mate, or the owner, ship's husband, or consignee, may, in any place in her Majesty's dominions, with or without the assistance of the local police officers or con-

stables, who are hereby directed to give the same, if required, and also at any place out of her Majesty's dominions, if and so far as the laws in force at such place will permit, apprehend him without first procuring a warrant; and may thereupon in any case, and shall in case he so requires and it is practicable, convey him before some court capable of taking cognisance of the matter, to be dealt with according to law; and may, for the purpose of conveying him before such court, detain him in custody for a period not exceeding 24 hours, or such shorter time as may be necessary, or may, if he does not so require, or if there is no such court at or near the place, at once convey him on board; and if any such apprehension appears to the court before which the case is brought to have been made on improper or on insufficient grounds, the master, mate, owner, ship's husband, or consignee who makes the same or causes the same to be made, shall incur a penalty not exceeding 20*l.*; but such penalty, if inflicted, shall be a bar to any action for false imprisonment in respect of such apprehension. (Sec. 246.)

Deserters may be sent on board in lieu of being imprisoned.—Whenever any seaman or apprentice is brought before any court on the ground of his having neglected or refused to join or to proceed to sea in any ship in which he is engaged to serve, or of having deserted or otherwise absented himself therefrom without leave, such court may, if the master or the owner or his agent so requires, instead of committing the offender to prison, cause him to be conveyed on board for the purpose of proceeding on the voyage, or deliver him to the master or any mate of the ship, or the owner or his agent, to be by them so conveyed, and may in such case order any costs and expenses properly incurred by or on behalf of the master or owner by reason of the offence to be paid by the offender, and, if necessary, to be deducted from any wages which he has then earned, or which, by virtue of his then existing engagement, he may afterwards earn. (Sec. 247.)

Seamen imprisoned for Desertion or Breach of Discipline may be sent on board before Termination of Sentence.—If any seaman or apprentice is imprisoned on the ground of his having neglected or refused to join or to proceed to sea in any ship in which he is engaged to serve, or of having deserted or otherwise absented himself therefrom without leave, or of his having committed any other breach of discipline, and if during such imprisonment and before his engagement is at an end his services are required on board his ship, any justice may, at the request of the master or of the owner or his agent, cause such seaman or apprentice to be conveyed on board his said ship for the purpose of proceeding on the voyage, or to be delivered to the master or any mate of the ship or to the owner or his agent, to be by them so conveyed, notwithstanding that the termination of the period for which he was sentenced to imprisonment has not arrived. (Sec. 248.)

Entries and Certificates of Desertion abroad to be copied, sent home, and admitted in Evidence.—In all cases of desertion from any ship in any place abroad the master shall produce the entry of such desertion in the official log book to the person or persons hereby required to indorse on the agreement a certificate of such desertion; and such person or persons shall thereupon make and certify a copy of such entry and also a copy of the said certificate of desertion; and if such person is a public functionary he shall, and in other cases the said master shall, forthwith transmit such copies to the registrar-general of seamen in England; and the said registrar shall, if required, cause the same to be produced in any legal proceeding; and such copies, if purporting to be so made and certified as aforesaid, and certified to have come from the custody of the said registrar, shall in any legal proceeding relating to such desertion be received as evidence of the entries therein appearing. (Sec. 249.)

Facilities for proving Desertion, so far as concerns Forfeiture of Wages.—Whenever a question arises whether the wages of any seaman or apprentice are forfeited for desertion, it shall be sufficient for the party insisting on the forfeiture to show that such seaman or apprentice was duly engaged in or that he belonged to the ship from which he is alleged to have deserted, and that he quitted such ship before the completion of the voyage or engagement, or if such voyage was to terminate in the United Kingdom and the ship has not returned, that he is absent from her, and that an entry of the desertion has been duly made in the official log book; and thereupon the desertion shall, so far as relates to any forfeiture of wages or emoluments under the provisions hereinbefore contained, be deemed to be proved, unless the seaman or apprentice can produce a proper certificate of discharge, or can otherwise show to the satisfaction of the court that he had sufficient reason for leaving his ship. (Sec. 250.)

Costs of procuring Imprisonment may to the extent of 3l. be deducted from Wages.—Whenever in any proceeding relating to seamen's wages it is shown that any seaman or apprentice has in the course of the voyage been convicted of any offence by any competent tribunal and rightfully punished therefor by imprisonment or otherwise, the court hearing the case may direct a part of the wages due to such seaman, not exceeding 3*l.*, to be applied in reimbursing any costs properly incurred by the master in procuring such conviction and punishment. (Sec. 251.)

Amount of Forfeiture how to be ascertained when Seamen contract for the Voyage.—Whenever any seaman contracts for wages by the voyage or by the run or by the share, and not by the month or other stated period of time, the amount of forfeiture to be incurred under this Act shall be taken to be an amount bearing the same proportion to the whole wages or share as a calendar month or other period (as the case may be) bears to the whole time spent in the voyage; and if the whole time spent in the voyage does not exceed the period for which the pay is to be forfeited, the forfeiture shall extend to the whole wages or share. (Sec. 252.)

Application of Forfeitures.—All clothes, effects, wages, and emoluments which under the provisions hereinbefore contained are forfeited for desertion shall be applied in the first instance in or towards the reimbursement of the expenses occasioned by such desertion to the master or owner of the ship from which the desertion has taken place; and may, if earned subsequently to the desertion, be recovered by such master, or by the owner or his agent, in the same manner as the deserter might have recovered the same if they had not been forfeited; and in any legal proceeding relating to such wages the court may order the same to be made accordingly; and, subject to such reimbursement, the same shall be paid into the receipt of her Majesty's exchequer in such manner as the Treasury may direct, and shall be carried to and form part of the consolidated fund of the United Kingdom; and in all other cases of forfeiture of wages under the provisions hereinbefore contained the forfeiture shall, in the absence of any specific directions to the contrary, be

for the benefit of the master or owner by whom the wages are payable. (Sec. 253.)

Questions of Forfeitures may be decided in Suits for Wages.—Any question concerning the forfeiture of or deductions from the wages of any seaman or apprentice may be determined in any proceeding lawfully instituted with respect to such wages, notwithstanding that the offence in respect of which such question arises, though hereby made punishable by imprisonment as well as forfeiture, has not been made the subject of any criminal proceeding. (Sec. 254.)

Penalty for false Statements as to last Ship or Name.—If any seaman on or before being engaged wilfully and fraudulently makes a false statement of the name of his last ship or last alleged ship, or wilfully and fraudulently makes a false statement of his own name, he shall incur a penalty not exceeding 5*l.*: and such penalty may be deducted from any wages he may earn by virtue of such engagement as aforesaid, and shall, subject to reimbursement of the loss and expenses (if any) occasioned by any previous desertion, be paid and applied in the same manner as other penalties payable under this Act. (Sec. 255.)

Fines to be deducted from Wages, and paid to Shipping Master.—Whenever any seaman commits an act of misconduct for which his agreement imposes a fine, and which it is intended to punish by enforcing such fine, an entry thereof shall be made in the official log book, and a copy of such entry shall be furnished or the same shall be read over to the offender, and an entry of such reading over, and of the reply (if any) made by the offender, shall be made, in the manner and subject to the conditions hereinbefore specified with respect to the offences against discipline specified in and punishable under this Act; and such fine shall be deducted and paid over as follows: viz. if the offender is discharged in the United Kingdom and the offence and such entries in respect thereof as aforesaid are proved, in the case of a foreign-going ship to the satisfaction of the shipping master before whom the offender is discharged, and in the case of a home trade ship to the satisfaction of the shipping master at or nearest to the place at which the crew is discharged, the master or owner shall deduct such fine from the wages of the offender, and pay the same over to such shipping master; and if before the final discharge of the crew in the United Kingdom any such offender as aforesaid enters into any of her Majesty's ships, or is discharged abroad, and the offence and such entries as aforesaid are proved to the satisfaction of the officer in command of the ship into which he so enters, or of the consular officer, officer of customs, or other person by whose sanction he is so discharged, the fine shall thereupon be deducted, and the entry of such deduction shall then be made in the official log book (if any) and signed by such officer or other person; and on the return of the ship to the United Kingdom, the master or owner shall pay over such fine, in the case of foreign-going ships to the shipping master before whom the crew is discharged, and in the case of home trade ships to the shipping master at or nearest to the place at which the crew is discharged; and if any master or owner neglects or refuses to pay over any such fine in manner aforesaid, he shall for each such offence incur a penalty not exceeding 6 times the amount of the fine retained by him: provided that no act of misconduct for which any such fine as aforesaid has been inflicted and paid shall be otherwise punished under the provisions of this Act. (Sec 256.)

Penalty for enticing to desert, and harbouring Deserters.—Every person who by any means whatever persuades or attempts to persuade any seaman or apprentice to neglect or refuse to join or to proceed to sea in or to desert from his ship, or otherwise to absent himself from his duty, shall for each such offence, in respect of each such seaman or apprentice, incur a penalty not exceeding 10*l.*; and every person who wilfully harbours or secretes any seaman or apprentice who has deserted from his ship, or who has wilfully neglected or refused to join or has deserted from his ship, knowing or having reason to believe such seaman or apprentice to have so done, shall, for every such seaman or apprentice so harboured or secreted, incur a penalty not exceeding 20*l.* (Sec. 257.)

Penalty for obtaining Passage surreptitiously.—Any person who secretes himself and goes to sea in any ship without the consent of either the owner, consignee, or master, or of a mate, or of any person in charge of such ship, or of any other person entitled to give such consent, shall incur a penalty not exceeding 20*l.*, or be liable to imprisonment with or without hard labour for any period not exceeding 4 weeks. (Sec. 258.)

On Change of Masters, Documents hereby required to be handed over to Successor.—If during the progress of a voyage the master is superseded or for any other reason quits the ship and is succeeded in the command by some other person, he shall deliver to his successor the various documents relating to the navigation of the ship and to the crew thereof which are in his custody, and shall in default incur a penalty not exceeding 100*l.*; and such successor shall immediately on assuming the command of the ship enter in the official log a list of the documents so delivered to him. (Sec. 259.)

Desertion has long been, and continues to be, very prevalent, and is, in truth, by far the greatest drawback on the shipping interest. Mr. Lindsay, whose knowledge of the subject is alike extensive and minute, remarks upon it as follows:—'Desertion is now so great an evil, and so detrimental to the best interests of our maritime commerce, that vigorous measures should be adopted to suppress it. It is a crime which is rarely committed alone, and is too frequently the first step towards others of a much worse nature. Even the seamen almost invariably repent of it when too late. They feel that they have broken faith, lost that self-respect which is essential to the maintenance of order, drown their feelings in intoxication, and thus become demoralised and worthless. The country loses in various ways. In our trade with Australia particularly, by paying materially enhanced rates of freight and passage, for the desertion of the crew was the only fear which the ship-owners at one time had of sending their vessels to that colony. The moral standard of a class of men, alike valuable during periods of peace and war, is materially lowered, and we have to maintain, from our parish resources, the pauperised wives and children of deserters.

'This subject was much considered by Government when framing the Mercantile Marine Act, and various clauses were introduced into that statute having reference to it. The one which comes most to the point is the 71st clause (ante, sec. 246), which enacts, "that whenever a seaman or apprentice neglects or refuses to join, or absents himself without leave, or deserts from any ship in which he is engaged to serve, the master or mate, or the owner, ship's husband, or consignee, may, for the purpose of carrying him before a justice,

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apprehend or require any police officer or constable to apprehend him without first procuring a warrant." Masters may, also, without warrant, seize deserters and carry them either before a magistrate or on board their ships. But when seamen desert, they generally get out of the way of seizure till the vessels which they have deserted have left the port. They know full well that the extent of their punishment, even if they be taken, cannot exceed 3 months in what to them are comfortable quarters, and that very likely, judging by precedent, it may not exceed 1 month—a trifling penalty for so serious an offence. Besides imprisonment, the deserter is also liable to forfeit such clothes or effects as he may have on board, and such wages or emoluments as he may have earned. If the desertion take place abroad, he forfeits whatever wages and emoluments he may earn in any other ship in which he may return to the United Kingdom, and he further becomes liable to satisfy any excess of wages paid by the master or owners of the ship from which he deserts to any substitute engaged in his place. Such is the full extent of the punishment. We should, however, have less to say against its insufficiency, were the means of convicting offenders less complex. While they remain in their present state, seamen will continue, as hitherto, to desert when it suits their purposes. No more convincing proof need be given of the inefficacy of the laws bearing upon desertion, than the fact that one firm only, Messrs. Pollock, Gilmour, and Co., of Glasgow, engaged in the North American timber trade, have had, during 1 year, upwards of 400 seamen deserters abroad from their ships; that the consequent loss entailed on the firm exceeded 3,000*l.*, merely in the higher wages they were compelled to pay to seamen to supply the place of the deserters; and that they only succeeded in arresting 11 out of the 400 deserters.' (*On Our Navigation Laws and Mercantile Marine*, 2nd ed. p. 85 &c.)

This is a very striking statement. But in truth and reality, desertion is an evil with which it is very difficult, if not impossible, to deal. It may be palliated; but more need hardly be expected; and we incline to think that the clauses previously quoted go quite as far as it is advisable to go in attempting its suppression by penal enactments. When seamen arrive in a port where their services are in great request, and wages double, perhaps, what they are serving for, how can it be supposed that they should be generally proof against such overpowering temptations? But as commerce becomes more extended, the difference of wages in different seaports will decline; and the more they approach to equality, the less temptation will there be to desert. Mr. Lindsay suggests as one mode of dealing with this difficult subject, that all seamen returning to this country previously to the arrival of the ships in which they had sailed, who cannot produce certificates of their discharge, or otherwise account satisfactorily for their return, should be held to be guilty of desertion and punished accordingly.

A regulation of this sort would, probably, be some check on desertion, though we doubt whether it would amount to much. But we believe that nothing short of that equalisation of wages to which we have referred would do so much to lessen its frequency and to make it more an object of public reprobation, as an improvement in the character of the masters. The drunkenness and brutality that have been so often manifested by the latter, though happily on the decrease, create a presumption that seamen guilty of desertion have been driven to it by ill-usage, and indisposes the public to increase the penalties on the offence. And hence it may, perhaps, be questioned whether anything will be more likely to render it, as it ought to be, a serious matter in the public estimation, than the measures that have been taken, and with good effect, to raise the qualifications of the masters, and to make their conduct more in accordance with their position.

It is admitted, indeed, by all legislators and jurists that gross misconduct, or systematic and extreme ill-treatment on the part of the master, will justify the seamen in resisting his authority or deserting the ship. The duties and obligations of master and men are reciprocal: the latter are bound to give due obedience and respect to all the reasonable commands of the master, and even to those that may appear to be unreasonable; but they are not bound to obey orders that would obviously compromise their own security or that of the ship. 'Desertion,' said Lord Kenyon, 'is a forfeiture of wages; but if the captain conduct himself in such a way as puts the sailor into that situation that he cannot without damage to his personal safety continue in his service, (human nature speaks the language,) a servant is justified in providing for that safety.' The necessity of securing on all ordinary occasions the most prompt compliance with the orders of the master is, however, so very urgent, that no proceeding on the part of the latter, unless it be of the most unwarrantable description, will justify the seamen in deserting or resisting his commands. Disobedience to the latter is uniformly presumed to be an offence of the gravest kind: and nothing but the most overwhelming necessity will vindicate the seamen by whom it may be committed. 'The court,' to use the words of Lord Stowell, 'will be particularly attentive to preserve that subordination and discipline on board ship which is so indispensably necessary for the preservation of the whole service, and of every person concerned in it. A peremptory or harsh tone or an overcharged manner, in the exercise of authority, will never be held by this court to justify resistance. It will not be sufficient that there has been a want of that personal attention and civility which usually takes place on other occasions, and might be wished generally to attend the exercise of authority. The nature of the service requires that those persons that engage in it should accommodate themselves to the circumstances attending it, and those circumstances are not unfrequently urgent, and create strong sensations which naturally find their way in strong expressions and violent demeanour. The persons subject to this species of authority are not to be captious, or to take exception to a neglect of formal or ceremonious observances.' (Dodson's *Admiralty Reports*, ii. 261.)

If the cargo be embezzled or injured by the fraud or negligence of the seamen, so that the merchant has a right to claim satisfaction from the master and owners, they may, by the custom of merchants, deduct the value thereof from the wages of the seamen by whose misconduct the injury has taken place. And a clause to this effect is inserted in the form of agreement issued by the Board of Trade, as follows: 'It is hereby agreed that any embezzlement, or wilful or negligent destruction of any part of the ship's cargo or stores, shall be made good to the owner out of the wages of the person guilty of the same.' Seamen are, therefore, responsible for themselves only. Nor can any innocent party be called upon to contribute a portion of his wages to make good the loss occasioned by the misconduct of others.

The offences of running away with the ship, or

voluntarily yielding her up to an enemy, or making a revolt, have in all cases been visited with the severest punishment. The statute 11 & 12 Wm. III. c. 7 enacted—

'That if any commander or master of any ship, or any seaman or mariner, shall in any place where the admiral hath jurisdiction, betray his trust and turn pirate, enemy, or rebel, and piratically and feloniously run away with his or their ship or ships, or any barge, boat, ordnance, ammunition, goods, or merchandises, or yield them up voluntarily to any pirate, or shall bring any seducing messages from any pirate, enemy, or rebel, or consult, combine, or confederate with, or attempt or endeavour to corrupt any commander, master, officer, or mariner, to yield up or run away with any ship, goods, or merchandises, or turn pirate, or go over to pirates: or if any person shall lay violent hands on his commander, whereby to hinder him from fighting in defence of his ship and goods committed to his trust, or shall confine his master, or make or endeavour to make a revolt in the ship; shall be adjudged and deemed and taken to be a *pirate*, *felon*, and *robber*, and being convicted thereof according to the directions of this Act, shall have and suffer pain of *death*, loss of lands, goods, and chattels, as *pirates*, *felons*, and *robbers*, upon the seas ought to have and suffer.'

But by the 7 Wm. IV. & 1 Vict. c. 88, the penalty for this offence has been changed to transportation beyond seas for life, or for not less than 15 years, or to imprisonment for any term not exceeding 3 years The Acts 12 & 13 Vict. c. 96, and 23 & 24 Vict. c. 88, provide for the trial and punishment in the colonies of India of such offence.

The wilful destruction or loss of the ship has, in all countries, been punished by death. But doubts having been entertained whether the destruction of a ship that had been insured came within the scope of the previously existing statutes, they were repealed by the 43 Geo. III. c. 113, and the following provision substituted in their stead:—

'That if any person or persons shall, from and after July 16, 1803, wilfully cast away, burn or otherwise destroy any ship or vessel, or in anywise counsel, direct, or procure the same to be done, and the same be accordingly done, with intent or design thereby wilfully and maliciously to prejudice any owner or owners of such ship or vessel or any owner or owners of any goods laden on board the same, or any person or persons, body politic or corporate, that hath or have underwritten or shall underwrite any policy or policies of insurance upon such ship or vessel, or on the freight thereof, or upon any goods laden on board the same, the person or persons offending therein, being thereof lawfully convicted, shall be deemed and adjudged a principal felon or felons, and shall suffer death, as in cases of felony, without benefit of clergy.'

After various subsequent changes of the law, the penalty for this offence is now, 1869, transportation for life, or not less than 3 years, or imprisonment for a term not exceeding 2 years, with or without hard labour and with or without solitary confinement, and if committed by a male under 16 years, with or without whipping. (24 & 25 Vict. c. 97 ss. 42 & 43.)

4. *Payment of Seamen's Wages &c.*—In order to stimulate the zeal and enterprise of seamen, most maritime states have made the payment of their wages depend on the successful termination of the voyage; and for this reason, the insurance of their wages has been uniformly prohibited (Arnould *On Insurance*, i. 208). Hence the maxim that *freight is the only mother of wages*. 'If freight go,' said Lord Stowell, 'everything goes. The mariner has no step further, if I may say so, in the character of insurer, to supply the loss.' (2 Dodson's *Admiralty Reports*, 510.) And, therefore, it used to be laid down in general terms, that when by any disaster happening in the course of a voyage, such as the loss or capture of the ship, the owners lost their freight, the seamen also lost their wages.

But this general rule was subject to numerous qualifications. Thus, if a voyage miscarried, and the freight were lost, through the incompetency or fault of the master; or if, after being entered upon, and in part completed, the voyage were abandoned by the owners; or if a vessel were sent from one port to another, to be freighted, where no freight was to be found: in these and other cases of the same sort, the claim of seamen to payment of their wages was too obviously reasonable not to be generally admitted. Inasmuch, too, as owners may protect themselves, by insurance, against loss by shipwreck and other casualties, it would appear to be hardly fair or equitable that the wages of seamen, who cannot avail themselves of this resource, should be wholly sacrificed in the event of such catastrophes occurring. And this hardship appears the greater from the circumstance of the lives of the seamen being most commonly involved in the safety of the ship. It is, no doubt, contended by Valin, who has argued in favour of the old rule, that if seamen ceased 'd'avoir intérêt à la conservation du navire et de ses marchandises, au moindre péril dont ils seroient menacés, ils ne songeroient qu'à sauver leur vie, sans se mettre en peine du reste; il étoit donc juste, et du bien public, d'attacher leur fortune à celle du vaisseau.' (*Commentaire sur l'Ordonnance de* 1681, liv. iii. tit. iv.) But it may be safely affirmed that the desertion contemplated by Valin is not practicable in one case out of twenty. In storms and collisions at sea escape is very rarely possible; and it is not often possible even in cases of wreck by vessels being driven on shore. Hence, in the vast majority of cases, it may be fairly presumed that a regard to their own personal security, independent altogether of any consideration in relation to wages, will make seamen exert themselves to the utmost.

And none, it must be borne in mind, has ever proposed, as Valin would seem to assume, that the payment of wages in cases of loss should be irrespective of the conduct of the seamen. They are bound in all cases, and especially in cases of danger, to make every possible effort for the safety of the ship and cargo. If they fail in this most essential part of their duty, they plainly forfeit all claim to wages, whether freight be earned or not. But, in the event of their doing their duty, and making every possible exertion to save the ship and cargo, it does not appear that the loss of the latter should exempt the owners from the claim of the seamen for wages. On the contrary, it would seem that in such cases the payment of wages is consistent alike with the interests of navigation and of the public.

But, however brought about, the old doctrine of the absolute dependence of wages on freight has been gradually losing its authority. After various modifications, it was enacted by the 7 & 8 Vict. c. 112 that in cases of shipwreck or loss of the ship, whether freight had or had not been previously earned, seamen should be entitled to their wages down to the occurrence of the casualty, on their producing a certificate from the principal surviving officer of the ship, that they had exerted

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themselves to the best of their ability to save the ship and cargo. But a condition of this sort having led to much difficulty and abuse, it has been laid down in the 17 & 18 Vict. c. 104 s. 183, that the right of seamen to their wages shall not depend on the fact of freight being earned; and that in cases of wreck, and loss of the ship, they shall be entitled to their wages, unless proof be brought to show that they did not exert themselves to the utmost to save the ship and cargo. At present, therefore, it may be concluded, that nothing save their own misconduct can defeat the claim of seamen to the full payment of the wages stipulated in their agreements.

A seaman impressed from a merchant ship into the royal service, is entitled to receive the portion of his wages due to him at the time of impressment, provided the merchant ship *arrive in safety* at the port of her discharge.

The following clauses in the Mercantile Shipping Act relate to the allotment, payment, remittance &c. of seamen's wages.

Regulations as to Allotment Notes.—All stipulations for the allotment of any part of the wages of a seaman during his absence which are made at the commencement of the voyage shall be inserted in the agreement, and shall state the amounts and times of the payments to be made; and all *Allotment Notes* shall be in forms sanctioned by the Board of Trade. (Sec. 168.)

Allotment Notes may be sued on summarily.—The wife, or the father or mother, or the grandfather or grandmother, or any child or grandchild, or any brother or sister of any seaman in whose favour an allotment note of part of the wages of such seaman is made, may, unless the seaman is shown in manner aftermentioned to have forfeited or ceased to be entitled to the wages out of which the allotment is to be paid, and subject, as to the wife, to the provision after contained, sue for and recover the sums allotted by the note when and as the same are made payable, with costs, from the owner or any agent who has authorised the drawing of note, either in the County Court or in the summary manner in which seamen are enabled to sue for and recover wages not exceeding 50*l.*; and in any such proceeding it shall be sufficient for the claimant to prove that he or she is the person mentioned in the note, and that the note was given by the owner or by the master or some other authorised agent; and the seaman shall be presumed to be duly earning his wages, unless the contrary is shown to the satisfaction of the court, either by the official statement of the change in the crew caused by his absence made and signed by the master, as by this Act is required, or by a duly certified copy of some entry in the official log book to the effect that he has left the ship, or by a credible letter from the master of the ship to the same effect, or by such other evidence, of whatever description, as the court in its absolute discretion considers sufficient to show satisfactorily that the seaman has ceased to be entitled to the wages out of which the allotment is to be paid: provided that the wife of any seaman who deserts her children, or so misconducts herself as to be undeserving of support from her husband, shall thereupon forfeit all right to further payments of any allotment of his wages which has been made in her favour. (Sec. 169.)

Discharge from Foreign-going Ships to be made before Shipping Master.—In the case of all British foreign-going ships, in whatever part of her Majesty's dominions the same are registered, all seamen discharged in the United Kingdom shall be discharged and receive their wages in the presence of a shipping master duly appointed under this Act, except in cases where some competent court otherwise directs; and any master or owner of any such ship who discharges any seaman belonging thereto, or, except as aforesaid, pays his wages within the United Kingdom in any other manner, shall incur a penalty not exceeding 10*l.*; and in the case of home trade ships seamen may, if the owner or master so desires, be discharged and receive their wages in like manner. (Sec. 170.)

Master to deliver Account of Wages.—Every master shall, not less than 24 hours before paying off or discharging any seaman, deliver to him, or, if he is to be discharged before a shipping master, to such shipping master, a full and true account in a form sanctioned by the Board of Trade of his wages and of all deductions to be made therefrom, on any account whatever, and in default shall for each offence incur a penalty not exceeding 5*l.*; and no deduction from the wages of any seaman (except in respect of any matter happening after such delivery) shall be allowed unless it is included in the account so delivered; and the master shall during the voyage enter the various matters in respect of which such deductions are made, with the amounts of the respective deductions, as they occur, in a book to be kept for that purpose, and shall, if required, produce such book at the time of the payment of wages, and also upon the hearing before any competent authority of any complaint or question relating to such payments. (Sec. 171.)

On Discharge, Masters to give Seamen Certificates of Discharge &c.—Upon the discharge of any seaman, or upon payment of his wages, the master shall sign and give him a certificate of his discharge, in a form sanctioned by the Board of Trade, specifying the period of his service and the time and place of his discharge; and if any master fail to sign and give to any such seaman such certificate of discharge he shall for each such offence incur a penalty not exceeding 10*l.*; and the master shall also, upon the discharge of every certificated mate whose certificate of competency or service has been delivered to and retained by him, return such certificate, and shall in default incur a penalty not exceeding 20*l.* (Sec. 172.)

Shipping Master may decide Questions which Parties refer to him.—Every shipping master shall hear and decide any question whatever between a master or owner and any of his crew which both parties agree in writing to submit to him; and every award so made by him shall be binding on both parties, and shall, in any legal proceeding which may be taken in the matter before any court of justice, be deemed to be conclusive as to the rights of the parties; and no such submission or award shall require a stamp; and any document purporting to be such submission or award shall be primâ facie evidence thereof. (Sec. 173.)

Masters and others to produce Ship's Papers to Shipping Masters, and give Evidence.—In any proceeding relating to the wages, claims, or discharge of any seaman carried on before any shipping master under the provisions of this Act, such shipping master may call upon the owner or his agent, or upon the master or any mate or other member of the crew, to produce any log books, papers, or other documents in their respective possession or power relating to any matter in question in such proceeding, and may call before him and examine any of such persons being then at or near the place on any such matter; and every owner, agent, master, mate, or other member of the crew, who, when called upon by the shipping master, does not produce any such paper or document as aforesaid, if in his possession or power, or does

not appear and give evidence, shall, unless he shows some reasonable excuse for such default, for each such offence incur a penalty not exceeding 5*l*. (Sec. 174.)

Settlement of Wages.—The following rules shall be observed with respect to the settlement of wages (that is to say):—

(1) Upon the completion before any shipping master of any discharge and settlement, the master or owner and each seaman shall respectively in the presence of the shipping master, sign in a form sanctioned by the Board of Trade a mutual release of all claims in respect of the past voyage or engagement, and the shipping master shall also sign and attest it, and shall retain and transmit it as herein directed:

(2) Such release so signed and attested shall operate as a mutual discharge and settlement of all demands between the parties thereto in respect of the past voyage or engagement:

(3) A copy of such release certified under the hand of such shipping master to be a true copy shall be given by him to any party thereto requiring the same; and such copy shall be receivable in evidence upon any future question touching such claims as aforesaid, and shall have all the effect of the original of which it purports to be a copy:

(4) In cases in which discharge and settlement before a shipping master are hereby required, no payment, receipt, settlement, or discharge otherwise made shall operate or be admitted as evidence of the release or satisfaction of any claim:

(5) Upon any payment being made by a master before a shipping master, the shipping master shall, if required, sign and give to such master a statement of the whole amount so paid; and such statement shall as between the master and his employer be received as evidence that he has made the payments therein mentioned. (Sec. 175.)

Master to make Reports of Character.—Upon every discharge effected before a shipping master the master shall make and sign, in a form sanctioned by the Board of Trade, a report of the conduct, character, and qualifications of the persons discharged, or may state in a column to be left for that purpose in the said form, that he declines to give any opinion upon such particulars, or upon any of them; and the shipping master shall transmit the same to the registrar-general of seamen, or to such other person as the Board of Trade directs, to be recorded, and shall, if desired so to do by any seaman, give to him or indorse on his certificate of discharge a copy of so much of such report as concerns him: and every person who makes, assists in making, or procures to be made any false certificate or report of the service, qualifications, conduct, or character of any seaman, knowing the same to be false, or who forges, assists in forging, or procures to be forged, or fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any such certificate or report, or who fraudulently makes use of any certificate or report, or of any copy of any certificate or report, which is forged or altered or does not belong to him, shall for each such offence be deemed guilty of a misdemeanor. (Sec. 176.)

Remittance of Wages and Savings Banks for Seamen.

Facilities may be given for remitting Seamen's Wages.—Facilities shall, if the Board of Trade so directs, be given for remitting the wages and other moneys of seamen and apprentices to their relatives or other persons by means of money orders issued by shipping masters; and the Board of Trade may make regulations concerning such orders, and the persons by or to whom, and the mode and time in and at which the same are to be paid, and may from time to time repeal or alter any such regulations; and all such regulations, so long as they are in force, shall be binding upon all persons interested or claiming to be interested in such orders, as well as upon the officers employed in issuing or paying the same; and no legal proceeding shall be instituted against the Board of Trade, or against any shipping master or other public officer employed about such orders, on account of any such regulations, or on account of any act done or left undone in pursuance thereof, or on account of any refusal, neglect, or omission to pay any such money order, unless such refusal, neglect, or omission arise from fraud or wilful misbehaviour on the part of the person against whom proceedings are instituted. (Sec. 177.)

Power to Pay when Order is lost.—The Board of Trade may, in any case in which it thinks fit so to do, cause the amount of any such money order as aforesaid to be paid to the person to whom or in whose favour the same may have been granted, or to his personal representatives, legatees, or next of kin, notwithstanding that such order may not be in his or their possession; and in all such cases from and after such payment the Board of Trade and every shipping master or other officer of the Board of Trade shall be freed from all liability in respect of such order. (Sec. 178.)

Penalty for issuing Money.—Every shipping master or other public officer who grants or issues any money order with a fraudulent intent shall in England or Ireland be deemed guilty of felony, and in Scotland of a high crime and offence, and shall be liable to be kept in penal servitude for a term not exceeding 4 years. (Sec. 179.)

Savings Banks for Seamen may be established.—The Commissioners for the reduction of the National Debt, or the comptroller-general acting under them, may on the application and recommendation of the Board of Trade, establish savings banks at such ports and places within the United Kingdom, either in the shipping offices established in such ports or elsewhere, as may appear to be expedient, and may appoint treasurers to receive from or on account of seamen, or the wives and families of seamen, desirous to become depositors in such savings banks, deposits to an amount not exceeding 150*l*. in the whole in respect of any one account, under such regulations as may be prescribed by the said commissioners or comptroller-general; and such regulations shall be binding on all such treasurers and depositors; and the said commissioners may remove such treasurers, and appoint others in their place; and all the provisions of the Acts now in force relating to savings banks, except so far as relates to the annual amount of deposit, shall apply to all savings banks which may be established under the authority of this Act, and to such treasurers and depositors as aforesaid. (Sec. 180.)

By the 19 & 20 Vict. c. 41 the immediate management of the savings banks for seamen is placed in the Board of Trade, which has power to establish central and branch savings banks and to make regulations for their conduct.

In March 1865, the Board of Trade issued instructions to our consuls at certain ports, to enable seamen, when paid abroad, to remit their wages home by money orders.

Legal Right to Wages.

Right to Wages and Provisions, when to begin.—A seaman's right to wages and provisions shall be taken to commence either at the time at which he commences work or at the time specified in the agreement for his commencement of work or presence on board, whichever first happens. (Sec. 181.)

Seamen not to give up certain Rights.—No seaman shall by any agreement forfeit his lien upon the ship, or be deprived of any remedy for the recovery of his wages to which he would otherwise have been entitled; and every stipulation in any agreement inconsistent with any provision of this Act, and every stipulation by which any seaman consents to abandon his right to wages in the case of the loss of the ship, or to abandon any right which he may have or obtain in the nature of salvage, shall be wholly inoperative. (Sec. 182.)

Wages not to be dependent on the earning of Freight.—No right to wages shall be dependent on the earning of freight; and every seaman and apprentice who would be entitled to demand and recover any wages if the ship in which he has served had earned freight, shall, subject to all other rules of law and conditions applicable to the case, be entitled to claim and recover the same, notwithstanding that freight has not been earned; but in all cases of wreck or loss of the ship, proof that he has not exerted himself to the utmost to save the ship, cargo, and stores shall bar his claim. (Sec. 183.)

In case of Death, Wages to be paid.—If any seaman or apprentice to whom wages are due under the last preceding enactment dies before the same are paid, they shall be paid and applied in the manner after specified with regard to the wages of seamen who die during a voyage. (Sec. 184.)

Rights to Wages in case of Termination of Service by Wreck or Illness.—In cases where the service of any seaman terminates before the period contemplated in the agreement by reason of the wreck or loss of the ship, and also in cases where such service terminates before such period as aforesaid by reason of his being left on shore at any place abroad under a certificate of his unfitness or inability to proceed on the voyage granted as after mentioned, such seaman shall be entitled to wages for the time of service prior to such termination as aforesaid, but not for any further period. (Sec. 185.)

Wages not to accrue during Refusal to Work or Imprisonment.—No seaman or apprentice shall be entitled to wages for any period during which he unlawfully refuses or neglects to work when required, whether before or after the time fixed by the agreement for his beginning work, nor unless the court hearing the case otherwise directs, for any period during which he is lawfully imprisoned for any offence committed by him. (Sec. 186.)

Period within which Wages are to be paid.—The master or owner of every ship shall pay to every seaman his wages within the respective periods following (that is to say); in the case of a home trade ship, within 2 days after the termination of the agreement or at the time when such seaman is discharged, whichever first happens; and in the case of all other ships (except ships employed in the southern whale fishery or on other voyages for which seamen by the terms of their agreement are wholly compensated by shares in the profits of the adventure), within 3 days after the cargo has been delivered, or within 5 days after the seaman's discharge, whichever first happens; and in all cases the seaman shall at the time of his discharge be entitled to be paid on account a sum equal to one-fourth part of the balance due to him; and every master or owner who neglects or refuses to make payment in manner aforesaid, without sufficient cause, shall pay to the seaman a sum not exceeding the amount of 2 days' pay for each of the days, not exceeding 10 days, during which payment is delayed beyond the respective periods aforesaid, and such sum shall be recoverable as wages. (Sec. 187.)

Mode of Recovering Wages.

Seamen may sue for Wages in a summary manner.—Any seaman or apprentice, or any person duly authorised on his behalf, may sue in a summary manner before any two justices of the peace acting in or near to the place at which the service has terminated, or at which the seaman or apprentice has been discharged, or at which any person upon whom the claim is made is or resides, or in Scotland either before any such justices or before the sheriff of the county within which any such place is situated, for any amount of wages due to such seaman or apprentice not exceeding 50*l.* over and above the costs of any proceeding for the recovery thereof, so soon as the same becomes payable; and every order made by such justices or sheriff in the matter shall be final. (Sec. 188.)

Restrictions on Suits for Wages in Superior Courts.—No suit or proceeding for the recovery of wages under the sum of 50*l.* shall be instituted by or on behalf of any seaman or apprentice in any Court of Admiralty or Vice-Admiralty, or in the Court of Session in Scotland, or in any superior Court of Record in her Majesty's dominions, unless the owner of the ship is adjudged bankrupt or declared insolvent, or unless the ship is under arrest or is sold by the authority of any such court as aforesaid, or unless any justices acting under the authority of this Act refer the case to be adjudged by such court, or unless neither the owner nor master is or resides within 20 miles of the place where the seaman or apprentice is discharged or put ashore. (Sec. 189.) By 24 Vict. c. 10 s. 10 the High Court of Admiralty is declared to have jurisdiction over any claim for wages, provided always that if the plaintiff do not recover 50*l.* he shall not be entitled to costs, unless the judge shall certify that the case was a fit one to be tried in the said court.

No Seaman to sue for Wages abroad, except in Cases of Discharge or of Danger to Life.—No seaman who is engaged for a voyage or engagement which is to terminate in the United Kingdom, shall be entitled to sue in any court abroad for wages, unless he is discharged with such sanction as herein required and with the written consent of the master, or prove such ill-usage on the part of the master or by his authority as to warrant reasonable apprehension of danger to the life of such seaman if he were to remain on board; but if any seaman on his return to the United Kingdom proves that the master or owner has been guilty of any conduct or default which but for this enactment would have entitled the seaman to sue for wages before the termination of the voyage or engagement, he shall be entitled to recover in addition to his wages such compensation not exceeding 20*l.* as the court hearing the case thinks reasonable. (17 & 18 Vict. s. 190.)

Master to have same Remedies for Wages as Seamen.—Every master of a ship shall, so far as the case permits, have the same rights, liens, and remedies for the recovery of his wages which by this Act or by any law or custom any seaman, not being a master, has for the recovery of his wages; and if in any proceeding in any Court of Admiralty

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or Vice-Admiralty touching the claim of a master to wages any right or set-off or counter-claim is set up, it shall be lawful for such court to enter into and adjudicate upon all questions and to settle all accounts then arising or outstanding and unsettled between the parties to the proceeding, and to direct payment of any balance which is found to be due. (Sec. 191.)

Relief to Seamen's Families out of Poor Rates.

Relief to Seamen's Families to be chargeable on Proportion of their Wages.—Whenever during the absence of any seaman on a voyage, his wife, children, and step-children, or any of them, become or becomes chargeable to any union or parish in the United Kingdom, such union or parish shall be entitled to be reimbursed out of the wages of such seaman earned during such voyage any sums properly expended during his absence in the maintenance of his said relations, or any of them, so that such sums do not exceed the following proportions of his said wages, viz.:—

(1) If only one of such relations is chargeable, ½ of such wages.

(2) If two or more of such relations are chargeable, ⅔ of such wages.

But if during the absence of the seaman any sums have been paid by the owner to or on behalf of any such relation as aforesaid, under an allotment note given by the seaman in his, her, or their favour, any such claim for reimbursement as aforesaid shall be limited to the excess (if any) of the proportion of the wages hereinbefore mentioned over the sums so paid. (Sec. 192.)

Clause 193 directs the mode to be pursued by the guardians of the poor &c. to obtain reimbursement of advances to relations of seamen.

Wages and Effects of Deceased Seamen.

Masters to take charge of or sell Effects of Deceased Seamen which are on board.—Whenever any seaman or apprentice belonging to or sent home in any British ship, whether a foreign going ship or a home trade ship, employed on a voyage which is to terminate in the United Kingdom, dies during such voyage, the master shall take charge of all money, clothes, and effects which he leaves on board, and shall, if he think fit, cause all or any of the said clothes and effects to be sold by auction at the mast or other public auction, and shall thereupon sign an entry in the official log book containing the following particulars, viz.:—

(1) A statement of the amount of the money, and a description of the effects so left by the deceased:

(2) In case of a sale, a description of each article sold, and the sum received for each:

(3) A statement of the sum due to the deceased as wages, and the total amount of the deduction (if any) to be made therefrom:

And shall cause such entry to be attested by a mate and by one of the crew. (Sec. 194.)

Such Effects and Wages to be paid either to Consul or to Shipping Master, with full Accounts.—In the cases provided for by the last preceding section, the following rules shall be observed (that is to say):—

(1) If the ship proceeds at once to any port in the United Kingdom, without touching on the way at any foreign port, the master shall within 48 hours after his arrival deliver any such effects as aforesaid remaining unsold, and pay any money which he has taken charge of or received from such sale as aforesaid, and also the balance of wages due to the deceased, to the shipping master at the port of destination in the United Kingdom:

(2) If the ship touches and remains for 48 hours at some foreign port or at some port in her Majesty's dominions abroad before coming to any port in the United Kingdom, the master shall report the case to the British consular officer or officer of customs there, as the case may be, and shall give to such officer any information he requires as to the destination of the ship and probable length of the voyage; and such officer may thereupon, if he considers it expedient so to do, require the said effects, money, and wages to be delivered and paid to him, and shall upon such delivery and payment give to the master a receipt, and the master shall within 48 hours after his arrival at his port of destination in the United Kingdom produce the same to the shipping master there; and such consular officer or officer of customs shall in such case indorse and certify upon the agreement with the crew such particulars with respect to such delivery and payment as the Board of Trade requires:

(3) If such officer as aforesaid does not require such payment and delivery to be made to him, the master shall take charge of the said effects, money, and wages, and shall within 48 hours after his arrival at his port of destination in the United Kingdom deliver and pay the same to the shipping master there:

(4) The master shall in all cases in which any seaman or apprentice dies during the progress of a voyage or engagement give to the Board of Trade, or to such officer or shipping master as aforesaid, an account in such form as they respectively require of the effects, money, and wages so to be delivered and paid; and no deductions claimed in such account shall be allowed unless verified, if there is any official log book, by such entry therein as hereinbefore required, and also by such other vouchers (if any) as may be reasonably required by the Board of Trade, or by the officer or shipping master to whom the account is rendered:

(5) Upon due compliance with such of the provisions of this section as relate to acts to be done at the port of destination in the United Kingdom, the shipping master shall grant to the master a certificate to that effect, and no officer of customs shall clear inwards any foreign-going ship without the production of such certificate. (Sec. 195.)

Penalties for not taking charge of, remitting, or accounting for such Moneys and Effects.—If any master fail to take such charge of the money or other effects of a seaman or apprentice dying during a voyage, or to make such entries in respect thereof, or to procure such attestation to such entries, or to make such payment or delivery of any money, wages, or effects of any seaman or apprentice dying during a voyage, or to give such account in respect thereof as hereinbefore respectively directed, he shall be accountable for the money, wages, and effects of the seaman or apprentice to the Board of Trade, and shall pay and deliver the same accordingly; and such master shall in addition for every such offence incur a penalty not exceeding treble the value of the money or effects not accounted for, or if such value is not ascertained, not exceeding 50*l.*; and if any such money, wages, or effects are not duly paid, delivered, or accounted for by the master, the owner of the ship shall pay, deliver, and account for the same, and such money and wages and the value of such effects shall be recoverable from him accordingly; and if he fail to account for and pay the same, he shall, in addition to his liability for the said money and value, incur the same penalty which is hereinbefore mentioned as incurred by the master for the like offence; and

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all money, wages, and effects of any seaman or apprentice dying during a voyage shall be recoverable in the same courts, and by the same modes of proceeding by which seamen are hereby enabled to recover wages due to them. (Sec. 196.)

Officers of Customs and Consuls to take charge of Effects left by Seamen abroad.—If any such seaman or apprentice as last aforesaid die abroad, at any place either in or out of her Majesty's dominions, leaving any money or effects not on board his ship, the chief officer of customs or the British consular officer at or nearest to the place, as the case may be, shall claim and take charge of such money and effects; and such officer shall, if he think fit, sell all or any of such effects, or any effects of any deceased seaman or apprentice delivered to him under the provisions before contained; and every such officer shall, quarterly, or at such other times as the Board of Trade directs, remit to her Majesty's paymaster general all moneys belonging to or arising from the sale of the effects of, or paid as the wages of, any deceased seaman or apprentices, which have come to his hands under the provisions hereinbefore contained, and shall render such accounts in respect thereof as the Board of Trade requires. (Sec. 197.)

Wages and Effects of Deceased Seamen.—The 197th section of the principal Act shall extend to seamen or apprentices who within the 6 months immediately preceding their death have belonged to a British ship; and such section shall be construed as if there were inserted in the first line thereof after the words 'such seaman or apprentice as last aforesaid,' the words 'or if any seaman or apprentice who has within the 6 months immediately preceding his death belonged to a British ship.' (25 & 26 Vict. c. 63 s. 20.)

Wages and Effects of Seamen dying at home to be paid in certain Cases to Board of Trade.—Whenever any seaman or apprentice dies in the United Kingdom, and is at the time of his death entitled to claim from the master or owner of any ship in which he has served any unpaid wages or effects, such master or owner shall pay and deliver or account for the same to the shipping master at the port where the seaman or apprentice was discharged or was to have been discharged, or to the Board of Trade, or as it directs. (17 & 18 Vict. c. 104 s. 198.)

Recovery of Wages &c. of Seamen lost with their Ship.—The wages of seamen or apprentices who are lost with the ship to which they belong shall be dealt with as follows (that is to say):—

(1) The Board of Trade may recover the same from the owner of the ship in the same manner in which seamen's wages are recoverable:

(2) In any proceedings for the recovery of such wages, if it is shown by some official return produced out of the custody of the registrar-general of seamen or by other evidence that the ship has 12 months or upwards before the institution of the proceeding left a port of departure, and if it is not shown that she has been heard of within 12 months after such departure, she shall be deemed to have been lost with all hands on board, either immediately after the time she was last heard of or at such later time as the court hearing the case may think probable:

(3) The production out of the custody of the registrar-general of seamen or of the Board of Trade of any duplicate agreement or list of the crew made out at the time of the last departure of the ship from the United Kingdom; or of a certificate purporting to be a certificate from a consular or other public officer at any port abroad, stating that certain seamen or apprentices were shipped in the ship from the said port, shall, in the absence of proof to the contrary, be sufficient proof that the seamen or apprentices therein named were on board at the time of the loss:

(4) The Board of Trade shall deal with such wages in the manner in which they deal with the wages of other deceased seamen and apprentices under the principal Act. (25 & 26 Vict. c. 63 s. 21.)

If less than 50l., Wages and Property of deceased Seamen may be paid over without Probate or Administration to Persons entitled.—If the money and effects of any deceased seaman or apprentice paid, delivered, or remitted to the Board of Trade or its agents, including the moneys received for any part of the said effects which have been sold either before delivery to the Board of Trade or by its direction, do not exceed in value the sum of 50*l.*, then, subject to the provisions after contained, and to all such deductions for expenses incurred in respect of the seaman or apprentice or of his said money and effects as the said board thinks proper to allow, the said board may, if it think fit, pay and deliver the said money and effects either to any claimants who can prove themselves to the satisfaction of the said board either to be his widow or children, or to be entitled to the effects of the deceased under his will (if any) or under the statutes for the distribution of the effects of intestates, or under any other statute, or at common law, or to be entitled to procure probate or take out letters of administration or confirmation, although no probate or letters of administration or confirmation have been taken out, and shall be thereby discharged from all further liability in respect of the money and effects so paid and delivered, or may, if it thinks fit, require probate or letters of administration or confirmation to be taken out, and thereupon pay and deliver the said money and effects to the legal personal representatives of the deceased; and all claimants to whom such money or effects are so paid or delivered shall apply the same in due course of administration, and if such money and effects exceed in value the sum of 50*l.*, then, subject to the provisions hereinafter contained and to deduction for expenses, the Board of Trade shall pay and deliver the same to the legal personal representatives of the deceased. (17 & 18 Vict. c. 104 s. 199.)

Mode of Payment under Wills made by Seamen.—In cases where the deceased seaman or apprentice has left a will, the Board of Trade shall have the following powers; viz.:—

(1) It may in its discretion refuse to pay or deliver any such wages or effects as aforesaid to any person claiming to be entitled thereto under a will made on board ship, unless such will is in writing, and is signed or acknowledged by the testator in the presence of the master or first or only mate of the ship, and is attested by such master or mate.

(2) It may in its discretion refuse to pay or deliver any such wages or effects as aforesaid to any person not being related to the testator by blood or marriage who claims to be entitled thereto under a will made elsewhere than on board ship, unless such will is in writing, and is signed or acknowledged by the testator in the presence of two witnesses, one of whom is some shipping master appointed under this Act, or some minister or officiating minister or curate of the place in which the same is made, or, in a place where there are no such persons, some justice of the peace, or some British consular officer, or some officer of customs, and is attested by such witnesses.

Whenever any claim made under a will is rejected by the Board of Trade on account of the

said will not being made and attested as hereinbefore required, the wages and effects of the deceased shall be dealt with as if no will had been made. (Sec. 200.)

Clause 201 directs the procedure to be followed in dealing with the claims of the creditors of deceased seamen.

Clause 202 lays down the mode of dealing with unclaimed wages of deceased seamen.

Punishment for Forgery and false Representations to obtain Wages and Property of deceased Seamen.—Every person who, for the purpose of obtaining, either for himself or for another, any money or effects of any deceased seaman or apprentice, forges, assists in forging, or procures to be forged, or fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any document purporting to show or assist in showing a right to such wages or effects, and every person who for the purpose aforesaid makes use of any such forged or altered document as aforesaid, or who for the purpose aforesaid gives or makes or procures to be given or made, or assists in giving or making or procuring to be given or made, any false evidence or representation, knowing the same to be false, shall be punishable with penal servitude for a term not exceeding 4 years, or with imprisonment with or without hard labour for any period not exceeding 2 years, or if summarily prosecuted and convicted, by imprisonment, with or without hard labour, for any period not exceeding 6 months. (Sec. 203.)

Clause 204 enacts that the effects of seamen discharged from navy are to be disposed of by accountant-general of navy.

5. *Leaving Seamen abroad* [Master].—The desertion of their ships by seamen, when abroad, is an offence which, as we have seen, has been much and justly complained of. But the seamen may themselves be deserted; that is, they may be left when on shore with leave or for some necessary purpose, or they may be forced on shore by the master, and then left by him. These being offences of a very grave character, there can be no doubt that they should be visited with some suitable punishment. It is, also, highly expedient that such seamen as have the misfortune to be shipwrecked or left abroad, should be conveyed back to their mother country by the first opportunity. And hence all maritime codes concur in imposing penalties on masters, when abroad, forcing seamen on shore, or leaving them, without just cause; and they, also, make provision for the return home of such shipwrecked or deserted seamen. The following clauses of the Merchant Shipping Act have these objects in view:—

On Discharge of Seamen abroad, by Sale of Ship or otherwise, Seamen to be sent home at Expense of Owner.—Whenever any British ship is transferred or disposed of at any place out of her Majesty's dominions, and any seaman or apprentice belonging thereto does not in the presence of some British consular officer, or, if there is no such consular officer there, in the presence of one or more respectable British merchants residing at the place, and not interested in the said ship, signify his consent in writing to complete the voyage if continued, and whenever the service of any seaman or apprentice belonging to any British ship terminates at any place out of her Majesty's dominions, the master shall give to each such seaman or apprentice a certificate of discharge in the form sanctioned by the Board of Trade, and in the case of any certificated mate whose certificate he has retained shall return such certificate to him, and shall also, besides paying the wages to which such seaman or apprentice is entitled, either provide him with adequate employment on board some other British ship bound to the port in her Majesty's dominions at which he was originally shipped, or to such other port in the United Kingdom as is agreed upon by him, or furnish the means of sending him back to such port, or provide him with a passage home, or deposit with such consular officer or such merchant or merchants as aforesaid such a sum of money as is by such officer or merchants deemed sufficient to defray the expenses of his subsistence and passage home; and such consular officer or merchants shall indorse upon the agreement of the ship which the seaman or apprentice is leaving the particulars of such payment, provision, or deposit; and if the master refuses or neglects to comply with the requirements of this section, such expenses as last aforesaid, if defrayed by such consular officer or by any other person, shall, unless such seaman or apprentice has been guilty of barratry, be a charge upon the ship to which such seaman or apprentice belonged and upon the owner for the time being thereof, and may be recovered against such owner, with costs, at the suit of the consular officer or other person defraying such expenses, or, in case the same has been allowed to the consular officer out of the public moneys, as a debt due to her Majesty either by ordinary process of law, or in the manner in which seamen are hereby enabled to recover wages; and such expenses, if defrayed by the seaman or apprentice, shall be recoverable as wages due to him. (Sec. 205.)

Forcing Seamen on Shore a Misdemeanor.—If the master or any other person belonging to any British ship wrongfully forces on shore and leaves behind, or otherwise wilfully and wrongfully leaves behind, in any place, on shore or at sea, in or out of her Majesty's dominions, any seaman or apprentice belonging to such ship before the completion of the voyage for which such person was engaged or the return of the ship to the United Kingdom, he shall for each such offence be deemed guilty of a misdemeanor. (Sec. 206.)

No Seamen to be discharged or left abroad without Certificate of some Functionary.—If the master of any British ship does any of the following things, viz.:—

(1) Discharges any seaman or apprentice in any place situate in any British possession abroad (except the possession in which he was shipped), without previously obtaining the sanction in writing indorsed on the agreement of some public shipping master or other officer duly appointed by the local government in that behalf, or (in the absence of any such functionary) of the chief officer of customs resident at or near the place where the discharge takes place:

(2) Discharges any seaman or apprentice at any place out of her Majesty's dominions without previously obtaining the sanction so indorsed as aforesaid of the British consular officer there, or (in his absence) of two respectable merchants resident there:

(3) Leaves behind any seaman or apprentice at any place situate in any British possession abroad on any ground whatever, without previously obtaining a certificate in writing so indorsed as aforesaid from such officer or person as aforesaid, stating the fact and the cause thereof, whether such cause be unfitness or inability to proceed to sea, or desertion or disappearance:

(4) Leaves behind any seaman or apprentice at any place out of her Majesty's dominions, on shore or at sea, on any ground whatever, without previously obtaining the certificate indorsed in manner and to the effect last aforesaid of the British consular officer there, or (in his absence)

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of two respectable merchants, if there is any such at or near the place where the ship then is:
He shall for each such default be deemed guilty of a misdemeanor; and the said functionaries shall and the said merchants may examine into the grounds of such proposed discharge or into the allegation of such unfitness, inability, desertion, or disappearance as aforesaid, in a summary way, and may for that purpose, if they think fit, administer oaths, and may either grant or refuse such sanction or certificate as appears to them to be just. (Sec. 207.)

Proof of such Certificate to be upon the Master.—Upon the trial of any information, indictment, or other proceeding against any person for discharging or leaving behind any seaman or apprentice, contrary to the provisions of this Act, it shall be upon such person either to produce the sanction or certificate hereby required, or to prove that he had obtained the same previously to having discharged or left behind such seaman or apprentice, or that it was impracticable for him to obtain such sanction or certificate. (Sec. 208.)

Wages to be paid when Seamen are left behind on Ground of Inability.—Every master of any British ship who leaves any seaman or apprentice on shore at any place abroad in or out of her Majesty's dominions, under a certificate of his unfitness or inability to proceed on the voyage, shall deliver to one of the functionaries aforesaid or (in the absence of such functionaries) to the merchants by whom such certificate is signed, or, if there be but one respectable merchant resident at such place, to him, a full and true account of the wages due to such seaman or apprentice, such account when delivered to a consular officer to be in duplicate, and shall pay the same either in money or by a bill drawn upon the owner; and in the case of every bill so drawn, such functionary, merchants, or merchant as aforesaid, shall by indorsement certify thereon that the same is drawn for money due on account of a seaman's wages, and shall also indorse the amount for which such bill is drawn with such further particulars in respect of the case as the Board of Trade requires, upon the agreement of the ship; and every such master as aforesaid who refuses or neglects to deliver a full account of such wages, and pay the amount thereof in money or by bill, as hereinbefore required, shall for every such offence or default be liable, in addition to the payment of the wages, to a penalty not exceeding 10*l.*; and every such master who delivers a false account of such wages shall for every such offence, in addition to the payment of the wages, incur a penalty not exceeding 20*l.* (25 & 26 Vict. c. 63 s. 209.)

Payment of Wages to Seamen abroad under Section 209 of Principal Act.—The payment of seamen's wages required by the 209th section of the principal Act shall, whenever it is practicable so to do, be made in money and not by bill; and in cases where payment is made by bill drawn by the master, the owner of the ship shall be liable to pay the amount for which the same is drawn to the holder or indorsee thereof; and it shall not be necessary in any proceeding against the owner upon such bill to prove that the master had authority to draw the same; and any bill purporting to be drawn in pursuance of the said section, and to be indorsed as therein required, if produced out of the custody of the Board of Trade or of the registrar-general of seamen, or of any superintendent of any mercantile marine office, shall be received in evidence; and any indorsement on any such bill purporting to be made in pursuance of the said section, and to be signed by one of the functionaries therein mentioned, shall also be received in evidence, and shall be deemed to be primâ facie evidence of the facts stated in such indorsement.

Clause 210 of 17 & 18 Vict. c. 104 directs that such wages are to be treated as money due to the seamen, subject to payment of expense of their subsistence and passage home.

Distressed Seamen found Abroad may be relieved and sent Home at the Public Expense.—The governors, consular officers, and other officers of her Majesty in foreign countries shall, and in places where there are no such governors or officers any two resident British merchants may, provide for the subsistence of all seamen or apprentices, being subjects of her Majesty, who have been shipwrecked, discharged, or left behind at any place abroad, whether from any ship employed in the merchant service or from any of her Majesty's ships, or who have been engaged by any person acting either as principal or agent to serve in any ship belonging to any foreign power or to the subject of any foreign state, and who are in distress in any place abroad, until such time as they are able to provide them with a passage home, and for that purpose shall cause such seamen or apprentices to be put on board some ship belonging to any subject of her Majesty bound to any port of the United Kingdom, or to the British possession to which they belong (as the case requires), which is in want of men to make up its complement, and in default of any such ship shall provide them with a passage home as soon as possible in some ship belonging to a subject of her Majesty bound as aforesaid, and shall indorse on the agreement of any ship on board of which any seaman or apprentice is so taken or sent the name of every person so sent on board thereof, with such particulars concerning the case as the Board of Trade requires, and shall be allowed for the subsistence of any such seaman or apprentice such sum per diem as the Board of Trade from time to time appoints; and the amount due in respect of such allowance shall be paid out of any moneys applicable to the relief of distressed British seamen, and granted by Parliament for the purpose, on the production of the bill of the disbursements, with the proper vouchers. (17 & 18 Vict. c. 104 s. 211.) The 22nd section of 18 & 19 Vict. c. 91 provides for the return of distressed Lascars to India.

Masters of British Ships compelled to take them.—The master of every British ship so bound as aforesaid shall receive and afford a passage and subsistence to all seamen or apprentices whom he is required to take on board his ship under the provisions before contained, not exceeding one for every 50 tons burden, and shall during the passage provide every such seaman or apprentice with a proper berth or sleeping-place effectually protected against sea and weather; and on the production of a certificate signed by any governor, consular officer, or merchants by whose directions any such seaman or apprentice was received on board, specifying the number and names of such seamen or apprentices, and the time when each of them respectively was received on board, and on a declaration made by such person before a justice, and verified by the registrar-general of seamen, stating the number of days during which each seaman or apprentice received subsistence and was provided for as aforesaid on board his ship, and stating also the number of men and boys forming the complement of his crew, and the number of seamen and apprentices employed on board his ship during such time, and every variation (if any) of such number, such person shall be entitled to be paid out of the said moneys applicable to the relief

of distressed British seamen, in respect of the subsistence and passage of every seaman or apprentice so conveyed, subsisted, and provided for by him exceeding the number (if any) wanted to make up the complement of his crew, such sum per diem as the Board of Trade from time to time appoints; and if any person having charge of any such ship fails or refuses to receive on board his ship, or to give a passage home, or subsistence to, or to provide for any such seaman or apprentice as aforesaid, contrary to the provisions of this Act, he shall incur a penalty not exceeding 100*l.* for each seaman or apprentice with respect to whom he makes such default or refusal. (17 & 18 Vict. c. 104 s. 212.)

Relief of Distressed Seamen to be regulated by Board of Trade.—Whereas under the 211th and 212th sections of the principal Act, and the 16th section of 'The Merchant Shipping Act Amendment Act 1855,' provision is made for relieving and sending home seamen found in distress abroad; and whereas doubts are entertained whether power exists under the said sections of making regulations and imposing conditions which are necessary for the prevention of desertion and misconduct and the undue expenditure of public money: Be it enacted, and it is hereby declared, that the claims of seamen to be relieved or sent home in pursuance of the said sections or any of them shall be subject to such regulations and dependent on such conditions as the Board of Trade may from time to time make or impose; and no seaman shall have any right to demand to be relieved or sent home except in the cases and to the extent provided for by such regulations and conditions.

Volunteering into the Navy.

Seamen allowed to leave their Ships to enter the Navy.—Any seaman may leave his ship for the purpose of forthwith entering into the naval service of her Majesty, and such leaving his ship shall not be deemed a desertion therefrom, and shall not render him liable to any punishment or forfeiture whatever; and all stipulations introduced into any agreement whereby any seaman is declared to incur any forfeiture or be exposed to any loss in case he enters into her Majesty's naval service shall be void, and every master or owner who causes any such stipulation to be so introduced shall incur a penalty not exceeding 20*l.* (Sec. 214.)

Clause 215 directs that the clothes of seamen entering the navy are to be delivered at once, and that wages are to be given to the Queen's officer on account of the seamen.

Clauses 217, 218, 219, and 220 relate to the proceedings to be taken by owners who claim extra expenses for having substitutes to replace the seamen who have entered the navy.

It may be asked, Is the power granted by these clauses any longer necessary? And is it not likely to lead to great abuses? Numerous instances might be mentioned where its exercise entirely destroyed that discipline so essential to the good management of merchant ships, and placed the ship herself in peril by the reduction of the crew. No provision is made for the place where the ship may be at the time, or the danger involved by being under-manned, or the difficulty —nay, it might be the impossibility—of obtaining other seamen to fill the places of those who had, under the provisions of this Act, violated the terms of their agreement, and entered her Majesty's service.

We are aware that the Admiralty instructions are to the effect that the captains of our ships of war are to be cautious how they exercise the power of withdrawing seamen from merchant vessels at distant stations; but we have no hesitation in stating that, however much that power may have been requisite in times past, the necessity for its exercise no longer exists, and if not entirely abolished, it should be confined to periods of war. No such power can be necessary for the welfare of the state during a time of peace.

6. *Provisions, Health, and Accommodation on Board.*—These important objects are now provided for as follows, viz.:—

Survey of Provisions and Water on Complaint made.—Any three or more of the crew of any British ship may complain to any officer in command of any of her Majesty's ships, or any British consular officer, or any shipping master, or any chief officer of customs, that the provisions or water for the use of the crew are at any time of bad quality, unfit for use, or deficient in quantity; and such officer may thereupon examine the said provisions or water, or cause them to be examined; and if on examination such provisions or water are found to be of bad quality and unfit for use, or to be deficient in quantity, the person making such examination shall signify the same in writing to the master of the ship; and if such master does not thereupon provide other proper provisions or water in lieu of any so signified to be of a bad quality and unfit for use, or does not procure the requisite quantity of any so signified to be insufficient in quantity, or uses any provisions or water which have been so signified as aforesaid to be of a bad quality and unfit for use, he shall in every such case incur a penalty not exceeding 20*l.*; and upon every such examination as aforesaid the officers making or directing the same shall enter a statement of the result of the examination in the official log, and shall send a report thereof to the Board of Trade, and such report, if produced out of the custody of such Board or its officers, shall be received in evidence in any legal proceeding. (Sec. 221.)

Forfeiture for Frivolous Complaint.—If the officer to whom any such complaint as last aforesaid is made certifies in such statement as aforesaid that there was no reasonable ground for such complaint, each of the parties so complaining shall be liable to forfeit to the owner out of his wages a sum not exceeding one week's wages. (Sec. 222.)

Allowance for short or bad Provisions.—In the following cases, viz.:—

(1) If during a voyage the allowance of any of the provisions which any seaman has by his agreement stipulated for is reduced (except in accordance with any regulations for reduction by way of punishment contained in the agreement, and also except for any time during which such seaman wilfully and without sufficient cause refuses or neglects to perform his duty, or is lawfully under confinement for misconduct, either on board or on shore):

(2) If it is shown that any of such provisions are or have during the voyage been bad in quality and unfit for use:

The seaman shall receive by way of compensation for such reduction or bad quality, according to the time of its continuance, the following sums, to be paid to him in addition to and to be recoverable as wages; that is to say:—

(1) If his allowance is reduced by any quantity not exceeding one-third of the quantity specified in the agreement, a sum not exceeding 4*d.* per day.

(2) If his allowance is reduced by more than one-third of such quantity, 8*d.* per day.

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(3) In respect of such bad quality as aforesaid, a sum not exceeding 1*s.* per day.

But if it is shown to the satisfaction of the court before which the case is tried, that any provisions the allowance of which has been reduced could not be procured or supplied in proper quantities, and that proper and equivalent substitutes were supplied in lieu thereof, the court shall take such circumstances into consideration, and shall modify or refuse compensation as the justice of the case may require. (Sec. 223.)

Medicines, Lime or Lemon Juice, Sugar, and Vinegar, to be provided and kept on board certain Ships.—The following rules shall be observed with respect to medicines, medical stores, and anti-scorbutics; that is to say:—

(1) The Board of Trade shall from time to time issue and cause to be published a scale of medicines and medical stores suitable to accidents and diseases arising on sea voyages. (See Table below.)

(2) The owner of every ship navigating between the United Kingdom and any place out of the same shall provide and cause to be constantly kept on board such ship a supply of such medicines and medical stores in accordance with the said scale. (17 & 18 Vict. c. 104 s. 224.)

In lieu of the regulations (3 and 4) in the 17 & 18 Vict. c. 104 s. 224, as to the issue of lemon juice, and other anti-scorbutics, the Merchant Shipping Act of 1867 (30 & 31 Vict. c. 124) lays down certain rules which will be found at length under JUICE OF LEMONS.

The Merchant Shipping Act of 1867 provides also for the seaman's expenses in case of his illness through the neglect of owner or master, and declares the forfeiture of his wages when incapable for duty through illness caused by his own default. It also provides for proper accommodation for seamen on board ship, and lays down rules for the medical inspection of seamen. Consequent on this Act, the Board of Trade issued instructions in Nov. 1867, for obtaining, testing, and preserving lime or lemon juice for use in the merchant service.

Masters to keep Weights and Measures on board.—Every master shall keep on board proper weights and measures for the purpose of determining the quantities of the several provisions and articles served out, and shall allow the same to be used at the time of serving out such provisions and articles in the presence of a witness whenever any dispute arises about such quantities, and in default shall for every offence incur a penalty not exceeding 10*l.* (Sec. 225.)

Board of Trade and Local Boards may appoint Inspectors of Medicines.—Any local marine board may, upon being required by the Board of Trade, appoint and remove a medical inspector of ships for the port, and may fix his remuneration, such remuneration to be subject to the control of the Board of Trade; and at ports where there are no local marine boards the Board of Trade may appoint and remove such inspectors, and fix their remuneration; and it shall be the duty of such inspectors to inspect the medicines, medical

	Quantities required, varying according to the Number of Persons on board, viz. for Vessels carrying				Quantities required, varying according to the Number of Persons on board, viz. for Vessels carrying		
	15 Men, and under	Above 15, but under 40	Above 40		15 Men, and under	Above 15, but under 40	Above 40
Castor oil	1 lb.	2 lb.	3 lb.	Emetic powders, each to contain ipecacuanha 1 scruple, emetic tartar ½ grs.	2 doz.	3 doz.	3 doz.
Epsom salts	4	8	12				
Calomel	½ oz.	1 oz.	2 oz.	Purging pills, each to contain of the compound extract of colocynth 4 grs., calomel 1 gr.	4	6	8
Powder of jalap	..	1	2				
of rhubarb	..	1	2				
Senna leaves	..	2	3				
Cream of tartar	6 oz.	9	6	Purging powders, each to contain of calomel ½ grs., compound powder of jalap 1 dr.	3	3	4
Sulphur	8	12	6				
Alum	1	2	3	Compound chalk powder	2 oz.	3 oz.	4 oz.
Powdered ginger	1	2	4	Dover's powder	1	2	3
Sulphate of quinine	½	1	2	Essence of peppermint (each ounce to contain 1 drachm of the oil)	1	2	3
for vessels trading to the east or west coasts of Africa, to the coast of China and Borneo	3	4	4	Simple ointment	8	16	24
Balsam of Copaiba	6	12	16	Mercurial ointment	4	8	12
Calcined magnesia	4	6	12	Basilicon ointment	4	8	12
Liquid ammonia	4	8	12	Blistering plaister	4	8	12
Olive oil	8	12	16	Concentrated chloride of zinc (Burnett's solution)	14 pts.	28 pts.	56 pts.
Spirit of turpentine	8	12	16	(Double the above quantities of chloride of zinc to be taken in steamers.)			
Laudanum	2	4	6	Arrowroot in tin cases	2 lb.	4 lb.	6 lb.
Bicarbonate of soda	8	16	24	Pearl barley ,,	4	8	12
Tartaric acid	6	12	16	Rice ,,	4	8	15
Citric acid	4	6	8	Mustard ,,	1	2	3
Nitrate of silver	½	½	1				
Opium pills, each to contain of opium 1 gr., Castile soap 4 grs.	2 doz.	3 doz.	3 doz.				

In addition to the above, the following Medicines are to be supplied to Vessels carrying a Surgeon, and having upwards of 40 Persons on board.

Nitric ether	..	..	2 oz.	Hydriodate of potass	..	..	2 oz.
Acetate of lead	..	..	2	Ergot of rye	..	..	2
Croton oil	..	..	2 drs.	Tincture of digitalis	..	..	2
Camphor	..	..	1 oz.	Powder of ipecacuanha	..	..	1
Tartar emetic	..	..	1 dr.	Sulphate of zinc	..	..	1

Articles to accompany the Medicines.

Set of scales and weights	1 no.	1 no.	1 no.	Adhesive plaister	1 yd.	2 yds.	3 yds.
Graduated drop measure	1	1	1	Lint	½ lb.	1 lb.	1 lb.
Wineglass, graduated	1	1	1	Sponge	1 oz.	2 oz.	2 oz.
Pair of scissors	1	1	1	Cotton wool	2 lb.	3 lb.	4 lb.
Syringes	2	2	2	Set of common splints	1	1	1
Lancets	2	2	2	Charges of vaccine lymph	2	2	2
Bandages of different sizes	12	12	12	Trusses (single) 36 inches in girth	1	1	1
Yards of calico	6	6	6	(double), ditto	1	1	1
flannel	6	6	6	Enema syringe, with printed directions for its use	1	1	1
Papers of needles, pins, and threads	2	2	2	Elastic catheter, No. 8.	1	1	1
Tourniquet	1	1	1				
Oiled silk	1 yd.	1 yd.	1 yd.				

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stores, lime or lemon juice, or other articles, sugar and vinegar, required to be kept on board any such ships as aforesaid; and such inspection, if made at places where there are local marine boards, shall be made under their direction, and also in any special cases under the direction of the Board of Trade, and if made at places where there are no local marine boards, shall be made under the direction of the Board of Trade; and such medical inspectors shall, for the purposes of such inspection, have the same powers as the inspectors appointed by the Board of Trade under the first part of this Act; but every such inspector, if required by timely notice in writing from the master, owner, or consignee, shall make his inspection three days at least before the ship proceeds to sea, and if the result of the inspection is satisfactory shall not again make inspection before the commencement of the voyage, unless he has reason to suspect that some of the articles inspected have been subsequently removed, injured, or destroyed; and whenever any such medical inspector is of opinion that in any ship hereby required to carry such articles as aforesaid the same or any of them are deficient in quantity or quality, or are placed in improper vessels, he shall signify the same in writing to the chief officer of customs of the port where such ship is lying, and also to the master, owner, or consignee thereof, and thereupon the master of such ship, before proceeding to sea, shall produce to such chief officer of customs a certificate under the hand of such medical inspector or of some other medical inspector, to the effect that such deficiency has been supplied or remedied, or that such improper vessels have been replaced by proper vessels, as the case may require; and such chief officer of customs shall not grant a clearance for such ship without the production of such certificate, and if such ship attempts to go to sea without a clearance, may detain her until such certificate is produced; and if such ship proceeds to sea without the production of such certificate, the owner, master, or consignee thereof shall incur a penalty not exceeding 20*l.* (Sec. 226.)

Penalty for selling &c. Medicines &c. of bad quality.—Any person who manufactures, sells, or keeps or offers for sale, any medicines or medical stores, as aforesaid, of bad quality, shall for each such offence incur a penalty not exceeding 20*l.* (Sec. 5 of 30 & 31 Vict. c. 124.)

Expense of Medical Attendance &c. how to be defrayed.—The following rules shall be observed with respect to expenses attendant on illness and death, viz.:—

(1) If the master or any seaman or apprentice receives any hurt or injury in the service of the ship to which he belongs, the expense of providing the necessary surgical and medical advice, with attendance and medicines, and of his subsistence until he is cured, or dies, or is brought back to some port in the United Kingdom, if shipped in the United Kingdom, or if shipped in some British possession to some port in such possession, and of his conveyance to such port, and the expense (if any) of his burial, shall be defrayed by the owner of such ship, without any deduction on that account from the wages of such master, seaman, or apprentice.

(2) If the master or any seaman or apprentice is on account of any illness temporarily removed from his ship for the purpose of preventing infection, or otherwise for the convenience of the ship, and subsequently returns to his duty, the expense of such removal, and of providing the necessary advice with attendance and medicines and of his subsistence whilst away from the ship, shall be defrayed in like manner.

(3) The expense of all medicines and surgical or medical advice and attendance given to any master, seaman, or apprentice whilst on board his ship shall be defrayed in like manner.

(4) In all other cases any reasonable expenses duly incurred by the owner for any seaman in respect of illness, and also any reasonable expenses duly incurred by the owner in respect of the burial of any seaman or apprentice who dies whilst on service, shall, if duly proved, be deducted from the wages of such seaman or apprentice. (17 & 18 Vict. c. 104 s. 228. See also 30 & 31 Vict. c. 124 ss. 7, 8.)

Expenses, if paid by Consul, to be recoverable from Owner.—If any such expenses in respect of the illness, injury, or hurt of any seaman or apprentice, as are to be borne by the owner, are paid by any consular officer or other person on behalf of her Majesty, or if any other expenses in respect of the illness, injury, or hurt of any seaman or apprentice whose wages are not accounted for to such officer under the provisions before contained are so paid, such expenses shall be repaid to such officer or other person by the master of the ship, and if not so repaid, the amount thereof, with costs, shall be a charge upon the ship, and be recoverable from the said master or from the owner of the ship for the time being as a debt due to her Majesty, and shall be recoverable either by ordinary process of law or in the manner in which seamen are hereby enabled to recover wages; and in any proceeding for the recovery thereof the production of a certificate of the facts, signed by such officer or other person, together with such vouchers (if any) as the case requires, shall be sufficient proof that the said expenses were duly paid by such consular officer or other person as aforesaid. (17 & 18 Vict. c. 104 s. 229.)

Certain Ships to carry Medical Practitioners.—Every foreign-going ship having 100 persons or upwards on board shall carry on board as part of her complement some person duly authorised by law to practise as physician, surgeon, or apothecary; and in default the owner shall for every voyage of any such ship made without such medical practitioner incur a penalty not exceeding 100*l.*: provided that nothing herein contained shall in anywise affect any provision contained in the 'Passengers Act 1852,' concerning the carriage of medical practitioners by the class of ships therein named passenger ships, nor shall any such passenger ship, if not thereby required to carry a medical practitioner, be hereby required to do so. (Sec. 230.)

Place appropriated to Seamen to have a certain Space for each Man &c.—The following rules shall be observed with respect to accommodation on board British ships, viz.:—

(1) Every place in any ship occupied by seamen or apprentices, and appropriated to their use, shall have for every such seaman or apprentice, a space of not less than 72 cubic feet, and of not less than 12 superficial feet, measured on the deck or floor of such place.

(2) Every such place shall be such as to make the space aforesaid available for the proper accommodation of the men who are to occupy it, shall be securely constructed, properly lighted and ventilated, properly protected from weather and sea, and, as far as practicable, properly shut off and protected from effluvium which may be caused by cargo or bilge water.

(3) No such place as aforesaid shall be deemed to be such as to authorise a deduction from

registered tonnage, under the provisions hereinafter contained, unless there is or are in the ship one or more properly constructed privy or privies for the use of the crew; such privy or privies to be of such number and of such construction as may be approved by the surveyor hereinafter mentioned.

(4) Every such place shall, whenever the ship is registered or re-registered, be inspected by one of the surveyors appointed by the Board of Trade under Part IV. of the principal Act, who shall, if satisfied that the same is in all respects such as is required by this Act, give to the collector of customs a certificate to that effect, and thereupon such space shall be deducted from the registered tonnage.

(5) No such deduction from tonnage as aforesaid shall be authorised unless there is permanently cut in a beam, and cut in or painted on or over the doorway or hatchway of every such place, the number of men which it is constructed to accommodate, with the words, 'certified to accommodate seamen.'

(6) Every such place shall be kept free from stores or goods of any kind, not being the personal property of the crew in use during the voyage.

(7) Upon any complaint concerning any such place as aforesaid, one of the surveyors appointed by the Board of Trade may inspect such place, and if he finds that any of the provisions of this Act with respect to the same are not complied with he shall report the same to the Collector of Customs at the port where the ship is registered, and thereupon the registered tonnage shall be altered, and the deduction aforesaid in respect of space disallowed, unless and until it shall be certified by such surveyor, or by some other surveyor appointed by the Board of Trade, that the provisions of the Act in respect of such place are fully complied with.

(8) If any such place in any ship is not kept free from goods and stores as aforesaid, the master shall be deemed to be in fault, and shall for every such failure to comply with the provisions of this section forfeit and pay to each seaman lodged in such place the sum of one shilling a day for each day after complaint made to him by any two or more of such seamen during which any goods or stores, not being the personal property of the crew, are stored or kept therein.

(9) If in any other respect the provisions of this section are not observed with respect to any such place in any ship the owner shall be deemed to be in fault, and shall for every failure to comply with the provisions of this section incur a penalty not exceeding 20*l*. (30 & 31 Vict. c. 124 s. 9.)

Power of making Complaint.

Seamen to be allowed to go ashore to make Complaint to a Justice.—If any seaman or apprentice whilst on board any ship states to the master that he desires to make complaint to a justice of the peace, or consular officer, or naval officer in command of any of her Majesty's ships, against the master or any of the crew, the said master shall, if the ship is then at a place where there is a justice or any such officer as aforesaid, so soon as the service of the ship will permit, and if the ship is not then at such a place so soon after her first arrival at such a place as the service of the ship will permit, allow such seaman or apprentice to go ashore or send him ashore in proper custody, so that he may be enabled to make such complaint, and shall, in default, incur a penalty not exceeding 10*l*. (17 & 18 Vict. c. 104 s. 232.)

Protection of Seamen from Imposition.

Sale of and Charge upon Wages to be invalid.—No wages due or accruing to any seaman or apprentice shall be subject to attachment or arrestment from any court; and every payment of wages to a seaman or apprentice shall be valid in law, notwithstanding any previous sale or assignment of such wages, or of any attachment, incumbrance, or arrestment thereon; and no assignment or sale of such wages or of salvage made prior to the accruing thereof shall bind the party making the same; and no power of attorney or authority for the receipt of any such wages or salvage shall be irrevocable. (Sec. 233.)

No Debt exceeding 5s. recoverable till End of Voyage.—No debt exceeding in amount 5*s*. incurred by any seaman after he has engaged to serve shall be recoverable until the service agreed for is concluded. (Sec. 234.)

Penalty for Overcharges by Lodging-house Keepers.—If any person demands or receives from any seaman or apprentice to the sea service, payment in respect of his board or lodging in the house of such person for a longer period than such seaman or apprentice has actually resided or boarded therein, he shall incur a penalty not exceeding 10*l*. (Sec. 235.)

Penalty for detaining Seamen's Effects.—If any person receives or takes into his possession or under his control, any moneys, documents, or effects of any seaman or apprentice to the sea service, and does not return the same or pay the value thereof, when required by such seaman or apprentice, subject to such deduction as may be justly due to him from such seaman or apprentice in respect of board or lodging, or otherwise, or absconds therewith, he shall incur a penalty not exceeding 10*l*.; and any two justices may, besides inflicting such penalty, by summary order, direct the amount of value of such moneys, documents, or effects, subject to such deduction as aforesaid, to be forthwith paid to such seaman or apprentice. (Sec. 236.)

Persons not to go on board before the final Arrival of Ships without Permission.—Every person who, not being in her Majesty's service, and not being duly authorised by law for the purpose, goes on board any ship about to arrive at the place of her destination, before her actual arrival in dock or at the place of her discharge, without the permission of the master, shall for every such offence incur a penalty not exceeding 20*l*.; and the master or person in charge of such ship may take any such person so going on board as aforesaid into custody, and deliver him up forthwith to any constable or peace officer, to be by him taken before a justice or justices or the sheriff of the county in Scotland, and to be dealt with according to the provisions of this Act. (Sec. 237.)

Penalty for Solicitations by Lodging house Keepers.—If, within 24 hours after the arrival of any ship at any port in the United Kingdom, any person then being on board such ship solicits any seaman to become a lodger at the house of any person letting lodgings for hire, or takes out of such ship any effects of any seaman except under his personal direction and with the permission of the master, he shall for every such offence incur a penalty not exceeding 5*l*. (Sec. 238.)

For the next four clauses, see MASTER.

7. *Crimes Committed on the High Seas and Abroad.*—Clause 267 directs that all offences committed by seamen at sea or in foreign ports shall be within Admiralty jurisdiction; and by the subsequent Acts already cited these crimes are now punishable in the colonies and India.

Conveyance of Offenders and Witnesses to United Kingdom &c.—The following rules shall

be observed with respect to offences committed on the high seas or abroad, viz.:—

(1) Whenever any complaint is made to any British consular officer of any offence on the high seas having been committed by any master, seaman, or apprentice belonging to any British ship, such consular officer may enquire into the case upon oath, and may, if the case so requires, take any steps in his power for the purpose of placing the offender under necessary restraint, and of sending him as soon as practicable in safe custody to the United Kingdom, or to any British possession in which there is a court capable of taking cognisance of the offence, in any ship belonging to her Majesty, or to any of her subjects, to be there proceeded against according to law.

(2) For the purpose aforesaid such consular officer may order the master of any ship belonging to any subject of her Majesty, bound to the United Kingdom, or to such British possession as aforesaid, to receive and afford a passage and subsistence during the voyage to any such offender as aforesaid, and to the witnesses, so that such master be not required to receive more than one offender for every 100 tons of his ship's registered tonnage, or more than one witness for every 50 tons of such tonnage; and such consular officer shall indorse upon the agreement of the ship such particulars with respect to any offenders or witnesses sent in her as the Board of Trade requires.

(3) Every such master shall, on his ship's arrival in the United Kingdom, or in such British possession as aforesaid, give every offender so committed to his charge into the custody of some police officer or constable, who shall take the offender before a justice of the peace or other magistrate by law empowered to deal with the matter, and such justice or magistrate shall deal with the matter as in cases of offences committed upon the high seas.

And any such master as aforesaid who, when required by any British consular officer to receive and afford a passage and subsistence to any offender or witness, does not receive him and afford such passage and subsistence to him, or who does not deliver any offender committed to his charge into the custody of some police officer or constable as hereinbefore directed, shall for each such offence incur a penalty not exceeding 50*l.*, and the expense of imprisoning any such offender and of conveying him and the witnesses to the United Kingdom or to such British possession as aforesaid in any manner other than in the ship to which they respectively belong, shall be part of the costs of the prosecution, or be paid as costs incurred on account of seafaring subjects of her Majesty left in distress in foreign parts. (Sec. 268.)

Enquiry into Cause of Death on board.—Whenever any case of death happens on board any foreign going ship, the shipping master shall on the arrival of such ship at the port where the crew is discharged enquire into the cause of such death, and shall make on the list of the crew delivered to him as herein required an indorsement to the effect either that the statement of the cause of death therein contained is in his opinion true or otherwise, as the result of the enquiry requires; and every such shipping master shall for the purpose of such enquiry have the power hereby given to inspectors appointed by the Board of Trade under the first part of this Act; and if in the course of such enquiry it appears to him that any such death as aforesaid has been caused by violence or other improper means, he shall either report the matter to the Board of Trade, or, if the emergency of the case so requires, shall take immediate steps for bringing the offender or offenders to justice. (Sec. 269.)

Depositions to be received in Evidence when Witness cannot be produced.—Whenever in the course of any legal proceedings instituted in any part of her Majesty's dominions before any judge or magistrate, or before any person authorised by law or by consent of parties to receive evidence, the testimony of any witness is required in relation to the subject-matter of such proceeding, then upon due proof, if such proceeding is instituted in the United Kingdom, that such witness cannot be found in that kingdom, or if in any British possession, that he cannot be found in the same possession, any deposition that such witness may have previously made on oath in relation to the same subject-matter before any justice or magistrate in her Majesty's dominions, or any British consular officer elsewhere, shall be admissible in evidence, subject to the following restrictions, viz.:—

(1) If such deposition was made in the United Kingdom, it shall not be admissible in any proceeding instituted in the United Kingdom.

(2) If such a deposition was made in any British possession, it shall not be admissible in any proceeding instituted in the same British possession.

(3) If the proceeding is criminal, it shall not be admissible unless it was made in the presence of the person accused.

Every deposition so made as aforesaid shall be authenticated by the signature of the judge, magistrate, or consular officer, before whom the same is made; and such judge, magistrate, or consular officer shall, when the same is taken in a criminal matter, certify if the fact is so, and that the accused was present at the taking thereof, but it shall not be necessary in any case to prove the signature or official character of the person appearing to have signed any such deposition; and in any criminal proceeding such certificate as aforesaid shall, unless the contrary is proved, be sufficient evidence of the accused having been present in manner thereby certified; but nothing herein contained shall affect any case in which depositions taken in any proceedings are rendered admissible in evidence by any Act of Parliament, or by any act or ordinance of the legislature of any colony, so far as regards such colony, or to interfere with the power of any colonial legislature to make such depositions admissible in evidence, or to interfere with the practice of any court in which depositions not authenticated as hereinbefore mentioned are admissible. (Sec. 270.)

8. *Registration of and Returns respecting Seamen.* [Log, Official.]—*Establishment of Register Office.*—There shall be in the port of London an office, to be called the 'General Register and Record Office of Seamen,' and the Board of Trade shall have control over the same, and may appoint and from time to time remove a registrar-general, and such assistants, clerks, and servants as may be necessary, and may from time to time, with the consent of the Treasury, regulate their salaries and allowances; and such salaries and allowances, and all other necessary expenses, shall be paid by the Treasury out of any moneys, to be granted by Parliament for that purpose; and the Board of Trade may direct the business of the register office at any of the outports to be transacted at the shipping office, or, with the consent of the Commissioners of Customs, at the custom-house of the port, and may appoint the shipping master, or, with such consent as aforesaid, some officer of customs, to conduct the same; and such business shall thereupon be

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conducted accordingly, but shall in all cases be subject to the immediate control of the Board of Trade. (Sec. 271.)

Register of Seamen to be kept.—The said registrar-general of seamen shall, by means of the agreements, lists, and other papers to be transmitted to him as herein directed, or by such other means as are in his power, keep a register of all persons who serve in ships subject to the provisions of this Act. (Sec. 272.)

Lists to be made for all Ships, containing certain Particulars.—Every master of every foreign-going ship of which the crew is discharged in the United Kingdom, in whatever part of her Majesty's dominions the same is registered, and of every home trade ship, shall make out and sign a list in a form sanctioned by the Board of Trade, containing the following particulars, viz.:—

(1) The number and date of the ship's register and her registered tonnage.

(2) The length and general nature of the voyage or employment.

(3) The Christian names, surnames, ages, and places of birth of all the crew, including the master and apprentices; their qualities on board, their last ships or other employments, and the dates and places of their joining the ship.

(4) The names of any members of the crew who have died or otherwise ceased to belong to the ship, with the times, places, causes, and circumstances thereof.

(5) The names of any members of the crew who have been maimed or hurt, with the times, places, causes and circumstances thereof.

(6) The wages due to any of the crew who have died, at the times of their respective deaths.

(7) The clothes and other effects belonging to any of the crew who have died, with a statement of the manner in which they have been dealt with, and the money for which any of them have been sold.

(8) The name, age, and sex of every person, not being one of the crew, who dies on board, with the date and the cause thereof.

(9) Every birth which happens on board, with the date thereof, with the sex of the infant, and the names of the parents.

(10) Every marriage which takes place on board, with the date thereof, and the names and ages of the parties.

Lists for foreign-going Ships to be delivered to Shipping Master.—In the case of foreign-going ships, the master shall, within 48 hours after the ship's arrival at her final port of destination in the United Kingdom, or upon the discharge of the crew, whichever first happens, deliver to the shipping master before whom the crew is discharged such list as is herein required, and if he fail so to do shall for every default incur a penalty not exceeding 5*l.*; and such shipping master shall thereupon give to the master a certificate of such delivery; and no officer of customs shall clear inwards any foreign-going ship, without the production of such certificate, and any such officer may detain any such ship until the same is produced. (Sec. 274.)

Lists to be delivered by home trade Ships half-yearly.—The master or owner of every home trade ship shall, within 21 days after June 30 and December 31, in every year, transmit or deliver to some shipping master in the United Kingdom, such list as hereinbefore required for the preceding half-year, and shall in default incur a penalty not exceeding 5*l.*; and such shipping master shall give to the master or owner a certificate of such transmission or delivery; and no officer of customs shall grant a clearance or transire for any home trade ship without the production of such certificate, and any such officer may detain any such ship until the same is produced. (Sec. 275.)

Lists to be sent Home in case of Transfer of Ship and in case of Loss.—If any ship cease, by reason of transfer of ownership or change of employment, to fall within the definition of a foreign-going or of a home trade ship, the master or owner thereof shall, if such ship is then in the United Kingdom, within 1 month, and if she is elsewhere, within 6 months, deliver or transmit to the shipping master at the port to which the ship has belonged such list as before mentioned, duly made out to the time at which she ceased to be a foreign-going or home trade ship, and in default shall for each offence incur a penalty not exceeding 10*l.*; and if any ship is lost or abandoned, the master or owner thereof shall, if practicable, and as soon as possible, deliver or transmit to the shipping master at the port to which the ship belonged such list as hereinbefore mentioned, duly made out to the time of such loss or abandonment, and in default shall for each offence incur a penalty not exceeding 10*l.* (Sec. 276.)

Shipping Masters and other Officers to transmit Documents to Registrar.—All shipping masters and officers of customs shall take charge of all documents which are delivered or transmitted to or retained by them in pursuance of this Act, and shall keep them for such time (if any) as may be necessary for the purpose of settling any business arising at the place where such documents come into their hands, or for any other proper purpose, and shall, if required, produce them for any of such purposes, and shall then transmit them to the registrar-general of seamen, to be by him recorded and preserved; and the said registrar shall, on payment of a moderate fee to be fixed by the Board of Trade, or without payment of any fee if the Board of Trade so direct, allow any person to inspect the same; and in cases in which the production of the original of any such document in any court of justice or elsewhere is essential, shall produce the same, and in other cases shall make and deliver to any person requiring it a certified copy of any such document or of any part thereof; and every copy purporting to be so made and certified shall be received in evidence, and shall have all the effect of the original of which it purports to be a copy. (Sec. 277.)

Officers of Customs to make Returns.—The collector or comptroller of customs at every port in the United Kingdom, shall on or before February 1 and August 1 in every year transmit to the registrar-general of seamen a list of all ships registered in such port, and also of all ships whose registers have been transferred or cancelled in such port since the last preceding return. (Sec. 278.)

Agreements, Indentures, and Assignments, on Arrival at a foreign Port, to be deposited with the Consul; at a Colony, with the Officers of Customs.—The following rules shall be observed with respect to the delivery of documents to British consular officers (that is to say):—

(1) Whenever any ship, in whatever part of her Majesty's dominions the same is registered (except ships whose business for the time being is to carry passengers), arrives at any foreign port where there is a British consular officer, or at any port in any British possession abroad, and remains thereat for 48 hours, the master shall, within 48 hours of the ship's arrival, deliver to such consular officer, or to the chief officer of customs (as the case may be), the agreement with the crew, and also all indentures and assignments of apprenticeships, or, in the case of a ship belonging to a

British possession, such of the said documents as such ship is provided with.

(2) Such officer shall keep such documents during the ship's stay in such port, and, in cases where any indorsements upon the agreement are hereby required, shall duly make the same, and shall return the said documents to the master a reasonable time before his departure, with a certificate indorsed on the agreement, stating when the same were respectively delivered and returned.

(3) If it appears that the required forms have been neglected, or that the existing laws have been transgressed, such officer shall make an indorsement to that effect on the agreement, and forthwith transmit a copy of such indorsement, with the fullest information he can collect regarding such neglect or transgression, to the registrar-general of seamen.

And if any master fails to deliver any such document as aforesaid he shall, for every such default, incur a penalty not exceeding 20*l.*; and in any prosecution for such penalty it shall lie upon the master either to produce the certificate of the consular officer or officer of customs hereinbefore required, or to prove that he duly obtained the same, or that it was impracticable for him so to do. (Sec. 279.)

9. *Regulations in regard to taking Apprentices on board Ship.*—We have already noticed, under the article APPRENTICE, the important fact that it is no longer necessary that any ship, whether she be above or below 80 tons burden, should take on board any apprentice or apprentices. But though no longer compulsory, they may be, and continue to be, taken. The following clauses of the Merchant Shipping Act relate to the binding of such apprentices, more especially of those which are apprenticed by guardians or overseers of the poor.

Shipping Masters to assist in binding Apprentices.—All shipping masters appointed under this Act, shall, if applied to for the purpose, give to any board of guardians, overseers, or other persons desirous of apprenticing boys to the sea service, and to masters and owners of ships requiring apprentices, such assistance as is in their power for facilitating the making of such apprenticeships, and may receive from persons availing themselves of such assistance such fees as may be determined by the Board of Trade, with the concurrence, so far as relates to pauper apprentices in England, of the poor law board in England, and so far as relates to pauper apprentices in Ireland, of the poor law commissioners in Ireland. (Sec. 141.)

Indenture of Apprentices to Sea Service by Guardians &c. to be witnessed by 2 Justices.—In the case of every boy bound apprentice to the sea service by any guardians or overseers of the poor, or other persons having the authority of guardians of the poor, the indentures shall be executed by the boy and the person to whom he is bound in the presence of and shall be attested by 2 justices of the peace, who shall ascertain that the boy has consented to be bound, and has attained the age of 12 years, and is of sufficient health and strength, and that the master to whom the boy is to be bound is a proper person for the purpose. (Sec. 142.)

Indentures of Apprenticeship to be exempt from Stamp Duty.—All indentures of apprenticeship to the sea service shall be exempt from stamp duty; and all such indentures shall be in duplicate; and every person to whom any boy whatever is bound as an apprentice to the sea service in the United Kingdom, shall within 7 days after the execution of the indentures take or transmit the same to the registrar-general of seamen or to some shipping master; and the said registrar or shipping master shall retain and record one copy, and shall indorse on the other that the same has been recorded, and shall re-deliver the same to the master of the apprentice; and whenever any such indenture is assigned or cancelled, and whenever any such apprentice dies or deserts, the master of the apprentice shall, within 7 days after such assignment, cancellation, death, or desertion, if the same happens within the United Kingdom, or if the same happens elsewhere so soon afterwards as circumstances permit, notify the same either to the said registrar of seamen, or to some shipping master, to be recorded; and every person who fails to comply with the provisions of this section shall incur a penalty not exceeding 10*l.* (Sec. 143.)

Rules to govern Apprenticeship of Paupers in Britain and Ireland.—Subject to the provisions before contained, all apprenticeships to the sea service made by any guardians or overseers of the poor, or persons having the authority of guardians of the poor, shall, if made in Great Britain, be made in the same manner and be subject to the same laws and regulations as other apprenticeships made by the same persons, and if made in Ireland shall be subject to the following rules; viz.:—

(1) In every union the guardians of the poor, or other persons duly appointed to carry into execution the Acts for the relief of the destitute poor and having the authority of guardians of the poor, may put out and bind as an apprentice to the sea service any boy who or whose parent or parents is or are receiving relief in such union, and who has attained the age of 12 years, and is of sufficient health and strength, and who consents to be so bound.

(2) If the cost of relieving any such boy is chargeable to an electoral division of a union, then (except in cases in which paid officers act in place of guardians) he shall not be bound unless the consent in writing of the guardians of such electoral division or of a majority of the guardians (if more than one) be first obtained, such consent to be, when possible, indorsed upon the indentures.

(3) The expense incurred in the binding and outfit of an apprentice shall be charged to the union or electoral division (as the case may be) to which the boy or his parent or parents is or are chargeable at the time of his being apprenticed.

(4) All indentures made in any union may be sued upon by the guardians of the union or persons having the authority of guardians therein for the time being, by their name of office, and actions brought by them upon such indentures shall not abate by reason of death or change in the persons holding the office; but no such action shall be commenced without the consent of the Irish poor law commissioners.

(5) The amount of the costs incurred in any such action and not recovered from the defendant therein, may be charged upon the union or electoral division (as the case may be) to which the boy or his parent or parents was or were chargeable at the time of his being apprenticed. (Sec. 144.)

Apprentices and their Indentures to be brought before Shipping Master before Voyage.—The master of every foreign-going ship shall, before carrying any apprentice to sea from any place in the United Kingdom, cause such apprentice to appear before the shipping master before whom the crew is engaged, and shall produce to him the indenture by which such apprentice is bound and the assignment or assignments thereof (if any); and the name of such apprentice, with the date of the

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indenture and of the assignment or assignments thereof (*if* any), and the name of the port or ports at which the same have been registered, shall be entered on the agreement; and for any default *in* obeying the provisions of this section the master shall for each offence incur a penalty not exceeding 5*l*. (Sec. 145.)

Seamen (Corporation for Relief of).—During the reign of George II. an establishment attached to Greenwich Hospital was erected by the 20 Geo. II. c. 38 '*for the relief and support of disabled seamen, and the widows and children of such as shall be killed, slain, or drowned in the merchant service.*' To provide a fund for this charitable institution, every person serving in any merchant ship, or other private ship or vessel, belonging to any of his Majesty's subjects in England (except apprentices under the age of 18, persons employed in boats upon the coast in taking fish which are brought fresh on shore, or in boats within rivers, or upon boats on the coasts, and pilots—except persons employed in the service of the East India Company, and who were not entitled to the benefit of this institution, being provided for by a fund established by the Company), paid 6*d*. per month, which was deducted out of his wages by the master, and paid over to the persons appointed under the authority of the Act at the port to which the ship belonged, before she was allowed to clear inwards. For the management and distribution of this fund, a corporation was created, composed chiefly of eminent merchants, with power to purchase lands and erect an hospital, and to provide for seamen rendered incapable of service by sickness, wounds, or other accidental misfortunes, and decrepit and worn out by age, either by receiving them into the hospital, or by pensions: and also to relieve the widows and children of seamen killed or drowned in the merchant service, provided the children are not of the age of 14 years; or if of that age and upwards are incapable of getting a livelihood by reason of lameness, blindness, or other infirmity, and are proper objects of charity; and to make reasonable allowances to those who shall lose an eye or a limb, or be otherwise hurt or maimed, in fighting, defending, or working their ships, or doing any other duty in their service, in proportion to their hurt; so far forth as the income and revenues of the charity will extend for these purposes. But no person is to be provided for as a worn-out seaman who has not been employed in the merchant service five years and paid the contribution. And in providing for this class a preference is given to such as have served longest and contributed most.

In order to ascertain the times of service and payment of the contribution, the master was obliged to keep a muster-roll of the persons employed in the ship, and had before her departure to deliver a duplicate to the collector or receiver of duties for the seamen's hospital at the port; and, during the voyage, to enter the time and place of discharge, quitting, and desertion, and of receiving other persons on board, and of any hurt, damage, death, or drowning; of which he had also to deliver a duplicate at his return, under the penalty of 20*l*., to the truth whereof he might be examined upon oath by the collector. And in case any person employed on board any ship or vessel should, in doing his duty on shore or on board, break an arm or a leg, or be otherwise hurt or maimed, he was to be properly relieved until sufficiently recovered to be sent to the place to which the ship belonged.

But, notwithstanding the praiseworthy principle on which this establishment was founded, it was not found to be productive of the benefits, in a practical point of view, that had been anticipated. Perhaps this was to be in part explained by the circumstance of its being attached to Greenwich Hospital, which is peculiarly intended as a retreat for the worn-out and disabled seamen belonging to the Royal Navy. But, however this may be, it appears from accounts laid before Parliament, that in 1829, when the merchant seamen paid an annual contribution of 26,137*l*. to the hospital, there was not one of them within its walls, except such as had also served on board line-of-battle ships. The system was, in consequence, much complained of by the seamen and others interested in the merchant service; and it is obvious that these complaints were not unfounded, and that the seamen reaped no advantage from the institution at all equivalent to the sacrifice they made for its support.

To obviate this state of things, a new system was introduced in 1835, when it was ordered, by the Act 4 & 5 Wm. IV. c. 54, that the contribution of 6*d*. per month by seamen in the merchant service to Greenwich Hospital should cease from January 1, 1835; and that 20,000*l*. a-year should be advanced from the consolidated fund to the Hospital to make good the deficiency caused by the cessation of such contribution.

New Establishment for Support of Merchant Seamen &c.—And to provide still more effectually for the relief and support of maimed and disabled merchant seamen, and of the widows &c. of those killed or drowned in the merchant service, the Act 4 & 5 Wm. IV. c. 52 was passed. This Act repealed the 20 Geo. II. c. 38, except in so far as it related to the establishment of the corporation of the president and governors for the relief of maimed &c. merchant seamen, and of the widows and children of seamen killed or drowned in the merchant service; and it also repealed as much of the Act 37 Geo. III. c. 73 as related to the wages of seamen dying while employed in ships trading to the West Indies. And having thus cleared the way, it proceeded to introduce a new system, which was further extended and perfected by the 6 & 7 Wm. IV. c. 15, and the 7 & 8 Vict. c. 112. Under this system, all masters of British ships, whether owners or not, and all British seamen employed in navigating the same, were obliged to contribute certain sums out of their wages to the support of the Merchant Seamen's Fund. In the case of seamen this contribution, which, in the first instance, was only 6*d*. per month, was subsequently raised to 2*s*. per month. And in addition to these contributions, the wages and other effects of deceased seamen were, in the event of their not being claimed by their relations, paid over to the fund.

In a former edition we stated that the contribution to this fund amounted, in 1842, in London and the ports under the management of the society, to 16,936*l*.; and that a large additional sum was also collected at the outports. And we pointed out the abuses connected with its management, and especially that the expenses of collecting seemed to be quite enormous, amounting to from 8 to 10, and sometimes even 15 per cent. and upwards, of the sums received.

These abuses were not rectified; and in consequence partly of their operation, and partly of too large a proportion of the available funds of the society having been distributed among the widows and children of the seamen, the system became very unpopular among the latter. And Government, being aware of the reasonableness of this feeling, passed an Act in 1851, for winding up the fund.

Another institution for the benefit of merchant

seamen is the *Seamen's Hospital Society*, established in 1821, and incorporated by the 3 & 4 Wm. IV. c. 9. It is supported by voluntary contributions, and by a payment from the Treasury equal to the sums annually paid into the exchequer on account of fines or penalties inflicted under the Mercantile Shipping Act of 1854 &c.

Provisions for affording aid to merchant seamen when abroad and in distress are embodied in the Acts 17 & 18 Vict. c. 104 ss. 211, 212, 18 & 19 Vict. c. 91, s. 16, and 25 & 26 Vict. c. 63 s. 22.

SEAWORTHY. A term applied to a ship, indicating that she is in every respect fit for her voyage. It is provided in all charterparties, that the vessel chartered shall be 'tight, staunch, and strong, well apparelled, furnished with an adequate number of men and mariners, tackle, provisions &c.' If the ship be insufficient in any of these particulars, the owners, though ignorant of the circumstance, will be liable for whatever damage may, in consequence, be done to the goods of the merchant, and if an insurance have been effected upon her, it will be void.

Whether the condition of seaworthiness be in the charterparty or not, it is always implied. 'In every contract,' said Lord Ellenborough, 'between a person holding himself forth as the owner of a lighter or vessel ready to carry goods for hire, and the person putting goods on board, or employing his vessel or lighter for that purpose, it is a term of the contract on the part of the lighterman or carrier *implied by law*, that his vessel is tight, and fit for the purpose for which he offers and holds it forth to the public; it is the immediate foundation and substratum of the contract that it is so: *the law presumes a promise to that effect on the part of the carrier, without any actual proof*; and every reason of sound policy and public convenience requires that it should be so.'

Not only must the ship and furniture be sufficient for the voyage, but she must also be furnished with a sufficient number of persons of competent skill and ability to navigate her. And for sailing down rivers, out of harbours, or through roads &c., where either by usage or the laws of the country a pilot is required, a pilot must be taken on board. But no owner or master of a ship shall be answerable for any loss or damage by reason of no pilot being on board, unless it shall be proved that the want of a pilot shall have arisen from any refusal to take a pilot on board: or from the negligence of the master in not heaving to, for the purpose of taking on board any pilot who shall be ready and offer to take charge of the ship. (48 Geo. III. c. 164.)

A ship is not seaworthy unless she be provided with all the documents or papers necessary for the manifestation of the ship and cargo. Neither is she seaworthy, if, during war, she be not supplied with the sails required to facilitate her escape from an enemy. 'It is not sufficient to defeat the liability of the owner, that he did not know that the ship was *not* seaworthy, for he ought to have known that she was so at the time he chartered her. The sufficiency of the ship is the foundation of the contract between the parties, and a ship not capable of conveying the goods in a proper state is a failure of the condition precedent to the whole contract. The seaworthiness of the ship is not a question of fraud or good intention, but it is a positive stipulation that the ship shall be so; and, therefore, although the owner may himself have been deceived by the shipbuilder, repairer &c., if the vessel be, in fact, unseaworthy, have an insufficient bottom or unsound timbers, it is a breach of a preliminary condition, and is fatal, as such, to the contract.' (Holt's *Law of Shipping*, 2nd ed. p. 383.)

It is only necessary, to guarantee the owners from loss, that the ship should be seaworthy at the time of her departure. She may cease to be so in a few hours, and yet they may not be liable. The question to be decided in such cases always is, whether the ship's disability arose from any defect existing in her *before* her departure, or from a cause which occasioned it *afterwards*. But if a ship, within a day or two of her departure, become leaky or founder at sea, or be obliged to put back, without any visible or adequate cause to produce such an effect—such as the starting of a plank or other accident to which the best ships are liable, and which no human prudence can prevent—the fair presumption is that she was not seaworthy when she sailed; and it will be incumbent on the owners to show that she was seaworthy at that time. They are liable for damage occasioned by every injury arising from any *original defect* in the ship, or from bad stowage; but they are not liable for any injury arising from the act of God, the king's enemies, or the perils of the sea.

It is further to be observed, that how perfect soever a ship may be, yet, if, from the nature of her construction, or any other cause, she be incapable of performing the proposed voyage, with the proposed cargo on board, she is not seaworthy. *She must be, in all respects, fit for the trade in which she is meant to be employed.* And it is a wholesome rule, that the owners should be held to a pretty strict proof of this.

It has been already observed, that any defect in point of seaworthiness invalidates an insurance. There is not only an express but an implied warranty in every policy, that the ship shall be 'tight, staunch, and strong' &c.; and the reason of this is plain. The insurer undertakes to indemnify the insured against the *extraordinary and unforeseen perils of the sea*; and it would be absurd to suppose that any man would insure against those perils, but in confidence that the ship is in a condition to encounter the *ordinary perils* to which every ship must be exposed in the usual course of the proposed voyage.

By the old law of France it was directed that every merchant ship, before her departure from the place of her outfit, should be surveyed by certain sea officers appointed for that purpose, and reported to be seaworthy, 'en bon état de navigation;' and that previous to her return, before she took her homeward cargo on board, she should be again surveyed. Valin has shown (Tit. *Frèt*, art. 12) that very little confidence could be placed in these surveys, which, he tells us, were only made upon the external parts, for the ship was not unsheathed; and, therefore, her internal and hidden defects could not be disclosed. This practice seems now to be abandoned by the French; at least there is no allusion to it in the *Code de Commerce*. It is, one would think, much better to leave the question as to the seaworthiness of the ship to be ascertained, as in England, after a loss has happened, by an investigation of the true cause of such loss, than to permit so important a question to be decided upon the report of officers without any motive to enquire carefully into her actual condition. A ship may, to all appearance, be perfectly capable of performing a voyage; and it is only after a loss has happened that her latent defects can be discovered, and her true state at the time of her departure rendered manifest. Indeed, the survey made by the French was not deemed a conclusive proof that the ship was, at her departure, really seaworthy:

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it merely raised a *presumption* that such was the case; but it was still open to the freighter or the insurer to show the contrary.

For further information upon this point, the reader is referred to the able and excellent work of Chief Justice Abbott (Lord Tenterden) on the *Law of Shipping*, part iii. c. 3; Holt *On Shipping*, part iii. c. 3; and of Mr. Serjeant Marshall *On Insurance*, book i. c. 5. [SHIPS; STEAM VESSELS.]

SEEDS. In Commerce, the grains of several species of gramina. Those of most importance are clover seed, flax or linseed, hemp seed, rape seed, tares, mustard seed &c.; for which, see the respective articles. But it may be useful to subjoin the following

Account of the Imports and Exports of the Principal Seeds in 1867.

		Imports	Exports
Beans, kidney or French	bushels	27,181	410
Canary	cwt.	36,905	3,261
Carraway	,,	15,314	1,377
Clover	,,	150,968	5,386
Cotton	tons	93,643	213
Flaxseed and linseed	cwt.	1,095,360	30,007
Garden, unenumerated	lb.	207,524	8,717
Grass	cwt.	64,842	37,080
Hemp	qr.	15,045	210
Lentils	bushels	208,119	170
Millet	cwt.	34,834	—
Mustard	,,	24,689	3,288
Poppy	qr.	99,678	21,427
Rape	,,	620,782	222,842
Tares	,,	40,872	3,169
Trefoil	cwt.	9,613	37
Not particularly described; commonly used for expressing oil therefrom	qr.	43,855	3,278

The total value of the seeds imported in 1867 was 6,918,433*l.*

SEGARS or CIGARS. [TOBACCO.]

SENNA (Fr. séné; Ger. sennablätter; Ital. senna; Span. sen; Lat. cassia senna; Arab. suna). The plant (*cassia senna*) which yields the leaves known in commerce and the *materia medica* by the name of senna, is an annual, growing wild in the interior of Africa, and is more especially a native of Upper Egypt. The leaves are collected by the Arabs frequenting the deserts to the east and west of the Nile, and sold by them in baskets at 3*s.* or 4*s.* per 100 lb. to Egyptian traders. It is packed and sent to Cairo, where it brings from 10*s.* to 15*s.* per 100 lb. Here or at Alexandria, it is repacked in bales and sent to Europe. A great deal of senna grown in Southern India is imported from Calcutta and Bombay. (*British Pharmacopœia*, 1867; Thomson's *Dispensatory*.) Senna is very extensively used in medicine. It is mixed with other leaves, some of which are nearly equally good, while others are very inferior. In 1867, the imports and exports of senna amounted respectively to 704,305 and 445,051 lb. An import duty of 1*s.* 8*d.* per lb., after being reduced in 1832 to 6*d.*, and in 1842 to 1*d.*, was wholly repealed in 1845.

SHAGREEN (Ger. shagrin; Ital. zigrino; Russ. schagrim schagren). A kind of grained leather, used for various purposes in the arts. It is extensively manufactured at Astrakhan in Russia. (Tooke's *Russia*, vol. iii. p. 403.)

SHAMMY or CHAMOIS LEATHER (Ger. sämischleder; Fr. chamois; Ital. camoscio; Russ. smschantli, koshi). A kind of leather dressed in oil, or tanned, and much esteemed for its softness, pliancy, and capability of bearing soap without hurt. The real shammy is prepared of the skin of the chamois goat. But leather prepared from the skins of the common goat, kid, and sheep, is frequently substituted in its stead.

SHANGHAE or SHANGHAI. A city and river port of China, province Kiang-su, on the Woosung river, 40 miles by water from the sea, and 160 miles E.S.E. Nankin; lat. 31° 15′ N., long. 121° 26′ E. Population estimated in 1864 at from 370,000 to 400,000. It stands in a level and well-cultivated plain, producing good crops of cotton, rice, and wheat. Immediately outside the wall by which it is enclosed are several populous suburbs. Streets narrow and filthy. Foundling hospitals, tea-gardens, and vast ice-houses are the objects most worthy of notice in the city. It has a mint, with manufactures of silk, vegetable oils and oil-cake (of which vast quantities are annually sent into the interior), iron ware, glass, paper, ivory ware &c.

This is the most northerly of the five Chinese ports which were opened to foreigners by the Treaty of 1842, and it is also the most important. The river, which may be navigated by ships of 450 or 500 tons for a considerable distance above the town, crosses the Grand Canal, so that Shanghae is an entrepôt for all the vast and fertile countries traversed by the canal, and by the great rivers, including the Yang-tse-Kiang and the Hoang-Ho, with which it is connected. Hence the present importance of the emporium, and hence, also, the indefinite extension to which its foreign trade may probably attain. Its inland and coasting trades are both very extensive. It is said to be annually visited by from 5,000 to 6,000 canal and river boats, some from very great distances, and by 1,500 or 1,600 coasting junks. The province of Kiang-su, in which Shanghae is situated, produces great quantities of silk; and besides supplying most part of the northern provinces of the empire, the shipments of silk to the foreigner are much greater from this than any other port. It is, also, well situated for the trade in green and black teas; and in their export, as well as in that of silk, it has shot far ahead of Canton and the other emporiums. Among the other exports are oil and oil-cake, cotton, drugs, porcelain, copper and copper-ware, nankeens, gold thread, alum, fans, hams, dried fish &c. Of the imports opium is by far the greatest. The value of the British cottons imported during 1867 amounted to 3,495,255*l.*, and that of the woollens to 2,365,742*l.* But despite these and other articles, the excess of the value of the exports was so very great, that immense quantities of silver were imported. The following tables show the progress of the import and export trade of China and the great comparative importance of Shanghae.

I.—*Value of the Imports, Exclusive of Treasure, into Chinese Ports in the Years* 1863 *and* 1864.

Years	Canton	Amoy	Foochowfoo	Ningpo	Shanghae	Hankin	Total
	£	£	£	£	£	£	£
1863	2,281,554	2,046,053	2,616,637	3,348,601	29,709,575	5,306,772	45,310,972
1864	2,621,482	2,351,913	2,378,044	3,421,538	21,610,757	3,620,738	35,807,472

II.—*Value of Exports from the same Ports*, 1863–64.

Years	Canton	Amoy	Foochowfoo	Ningpo	Shanghae	Hankin	Total
	£	£	£	£	£	£	£
1863	3,562,039	994,129	4,521,203	1,454,569	12,247,153	4,247,502	27,506,595
1864	3,410,865	913,494	4,374,685	2,083,455	13,282,549	4,486,475	28,583,541

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AMERICAN CONCESSION
Suchau Creek
ENGLISH CONCESSION
FRENCH CONCESSION
Shanghai Pt
Sailors' Home
CHINESE TOWN
SHANGHAI
One Statute Mile
1 mile
London: Longmans & Co.

III.—*Account of the Tea Exported from 7 Chinese Ports, 1863–4.*

Years	Canton	Amoy	Foochowfoo	Ningpo	Shanghae	Hankin	Kin-kiang	Total
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1863	69,026,934	70,069,100	24,477,414	4,846,234	8,531,285	40,881,695	23,478,810	169,094,205
1864	64,684,583	64,967,800	13,949,924	7,862,561	7,135,189	39,530,925	17,859,373	157,085,731

Note.—The exports of tea at the separate ports include shipments from port to port.

IV.—*Table, contrasting Exports of Tea from Shanghae and the Yang-tsze Ports to Great Britain and the United States for the Years* 1865, 1866, *and* 1867.

	Great Britain			United States		
	1865	1866	1867	1865	1866	1867
	lb.	lb.	lb.	lb.	lb.	lb.
Black - -	43,169,000	46,[illegible],900	45,969,103	327,800	27,600	32,227
Green - -	11,990,[illegible]	[illegible]	11,697,929	13,120,000	13,769,200	13,946,349
Total -	55,159,[illegible]	[illegible]	57,667,032	13,447,800	13,796,800	13,978,576

V.—*Account of the Number and Tonnage of British and Foreign Vessels Entered and Cleared at the Port of Shanghae in each Year from* 1861 *to* 1865, *and in* 1867.

ENTERED

Years	British		American		Other Countries		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
1861	810	[illegible]	559	95,858	637	93,907	1,806	419,659
1862	1,532	[illegible]	806	226,056	560	107,043	2,898	724,138
1863	1,790	[illegible]	820	272,428	790	160,960	3,400	964,309
1864	1,476	[illegible]	573	277,377	647	131,667	2,696	941,027
1865	1,116	497,[illegible]	549	285,710	356	86,900	2,021	869,632
1867	981	484,[illegible]	581	224,092	380	92,518	1,745	801,537

CLEARED

1861	782	229,[illegible]	544	92,505	621	86,115	1,747	408,195
1862	1,551	389,[illegible]	805	226,056	560	107,943	2,896	723,279
1863	1,810	554,[illegible]	884	287,021	853	155,155	3,447	996,890
1864	1,407	496,[illegible]	596	287,065	653	146,080	2,656	929,842
1865	1,160	527,[illegible]	811	291,998	380	91,003	2,081	909,970
1867	994	490,[illegible]	578	221,413	562	91,588	1,734	806,661

VI.—*Account of the Number and Tonnage of Vessels of each Nation, with Cargoes and in Ballast, Entered and Cleared at the Port of Shanghae in the Year* 1867.

Nationality of Vessels	ENTERED						CLEARED					
	With Cargoes		In Ballast		Total		With Cargoes		In Ballast		Total	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
British shipping - -	814	468,111	31	7,835	875	475,946	754	422,929	115	58,107	869	481,336
Ningpo boats under British flag	85	7,250	21	1,741	106	8,991	100	8,368	5	958	105	9,326
American shipping - -	544	317,229	16	5,518	560	322,547	333	210,860	21	8,878	354	219,738
Ningpo boats under American flag	17	1,255	7	280	24	1,535	14	900	10	775	24	1,675
Shipping of other countries -	190	77,029	12	4,188	202	81,217	171	71,244	29	11,813	200	83,057
Ningpo boats under various flags	164	10,580	14	791	178	10,526	175	11,079	7	440	182	11,519
Total - -	1,644	781,454	101	20,353	1,745	801,537	1,547	725,380	187	81,271	1,734	806,661

VII.—*Table of Exports of Silk from Shanghae in* 1867.

	bales
To England - - -	18,558
France - - -	6,889
Bombay - - -	881
Hong Kong - - -	291
Total - -	26,619

VIII.—*Imports of Opium into Shanghae in* 1866 *and* 1867, *and Value of the Imports in* 1867.

	1866	1867	Value 1867
	chests	chests	£
Malwa, imported	28,079	30,010	4,950,000
Bengal ,,	11,096	10,150	2,250,000
Persian ,,	—	157	18,840

The highest price of Malwa was in February, 1867 - 600 taels
lowest ,, ,, November - - 488 ,,
highest price of Patna was in March - - 520 ,,
lowest ,, ,, June - - 440 ,,
The Persian is generally sold at 100 taels below Malwa.

The inhabitants of Shanghae are much more hospitable and better disposed towards foreigners than those of Canton; and strangers may travel for miles into the interior all round the city with perfect security. Some very fine brick houses have been built by the British and other foreign merchants in the suburbs.

We are indebted for some of the foregoing particulars to Consul Winchester's *Report* of March 31, 1868. [Canton; Hong Kong &c.]

SHARKS' FINS form a regular article of trade to China; and are collected for this purpose in every country from the eastern shore of Africa to New Guinea. In the Canton price currents they are as regularly quoted as tea or opium; and the price of late years has been, according to quality, from 15 to 18 dollars per picul, equal to from 50*s.* to 60*s.* per cwt. In 1867, the value of the British imports of these fins into Shanghae from Hong Kong was 9,864 taels, or 3,288*l.* The shark fishery is now carried on to a considerable extent along the north and north-west coasts of Iceland, but chiefly for the sake of their oil.

SHAWLS (Ger. shawle; Fr. chals, châles; Ital. scialli; Span. chales). Articles of fine wool, silk, or wool and silk, manufactured after the fashion of a large handkerchief, used in female dress. The finest shawls are imported from India.

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where they are highly esteemed, and cost from 50 to 300 guineas. But the British shawls manufactured at Norwich, Paisley, and particularly Edinburgh, have recently been very much improved; and though still inferior in point of quality to the finest specimens brought from the East, they look well, and are much cheaper. The native shawl manufacture is of very considerable value and importance.

Cashmere Shawls.—The shawl manufacture is believed to have originated in the valley of Cashmere, the ancient Caspira, in the north-west of India, between the 34th and 35th degrees of north latitude, and the 73rd and 76th degrees of east longitude. Though not so flourishing as it once was, the manufacture is still prosecuted in this province to a very considerable extent. The shawls are the very best that are made, possessing unequalled fineness, delicacy, and warmth. They are formed of the inner hair of a variety of the common goat (*Capra hircus*), reared on the cold dry table land of Thibet, from 14,000 to 16,000 feet above the level of the sea. The goat thrives sufficiently well in many other countries; but in the sultry plains of Hindostan it has hardly more hair than a greyhound; and though in higher latitudes the hair is more abundant, it is for the most part shaggy and coarse. It is only in the intensely cold and dry climate of Thibet that it yields the peculiarly soft woolly hair that constitutes the material of the Indian shawl. We do not, therefore, suppose that the efforts to naturalise the shawl-goat in France will turn out well. On the contrary, we believe the chances of success would be about equal were an attempt made to breed beavers in a hot country, without water, or camels in a moist country, free from heat and drought.

The inner or fine wool is covered over and protected by a quantity of long shaggy hair, which is, of course, carefully separated from it before it is manufactured.

The genuine shawl wool has been imported into this country; and the finest Edinburgh and Paisley shawls have been produced from it. But it must be admitted that shawls have nowhere been made that can come, as respects quality, into successful competition with those of Cashmere. The manufacture has been established at Delhi and Lahore for some years; but notwithstanding it is carried on by native Cashmerians, and though the material carried on be quite the same, the fabrics are said to want the fineness of those made in Cashmere, and to have a degenerated, coarse appearance. It is difficult to account for this superiority. It has been ascribed to some peculiar quality of the water in the valley of Cashmere; but it is most probably owing to a variety of circumstances, which, though each may appear of little importance, collectively give a character to the manufacture.

The following details as to the manufacture of Cashmere shawls have been extracted from an English paper published at Delhi:—

'The great mart for the wool of which shawls are made, is at Kilghet, which is said to be a dependency of Ladak, and situated 20 days' journey from the northern boundaries of Cashmere. There are two kinds of it: that which can be readily dyed is white; the other sort is of an ashy colour, which being with difficulty changed, or, at least, improved by art, is generally woven of its natural hue. About 2 lb. of either are obtained from a single goat once a-year. After the down has been carefully separated from the hairs, it is repeatedly washed with rice starch. This process is reckoned important; and it is to the quality of the water of their valley that the Cashmerians attribute the peculiar and inimitable fineness of the fabrics produced there. At Kilghet the best raw wool is sold for about 1 rupee per pound. By the preparation and washing referred to, it loses ¼, and the remainder being spun, 8 rupees weight of the thread is considered worth 1 rupee.

'Shawls are made of various forms, size, and borders, which are wrought separately, with the view of adapting them to the different markets. Those sent to Turkey used to be of the softest and most delicate texture. Carpets and counterpanes are fabricated of the hair or coarser part of the wool. From a variety of causes, among others the destruction of the Janissaries, who dressed much in shawls, the loss of royalty in Cabul, and the ruined finances of Lucknow, it is certain that the demand for this elegant commodity has greatly declined of late years. Under the Mogul emperors, Cashmere found work for 30,000 shawl looms. In the time of the Afghan kings, the number decreased to 18,000. There are now not more than 6,000 employed. I should attribute little of this diminution to the sale of English imitations among the Asiatic nations. When these counterfeits first appeared, the pretty patterns and brilliancy of the colours took the fancy of some, but their great inferiority in the softness and warmth which marks the genuine shawl, soon caused the new article to be neglected.

'The average value of shawls exported from Cashmere amounts annually to 1,800,000 rupees. Runjeet Singh took ⅓ in kind as part of the gross revenue of the province, which was about 25 lacs a-year. He is said to have sold ⅔ of what he thus received, and to have kept the remainder for his own court. Of those disposed of by him and left for sale in the valley, 7 lacs worth went to Bombay and Western India; 8 to Hindostan, chiefly Oude; ½ lac each to Calcutta, Cabul, Herat, and Balk, whence some were carried to neighbouring countries.

'A curious calculation of the successive exactions, from Cashmere to Bombay inclusive, which magnify the price of shawls, is herewith subjoined.

'Actual cost for materials and labour in making a pair of reel shawls:—

	fd.	rs.
Four Furrukabad seers of wool	12	8
Cleaning, washing, and spinning	50	0
Dyeing	11	0
Wages to weavers	264	6
Total	337	14
Duties on the same:—		
On sale and importation to Cashmere	3	14
On the thread	8	4
While the fabric is in the loom	125	0
Fees to chowdries, brokers, assessors &c.	35	0
Total amount of duties in Cashmere	171	18
Duties from Cashmere to Amritsir	12	6
From Amritsir to Bombay	3	6½
At Bombay	70	0
Total from Amritsir to Bombay	85	12½
Total from Kilghet to Bombay, 171 18 and 85 12½	= 272	30½
Prime cost	337	14
Proportion of carriage	0	12
Insurance	21	0
Total cost	610	56½

'A pair of such shawls might sell for 500 rupees at Amritsir, and in Bombay for 900. The amount of the imposts, and the sums levied by each Government, will appear more in relief if stated as they affect a camel load in its progress. It consists of 14½ cutcha maunds, and contains, at an average, 2,000 shawls of different kinds, valued, on reaching Bombay, at 28,500 Furrukabad rupees.

'The Government of Lahore exacts Fd. rs. 1,564 6; Patialah, 61; Bikeneer, 43; Joudpore,

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121 4; Bhownuggur, 20: total 1,809; Bombay, 10 per cent. ad valorem, 2,850.'

By treaty, the ruler of Cashmere is bound to send to her Majesty every year 5 shawls, as an acknowledgment of the Royal supremacy.

The value of the Cashmere shawls exported from British India by sea in the 5 years ending with 1866, was as follows:—

	£		£
1862 - -	459,441	1865 - -	254,497
1863 - -	303,157	1866 - -	290,115
1864 - -	275,391		

In the account of the exports of British manufactures, those of handkerchiefs and shawls are mixed, but in 1867 we exported 80,778 dozens of these articles, valued at 144,324*l.*

SHEA BUTTER or VEGETABLE TALLOW. The produce of the nut of the *Bassia Parkii*, belonging to the natural order *Sapotaceæ* of botanists; a scrubby growing tree, indigenous to the interior of West Africa as the oil palm is to the sea coast. It is found in great abundance, covering immense tracts, both of hill and plain.

The *Bassia Parkii* is covered in the season with dense heads of whitish flowers, which have a fragrance similar to that of the hawthorn. The fruit, which ripens in May or June, is said to resemble an over-ripe pear, is exceedingly sweet, and is eaten by the natives. The nuts or kernels have the shape, and the exact colour, of the horse-chestnut, but are a little larger. After being freed from their shells, which is effected by thrashing or bruising after they have been for some time exposed to the action of a slow heat, the kernels are coarsely crushed, then boiled; a fatty matter is thereupon thrown to the surface, which is skimmed off, and put into earthen pots. It soon hardens into a solid mass, when it has the colour and consistence of animal tallow. It is then fit for use, and possesses the valuable quality of not getting rancid by keeping.

The small quantities of Shea butter at first imported into this country commanded a price of 5*l.* per ton above that of palm oil; but the larger parcels which have since been received have not brought so much. It is, however, said to be quite as valuable as palm oil, and possesses this superiority that, for the purposes to which it is applied, it does not, like the oil, require to undergo the expensive process of bleaching.

It may be used for any of the purposes to which palm oil is applied, and might be procured to any extent, were there cheap means of transport from the interior of Western Africa to the coast. (*Private Information.*) We imported in 1867, only 707 cwt. of vegetable tallow, valued at 1,553*l.*

SHEEP (Ger. schafe; Fr. brebis, bêtes à laine, moutons; Ital. pecore; Span. pecoras, ovejas; Russ. owzü; Lat. oves). Of the domestic animals belonging to Great Britain, sheep, with the exception of horses, and perhaps cattle, are by far the most important. They can be reared in situations and upon soils where other animals would not live. They afford a large supply of food, and one of the principal materials of clothing. Wool has long been a staple commodity of this country, and its manufacture employs an immense number of people. 'The dressed skin,' says Mr. Pennant, 'forms different parts of our apparel; and is used for covers of books. The entrails, properly prepared and twisted, serve for strings for various musical instruments. The bones, calcined (like other bones in general), form materials for tests for the refiner. The milk is thicker than that of cows, and consequently yields a greater quantity of butter and cheese; and in some places is so rich, that it will not produce the cheese without a mixture of water to make it part from the whey. The dung is a remarkably rich manure; inasmuch that the folding of sheep is become too useful a branch of husbandry for the farmer to neglect. To conclude; whether we consider the advantages that result from this animal to individuals in particular, or to these kingdoms in general, we may, with Columella, consider this, in one sense, as the first of the domestic quadrupeds.' (Pennant's *British Zoology*.) Post majores quadrupedes ovilli pecoris secunda ratio est; quæ prima sit si ad magnitudinem utilitatis referas. Nam id præcipue contra frigoris violentiam protegit, corporibusque nostris liberaliora præbet velamina; et . . . mensas jucundis et numerosis dapibus exornat. (*De Re Rusticâ*, lib. vii. cap. 2.) The importation of sheep was prohibited until 1842, when they were admitted on payment of duties (sheep 3*s.* a head, lambs 2*s.*), which were repealed in 1846. [CATTLE.] 539,726 sheep and lambs were imported into the United Kingdom in 1867.

In consequence of the prevalence of sheep pox on the continent of Europe, an order in council of August 20, 1868 was issued, publishing quarantine and other regulations in regard to the sheep to be imported thence into this country.

The number of sheep in Great Britain, as returned on June 25, 1868, was 30,711,396; adding to this 4,822,444 for Ireland, and 73,972 for the Isle of Man and Channel Islands, we have a grand total for the United Kingdom of 35,607,812.

Names of Breeds	Head	Colour of Face and Legs	Wool	Wgt. of Fleece	Wethrs. per qr.	Age killed
				lb.	lb.	years
1. Teeswater	No horns	White face and legs	Long wool	9	28	2
2. Lincoln	No horns	White face and legs	Long wool	10	25	2
3. Dishley, or New Leicester	No horns	White face and legs	Long wool (fine)	8	22	2
4. Cotswold	No horns	White face and legs	Long wool (fine)	9	24	2
5. Romney Marsh	No horns	White face and legs	Long wool (fine)	8	22	2
6. Dartmoor, or Brampton	No horns	White face and legs	Long wool (fine)	9	25	2
7. Exmoor	Horned	White face and legs	Long wool (coarse)	6	16	2½
8. Black Faced, or Heath	Horned	Black face and legs	Long wool (coarse)	3	15	3½
9. Hereford, Ryeland	No horns	White face and legs	Short wool (fine)	2½	14	3½
10. Morf, Shropshire	Horned	Black and speckled	Short wool (fine)	1½	12	3½
11. Dorset	Horned	White and speckled	Short wool (fine)	3½	18	2
12. Wilts	Horned	White and speckled	Short wool (mid.)	3	20	3
13. Berks	No horns	Black and white	Long wool	7	18	2½
14. South Down	No horns	Speckled and white	Short wool	2½	18	2
15. Norfolk	Horned	Black and white	Short wool	2	18	3½
16. Herdwick	Horned	Speckled and white	Short wool	2	10	4½
17. Cheviot	No horns	White face and legs	Short wool	3	16	4½
18. Dun-faced	No horns	Dun face and legs	Short wool	1½	7	4½
19. Shetland	No horns	Various coloured ditto	Fine cottony	1½	4	4½
20. Spanish	Rams horned	White	Short wool (super.)	3	14	3½
21. Ditto, cross	—	—	Short wool (fine)	2½	16	2

The above table exhibits a compendious view of the more prominent characteristics of the principal breeds of sheep in Great Britain.

For further details as to the number of sheep, the quantity and quality of wool &c., see WOOL.

SHERRY. [WINE.]

SHIPS, SHIPPING.

I. Ships (General Account of).
II. Ships (Classification of).
III. Ships (Safety of).
IV. Shipping Offices.
V. Ships' Papers.

I. Ships (General Account of).

Nautical men apply the term ship to distinguish a vessel having 3 masts, each consisting of a lower mast, a topmast, and top-gallant mast, with their appropriate rigging. In familiar language, it is usually employed to distinguish any large vessel, however rigged; but it is also frequently used as a general designation for all vessels navigated with sails; and it is in this sense that we now employ it.

Merchant Ships.—It is hardly possible to divide merchant ships into classes, at least with any degree of precision. Their size, shape, the mode of their rigging &c., depend not merely on the particular trade for which they are destined, but on the varying tastes and fancies of their owners. The ships employed in the China and Indian trade are the largest and finest merchantmen belonging to this country; those in the Australian trade rank next, then follow the vessels employed in the trade with the Pacific, the Brazils, West Indies, and Mediterranean, and among the worst descriptions of sailing vessels are those engaged in the Canadian, Baltic, and coasting trades. But such vessels have been to a large extent superseded by screw steamers, though those that remain, especially in the coal trade, are very inferior, and in too many instances unseaworthy.

The reader will find, in the articles Navigation Laws, and Registry, an account of the privileges enjoyed by British ships, the conditions and formalities necessary to be observed in order to acquire and preserve those privileges, the mode of transferring property in ships &c. And in the articles Charterparty, Freight, Masters, Owners, Seamen, Seaworthy &c., the law with respect to ships and shipowners, in their capacity of carriers or public servants, and the reciprocal duties and obligations of the masters and crews, is pretty fully expounded. In this place, therefore, we shall content ourselves with laying before the reader some official statements exhibiting the progress and present magnitude of the mercantile navy of Great Britain.

Increase of Shipping in England.—It would be to no purpose, even if our limits permitted, to enter into any details with respect to the shipping of England previously to the Revolution. Those who wish to examine the subject, will find most of the scattered notices of contemporary writers collected by Anderson, in his *Chronological History of Commerce*. The mercantile navy of England first became considerable in the reign of Elizabeth; and gradually increased under her successors, James I. and Charles I. At the Restoration, the British shipping cleared outwards amounted to 95,266 tons; but such was the increase of navigation during the reigns of Charles II. and James II., that, at the Revolution, the British ships cleared outwards amounted to 190,533 tons. The war terminated by the treaty of Ryswick, in 1697, checked this progress. But commerce and navigation have steadily advanced, with the exception of two short periods during the war of 1739 and the American war, from the beginning of last century down to the present day.

The first really authentic account of the magnitude of the commercial navy of England was obtained in 1701-2, from returns to circular letters of the Commissioners of Customs, issued in January of that year. From these it appears that there belonged, at the period in question, to *all* the ports of England and Wales, 3,281 vessels, measuring (or rather estimated to measure) 261,222 tons, and carrying 27,196 men and 5,660 guns. Of these there belonged to

Ports (1701-2)	Vessels	Tons	Men
London - -	560	81,852	10,065
Bristol - -	165	17,338	2,359
Yarmouth -	143	9,914	868
Exeter - -	121	7,107	978
Hull - -	115	7,564	187
Whitby - -	110	8,992	571
Liverpool -	102	6,619	1,101
Scarborough -	100	6,860	606

None of the other ports had 100 vessels; and there is some mistake in the returns as to the tonnage assigned to Newcastle and Ipswich. Of the Hull vessels, 80 were at the time laid up, which accounts for the small number of men in that port. (Macpherson's *Annals of Commerce*, anno 1701.)

The Table No. I. following, of the British and foreign shipping cleared outwards from 1663 to 1811, both inclusive, is taken from the last edition of Chalmers' *Comparative Estimate*. It gives a very complete view of the progress of the navigation of the country; and from the attention paid by the author to such subjects, and the facilities which his situation in the Board of Trade gave for acquiring authentic information, its accuracy may be depended on.

I.—*Table of Ships Cleared Outwards from* 1663 *to* 1811.

Years	British	Foreign	Total	Years	British	Foreign	Total	Years	British	Foreign	Total
	tons	tons	tons		tons	tons	tons		tons	tons	tons
1663 } 1669 }	95,266	47,634	142,900	1760	540,341	107,237	647,578	1786	1,115,024	121,197	1,236,221
1688	190,533	95,267	285,800	1761	582,020	122,735	704,755	1787	1,279,033	138,220	1,417,253
1697	144,264	100,521	244,785	1762	543,441	124,926	668,370	1788	1,411,689	128,997	1,540,686
1700 }				1763	631,721	91,593	723,317	1789	1,515,021	103,722	1,618,743
1701 }	273,693	47,635	317,328	1764	662,434	79,800	742,234	1790	1,421,912	148,919	1,573,831
1702 }				1765	726,402	72,815	798,617	1791	1,511,216	184,729	1,695,975
1709	213,693	45,625	259,318	1766	758,081	66,153	824,234	1792	1,561,158	175,405	1,736,563
1712	526,620	29,115	555,735	1767	778,835	68,006	793,841	1793	1,240,202	187,032	1,427,234
1713 }				1768	761,786	77,984	839,770	1794	1,382,166	218,077	1,600,243
1714 }	421,451	26,573	448,004	1769	805,305	68,420	873,725	1795	1,145,150	382,367	1,528,017
1715 }				1770	806,495	63,176	869,671	1796	1,254,624	478,356	1,732,980
1726 }				1771	877,004	66,898	943,902	1797	1,103,781	396,871	1,500,652
1727 }	432,832	23,651	456,483	1772	923,456	72,931	996,387	1798	1,319,151	365,719	1,684,870
1728 }				1773	874,421	57,994	932,415	1799	1,302,551	414,774	1,717,325
1736 }				1774	901,016	68,402	969,418	1800	1,445,971	685,051	2,130,322
1737 }	476,911	26,627	503,538	1775	882,579	68,034	950,613	1801	1,515,691	801,880	2,150,501
1738 }				1776	872,104	71,323	943,431	1802	1,626,966	461,743	2,088,589
1739 }				1777	837,067	102,638	939,705	1803	1,453,066	574,342	2,027,408
1740 }	364,191	87,260	471,451	1778	732,638	93,778	826,336	1804	1,463,286	587,849	2,051,135
1741 }				1779	642,981	149,040	791,021	1805	1,495,809	605,821	2,101,630
1749 }				1780	731,246	184,111	855,397	1806	1,486,502	568,170	2,054,672
1750 }	609,798	51,586	661,184	1781	805,319	170,775	776,994	1807	1,421,103	631,910	2,036,013
1751 }				1782	615,150	225,456	840,606	1808	1,372,310	782,145	2,154,955
1755 }				1783	668,287	170,938	1,037,905	1809	1,511,158	699,250	2,210,902
1756 }	496,254	76,456	572,710	1784	992,819	118,868	1,030,487	1810	1,624,774	1,138,647	2,761,801
1787 }				1785	1,071,302	107,184	1,187,348	1811	1,207,353	696,252	2,203,585

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II.—*An Account of the Total Number of Vessels Engaged in the Foreign and Colonial Trade of the United Kingdom, with the Amount of their Tonnage and the Number of Men and Boys employed in Navigating the same, that Entered Inwards from all Parts of the World, in the several Years from* 1814 *to* 1842, *both inclusive, distinguishing British from Foreign.*

Years	British and Irish Vessels			Foreign Vessels		
	Vessels	Tons	Men	Vessels	Tons	Men
1814	8,075	1,209,248	85,795	5,286	599,287	37,375
1815	8,891	1,372,108	86,360	5,411	701,362	44,080
1820	11,285	1,668,920	100,525	5,472	447,611	27,653
1825	13,033	2,145,717	125,028	6,981	959,312	52,722
1830	13,548	2,180,042	122,103	5,259	758,928	41,670
1831	14,458	2,367,328	131,677	6,085	874,695	47,455
1832	13,372	2,185,980	122,594	4,946	639,979	75,399
1833	13,119	2,183,818	120,495	5,905	762,085	41,996
1834	13,903	2,298,263	126,727	5,844	853,905	45,507
1835	14,295	2,442,734	135,688	6,905	866,990	47,152
1836	14,347	2,505,173	137,389	7,131	988,899	53,921
1837	15,155	2,617,166	146,319	7,783	1,009,940	56,278
1838	16,119	2,785,387	154,499	8,879	1,201,666	68,891
1839	17,635	3,101,650	170,539	10,326	1,531,365	79,550
1840	17,885	3,197,501	172,484	10,198	1,460,294	81,795
1841	18,525	3,361,211	178,666	9,927	1,391,165	73,654
1842	18,987	3,294,725	178,881	8,951	1,205,305	66,902

III.—*An Account of the Number of Vessels and of their Tonnage, Built and Registered in, and belonging to, the different Ports of the British Empire, from* 1825 *to* 1857, *both inclusive, and also in* 1867, *specifying the Number of their Crews, and distinguishing between those of the British Islands and Possessions in Europe and those of the Colonies.*

Years	Vessels built and registered						Vessels and their Crews belonging to the British Empire						
	United Kingdom and Possessions in Europe		Colonies		Total		United Kingdom and Possessions in Europe		Colonies		Total		Crews
	ships	tons	ships	tons	ships	tons	ships	tons	ships	tons	ships	tons	
1825	1,003	174,029	536	80,695	1,539	254,724	20,701	2,528,307	3,579	214,875	24,280	2,753,182	166,183
1830	750	77,411	367	52,719	1,147	130,130	19,174	2,201,592	4,547	350,227	23,721	2,551,819	151,812
1833	728	92,171	451	52,476	1,139	144,647	19,689	2,271,501	4,696	363,276	24,385	2,634,777	164,090
1834	806	102,710	425	55,817	1,231	158,527	19,975	2,314,355	5,080	403,745	25,055	2,716,100	168,061
1835	916	121,722	455	63,230	1,371	184,952	23,300	2,360,243	5,211	423,458	25,511	2,783,761	171,920
1836	709	89,636	441	66,604	1,150	156,240	20,388	2,349,749	5,452	432,497	25,870	2,792,816	170,657
1837	1,005	135,922	510	71,306	1,515	207,228	20,536	2,333,521	5,501	457,497	26,057	2,791,018	173,506
1838	1,147	161,459	608	79,947	1,755	241,406	20,912	2,320,759	5,697	469,842	26,609	2,790,601	178,583
1839	1,278	186,203	703	109,025	1,981	295,228	21,670	2,370,535	6,075	492,798	27,745	3,063,433	191,283
1840	1,448	220,994	771	43,288	2,219	263,282	21,654	2,768,362	6,308	543,276	28,962	3,311,534	205,340
1841	1,196	168,369	668	32,857	1,860	201,166	23,461	2,935,399	6,591	577,081	30,052	3,512,480	210,198
1842	971	133,275	558	75,662	1,529	208,937	23,954	3,041,420	6,861	578,430	30,815	3,619,850	181,047
1843	736	85,273	494	55,904	1,230	141,177	23,898	3,007,581	7,085	580,806	30,983	3,588,387	213,977
1844	731	96,876	528	69,857	1,256	166,733	24,016	3,044,592	7,304	592,839	31,320	3,637,231	216,350
1845	890	124,919	638	90,696	1,528	215,615	24,388	3,125,140	7,499	590,881	31,887	3,711,061	224,900
1846	1,141	159,498	815	113,856	1,956	241,056	24,771	3,199,783	7,726	617,587	32,499	3,817,118	229,276
1847	981	149,921	756	155,313	1,737	305,237	25,290	3,307,921	7,788	644,693	32,988	3,952,584	232,890
1848	878	125,940	655	101,988	1,533	227,928	25,638	3,400,809	8,034	651,551	33,672	4,052,360	236,069
1849	771	121,266	691	123,864	1,462	245,130	25,902	3,485,958	8,188	658,157	34,090	4,144,115	237,971
1850	725	137,550	714	124,953	1,439	262,483	25,977	3,565,153	8,304	667,829	34,288	4,232,982	239,283
1851	702	152,163	546	122,976	1,248	275,139	26,043	3,662,344	8,201	669,741	34,344	4,332,085	240,928
1852	742	170,434	627	134,840	1,419	309,304	26,086	3,739,278	8,316	665,114	34,402	4,404,392	243,512
1853	850	207,238	723	152,550	1,573	359,788	26,648	4,060,304	8,701	734,218	35,509	4,794,522	245,896
1854	830	201,703	752	188,272	1,582	389,975	26,859	4,218,750	9,101	794,530	35,960	5,043,270	256,191
1855	1,146	327,094	744	164,968	1,870	492,062	25,948	4,319,334	9,744	901,219	35,692	5,220,553	261,191
1856	1,182	247,976	694	175,620	1,876	423,596	26,177	4,568,956	9,835	945,489	36,012	5,514,436	267,573
1857	1,321	235,537	721	167,940	2,045	423,477	27,097	4,588,740	9,917	960,411	37,014	5,549,154	284,135
1867	1,185	274,358	778	138,822	1,963	413,180	28,773	5,755,973	11,911	1,451,845	40,684	7,205,518	346,779

N.B.—The falling off in the number of ships after 1825 is apparent only. The numbers returned in the previous years were those that appeared on the registers. But a ship when once placed on them, remained till evidence was produced of her having been sold to foreigners, lost, or otherwise destroyed: so that a good many ships were at all times on the register, which, in fact, did not exist. The Registry Act passed in 1826 obliged all owners of ships to register them anew; when, of course, the names of those that had ceased to exist disappeared from the books.

IV.—*Account of the Total Tonnage of British and Foreign Vessels, from* 1840 *to* 1867, *both inclusive, distinguishing between each, Entered and Cleared, whether with Cargoes or in Ballast, at Ports in the United Kingdom.*

Years	Entered			Cleared			Total		
	British	Foreign	Total	British	Foreign	Total	British	Foreign	Total
	tons	tons	tons	tons	tons	tons	tons	tons	tons
1840	3,197,501	1,460,294	4,657,795	3,292,984	1,488,888	4,781,872	6,490,485	2,949,182	9,439,667
1841	3,361,211	1,391,165	4,752,376	3,429,259	1,326,892	4,756,151	6,790,490	2,698,057	9,488,547
1842	3,294,725	1,205,305	4,500,028	3,318,370	1,299,176	4,617,546	6,613,095	2,504,479	9,117,574
1843	3,345,346	1,301,950	4,647,296	3,253,835	1,241,433	4,577,266	7,181,179	2,643,383	9,824,562
1844	3,647,053	1,497,138	5,044,191	3,558,228	1,444,146	4,992,368	7,569,585	2,946,284	10,515,869
1845	4,310,639	1,735,079	6,045,718	4,235,451	1,796,136	6,031,587	8,546,090	3,531,215	12,077,305
1846	4,894,733	1,806,282	6,701,015	4,793,415	1,921,156	6,714,571	8,688,148	3,727,438	12,415,586
1847	4,941,094	2,253,939	7,196,033	4,750,370	2,317,795	7,068,165	9,713,464	4,566,732	14,279,196
1848	4,566,533	1,960,412	6,526,945	4,741,027	2,056,654	6,780,681	9,289,560	4,017,066	13,306,626
1849	4,884,710	2,035,690	6,919,880	4,785,428	2,299,060	7,084,488	9,669,638	4,334,750	14,004,388
1850	4,760,199	2,400,277	7,160,476	4,742,345	2,602,743	7,345,088	9,502,544	5,003,020	14,505,564
1851	4,938,586	2,933,708	7,872,294	4,867,790	3,240,614	8,108,404	9,806,376	6,174,322	15,980,698
1852	4,944,863	2,992,581	7,937,447	5,061,106	3,191,996	8,253,102	9,993,969	6,184,180	16,180,149
1853	5,055,343	3,887,763	8,943,106	5,212,980	4,234,124	9,447,104	10,268,323	8,121,887	18,390,210
1854	5,574,551	3,586,815	9,161,366	5,570,298	4,137,423	9,707,721	10,744,849	7,724,238	18,469,087
1855	5,270,792	3,680,447	8,951,239	5,648,940	3,889,251	9,538,191	10,919,732	7,569,698	18,489,470
1856	6,390,716	4,162,419	10,553,134	6,555,656	4,480,259	11,035,915	12,945,771	8,641,678	21,589,049
1857	6,955,705	4,521,494	11,477,199	6,810,402	4,863,191	11,703,593	13,894,107	9,484,685	23,378,792
1858	6,459,891	4,572,499	10,961,700	6,492,204	4,806,077	11,348,281	12,891,405	9,478,576	22,369,981
1859	6,585,192	4,636,810	11,221,972	6,726,731	4,965,606	11,692,337	13,311,843	9,598,416	22,910,259
1860	6,889,009	5,283,776	12,172,785	7,025,914	5,490,393	12,516,307	13,914,923	10,774,169	24,689,092
1861	7,781,933	5,408,554	13,190,489	7,092,487	5,718,555	12,811,042	14,820,532	11,175,109	26,995,641
1862	7,856,659	5,324,451	13,091,090	8,090,221	5,354,198	13,444,419	15,946,880	10,588,579	26,535,459
1863	8,130,146	4,827,917	13,256,063	8,289,248	4,898,424	13,187,670	17,419,394	9,726,341	27,145,735
1864	9,008,100	4,488,917	13,515,011	9,115,575	4,515,923	13,631,498	18,101,675	9,004,834	27,106,509
1865	9,625,432	4,691,454	14,317,886	8,758,923	4,843,683	14,579,206	19,358,955	9,534,137	28,897,092
1866	10,692,492	4,920,668	15,612,160	10,563,641	5,086,656	15,650,296	20,006,274	10,006,774	31,262,450
1867	11,197,865	5,140,952	16,338,817	11,179,295	5,245,690	16,417,295	22,570,050	10,386,042	32,756,112

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V.—*Colonial Shipping.—A Return of the Number and Tonnage of Sailing and Steam Vessels Presented at each of the various Ports of the Colonies of the United Kingdom, on December 31, 1867, distinguishing between those under and above Fifty Tons Register, and between Sailing and Steam Vessels.*

Countries	Sailing Vessels				Steam Vessels			
	Of and under 50 Tons		Above 50 Tons		Of and under 50 Tons		Above 50 Tons	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
EUROPE								
Malta	58	1,030	102	30,753	1	43	2	353
Gibraltar	30	821	35	8,811	3	51	2	131
AFRICA								
Sierra Leone	28	610	7	883	1	38	1	154
Bathurst	18	440	12	1,484	..	..	..	..
Cape of Good Hope	15	471	47	11,945	1	33	1	123
Mauritius	72	2,263	57	12,896	..	..	1	89
ASIA								
Bombay	4	102	142	37,532	1	28	13	2,313
Calcutta	..	..	126	41,131	2	45	32	5,862
Cochin	..	..	31	7,097	..	..	..	..
Coringa	..	..	5	1,256	..	..	..	..
Madras	..	..	3	830	..	..	..	..
Penang	14	577	54	12,201	..	..	..	..
Singapore	63	2,168	107	27,792	1	32	5	809
Ceylon	194	6,518	148	42,414	..	..	2	335
Moulmein	..	..	4	2,692	..	..	1	100
Hong Kong	1	28	69	22,848	1	41	16	5,897
AUSTRALIA								
Sydney	203	5,401	318	59,898	23	519	58	12,307
Melbourne	143	3,853	315	51,713	13	360	16	1,608
Hobart Town	85	2,298	65	12,598	2	75	6	1,519
Launceston	38	885	13	2,582	2	64	..	..
Adelaide	39	984	57	11,571	5	243	19	2,431
Fremantle	32	664	5	1,068	2	35	..	..
New Zealand	242	6,404	92	13,467	15	491	27	5,616
AMERICA								
British Northern Colonies:								
Newfoundland	1,051	31,998	497	49,695	3	101	6	1,145
Canada	381	12,532	568	104,941	50	1,265	89	17,082
New Brunswick	359	8,940	618	208,357	14	283	17	3,865
Nova Scotia and Cape Breton	1,657	45,727	1,688	333,400	4	143	10	1,896
Prince Edward Island	108	3,176	174	34,571	..	..	3	848
British West Indies:								
Antigua	59	834	7	633	..	..	..	..
Barbadoes	14	455	41	7,283	..	..	1	664
Dominica	6	142	2	380	..	..	..	..
Grenada	26	431	..	..	..	..	..	..
Jamaica	86	2,152	41	5,483	..	..	1	283
Montserrat	..	..	3	171	..	..	..	..
Nevis	2	39	..	..	..	..	..	..
St. Christopher	15	254	14	1,976	..	..	..	..
St. Lucia	8	258	1	250	..	..	..	..
St. Vincent	23	462	2	275	..	..	..	..
Tobago	..	..	1	57	..	..	..	..
Tortola	17	196	5	761	..	..	1	234
Trinidad	55	891	8	1,044	..	..	11	3,658
Bahamas	352	6,655	233	36,923	..	..	..	..
Bermuda	9	279	46	8,611	..	..	..	..
Demerara	45	1,202	26	5,737	2	75	3	618
Berbice	17	340	2	183	..	..	..	..
Roatan	16	297	1	183	..	..	..	..
Belize	31	717	7	614	..	..	..	..

VI.—*A Return of the Number and Tonnage of Sailing Vessels Registered at each of the Ports of Great Britain and Ireland, including the Isle of Man and the Channel Islands, distinguishing those under and those above 50 Tons Register, on December 31, 1867. Also, a similar Return of Steam Vessels and their Tonnage.*

Ports	Sailing Vessels				Steam Vessels			
	Of and under 50 tons		Above 50 Tons		Of and under 50 Tons		Above 50 Tons	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
ENGLAND:								
Aberdarwith	86	2,981	291	37,521	..	..	5	474
Arundel	34	995	42	6,845	..	..	..	..
Barnstaple	61	2,043	31	2,866	1	15	..	..
Beaumaris	133	4,406	168	14,981	..	..	..	..
Berwick	13	491	16	1,657	1	11	..	..
Hartland	56	1,854	75	9,104	..	..	..	..
Boston	83	2,894	57	4,997	1	15	1	91
Bridgewater	72	2,803	57	10,046	3	53	2	211
Bridport	..	..	9	1,450	..	..	..	..
Bristol	163	4,712	156	59,501	20	565	27	5,702
Brixham	14	360	69	9,954	..	..	..	..
Caernarvon	170	5,649	361	58,890	5	84	2	226
Cardiff	30	857	55	17,960	33	606	5	733
Cardigan	89	2,587	61	6,454	..	..	..	..
Carlisle	8	288	14	1,883	1	27	3	1,175
Chepstow	35	941	10	798	..	..	..	..
Chester	50	1,804	74	5,986	2	59	8	2,347
Colchester	237	4,339	95	12,954	..	..	..	..
Cowes	146	3,826	63	7,181	5	175	2	208
Dartmouth	111	3,976	148	19,322	6	165	1	130
Deal	4	97	8	989	..	..	..	..
Dover	30	808	25	3,111	1	22	2	134
Exeter	31	827	83	11,892	1	15	..	..
Falmouth	41	1,229	88	14,045	7	214	..	..
Faversham	204	6,219	196	28,835	2	22	..	..
Fowey	40	1,206	37	5,093	1	17	5	1,818
Gainsborough	6	84	25	3,845	..	..	..	..
Gloucester	37	1,282	141	14,714	..	..	..	..
Great Yarmouth	11	122	2	114	6	145	3	403
Greenock	266	7,868	68	7,878	6	143	1	63
Guernsey	136	3,139	209	22,095	7	109	12	2,570
Grimsby	174	5,480	98	6,638	6	109	11	4,183

Ports	Sailing Vessels				Steam Vessels			
	Of and under 50 tons		Above 50 tons		Of and under 50 tons		Above 50 tons	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
ENGLAND—*continued*:								
Hartlepool	4	96	96	23,307	..	..	3	2,151
Ditto, West	5	147	71	15,015	4	55	17	6,831
Harwich	64	2,014	63	6,210	..	..	7	3,384
Hayle	..	..	25	3,469	..	..	4	816
Hull	372	12,129	180	32,164	16	280	94	46,210
Ipswich	52	1,653	127	14,185	6	262	4	335
Lancaster	30	1,084	157	26,123	3	70	5	1,116
Liverpool	267	9,472	2,721	1,274,194	63	1,940	378	218,097
Llanelly	20	546	70	10,453	5	113	2	242
Lowestoft	201	5,197	65	7,737	4	86	2	269
Lyme	5	177	9	918	..	..	..	..
Lynn	62	2,161	81	11,099	..	..	..	..
Maldon	107	3,576	66	7,745	..	..	..	..
Margate	11	201	113	25,097	4	99	..	..
Middlesborough	14	457	59	10,324	24	571	14	4,606
Milford	72	1,877	216	7,691	2	54	1	281
Newcastle	155	4,175	91	111,378	102	2,056	55	22,141
Newhaven	16	286	21	3,541	1	16	7	1,271
Newport	16	613	29	22,642	2	47	3	384
Padstow	45	1,841	88	10,164	..	..	..	..
Penzance	99	901	75	8,885	1	20	..	..
Plymouth	220	6,595	192	41,018	12	397	1	59
Poole	38	1,098	57	8,859	2	45	..	..
Portsmouth	154	3,962	112	13,126	6	135	5	324
Preston	48	1,618	55	5,176	7	182	1	279
Ramsgate	145	4,357	28	3,357	1	10	..	..
Rochester	672	23,717	85	9,979	7	188	3	639
Runcorn	23	901	54	3,643	..	..	..	..
Rye	40	865	46	4,040	1	21	..	..
St. Ives	61	1,083	71	7,091	..	..	..	..
Salcombe	5	159	37	7,695	..	..	..	..
Scarborough	124	4,586	97	28,240	1	16	..	..
Scilly	12	316	35	7,714	..	..	1	67
Shields	20	554	553	167,350	146	2,999	8	2,754
Ditto, South	5	193	263	91,276	35	698	5	839
Shoreham	26	533	139	32,372	1	15	..	..
Southampton	152	3,734	90	19,029	13	409	38	13,288
Stockton	7	179	12	3,259	7	207	6	3,469
Sunderland	101	3,029	767	217,986	48	1,208	60	28,506
Swansea	24	702	156	40,259	18	424	10	2,013
Teignmouth	6	144	51	6,530	1	23	..	..
Truro	14	432	51	5,162	..	..	..	..
Wells	60	1,834	72	8,144	3	37	..	..
Weymouth	22	584	45	5,054	2	49	5	575
Whitby	49	1,761	365	67,911	1	21	5	1,967
Whitehaven	15	341	165	26,499	2	48	2	320
Wisbeach	9	372	31	5,076	2	58	5	2,458
Woodbridge	33	1,078	51	2,870	..	..	..	..
Workington	1	30	78	19,777	1	17	..	..
Yarmouth	509	15,819	166	18,764	8	168	2	327
London	819	28,546	1,706	790,946	185	5,169	545	281,114
Total, England	7,522	239,496	12,516	3,625,966	808	19,987	1,560	685,522
SCOTLAND:								
Aberdeen	10	358	216	92,568	5	84	11	3,932
Alloa	12	398	22	9,718	2	45	2	199
Arbroath	4	164	78	12,703	..	..	..	..
Ardrossan	41	1,148	45	9,417	4	98	2	340
Ayr	14	490	42	9,524	..	..	2	386
Banff	20	643	103	13,784	..	..	..	..
Borrowstoness	18	467	30	4,777	3	79	..	..
Campbeltown	23	795	6	394	..	..	4	544
Dumfries	47	1,441	47	10,389	..	..	..	..
Dundee	9	287	164	40,515	3	88	25	8,587
Glasgow	161	5,613	343	238,933	61	1,895	279	106,151
Grangemouth	13	399	31	7,893	7	161	7	2,432
Granton	1	38	8	524	..	..	..	..
Greenock	161	4,895	191	96,689	17	325	15	1,942
Inverness	134	3,099	88	8,784	..	..	..	..
Irvine	9	294	14	3,428	1	15	..	..
Kirkaldy	15	437	21	5,438	3	107	2	490
Kirkwall	99	668	18	1,446	1	26	1	99
Leith	56	1,730	80	21,557	22	489	55	21,316
Lerwick	68	1,870	20	1,376	..	..	..	..
Montrose	6	214	106	17,106	2	40	..	..
Perth	11	271	38	4,459	..	..	..	..
Peterhead	18	459	54	7,855	..	..	6	1,081
Port Glasgow	30	679	9	8,172	6	168	4	652
Stornoway	27	693	9	1,034	..	..	..	..
Stranraer	30	1,035	19	2,934	..	..	..	..
Troon	..	..	10	2,240	..	..	1	161
Wick	19	559	46	5,266	1	34	..	..
Wigtown	41	1,266	11	1,561	..	..	1	284
Total, Scotland	1,007	30,604	1,935	637,524	138	3,740	585	148,489
IRELAND:								
Ballina	1	17	..	..	1	37	..	..
Belfast	179	5,994	333	55,172	6	130	12	2,608
Coleraine	2	79	8	635	1	18	..	..
Cork	175	4,352	159	21,963	17	492	29	8,149
Drogheda	4	90	32	3,658	..	..	5	1,908
Dublin	340	10,070	203	29,150	18	476	43	14,395
Dundalk	5	193	27	2,330	..	..	4	1,198
Galway	7	225	4	1,091	..	..	1	67
Limerick	13	743	14	4,786	..	..	3	1,791
Londonderry	7	284	23	8,033	1	33	4	891
Newry	69	2,100	33	2,373	2	36	3	398
Ross	2	39	7	1,746	..	..	..	..
Skibbereen	66	1,631	2	110	..	..	..	..
Sligo	8	213	14	3,346	2	78	3	773
Tralee	12	355	..	..	..	..	..	..
Waterford	47	1,159	75	7,919	2	48	12	25,158
Westport	5	121	1	142	..	..	..	..
Wexford	16	552	81	9,701	2	52	1	207
Youghal	1	45	32	4,157	..	..	..	..
Total, Ireland	971	28,185	1,046	158,324	52	1,390	150	57,253
Isle of Man	263	6,512	50	4,083	..	..	5	1,192
Channel Islands	190	5,585	383	65,602	8	38	2	121

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VII.—*An Account of the Number of Vessels, with the Amount of their Tonnage, and the Number of Men and Boys usually employed in Navigating the same, that belonged to the several Ports of the British Empire on December 31, 1864, 1865, and 1866, respectively.*

Ports	1864			1865			1866		
	vessels	tons	men	vessels	tons	men	vessels	tons	men
England	22,113	4,573,452	195,694	22,238	4,653,811	199,756	22,441	4,664,994	200,301
Scotland	3,427	723,817	35,686	3,431	766,975	36,075	3,472	781,850	36,574
Ireland	2,197	245,609	13,941	2,199	246,087	13,937	2,209	245,166	13,841
Isles of Guernsey, Jersey, and Man	895	84,622	5,747	919	93,436	5,958	899	87,387	5,538
British Plantations	12,235	1,475,761	90,431	12,477	1,562,295	94,569	11,941	1,518,647	90,725
Total	40,867	7,103,261	341,499	41,264	7,323,604	350,295	40,912	7,297,984	346,779

VIII.—*An Account of the Shipping employed in the Trade of the United Kingdom, exhibiting the Number and Tonnage of Vessels that Entered inwards and Cleared outwards (including their repeated Voyages), separating British from Foreign Vessels, and distinguishing the Trade with each Country, in 1867.*

Countries		Inwards				Outwards			
		British		Foreign		British		Foreign	
		Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
Russia	Steam	361	239,454	15	16,297	543	291,863	23	25,194
	Sailing	1,809	441,365	2,256	591,641	1,179	265,800	1,539	312,805
Sweden	Steam	182	101,506	56	17,474	135	80,016	30	14,120
	Sailing	398	79,884	2,656	341,445	993	51,142	1,476	304,841
Norway	Steam	150	68,163	3	946	149	68,432	24	7,620
	Sailing	391	37,680	2,764	515,049	217	30,425	2,620	500,820
Denmark	Steam	84	38,187	60	21,285	148	61,653	60	21,278
	Sailing	35	5,566	1,313	115,425	426	76,459	3,594	560,757
Prussia	Steam	291	137,696	53	18,645	495	240,589	57	20,441
	Sailing	622	78,763	1,332	272,042	708	94,938	1,526	314,378
Germany	Steam	1,422	668,616	429	327,895	1,231	556,483	343	175,587
	Sailing	1,175	237,404	2,181	299,877	1,098	198,799	2,390	277,399
Holland	Steam	1,564	569,692	142	39,905	1,402	491,155	114	33,710
	Sailing	1,282	216,535	1,489	218,350	1,085	163,176	435	57,684
Belgium	Steam	1,165	426,9 7	701	110,476	1,044	357,731	597	94,935
	Sailing	950	188,756	772	158,633	690	85,361	52	8,448
Channel Islands	Steam	424	84,838	..	..	431	85,577	..	..
	Sailing	1,396	167,594	19	1,581	862	69,374	12	785
France	Steam	5,996	1,500,336	419	106,242	5,685	1,434,695	349	91,534
	Sailing	5,049	643,562	5,139	568,794	4,797	601,144	4,414	538,717
Portugal	Steam	176	75,091	25	13,576	180	77,086	32	16,650
	Sailing	745	112,827	133	19,185	571	88,336	519	87,741
Spain	Steam	146	57,119	161	73,642	151	60,916	145	66,868
	Sailing	654	188,572	316	66,569	1,110	253,339	675	135,377
Gibraltar	Steam	38	24,641	..	..	109	60,995	..	..
	Sailing	15	6,020	1	297	250	42,956	18	4,125
Italian States	Steam	200	141,317	6	4,431	174	138,774	10	6,037
	Sailing	319	52,557	181	43,496	568	143,565	900	290,965
Malta	Steam	5	4,449	..	..	52	24,816	..	..
	Sailing	7	5,749	..	..	134	52,126	92	32,343
Ionian Islands	Steam	7	3,513	..	..	9	5,048	..	..
	Sailing	19	2,638	2	415	35	6,884	29	9,719
Greece	Steam	49	27,074	1	804	20	10,943	..	..
	Sailing	67	20,637	5	1,190	71	28,979	45	14,128
Turkey	Steam	67	70,975	2	1,996	99	90,259	8	2,898
	Sailing	214	68,250	140	44,305	341	70,264	332	107,448
Wallachia and Moldavia	Steam	11	6,423	..	..	15	8,888	..	..
	Sailing	54	11,614	27	5,827	23	4,192	18	3,379
Syria	Steam	..	..	..	..	1	1,634	..	..
	Sailing	2	477	1	117	27	7,847	9	2,411
Africa	Steam	281	992,807	1	1,100	292	994,388	1	219
	Sailing	571	184,874	142	45,489	1,060	360,418	491	152,680
Asia	Steam	15	21,568	..	..	37	27,650	1	496
	Sailing	1,141	997,000	37	29,489	1,300	1,558,177	372	216,946
America:									
British Northern Colonies	Steam	71	78,535	..	..	70	73,753	..	..
	Sailing	1,480	851,814	265	142,298	1,010	583,422	78	33,782
British West Indies	Steam	31	37,756	..	..	19	19,354	..	..
	Sailing	718	256,348	71	24,027	561	184,999	54	18,505
Foreign West Indies	Steam	72	37,115	1	566	54	34,555	1	2,000
	Sailing	282	102,234	297	99,525	455	174,174	513	167,323
United States	Steam	391	611,374	8	9,060	556	580,603	88	157,899
	Sailing	600	388,118	543	418,221	627	449,710	505	448,150
Central and Southern States	Steam	83	75,194	..	..	100	78,723	9	9,050
	Sailing	991	428,894	333	106,123	1,063	414,549	520	167,898
Falkland Islands	Steam	..	..	..	..	..	..	..	..
	Sailing	8	1,079	..	..	4	1,153	..	..
Whale Fisheries	Steam	18	6,312	..	..	14	4,888	..	..
	Sailing	10	2,671	..	..	18	4,857	1	228
Total		34,497	11,197,865	24,511	5,140,952	33,202	11,172,905	24,847	5,245,090

IX.—*A Return of the Number and Tonnage of New Vessels built in the United Kingdom, and at each of the British Possessions respectively (distinguishing Timber from Iron, and Steam from Sailing Vessels), and Registered as British Ships, in the Year 1867.*

Countries	Sailing Vessels				Steam Vessels			
	Timber		Iron		Timber		Iron	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
United Kingdom:								
England	608	71,908	70	36,685	44	1,507	120	46,187
Scotland	121	24,235	64	40,473	7	1,742	98	36,036
Ireland	16	1,010	1	165	..	..	10	9,101
Total for United Kingdom	743	97,153	135	77,321	51	3,249	228	91,324
Channel Islands	26	4,853	..	..	..	..	2	455
Other British Possessions	752	136,552	3	959	18	1,758	5	260
Total for United Kingdom and British Possessions	1,521	238,560	138	77,573	69	5,007	235	92,039

X.—Account of the Number of Vessels, with the Amount of their Tonnage, that were built and registered in the several Ports of the British Empire in 1865, 1866, and 1867, respectively.

Ports	1865		1866		1867	
	vessels	tons	vessels	tons	vessels	tons
England - - -	1,011	299,465	996	322,207	840	156,247
Scotland - - -	260	106,361	295	110 886	290	102,146
Ireland - - -	53	9,578	52	8,096	27	10,875
Isles of Guernsey, Jersey, and Man	59	5,155	38	4,422	28	5,310
British plantations - -	940	215,155	891	166,022	778	134,524
Total - - -	2,323	636,514	2,272	611,633	1,663	415,180

Ship-building.—Sunderland, London, Glasgow, Newcastle, Liverpool, Hull, Yarmouth &c. are the principal building ports. The business has increased with extraordinary rapidity at Sunderland: so much so that while only 60 ships, of the burden of 7,560 tons, were built in that port in 1820, no fewer than 152 ships, of the burden of 68,479 tons, were built in it in 1853, and 138, of 50,068 tons, in 1867. Ships built in London, Liverpool, Bristol, and other western ports, are, however, in higher estimation than those built in the Tyne and the Wear, at least for those branches of trade where the best ships are required. We subjoin

An Account of the Ships and their Tonnage annually built in Sunderland in various Years since 1848.

Years	Ships	Tons	Average Tons
1848	142	37,878	266½
1849	155	44,333	286
1850	158	51,374	325½
1851	146	51,825	355
1852	142	56,645	398½
1853	152	68,479	450½
1854	151	66,929	443½
1855	151	61,159	405
1856	154	65,019	422½
1857	143	54,780	383
1858	110	42,003	381½
1867	138	50,068	362½

Within the last 20 years the building of iron vessels has been immensely extended on the Tyne, the Wear, and the Clyde; and although the latter still maintains the lead, the former places have made extraordinary strides since 1859. In 1853-4, when we became involved in the Russian war, a very great impetus was given to the construction of iron screw steamers, which has been fully maintained; and although the shipping interest since then has passed through more than one period of much depression, there has been no retrogression in the numbers annually launched of that particular description of vessels.

State of the Shipping Interest in 1869.—When the 1859 edition of this work was published the shipping interest was very depressed, as it is at present. The cessation of the Russian war, by putting an end to the extraordinary demand for ships for the conveyance of troops, was followed by an immediate fall of freights. And though this fall was in part, it was not wholly, countervailed by the demand for ships to convey troops to India to quell the revolt of the Bengal native army. Concurrently, too, with these circumstances, the revulsion which at that time took place in the trade with Australia disengaged a considerable number of ships, while the vast additions made by the Americans, Norwegians, Danes, Swedes, Dutch &c. to their commercial marine contributed still more, by increasing competition beyond the demand, to lower the rate of freight.

But independent of these transitory circumstances, we apprehend that the grand cause of the depression of the shipping interest in this country especially, is to be found in the too great increase of shipping. The truth is, that shipbuilding is periodically completely overdone. It should be borne in mind that in consequence of the more extensive employment of steam ships in the coasting and oversea trades, the same amount of tonnage performs a much greater amount of work. The mere substitution of steam for sailing ships, though there had been no increase of tonnage, would have been really equivalent to a large addition to the latter. Inasmuch, however, as both the proportion of steam ships to the total tonnage and the amount of the latter have greatly increased, we need not be surprised at the existing depression.

But there is no ground for thinking that the latter will be permanent. The continued increase of our trade will afford employment to a still increased amount of shipping; and the check given to building in the mean time will powerfully assist in bringing about the desired equilibrium between the demand and supply.

Ever since we repealed our navigation laws in 1849 our course as a whole has been onwards, and with a rapidity of which we could have had no conception previous to that time.

In 1841, when these laws were in full force, the number of vessels registered as belonging to the United Kingdom was 23,461, with a tonnage of 2,935,399; the number of men then employed was 172,341. In 1851, when the navigation laws were abolished, the number of vessels fell to 18,184, but their tonnage had increased to 3,386,395, while they were worked by the reduced number of 141,937 men; but from the customs returns lately published we learn that in 1867, 40,942 vessels were registered in the British empire, requiring 346,606 men, representing a total of 7,277,098 tons. Of this large number of vessels 27,918 belonged to the United Kingdom, 855 to the Channel Islands, and 12,165 to British plantations. A total of 32,756,112 tons of shipping entered inwards and cleared outwards during the year. Of this amount 11,197,685 tons British and 5,140,952 tons foreign entered inwards; and 11,172,205 British and 5,245,090 foreign cleared outwards.

Some very important changes have since 1850 been made, and are yet in progress, in the construction of ships. They are now built of a much larger size than formerly, of finer models, and with a power of sailing of which no just idea could previously have been formed. But in regard to size, as in most other things, we appear at one time to have run from one extreme into another; and from being too small, our ships, and those of the Americans, became too large and unwieldy. And, speaking generally, they are now being built of a less, though still large, and more convenient size than was customary a few years ago.

Even the *Great Republic*, built in New York about 15 years ago, though not one quarter the size of our *Great Eastern*, was found to be much too large for the ordinary purposes of commerce, and the sailing vessels of the United States of America seldom now exceed 1,200 tons register. But while we have been moving onwards with astonishing rapidity, the merchant navy of that country, which at one time bade fair to exceed our own, is now very little more than half of what it

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was in 1860. This remarkable decline, though in the first instance caused by the lamentable civil war which broke out in that year, is in a very great measure to be attributed to the high tariffs which have recently been imposed upon almost every article required for ship-building purposes; and unless the United States revert to a policy of free trade, they can never again hope to rival this country in its maritime commerce.

Iron ships are also, as previously stated, and exhibited in Table IX., very extensively constructed; and ships are now frequently fitted out with screws and steam engines to be used only as a subsidiary power in calms, and against contrary winds.

Most sorts of short passage traffic are now carried on by steamers; and it is probable that in the end they will engross the greater part of the coasting trade of most countries and of the trade between foreign countries adjacent to each other. But it is believed by many good judges, that the improved class of sailing ships have little to fear from the competition of steamers in all the more distant branches of trade. This, however, would appear to be very doubtful.

Statements of Shipowners.—It will not excite the reader's surprise to be told that a great many crude projects have been put forward in the view of removing the distress to which shipowners have been periodically subjected. But it must be left to time and to the efforts of the parties concerned to set it to rights. It would be much worse than useless to attempt to improve their situation by engaging in retaliatory proceedings against Spain and those countries that lay discriminating duties on articles conveyed to them in foreign ships. Such proceedings would seriously injure ourselves without having any favourable influence over the foreigner. Certainly he will not abandon the protective system because we complain of its operation, though that might very probably tempt him to extend it still further. But there can be little doubt that he will eventually renounce it, when he sees that our commerce and shipping, despite the temporary checks to which all departments of industry are necessarily liable, have vastly increased under a free and liberal system.

Besides their reasonings in favour of coercive measures, it has been the habit of shipowners to put forth statements intended to show that shippers only profit by a fall in the rate of freight, and that its reduction redounds in no degree to the advantage of the consumers. Suppose, to illustrate this extraordinary statement, that the freight of the barrel of flour from New York to Liverpool generally amounts to 8*s.* or 10*s.*, but that it falls, from some cause or other, to 1*s.*: the shipowners contend that the exporter will pocket the whole of the difference (9*s.* or 7*s.*) between the high and the low rate of freight, and that the British public will in no wise profit by the fall. And such would be the case for the moment; but it is not possible that the exporter should continue to enjoy an advantage of this sort for any length of time: for the fall of freight, by adding so much (9*s.* or 7*s.* per barrel) to the profits of the shippers of flour, would give such a stimulus to its exportation, and create so much competition in the trade, that its price would forthwith fall in England. And there can be no manner of doubt that it would continue to fall till the New York shippers realised only the same profits that are realised by the shippers of other articles either foreign or coastwise; that is, till the price of flour has been reduced 7*s.* or 9*s.* per barrel, or freight has risen to that amount, or till the equalisation has been brought about partly in the one way and partly in the other. To suppose it should be otherwise is to suppose what is evidently contradictory and absurd. The price of articles not consumed on the spot where they are produced is made up of the cost of their production and carriage; and any reduction of the latter which is not momentary only, has precisely the same influence over the price of an article as if the expense of producing it were diminished to the same extent. One really feels ashamed to have to state what is so very obvious. It is not creditable to the shipowners that they put forth statements so palpably absurd as that now referred to. They can hardly fail, one should think, to be themselves aware of their fallacy; and they count too much upon the ignorance of others if they suppose that they will not be appreciated at their exact value.

Since the last edition of this work was published, it has afforded us no ordinary pleasure to note that our shipowners, instead of clamouring for a restoration of protection, have in most instances, and with great success, set to work to adapt their vessels to this altered position, and are now producing a class of vessels vastly superior to any we hitherto possessed, and with which we need not fear to compete with the vessels of all other nations.

France too has followed our example in free navigation; and in seeking to effect this change no one was more zealous than Mr. W. S. Lindsay, formerly M.P. for Sunderland, and himself an extensive shipowner. See his Letter to the Emperor of the French, printed as a Parliamentary Paper.

II. Classification of Ships.

To insure a ship on right principles, or in such a way that the premium shall be the fair equivalent of the risk, is no easy matter. The risk depends partly on the condition of the ship and the capacity of the master and crew; partly on the nature of the cargo she has to take on board; and partly on the voyage she has to perform. The last two circumstances disclose themselves, and their influence may be appreciated, at least with sufficient accuracy for practical purposes, without any difficulty; but it is far otherwise with the condition of the ship, and the capacity of the master and crew. It is essential to the adjusting of an insurance on fair terms, that these should be known; and it is, at the same time, exceedingly difficult to acquire any accurate information with respect to them.

It is plain that there is but one mode in which anything satisfactory can be learned with respect to the condition of ships, and that is, by their inspection and examination by persons of competent information as to such matters. To acquire a just character at first, a ship should be repeatedly surveyed while she is being built; and to learn her condition at any subsequent period, some of the planks should be taken off, and her hull and rigging subjected to a thorough examination. This is the only method to be followed if we wish to arrive at results that may be safely depended on. The *age* of a ship should not be overlooked in estimating her condition; but it is a criterion that, taken by itself, is worth scarcely anything. There is the greatest possible difference in the materials of which different ships are built, and in the way in which they are built, and in the wear and tear to which they are exposed. Some are so very bad, that they are almost unseaworthy on their first voyage; others, with difficulty, last for 3, 4, or 7 years; and others, again, run for 10, 15, and even 20 years, and upwards, with but little repair. It may be presumed that the con-

dition of ships built of similar materials, on the same plan, and employed in the same departments of trade, will depend materially on their ages, but a thousand circumstances conspire to defeat this presumption; and it would be ludicrous to suppose that it should apply at all in the case of ships constructed of different materials, and engaged in different lines.

But, notwithstanding the criterion of age is thus really worthless as a rule by which to judge of a ship's condition, it is almost the only one that was referred to in this country down to a late period. From about the year 1760, or perhaps earlier, down to 1834, ships were arranged, by the underwriters at Lloyd's, in classes marked by the letters A, E, I, and O, and the figures 1, 2, and 3; the former referring to the hull of the ship, and the latter to the rigging. A ship marked A 1 was in the highest class; that is, her hull and rigging were both declared to be in the best condition; ships marked E 1 were in the next class; those marked I 1 were in the lowest available class, or the class formed of such as were fit only for carrying coals, or other goods not liable to sea damage along the coast; ships marked O were unseaworthy. But to get into the highest class, no examination of the ship, or none worthy of the name, was required. Unless some very flagrant defect was obvious in their construction, all ships were entitled, when new, to be marked in the highest class; and they were entitled, whatever might be their real condition, to stand in it for a certain number of years, varying from 6 to 12, according to the *port* in which they happened to be built. It is not easy to imagine anything more absurd than such a classification; but the whole extent of the injury arising from it is not immediately obvious. The great majority of merchants and underwriters have not, and could not be expected to have, any personal knowledge of different ships, and have nothing to trust to but the classified accounts. Suppose, now, that two ships were built at the same time in London or any other port; that one was constructed of the best materials, and in the best way, while the other was constructed of the worst materials, and in the most defective manner: these two ships were placed side by side in the class A 1; the underwriters, seeing them there, were ready, without further enquiry, to insure them at the *same premium*, and the merchants were, for the same reason, quite as willing to employ the one as the other. A bounty was thus given on the construction of what have been called *slop-built* ships, or ships of an inferior class. For a half, or, at most, two-thirds, of what would be required to construct a good and really sufficient ship, a shipowner got an inferior vessel of an equal burden sent to sea; and, owing to the matchless absurdity of the system of classification, the inferior was placed in the same rank with the superior ship; enjoyed all the advantages such distinction could give; and was, in the public estimation, deemed quite as good and as deserving of employment as the other. This has been a more copious source of shipwreck than all the currents, rocks, and fogs that infest our seas; but it was not the only one. At the end of a certain number of years, depending (as already stated) on the port where the ship was built, both the vessels referred to above were degraded to the class E; and yet it might happen that the superior ship was, when so degraded, better entitled to continue in the class A than the inferior ship was ever to be in it. But even this does not exhaust the whole absurdity of this preposterous scheme; for, supposing that the superior ship had been so thoroughly repaired as to be as good as the day she came off the stocks, and that the inferior ship had got no repair at all, still they were both placed, side by side, in the class E. All the annals of all the maritime nations of the world, from the Phœnicians downwards, furnish no example of a more perverse, contradictory, and absurd regulation. That it should have existed amongst us for the greater part of a century strikingly exemplifies the power of habit to procure toleration for the most destructive practices and errors.

It may be said, perhaps, that whatever system of classification is adopted, there must be great numbers of inferior vessels; for, though we did not, foreigners would build them; and, being consequently able to sail them cheaper, would drive us totally out of all trades in which they could come fairly into competition with us. This is true; but provided they be not engaged in the conveyance of passengers, who ever thought of proscribing inferior ships, or of dictating to the shipowner what sort of ships he should build, or to the merchant what sort he should employ? We do not object to inferior ships, but we do object to the *same character* being given to them that is given to superior ships. This is practising a gross fraud upon the public, and gives an unfair and unjust advantage to the owners of inferior vessels. The interests of navigation and of humanity imperatively require that ships should be correctly classified; that those that are not seaworthy should not be classed with those that are, but that the *real state* of each should be distinctly set forth in the register, and be made known to everyone. If this be done, the merchant and the underwriter may be safely left to deal with them as they think fit.

In consequence of the laudable exertions of Mr. Marshall and other gentlemen, the attention of the principal merchants, shipowners, and underwriters &c. of the metropolis was some years ago directed to this subject; and in 1824 a committee, consisting of representatives from these different bodies, was appointed to enquire into and report on it. The committee collected a great deal of valuable evidence, and laid an able Report before a general meeting of merchants, shipowners &c. on June 1, 1826. We subjoin an extract from this Report, which more than bears out all that we have stated:—

'From the absence of all control on the original construction of ships while building, and the impossibility of ascertaining, by any inspection after completion, their real quality, it appears to be indisputably proved, by an almost uniform concurrence of testimony, that the first character, or A 1, is indiscriminately extended to ships differing widely in strength, durability of materials, and all those qualities on which character ought to be dependent; that many ships to which the first class is assigned are decidedly inferior to others which are placed, from lapse of time alone, in a lower class; that many become totally unfit for the conveyance of dry cargoes, long before the expiration of the period during which they are entitled, according to the present system, to remain on the first letter, in which they are notwithstanding continued; that instances are on record of first-class ships which have been unfit from their origin for the conveyance of dry cargoes; and some are declared to have been hardly fit, when new, to proceed to sea with safety. One case is even adduced, in which, from ill construction and insufficiency of fastening in a new ship, her insecurity was predicted, and she actually foundered on her first voyage; and yet this identical vessel was ranked, according to the indiscriminate system pursued, in the first class.

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'Such, as respects new ships, appear by the evidence to be the practical results of a system which, assuming to designate by marks their intrinsic quality, provides no means of actually ascertaining that quality; but offers, in effect, *a premium for the building of inferior and insufficient ships*, by the inducement it holds forth to fraudulent construction and by the quality of character it indiscriminately extends to the best and the worst ships built at the same port.

'Nor, your committee regret to have to report, is the evidence of the errors, inconsistencies, and evils arising from the existing system, as applied to old ships, by any means less conclusive. By the *refusal to restore character, in consequence of repairs, however extensive*, the inducement to maintain ships in an efficient state is removed; whilst, from the absence of all regular provision for stated or periodical examination, their efficiency or inefficiency is rendered dependent upon the varying views, the caprices, or the interest of the proprietors. Hence, though the second character, or E, is declared by the rules of the system to be the designation of ships which, having lost the first character from age, are kept in perfect repair, and appear, on survey, to have no defects, and to be completely calculated to carry dry cargoes with safety, the whole body of evidence distinctly proves that character to be, in very numerous instances, assigned to ships which, from original defect or want of requisite repairs, are *utterly unfit and unsafe* for dry cargoes; while others, which, from sound constitution or efficient reparation, are pronounced in the evidence to be superior to many new ships, are indiscriminately classed with the actually worthless and unseaworthy. Hence, too, the employment of ships, after they have passed the period prescribed by a fallacious standard of classification, becomes uncertain, precarious, and difficult; the shipowner is injured; the shipper and underwriter misled; the building of superior ships, capable of long service, is discouraged, and direct inducement is held out to the construction of those of an inferior description; the general character of our mercantile marine is degraded; and it is to be feared that, could the system be traced to its ultimate results, it would be found to be productive of a lamentable loss of property and life.'

It may have seemed surprising that, despite the continued complaints of the lowness of freights, and the want of employment for shipping, so many new ships *should* be annually built. But this was, to a considerable extent at least, occasioned by the system of classification now described. Instead of building a really good and durable ship, the principal object used to be to construct one that should, at furthest, be, as the phrase is, *run off her legs* in about 10 years or thereby; inasmuch as, whatever might be a ship's condition, she was then degraded from class A 1, and it was hardly possible, in most departments of trade, to find a merchant to employ, on anything like reasonable terms, a ship to which these symbols of imaginary excellence were not attached. Hence, the shipowner, instead of repairing his 10-years old ship, sold her for what she would fetch, and built a new one. But the person who purchased the ship degraded to E 1, forced her, though at an enormous reduction, into business; so that there were two bad or inferior ships in the field; whereas, under a reasonable system of classification, there would most likely have been only one good ship. The injury that this practice did to the shipping interest is too obvious to require to be pointed out. It has been infinitely more hostile to it than all those reciprocity treaties, and that foreign competition, about which there has been so much unfounded clamour. 'If the system of classification were founded on the principle of *intrinsic merit*, if the real efficiency of the ship formed the basis on which character was given, the consequence, in numerous instances, would be, that, instead of supplying the place of those ships that at present lapse from age only into the second class with new ones, the owners would effectually repair the existing ships; so that there would speedily be not only a material improvement in the construction of ships, but a material increase in the amount of tonnage, and a corresponding increase in the rate of freight.' (Marshall's *Statements*, p. 19.)

The conclusive Report and exposition referred to above did not produce the consequences that might have been anticipated. Government, for reasons known only to itself, but which appear to have been of a very questionable description, seems to have concluded that this was not a subject with which it should interfere: and it was laid aside for some years more. But the still increasing amount of shipwreck, and the loss of life and property consequent thereon, again roused the public attention to the subject; and at length the principal merchants, shipowners, and underwriters succeeded in setting on foot machinery by which a classified account of shipping has been obtained, founded on more correct principles. The public owe much to the individuals who imposed on themselves this difficult and important task. Notwithstanding the obstacles with which they had to contend, they have done a great deal to improve the character of our mercantile marine, and to lessen the disasters incident to a seafaring life.

2. *New System of Classification.* — This new classification is conducted under the direction and superintendence of a committee of merchants, shipowners, and underwriters, established in 1834. Many objections were frequently made to the manner in which this committee was chosen; and in the last edition we expressed an opinion that its composition might be improved, and that consequently it might be made to enjoy a larger share of the public confidence; but important changes have since then been made in the management of its affairs. It establishes rules for classifying ships, and appoints, controls, and dismisses the surveyors by whom they are inspected and examined. It is plain, therefore, that the power which it exercises over shipping is very considerable, and that it is of the greatest importance that it should be placed on sound principles, and exercised with the greatest discretion. A classified register is annually published, which should become more and more complete; and the expenses attending the institution are defrayed, partly by the fees charged on making an entry in the register, partly by the profits on the sale of the register or book, and partly from voluntary sources. But, as the subject is of much importance to everyone interested in commerce and navigation, we think we shall do an acceptable service to our readers by laying before them the statement prefixed by the society to their register. It fully explains their objects, the principles on which they proceed, and the means they profess to adopt for carrying their views into effect.

Classification of Ships: Rules and Regulations for, in 1868.

After announcing the formation of the society, the official statement goes on to say, that—

8. The superintendence of the affairs of the society is to be under the direction of a committee

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of merchants, shipowners, and underwriters: twenty-four elected in London, and eleven at the principal outports. The chairman for managing the affairs of Lloyd's, and the chairman of the General Shipowners' Society, London; also the chairman and deputy-chairman of the Liverpool committee, and the chairman of the Liverpool classification committees for the time being, to be, ex officio, members of the committee.

9. Six of the members elected in London, namely, two of each of the constituent parts of the committee, to go out annually by rotation, but to be eligible to be re-elected. The vacancies so arising to be filled up by the election of two underwriters and one merchant by the committee for managing the affairs of Lloyd's, and two shipowners and one merchant by the committee of the General Shipowners' Society.

10. The members elected at the outports to retire at the end of every *four* years, but to be eligible for re-election.

11. The committee to appoint from their own body, annually, a chairman and deputy-chairman, and also a chairman for a sub-committee of classification.

12. The committee to appoint a sub-committee of classification, to be so regulated that each member of the general committee may, in rotation, take his turn of duty therein throughout the year.

13. The secretary, clerks, and servants of the society, and the surveyors, to be appointed by and be under the direction of the general committee.

14. Special meetings to be convened by order of the chairman, or deputy-chairman, or on the requisition of any three members.

15. All elections and appointments to be made by ballot.

16. No member of the committee to be permitted to be present on the decision of the classification of any ship of which he is the owner, or wherein he is directly or indirectly interested.

17. The committee to be empowered to make such by-laws for their own government and proceedings as they may deem requisite, not being inconsistent with the original rules and regulations under which the society was established; but no new rule or by-law to be introduced, nor any rule or by-law altered, without special notice being given for that purpose at the meeting of the committee next preceding that at which such motion is intended to be made; such notice to be inserted in the summons convening the meeting. No new rule, or alteration in any existing rule, materially affecting the classification of ships, to take effect until the expiration of six months from the time it shall have been determined upon.

18. All reports of survey to be made in writing by the surveyors according to the forms prescribed, and submitted for the consideration of the general committee, or of the sub-committees of classification; but the character assigned by the latter to be subject to confirmation by the general committee.

19. The reports of the surveyors, and all documents and proceedings relating to the classification of ships, to be carefully preserved, and parties proving themselves to be interested therein to have access to the same under the direction of the chairman or deputy-chairman.

Copies of the original reports (if the ships be already classed, but not otherwise), so far as relates to the dimensions, scantlings, fastenings, and materials, in cases where the correctness of the reports in these particulars is certified by the builders, are granted on application.

20. Foreign ships and ships built in the British possessions abroad where there is not a surveyor (see also sec. 51), to be surveyed on their arrival at a port in the United Kingdom; but a due regard is to be had to the circumstance of their having been exempted from the supervision while building to which all British ships are subjected, and the character to be assigned to them is to be regulated according to their intrinsic quality, and from the best information the committee can obtain.

21. In every case in which the character assigned to a ship may be proposed, on survey, to be reduced, notice is to be given in writing to the owner, master, or agent, with an intimation that if the reduction be objected to, the committee will be ready to direct a special survey, on the owner, master, or agent agreeing to pay the expenses attending the same, provided on the said survey there shall appear sufficient ground for the proposed reduction.

22. When the surveyors consider repairs to be requisite, they are respectfully to communicate the same in writing to the owner, master, or agent; and if such repairs be not entered upon within a reasonable time, a corresponding report is to be made to the committee for their decision thereon.

23. Parties considering the repairs suggested by the surveyor to be unnecessary or unreasonable may appeal to the committee, who will direct a special survey to be held; but should the opinion of the surveyor be confirmed by the committee, then the expense of such special survey is to be paid by the party appealing.

24. The surveyors to the society not to be permitted (without the especial sanction of the committee) to receive any fee, gratuity, or reward whatsoever for their own use or benefit, for any service performed by them in their capacity of surveyors to this society, on pain of immediate dismissal.

25. The surveyors will be directed to attend on special surveys of ships while building or under damage or repair, when required by merchants, shipowners, or underwriters; the charge for which is to be regulated according to the nature and extent of the service performed. In all cases the application for the assistance of the surveyors must be made in writing addressed to the secretary.

26. The funds to be under the authority and control of the committee, and a statement of the receipts and expenditure to be annually printed for the information of the subscribers.

27. The following fees to be charged to the owners of ships prior to their vessels being classed and registered in the book:—

For Entering and Classing Ships, and for Entering and Classing Ships surveyed for Continuation, or the Character A in red, or required for Restoration.

For each ship under	100 tons	£1	0	0
of 100 tons and under	200 ,,	2	0	0
200 ,,	300 ,,	3	0	0
300 ,,	400 ,,	4	0	0
400 ,, and upwards		5	0	0

For Registering Repairs.

For each ship under	500 tons	£0	10	0
of 500 tons and under	500 ,,	1	0	0
500 ,,	1,000 ,,	2	0	0
1,000 ,, and upwards		3	0	0

For Re-classing Ships (except when repaired) the Characters of which have been expunged, or Change of Owners.

For each ship under 200 tons	£0	10	0
of ,, and above	1	0	0

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Special Surveys.

28. For ships built under the special superintendence of the surveyors (to entitle them to the distinctive mark ✠), 1s. per ton.

For surveys for damage, or for other surveys, held at the request of the owners, and for the survey of ships for restoration, continuation, or the character A in red, a charge (in addition to the fee for entry) will be made, according to the nature and extent of the service performed.

In cases where the caulking of ships is superintended and tested by the surveyors, a special charge will be made, according to the tonnage of the ship. All repairs which may be required on the surveys above referred to must be performed under the superintendence of the society's surveyors.

29. Certificates of character, of the form No. 7, signed by the chairman of the general committee, or by the chairman of the sub-committee of classification, and countersigned by the secretary, will be granted on application, the charge for which will be as follows:—

For ships under 200 tons - - -	£0	2	6
of 200 ,, and above -	0	5	0
Copies of original reports, as per sec. 19 -	1	1	0

31. *Characters.*—The characters to be assigned to ships to be, as nearly as possible, a correct indication of their real and intrinsic qualities—(ships which are not built in accordance with the principles of the society's rules will be marked in the register book thus '[*Expl. B. S.*]' denoting that they are built experimentally, and are classed subject to being surveyed biennially)—and to be in all cases fixed (not by the surveyors, but) by the committee, after due consideration of the reports of the surveyors and such other documents as may be submitted to them, and will be distinguished as follows:—

Ships A to consist of new ships, or ships continued, or restored. (Secs. 34, 54, 55, 57.)

Ships A in red to consist of ships which have passed the period assigned on the original survey, or continuance, or restoration; and also of ships not having had an original character, and which are found on survey of superior description, fit for the conveyance of dry and perishable goods *to and from all parts of the world.* (Sec. 60.)

Ships Æ to consist of ships which are found on survey fit for the safe conveyance of dry and perishable goods on *shorter voyages.* (Sec. 61.)

Ships E will comprise ships which shall be found on survey fit for the conveyance of cargoes not in their nature subject to *sea damage on any voyage.* (Sec. 64.)

Ships I to consist of ships fit to carry cargoes, not liable to sea damage *on shorter voyages.* (Sec. 66.)

32. In flush-decked vessels having either one, two, or three decks (not being spar or awning decked), the tonnage under the upper deck, *without abatement of the tonnage of the space for the crew, or for the propelling power of steam vessels,* is to regulate all the scantlings of the hull, and also the equipment of the vessel.

In vessels having a *raised quarter deck,* or a poop, or top-gallant forecastle, or deck houses, or awning deck, or spar deck, the total tonnage below the tonnage deck is to regulate the scantlings of the hull; but the register tonnage, as cut on the main beam of sailing vessels and of steam vessels, *with the addition of the tonnage of the space required for propelling power,* is to regulate the equipment, and also, in iron or composite vessels, the size of the main piece of rudder and windlass, and the keel and keelsons and their number, and the scantling of the stringer plates on the upper and lower deck beams, and the requirements as to double riveting.

But in vessels where the tonnage of the erections above the tonnage deck is less than that required for crew space, *then* the *difference* between the tonnage of these erections and the tonnage of the space allowed for crew is to be *added* to the register tonnage, cut on the main beam, for the tonnage that is to regulate the equipment and the size of the main piece of rudder and windlass, and the keel and keelsons and their number, the scantling of the stringer plates on the upper and lower deck beams, and the requirements for double riveting.

Rules for Classification.

33. *Ships A* will consist of new ships and those which have not passed a prescribed age, provided they are kept in a state of complete repair and efficiency. The character A will not, however, be granted to any vessel unless satisfactory evidence of the date and build and place where built is produced.

34. The number of years to be assigned for this character to be determined with reference to the original construction and quality of the vessels, the materials employed, and the mode of building; and their continuance for the time so assigned to depend upon its being shown by occasional surveys (annually, if practicable) that their efficiency is duly maintained.

The characters of ships classed A will be struck out of the register book unless they be submitted to the following intermediate survey, within periods not exceeding *four* years in the case of vessels *classed eight years and under,* either originally, or on restoration, or on continuation, and within periods *not exceeding half that assigned* in vessels classed for longer terms.

This regulation is applicable also to ships classed A in red.

The survey will be noted in the register book thus—'H. T.' (half-time), with the date of the survey affixed.

Half-time or intermediate survey.—The ship to be placed on blocks in dry dock, or on ways, so that the keel and bottom may be seen and properly examined (unless she has been thus surveyed by the society's officers within the previous twelve months); the hold to be cleared, and proper stages made both inside and outside; the limbers and all air courses to be cleared; and if the ship has not already got the air courses, described in rule, sec. 37, they are now to be made; the outside planking to be scraped bright where the surveyors may consider it to be necessary from any apparent defect; bolts of lower deck (if of iron) in number not less than six on each side, and treenails in number not less than twelve on each side, to be driven out at various parts of the ship. The attention of the surveyors is to be then particularly directed to the state of the upper or main deck and comings, the upper and lower deck bolts, *whether of iron or copper,* and the outside planks through which they pass, and to all other parts of the ship, so *far* as they can be examined; the windlass to be unhung and wood lining stripped; the condition of the caulking is also to be ascertained. The cables to be removed from the lockers and ranged, and, with the anchors and general equipment, examined so as to be satisfactorily reported upon.

35. New ships are to be surveyed while building, by the surveyors to this society, in the following three stages of their progress, or they will be liable to lose one year of the period to which they

might otherwise be entitled. (Sec. 53.) Ships intended to be built under *special survey*, must be placed under the surveyor's inspection from their commencement, so that all parts of the timbers, deadwood, keel, stem &c. may be examined.

First.—When the frame is completed, timbers dubbed fair inside and outside ready to receive planking, and before any planking is wrought.

Second.—When the beams are put in, but before the decks are laid, and with at least two strakes of the plank of the ceiling between the lower deck and the bilge unwrought, to admit of an examination of the inner surface of the plank of the bottom.

Third.—When completed, and before the plank be painted or payed.

All ships for which a higher character than 10 years' A may be claimed, must be surveyed by an exclusive officer of the society, twice at least while building; namely, at the first and at the second stages of their progress as above prescribed. Due notice must be given by the builder or owner of their being ready for this additional survey.

36. A full statement, agreeably to Form No. 4, of the dimensions, scantlings &c. of all new ships, verified by the builder, is to be transmitted by the surveyor, and to be kept as a record in the office of the society.

Rules to be observed in building Ships.

37. The whole of the timber is to be of good quality and properly seasoned, of the descriptions shown in Table A, as applicable to the several terms of years for which ships may respectively be appointed to remain on the character A. The workmanship to be well executed, and equally so for all grades. Defects in workmanship or quality of timber will involve a reduction of class, to be determined by the committee in each case.

In ships claiming to stand 12 years from their timber materials, the stem, sternpost, beams, transoms, apron, knightheads, and keelsons are to be entirely free from sap and from all defects. The rest of the frame to be well squared and free from sap; each set of timbers to be frame-bolted together throughout their entire length; the butts of the timbers to be close, and not to be less than $\frac{1}{3}$ of the entire moulding at that place; and in cases where the heads and heels of the timbers which come together are square, a dowel (to be of the diameter from $\frac{1}{4}$ to $\frac{1}{3}$ of the moulding of the timber) must be introduced into the ends of such timbers in order to connect them.

All ships building for classification to be well cross chocked with a proper butt at each end of the chock, each arm not to be less in length than once and a half the moulding of the timbers they connect; in all cases the chocks are to be of a description of wood equal to the best material required by the rules for the timbers which they unite, excepting the floorhead chocks, which may be of the materials allowed by the rules for first foothocks. Where the timbers are scarphed, the scarfs to be of proper length and with a butt at each end.

In all ships an air course must be left all fore and aft, below each set of clamps, or between the clamps and spirketting of each tier of beams, and in the hold, at each end of the ship, between the keelson and hold beam clamp, to have in addition 1 or 2 tiers of air courses for $\frac{1}{4}$ of the entire length of the ship.

In the construction of top-gallant forecastles and poops, the timbers must be of the same materials as are required by the society's Table A for the top-timbers of the frames of ships according to the several terms of years appointed for such ships to remain on the character A, all the said timbers to extend to the plankshеer. All the outside planking of top-gallant forecastles, and the sheerstrakes, plankshеers, and spirketting of top-gallant forecastles and poops, must be of the materials required by Table A for the topsides of the said ship; and the shelf and clamps of poops and top-gallant forecastles may be of the same quality as those allowed in Table A for the shelf and clamp of the upper deck. All the beams of top-gallant forecastles, and the mast beams, breast beams, and transom beams of poops, to be of the materials required by Table A for the beams of the said ships; the remainder of the beams and the water-way of the poops, and the remainder of the planking of poops and top-gallant forecastles, may be of cedar, mahogany, Baltic, or American red pine, pitch pine, larch, hackmatack, tamarac, or cowdie, and rock-elm for such remainder of beams only, and yellow pine or American white spruce in ships below the seven years' grade. This rule does not apply to raised quarter-decks, the materials of which are required to be of the same quality as those named in Table A for the main body of the ship.

38. The scantlings of the timbers, keelson and keel, thickness of planking &c. are not to be less than those shown in the society's Table B.

In the inside and outside planking, waterways, plankshеers, and flat of deck of raised quarter decks, a reduction of $\frac{1}{8}$ from the thickness required by the society's Table B for such parts in the range of the upper deck in ships with two decks will be allowed.

In the inside and outside planking, waterways, plankshеers, and flat of deck of full poops and top-gallant forecastles, a reduction of $\frac{1}{8}$ from the thickness required by the Table B for such planks in the range of the upper deck in ships with two decks will be allowed; and in the siding and moulding of the top timbers and beams of full poops and top-gallant forecastles, a reduction of $\frac{1}{8}$ will be allowed. Parties desirous of making any alteration in the construction of poops, with a view to diminishing the weight (but preserving the requisite strength), may submit their plans for the committee's consideration and approval. The united lengths of poop and forecastle are not to exceed $\frac{3}{5}$ of the entire length of the upper deck. (Sec. 41.)

In vessels having three decks or tiers of beams, where the space under the upper deck is to be used only for the accommodation of crew and passengers, or to enclose the engine openings of steam vessels, the scantlings are to be regulated as per section 32. The total depth of hold in spar-decked ships must not exceed $\frac{13}{16}$ nor be less than $\frac{12}{16}$ of the ship's extreme breadth.

In the construction of spar decks, the timbers must be of the same materials as are required by Table A for the top timbers of the frames of ships according to the several terms of years appointed for such ships to remain on the character A. If *all* the said timbers extend to the plankshеer, their siding and moulding may be reduced $\frac{1}{4}$ at their heads; but if only the *alternate* timbers run up to the top height, then a reduction of $\frac{1}{4}$ only will be allowed in their moulding at their heads, and in that case there must be a perfect covering board worked all round the ship at the middle deck; and in all cases the middle deck must be a perfect deck laid and caulked. All the outside planking, and the sheerstrakes, plankshеers, and spirketting must be of the materials required by Table A for the topsides of the said ship; and the shelf and clamp may be of

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the same quality as those allowed in Table A for the shelf and clamp of the middle deck. All the beams before the foremast, and the mast beams, hatch beams, and transom beam, must be of the materials required by Table A for the beams of the said ships; and the remainder of the beams and the water-way of spar deck, and the remainder of the planking, may be of red cedar, mahogany, Baltic, or American red pine, pitch pine, larch, hackmatack, tamarac, or cowdie; and in ships below the 7 years' grade, the same may be of yellow pine, American white spruce, or white cedar.

In spar decks there may be a diminution of $\frac{1}{4}$ from the dimensions, fastenings, and bolts prescribed in the tables for the upper deck of ships with two decks (except in the siding of the spar deck beams); but if the outside planking be of 12 years' wood, then a reduction of $\frac{1}{3}$ may be made in the thickness from that prescribed in Table B for the main sheerstrakes of such vessels.

Deckhouses or other erections are allowed on spar decks, but only to the extent of $\frac{1}{10}$ of the total superficial area of the spar deck, and are not to exceed 7 feet in height. They are not to be placed nearer to either of the ends than $\frac{1}{5}$ of the entire length of the vessel.

Vessels to which this rule applies, as regards an entire spar deck, will be noted in the register book thus—'*Spar decked.*'

39. The intermediate dimensions for the scantling of timbers between the floor heads and the gunwale to be regulated in proportion to the distance from the two points. Should the timber and space be increased, the siding of the timbers to be increased in proportion. Whenever ships are built with double floors, thick strakes (Table B) must be worked inside, to extend from the lower part of the short floor-head chocks to the upper part of the long floor-head chocks, and be well bolted through and clenched, with one bolt at the head of each long and short arm of floors, and at the heel of each first and second foothook which come upon them, from the foremast extending a distance aft equal to three-fifths of the length of the ship: in such cases, the limber strakes need not be through bolted.

Ships of Great Length in proportion to their Breadth or Depth.—All ships, the length of which (measured from the fore part of the stem to the after part of the stern-post on the range of upper deck) shall exceed 5 times their extreme breadth, or 8 times and under 9 times their depth, shall have diagonal iron plates closely inserted *outside* the frame. Parties objecting to fit the iron plates on frames as prescribed above, are at liberty to submit, through the resident surveyor, for the committee's consideration and approval, such compensation as will, in their opinion, render the introduction of the iron plates unnecessary. The said plates to extend from the upper side of upper tier of beams to the lower part of chocks at first foothook heads amidship and to the same perpendicular height forward and aft, measured from the lower part of the keel. When ships are constructed with long and short armed floors, the said plates are to extend to half-way between long floor heads and first foothook heads; the sizes of the plates not to be less than as follows, viz.:—

In ships of 100 tons and under 200 tons	-	-	3½	by	$\frac{7}{16}$	in.
200	„	400	„	-	-	4	„	in.
400	„	700	„	-	-	4½	„	$\frac{1}{2}$ in.
700	„	1,000	„	-	-	5	„	$\frac{1}{2}$ in.
1,000	„	1,500	„	-	-	5½	„	$\frac{9}{16}$ in.
1,500	„	2,000	„	-	-	6	„	$\frac{5}{8}$ in.
2,000 and above				-	-	6½	„	$\frac{5}{8}$ in.

and to be fastened with bolts, one at each end alternate timber, not less in diameter than the sizes given for *through butt bolts* in the society's Table D. The plates to be well protected by proper coating, likewise the timbers to be coated in the scores which are to receive the said plates.

The number of plates to be in proportion of not less than one pair to every 12 feet of the ship's entire length taken as above, but not to be more than 8 feet asunder measured on a square; the said plates are to be placed diagonally, at an angle of not less than 45 degrees, their lower ends pointing to the after end of the keel in the after body, and to the fore end of the keel in the fore body, four pairs crossing each other amidships.

All such ships to have shelves and waterways to each tier of beams, each equal in contents to the transverse sectional area of the beams of their respective decks at their ends; each of the said shelves and waterways to be bolted through the outside planking at every timber, with bolts of the sizes given in Table D; likewise the shifts of inside and outside planking not to be less than 6 feet, unless there be a strake wrought between them, and then a distance of 5 feet will be allowed.

In ships the length of which shall exceed six times their extreme breadth, or nine times and under ten times their depth, the number of plates must be not less than one pair to every 10 feet of the ship's entire length taken as above, but not to be more than 6 feet asunder measured on a square, and to be placed diagonally as above described. In cases where the length of the ship exceeds ten times the depth, the builders or owners are to submit, through the resident surveyor, for the committee's approval, their plans for giving the vessel the necessary strength longitudinally. And in addition to the requirements for ships of five times their breadth in length, such ships must be fitted with a rider keelson, or a pair of sister keelsons, at the option of the owner, the transverse sectional area of such rider keelson or sister keelsons each to be equal to $\frac{2}{3}$ of that required in Table B for main keelsons. If a rider keelson be adopted, it is to be fastened with a through bolt (of the size required in Table D for keelson bolts) in every frame; or if the owner prefers it, every intermediate bolt may be short, passing only through the main and rider keelsons. In all cases in which a rider keelson is fitted, it must be fastened as prescribed above, irrespective of the relative dimensions of the ship. If sister keelsons be fitted, they must be fastened with through bolts, in number not less than one in every alternate timber, and of the size required in Table D for *scarphs of keels* &c.

40. The sizes of the deck and hold beams have been regulated so as to be determined by the length of the beams amidships, as shown in Table C. The beams will be required to be of the size of the midship beam, except those at the after end of the ship, which may be reduced in proportion to their length. If beams of spruce or yellow pine are used, the siding at such beams shall be $\frac{1}{8}$ larger than is prescribed by the above Table, or be increased each way, siding and moulding, equal in area to that amount.

In cases where iron beams are fitted in wood ships, the beams of each deck are to be $\frac{1}{8}$ of an inch thicker than is required by the rules for ships built of iron, in consideration of the greater space between; and the depth of lower deck or hold beams is to be increased one inch. The spaces between beams of the several decks not to exceed the spaces at present allowed for wood ships, as per rule, sec. 41. Each tier of beams must have stringer plates riveted on their

ends, and tie-plates fore and aft, on each side of the hatchways, in accordance with the rules for iron ships, sec. 15, and to be of the dimensions required in Table G, or of strength equal thereto. Parties are to submit, through the resident surveyor, their plans for attaching iron beams to the ship's sides, for the committee's approval.

41. The beams of all decks to be in number and size as hereinafter specified, and be securely fastened to the sides either with lodging-knees of iron or wood, or with a shelf-piece and waterways, or with a shelf-piece and knees, or with some other security equal thereto; and, in addition, all ships of 150 tons and above to have vertical knees to the deck beams; and those of 200 tons and above to have vertical knees to the hold beams, in number as shown in Table E. When the transverse sectional area of the shelf-pieces and waterways are each equal in contents to the transverse sectional area of the beams of their respective decks at their ends as given in Table C, and the beams are either dowelled or dovetailed to their shelf-pieces and waterways, and the shelves and waterways are properly shifted, scarphed, and through bolted, having also a hanging knee to the lower side of every beam end, then lodging-knees may be dispensed with, except in the mast-rooms. In ships of 500 tons and under, where lodging-knees properly bolted are applied, the ordinary plank-clamps may be used, but the through bolting of them at alternate timbers, as per Table B, cannot be dispensed with. In vessels of 13 feet, and under 15 feet hold, the spacing of the hold beams not to exceed 8 feet apart, and the deck beams 4 feet: in vessels of 15 feet and under 18 feet hold, the spacing not to exceed 8 feet and 4 feet apart alternately, or in that proportion; the deck beams to be placed one over every hold beam, and one in all double spaces: in vessels of 18 feet hold and above, the spacing of the beams not to exceed 4 feet 6 inches; the deck beams to be one over every hold beam. The depth in all such cases to be determined by taking the measure from the top of the limber-strake (the thickness of which, for measurement, to be taken as prescribed in Table B) to the top of the upper deck beams. Ships having a depth of hold, measured from the limber-strake to the under side of the lower deck beam, above 13 feet but not exceeding 15 feet, must be secured with iron riders of the sizes, and be fastened, as shown in Table F, and in number not less than one on every fourth floor, on each side, from fore side of fore-mast to aft side of mizen-mast, to extend from the lower deck beams downwards, so as to receive not less than two bolts in a substantial part of the floors; or by orlop beams, sufficient in number and properly secured. All ships having two decks (viz. upper and lower deck), and exceeding 24 feet in depth from the top of the limber-strake to the top of the upper deck beams, or having three decks (viz. upper, middle, and lower deck), and exceeding 24 feet in depth from the under side of the middle deck, to have orlop beams, the number to be in no case less than one-half the number of lower deck beams in the space between the foremast and the mizen-mast, except in the case of flush-deck ships, when a depth of 25 feet will be allowed, provided in either case the lower hold does not exceed 15 feet, measured as above from the limber-strakes to the under side of the lower deck beam. Should a house be constructed on a flush-deck ship for lodging crew or for store-room, the same not to extend aft beyond 10 feet from the mizen-mast. The application of this rule to British North American built ships and fir ships will not exempt them from the full operation of the rule, sec. 62. All dimensions, fastenings, and bolts of the middle deck in vessels having three decks (viz. upper, middle, and lower deck) to be the same as those described in the Tables for the upper deck of ships having only two decks; and a reduction of $\frac{1}{8}$ from the dimensions, fastenings, and bolts prescribed in the Tables, for the upper deck of vessels having only two (viz. upper and lower deck), will be allowed in the third or upper deck, by some called a spar deck. The middle deck to be a perfect deck laid and caulked. The united lengths of poop and forecastle not to exceed $\frac{1}{3}$ of the entire length of the upper deck (sec. 38). All timbers of the frame including poop and forecastle to extend to the extreme height. Every ship exceeding 150 tons to have at least one crutch for the security of the keels of the after-timber of the frame; one pair of pointers in addition to a knee at each end of the wing transom to connect the stern frame with the after-body of the ship; and a transom over the keels of the stern timbers properly kneed. The heels of the cant timbers forward and aft to be stepped into the deadwood and bolted through.

42. Shifts of timber in ships of 200 tons and upwards, to be not less than $\frac{1}{3}$ of the main breadth; and in ships under 200 tons, to be not less than $\frac{1}{4}$ of the main breadth.

Plank.—43. The outside planking to be of good quality, of the description prescribed in Table A, to be clear of sap and free from all defects.

44. The inside planking to be of the description shown in Table A, and free from all foxy, druxy, or decayed knots. With regard to the ceiling plank, and the efficiency of its fastening, it will be required that the planking shall be properly shifted and fastened, so that there shall be at least either treenails or through bolts, or short bolts, in each plank of the ceiling in every timber.

45. No butts to be nearer than 5 feet to each other (sec. 39), unless there be a strake wrought between them, and then a distance of 4 feet will be allowed; and no butts to be on the same timber, unless there be three strakes between, as more particularly shown in the diagram annexed (see Plate), but vessels under 200 tons will be exempted from the full operation of this rule: and in ships of larger tonnage a literal compliance with it will be dispensed with in cases wherein it may be satisfactorily proved that the departure from the rule is only partial, being confined to the ends of the ship, or the planking of the topside, and does not injuriously affect the ship's general strength; but such relaxation will not be sanctioned unless an accurate description of the shifting of the plank be transmitted by the surveyors, to enable the committee to form a proper judgment on the case.

The thickness of the plank, according to the tonnage of the ship, is not in in any instance to be less than is prescribed in Table B.

The breadth of the wales in every case is to be regulated as under, viz.:—

When the extreme length of the ship, measured from the fore-part of the stem to the after-part of the stern-post on the range of upper deck, is six times her depth of hold (and under), the wales are to be in breadth 3 inches to every foot of the depth of hold.

When the extreme length of the ship is eight times her depth of hold, the wales are to be in breadth $3\frac{1}{2}$ inches to every foot of the depth of hold.

When the extreme length of the ship is ten times her depth of hold (and above), the wales are

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to be in breadth 4 inches to every foot of the depth of hold.

And other intermediate dimensions in these proportions.

Fastenings.—46. Treenails to be of good quality, and of a description equal to the best material through which they pass: if, however, in ships built in the British North American colonies, or of fir treenails be used of materials not inferior to those comprised in line No. 2 in Table A, including locust and all Australian and tropical hard woods of durable quality, and beech in the bottom not higher than floor heads, a notation of '*Hard Wood Treenails*' will be inserted against the ship's name in the register book. The treenails are to be straight and circular, being either engine-turned, compressed, or planed, not grain-cut or knotty, and must be free from sap and tightly driven, and in all cases the treenails are to be efficiently caulked or wedged outside. In all cases in which planks above 11 inches in width shall be used, they must be double fastened; and those above 8 inches in width must be treenailed double and single, except bolts intervene; and if less than that width, then to be treenailed single. Not less than ⅔ of the treenails are to be driven through the inside planking, clamps &c. Every butt in each outside plank to be fastened with two bolts, one of which may be in the adjoining timber, and one to be through and clenched. Where thick garboard strakes are used, they must be bolted horizontally through the keel and each other. The bilges to be secured with bolts so placed that from the foremast, extending a distance aft equal to ⅓ of the length of the keel, there shall, in ships under 300 tons, be at least one bolt through and clenched in each first foothook; and that in ships of 300 tons and upwards there shall be at least 2 bolts through and clenched for each set of timbers in one or other of the thick bilge strakes. All the bolts of the knees, breasthooks, crutches, riders, transoms, pointers, and keelsons, shelf pieces, waterways, heels of timber against fore and after deadwood, and of all other material fastenings, are to be driven through and clenched on rings of the same metal as the bolts. The up and down bolts in the knees to beams are not required to be through the deck, but whether clenched upon the beams, or upon the deck, they must be clenched on rings of the same metal as the bolts. The 2 bolts, the nearest to the crowns of the pintles and braces of the rudder, are also to be through and clenched, those through the braces to be in the main piece of stern post. The limber-strakes to be bolted down to the floors, and one bolt in every floor, on each side, to be through and clenched. Watercourses are to be properly formed at underside of all floors and foothooks at the limbers on each side of middle line, so as to allow water to reach the pumps freely. When the heels of the first foothooks meet at the middle line on the keel under the keelson (either with full moulding or with butted chocks) the through bolting of the limber-strakes may be dispensed with.

An additional year will be allowed to all ships of the A character, if fastened externally with treenails, and with copper or yellow metal bolts and dumps, to the exclusion of iron, from the lower part of keel up to the height of ⅓ of the depth of hold, below the upper side of the upper deck, in one, or two, or three-decked ships (not being spar-decked ships), and below upper side of the main or tonnage-deck in spar-decked ships, above which all fastenings of every description outside, and the whole of the inside fastenings must be properly galvanised, except the frame bolts, and the bolts in iron straps on timbers, otherwise admitted of iron.

And two years will be added to the A character if, in lieu of treenails above the floor heads, the whole of the planking is fastened with bolts of copper, or yellow metal, to the above-named height, and above such height with properly galvanised iron bolts. All inside fastenings hitherto admitted of iron, including all frame bolts, and bolts in iron straps on timbers, or between two thicknesses of outside planking, must also be properly galvanised.

In all cases of ships claiming extra time on the A character, the chain and preventer bolts are to be of properly galvanised iron, but the bolts in heels of timber abutting against deadwood, forward and aft, must be of copper or yellow metal.

In all such cases of substitution, the bolts must be in number the same as is already prescribed above for treenails; the proportion of through bolts must be at least two-thirds (whenever metal fastenings are used in lieu of treenails, this proportion must be observed); and all the through bolts must be of *malleable* metal, and clenched on rings (of the same metal) inside. The sizes of the copper or mixed metal bolts must be as under, viz.:—

In ships of 150 tons and under 200 tons	-	-	⅝ in.	Smaller sizes must not be used.
200 ,,	350 ,,	-	-	¾ in.
350 ,,	500 ,,	-	-	13/16 in.
500 ,,	700 ,,	-	-	⅞ in.
700 ,,	900 ,,	-	-	15/16 in.
900 and above	-	-	-	1 in.

and the lengths of the short bolts not less than as follows, viz.:—

When used in plank of 2½ in. to be	7	in. long	
3	,,	8	,,
4	,,	10	,,
5	,,	12	,,

and so on in proportion for plank of other thicknesses. The sizes of the bolts required in the several parts must not be less than is shown in Table D.

47. In every case where the butt and bilge bolts are not through and clenched, one year will be deducted from the period which would otherwise be assigned in the classification of the vessel.

48. The scantlings and dimensions for all sized vessels to be proportionately regulated, agreeably to the society's Table B.

49. Ships surveyed while building, in which all the materials required for a 12 years' ship shall have been used, and most of the other requisites for that grade fulfilled, but which, from partial deficiencies, may not appear to be in all respects entitled to the full period, although superior to the description of a 10 years' ship, may be marked in the book thus, 11 A; thereby denoting that they are to remain on that grade 11 years, provided they be kept in a state of efficient repair.

50. Ships surveyed while building, in which every alternate set of timbers are frame-bolted together throughout their entire lengths, and the scantling and shifts of the timbers, the thickness and shifts of the planks, and size of fastenings may be the same as are required by the rules, and the description of materials prescribed in Table A shall also have been used, but in which the frame is not so well squared as is required for 12 years' ships, but which shall be in other respects equal thereto, shall be marked 10 A; thereby denoting that they are to remain on that grade for 10 years, provided they be kept in a state of efficient repair.

51. In all other cases, ships surveyed while

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building, and constructed of the materials of good quality, shown in the society's Table A, will be allowed the several terms of years respectively appointed, provided they be kept in a state of efficient repair. All ships, not built under survey, whether in the United Kingdom or abroad, for which a character may be claimed, must be placed in dry dock or laid on blocks in order that their bottoms may be seen and properly examined; they will also be required to have their timbers completely exposed for examination, by a plank or listing, as the surveyor (who must be an exclusive officer of the society) may direct, being taken out, either inside or outside, all fore and aft, on both sides, equal to one entire strake, at the first foothook heads, and another between decks, and a few treenails must likewise be driven out, so that the surveyors, from actual inspection, may be satisfied whether or not they are of the quality and make prescribed by the rules; and the same being thus ascertained, shall be reported to the committee, and a character assigned. If the ship be 400 tons and upwards, the survey must be made by two surveyors, and their report signed accordingly.

52. Ships built under a substantial and efficient roof, kept in good repair, which shall project at each end beyond the length, and on each side beyond the breadth, a quantity equal to half the breadth of the vessel, shall have 1 year added to the period prescribed, provided they shall have been surveyed whilst building, and shall have occupied a period of not less than 12 months in their construction, and in which no plank, except as follows, shall have been worked until the expiration of at least 3 months after the frame was completed, viz.: not more than 3 strakes of bilge planks, and 2 strakes of outside plank in the way of each tier of beams, also the clamps inside, so that the beams may be put in their places. In ships not exceeding 400 tons, a relaxation of the period herein required may be allowed (but not exceeding 4 months) provided application be made to the committee, who will appoint a special survey, and who will require a report of the date when the timber was felled, its condition after being sided and moulded, and stacked for seasoning, and also when in frame.

53. Ships built in the United Kingdom; or in Quebec; or St. John, New Brunswick; or Miramichi, and northern ports of New Brunswick, or in Prince Edward Island, or built in Nova Scotia after 1864; and not surveyed while building by the surveyors to this society, and all ships, the owners or builders of which may have refused or declined to permit them to be surveyed at the several periods prescribed by the rules, will have 1 year deducted from the period which would otherwise have been assigned, in consequence of their not having been submitted to survey during their construction. In no case, however, will a higher grade than 10 A be assigned to ships built in the United Kingdom which shall not have been surveyed while building.

Continuation of Ships A.—54. If, on the termination of the period of original designation, or if at any subsequent period, not exceeding ¼ of the number of years assigned originally, or on restoration, an owner should wish to have his ship remain, or be replaced on the letter A (sec. 59), he is to send a written notice thereof to the secretary, and the committee shall then direct a special survey, as follows, to be held by not less than two competent persons to be appointed by the committee, one of them to be a surveyor, the exclusive officer of the society:—

Survey.—No. 1.—The ship to be either placed in dry dock or laid on blocks, so that the keel may be examined, and be scraped or dubbed bright from the light water-mark upwards, including the plankshеers and waterways, so as to expose the surface of the plank to view. If the ship has been sheathed with wood over felt, fastened with copper or mixed metal nails, within a period of 5 years, and the plank from the light water-mark upwards shall, when so sheathed, have been brightened, and the condition of the bolts, planking, treenails, and caulking ascertained, and favourably reported upon by the surveyors; and provided that the sheeting which covers the binding bolts and raft ports, and a strake of sheathing all fore and aft on each side under the wales be removed, and listings of sheathing cut out at hood ends; and the planking, fastenings, and caulking so exposed shall prove to be in good condition; then, on application to the committee, the stripping from the light water-mark upwards may be dispensed with; but whenever the sheathing is removed, the outside planking is to be scraped or dubbed bright, and examined as prescribed by the above rule.

If the ship has been sheathed with metal within a period of 2 years, and it shall appear to the surveyors that stripping from the light water-mark upwards may be dispensed with, the case will receive due consideration on application to the committee. A listing, 4 inches wide, to be cut out of ceiling at each end of the hold on both sides, ⅓ the entire length of the ship, between the keelson and air course under hold beam clamp. Bolts, if of iron, in number not less in any case than 6 on each side, in each range of deck fastenings, to be driven out in ships of 500 tons and under, and increased in number in proportion to the size of the ship, and one treenail to be driven out in every alternate frame or fourth timber between the upper edge of the wales and plankshеers, and one in every alternate frame or fourth timber between the upper edge of the wales and the light water-mark, and at such other parts at the bottom as the surveyors may direct, so as to enable a judgment to be formed as to the general state of the treenails, timbers, and of the planking in the treenail holes. The hold to be cleared, and proper stages to be made both inside and outside. All air courses and the limbers to be cleared for the examination of the timbers. The windlass to be unhung, and the wood linings stripped. The attention of the surveyors shall then be particularly directed to the state of the upper or main deck and comings, the upper and lower deck bolts, whether of iron or copper, and the outside planks through which they pass, the plankshеers, waterways, and beams, so far as they can be examined; the hawse timbers, knight-heads, breasthooks, and transoms; the floors and keelsons; the keel, rudder, and windlass; the planking outside and inside, and the treenails; and the frame and inner surface of the outside planking, where they can be seen; and the sheer and general form of the ship; the condition of the oakum and caulking also to be ascertained, and the ship to be efficiently repaired with suitable materials, as hereinafter stated. Anchors, cables, and general equipments to be attended to as prescribed in secs. 71 to 76.

In British North American built ships and fir ships where the middle line bolts are of iron, their condition is to be ascertained; and if this be not practicable, additional bolts of sufficient size must be driven through the keelson, floors, and keel, in each alternate frame, also through the stem, apron, sternpost, and deadwood.

The surveyors shall transmit to the committee a detailed report, accompanied by such observa-

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tions as may occur to them, from inspection of the ship, or from information of the repairs she may have received. If, from the report of such special survey, the ship shall appear to be in a sound and efficient state, the committee shall continue such ship on the letter A for such further period as they may think fit, not exceeding, however, ½ of the number of years which had been originally assigned, subject to the usual annual survey. Ships classed A for 4 years, will be allowed a continuation for 2 years, provided that, in addition to the above requisitions, the owners shall have removed a strake in the topsides, fore and aft, on both sides; this, however, will not exempt ships built in the British North American colonies from the operation of the rule. (Sec. 63.)

Ships so continued shall be distinguished in the register book by the number of years for which the character is extended, being inserted separately under the number assigned on the original character, thereby denoting that the ship has been found on survey in such good and efficient order as to entitle her to be continued for years. The period assigned for continuation will, upon all occasions, commence from the time the ship may have gone off the letter A, without regard to the date when the survey for this purpose may have been held. (For periodical surveys, see sec. 24.)

Survey.—No. 2.—But should a shipowner at the period for continuation as above described be willing to subject his ship to the following survey, the committee will continue such ship for a longer time, viz. not exceeding ½ beyond the term originally assigned, provided application be first made to the committee for such survey.

And for the purpose of holding such survey, the ship must be placed in dry dock or laid on blocks upon ways, so that the keel may be examined; all sheathing to be entirely stripped off the bottom and elsewhere; all the outside planking from light water-mark upwards, including the plankssheers and waterways, to be scraped or dubbed bright; all the air courses and the limbers to be cleared; the timbers of the frame to be further exposed to view by the removal of planking equal to one strake fore and aft, on each side above the wales; a short plank in each buttock; a strake of planking to be removed, or listing of sufficient breadth, not less than 4 inches, all fore and aft, on each side, at the discretion of the surveyor, in the ceiling above the floor heads (or if the shipowner should prefer it, a strake of planking outside at the same height), and a reasonable number of treenails, in addition to those above named, so as to ascertain the state of the lower timbers of the frame; and in order to ascertain the condition of the beam ends, either a strake of deck next the waterways on each side to be taken out, or an examination to be made by boring each end, at the option of the shipowner; iron bolts and treenails to be driven out at the various parts as prescribed in Survey No. 1; proper stages to be made both inside and outside; the windlass to be unhung, and the wood linings stripped; and when in the state above described, the special survey to be held, as directed in Survey No. 1, upon all the parts exposed to view; the condition of the oakum and caulking to be ascertained; the ship to be efficiently repaired with suitable materials, as hereinafter stated.

The surveyors on these points shall transmit to the committee a detailed report, accompanied by such observations as may occur to them, from inspection of the ship, or from information of the repairs she may have received. If, from the report of such special survey, the ship shall appear to be in a sound and thoroughly efficient state, the committee shall continue such ship on the letter A for such further period as they think fit, not exceeding, however, two-thirds of the number of years which had been originally assigned. Ships so continued shall be distinguished in the register book by the number of years by which the character is extended, being inserted separately under the number assigned on the original character, thereby denoting that the ship has been found on survey in such good and efficient order as to entitle her to be continued for years. The period assigned for continuation will, upon all occasions, commence from the time the ship may have gone off the letter A, without regard to the date when the survey for this purpose may have been held. (For periodical surveys, see sec. 34.)

In cases of the repair of ships for continuation of character under the rules, sec. 54, materials of an inferior description (but not below those prescribed for the six years' grade) may be permitted to be used in those parts which must of necessity, under the operation of the rules, sec. 56, be entirely removed on a repair for restoration; subject, however, to the shipowner in every instance making a special application to the committee for their previous sanction.

Survey.—No. 2.—*For British North American built Ships and Fir Ships.*—To entitle such ships to continuation for a period of ½ that originally assigned to them, they must, in addition to the examination prescribed above, be doubled diagonally from the keel to above the first strake of lower deck spirketting. The doubling to be of the thickness, and be fastened as prescribed in sec. 68; or, if the owner objects to double his ship, she may be submitted to the following survey, viz.:—

The ship must be placed in dry dock or laid on blocks upon ways, so that the keel may be examined and proper stages made both inside and outside; all sheathing to be entirely stripped off the bottom and elsewhere; all the outside planking from the lower part of chocks at floor heads upwards, including the plankssheers and waterways, to be scraped or dubbed bright; the timbers of the frame to be exposed to view by the removal of the plankssheer or of planking equal to one strake fore and aft on each side, above the wales (either inside or outside, at the discretion of the surveyor), also a strake outside all fore and aft between the wales and light water-mark, a short plank in each buttock, and planking or listing of sufficient breadth on each side at the discretion of the surveyor, in the ceiling above the floor heads all fore and aft (or if the shipowner should prefer it, planking outside equal to one strake at the same height), and in order to ascertain the condition of the beam ends, a strake of deck next the waterways on each side is to be taken out; and a sufficient number of treenails to be driven out from various parts of the bottom, so as to ascertain their condition, and that of the planks and timbers through which they pass; the windlass to be unhung, and the wood linings stripped, and when in the state above described, the special survey to be held upon all the parts exposed to view; the condition of the oakum and caulking to be ascertained, the treenails from the upper part of chocks at second foothook heads to the lower part of chocks at floor heads to be renewed with through treenails of hardwood for at least half the length of the ship amidships, unless they are already of hardwood and prove to be in good condition; and where the middle line bolts are of iron, their condition is to be ascertained, and if this be not practicable, additional bolts of sufficient size must be

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driven through the keelson, floors, and keel, in each alternate frame, also through the stem, apron, stern post, and deadwood; and if the ship in other respects be efficiently repaired with suitable materials, she will be allowed continuation for a period not exceeding two-thirds of the term of years originally assigned, subject to annual survey. (For periodical surveys, see sec. 34.)

Restoration of Ships to the Character A.—First Rule.—55. If, at any time before the expiration of ⅔ of the number of years beyond the period originally assigned, an owner be desirous to have his ship restored to the A character, such restoration (on his consenting to the special survey hereinafter described, to be held by two surveyors, and performing the repairs found requisite) will be granted for a period not exceeding two-thirds of the time originally assigned, the same to be calculated from the date of such repairs.

Requisites for Restoration.—56. All the bolts in the range of each deck to be driven out, and the planks taken out; the upper deck waterways, and plankshеers and spirketting, and the strake next the waterways on the lower deck in the midships, to be taken out; the sheathing to be entirely stripped off the bottom; all the outside planking from the light water-mark upward, to be scraped bright; a strake in the upper course of the bottom, between the wales and the light water-mark fore and aft, and a plank in the ceiling at the floor heads on each side, to be taken out, the limbers to be clear, and the hooks forward to be exposed; the windlass to be unhung, and the wood linings stripped; and in that state the ship to be submitted to a special survey and examination, at which the attention of the surveyors appointed by this society is to be particularly directed to the state of the decks, the remaining plank of the topsides, the wales, upper courses, and treenails, and other fastenings; also to the state of the frame, hawse timbers, and knightheads, keelson, floors, foothooks, ceiling, and breasthooks, the rudder in all its parts and hangings. In ships built entirely of teak, and iron fastened, if a sufficient number of bolts in the range of each deck be driven out, and the plankshеer, also the strake of deck next the waterways or next the binding strake, on the main and lower decks on both sides, be removed, also the throat bolts of all knees be driven out, and the other requisitions relating to the bottom, ceiling &c. be carried into effect, the further removal of fastenings, bolts, and planks may, under the sanction of the committee, be dispensed with, provided their condition be carefully ascertained and favourably reported upon by the surveyors.

In the case of ships fastened with copper or yellow metal, and galvanised iron, in conformity with the rule, sec. 46, where there is no poop or forecastle, if the whole of the plankshеer and spirketting of upper deck and outside planking equal to one strake all fore and aft be removed in way of fastening bolts to each tier of beams, below the upper deck beams; and where there is a poop and forecastle, then if the whole of the plankshеer and spirketting of poop, forecastle, and waist, and a strake of outside planking (in way of fastening bolts to upper deck beams), the entire lengths of the poop and forecastle, and outside planking equal to one strake all fore and aft be removed in way of fastening bolts to each tier of beams below the upper deck beams; and in all cases a strake of deck next the waterway of each deck, on both sides, be removed, also the throat bolts of all knees, together with the other requisitions relating to the bottom, ceiling &c., the further removal of fastenings, bolts, and planks may, under the sanction of the committee, be dispensed with, provided their condition be carefully ascertained and favourably reported upon by the surveyors.

The above relaxations, so far as they relate to the removal of plank and fastenings in the range of the lower deck, will be extended to all ships in which all the lower deck fastenings are of copper or yellow metal.

If, after the above examination, the owner should consent to take out all planks, timbers, beams, knees, waterways, fastenings, and other parts that may be found defective, or objected to, and replace them with materials of the same species or of equal quality with those of which the ship was originally constructed, such ships to be entitled to restoration for a period proportionate to their real condition and the extent of the repairs performed; or if timber of an inferior description, or second-hand English or African oak or teak be used, then for a period not exceeding that for which such materials would have entitled a new ship to stand A according to the tables, subject in either case to the ship being at all times thereafter kept in a state of efficient repair. (For periodical surveys, see sec. 34.)

Second Rule.—57. If, at any age of a vessel, an owner be desirous to have his ship restored, such restoration (on his consenting to the special survey hereinafter described, to be held by two surveyors, and performing the repairs thereby found requisite) will be granted for so long a period as may be deemed expedient by the committee, not exceeding, in any case, the term of eight years.

Requisites for Restoration.—58. The whole of the outside plank of the vessel to be taken off as low as the second foothook heads. The remainder of the planking, either outside or inside, together with all the decks, to be removed, so as to expose the timbers of the frame entirely to view, the windlass to be unhung, and the wood linings stripped, and in that state the ship to be submitted to a special survey and examination by the surveyors appointed by this society; and if, after such examination, all timbers, beams, knees, keelsons, transoms, breasthooks, remaining plank, inside or outside, or other parts found to be defective, be replaced with materials of the same species, or of equal quality with those of which the ship was originally constructed, and all the treenails driven out and renewed, such ship may be restored. But if timber of an inferior description, or second-hand English or African oak or teak be used, then for a period not exceeding that for which such materials would have entitled a new ship to stand A according to the Tables, subject, in either case, to the ship being at all times thereafter kept in a state of efficient repair. (For periodical surveys, see sec. 34.)

Restoration of British North American built Ships and Fir Ships to the Character A.—First Rule.—55.* At any time before the expiration of ⅔ of the number of years beyond the period originally assigned, a ship may be restored to the A character, on being submitted to the special survey hereinafter described, to be held by two surveyors, and performing the repairs found requisite.

Requisites for Restoration.—56.* All the bolts in the range of each deck to be driven out, and the planks taken out. The upper deck waterways, and plankshеers and spirketting, and the strake next the waterways on the lower deck in the midships to be taken out. In the case of ships fastened with copper or yellow metal and galvanised iron, in conformity with the rules, sec. 46, where there is no poop or forecastle, if the whole of the

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planksheer and spirketting of upper deck and outside planking equal to one strake all fore and aft be removed in way of fastening bolts to each tier of beams, below the upper deck beams; and where there is a poop and forecastle, then if the whole of the planksheers and spirketting of poop, forecastle, and waist, and a strake of outside planking (in way of fastening bolts to upper deck beams), the entire lengths of the poop and forecastle, and outside planking equal to one strake all fore and aft be removed in way of fastening bolts to each tier of beams below the upper deck beams; and in all cases a strake of deck next the waterway of each deck on both sides be removed, also the throat bolts of all knees, together with the other requisitions relating to the bottom, ceiling &c., the further removal of fastenings, bolts, and planks may, under the sanction of the committee, be dispensed with, provided their condition be carefully ascertained and favourably reported upon by the surveyors.

The above relaxations, so far as they relate to the removal of plank and fastenings in the range of the lower deck, will be extended to all ships in which all the lower deck fastenings are of copper or yellow metal. All sheathing to be entirely stripped off. All the outside planking, from the light water-mark upwards, to be entirely dubbed bright. A strake in the bottom, between the wales and the light water-mark fore and aft, to be taken out. Planking, either inside or outside, at the discretion of the surveyors, in quantity equal to one entire strake fore and aft, on both sides to be taken out in midships immediately above the turn of the bilge, and forward and aft at such height as may, in their judgment, best expose the timbers of the frame to view. The limbers to be clear, and the hooks, transoms, and crutches to be exposed. The windlass to be unhung, and the wood linings stripped; and in that state the ship to be submitted to a special survey and examination, at which the attention of the surveyors is to be particularly directed to the state of the decks, the remaining plank of the topsides, the wales, upper courses, and treenails, and other fastenings; also to the state of the frame, hawse timbers, knightheads, apron, breasthooks, transoms, and crutches, keelsons, floors, foothooks, and ceiling, the rudder in all its parts and hangings, and also the general sheer and form of the ship. Where the middle line bolts are of iron, their condition is to be ascertained, and if this be not practicable, additional bolts of proper size must be driven through the keelson, floors, and keel, in each alternate frame, also through the stem, apron, and sternpost.

If, after the above examination, the owner should take out all materials and fastenings that may be found defective, or objected to, and replace them with materials allowed by the rules for the period for which the vessel is to be restored, such ships to be entitled to restoration for a period not exceeding $\frac{3}{4}$ of that originally assigned to them.

In addition to the above requirements, ships of 500 tons and upwards must be doubled diagonally from the keel to above the first strake of lower deck spirketting. The doubling to be of the thickness and be fastened as prescribed in sec. 68. If these regulations be complied with within the first period to which the vessels may be entitled to be continued, under sec. 54, they will be allowed restoration for a period equal to the number of years originally assigned. The restoration will, in all such cases, date from the termination of the original period; but at the expiration thereof they may be entitled to a continuation of one-third of the period of original designation, under sec. 54, Survey No. 1. In the case of doubled ships, or ships of peculiar construction, special application may be made to the committee. (For periodical surveys, see sec. 34.)

Second Rule.—57.* If, at any age of a vessel, an owner be desirous to have her restored, such restoration (on his consenting to the special survey hereinafter described, to be held by two surveyors, and performing the repairs thereby found requisite) will be granted for a period not exceeding that originally assigned to her.

Requisites for Restoration.—58.* The whole of the outside plank of the vessel to be taken off as low as the second foothook heads. The remainder of the planking, either outside or inside, and all the treenails, together with the decks and waterways, to be removed, so as to expose the frame and beams entirely to view. The windlass to be unhung, and the wood lining stripped; and in that state the ship to be submitted to a special survey and examination, and all materials and fastenings found to be defective must be replaced with materials of the same species, or of equal quality with those of which the ship was originally constructed. If timber of an inferior description be used, a period not exceeding that which such materials would have entitled a new ship to stand A according to the tables will be granted. (For periodical surveys, see sec. 34.)

59. Ships which have been restored shall be entitled to continuation, subject to the same conditions of survey and examination as are prescribed for ships proposed to be continued at the expiration of the period first assigned to them (sec. 54); but in like manner, the term of such extended continuance shall be limited to a period not exceeding $\frac{1}{2}$ or $\frac{2}{3}$ of the number of years for which the ships may respectively have been restored, without any reference whatever to the period originally assigned to them.

At the termination of the several periods assigned to ships for remaining on the character A, or A in red, they will have the word '*expired*' inserted against them; and if not surveyed prior to the reprinting of the register book, they will appear without any character. (The terms of years assigned to ships on the character A, launched previously to July 1, 1859, also of ships launched during the first 6 months of the years 1860, 1861, 1862, and 1863, will expire on December 31 of the last year of the periods assigned to them respectively. The terms assigned to ships launched during the last 6 months of the years 1859, 1860, 1861, and 1862, will expire on June 30, next after the last year of the periods assigned to them respectively. In the case of ships launched on and after July 1, 1863, the period originally assigned to them on the A 1 character will in every case date from the month in which the vessel may be launched, and will expire at the end of the corresponding month in the year at which the period assigned terminates.) But if, during the last twelve months of the period assigned to them, the owners of a ship shall, in consequence of her being about to proceed on a distant foreign voyage, apply to have her surveyed for continuation on the letter A, or for the character A in red, a special survey shall be held conformably to the rule, sec. 54 or 60, as the case may be; and if, from the report of such special survey, the ship shall appear to be in all respects in a sound and efficient state, such as is required by those rules, the committee shall, from the period at which the ship's character would terminate, continue her on the letter A, or assign to her the character A in red in accordance with the rules referred to.

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60. *Ships A, in red.*—Ships that have passed the periods which have or might have been assigned to them for the character A originally, or on continuation, or for restoration, and shall be found on survey to be of a superior description, being fit for the safe conveyance of dry and perishable goods to and from all parts of the world, shall be classed A in red, as the second description of the first class. (For British North American built ships and fir ships, see Second Survey, latter part.)

In all cases in which the owner may claim this character, the ship must undergo a special survey by two surveyors (to be appointed in every instance by the committee), one of whom shall be an exclusive officer of the society, and be subject in other respects to a compliance with the undermentioned requisitions of survey, viz.:—

First Survey for A, in red.—The ship to be either placed in dry dock or laid on blocks, so that the keel may be examined, and be scraped or dubbed bright, from the light water-mark upwards, including the plank sheers and waterways, so as to expose the surface of the plank to view. (If the ship has been sheathed with wood over felt, fastened with copper or mixed metal nails, within a period of 5 years, and the plank from the light water-mark upwards shall, when so sheathed, have been brightened, and the condition of the bolts, planking, treenails, and caulking ascertained, and favourably reported upon by the surveyors; and provided that the sheathing which covers the binding bolts and raft ports, and a strake of sheathing all fore and aft on each side under the wales be removed, and listings of sheathing cut out at hood ends; and the planking, fastenings, and caulking so exposed shall prove to be in good condition, then, on application to the committee, the stripping from the light water-mark upwards may be dispensed with; but whenever the sheathing is removed, the outside planking is to be scraped or dubbed bright, and examined as prescribed by the above rule. If the ship has been sheathed with metal within a period of two years, and it shall appear to the surveyors that stripping from the light water-mark upwards may be dispensed with, the case will receive due consideration on application to the committee.) Bolts, if of iron, in number not less in any case than 6 on each side, in each range of the deck fastenings to be driven out in ships of 500 tons and under, and increased in number in proportion to the size of the ship, and one treenail to be driven out in every alternate frame or fourth timber between the upper edge of the wales and plank sheers, and one in every alternate frame or fourth timber between the upper edge of the wales and the light water-mark, and such other parts of the bottom as the surveyors may direct, so as to enable a judgment to be formed as to the general state of the treenails, timbers, and of the planking at the treenail holes. The hold to be cleared, and proper stages made both inside and outside. The windlass to be unhung, and the wood linings stripped. The attention of the surveyors shall then be particularly directed to the state of the upper or main deck and comings, the upper and lower deck bolts, and the outside planks through which they pass, the plank sheers, waterways, and beams, so far as they can be examined; the hawse timbers, knight-heads, breasthooks, and transoms; the floors and keelsons; the keel, rudder, and windlass; the planking outside and inside, and the treenails; and the frame and inner surface of the outside planking, where they can be seen; and the sheer and general form of the ship; the condition of the oakum and caulking also to be ascertained, and the ship to be efficiently repaired with suitable materials as hereinafter stated.

The term for which a vessel may be assigned the character A in red upon a compliance with the foregoing requirements, will not exceed ⅔ the number of years beyond that assigned originally, or on restoration. (For periodical surveys, see sec. 34.)

Second Survey for A, in red (after two-thirds the number of years beyond that assigned originally, or on Restoration, have expired).—But when a period of ⅔ of the number of years beyond that originally assigned for a vessel's retaining the A character, or if a period of ⅔ the number of years beyond that assigned on restoration has elapsed, an owner be desirous to have his ship retain, or be placed upon, this character, application must be made to the committee in writing, who will direct the survey to be made by two surveyors, one of whom shall be an exclusive officer of the society; and for the purpose of holding such survey, the ship must be placed in dry dock, or laid on blocks upon ways, so that the keel may be examined; all sheathing to be entirely stripped off the bottom and elsewhere; all the outside planking from light water-mark upwards, including the plank sheers and waterways, to be scraped or dubbed bright; the timbers of the frame to be exposed to view by the removal of planking equal to one strake fore and aft, on each side, above the wales, either inside or outside, at the discretion of the surveyor; a short plank in each buttock; a plank or listing of sufficient breadth, on each side, at the discretion of the surveyor, in the ceiling above the floor heads all fore and aft (or, if the shipowner should prefer it, a plank outside at the same height), and a reasonable number of treenails before and abaft the same, so as to ascertain the state of the lower timbers of the frame; and in order to ascertain the condition of the beam ends, either a strake of deck next the waterways on each side to be taken out, or an examination be made by boring, at the option of the shipowner; iron bolts and treenails to be driven out at the various parts as prescribed above (in the case of doubled ships, or ships of peculiar construction, special application may be made to the committee); proper stages to be made both inside and outside; the windlass to be unhung, and the wood linings stripped; and when in the state above described, the special survey to be held as above directed upon all the parts exposed to view; the condition of the oakum and caulking to be ascertained; the ship to be efficiently repaired with suitable materials, as hereinafter stated. And to entitle them to continue this character, such vessels will be required, in addition to the usual annual survey, to undergo a special re-survey, as prescribed above, within a period (from the date of the last special re-survey) not exceeding two-thirds of the several terms of years originally assigned to them, or earlier, if, in the judgment of the surveyors, upon a careful examination of the ship, the same shall appear to them to be necessary. (For periodical surveys, see sec. 34.)

In the repair of vessels for the above character, no materials may be used of a description inferior to those allowed in new ships for the 6 years' grade, except in the case of vessels originally classed for a shorter period than 6 years, when materials equal to those used in the original construction will be permitted.

British North American built Ships and Fir Ships.—All ships built in the British North American colonies and all fir ships seeking the character A in red, must be submitted to the

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special survey described in Survey No. 2 for British North American built and fir ships, sec. 54.

If in addition to the examination therein required the ship be doubled diagonally, as per sec. 68, from the keel to above the first strake of lower deck spirketting, she will be allowed the character A in red for a period equal to that originally assigned to her; and in such cases the renewal of the treenails from upper part of chocks at second foothook heads to the lower part of chocks at floor head will not necessarily be required.

In no case, however, will a British North American built ship, or fir ship, of 1,000 tons and upwards, be allowed the character A in red after the expiration of twice the number of years originally assigned to her, unless she be doubled diagonally as above.

N.B.—At the termination of the several periods assigned to ships for remaining on the character A in red, they will have the word '*expired*' inserted against them; and if not surveyed prior to the reprinting of the register book, they will appear without any character.

61. *Ships Æ.*—Ships that have passed the prescribed age for the A character, but have not undergone the repairs which would have entitled them to be continued or restored; or having been continued or restored, and the additional period thus assigned expired, and also such ships as have never had an original character, which shall be found on survey fit for the conveyance of dry and perishable goods on shorter voyages, shall be distinguished by the diphthong *Æ*; and a careful survey will be required to be made annually, or on the return of the ship from every foreign voyage, by one of the surveyors of this society, who is to state distinctly and separately the actual condition of the upper deck fastenings, waterways, spirketting, plankshеers, topsides, upper deck with its appendages, lower deck fastenings, wales, counter, plank, and treenails outside to the water's edge, rudder, windlass and capstan, beams, breasthooks, transoms, and timbers; but if not surveyed within twelve months, such ship having been during that time in some port in the United Kingdom, the character will be omitted until such survey be held; or, as the case may be, she will be allowed to pass in the class E.

62. Ships built in the British North American colonies, and all ships wherever built, the frames of which are composed of fir, of 400 tons and above, shall, in order to entitle them to be classed in the register book of the society, be secured in their bilges by the application of iron knee riders, or hanging knees and riders to cover the joints of the floor and foothook heads, to extend from the height of the hold beams to the floors so as to receive not less than two bolts in a substantial part of the floors; the number of iron knees and riders to be not less than one of each to every hold or lower deck beam on each side. The knees to be connected with the riders or not, at the option or convenience of the owners; but if not so connected, the side arms of the knees are to be of the length and to be fastened as prescribed in Table F. The number of knees to each deck, and of riders, also their dimensions, and number of bolts, are fully explained in Table F. All ships built in the colonies will be considered as *iron fastened* in their centre lines, unless it shall be satisfactorily shown to the contrary, either by the exposure of some of the bolts, or by a certificate to be produced from the builders.

Ships which proceed to sea without being fastened with the iron knees and riders prescribed by the rules, will have one year deducted from the period to which they would otherwise be entitled to be classed in the register book.

Ships built in the British North American colonies, and all ships, the frames of which are composed of fir, of 600 tons and upwards, and all ships (wherever built) the length of which (measured from the fore part of the stem to the after part of the stern-post on the range of upper deck) shall exceed five times their extreme breadth, or eight times and under nine times their depth, shall have diagonal iron plates closely inserted outside the frame. The said plates to extend from the upper side of upper tier of beams to the lower part of chocks at first foothook heads amidship, and to the same perpendicular height forward and aft, measured from the lower part of the keel. When ships are constructed with long and short armed floors, the said plates are to extend to half-way between long floor heads and first foothook heads; the sizes of the plates not to be less than as follows, viz.:—

In ships of 100 tons and under 200 tons					3½ by $\frac{7}{16}$	in.
200	"	400	"		4 "	½ in.
400	"	700	"		4½ "	½ in.
700	"	1,000	"		5 "	½ in.
1,000	"	1,500	"		5½ " $\frac{13}{16}$	in.
1,500	"	2,000	"		6 "	⅞ in.
2,000 and above					6½ "	⅞ in.

and to be fastened with bolts, one at each alternate timber, not less in diameter than the sizes given for *through butt bolts* in Table D. The plates to be well protected by proper coating, likewise the timbers to be coated in the scores which are to receive the said plates.

The number of plates to be in proportion of not less than one pair to every 12 feet of the ship's entire length taken as above, but not to be more than 8 feet asunder measured on a square; the said plates are to be placed diagonally, at an angle of not less than 45 degrees, their lower ends pointing to the after end of the keel in the after body, and to the fore end of the keel in the fore body, four pairs crossing each other amidship.

All such ships to have shelves and waterways to each tier of beams, each equal in contents to the transverse sectional area of the beams of their respective decks at their ends; each of the said shelves and waterways to be bolted through the outside planking at every timber, with bolts of the sizes given in Table D: likewise the shifts of inside and outside planking not to be less than 6 feet, unless there be a strake wrought between them, and then a distance of 5 feet will be allowed.

In ships the length of which shall exceed six times their extreme breadth, or nine times and under ten times their depth, the number of plates must be not less than one pair to every 10 feet of the ship's entire length taken as above, but not to be more than 6 feet asunder measured on a square, and to be placed diagonally as above described. In cases where the length of the ship exceeds ten times its depth, the builders or owners are to submit, through the resident surveyor, for the committee's approval, their plans for giving the vessel the necessary strength longitudinally. And in addition to the requirements for ships of five times their breadth in length, such ships must be fitted with a rider keelson, or a pair of sister keelsons, at the option of the owner—the transverse sectional area of such rider keelson or sister keelsons each to be equal to ⅔ of that required in Table B for main keelsons. If a rider keelson be adopted,

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it is to be fastened with a through bolt (of the size required in Table D for keelson bolts) in every frame; or if the owner prefers it, every intermediate bolt may be short, passing through the main and rider keelsons. (In all cases in which a rider keelson is fitted, it must be fastened as prescribed above, irrespective of the relative dimensions of the ship.) If sister keelsons be fitted, they must be fastened with through bolts, in number not less than one in every alternate timber, and of the size required in Table D for *scarphs of keels* &c.

63. All British North American built ships, which have gone, or may go off the list of ships of the A character, or which may be of an age exceeding the period for which they might have had claims to be put upon that grade (whether classed or not), shall, as from time to time they come under examination, be subjected to a careful survey, to be made by one of the surveyors to this society; and no further character shall be assigned them unless a survey shall be held as follows; and planking, either inside or outside, at the discretion of the surveyors, in quantity equal to one entire strake fore and aft on both sides, shall be removed; to be taken out in midships immediately above the turn of the bilge, and at such height forward and aft as may, in their judgment, best expose the timbers of the frame to view; that a special report of the state of these timbers, and of the general state and condition of the upper deck fastenings, waterways, spirketting, planksheers, topsides, upper deck with its appendages, lower deck fastenings, wales, counter, plank and treenails outside to the water's edge, rudder, windlass, and capstan, beams and breasthooks, shall be transmitted by the surveyors to the committee; and on the receipt of such report the character shall be assigned. If the Æ character be then assigned, it shall be continued (subject to an annual survey) for a period not exceeding the number of years originally assigned; at the expiration of which the character will be discontinued, unless a similar survey and examination of the frame be again submitted to.

64. *Ships E* will comprise all ships which shall be found on survey fit for the conveyance of cargoes not in their nature subject to sea damage on any voyage.

65. Subject to occasional inspection, at least once in every 2 years, ships will continue in this class so long as their condition shall, in the opinion of the committee, entitle them thereto.

66. *Ships I* will comprise ships which shall be found on survey fit for the conveyance, on shorter voyages (not out of Europe), of cargoes in their nature not subject to seadamage.

67. The bottom of every ship is to be caulked once in every 5 years, unless wood-sheathed and felted, and then once in every 7 years, except in the case of teak-built ships, upon which a special survey may have been requested, and the surveyors having ascertained, by the removal of a strake of sheathing fore and aft under the wales, and a strake at the first foothook heads, and by causing listings to be cut out at the wood's end, that such caulking is not required, the same may then be dispensed with. In cases where ships have been doubled with doubling of less thickness than is required by, or not fastened in accordance with, the rules, it will not be imperative that such doubling be stripped at the expiration of 7 years, as required for ordinary sheathing; but if, upon survey, the doubling be found in good condition, the period for its remaining on may be extended, with the sanction of the committee, to a term not exceeding 10 years, provided the doubling below the wales be copper or yellow metal fastened or treenailed. If any ship shall be stripped within the periods above mentioned, her bottom is to be caulked, if necessary.

68. In all cases in which ships may be doubled, doubling of not less than the thickness hereinafter mentioned will be required, the same to be properly wrought and fastened as follows: in every instance the doubling is to be at least single fastened either with treenails or with bolts, and a through bolt in every butt. Ships hereafter doubled, if the doubling be iron fastened, will lose their character, if such fastenings be coppered over. If treenails be used, every treenail must, if practicable, be a through fastening; and if bolts be used, then $\frac{1}{3}$ of them from the lower part of the bilge upwards must be through and clenched on the ceiling in addition to the butt bolts. In all cases of doubling, the rudder braces are to be removed.

The throat bolts of iron knees, and the bolts of iron hooks, crutches, and pointers, must be renewed through the doubling.

The thickness of the doublings for the wales and bottoms, on ships

Under 400 tons to be not less than	- -	- 2 in.
Of 400 „ and under 600 tons	- -	- 2½ in.
600 „ and above	- -	- 3 in.

On the topsides of ships not exceeding 300 tons, the thickness may be 1½ inches.

If the doubling be applied diagonally, it will be allowed to be of the following thicknesses, viz.:—

In ships under 500 tons - -	- 1¼ in.
500 tons and under 1,000 tons -	- 2 in.
1,000 tons and upwards - -	- 2¼ in.

No ship hereafter doubled shall be entitled to the character A, or A in red, unless at the time of doubling it be ascertained, in either case, that the frame is capable of securely retaining the fastenings, by one treenail being driven out in every alternate frame or fourth timber between the upper edge of the wales and the light-water mark, and at such other parts of the bottom as the surveyors may direct, so as to enable a judgment to be formed as to the general state of the treenails and timbers, and of the planking in the treenail holes; or should the state of the treenails indicate defective timbers, or should the outside plank be bolt-fastened, then, by cutting out listings or plank at the discretion of the surveyor.

Diagonal doubling on ships built in the British North American colonies, or on ships built of fir, is to be fastened as under, viz.:—

If worked not above 11 inches broad may be single fastened with a through bolt at every butt, every fifth fastening to be a through bolt or a through treenail of hardwood; the distance between these through fastenings not to exceed 4 feet 6 inches. The remaining fastenings to consist of through treenails or 2 long and 2 short dump bolts; the length of the short dumps may be $\frac{1}{2}$ an inch less than the combined thickness of the doubling and the original outside plank, and that of the long dumps to be not less than the thickness of the doubling added to twice the thickness of the original outside plank.

Before doubling, the original fastenings in the outside planking and the rider bolts should be ascertained to be in efficient condition, or be made good, but all treenails, from the lower part of the chocks at the floor heads to the upper part of the chocks at the second futtock heads, throughout the bilges for one half the length of the ship amidships, shall be renewed through the original inside and outside planking with hardwood treenails, unless such

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treenails were originally of hardwood or have been recently renewed—then application may be made to the committee with the view of dispensing with this requirement. In all cases the throat bolts and the bolt next thereto in the iron knees and riders must be renewed through the doubling. The upper ends of the diagonal doubling to be worked against a fore and aft strake of doubling, the upper edge of which is to be let into the original plank sufficient to form a caulking seam, say not less than 1½ inch. The lower ends of the diagonal doubling to be worked against 2 strakes of fore and aft doubling, the lower edge of the lower strake being rabbeted into the keel, and to be not less in thickness than one-and-a-half times the thickness of the doubling. All diagonal doubling to be of rock elm or of equally suitable material, and be wrought on hair felt.

69. *Iron-fastened Ships.*—All ships, although iron-fastened (except as hereinafter mentioned), shall be classed in the same manner as copper-fastened ships, so long as they remain unsheathed with copper, provided they are, in all other respects, constructed in accordance with the rules; but when sheathed with copper over the iron fastenings, the words 'coppered over iron bolts' shall be added to the character in the register book, and continued until the ship be thoroughly copper-fastened.

70. Ships built in India, although fastened with iron, shall be permitted to be copper-sheathed without any mark being placed in the book, provided the bottom be felted or chunamed and wood-sheathed, and subjected to a careful examination of the iron fastenings on every occasion on which the sheathing is stripped off, for which purpose some of the bolts and nails are to be taken out of the lower part of the bottom, and to be seen by the surveyor; but no such ship shall be permitted to continue either on the A or on the A in red class for a longer period than one-half the number of years beyond the term originally assigned for her remaining on the A character, unless the bottom shall have been doubled, or the whole of the iron fastenings taken out or properly secured, and the bottom refastened with bolts, or treenails, or both, including the middle line, breasthook, and crutch bolts.

71. *Equipment.*—All vessels are required to have their masts, spars, and rigging, the rudder, pumps, windlass or capstan, scuppers, and hawse pipes, in good order, and sails in sufficient number and in good condition.

Windlasses, if of wood, are in all cases to have a square iron spindle passed right through them, the diameter of the spindle to range from 2½ to 5 inches, according to tonnage.

72. Every ship is to be provided with anchors, cables &c., of approved quality, properly tested at a public machine (see notice in Appendix at end of register book), in number and length, as set forth in the society's Table, No. 22 annexed. (See also sec. 32.)

A certificate of all chains and anchors having been tested, and of the strain applied to them, must be produced before the ship is classed.

73. The length and condition of the chain cables are to be ascertained by removal from the lockers on every special survey for classification.

74. In all cases where hempen cables are used, $\frac{1}{3}$ more in length will be required.

75. *Boats.*—All vessels under 150 tons to be provided with one good boat; and every vessel of 150 tons and above to have a suitable number.

76. The efficient state and condition of the whole of the ships' equipment will be designated by the figure 1; and where the same are found insufficient in quantity, or defective in quality, by the figure 2.

77. *Ships navigated by Steam.*—Steam ships are to be subject to the same periodical surveys as sailing vessels, and whenever the boilers are taken out, the vessel is to be submitted to a particular and special survey, in order to ascertain her general condition.

78. That with respect to the boilers and machinery, the owners are required to produce to the surveyors at the above-directed surveys, a certificate from some competent engineer, describing their state and condition at those periods; and to which certificate it is desirable there should be a description of the particulars of the same, as far as may be practicable, in the manner and form annexed, No. 8; to be appended to the report of survey, and delivered to the committee, who will thereupon insert in the register book the letters 'M.C.,' denoting that the boilers and machinery have been inspected and certified to be in good order and safe working condition; but if no certificate of their condition be furnished by the owner or master, then no character can be assigned for the machinery.

79. *Hull.*—The surveyors are directed to examine and report the scantling of timbers, plank, and fastenings, and to state where built, and by whom, in the same manner as directed for sailing vessels.

80. The surveyors are required to report the number, size, length, fastenings, and mode of arrangement of the engine and boiler sleepers, and the description of timber of which they are composed, and whether diagonally trussed with wood or iron, and to what extent; the length, size, and fastenings of shelf-pieces and paddle-beams; and whether the vessel be constructed with sponcings, and how they are formed; and to give the length and shifting of the plank outside and inside.

81. *Materials and Equipment.*—The surveyors are to examine and report the number and description of the masts, sails, anchors, cables, hawsers, warps, and boats, as directed to be done for sailing vessels. For weight of anchors, size and length of chains, see Table No. 22.

82. The surveyors are to be particular in examining and reporting the condition of the boats of all vessels employed in carrying passengers.

Foreign-built Ships.—It having been deemed desirable that foreign-built ships, which have not been constructed in accordance with the rules of the society, should nevertheless be entered in the register book with a character of efficiency if their condition be such as to entitle them thereto, the following regulations have been adopted for their survey and classification, viz.:—

Foreign-built ships which have not been constructed in accordance with the rules, and have not been surveyed by the surveyors to this society while building, for which the owners are desirous of a character of condition or efficiency for seagoing purposes, will be surveyed for entry in the register book on application being made to the committee, in writing, stating the name of the vessel (and if at any time she had any other name, such is to be inserted in the application); likewise where and when she was built, and her length, breadth, depth, and tonnage (whether British or foreign).

The committee will then direct a special survey to be held by two surveyors, to be appointed in every instance by the committee, one of whom at least shall be an exclusive officer of the society, and the ship submitted to a compliance with the undermentioned requisitions of survey, viz.:—

In all cases the ship must be placed in dry

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dock or laid on blocks, so that the keel and bottom may be seen and properly examined; the hold to be cleared, and proper stages to be made both inside and outside; the limbers to be cleared, bolts and treenails to be driven out at different parts of the ship, and in sufficient number to enable the surveyors to ascertain their condition; the condition of the plank and timbers in the treenail holes also to be ascertained; the beam ends in ships of 4 or more years old must be examined by boring. The surveyors must then examine and report upon the ship, as to the state of the timbers of the frame (where examined), planking inside and outside, decks, waterways, beams, knees, keel, keelsons, stem, apron, hawse timbers, knightheads, breasthooks, transoms, rudder, and windlass, the sheer and general form of the ship, particulars of materials and scantlings, so far as they can be ascertained, and spacing of timbers and beams, thickness and shifting of plank, mode of fastening, sizes and condition of bolts and treenails, and state of caulking in all parts of the vessel.

Survey No. 1. If the ship is less than 4 years old, a listing of not less than 4 inches wide and equal to $\frac{1}{8}$ of the length of the ship on each side, to be cut out below each set of clamps or shelves in such parts as the surveyors may require, sufficient to enable them to ascertain the size and condition of the frame.

Survey No. 2. If the ship is 4 or more years old, she must be scraped bright from the light water-mark upwards, including the plankshеers and waterways, and a listing of not less than 4 inches wide must be cut fore and aft below each set of clamps or shelves, and at the bilges at the discretion of the surveyor, and a short listing outside at each buttock. This must apply to all ships of 4 or more years old, whether they have had the short listings previously cut or not.

If after such examination all repairs are done to the satisfaction of the surveyors, so as to enable them to make a favourable report, a class of efficiency will be granted by the committee, and entered in the register book, which class will be retained for 12 months only, unless it shall be made to appear by the owner that the ship has not been in any port in the United Kingdom during that period; but in no case will it be continued for more than 2 years, unless the vessel be re-surveyed as above; but upon such re-survey the openings described therein will not be required to repeated be within a period of 4 years.

There will be three designations of condition or character, distinguished thus:

1 F
2 F
3 F

1 F denotes ships which are found on survey to be of a superior description, fit for the conveyance of dry and perishable goods to and from all parts of the world.

2 F denotes ships which, although not equal to the foregoing, are nevertheless found on survey to be in a good and efficient condition, and fit for the conveyance of dry and perishable goods, on shorter voyages.

3 F denotes ships which shall be found on survey fit for the conveyance of cargoes not in their nature subject to sea damage.

It is to be distinctly understood that the foregoing regulations will be confined in their application to foreign-built ships.

To entitle the ships to the fig. 1, they must be supplied with stores in accordance with Table 22, attached to the rules.

No one can question the advantages that result from carrying a plan of this sort completely into execution, or those that have already been derived from the extent to which it has been carried. We confess, however, that we incline to think that the classification of ships should be effected by Government agents. It is invidious to impose on one set of merchants and shipowners the task of deciding upon the condition of the ships or other property belonging to others; and, though we have every confidence in the integrity of the gentlemen composing the committee, the most honourable men are liable to be influenced by an esprit du corps, and by insensible biases. We, therefore, cannot help thinking that the scheme would have a much better chance of success, and that the classification would be more likely to be correct, were it managed by individuals nowise connected with business. The surveyors, on whose capacity and honesty the whole scheme principally depends, should be quite independent of the good or ill will of those on whose property they have to report. But can that be said to be the case at present? and can it be fairly presumed that merchants or shipowners will deal by the property of their friends and neighbours as it might be dealt with by officers appointed by, and responsible only to, Government? We apprehend that both these questions must be answered in the negative; and hence our conviction that this is a matter in which Government should interfere. No one can doubt that it is bound to do everything in its power to promote the safety of navigation, and to preserve the lives of our seamen. In this view it erects lighthouses, and prescribes regulations as to pilotage &c. But, how indispensable soever, these are not more essential to the interests of navigation than a proper classification of ships; and, if other means should fail fully to effect this desirable purpose, Government will certainly neglect a most important duty if it do not interpose. In the meantime, however, the mercantile and shipping interests are deeply indebted to the gentlemen who have done so much to obviate the abuses of the old system. (For a further discussion of this important question, see the article on the 'Frequency of Shipwrecks,' in the 122nd number of the *Edinburgh Review*; see also the *Reports of the Commons Committees* of 1836 and 1843 on Shipwreck, and other *Parliamentary Papers*.)

III. Ships (Safety of).

The self-interest and the security of the owners and masters of ships may, perhaps, be supposed to afford the only real guarantee against the occurrence of accidents. But this guarantee is not always, nor perhaps in most instances, to be depended upon; and to obviate in as far as possible the calamitous results that might be occasioned by the carelessness of owners and the ignorance or misconduct of masters, the Legislature has enacted certain rules in the view of securing the proper fitting out of ships and their management. But it is needless to say that a vast deal depends in such cases on the way in which the rules are enforced. And it were better that they did not exist at all, and that passengers and others were left to depend on their own estimate of the parties, than that they should be taught to place an undeserved reliance on rules which are not properly carried out. The following rules on this subject are embodied in part of the Mercantile Shipping Act of 1854, the 17 and 18 Vict. c. 104 of the Merchant Shipping Act and Amendment Act, 25 & 26 Vict. c. 63. (See also Anchors and Cables.)

Application of Part IV. of Act 17 & 18 *Vict.*

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c. 104.—The fourth part of this Act shall apply to all British ships; and all foreign steam ships carrying passengers between places in the United Kingdom, shall be subject to all the provisions contained in the fourth part of this Act, and likewise to the same provisions with respect to the certificates of the masters and mates thereof to which British steam ships are subject. (Sec. 291.)

Boats for Sea-going Ships.

Rules as to Boats and Life Buoys.—The following rules shall be observed with respect to boats and life buoys, viz.:—

1. No decked ship (except ships used solely as steam tugs and ships engaged in the whale fishery) shall proceed to sea from any place in the United Kingdom, unless she is provided, according to her tonnage, with boats duly supplied with all requisites for use, and not being fewer in number nor less in their cubic contents than the boats the number and cubic contents of which are specified in the following Table:

2. No ship carrying more than ten passengers shall proceed to sea from any place in the United Kingdom, unless, in addition to the boats above required, she is also provided with a life boat furnished with all requisites for use, or unless one of her boats above required is rendered buoyant after the manner of a life boat:

3. No such ship as last aforesaid shall proceed to sea unless she is also provided with two life buoys: and such boats and life buoys shall be kept so as to be at all times fit and ready for use: provided, that the enactments with respect to boats and life buoys herein contained shall not apply in any case in which a certificate has been duly obtained under the 10th sec. of the 'Passengers' Act,' 1852 (the 15 & 16 Vict. c. 44 s. 10). [PASSENGERS.] (Sec. 292.)

Number and Dimensions of Boats with which Seagoing Ships are to be Provided.

Registered Tonnage		Column 1 — To be carried by Sailing Ships and Steam Ships: Boats								Column 2 — To be carried by Sailing Ships and Steam Ships when they do not carry Boats in col. 3: Launches				Column 3 — To be carried by Steam Ships which do not carry the Boat in col. 2: Boats								Total Number of Boats		
		Boats				Boats				Launches				Boats				Life Boats						
Sailing Ships	Steam Ships	Number	Length	Breadth	Depth	Number	Length	Breadth	Depth	Number	Length	Breadth	Depth	Number	Length	Breadth	Depth	Number	Length	Breadth	Depth	Ships Sailing	Steam Ships	
tons	tons		ft.	ft. in.	ft. in.		ft.	ft. in.	ft. in.		ft.	ft. in.	ft. in.		ft.	ft. in.	ft. in.		ft.	ft. in.	ft. in.			
..	1,000 and upwards	1	18	5 6	2 3	2	24	5 6	2 6	1	27	8 6	3 8	2	22	5 6	2 6	2	28	8 6	3 6	..	2	as the case may be
..	800 to 1,000	1	18	5 6	2 3	2	24	6 6	2 8	1	26	8 0	3 8	2	22	5 6	2 6	..	..	..	..	..	4 or 5	
800 and upwards	600 to 800	1	18	5 6	2 3	2	24	5 6	2 6	1	26	8 0	3 8	2	22	5 6	2 6	..	..	..	..	4	4 or 5	
600 to 800	360 to 600	1	16	5 6	2 3	2	24	5 6	2 6	1	25	7 0	3 6	2	22	5 6	2 6	..	..	..	..	4	4 or 5	
400 to 600	240 to 360	1	16	5 6	2 3	1	22	5 6	2 5	1	22	6 6	3 3	2	22	5 6	6	..	..	..	..	3	3 or 4	
200 to 400	120 to 240	1	14	5 0	2 2	..	..	..	..	1	20	6 0	3 0	2	22	5 6	2 6	..	..	..	..	3	2 or 3	
100 to 200	60 to 120	1	14	5 0	2 2	..	..	..	..	1	16	5 6	2 9	2	18	5 6	2 4	..	..	..	..	2	2 or 3	
Under 100	Under 60	1	14	5 0	2 2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	

Note.—In sailing ships carrying the number of boats above specified, and steam ships carrying the larger of the two numbers above specified, the boats are to be considered sufficient, if their aggregate cubic contents are equal to the aggregate cubic contents of the boats specified.

In steam ships carrying the smaller of the two numbers above specified, one of the boats must be a launch of the capacity specified in col. 2.

In sailing ships of 200 tons burden and under, not carrying passengers, a dingy may be substituted for the boat in col. 1.

In sailing ships of 150 tons burden and under, not carrying passengers, a substantial boat of capacity sufficient to carry the crew may be substituted for those above specified.

In all steam ships, two paddlebox boats may be substituted for any two of the boats in col. 3.

Penalties on Masters and Owners &c. neglecting to provide Boats and Life Buoys.—In any of the following cases, viz.:—

1. If any ship herein required to be provided with boats or life buoys proceeds to sea without being so provided therewith, or if any of such boats or life buoys are lost or rendered unfit for service in the course of the voyage through the wilful fault or negligence of the owner or master; or,

2. If, in case of any of such boats or life buoys being accidentally lost or injured in the course of the voyage, the master wilfully neglects to replace or repair the same on the first opportunity; or,

3. If such boats and life buoys are not kept so as to be at all times fit and ready for use;

Then, if the owner appears to be in fault, he shall incur a penalty not exceeding 100*l.*, and if the master appears to be in fault, he shall incur a penalty not exceeding 50*l.* (Sec. 293.)

Officers not to clear Ships not complying with the above Provisions.—No officer of customs shall grant a clearance or transire for any ship herein required to be provided with boats or with life buoys unless the same is duly so provided; and if any such ship attempts to go to sea without such clearance or transire, any such officer may detain her until she is so provided. (Sec. 294.)

Lights and Fog Signals, and Meeting and Passing. Build and Equipment of Steam Ships.

Iron Steamers to be divided by Water-tight Partitions.—The following rules shall be observed with respect to the build of iron steam ships, viz.:—

1. Every steam ship built of iron, of 100 tons or upwards, the building of which commenced after August 28, 1846, and every steam ship built of iron of less burden than 100 tons, the building of which commenced after August 7, 1851 (except ships used solely as steam tugs), shall be divided by substantial transverse water-tight partitions, so that the fore part of the ship shall be separated from the engine room by one of such partitions, and so that the after part of such ship shall be separated from the engine room by another of such partitions:

2. Every steam ship built of iron, the building of which commences after the passing of this Act, shall be divided by such partitions as aforesaid into not less than three equal parts, or as nearly so as circumstances permit:

3. In such last-mentioned ship each such par-

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tition as aforesaid shall be of equal strength with the side plates of the ship with which it is in contact:

4. Every screw steam ship built of iron, the building of which commences after the passing of this Act, shall in addition to the above partitions, be fitted with a small water-tight compartment inclosing the after extremity of the shaft:

And no officer of customs or other person shall grant a clearance or transire for any iron steam ship required to be divided or fitted as aforesaid, unless the same is so divided and fitted; and if any such ship attempts to ply or go to sea without such clearance or transire, any such officer may detain her until she is so divided and fitted; and if any steam ship herein required to be so divided or fitted plies or goes to sea without being so divided or fitted, the owner shall incur a penalty not exceeding 100*l*. (Sec. 300.)

The following are the regulations for preventing collisions at sea, embodied in Table C appended to the 25 & 26 Vict. c. 63.

Art. 1. *Preliminary.*—In the following rules every steam ship which is under sail and not under steam is to be considered a sailing ship; and every steam ship which is under steam, whether under sail or not, is to be considered a ship under steam.

Art. 2. *Rules concerning Lights.*—The lights mentioned in the following articles, and no others, shall be carried in all weathers between sunset and sunrise.

Art. 3. Seagoing steam ships when under weigh shall carry:

(*a.*) *At the Foremost Head*, a bright white light so fixed as to show an uniform and unbroken light over an arc of the horizon of 20 points of the compass, so fixed as to throw the light 10 points on each side of the ship, viz., from right ahead to 2 points abaft the beam on either side, and of such a character as to be visible on a dark night with a clear atmosphere at a distance of at least five miles:

(*b.*) *On the Starboard Side*, a green light, so constructed as to throw a uniform and unbroken light over an arc of the horizon of ten points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on the starboard side, and of such a character as to be visible on a dark night with a clear atmosphere at a distance of at least two miles:

(*c.*) *On the Port Side*, a red light, so constructed as to show an uniform unbroken light over an arc of the horizon of ten points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on the port side, and of such a character as to be visible on a dark night with a clear atmosphere at a distance of at least two miles:

(*d.*) The said green and red side lights shall be fitted with inboard screens projecting at least three feet forward from the light, so as to prevent these lights from being seen across the bow.

Art. 4. Steam ships when towing other ships shall carry two bright white mast-head lights vertically, in addition to their side lights, so as to distinguish them from other steam ships. Each of these mast-head lights shall be of the same construction and character as the mast-head lights which other steam ships are required to carry.

Art. 5. Sailing ships under weigh or being towed shall carry the same lights as steam ships under weigh, with the exception of the white mast-head lights, which they shall never carry.

Art. 6. Whenever, as in the case of small vessels during bad weather, the green and red lights cannot be fixed, these lights shall be kept on deck on their respective sides of the vessel ready for instant exhibition, and shall, on the approach of or to other vessels, be exhibited on their respective sides in sufficient time to prevent collision, in such manner as to make them most visible, and so that the green light shall not be seen on the port side, nor the red light on the starboard side.

To make the use of these portable lights more certain and easy, they shall each be painted outside with the colour of the light they respectively contain, and shall be provided with suitable screens.

Art. 7. Ships, whether steam ships or sailing ships, when at anchor in roadsteads or fairways, shall between sunrise and sunset exhibit, where it can best be seen, but at a height not exceeding twenty feet above the hull, a white light in a globular lantern of eight inches in diameter, and so constructed as to show a clear uniform and unbroken light visible all round the horizon, and at a distance of at least one mile.

Art. 8. Sailing pilot vessels shall not carry the lights required for other sailing vessels, but shall carry a white light at the mast head visible all round the horizon, and shall also exhibit a flare-up light every fifteen minutes.

Art. 9. Open fishing boats and other open boats shall not be required to carry side lights required for other vessels; but shall, if they do not carry such lights, carry a lantern having a green slide on the one side and a red slide on the other side; and on the approach of or to other vessels such lantern shall be exhibited in sufficient time to prevent collision, so that the green light shall not be seen on the port side nor the red light on the starboard side.

Fishing vessels and open boats, when at anchor or attached to their nets and stationary, shall exhibit a bright white light.

Fishing vessels and open boats shall, however, not be prevented from using a flare-up in addition, if considered expedient.

Art. 10. *Rules concerning Fog Signals.*—Whenever there is fog, whether by day or night, the fog signals described below shall be carried and used, and shall be sounded at least every five minutes; viz.:—

(*a.*) Steam ships under weigh shall use a steam whistle placed before the funnel not less than eight feet from the deck.

(*b.*) Sailing ships under weigh shall use a fog horn.

(*c.*) Steam ships and sailing ships when not under weigh shall use a bell.

Art. 11. *Steering and Sailing Rules.*—If two sailing ships are meeting end on, or nearly end on, so as to involve risk of collision, the helms of both shall be put to port, so that each may pass on the port side of the other.

Art. 12. When two sailing ships are crossing so as to involve risk of collision, then if they have the wind on different sides, the ship with the wind on the port side shall keep out of the way of the ship with the wind on the starboard side, except in the case in which the ship with the wind on the port side is close hauled and the other ship free, in which case the latter ship shall keep out of the way; but if they have the wind on the same side, or if one of them has the wind aft, the ship which is to windward shall keep out of the way of the ship which is to leeward.

Art. 13. If two ships under steam are meeting end on, or nearly end on, so as to involve risk of collision, the helms of both shall be put to port, so that each may pass on the port side of the other.

Art. 14. If two ships under steam are crossing

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so as to involve risk of collision, the ship which has the other on her own starboard side shall keep out of the way of the other.

Art. 15. If two ships, one of which is a sailing ship and the other a steam ship, are proceeding in such directions as to involve risk of collision, the steam ship shall keep out of the way of the sailing ship.

Art. 16. Every steam ship, when approaching another ship so as to involve risk of collision, shall slacken her speed, or, if necessary, stop and reverse; and every steam ship shall, when in a fog, go at a moderate speed.

Art. 17. Every vessel overtaking any other vessel shall keep out of the way of the said last-mentioned vessel.

Art. 18. Where by the above rules one of two ships is to keep out of the way, the other shall keep her course, subject to the qualifications contained in the following article.

Art. 19. In obeying and construing these rules due regard must be had to all dangers of navigation; and due regard must also be had to any special circumstances which may exist in any particular case rendering a departure from the above rules necessary in order to avoid immediate danger.

Art. 20. Nothing in these rules shall exonerate any ship or the owner or master or crew thereof from the consequences of any neglect to carry lights or signals, or of any neglect to keep a proper look-out, or of the neglect of any precaution which may be required by the ordinary practice of seamen or by the special circumstances of the case. [COLLISION.]

Equipment of Steam Ships.—Steam ships shall be provided as follows (that is to say):—

1. Every steam ship of which a survey is hereby required, shall be provided with a safety valve upon each boiler, so constructed as to be out of the control of the engineer when the steam is up, and, if such valve is in addition to the ordinary valve, it shall be so constructed as to have an area not less and a pressure not greater than the area of and pressure on that valve.

2. Every sea-going steam ship employed to carry passengers shall have her compasses properly adjusted from time to time; such adjustment, in the case of ships surveyed as after mentioned, to be made to the satisfaction of the shipwright surveyor, and according to such regulations as may be issued by the Board of Trade.

3. Every sea-going steam ship (unless used solely as a steam tug) shall be provided with a hose adapted for the purpose of extinguishing fire in any part of the ship and capable of being connected with the engines of the ship.

4. Every sea-going ship employed to carry passengers shall be provided with the following means of making signals of distress; viz. 12 blue lights or 12 port fires, and 1 cannon with ammunition for at least 12 charges, or, in the discretion of the master or owner of such ship, with such other means of making signals (if any) as may have previously been approved by the Board of Trade.

5. Every home trade steam ship employed to carry passengers by sea shall be provided with such shelter for the protection of deck passengers (if any) as the Board of Trade, having regard to the nature of the passage, the number of deck passengers to be carried, the season of the year, the safety of the ship, and the circumstances of the case, may require:

And if any steam ship as aforesaid plies or goes to sea from any port in the United Kingdom without being so provided as herein required, then for each default in any of the above requisites the owner shall (if he appears to be in fault) incur a penalty not exceeding 100*l.*, and the master shall (if he appears to be in fault) incur a penalty not exceeding 50*l.* (17 & 18 Vict. c. 104 s. 301.)

Penalty for improper Weight on Safety Valve.—If any person places an undue weight on the safety valve of any steam ship, or, in the case of steam ships surveyed as hereinafter mentioned, increases such weight beyond the limits fixed by such engineer surveyor as hereinafter mentioned, he shall, in addition to any other liabilities he may incur by so doing, incur a penalty not exceeding 100*l.* (Sec. 302.)

Every steam ship which is required by the 17 & 18 Vict. c. 104 to have a master possessing a certificate, shall also have an engineer or engineers possessing a certificate or certificates from the Board of Trade. (25 & 26 Vict. c. 63 s. 5.)

Survey of Passenger Steamers.

Definition of Passenger Steamer.—For the purpose of the enactments herein contained with respect to surveys and certificates of passenger steam ships, the word 'passengers' shall be held to include any persons carried in a steam ship, other than the master and crew and the owner, his family and servants; and the expression 'passenger steamer' shall be held to include every British steam ship carrying passengers to, from, or between any place or places in the United Kingdom, excepting steam ferry boats working in chains, commonly called steam bridges. (17 & 18 Vict. c. 104 s. 303.)

Passenger Steamers to be surveyed.—Every passenger steamer shall be surveyed twice at least in each year in manner after mentioned. (Sec. 304.)

Board of Trade to appoint Surveyors and fix their Remuneration.—The Board of Trade may from time to time appoint such number of fit and proper persons to be shipwright surveyors and engineer surveyors for the purposes of this Act at such ports or places as it thinks proper, and may also appoint a surveyor-general for the United Kingdom, and may from time to time remove such surveyors or any of them, and may from time to time fix and alter the rates of remuneration to be received by such surveyors. (Sec. 305.)

Surveyors to have Power to inspect.—It shall be lawful for the said surveyors in the execution of their duties to go on board any steam ship at all reasonable times, and to inspect the same or any part thereof, or any of the machinery, boats, equipments, or articles on board thereof, or any certificates of the master or mate to which the provisions of this Act or any of the regulations to be made by virtue thereof apply, not unnecessarily detaining or delaying the ship from proceeding on any voyage, and, if in consequence of any accident to any such ship or for any other reason they consider it necessary so to do, to require the ship to be taken into dock for the purpose of surveying the hull thereof; and any person who hinders any such surveyor from going on board any such steam ship or otherwise impedes him in the execution of his duty under this Act, shall incur a penalty not exceeding 5*l.* (Sec. 306.)

Board of Trade to regulate Mode of making Surveys.—The said surveyors shall execute their duties under the direction of the Board of Trade, and such board shall make regulations as to the manner in which the surveys after mentioned shall be made, and as to the notice to be given to the surveyors when surveys are required, and as to the amount and payment of any travelling or other expenses incurred by such surveyors in the execution of their duties, and may thereby deter-

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mine the persons by whom and the conditions under which such payment shall be made. (Sec. 307.)

Penalty on Surveyors receiving Fees unlawfully.—Every surveyor who demands or receives directly or indirectly from the owner or master of any ship surveyed by him under the provisions of this Act any fee or remuneration whatsoever for or in respect of such survey, otherwise than as the officer and by the direction of the Board of Trade, shall incur a penalty not exceeding 50*l.* (Sec. 308.)

Owners to have Surveys made by Shipwright and Engineer Surveyors &c.—The owner of every passenger steamer shall cause the same to be surveyed at the times hereinafter directed by one of the said shipwright surveyors and by one of the said engineer surveyors appointed as aforesaid; such shipwright surveyor being, in the case of iron steamers, a person who is, in the judgment of the Board of Trade, properly qualified to survey such ships; and such surveyors shall thereupon, if satisfied that they can with propriety do so, give to such owner declarations as follows:—

The declaration of the shipwright surveyor shall contain statements of the following particulars (that is to say):—

1. That the hull of the ship is sufficient for the service intended and in good condition.

2. That the partitions, boats, life buoys, lights, signals, compasses, and shelter for deck passengers, and the certificates of the master and mate or mates, are such, and in such condition, as required by this Act.

3. The time (if less than six months) for which the said hull and equipments will be sufficient.

4. The limits (if any) beyond which, as regards the hull and equipments, the ship is, in the surveyor's judgment, not fit to ply.

5. The number of passengers which the ship is, in the judgment of the surveyor, fit to carry, distinguishing, if necessary, between the respective numbers to be carried on the deck and in the cabins, and in different parts of the deck and cabins; such numbers to be subject to such conditions and variations, according to the time of year, the nature of the voyage, the cargo carried, or other circumstances, as the case requires.

And the declaration of the engineer surveyor shall contain statements of the following particulars (that is to say):—

1. That the machinery of the ship is sufficient for the service intended, and in good condition.

2. The time (if less than six months) for which such machinery would be sufficient.

3. That the safety valves and fire hose are such and in such condition as are required by this Act.

4. The limits of the weight to be placed on the safety valves.

5. The limits (if any) beyond which, as regards the machinery, the ship, in the surveyor's judgment is not fit to ply.

And such declarations shall be in such form as the Board of Trade directs. (Sec. 309.)

Transmission of Declarations to Board of Trade.—The said owner shall transmit such declarations to the Board of Trade within 14 days after the dates of the receipt thereof respectively; and in default shall forfeit a sum not exceeding 10*s.* for every day that the sending of such declarations is delayed; and such sum shall be paid upon the delivery of the certificate hereinafter mentioned, in addition to the fee payable for the same, and shall be applied in the same manner as such fees. (Sec. 310.)

Times appointed for Surveys and Transmission of Declarations.—In all cases where it is possible the said half-yearly surveys shall be made in the months of April and of October, and the declarations shall be transmitted on or before April 30 and October 31 respectively; but if the owner of any passenger steamer is unable to have the same surveyed in the month of April or October (as the case may be), either by reason of such ship being absent from the United Kingdom during the whole of those periods respectively or by reason of such ship or the machinery thereof being under construction or repair, or of such ship being laid up in dock, or for any other reason satisfactory to the Board of Trade, then he shall have the same surveyed as aforesaid as soon thereafter as possible, and shall transmit such declarations to the Board of Trade within 14 days after the receipt thereof, together with a statement of the reasons which have prevented the survey of such ship at the time before prescribed, and shall, in case of delay in transmitting the declarations, be liable to a forfeiture similar to that mentioned in the last section. (Sec. 311.)

Board of Trade to issue Certificates.—Upon the receipt of such declarations, the Board of Trade shall, if satisfied that the provisions of the fourth part of this Act have been complied with, cause a certificate in duplicate to be prepared and issued, to the effect that the provisions of the law with respect to the survey of the ship and the transmission of declarations in respect thereof have been complied with; and such certificate shall state the limits (if any) beyond which, according to the declaration of the surveyors, such ship is not fit to ply, and shall also contain a statement of the number of passengers which, according to the declaration of the shipwright surveyor, such ship is fit to carry, distinguishing (if necessary) between the respective numbers to be carried on the deck and in the cabins and in different parts of the deck and cabins, such number to be subject to such conditions and variations according to the time of year, the nature of the voyage, the cargo carried, and other circumstances, as the case requires. (Sec. 312.)

Issue and Transmission of Certificates.—The Board of Trade shall transmit such duplicate certificate to the shipping master or to some other public officer at such port as the owner may mention for the purpose, or at the port where the owner or his agent resides or where the ship was surveyed and is for the time being lying, and shall cause notice of such transmission to be given by post or otherwise to the master or owner or his agent; and the said shipping master or officer shall deliver such duplicate certificate to the said owner, master, or agent, on his applying and paying the fees and other sums (if any) herein mentioned as payable in that behalf; and in proving the due issue and transmission to the owner, agent, or master of such certificate, it shall be sufficient to show that the same has been duly received by such shipping master or public officer as aforesaid, and that due notice of the transmission thereof to such shipping master or officer has been given to such owner, master, or agent. (Sec. 313.)

Fees to be paid for Certificates.—The owner of every passenger steamer requiring a certificate under this Act shall pay for every certificate granted by the Board of Trade such fees as such Board directs, not exceeding the fees undermentioned:—

For steamers not exceeding 100 tons	£2
For steamers exceeding 100 and not exceeding 300 tons	3
For steamers exceeding 300 and not exceeding 600 tons	4
And for every additional 300 tons an additional	1

(Sec. 314.)

How long Certificates to continue in force.—No such certificate shall be held to be in force for the

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purposes of this Act beyond the date fixed by the Board of Trade for the expiration thereof; and no certificate shall be in force after notice is given by the Board of Trade to the owner, agent, or master of the ship to which the same relates, that such board has cancelled or revoked the same: provided, that if any passenger steamer is absent from the United Kingdom at the time when her certificate expires, no penalty shall be incurred for the want of a certificate until she first begins to ply with passengers after her next subsequent return to the United Kingdom; and the Board of Trade may require any certificate which has expired, or has been revoked or cancelled, to be delivered up as it directs; and any owner or master who, without reasonable cause, neglects or refuses to comply with such requirement, shall incur a penalty not exceeding 10*l*. (Sec. 315.)

Board of Trade may cancel Certificates.—The Board of Trade may revoke and cancel such certificates in any case in which it has reason to believe,

1. That the declarations of the sufficiency and good condition of the hull, equipments, and machinery of any passenger steamer, or either of them, have been fraudulently or erroneously made; or,

2. That such certificate has otherwise been issued upon false or erroneous information; or,

3. That since the making of such declarations the hull, equipments, or machinery of such ship have sustained any injury, or are otherwise insufficient.

And in every such case the Board of Trade may, if it think fit, require the owner to have the hull, equipments, or machinery of such ship again surveyed, and to transmit a further declaration or declarations of the sufficiency and good condition thereof, before re-issuing any certificate or granting a fresh one in lieu thereof. (Sec. 316.)

Copy of Certificate to be placed in conspicuous Part of Ship.—The owner or master of every passenger steamer shall forthwith, on the transmission of any such certificate as aforesaid to him or his agent, cause one of the duplicates thereof so transmitted to be put up in some conspicuous part of the ship, so as to be visible to all persons on board the same, and shall cause it to be continued so put up so long as such certificate remains in force and such ship is in use; and in default such owner or master shall for every offence incur a penalty not exceeding 10*l*. (Sec. 317.)

Ship not to proceed on her Voyage without Certificate.—It shall not be lawful for any passenger steamer to proceed to sea or upon any voyage or excursion with any passengers on board, unless the owner thereof has transmitted to the Board of Trade the declarations before required, nor unless the owner or master thereof has received from such board such a certificate as is before provided for, such certificate being a certificate applicable to the voyage or excursion on which such ship is about to proceed; and no officer of customs shall grant any clearance or transire for any passenger steamer unless upon the production of such certificate; and if any passenger steamer attempts to ply or go to sea without such production, any such officer may detain her until such certificate is produced; and if any passenger steamer plies or goes to sea with any passengers on board, without having one of the duplicates of such certificate as aforesaid (being a certificate then in force, and applicable as aforesaid) so put up as aforesaid in some conspicuous part of the ship, the owner thereof shall for such offence incur a penalty not exceeding 100*l*., and the master of such ship shall also incur a further penalty not exceeding 20*l*. (Sec. 318.)

Penalty for carrying Passengers in Excess of Numbers specified in Certificate.—If the owner or master or other person in charge of any passenger steamer receives on board thereof, or if such ship has on board, any number of passengers which, having regard to the time, occasion, and circumstances of the case, is greater than the number of passengers allowed by the certificate, the owner or master shall incur a penalty not exceeding 20*l*., and also an additional penalty not exceeding 5*s*. for every passenger over and above the number allowed by the certificate, or, if the fare of any of the passengers on board exceeds 5*s*., not exceeding double the amount of the fares of all the passengers who are over and above the number so allowed as aforesaid, such fares to be estimated at the highest rate payable by any passenger on board. (Sec. 319.)

Forgery of Declaration or Certificate a Misdemeanor.—Every person who knowingly and wilfully makes or assists in making or procures to be made a false or fraudulent declaration or certificate with respect to any passenger steamer requiring a certificate under the fourth part of this Act, or who forges, assists in forging, or procures to be forged, fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any declaration or certificate required by the fourth part of this Act, or any words or figures in any such declaration or certificate, or any signature thereto, shall be deemed guilty of a misdemeanor. (Sec. 320.)

Surveyors to make Returns of the build and other Particulars of Steam Ships &c.—The said surveyors shall from time to time make such returns to the Board of Trade as it requires with respect to the build, dimensions, draught, burden, rate of sailing, room for fuel, and the nature and particulars of machinery and equipments of the ship surveyed by them; and every owner, master, and engineer of any such ship, shall, on demand, give to such surveyors all such information and assistance within his power as they require for the purpose of such returns; and every such owner, master, or engineer who, on being applied to for that purpose, wilfully refuses or neglects to give such information or assistance, shall be liable to a penalty not exceeding 5*l*. (Sec. 321.)

Penalties on Persons forcing Way on Board, or refusing to quit the Ship.—The following offenders, viz.:—

1. Any person who, after having been refused admission into any steamer by the owner or person in charge thereof or by any person in the employ of the owner, on account of such steamer being full, and after having had the full amount of his fare (if he has paid the same) returned or tendered to him, nevertheless persists in attempting to enter the same; and

2. Any person, having got on board any steamer, who, upon being requested on the like account by the owner or person in charge thereof or by any person in the employ of the owner to leave such steamer before the same has quitted the place at which such person got on board, and upon having the full amount of his fare (if he has paid the same) returned or tendered to him, refuses to comply with such request;

Shall for each such offence incur a penalty not exceeding 40*s*., to be paid to the said owner. (Sec. 322.)

Penalty for avoiding Payment of Fares.—The following offenders, viz.:—

1. Any person who travels or attempts to travel in any passenger steamer which has been

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duly surveyed in conformity with the provisions of this Act, without having previously paid his fare, and with intent to avoid payment thereof; and

2. Any person who, having paid his fare for a certain distance, knowingly and wilfully proceeds in any such steamer beyond such distance, without previously paying the additional fare for the additional distance, and with intent to avoid payment thereof; and

3. Any person who knowingly and wilfully refuses or neglects, on arriving at the point to which he has paid his fare, to quit any such steamer;

shall for every such offence incur a penalty not exceeding 5*s.*, in addition to the fare payable by him, such penalty to be payable to the owner of such steamer. (Sec. 323.)

Penalty on Persons refusing to give their Name and Address.—Every person who, having committed any of the offences mentioned in the two last preceding sections or either of them, refuses, on application of the master of the ship or of any other person in the employ of the owner, to give his name and address, or who on such application gives a false name or address, shall incur a penalty not exceeding 20*l.*, to be paid to the said owner. (Sec. 324.)

Power to refuse or remove Passengers who are drunk or misconduct themselves.—The master of any home trade passenger steam ship may refuse to receive on board thereof any person who by reason of drunkenness or otherwise is in such a state, or misconducts himself in such a manner, as to cause annoyance to other passengers on board, or if such person is on board, may put him on shore at any convenient place; and no person so refused admittance or put on shore shall be entitled to the return of any fare he may have paid. (Sec. 325.)

Accidents to Steam Ships to be reported to Board of Trade.—Whenever any steam ship has sustained or caused any accident occasioning loss of life, or any serious injury to any person, or has received any material damage affecting her seaworthiness or her efficiency either in her hull or in any part of her machinery, the owner or master shall, within 24 hours after the happening of such accident or damage, or as soon thereafter as possible, send to the Board of Trade, by letters signed by such owner or master, a report of such accident or damage, and of the probable occasion thereof, stating the name of the ship, the port to which she belongs, and the place where she is; and if such owner or master neglect so to do, he shall for such offence incur a penalty not exceeding 50*l.* (Sec. 326.)

Notice to be given of apprehended Loss of Steam Ships.—If the owner of any steam ship have reason, owing to the nonappearance of such ship, or to any other circumstance, to apprehend that such ship has been wholly lost, he shall as soon as conveniently may be send notice thereof in like manner to the Board of Trade, and if he neglect so to do within a reasonable time he shall for such offence incur a penalty not exceeding 50*l.* (Sec. 327.)

Collisions to be entered in Official Log.—In every case of collision, in which it is practicable so to do, the master shall immediately after the occurrence cause a statement thereof, and of the circumstances under which the same occurred, to be entered in the official log book (if any), such entry to be signed by the master, and also by the mate or one of the crew, and in default shall incur a penalty not exceeding 20*l.* (Sec. 328.)

Provisions to prevent carrying dangerous Goods without due Notice.—No person shall be entitled to carry in any ship, or to require the master or owner of any ship to carry therein, any aquafortis, oil of vitriol, gunpowder, or any other goods which, in the judgment of such master or owner, are of a dangerous nature; and if any person carries or sends by any ship any goods of a dangerous nature, without distinctly marking their nature on the outside of the package containing the same, or otherwise giving notice in writing to the master or owner at or before the time of carrying or sending the same to be shipped, he shall for every such offence incur a penalty not exceeding 100*l.*, and the master or owner of any ship may refuse to take on board any parcel that he suspects to contain goods of a dangerous nature, and may require them to be opened to ascertain the fact. (Sec. 329.)

IV. Shipping Offices &c.

These were established by the 13 & 14 Vict. c. 93. Their object, as explained below, was to afford facilities for the engagement of seamen and apprentices; to keep an account of their names and characters; to see to their being on board when required; and generally to promote their interests and those of the masters. The following clauses of the Mercantile Shipping Act, the 17 & 18 Vict. c. 104, relate to this subject, viz.:—

Marine Boards to establish Shipping Offices.—In every seaport in the United Kingdom, in which there is a Local Marine Board, such board shall establish a shipping office or shipping offices, and may for that purpose, subject as after mentioned, procure the requisite premises, and appoint and from time to time remove and re-appoint superintendents of such offices, to be called shipping masters, with any necessary deputies, clerks, and servants, and regulate the mode of conducting business at such offices, and shall have complete control over the same; and every act done by or before any deputy duly appointed shall have the same effect as if done by or before a shipping master. (Sec. 122.)

Board of Trade to have partial Control over Shipping Offices.—The sanction of the Board of Trade shall be necessary so far as regards the number of persons appointed by any Local Marine Board, and the amount of their salaries and wages and all other expenses; and the Board of Trade shall have the immediate control of such shipping offices, so far as regards the receipt and payment of money thereat; and all shipping masters, deputies, clerks, and servants appointed as aforesaid shall before entering upon their duties give such security (if any) for the due performance thereof as the Board of Trade requires; and if in any case the Board of Trade has reason to believe that any shipping master, deputy, clerk, or servant appointed by any Local Marine Board does not properly discharge his duties, the Board of Trade may cause the case to be investigated, and may, if it thinks fit so to do, remove him from his office, and may provide for the proper performance of his duties until another person is properly appointed in his place. (Sec. 123.)

Business of such Offices Generally.—It shall be the general business of shipping masters appointed as aforesaid—

To afford facilities for engaging seamen by keeping registries of their names and characters.

To superintend and facilitate their engagement and discharge in manner hereinafter mentioned.

To provide means for securing the presence on board at the proper times of men who are so engaged.

To facilitate the making of apprenticeships to the sea service.

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To perform such other duties relating to merchant seamen and merchant ships as are hereby or may hereafter under the powers herein contained be committed to them. (Sec. 124.)

Fees to be paid upon Engagements and Discharges.—Such fees, not exceeding the sums specified in the annexed Table, as are from time to time fixed by the Board of Trade, shall be payable upon all engagements and discharges effected before shipping masters as after mentioned, and the Board of Trade shall cause scales of the fees payable for the time being to be prepared and to be conspicuously placed in the shipping offices; and all shipping masters, their deputies, clerks, and servants, may refuse to proceed with any engagement or discharge unless the fees payable thereon are first paid. (Sec. 125.)

Fees to be charged for Matters transacted at Shipping Offices.

1. Engagement of crews.

	£	s.		£	s.
Under 60 tons	0	4	500 to 600 tons	1	15
60 to 100 ,,	0	7	600 to 700 ,,	2	0
100 to 200 ,,	0	15	700 to 800 ,,	2	5
200 to 300 ,,	1	0	800 to 900 ,,	2	10
300 to 400 ,,	1	5	900 to 1,000 ,,	2	15
400 to 500 ,,	1	10	Above 1,000 ,,	3	0

And so on for ships of larger tonnage, adding for every 100 tons above 1,000, 5s.

2. Engagement of seamen separately. 2s. for each.

3. Discharge of crews.

	£	s.		£	s.
Under 60 tons	0	4	500 to 600 tons	1	15
60 to 100 ,,	0	7	600 to 700 ,,	2	0
100 to 200 ,,	0	15	700 to 800 ,,	2	5
200 to 300 ,,	1	0	800 to 900 ,,	2	10
300 to 400 ,,	1	5	900 to 1,000 ,,	2	15
400 to 500 ,,	1	10	Above 1,000 ,,	3	0

And so on for ships of larger tonnage, adding for every 100 tons above 1,000, 5s.

4. Discharge of seamen separately. 2s. for each.

Masters to pay Fees, and to deduct Part from Wages.—Every owner or master of a ship engaging or discharging any seaman or seamen in a shipping office or before a shipping master, shall pay to the shipping master the whole of the fees hereby made payable in respect of such engagement or discharge, and may, for the purpose of in part reimbursing himself, deduct in respect of each such engagement or discharge from the wages of all persons (except apprentices) so engaged or discharged, and retain any sums not exceeding the sums specified in the prefixed Table, provided that if in any cases the sums which the owner is so entitled to deduct exceed the amount of the fee payable by him, such excess shall be paid by him to the shipping master in addition to such fee. (Sec. 126.)

Sums to be deducted from Wages by way of partial Repayment of Fees in preceding Table.

1. In respect of engagements and discharges of crews, upon each engagement and each discharge.

From wages of any mate, purser, engineer, surgeon, carpenter, or steward, 1s. 6d. From wages of all others except apprentices, 1s.

2. In respect of engagements and discharges of seamen separately, upon each engagement and each discharge, 1s.

Penalty on Shipping Masters taking other Remuneration.—Any shipping master, deputy shipping master, or any clerk or servant in any shipping office, who demands or receives any remuneration whatever, either directly or indirectly, for hiring or supplying any seaman for any merchant ship, excepting the lawful fees payable under this Act, shall for every such offence incur a penalty not exceeding 20*l.*, and shall also be liable to be dismissed from his office by the Board of Trade. (Sec. 127.)

Business of Shipping Offices may be transacted at Custom-houses.—The Board of Trade may, with the consent of the Commissioners of Customs, direct that at any place in which no separate shipping office is established, the whole or any part of the business of the shipping office shall be conducted at the custom-house, and thereupon the same shall be there conducted accordingly; and in respect to such business such custom-house shall for all purposes be deemed to be a shipping office, and the officer of customs there to whom such business is committed shall for all purposes be deemed to be a shipping master within the meaning of this Act. (Sec. 128.)

In London Sailors' Homes may be Shipping Offices.—The Board of Trade may appoint any superintendent of or other person connected with any sailors' home in the port of London to be a shipping master, with any necessary deputies, clerks, and servants, and may appoint any office in any such home to be a shipping office; and all shipping masters and shipping offices so appointed shall be subject to the immediate control of the Board of Trade, and not of the Local Marine Board of the port. (Sec. 129.)

Dispensation with Shipping Master's Superintendence.—The Board of Trade may from time to time dispense with the transaction before a shipping master or in a shipping office of any matters required by this Act to be so transacted; and thereupon such matters shall, if otherwise duly transacted as required by law, be as valid as if transacted before a shipping master or in a shipping office. (Sec. 130.)

V. Ships' Papers.

The papers or documents required for the manifestation of the property of the ship and cargo &c. are of two sorts; viz. 1st, those required by the law of a particular country—as the certificate of registry, license, charterparty, bills of lading, bill of health &c.—(see these titles)—required by the law of England to be on board British ships; and, 2ndly, those required by the law of nations to be on board neutral ships, to vindicate their title to that character. Mr. Serjeant Marshall, following Hubner (*De la Saisie des Bâtimens neutres*, i. 241—252), has given the following description of the latter class of documents:—

1. *The Passport, Sea Brief, or Sea Letter.*—This is a permission from the neutral state to the captain or master of the ship to proceed on the voyage proposed, and usually contains his name and residence; the name, property, description, tonnage, and destination of the ship; the nature and quantity of the cargo, the place whence it comes, and its destination; with such other matters as the practice of the place requires. This document is indispensably necessary for the safety of every neutral ship. Hubner says that it was the only paper rigorously insisted on by the Barbary corsairs; by the production of which alone their friends were protected from insult.

2. *The Proofs of Property.*—These ought to show that the ship really belongs to the subjects of a neutral state. If she appear to either belligerent to have been built in the enemy's country, proof is generally required that she was purchased by the neutral before, or captured and legally condemned and sold to the neutral after, the declaration of war; and in the latter case the *bill of sale*, properly authenticated, ought to be produced. Hubner admits that these proofs are so essential to every neutral vessel, for the prevention of frauds, that such as sail without them have no reason to complain if they be interrupted in their voyages, and their neutrality disputed.

3. *The Muster Roll.*—This, which the French call *rôle d'équipage*, contains the names, ages, quality, place of residence, and, above all, *the place of birth*, of every person of the ship's company. This document is of great use in ascertaining a ship's neutrality. It must naturally excite a strong suspicion if the majority of the crew be found to consist of foreigners, still more if they be natives of the enemy's country. [SEAMEN.]

4. *The Charterparty.*—Where the ship is chartered, this instrument serves to authenticate many of the facts on which the truth of her neutrality must rest, and should therefore be always found on board chartered ships.

5. *The Bills of Lading.*—By these the captain acknowledges the receipt of the goods specified therein, and promises to deliver them to the consignee or his order. Of these there are usually several duplicates; one of which is kept by the captain, one by the shipper of the goods, and one transmitted to the consignee. This instrument being only the evidence of a private transaction between the owner of the goods and the captain, does not carry with it the same degree of authenticity as the charterparty.

6. *The Invoices.*—These contain the particulars and prices of each parcel of goods, with the amount of the freight, duties, and other charges thereon, which are usually transmitted from the shippers to their factors or consignees. These invoices prove by whom the goods were shipped, and to whom consigned. They carry with them, however, but little authenticity; being easily fabricated where fraud is intended.

7. *The Log Book, or Ship's Journal.*—This contains a minute account of the ship's course, with a short history of every occurrence during the voyage. If this be faithfully kept, it will throw great light on the question of neutrality; if it be in any respect fabricated, the fraud may in general be easily detected. [LOG, OFFICIAL.]

8. *The Bill of Health.*—This is a certificate, properly authenticated, that the ship comes from a place where no contagious distemper prevails; and that none of the crew, at the time of her departure, were infected with any such disorder. It is generally found on board ships coming from the Levant, or from the coast of Barbary, where the plague so frequently prevails.

A ship using false or simulated papers is liable to confiscation. (Marshall *On Insurance*, book i. c. 9 s. 6.) [STEAM VESSELS.]

SHOES (Dutch, schoenen; Fr. souliers; Ger. schube; Ital. scarpe; Russ. baschmaki; Span. zapatos). Articles of clothing that are universally worn, and require no description. The shoe manufacture is of great value and importance—much more so, indeed, than is generally supposed; for it ranks in the public estimation far below many branches to which it is really much superior in intrinsic value. This results from the circumstance of machinery being hardly introduced into the business, and from its being principally carried on either in petty workshops, or, as is the more usual practice, in the houses of the shoemakers. It is very extensively practised in the metropolis, where the best shoes are made; and is diffused over every part of the country. Northamptonshire and Staffordshire have attained to considerable distinction in the business, large quantities of shoes being made in them, partly for the supply of the metropolis and other large towns, where they are sold 'ready made,' and partly for exportation. Shoemaking (boot-making is always included) is the most extensively practised of all the common trades, next to millinery and dressmaking. By the census of 1861 no fewer than 279,563 persons (238,090 males, and 41,473 females) were engaged in Great Britain in boot and shoemaking, exclusive of 90,970 shoemakers' wives. In London the business furnished employment to 42,691 persons, and in Northamptonshire to 17,237.

The estimate given, in the art. LEATHER, of the value of the shoes annually manufactured in the United Kingdom is 16,000,000*l.*, so that the share of Great Britain may at present (1869) be safely estimated at above 13,000,000*l.* If we reckon the wages of the 279,563 persons employed in the business at 20*l.* a-year at an average (which, as young people and women are extensively employed, is probably not far from the mark), their total amount will be 5,591,260*l.*, to which has to be added the value of the leather and other materials.

Boots and shoes used formerly to be prohibited, but they are now admitted duty free. Of boots and shoes, we imported in 1867, chiefly from France, 282,953 pairs for women, 98,574 pairs for men, and 504 pairs for children, besides 75,324 pairs of boot fronts, the whole valued at 89,324*l.* The exports of boots and shoes in the six years ending with 1867 were in quantity and value as follows:—

Years	Quantities	Value
		£
1862	5,375,747 pairs	1,637,350
1863	4,449,291 ,,	1,105,819
1864	4,849,260 ,,	1,484,121
1865	5,271,398 ,,	1,462,105
1866	3,549,618 ,,	998,888
1867	3,788,150 ,,	952,804

The chief consumers being our Australian and West Indian colonies and Brazil.

Massachusetts is the grand seat of the shoemaking business in the United States; and large quantities of shoes are annually shipped from Boston for New York and the Southern ports.

Though many, and some very ingenious, efforts have been made to manufacture shoes by the aid of machinery, they have hitherto had but little success. This will not appear surprising when it is considered that the size and shape of the feet differ extremely in different persons, and that, consequently, the articles to be produced are destitute of that sameness in their corresponding parts that is so essential in work produced by machinery. The latter has, however, been applied with considerable advantage to the manufacture of shoes or clogs with wooden soles; and it may also be applied, though with no great advantage, where fine work and accurate fitting are little cared for. On the whole, it would seem that the craft of St. Crispin is not very likely to be disturbed by those inventions that have so greatly changed so many other handicrafts. And the vast improvement in the shoes of modern times, compared with those used in antiquity, seems rather to result from the superiority of the leather, or material of which they are made, and the greater skill and dexterity of the workmen, than from the improvement of their tools.

SHUMAC or SUMACH (Ger. schmack, sumach; Fr. sumac, roure, roux; Ital. sommacco; Span. zumaque; Russ. sumak). Common shumac (*Rhus coriaria*) is a shrub that grows naturally in Syria, Palestine, Hungary, Spain, and Portugal. That which is cultivated in Italy, and is improperly called *young fustic*, is the *Rhus Cotinus*. It is cultivated with great care: its shoots are cut down every year quite to the root; and, after being dried, they are chipped or reduced to powder by a mill, and thus prepared for the

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purposes of dyeing and tanning. The shumac cultivated in the neighbourhood of Montpellier is called *rédoul* or *roudo*. Shumac may be considered of good quality when its odour is strong, colour of a lively green, is well ground, and free from stalks. Italian shumac is used in dyeing a full high yellow, approaching to the orange, upon wool or cloth; but the colour is fugitive. Common shumac is useful for drab and dove colours in calico printing, and is also capable of dyeing black. (Bancroft *On Colours*, vol. ii. p. 100.)

Of 13,440 tons of shumac imported in 1867, no fewer than 11,404 were from Italy. In 1867 we re-exported 1,679 tons. The price of shumac varies from 11*l.* 15*s.* to 21*l.* per ton.

The duty of 1*s.* per ton on shumac was repealed in 1845.

SIERRA LEONE. An English settlement, near the mouth of the river of the same name, on the west coast of Africa, lat. 8° 30′ N., long. 13° 18′ W. There is a fixed light on the cape visible 15 miles off, and a small green light on the Government wharf erected in 1863.

Objects of the Colony.—This colony was founded partly as a commercial establishment, but more from motives of humanity. It was intended to consist principally of free blacks, who, being instructed in the Christian religion and in the arts of Europe, should become, as it were, a focus whence civilisation might be diffused among the surrounding tribes. About 1,200 free negroes, who, having joined the royal standard in the American war, were obliged, at the termination of that contest, to take refuge in Nova Scotia, were conveyed thither in 1792: to these were afterwards added the Maroons from Jamaica; and, since the legal abolition of the slave trade, the negroes taken in the captured vessels, and liberated by the mixed commission courts, have been carried to the colony. The total population of the colony in 1856 amounted to 41,806, all black or coloured, with the exception of about 130 whites.

Success of the Efforts to civilise the Blacks.—Great efforts have been made to introduce order and industrious habits amongst these persons. We are sorry to be obliged to add, that these efforts, though prosecuted at an enormous expense of blood and treasure, have been signally unsuccessful. There is, no doubt, some discrepancy in the accounts of the progress made by the blacks. It is, however, sufficiently clear that it has been very inconsiderable, and we do not think that any other result could be rationally anticipated. Their laziness has been loudly complained of, but without reason. Men are not industrious without a motive; and most of those motives that stimulate all classes in colder climates to engage in laborious employments are unknown to the indolent inhabitants of this burning region, where clothing is of little importance, where sufficient supplies of food may be obtained with comparatively little exertion, and where more than half the necessaries and conveniences of Europeans would be positive incumbrances. And had it been otherwise, what progress could a colony be expected to make, into which there have been annually imported crowds of liberated negroes, most of whom are barbarians in the lowest stage of civilisation?

Influence of the Colony upon the illicit Slave Trade.—As a means of checking the prevalence of the illicit slave trade, the establishment of a colony at Sierra Leone has been worse than useless. The trade is principally carried on with the countries round the Bight of Biafra and the Bight of Benin, many hundred miles distant from Sierra Leone; and the mortality in the captured ships during their voyage to the latter is often very great. The truth is, that this traffic will never be effectually put down otherwise than by the great Powers declaring it to be *piracy*, and treating those engaged in it, wherever and by whomsoever they may be found, as sea robbers or pirates. Such a declaration would be quite conformable to the spirit of the declaration put forth by the Congress of Vienna in 1824. [Slave Trade.] But the jealousies with respect to the right of visitation and search are so very great, that it is exceedingly doubtful whether the maritime Powers will ever be brought to concur in any declaration of the kind now alluded to; unless, however, something of this sort be done, we apprehend there are but slender grounds for supposing that the trade will be speedily suppressed.

Climate of Sierra Leone.—The soil in the vicinity of Sierra Leone seems to be of indifferent fertility, and the climate is about the most destructive that can be imagined. The mortality among the Africans sent to it seems unusually great; and amongst the whites it is quite excessive. Much as we desire the improvement of the blacks, we protest against its being attempted by sending our countrymen to certain destruction in this most pestiferous of all pestiferous places. It would seem, too, that it is quite unnecessary, and that blacks may be employed to fill the official situations in the colony. But if otherwise, it should be unconditionally abandoned.

Commerce of Sierra Leone and the West Coast of Africa.—Commercially considered, Sierra Leone appears to quite as little advantage as in other points of view. We import from it teak wood, palm oil, ginger, and ground-nuts, with small quantities of camwood, ivory, hides, gum copal, and other articles; but their value is inconsiderable, not amounting to more than from 70,000*l.* to 80,000*l.* a-year. Palm oil is the great article of export from the west coast of Africa; and by far the largest portion of it is furnished by the coast to the west and south of the Rio Volta, many hundred miles from Sierra Leone. We doubt, indeed, whether the commerce with the latter will ever be of much importance. At all events, we hardly think that it can be expected materially to increase if it be conducted in the way in which it is affirmed that the intercourse with the liberated negroes is at present conducted. (*Reports on Colonial Possessions*, 1851, p. 175.) If there be not some mistake or exaggeration in the statement now referred to, nothing can be conceived more disgraceful. Should it, however, be ascertained that an establishment is really required for the advantageous prosecution of the trade to Western Africa, it is abundantly obvious that it should be placed much farther to the south than Sierra Leone. The island of Fernando Po has been suggested for this purpose; but, after the dear-bought experience we have already had, it is to be hoped that nothing will be done with respect to it without mature consideration.

In 1864 and 1866 the exports of palm oil from Sierra Leone to all parts amounted to 166,192 and 358,180 gallons. The exports of British produce to the colony consist principally of cottons, apparel, and haberdashery, arms and ammunition, and are but inconsiderable. In 1867 their value amounted to 225,655*l.*, but that was much above the average. The only manufacture that can be said to exist in the colony is the expression of the oil from the ground-nut by means of machinery. [Nuts, Ground.]

Expenses incurred on account of Sierra Leone.—The pecuniary expense occasioned by this colony, and our unsuccessful efforts to suppress

Account of the Quantities and Values of the Principal Articles Imported into the United Kingdom from Sierra Leone in each of the 3 Years ending with 1867.

Articles	Quantities			Computed Real Value		
	1865	1866	1867	1865	1866	1867
				£	£	£
Camwood - - - - tons	59	111	104	1,172	2,937	3,062
Ginger - - - - cwt.	7,211	10,432	10,933	15,520	20,534	14,067
Gum, copal - - - ,,	1,661	2,509	4,680	5,511	9,199	6,645
Nuts and kernels, for expressing oil therefrom - - - tons	1,685	1,794	1,070	14,131	16,087	11,168
Oil, palm - - - - cwt.	16,941	14,604	17,128	29,633	29,500	32,946
Teeth, elephants' - - - ,,	51	49	52	1,575	1,839	2,179
Wax, bees' - - - - ,,	1	98	29	8	812	232
Wood: hewn, cut - - - loads	455	..	..	2,025	..	..
teak - - - ,,	378	..	..	5,403	..	..
All other articles - - - value	..	..	..	3,213	1,649	1,714
Total - - - - -	..	..	..	76,221	82,617	72,063

the foreign slave trade, have been altogether enormous. Mr. Keith Douglas is reported to have stated in the House of Commons, so long ago as July 1831, that 'down to the year 1824 the *civil* expenses of Sierra Leone amounted to 2,268,000*l.*; and that the same expenses had amounted, from 1824 to 1830, to 1,082,000*l.* The naval expenses from 1807 to 1824 had been 1,630,000*l.* The payments to Spain and Portugal, to induce them to relinquish the slave trade, amounted to 1,230,000*l.* The expenses on account of captured slaves were 533,092*l.* The expenses incurred on account of the mixed commission courts were 198,000*l.* Altogether, this establishment had cost the country (even at that time) nearly 8,000,000*l.*' The expenditure on account of Sierra Leone in 1866 was 60,539*l.*

The prodigality of this expenditure is unmatched, except by its uselessness. It is doubtful whether it has prevented a single African from being dragged into slavery, or conferred the smallest real advantage on Africa. It, however, enabled the sovereigns of Spain and Portugal to turn their mercenary humanity to good account.

For further details with respect to Sierra Leone and the trade of Western Africa, see the *Report of the Select Committee of the House of Commons on the West Coast of Africa*, Sess. 1842, and the *Parliamentary Paper* for 1851, already referred to.

SILK (Lat. sericum, from Seres, the supposed ancient name of the Chinese; Fr. soie; Ital. seta; Span. seda; Ger. seide). A fine glossy thread or filament, spun by various species of caterpillars or larvæ of the *Phalæna* genus. Of these, the *Phalæna atlas* produces the greatest quantity; but the *Phalæna bombyx* is that commonly employed for this purpose in Europe. The silkworm, in its caterpillar state, which may be considered as the first stage of its existence, after acquiring its full growth (about 3 inches in length), proceeds to enclose itself in an oval-shaped ball, or cocoon, which is formed by an exceedingly slender and long filament of fine yellow silk, emitted from the stomach of the insect preparatory to its assuming the shape of the chrysalis or moth. In this latter stage, after emancipating itself from its silken prison, it seeks its mate, which has undergone a similar transformation; and in two or three days afterwards, the female having deposited her eggs (from 300 to 500 in number), both insects terminate their existence. According to Réaumur, the *phalæna* is not the only insect that affords this material—several species of the *aranea*, or spider, enclose their eggs in very fine silk.

Raw Silk is produced by the operation of winding off, at the same time, several of the balls or cocoons (which are immersed in hot water, to soften the natural gum on the filament) on a common reel, thereby forming one smooth, even thread. When the skein is dry, it is taken from the reel and made up into hanks; but before it is fit for weaving, and in order to enable it to undergo the process of dyeing, without furring up or separating the fibres, it is converted into one of three forms; viz. *singles*, *tram*, or *organzine*.

Singles (a collective noun) is formed of *one* of the reeled threads, being twisted, in order to give it strength and firmness.

Tram is formed of 2 or more threads twisted together. In this state it is commonly used in weaving, as the *shoot* or *weft*.

Thrown Silk is formed of 2, 3, or more singles, according to the substance required, being twisted together in a *contrary* direction to that in which the singles of which it is composed are twisted. This process is termed organzining; and the silk so twisted, *organzine*. The art of throwing was originally confined to Italy, where it was kept a secret for a long period. Stow says it was known in this country since the 5th of Queen Elizabeth, 'when it was gained from the strangers;' and in that year (1562) the silk throwsters of the metropolis were united into a fellowship. They were incorporated in the year 1629; but the art continued to be very imperfect in England until 1719. (See post.)

1. *Historical sketch of the Manufacture.*—The art of rearing silkworms, of unravelling the threads spun by them, and manufacturing the latter into articles of dress and ornament, seems to have been first practised by the Chinese. Virgil is the earliest of the Roman writers who has been supposed to allude to the production of silk in China, and the terms he employs show how little was then known at Rome of the real nature of the article:—

Velleraque ut foliis depectant tenuia Seres? (*Georg.* lib. ii. lin. 121.)

But it may be doubted whether Virgil do not, in this line, refer to cotton rather than silk. Pliny, however, has distinctly described the formation of silk by the *bombyx*. (*Hist. Nat.* lib. xi. c. 17.) It is uncertain when it first began to be introduced at Rome; but it was most probably in the age of Pompey and Julius Cæsar, the latter of whom displayed a profusion of silks in some of the magnificent theatrical spectacles with which he sought to conciliate and amuse the people. Owing principally, no doubt, to the great distance of China from Rome, and to the difficulties in the way of the intercourse with that country, which was carried on by land in caravans whose route lay through the Persian empire, and partly, perhaps, to the high price of silk in China, its cost, when it arrived at Rome, was very great; so much so, that a given weight of silk was sometimes sold for an equal weight of gold; at first it was only used by a few ladies eminent for their rank and opulence. In the beginning of the reign of Tiberius, a law was passed, 'ne vestis serica viros fœdaret'—that no man should disgrace himself by

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wearing a silken garment. (Tacit. *Annal.* lib. ii. c. 33.) But the profligate Heliogabalus despised this law, and was the first of the Roman emperors who wore a dress composed wholly of silk (*holosericum*). The example once set, the custom of wearing silk soon became general among the wealthy citizens of Rome, and throughout the provinces. According as the demand for the article increased, efforts were made to import larger quantities; and the price seems to have progressively declined from the reign of Aurelian. That this must have been the case is obvious from the statement of Ammianus Marcellinus, that silk was in his time (anno 370) very generally worn, even by the lowest classes. 'Sericum ad usum antehac nobilium, nunc etiam infimorum sine ullâ discretione proficiens.' (Lib. xviii. c. 6.)

Till the 6th century, China continued to draw considerable sums from the Roman empire in return for silk, now become indispensable to the Western World. About the year 550, two Persian monks, who had long resided in China and made themselves acquainted with the mode of rearing the silkworm, encouraged by the gifts and promises of Justinian, succeeded in carrying the eggs of the insect to Constantinople. Under their direction they were hatched and fed: they lived and laboured in a foreign climate; a sufficient number of butterflies was saved to propagate the race, and mulberry trees were planted to afford nourishment to the rising generations. A new and important branch of industry was thus established in Europe. Experience and reflection gradually corrected the errors of a new attempt; and the Sogdoite ambassadors acknowledged, in the succeeding reign, that the Romans were not inferior to the natives of China in the education of the insects, and the manufacture of silk. (Gibbon, *Decline and Fall*, vol. vii. p. 99.)

Greece, particularly the Peloponnesus, was early distinguished by the rearing of silkworms, and by the skill and success with which the inhabitants of Thebes, Corinth, and Argos carried on the manufacture. Until the 12th century Greece continued to be the only European country in which these arts were practised; but the force of Roger, king of Sicily, having, in 1147, sacked Corinth, Athens, and Thebes, carried off large numbers of the inhabitants to Palermo, who introduced the culture of the worm, and the manufacture of silk, into Sicily. From this island the arts spread into Italy; and Venice, Milan, Florence, Lucca &c. were soon after distinguished for their success in raising silkworms, and for the extent and beauty of their manufactures of silk. (Gibbon, vol. x. p. 110; *Biographie Universelle*, art. 'Roger II.')

The silk manufacture was introduced into France in 1480; Louis XI. having invited workmen from Italy, who established themselves in Tours. The manufacture was not begun at Lyons till about 1520; when Francis I., having got possession of Milan, prevailed on some artisans of the latter city to establish themselves, under his protection, in the former. Nearly at the same period the rearing of silkworms began to be successfully prosecuted in Provence, and other provinces of the south of France. Henry IV. rewarded such of the early manufacturers as had supported and pursued the trade for 12 years with patents of nobility.

Silk Manufacture of England.—The manufacture seems to have been introduced into England in the 15th century. Silk had, however, been used by persons of distinction two centuries previously. The manufacture does not appear to have made much progress till the age of Elizabeth; the tranquillity of whose long reign, and the influx of Flemings, occasioned by the disturbances in the Low Countries, gave a powerful stimulus to the manufactures of England. The silk throwsters of the metropolis were united, as already observed, in a fellowship, in 1562; and were incorporated in 1629. Though retarded by the civil wars, the manufacture continued gradually to advance; and so flourishing had it become, that it is stated in a preamble to a statute passed in 1666 (13 & 14 Ch. II. c. 15), that there were at that time no fewer than 40,000 individuals engaged in the trade. And it is of importance to observe, that though the importation of French and other foreign silks was occasionally prohibited during the reigns of James I. and Charles I., the Protectorate, and the reign of Charles II., the prohibition was not strictly enforced; and, generally speaking, their importation was quite free.

A considerable stimulus, though not nearly so great as has been commonly supposed, was given to the English silk manufacture by the revocation of the Edict of Nantes, in 1685. Louis XIV. drove, by that disgraceful measure, several hundreds of thousands of his most industrious subjects to seek an asylum in foreign countries; of whom it is supposed about 50,000 came to England. Such of these refugees as had been engaged in the silk manufacture established themselves in Spitalfields, where they introduced several new branches of the art. When the refugees fled to England, foreign silks were freely admitted; and it appears from the Custom-house returns, that from 600,000*l.* to 700,000*l.* worth were annually imported in the period from 1685 to 1692, being the very period during which the British silk manufacture made the most rapid advances. But the manufacture was not long permitted to continue on this footing. In 1692, the refugees, who seem to have been quite as conversant with the arts of monopoly as with those either of spinning or weaving, obtained a patent, giving them an exclusive right to manufacture lustrings and à-la-modes, the silks then in greatest demand. This, however, was not enough to satisfy them; for, in 1697, Parliament passed an Act, in compliance with their solicitations, prohibiting the importation of all French and other European silk goods; and in 1701, the prohibition was extended to the silk goods of India and China.

These facts show the fallacy of the opinion, so generally entertained, that we owe the introduction and establishment of the silk manufacture to the prohibitive system. So far from this being the case, it is proved, by statements in numerous Acts of Parliament, and other authentic documents, that the silk manufacture had overcome all the difficulties incident to its first establishment, had been firmly rooted, and had become of great value and importance, long before it was subjected to the trammels of monopoly; that is, before the manufacturers were taught to trust more to fiscal regulations, and the exertions of custom-house officers, than to their skill and ingenuity, for the sale of their goods.

The year 1719 is an important epoch in the history of the British silk manufacture; a patent being then granted to Mr. (afterwards Sir Thomas) Lombe and his brother, for the exclusive property of the famous silk mill erected by them at Derby, for throwing silk, from models they had clandestinely obtained in Italy. At the expiration of the patent, Parliament refused the petition of Sir Thomas Lombe for its renewal; but granted him 14,000*l.* in consideration of the services he had rendered the country, in erecting a machine which, it was supposed, would very soon enable us to dispense wholly with the supplies of thrown silk

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we had previously been in the habit of importing from Italy: but instead of being of any advantage, it is most certainly true that the establishment of throwing mills in England has proved one of the most formidable obstacles to the extension of the manufacture amongst us. These mills could not have been constructed unless oppressive duties had been laid on thrown or organzine silk; and the circumstance of their having been erected, and a large amount of capital vested in them, was successfully urged, for more than a century, as a conclusive reason for continuing the high duties.

From this period down to 1824 the history of the silk manufacture presents little more than complaints, on the part of the manufacturers, of the importation of foreign silks; of impotent efforts on the part of Parliament to exclude them; and of combinations and outrages on the part of the workmen. Among the multitude of Acts that were passed in reference to this manufacture, from 1697 to the era of Mr. Huskisson, we believe it would be exceedingly difficult to point out one that is bottomed on anything like sound principle, or that was productive of any but mischievous consequences. The French writers estimate the average exportation of silks from France to England, during the period from 1688 to 1741, at about 12,500,000 francs, or 500,000*l.* a-year. In 1763 attempts were made to check the prevalence of smuggling; and the silk mercers of the metropolis, to show their anxiety to forward the scheme, are said to have recalled their orders for foreign goods. It would seem, however, either that their patriotic ardour had very soon cooled, or they had been supplanted by others not quite so scrupulous; for it appears from a report of a committee of the Privy Council, appointed, in 1766, to enquire into the subject, that smuggling was then carried on to a greater extent than ever, and that 7,072 looms were out of employment. The same committee reported, that though the French were decidedly superior to us in some branches of the trade, we were quite equal, and even superior, to them in others; but instead of proposing, consistently with their report, to admit French silks on a reasonable duty, a measure which would have proved very advantageous to those branches of the manufacture in which we were superior, or nearly equal, to the French, without doing any material injury to the others, which were already in the most depressed condition, they recommended the continuance of the old system; substituting absolute prohibitions in the place of the prohibitory duties that formerly existed. Whatever immediate advantages the manufacturers might have reaped from this measure, the ultimate tendency of which could not fail of being most injurious, were effectually countervailed by the turbulent proceedings of the workmen, who succeeded, in 1773, in obtaining from the Legislature an Act which, by itself, was quite sufficient to have destroyed even a prosperous trade. This, which has been commonly called the Spitalfields Act, entitled the weavers of Middlesex to demand a fixed price for their labour, which should be settled by the magistrates; and while both masters and men were restricted from giving or receiving more or less than the fixed price, the manufacturers were liable in heavy penalties if they employed weavers out of the district. The monopoly which the manufacturers had hitherto enjoyed, though incomplete, had had sufficient influence to render inventions and discoveries of comparatively rare occurrence in the silk trade; but the Spitalfields Act extinguished every germ of improvement. Parliament, in its wisdom, having seen fit to enact that a manufacturer should be obliged to pay as much for work done by the best machinery as if it were done by hand, it would have been folly to have thought of attempting anything new! It is not, however, to be denied that Macclesfield, Manchester, Norwich, Paisley &c. are under obligations to this Act. Had it extended to the whole kingdom, it would have totally extirpated the manufacture; but being confined to Middlesex, it gradually drove the most valuable branches from Spitalfields to places where the rate of wages was determined by the competition of the parties, on the principle of mutual interest and compromised advantage. After having done incalculable mischief, the Act was repealed in 1824. Had it continued down to the present day, it would not have left employment in the metropolis for a single silk weaver.

But, as the effects of this Act did not immediately manifest themselves, it was at first exceedingly popular. After 1785, however, the substitution of cottons in the place of silk gave a severe check to the manufacture, and the weavers then began to discover the real nature of the Spitalfields Act. Being interdicted from working at reduced wages, they were totally thrown out of employment; so that, in 1793, upwards of 4,000 Spitalfields looms were quite idle. In 1798 the trade began to revive, and continued to extend slowly till 1815 and 1816, when the Spitalfields weavers were again involved in sufferings far more extensive and severe than at any former period.

It appears from this brief sketch of the progress of the English silk trade, that from the year 1695 down to our own times it has been exposed to the most appalling vicissitudes. The reason is obvious. The monopoly enjoyed by the manufacturers, and the Spitalfields Act, effectually put a stop to all improvement; so that the manufacture continued stationary in England, while on the Continent it was rapidly advancing. Whenever, therefore, the markets were, either from the miscalculation of the manufacturers or a change of fashion, overloaded with silks, there were no means of disposing of the surplus profitably abroad, and the distress became extreme. Notwithstanding the unparalleled advances we had made in other departments of manufacturing industry, it was affirmed, in 1826, by the member for Coventry (Mr. Ellice), in his place in the House of Commons, 'that there were in that city 9,700 looms; 7,500 of which were in the hands of operative weavers, who applied their manual labour, as well as their machinery, to the manufacture of ribbons. These looms were, for the most part, of the *worst possible construction*; and it would scarcely be believed that the improved loom in France would, in a given time, produce five times as much ribbon as the common loom in England with the same manual labour. He could also state that there existed an improved manufacture in Germany, by which one man could make *forty-eight times as much velvet as could be made in an equal time by an English machine.* What chance was there that the English manufacturer could maintain such a competition?'

Perhaps these statements may have been somewhat exaggerated; but there can be no doubt of their substantial accuracy. Surely, however, no one believes that the inferiority of the machinery used by the English manufacturers was ascribable to anything except that the protection they enjoyed had made them indifferent to improvements. No one believes that the French or Germans are superior to the English in the construction of machines; on the contrary, their inferiority is admitted by themselves, and by

everybody else. That that spirit of invention which has effected such astonishing results in the cotton manufacture should have been so long wholly unknown in that of silk, is entirely to be ascribed to the fact of the former never having been the object of legislative protection. The cotton manufacturers were not bribed into the adoption of a routine system; they could not rest satisfied with mediocrity; but being compelled to put forth all their powers—to avail themselves of every resource of science and of art—they have, in a few years, raised the British cotton manufacture from a subordinate and trifling, to the very first place amongst the manufactures, not of this country only, but of the world.

Change, in 1826, of the Monopoly System.—At length, however, the impolicy of the system by which the silk manufacture had been so long depressed, became obvious to every intelligent individual. The principal manufacturers in and about London subscribed, in 1824, a petition to the House of Commons, in which they stated that 'this important manufacture, though recently considerably extended, is still depressed below its natural level, by laws which prevent it from attaining that degree of prosperity which, under more favourable circumstances, it would acquire.' Fortified by this authority, by the experience of 130 years, during which the prohibitive system had been allowed to paralyse the energies of the manufacturers, and by the sanction of Parliamentary committees, Mr. Huskisson moved, on March 8, 1824, that the prohibition of foreign silks should cease on July 5, 1826, and that they should then be admitted for importation on payment of a duty of 30 per cent. ad valorem. On this occasion Mr. Huskisson observed: 'The monopoly had produced, what monopoly was always sure to produce, an indifference with regard to improvement. That useful zeal which gives life to industry, which fosters ingenuity, and which in manufactures occasions unceasing efforts to produce the article in the most economical form, had been comparatively extinguished. *To the prohibitive system it was to be ascribed, that in silk only, in the whole range of manufactures, we were left behind our neighbours.* We have here a proof of that chilling and benumbing effect which is sure to be produced when no genius is called into action, and when we are rendered indifferent to exertion by the indolent security derived from restrictive regulations. I have not the slightest doubt that if the same system had been continued with respect to the cotton manufacture, it would have been at this moment *as* subordinate in amount *to* the woollen as it is junior in its introduction into the country.' (*Speeches*, vol. ii. p. 249.)

We have already alluded to the enormous duties imposed, in 1719, when Sir Thomas Lombe erected his throwing mill at Derby, on foreign organzine silk. These, though subsequently reduced, amounted, in 1824, to no less than 14*s*. 7½*d*. per lb. There was also, at the same time, a duty of 4*s*. per lb. on raw silk imported from Bengal, and of 5*s*. 7½*d*. per lb. on that imported from other places. Even had the manufacture been otherwise in a flourishing condition, such exorbitant duties on the raw material were enough to have destroyed it. Mr. Huskisson, therefore, proposed, by way of preparing the manufacturers for the approaching change of system, that the duty on foreign-thrown silk should be immediately reduced to 7*s*. 6*d*. (it was further reduced to 5*s*. in 1826), and the duty on raw silk to 3*d*. per lb. These proposals were all agreed to; and considerable reductions were at the same time effected in the duties charged on most of the dye stuffs used in the manufacture.

It is to be regretted that Mr. Huskisson did not propose that the reduction of the duties on raw and thrown silk, and the legalised importation of foreign silks, should be simultaneous and immediate. During the interval that was allowed our manufacturers to make preparations for the change, the French accumulated a large stock of goods to pour into our markets. To quiet the alarm occasioned by this circumstance, a singular device was fallen upon. The French had long been accustomed to manufacture their goods of a certain length; and, in the view of rendering their accumulated stock unfit for our markets, a law was passed in 1826, prohibiting the importation of any silks except such as were of entirely different lengths from those commonly manufactured by the French. No one can regret that this wretched trick, for it deserves no better name, entirely failed of its object. The French manufacturers immediately commenced, with redoubled zeal, the preparation of goods of the legitimate length; and the others, having become unsaleable at anything like fair prices, were purchased up by the smugglers, and imported, almost entirely, into this country.

But no permanent injury arose from this circumstance; and, on the whole, the effect of the opening of the trade has been such as to justify all the anticipations which the advocates of the measure had formed of its success.

Effects of the Change of 1826.—We do not exaggerate, we only state the plain matter of fact, when we affirm that the silk manufacture down to 1852 made a more rapid progress after the abolition of the prohibitive system in 1826 than it had done during the preceding century. The former disparity in quality between goods of French and English make had been materially abated in most articles, while in some the superiority was on our side. The majority of our readers will, probably, be rather surprised to learn that the real or declared value of the silk goods of British manufacture exported to France in 1852 amounted to 257,555*l*.

But though a great step at the time, the change of system effected in 1826 was far from being sufficiently complete. The duty then imposed of 30 per cent. on the importation of foreign silks was, at least, double what it should have been. The expenses of smuggling silk goods into England may, speaking generally, be estimated at about 12 or 15 per cent.; so that the high duty, instead of excluding them, acted as a bounty on their importation through clandestine channels; and probably occasioned, by the temptation which it held out to *gambling* adventures, a larger quantity to be imported than if the duty had been more nearly proportioned to the expense *of* smuggling. We ventured to contend in a former edition that in 'the event of the duties being reduced to 12 or 15 per cent. ad valorem, the legitimate imports of foreign silk *goods* would be considerably increased, and their clandestine importation more than proportionally diminished; and the apparent protection given to the manufacture being reduced, a new stimulus would be applied to industry and invention.' We had predicted that, under such a system, in no very long time, perhaps not more than 5 or 6 years, our superiority over France in some important departments of the silk manufacture would be little less decided than in that of cotton.

It was not, however, to be supposed that all departments of the silk manufacture would be equally benefited by the change of system from prohibition to duties.—*Non omnia possumus.* The pro-

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bability was, that the trade, placed on a proper footing, would be divided between the English and French. In point of substantial excellence, the plain silk goods manufactured in England are equal to those of France; and the difference in favour of the latter in point of *finish* has become less perceptible; while in all mixed manufactures, of silk and wool, silk and cotton, silk and linen &c., our ascendency is admitted by the French themselves. On the other hand, the ribbons, figured gauzes, and light fancy goods, manufactured in France, are superior to those of this country. But even in this department we have made great progress; and fancy goods are now produced at Spitalfields, Coventry, and other places, contrasting most advantageously, in point of taste and beauty, with those produced previously to the introduction of the new system. Still, however, we are not sanguine in our expectations of our countrymen being able to maintain a successful competition with our neighbours in the manufacture of this class of articles. The greater attention paid to the art of designing in Lyons, the consequent better taste of the artists, and the superior brightness and lustre of their colours, give them advantages with which it will be very difficult to contend.

But supposing the trade to be partitioned between the two countries in the way now stated, it was easy to see that a large share would belong to us, and that that share would be more valuable than the whole manufacture formerly was. Proofs of the accuracy of these statements have since been supplied in abundance. Notwithstanding the decline of the trade at a few places, the manufacture, taken as a whole, greatly increased. During 1821, 1822, and 1823, when the restrictive system was in its vigour, the imports of all sorts of raw and thrown silk amounted at an average to 2,399,000 lb. a-year. But, despite the sinister predictions indulged in with respect to the ruin of the manufacture, the imports amounted, at an average of 1850, 1851, and 1852, to above 7,000,000 lb., and the consumption to above 6,000,000 lb.; being an increase of more than 250 per cent. upon the quantity consumed during the monopoly.

The manufacture of silk in France also materially improved, and a large increase took place in the value of the silks exported, which amounted in 1852 to about 280,000,000 fr., or about 11,200,000*l.* But it is satisfactory to know that we were able to make head against this formidable competitor, and that, while the value of the exports of our silk goods amounted in 1823, when the monopoly system was in full vigour, to only 351,409*l.*, it amounted in 1852 to 1,551,846*l.*, being an increase in the interval of nearly 500 per cent. In fact, we undersold the French in some of the heavier and more important species of goods in every market equally accessible to both parties. The value of our exports of silk goods to the United States amounted in 1852 to 464,590*l.*; and does anyone suppose that the Americans would have bought so largely of us, or that they would have bought anything at all, had the French or any other party been able to supply them on lower terms?

When we formerly ventured to recommend a reduction of the duty of 30 per cent. on silks, we were inclined to think that it might, perhaps, oblige some of the manufacturers of fine and fancy goods to relinquish their employment; and we endeavoured to show that that was not too great a sacrifice to incur to place the trade on a proper footing. Happily, however, no such sacrifice was required; and writing in 1853, we stated that there was no department of the manufacture in which we had anything to fear, with the then existing duty, from the competition of the foreigner. Indeed, the fair presumption then was that the duties might be advantageously reduced.

No doubt, however, the improvement of the manufacture had at that time been considerably promoted by the total abolition of the duties on raw and thrown silk effected in 1845.

State of the Silk Trade previously to 1826.—Those unacquainted with the history of the silk trade, who may have looked into the pamphlets and speeches of those opposed to the alterations in 1825, will probably be disposed to think that, though more limited in point of numbers, the condition of the workmen engaged in the trade was better previously to 1825 than afterwards. But those who have looked, however cursorily, into the history of the trade, must know that such is not the fact; and that the situation of those engaged in it has been most materially improved since 1825. We have already adverted to the state of the trade in 1793 and 1816. At the last mentioned period, 7 years before any relaxation of the monopoly had been so much as thought of, the distress in the silk trade was infinitely more severe than it has ever been since the introduction of the new system. In proof of this, we may mention, that at a public meeting held for the relief of the Spitalfields weavers, at the Mansion House, on November 26, 1816, the secretary stated, that *two-thirds* of them were without employment, and without the means of support; 'that some had deserted their houses in despair, unable to endure the sight of their starving families; and many pined under languishing diseases brought on by the want of food and clothing.' And Sir Fowell Buxton stated, at the same meeting, that the distress among the silk manufacturers was so intense, that '*it partook of the nature of a pestilence*, which spreads its contagion around, and devastates an entire district.' Such was the state of the workmen under that monoply system that has been the worthless theme of so much eulogy. But such, we are glad to say, is not their state at present. The trade, being no longer conducted under an artificial system, is comparatively secure against revulsions: it would, indeed, be an absurdity to imagine that measures that have about trebled the manufacture, should have been otherwise than supremely advantageous to the workmen.

We have already noticed the smuggling of foreign silks carried on in the early part and towards the middle of last century. The evil was not afterwards abated. The vigilance of the custom-house officer was no match for the ingenuity of the smuggler; and at the very moment when the most strenuous efforts were made to exclude them, the silks of France and Hindostan were openly displayed in the drawing-rooms of St. James's, and in the House of Commons, in mockery of the impotent legislation which sought to exclude them. 'I have lately,' said Mr. Huskisson, in an able speech in vindication of his policy as to the silk trade, 'taken some pains to ascertain the quantity of smuggled silks that has been seized inland throughout the kingdom during the last 10 years; and I find that the whole does not exceed 5,000*l.* a-year. I have endeavoured, on the other hand, to get an account of the quantity of silk goods actually smuggled into this country. Any estimate of this quantity must be very vague; but I have been given to understand that the value of such goods as are regularly entered at the custom-houses of France, for exportation to this country, is from 100,000*l.* to 150,000*l.* a-year; and this, of course, is exclusive

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of the *far greater supply* which is poured in throughout all the channels of smuggling, without being subjected to any entry. In fact, to such an extent is this illicit trade carried, that there is scarcely a haberdasher's shop in the smallest village of the United Kingdom, in which prohibited silks are not sold; and that in the face of day, and to a very considerable extent.

'The honourable member for Coventry (Mr. Ellice) has mentioned the silk goods from India as those against which anything but prohibition would prove an unavailing protection. Now, in my opinion, it is scarcely possible to conceive a stronger case than those very silks furnish against the honourable member's own argument. I believe it is universally known that a large quantity of Bandana handkerchiefs are sold every year, for exportation, by the East India Company. But does any gentleman suppose that these Bandanas are sent to the Continent for the purpose of remaining there? No such thing! They are sold at the company's sales, to the number of about 800,000 or 1,000,000 a-year, at about 4*s.* each; they are immediately shipped off for Hamburg, Antwerp, Rotterdam, Ostend, or Guernsey, and thence they nearly all illicitly find their way back to this country.

'Mark, then, the effect of this beautiful system. These Bandanas, which had previously been sold for exportation at 4*s.*, are finally distributed in retail to the people of England at about 8*s.* each: and the result of this prohibition is to levy upon the consumer a tax, and to give those who live by evading your law a bounty of 4*s.* upon each handkerchief sold in this country.' (*Speeches*, vol. ii. p. 510.)

This, no doubt, was all very true and very striking. But had Mr. Huskisson been in the House of Commons in 1844, he might have used nearly the same language. He scotched, but did not kill, the snake. The 30 per cent. ad valorem duty which he established, was but little less productive of smuggling than the prohibition which he repealed; and being about double the expense of the clandestine importation of foreign silks, gave rise within the port of London, and, indeed, within the very walls of the custom-house, to a system of fraud ruinous alike to the interests of the revenue and of the honest dealers. The abuse continued till 1845, when Sir Robert Peel reduced the duty to 15 per cent. ad valorem. And while this wise and liberal measure went far to suppress smuggling, and to place all classes of dealers on the same footing, it did not materially increase the imports of silk goods. In 1860 the duties on foreign silks of every kind were abolished by Mr. Gladstone.

Since the repeal in 1845 of the duties on raw and thrown silk, it is no longer possible to give any account of the exact quantities admitted to consumption. But they may, notwithstanding, be learned with sufficient precision for every practical purpose from the following statements.

I.—*Account, illustrative of the Progress of the Silk Manufacture, showing the Quantities of Raw, Waste, and Thrown Silk Imported at different Periods.* (*Report of* 1832 *on Silk Trade, p.* 10, *and later Parl. Papers.*)

Average Imports	Raw	Waste	Thrown	Total
	lb.	lb.	lb.	lb.
1765, 1766, 1767, being the commencement of the absolute prohibition	352,000	..	363,000	715,000
1785, 1786, 1787	554,000	..	337,000	891,000
1801 to 1812	760,000	..	350,000	1,110,000
1815, 1816, 1817, being fifty years after prohibition, and the first 3 years of peace	1,095,000	27,000	293,000	1,415,000
1821, 1822, 1823, being the years immediately previous to the abolition of the prohibition	1,970,000	74,000	355,000	2,399,000
1831, 1832, 1833	3,137,271	634,369	345,270	4,170,910
1839, 1840, 1841	3,518,076	1,055,737	262,085	4,835,898
1850, 1851, 1852	5,127,764	1,693,104	427,156	7,248,024
1861, 1862, 1863, subsequent to the abolition of the duties	9,434,649	3,349,136	82,061	12,865,846
1865, 1866, 1867	6,345,500	3,125,733	107,722	9,578,755

II.—*Account of the Quantities of Raw, Waste, and Thrown Silk entered for Consumption in the undermentioned years between* 1815 *and* 1841, *with the Total Amount of Duty received on the same.* (*Parl. Paper, No.* 296, *Sess.* 1842.)

Years	Raw	Waste	Thrown	Total of all Sorts	Duty received		
	lb.	lb.	lb.	lb.	£	s.	d.
1815	1,069,596	27,971	377,892	1,475,389	516,027	12	11
1820	1,692,799	94,683	309,953	2,097,435	614,478	15	7
1825	2,848,506	195,910	839,612	3,884,058	245,430	12	3
1830	3,771,969	485,013	436,533	4,693,517	89,544	0	5
1835	4,151,008	1,382,872	254,578	5,788,458	56,603	14	5
1836	4,372,501	1,598,721	291,938	6,266,160	66,853	3	4
1837	3,730,437	875,781	213,368	4,819,576	80,685	16	6
1838	3,683,739	960,147	243,570	4,887,456	54,929	18	7
1839	3,483,563	1,042,655	229,940	4,756,958	51,087	17	0
1840	3,860,390	745,243	288,981	4,895,291	65,601	19	9
1841	3,309,885	1,379,314	267,333	4,856,532	59,890	2	3

III.—*Account of the Imports and Exports of Raw and Thrown Silk during each of the* 7 *Years ending with* 1867.

Silk	1861	1862	1863	1864	1865	1866	1867
	lb.	lb.	lb.	lb.	lb.	lb.	lb.
Imports:							
Raw	8,710,681	10,372,125	9,921,115	5,655,401	7,732,450	5,453,804	5,849,648
Thrown	124,574	62,427	50,583	75,160	60,130	86,870	196,188
Total	8,835,255	10,434,550	9,971,698	5,730,561	7,792,580	5,540,674	6,045,836
Exports:							
Raw	4,096,992	5,205,861	5,892,919	3,922,150	3,737,89	1,965,093	1,602,014
Thrown	621,734	785,104	678,823	808,103	676,87	366,474	492,512
Total	4,718,726	5,990,965	1,571,742	4,730,253	3,814,164	2,310,567	2,324,526
Remains for Consumption	4,116,529	4,443,585	4,399,956	998,308	3,978,416	3,210,087	3,721,310
Average for consumption for the 7 years				3,611,127 lb. a-year.			

Sources of the Supply of Silk.—The following table shows the sources whence we directly derive our supplies of raw and of foreign thrown silk.

IV.—*Account of the Quantities of Raw and Thrown Silk Imported into the United Kingdom in each of the 3 Years ending with 1867, specifying the Countries whence they were brought, and the Quantities brought from each.*

Raw		1865	1866	1867	Thrown		1865	1866	1867
Egypt	lb.	5,054,354	3,405,898	3,850,281	France	lb.	53,369	48,369	179,038
France	,,	2,109,784	1,703,141	1,582,854	Other countries	,,	6,761	18,481	17,150
China and Japan	,,	179,919	126,196	43,391					
Other countries	,,	388,393	218,329	73,208					
Total	,,	7,732,450	5,453,864	5,549,648	Total	,,	60,130	66,850	196,188
Waste, knubs, and husks	cwt.	33,432	25,417	23,031			..	..	..

V.—*Account of the Quantities and Values of the Silk Goods produced in the United Kingdom and Exported therefrom in each of the 3 Years ending with 1867.*

Silk Manufactures	Countries to which exported		Quantities			Values		
			1865	1866	1867	1865	1866	1867
Silk only. Broad piece goods, velvet and lace	United States	yards	1,925,003	1,281,554	695,284	£108,330	£166,905	£93,051
	Egypt	,,	716,361	592,814	413,526	173,804	151,897	106,305
	France	,,	276,803	194,514	81,971	17,997	11,688	6,458
	Other countries	,,	1,057,675	937,043	876,450	141,500	156,174	138,847
	Total	,,	3,005,142	3,015,925	2,066,231	441,631	486,132	346,741
Ribbons and sewing silk	United States	lb.	33,273	31,717	16,615	41,634	42,399	18,221
	Australia	,,	24,417	15,637	5,320	34,433	23,423	8,194
	Other countries	,,	32,602	39,745	27,565	43,094	47,904	35,545
	Total	,,	90,292	87,099	51,789	119,161	113,826	61,960
Articles of silks only, entered at value	Egypt	,,	..	..	..	126,471	119,793	56,921
	United States	,,	..	..	..	97,594	71,498	21,218
	Other countries	,,	..	..	..	290,919	205,973	194,729
	Total	,,	..	..	..	514,784	397,264	272,868
Silk manufactures mixed with other materials			..	..	..	296,926	266,744	340,048
Silk thrown	Holland	lb.	131,405	115,438	241,753	174,727	176,698	454,368
	France	,,	65,745	30,017	66,560	100,775	56,402	95,773
	Other countries	,,	173,021	122,117	295,789	202,188	149,408	423,810
	Total	,,	370,171	273,572	603,992	477,590	382,508	972,951
Silk, twist, and yarn	France	,,	215,797	217,236	148,189	125,210	114,300	73,070
	Other countries	,,	222,949	142,905	115,519	164,258	132,702	108,124
	Total	,,	438,746	360,241	263,708	289,468	247,002	181,194
Total values of exports of silk goods						2,239,360	1,893,586	1,778,462

Imports of Silk into the United Kingdom.

		1865	1866	1867
European:				
Silks entered by weight	lb.	3,090,766	3,442,601	3,238,965
Indian:				
Silks entered by the piece	pieces	89,523	66,410	63,674
Miscellaneous:				
Other silk goods, whencesoever imported	value £	1,004,460	837,760	864,250

Silk Manufactures		Imported		
		1865	1866	1867
Europe:				
Broad stuff, silk or satin, gauze, crape, or velvet	lb.	1,502,602	2,016,596	1,709,963
Ribbons, of all kinds	,,	224,526	296,793	341,462
Plush for making hats	,,	740,609	690,443	1,131,120
	,,	94,558	57,946	53,926
India:				
Bandanas, corahs, choppas, tussore cloths, romals, and taffaties	pieces	55,057	57,816	59,761

Average Nett Weight of Silk Bales (from Supplement to Economist, March 11, 1866).

	lb.		lb.
Bengal	130	Japan	100
small	105	Patent Brutia	175
China raw	102	Italian	220
thrown	112	Persian (ballot)	75
Canton	110		

The silk exported from China consists of two leading varieties, known in commerce by the names of Canton and Nanking. The first, which is raised principally in the province of Canton, is divided into five sorts. The Nanking silk, produced in the province of Kiangnan, is divided into two sorts, known in commerce by the names of Tsatlee and Tayaaam. It is very superior to the other, and usually fetches more than double its price. It is wholly imported from Shanghae.

The chief ports for the export of Chinese silks are Shanghae and Canton. Thus the exports of raw silk in 1866 were, from Shanghae, 21,929 piculs, valued at 10,934,750 taels; and from Canton, 14,939 piculs, valued at 5,670,701 taels. The silk grower looks to the home market for fixing the value of his produce, and prices range according as that demand is active or dull, little or no effect being produced by the foreign exportation, except among speculative holders at the ports.

East India native silk comes almost wholly from Bengal and Pegu. About the year 1760, the East India Company introduced the Italian mode of reeling silk, which was productive of a very great improvement in the quality of the article; but we are not aware that any subsequent improvement has been effected. The silk goods brought from India are not only inferior, in point of quality, to those of Europe, but also to those of China. The total value of the exports of raw silk from British India by sea, in 1866, was 745,845*l.*, and of silk goods 88,289*l.*, both, however, being considerably below the average of the previous 3 years. As will be seen from the foregoing statement, Egypt supplies more than a half of our whole supplies of raw silk.

Turkey silk wholly consisted some years back of what is termed long reel and short reel brutia, a rather coarse description, suited to few buyers, and chiefly used in the ribbon trade of Coventry; but of late it has been imported of a very far superior texture and quality, coming successfully into competition with Italian and China silk The qualities now known as brutias may be classed as follows; viz. long reel brutia, short reel brutia long reel Mestup (being a finer thread than common brutia), short reel Mestup Selè (a finer sort, generally in loose skeins), Demirdask (a superior kind).

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The plains of Brusa (the seat of the silk trade in Asia Minor), and the adjacent villages, produce different qualities, varying considerably in size, colour, and quality. The village of Demirdask produces the finest, owing to the care taken by the natives in selecting the best cocoons, and attending carefully to the evenness of the thread throughout the process of reeling; consequently this description commands a high price, and is approved by our throwsters.

The water of this place is considered favourable to the brightness and glossiness of the silk, by which it may be distinguished from that of Brusa. The silk at Brusa is taken by the country people in small parcels to the bechestar or customs, where it pays duty. The proprietor with a broker then takes it to the silk bazaar, where it is handed round to the different stands and sold to the highest bidder, resembling, in this respect, the mode of selling the ores in Cornwall to the different smelters.

A person buying assorts as well as he can the different qualities for packing. It is generally bought by speculators for the Constantinople market, and is forwarded to Ghemlek on camels for shipment per steamers to Constantinople, where it finds its way to the Mizam or some broker's rooms, to be sold to the different merchants. The finest longs are mostly bought for the French and Russian markets, generally the latter. The long reels are going out of use in this country, as the more modern machinery is not adapted to its use.

The Persian silk crop of 1863–4 is stated by Mr. Abbot to have yielded 1,129,536 lb., valued at 734,198*l*. Average price per lb. 12*s*. to 16*s*., best quality 18*s*. Of this produce 400,000 lb. were shipped to Great Britain, 30,000 lb. to France, and 141,600 lb. to Russia.

By far the greater part of the raw and thrown silk that comes to us from France is not the growth of that country, but of Italy. The Italian silk crop of 1867, which (ex. Venetia) yielded about 812,492 myriagrammes or 159,848 cwt., showed an increase of over 6 per cent. beyond the average annual produce during the 11 years since 1857, when the disease of the silkworm first appeared. (*Report* of Mr. Consul Colnaghi of January 6, 1868. See also *Report* of April 1868, by Mr. Secretary of Legation Herries on *The Industrial Condition of Italy*.) The produce of cocoons in France declined from 24,250,000 kilos in 1852 to 4,000,000 in 1865. Though silk, or material having silk for a component part, was never in more general use than at present, no manufacture used for dress is more liable than this to suffer in one or more of its branches from the sudden caprices of fashion. If there be a run upon ribbon, probably down goes lace, and vice versâ. The old seats of the manufacture, too, are apparently subject to serious mutations of fortune. Thus the Lyons silk weavers have experienced a sad decline of prosperity since 1856; the produce of their trade in that year, as compared with 1865, being as 74 to 11 (*Times* of October 24, 1866, on the authority of the *Salut Public* of Lyons). On the other hand, the manufacture seems to thrive steadily both in Switzerland (especially in and near Zurich) and in the Rhenish provinces of Prussia.

The following table of the prices of silk is extracted from the very comprehensive circular of Jan. 7, 1869, issued by Messrs. T. & H. Littledale of Liverpool, to which we have been indebted also for information regarding the crops and prices of sugar &c.

Description	Prices	
	s. *d.*	*s.* *d.*
China: Taalees	20 0 to	26 0
Ditto, superior	27 0	31 0
Taysaam	17 6	26 6
Yu-un-fa	20 0	27 0
Canton	15 0	20 0
Japan	21 0	35 0
Chinese, thrown	26 0	28 0
Persian	12 0	19 0
Italian: Berg. and Milan, raw	43 0	47 0
Naples royals, raw	45 0	52 0
Fossombrones, raw	49 0	50 0
Brussa, short reel	..	..
mestoup	..	..
fine	..	..
Italian reel	52 0	55 0

Description	Native and Common		European Filature	
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
Bengal: Basleah	13 0 to	15 6		
Commercolly	13 6	16 0	17 0 to	29 0
Cossimbuzar	14 0	16 0	17 0	29 0
Gonatea	13 6	15 6	17 0	30 0
Hurripaul	13 0	16 0	17 0	20 0
Jungypore	14 0	16 0	17 0	23 6
Radnagore	14 0	16 0	16 6	30 0
Surdah	..	..	25 0	31 6

Description		Prices	
		s. *d.*	*s.* *d.*
Foreign: Gum waste	per lb.	5 3 to	6 6
Ditto, good to fine	"	6 3	8 0
Ditto, knubs and husks	"	2 0	4 6
Turkey ditto	"	5 6	7 0
E. I. chassum	"	1 2	2 8
E. I. cocoons	"	2 0	4 0
Silk Piece goods: Corahs, inferior	per piece	13 0	15 0
fair to good	"	16 6	24 0
Choppahs and Bandannoes, inferior	"	14 8	18 8
superior	"	19 0	22 0

SILVER (Ger. silber; Dutch, zilver; Dan. solv; Swed. silfver; Fr. argent; Ital. argento; Span. plata; Port. prata; Russ. serebro; Pol. srebro; Lat. argentum; Gr. ἄργυρος; Arab. fazzeh). A metal of a fine white colour, without either taste or smell; being in point of brilliancy inferior to none of the metallic bodies, if we except polished steel. It is softer than copper; but harder than gold. When melted its specific gravity is 10·474; when hammered, 10·51. In malleability, it is inferior to none of the metals, if we except gold. It may be beaten out into leaves only $\frac{1}{100000}$ of an inch thick. Its ductility is equally remarkable; it may be drawn out into wire much finer than a human hair; so fine, indeed, that a single grain of silver may be extended about 400 feet in length. Its tenacity is such, that a wire of silver 0·078 inch in diameter is capable of supporting a weight of 187·13 lb. avoirdupois without breaking. Silver is easily alloyed with copper by fusion. The compound is harder and more sonorous than silver, and retains its white colour even when the proportion of copper exceeds ½. The hardness is at a maximum when the copper amounts to *one-fifth* of the silver. The standard or sterling silver of Britain, of which coin is made, is a compound of 12½ parts silver and 1 copper. Its specific gravity is 10·2. The specific gravity of Paris standard silver, composed of 137 parts silver and 7 copper, is 10·175. The French silver coin during the old Government was not nearly so fine, being composed of 261 parts silver and 27 copper, or 9⅔ parts silver to 1 part copper. The Austrian silver coin contains $\frac{13}{289}$ of copper. The silver coin of the ancients was nearly pure, and appears not to have been mixed with alloy. Besides being used as coin, or money, silver is extensively employed in the arts. The value of the silver plate annually manufactured is very considerable. Large quantities are also used in plating.

The most productive silver mines are in America, particularly in Mexico, Peru, and California. There are also silver mines in Hungary, Saxony, Spain, Norway, and other parts of Europe, and in Asiatic Russia. In 1867 we exported, exclusive

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of bullion, 3,393 tons of silver ore, chiefly from Chili, valued at 165,587*l.* [PRECIOUS METALS.] And we have already seen [LEAD] that considerable quantities of silver have been obtained in this country by the refining of lead. In proof of this, we subjoin the following statement of the silver produced from ores raised in the United Kingdom during each of the 4 years ending with 1867. (Hunt's *Mining Records for* 1868 &c.)

	1864	1865	1866	1867
Lead ores:	oz.	oz.	oz.	oz.
England - -	355,806	367,703	326,125	469,647
Wales - -	136,885	142,447	139,304	147,009
Ireland - -	15,531	16,430	15,039	12,140
Scotland - -	7,843	8,704	8,704	11,478
Isle of Man -	125,020	123,221	147,516	165,170
Silver ores - -	..	65,951	..	..
	641,088	724,456	636,688	805,894
Value - -	£176,799	£199,535	£174,951	£215,100

SINGAPORE is one of several British dependencies, called the STRAITS SETTLEMENTS. These are situated in the Straits of Malacca, and comprise Singapore, Penang, otherwise called Prince of Wales' Island, and Malacca, all formerly under the government of the East India Company. These possessions came under British rule at different periods, but were in 1826 united into one government, under an officer with the title of Governor of Prince of Wales' Island, Singapore, and Malacca, and for some years afterwards ranked as an Indian presidency. In 1830 the presidency was abolished, when the incorporated settlements became subordinate to Bengal, but were subsequently placed in direct correspondence with the Supreme Government of India. In November 1858, when the government of the East India Company was abolished, these settlements, in common with all the other territories belonging to it, came under the dominion of the Crown, but were still administered by the Government of India. The inhabitants, however, having previously petitioned Parliament that the settlements in the straits should be formed into a direct dependency of the Crown, and this having been acceded to, they were, in April 1867, transferred to the Colonial Office, and now form the colony of the Straits Settlements, under a governor commissioned by her Majesty. This change brought along with it the power of making laws for the colony, subject to confirmation by the Crown, and led to the introduction of the usual machinery for that purpose, in the shape of a legislative council, presided over by the governor. This officer has his residence in Singapore, with a lieutenant-governor under him at each of the other stations. We shall now proceed to give some account of the three places separately, and begin with Singapore, which in its commercial relations is indisputably the most interesting and important of them.

Singapore is an island at the south-eastern extremity of the straits of Malacca, the town being in lat. 1° 17′ 22″ N., and in long. 103° 50′ 47″ E., and about 80 miles distant from the most southerly point of the Asiatic continent. It is of an elliptical form, about 25 miles in its greatest length, and 14 in breadth, containing an estimated area of 206 square miles. But the British settlement embraces a circumference of 120 miles, in which are included about 75 islets, with here and there a scattered seafaring population, and the seas and straits within 10 miles of the principal island. The latter is separated from the mainland by a strait of the same name, of small breadth throughout, and less than half a mile wide in its narrowest part, which, in the early period of European navigation, was the thoroughfare between India and China. But the grand commercial highway between the eastern and western parts of maritime Asia now passes along the south side of the island on which the town is built, between it and a chain of islands about 12 miles distant; the safest and most convenient channel being so near to Singapore that ships in passing and repassing come close to the roads. Singapore has been from its foundation a free port, in the widest sense of the term, open to the flags of every nation, and without either import or export duties on goods, the only import being a trivial charge on ships, towards the maintenances of the lighthouses on the eastern and western approaches to the roadsteads. To this circumstance, combined with the manifold advantages of its position, and the absence up to this time of all vexatious or troublesome regulations, the settlement is indebted for its rapid rise to a commercial prosperity which is without example in the eastern seas, and has caused its progress to be likened rather to that of an American than an Asiatic settlement. It has thus become an entrepôt in which are brought together and exchanged the products and manufactures of the western world, of India, Cochin China, Siam, the Malayan peninsula, and of the whole wide region of the Eastern Archipelago from its western limits in Sumatra, to the meridian of New Guinea and the Philippines. The commercial part of the town occupies a site on the western bank of a river, or rather salt-water creek, and on its southern side faces the sea, the creek being navigable for a considerable distance from its entrance, so as to admit of lighters discharging their cargoes on the quay in front of the warehouses. Besides the Raffles light on Coney Islet in the Strait of Singapore, there has been, since 1855, a fixed light on Fort Canning (1° 16′ 15″ N. lat., 103° 50′ 57″ E. long.), seen for 15 miles in clear weather, and visible from St. John's Island to Johore shoal. There are also 2 other lights belonging to the Straits Settlements, one on Cape Ruchada, and another on St. Paul Hill, Malacca, the former visible for 25 and the latter for 12 miles. Ships lie in the roads or open harbour, those of the largest finding secure anchorage at a distance of two miles from the town, while those of inferior size approach within a mile of it, or even less, the smaller craft lying close to the shore. The assistance of a number of convenient lighters, which are always in readiness, enables them to load and unload with scarcely any interruptions throughout the year, the anchorage ground, open as it is, being never troubled by storms. Of late years, moreover, means have been in progress by which the facilities for discharging and unloading ships have been largely added to, and will be still further increased. Besides the open roadstead already spoken of, the port includes an inner harbour, to which the name of *New Harbour* has long been given, and which lies a few miles to the westward of the town, formed by the mainland of Singapore itself, and a chain of islets facing its southern shore. Here considerable lines of wharfage have already been constructed, admitting of vessels of the largest burden being received alongside, while more extensive works of a similar kind are understood to be in contemplation in the same locality. The premises of the Peninsular and Oriental Company, of the Messageries Impériales Company, the Patent Ship and Dock Company, the Borneo Company (limited), the Tanjong Paggar Company (limited), and of other important establishments, are all situated on the shores of *New Harbour*, and a railway, of which the length will not exceed 3½ miles, has been projected, to connect the whole with the town, and with which a line of telegraph already com-

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municates. The port has always afforded ready means for the repairing of merchant ships, but the completion of the large and costly docks of the Patent Ship and Dock Company, and of the Tanjong Paggar Dock Company, now offers facilities for the repair of ships of the largest burden, whether built of wood or of iron, as well as of steam machinery, equal perhaps to any that are available in the eastern seas.

The settlement which exhibits these signal marks of prosperity was founded on February 6, 1819, at which time the island was covered by a primeval forest, while its only inhabitants consisted of a few hundred Malay fishermen, occupying the single villages on its coasts, and which had been founded no further back than 1811. The right of the British to form a settlement on the island was at the time disputed by the Netherlands Government, on the ground of its prior cession to themselves by the native sovereign. But these objections having been withdrawn, the island of Singapore, with numerous adjacent islets, were ceded in absolute property and sovereignty to the East India Company by a treaty concluded in August 1824, with the two Malay princes to whom it belonged. They received in exchange a sum of 60,000 dollars in money, and an annuity of 12,500 dollars to the one and 500 to the other, during their natural lives, with other incidental advantages. The settlement having been originally founded by Mr. (afterwards Sir) Stamford Raffles, then lieutenant-governor of Fort Marlborough, Bencoolen, it was in the first instance a dependency of that Government; but being subsequently transferred to Bengal, it remained under that presidency until its incorporation with the other two settlements in the straits as above.

Being only 80 miles from the equator, there is, of course, little variety in the seasons, but the climate, though hot, is remarkably salubrious, an advantage which is no doubt owing to the thorough ventilation which the island receives from the change of monsoons. There are no regular periodical rains, but showers fall throughout the year; and during the prevalence of the N.E. monsoon, from October till March, rain comes down in sufficient quantity for the inhabitants to mark that period of the year as their most rainy, as well as their coolest season. The range of Fahrenheit's thermometer is from 71° to 89°.

Five years after the foundation of the settlement the first census was taken, when the population was found to amount to 10,683. In 1850 it had approximated 60,000; and the following details of the last census, which was taken in 1860, will at once exhibit the continued increase of the population, and the various nationalities which it includes:—

Europeans and Eurasians (including Indo-Britons, Jews, Portuguese, Armenians, Parsees &c.)	2,445
Malays	10,888
Klings (or natives of the Coromandel coast)	11,735
Bengalees	1,236
Chinese (including Cochin Chinese)	50,043
Burmese and Siamese	14
Bugis (natives of Celebes)	906
Javanese and Boyanese	3,408
Arabs	117
Total	80,791

The number of Europeans included in the first of the above items was only 360; but it is believed that a more than proportionate increase has since taken place in that branch of the population. The population in 1865 was estimated at 90,700, among whom were 58,000 Chinese, 13,500 Malays, and about 800 Europeans.

The European mercantile body comprises British, Americans, Germans, French &c., and the former includes the principal firms. There is also a considerable number of respectable and opulent Chinese and Arab merchants, and important mercantile establishments conducted by Jews, Parsees, and others. The shopkeepers are mostly Chinese and Klings, the former predominating, and also including the most valuable portion of the labouring population.

According to the official returns for 1865-66, the latest at present before the public, the number of Chinese immigrants that arrived at Singapore during that year is reported at no less than 14,279, including 655 females. Of these, over 4,300 found their way to Malacca, Penang, and the immediate neighbourhood, while about 350 embarked for the Mauritius.

The boatmen are chiefly natives of the Coromandel coast; and the Malays employ themselves as fishermen, in cutting timber, and in supplying the settlement with the rude produce of the neighbourhood. There are good daily markets, open at all hours, and well supplied with vegetables, fruits, grain, fish, pork, and green turtle; the latter, the cheapest animal food that can be procured. There is a registry of imports and exports compiled from reports made to the master attendant by the masters of vessels, and invoices delivered to the superintendent of imports and exports.

COINS, WEIGHTS, AND MEASURES.

Money.

Coins.—Accounts are kept in Indian currency and Spanish dollars, as follows:—

10 pice make 1 copang.
10 copangs 1 Spanish dollar, equal to 5*s.* sterling.

Exchange.

1 Spanish dollar = 2 sonat rupees 3 ans.
From 10 to 16 ditto = 10 star pagodas.
4 ditto = 1 pound sterling.
100 Spanish dollars = 218½ sonat rupees.
100 ditto ditto = 219½ sicca „
100 Spanish dollars = 220½ Bombay rupees.
100 star pagodas = 425 current „

Measures for Grain, Oil &c.

4 chopas make 1 ganton = 1¼ gallon.
10 gantons 1 parah.
20 ditto of rice 1 bag = 1 pecul.
40 peculs or bags 1 coyang = 2 tons of 7 cwt.
2 qrs. avoirdupois, or 5,323 lb. in a coyang of rice.

Weights.

16 taels make 1 catty.
100 catties 1 pecul.
20 peculs 1 coyang of 5,333 lb. avoirdupois.
The large pecul, by which tin and pepper are sold, weighs 142½ lb.
3 large peculs make 1 bahar of 421 lb. avoirdupois.

Also—10 gantangs make 1 parah.
80 parahs 1 coyang.
1 bag of salt weighs 100 lb. avoirdupois.
1 bag of rice 164 „
1 bag of dholl 164 „
1 bazar maund 82½ „
1 seer 2 lb. 1 *oz.* avoirdupois.

Gold and Silver Weights.

16 mians make 1 buncal = 1 oz. 9 dwts. 10½ grains troy.
20 buncals 1 catty = 29 oz. 15 dwts. 11½ grains.

Land Measure.

12 sq. ft. make 1 jumba.
20 jumbas 1 orlong=¼ of English acre.

Goldsmith's Weights.

12 sagas make 1 miam = 52 grains troy.
16 miams 1 buncal or 2 Spanish dols. = 832 grains.
20 buncals 1 catty = 16,640 grains.

A catty of gold is heavier than the common catty in the proportion of 105 to 78.

At Atchet, Siak, Malacca &c., places on the east side of the Malay peninsula, the buncal and catty weights are about 10 per cent. less than the above. There is also a buncal measure, which is in frequent use amongst Europeans and native traders to the eastward, and which is found to weigh very nearly 2 dollars, or 832 grains troy.

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Commercial Weights.

			lb.	oz.	dr.	
		1 tael nearly	0	0	23	avoir.
16 tael	make	1 catty	1	6	13	„
100 catties		1 melay peel	142	10	10½	„
3 melay peels	}	1 bahr	428	0	0	„
40 China peels	}	1 coyang	5,333	0	0	„

The Malay catty weighs 24 Spanish dollars; the Chinese 22⅔; hence 15 Malay catties equal 16 Chinese. By the Malay or large pecul of 142⅞ lb. avoirdupois, merchants purchase pepper, tin &c., from native vessels, but sell by the Chinese or Bazar pecul of 133⅓ lb. avoirdupois.

Measure of Capacity.

			cubic inches.
4 chopas	make	1 ganton	27,165
100 gantons		1 coyang	217,320

The chopa is divided into halves and quarters. A parah (a nominal measure) of 10 gantons, but sometimes consists of 5, 15, or 20 gantons.

Long Measure.

The hasta or cubit equals 18 English inches, but the Chinese shopkeepers use the English yard.

Land Measure.

4 hastas	make	1 depoh	= 2 English yards.
2 depohs		1 jumba	= 4 „
20 jumbas		1 orlong	= 80 do. or 1 acre.
		1 rood	= 12 perches English.

English weights and measures are frequently used in reference to European commodities. The mode of transacting business among the European merchants is simple and efficient. Instead of trusting their affairs to native agents, as in other parts of India, they transact them in person, with the occasional assistance of a Chinese creole as an interpreter and broker. The European merchants transact business on their own account; but a great deal of their employment consists in acting as agents for houses in London, Liverpool, Glasgow, Amsterdam, Antwerp, Hamburg, Calcutta, Bombay, Madras, Canton, and Batavia. They are also agents for numerous insurance offices at all these places, and policies of insurance to any extent may be effected without difficulty. The language of commercial intercourse, where any of the natives of the East are concerned, is universally Malay—a simple and easy dialect, of which all the resident merchants have a sufficient acquaintance to enable them to transact ordinary business. The *Straits Times*, a daily newspaper, is now the only journal published in Singapore; it contains a price current, an account of the arrivals and departures of shipping, and an official detail of the exports and imports of the preceding week. The administration of justice is entirely English. A supreme court has been constituted for the colony, of which the chief justice resides at Singapore, and goes on circuit to Malacca, the other judge of the court being permanently resident in Penang.

Commodities and Prices.—Singapore is chiefly an entrepôt, having, with the exception of pearl sago manufactured on the spot from the raw material imported from the north coast of Sumatra, implements of agriculture, and some others fabricated by the Chinese from European iron, with gambier and catechu grown and manufactured on the island, few commodities of its own for exportation. Large quantities of teak from the neighbouring forests are disposed of here, and much of this has been used lately for the construction of railways in the East. The grain produced on the island not being sufficient for the consumption of the inhabitants for a week, their supplies of rice, wheat &c., are mostly all imported, principally from Java and Calcutta.

Rates of Commission at Singapore adopted at a General Meeting of Merchants, on February 19, 1830, and revised by the Singapore Chamber of Commerce, on May 8, 1855.

	Per cent.
1. On all sales or purchases, except as otherwise provided for	5
2. On purchase of goods or produce for returns	2½
3. On sale or purchase of opium	3
4. On sale or purchase of ships, vessels, houses, or lands	5
5. On sale, purchase, or shipment of bullion	1
6. On sale or purchase of diamonds, jewels &c.	2
7. On returns in treasure, bullion, or bills	1
8. On all goods consigned and withdrawn—half commission.	
9. On sale, purchase, or negotiating of bills not serving for purchase of goods or produce	1
10. On all goods sold by auction in addition to the above	2½
11. On *del credere*, or guaranteeing sales	2½
12. Shroffage, 1 per mille.	
13. On all advances of money for the purpose of trade, whether the goods are consigned to the agent or not, and where a commission of 5 per cent. is not charged	2½
14. On ordering goods, or superintending the fulfilment of contracts whence no other commission is derived	2½
15. On guaranteeing bills, bonds, or other engagements, and on becoming security for the administration of estates or to Government or individuals for contracts, agreements &c.	2½
16. On acting for the estates of persons deceased as executors or administrators	5
17. On the management of estates for others, on the amount received	5
18. On procuring freight, or advertising as the agent of owners or commanders—on the amount of freight, whether the same passes through the hands of the agent or not	5
19. On chartering ships for other parties	2½
20. On effecting insurance, or writing orders for ditto	½
21. On settling insurance losses, total or partial, and on procuring return of premium	2½
22. On debts when a process at law or arbitration is necessary 2½ per cent. on the amount claimed, and if recovered by such means	5
23. On bills of exchange noted or protested	1
24. On collecting house-rent	5
25. On ship's disbursements	5
26. Ditto when in funds	2½
27. On negotiating loans on respondentia	2
28. On letters of credit granted for mercantile purposes	2½
29. On purchasing or selling Government securities, or on exchanging or transferring the same	½
30. On delivering up do.	½
31. On all advances not punctually liquidated, the agent to have the option of charging a second commission, as upon a fresh advance, provided the charge be only made once in the same year.	
32. On transhipping all goods or produce	1
33. Ditto treasure	½
34. At the option of the agent, on the amount debited or credited within the year, including interest, and excepting only such items on which at least 2½ per cent. has been charged (This charge not to apply to paying over a balance due on an account made up to a particular period, unless where such balance is withdrawn without reasonable notice.)	1
35. On collecting freight	2½
36. On freight of vessels consigned to an agent in Singapore, *inwards* (the freight having been paid at the port of loading), when the vessel is loaded *outwards* by another agent, or proceeds elsewhere for a cargo, in absence of any special agreement	2½
37. On advances made to account of contracts for produce, the usual guarantee commission and interest to be charged.	
38. In purchasing produce, the commission to be charged on the invoice, including charges.	

Wharfage.

Scale of Charges for Landing, Shipping, and Warehousing Goods at the Wharves in New Harbour, and for Storing Coals &c.

On every ton of cargo landed or shipped	25 cents
Treasure &c.	2½ per cent.
Opium per chest	10 cents
Horses and cattle, each	25 „

Godowns.—Vessels lying at the wharf have free use of the godowns alongside, for cargo.

Goods remaining in the godowns over seven days, or stored there for a fixed period, pay store rent and fire insurance, at about half the rates authorised by the Chamber of Commerce.

Treasure and other valuable articles are stored, at the risk of parties placing them in the godowns.

No articles of a dangerous nature, such as gunpowder, sulphuric or other acids &c., are received.

Coals.—Store rent on coal is 4 per cent. per month. Coal is stored, with ventilators through the heaps, in sheds of small width.

Cooly hire discharging coal ships is 12½ cents per ton, and storing, 12½ cents per ton; removing from sheds and putting on board ship, 25 cents per ton.

Steamers requiring great despatch can be supplied with coolies at 50 cents per day and 75 cents per night.

Boat hire or cartage from the wharf to the town of Singapore is 50 cents per koyan, the same as boat hire from the roadstead to godowns in town.

The following is a statement of the prices of the principal articles of Eastern produce at Singapore on December 8, 1868, from Paterson, Simons & Co.'s circular of that date.

Description of Produce		Present Prices		At Exchange, 4s. 6d. per dollar
		dl. ct.	dl. ct.	
Betelnut	per picul	1 75 to	2 0	
Camphor, China	case of 92 catties	26 0	26 50	108s. 9d. per cwt.
	picul	9 0	9 50	40s. 4d. ,,
Coffee, Bally				
Bugis, Pari	,,	10 0	12 0	44s. 4d. ,,
Pari	,,	12 20	12 40	53s. ,,
Bontyne	,,	8 0	9 0	36s. 4d. ,,
Campar	,,	14 50	15 0	
Cordage, Manilla	,,	7 0	7 50	
Cloves, Zanzibar	,,	1 80	1 75	
Ebony, Ceylon	,,	2 90	—	15s. 6d. per cwt. in bales
Gambier	,,			
Gambier cubes in baskets	,,	3 40	3 90	20s. 1d. per cwt. nett
Gambouge	,,	65 0	—	
Gutta percha	,,	20 0	50 0	8½d. to 1s. 9½d. per lb.
Gum, benjamin	,,	20 0	55 0	
dammar or copal	,,	10 0	14 0	
Hides, buffalo	,,	11 0	11 25	5½d. per lb.
cow	,,	14 0	14 12½	6¼d. ,,
Horns, buffalo	,,	9 50	10 0	40s. 11d. per cwt.
India rubber	,,	39 50	41 0	1s. 5½d. per lb.
Mother-of-pearl shells	,,	20 0	44 50	
Oil, cocoanut	,,	7 0	8 0	
Opium, Benares	chest	600 0	—	
Turkey	picul	670 0	—	20s. 11d. per lb.
Pepper, black	,,	5 75	5 85	3d. per lb.
white	,,	9 75	10 0	4½d. ,,
Rice, Rangoon cargo	koyan	50 0	55 0	
Saigon ,,	,,	57 0	58 0	
Siam ,,	,,	57 0	60 0	
Rattans, Banjarmassing	picul	5 0	5 25	
Straits	,,	2 0	4 50	
Sago, flour	,,	2 60	2 62	14s. 6d. per cwt.
pearl	,,	2 95	3 0	16s. 10d. per cwt. in boxes
Sandalwood, Swan river	,,	2 75	—	
Sapanwood, Siam	,,	2 10	—	
Segars, Manilla No. 2 Cortados	mille	11 50	12 0	
Segars, Manilla No. 2 Habanas	,,	11 50	12 0	
Sugar, Siam, white	picul	8 0	9 50	
yellow sorts	,,	6 0	7 50	
brown	,,	4 0	6 0	
Sticklac, Siam	,,	11 50	12 50	
Tea	20 cty. box	5 50	7 50	
Tin, Malacca	picul	23 75	—	93s. 9d. per cwt.
Pahang &c.	,,	18 0	19 0	
Tallow, buffalo	,,	11 0	12 0	
vegetable	,,	8 25	8 50	
Tortoiseshell	,,	275 0	450 0	
Timber		—		

Penang, another of the Straits Settlements, is an island at the North-western end of the Straits of Malacca, of which the chief port, called George Town, lat. 5° 24′ 15″ north, 100° 21′ east long., is distant from the opposite mainland of the Malayan peninsula about 2 miles. The island is between 13 and 14 miles in length, and from 5½ to about 10 miles in breadth, and contains an area of over 68,000 acres. There is, however, belonging to the settlement, a strip of territory, called Province Wellesley, on the main land, which is much more extensive, and is estimated to contain 150,000 acres. The island is mountainous, and the summit of the highest of the hills is about 3,000 feet above the level of the sea. Province Wellesley is, on the contrary, an alluvial flat, only a few feet above the level of the sea, but its soil is well adapted for the growth of the sugar cane, as well as the production of rice and other tropical articles. The harbour of Penang lies in the channel formed between the island and the opposite mainland, and is exceedingly spacious, well sheltered, and commodious, the depth of water allowing vessels of large burden to approach within a very short distance of the town. Abundance of water and provisions, including excellent fish, is easily procured.

Penang owes its existence as a British settlement to the enterprise and sagacity of Francis Light, the master of a merchantman, who, in pursuit of his avocations, had become well acquainted with the resources of the surrounding countries. His recommendations to found a settlement in Penang were first addressed to and favourably received by Warren Hastings, when Governor-General of Bengal, though not acted upon until the administration of his successor. The island, then uninhabited and covered with dense jungle, was formally taken possession of, July 17, 1786, by Captain Light, in the name of the East India Company, to whom it had been ceded and sold by the Rajah of Quedah or Keddah, subject, however, to an annual quit-rent of 10,000 dollars, which from that day to this has been regularly paid to himself and his descendants. Captain Light saw in the new settlement—'A port favourable to commerce—a place of refuge for merchant ships where they may refit and be supplied with provisions, wood, and water, and protected from the insults of enemies; and an emporium centrically situated, where the merchants of all nations may conveniently meet and exchange their commodities.' He was not deceived in these anticipations. The new settlement began to increase rapidly in trade and population, the imports being reported of the value of 130,000*l.* within three years after its foundation. In 1810 the annual value of the trade had reached 1,107,000*l.*; but thirty years later, it had not advanced beyond about 1,500,000*l.* It took a new start from 1850, since which it has steadily increased, averaging over 3,000,000*l.* in the five years ending 1860; and considerably over 4,000,000*l.* in the succeeding five years. In 1865–66, the imports and exports reached 4,304,957*l.*; and in 1867, 5,341,650*l.*; the particulars for which year are shown in the following table:—

Return of the Value of Imports into and Exports from Prince of Wales' Island or Penang in 1867.

Countries	Value	
	Imports	Exports
	dols.	dols.
Great Britain	1,338,273	2,799,037
North America	6,904	438,705
Europe	83,842	51,044
Calcutta	608,105	707,018
Madras	231,267	242,161
Bombay	14,660	40,781
Hongkong	342,780	527,356
China (other ports)	201,812	612,407
Siam	1,100,780	939,494
British Burmah	770,630	1,056,414
Sumatra	1,449,616	7,421,010
Malayan Peninsula	467,980	795,841
Singapore and Malacca	1,885,785	1,402,500
Ceylon	14,211	42,636
Arabia	3,600	28,227
Batavia	—	3,178
Nicobars	1,312	1,670
Goa	2,026	2,735
Total	8,523,733	16,613,549
	or, £1,811,301 5s. 3d.	or, £3,550,379 3s. 3d

Population.—The first census, in 1810, included, as every subsequent one has done, the province as well as the island, the population amounting to 31,600. In 1855, it numbered 55,354, and the census of 1860 gave 124,772, exclusive of the military. Of this population the Malays form the chief portion, the Chinese amounting to about ¼ of the whole, the remaining population consisting of natives of Bengal and Madras, Arabs, Burmese, Siamese &c. &c., besides Europeans and their descendants. The English are the principal merchants; while some of the Asiatics, such as the Chinese, Arabs, &c. also carry on extensive trade, and frequently attain considerable opulence. There are several bank agencies, and numerous branches of Sea, Life, and Fire Insurance established in the settlement.

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Agriculture &c.—The cultivation of the clove and nutmeg was extensively prosecuted in the island, but after a long time of apparent prosperity it resulted in complete failure, and the produce of the soil includes little beyond the Malayan fruits. It has been otherwise in Province Wellesley, where cultivation has been extensively carried on in several branches, particularly in that of the sugar cane, several thousand tons of sugar being annually exported. Tapioca is also produced and exported in large quantities, and attention is being turned to the more extensive production of rice; European capital and skill bearing a large share in promoting these results.

MALACCA. The town and territory bearing this name are situated on the western side of the Malayan peninsula. The town, built close on the sea shore, in lat. 2° 14′ North, and long. 102° 12′ East, is distant about 100 miles from Singapore and 260 from Penang. There is a light vessel in Malacca Straits 2° 52′ 30″ N. lat., and 101° E. long. Malacca was in former times a large commercial emporium, and possessed an extensive trade, when the small river on which it lies must have afforded important facilities, as it is capable of admitting trading vessels of some burden. But, though a free port, its trade has now long ceased to be of any relative importance, and is almost wholly confined to the two neighbouring settlements of Singapore and Penang. There is no harbour, properly so called; but though ships lie in an open roadstead, the anchorage is safe, and exposed only to the squalls which mark the breaking up of the monsoons. The climate is noted for its salubrity.

Malacca, as is well known, was first of all a Portuguese possession, having been captured from the Malays by Albuquerque in 1511. In 1641 it was taken by the Dutch, who continued its masters until 1795, when the town was surrendered to a British force, and remained, with its territory, in our possession until 1818. Then it was again given up to the Dutch, under the treaty of Vienna. It finally returned to our possession in 1825, as arranged by treaty with the Dutch of March 1824. The territory stretches over 40 miles along the coast, extending inland in breadths of from 10 to 28 miles. The soil is not fertile, but produces the tropical fruits in great variety and abundance. Pepper as well as rice is grown; and attempts have of late years been made to extend cultivation to other branches. Tin mines have also been worked in the interior to a considerable extent, but trade latterly has been declining. Whatever may have been the former claims of Malacca to importance in other respects, it has certainly increased in population since it became a British settlement. In 1828 the population was estimated at under 30,000; in 1847, at 55,000; and by the last census, in 1860, it numbered 67,667, and is understood to be still on the increase. The greater proportion, perhaps $\frac{3}{5}$, of the whole population consists of Malays; the Chinese being certainly the most numerous, and constituting the principal traders as well as workers of the tin mines.

The following is a statement of the value of the trade of Malacca for the five years ending with 1865-66, from the latest returns published:—

Years	Imports	Exports	Total
	Rs.	Rs.	Rs.
1861-62	4,512,099	3,535,745	8,047,844
1862-63	4,526,544	3,598,406	8,124,950
1863-64	4,542,849	3,596,011	8,138,860
1864-65	4,533,160	3,683,826	8,216,986
1865-66	4,582,531	3,586,207	8,168,738

Trade of Singapore.—The following Table is extracted from the *Annual Report on the Administration of the Straits Settlements for* 1865-66:—

Comparative Statement of the Value of Imports and Exports of the Straits Settlements, during the Official Years 1864-65 *and* 1865-66.

SINGAPORE.

Countries	Imports		Exports	
	1864-65	1865-66	1864-65	1865-66
	rupees	rupees	rupees	rupees
Great Britain	18,133,150	19,022,331	9,886,969	7,642,652
North America	123,465	133,555	1,809,478	3,170,347
Europe	4,573,258	4,073,729	611,069	1,408,671
Australia	351,252	149,103	257,496	140,199
Calcutta	4,606,085	6,967,915	10,597,455	11,193,213
Madras	490,036	724,906	501,419	210,470
Bombay	1,274,702	1,205,984	1,342,039	5,231,573
China	8,346,969	8,793,039	11,588,408	11,571,998
Cochin-China	1,239,473	1,150,448	3,212,631	3,205,739
Siam	2,265,551	2,737,218	5,931,202	5,048,547
Manila	507,586	630,179	105,111	149,091
Java, Rhio, Bally &c.	7,056,244	10,813,376	3,954,654	4,678,115
Borneo	1,961,110	1,981,443	1,755,085	2,026,809
Celebes	824,636	870,201	988,356	1,023,057
Sumatra	1,487,741	1,055,829	914,740	1,123,128
Malayan Peninsula	1,451,808	1,861,552	1,694,809	1,694,022
British Burmah	4,465,760	3,942,429	2,069,256	1,495,661
Miscellaneous	6,825,051	9,087,078	9,151,401	8,999,463
Total rupees	66,182,177	73,000,332	66,339,578	69,924,375

PENANG.

Countries	Imports		Exports	
	1864-65	1865-66	1864-65	1865-66
	rupees	rupees	rupees	rupees
Great Britain	1,790,055	1,241,921	4,772,797	4,855,640
North America	4,190	..	224,300	1,094,965
Europe	1,176,210	74,109	447,715	197,910
Calcutta	1,865,743	2,507,985	2,181,095	1,084,590
Madras	350,435	303,765	388,735	365,198
Bombay	142,877	53,835	354,796	71,345
China	994,578	1,893,955	3,347,602	2,528,552
Cochin-China	..	..	..	..
Siam	2,809,315	2,316,050	4,924,265	2,519,155
British Burmah	2,048,555	2,528,405	1,190,640	2,279,025
Java, Rhio &c.	..	..	..	..
Borneo	..	..	..	..
Sumatra	2,251,150	1,769,960	4,519,480	5,022,410
Malayan Peninsula	1,185,575	884,980	2,259,750	1,736,943
Miscellaneous, including Singapore, Malacca, &c.	3,511,360	4,461,722	5,542,530	4,181,385
Total rupees	18,048,695	17,419,087	26,913,654	25,650,296

Value of Imports and Exports of Straits Settlements—continued.

MALACCA.

Countries	Imports		Exports	
	1864-65	1865-66	1864-65	1865-66
	rupees	rupees	rupees	rupees
Arabia	..	..	..	5,642
Malay Peninsula	895,416	919,261	605,078	560,978
Sumatra	78,238	117,625	177,038	215,614
China	..	4,358	..	..
Singapore and Penang	3,532,106	3,495,887	2,861,110	2,891,139
Rangoon	27,400	45,100	40,600	9,536
Total rupees	4,533,160	4,582,531	3,683,826	3,682,907
		4,533,160		3,683,826
Rupees		49,371		2,381

The following statement shows the total value of the import and export trade of Singapore and of Penang and Malacca for the 7 years ending 1865–66. (*Report of the Progress of the Straits Settlements*, p. 14.)

Years	Singapore		Penang		Malacca	
	Exports	Imports	Exports	Imports	Exports	Imports
	rupees	rupees	rupees	rupees	rupees	rupees
1859-60	5,65,13,455	4,71,99,139	1,95,00,000	1,58,00,000	34,52,396	37,48,387
1860-61	4,18,74,748	5,81,25,880	1,66,06,579	1,41,99,167	29,46,257	41,56,401
1861-62	4,96,15,529	5,57,25,104	2,03,61,653	1,68,87,434	35,35,745	45,12,099
1862-63	5,55,55,736	6,46,17,201	2,39,21,096	1,84,13,989	35,98,406	45,26,544
1863-64	5,39,77,438	6,34,70,054	2,56,80,270	1,71,99,630	35,96,011	45,42,849
1864-65	6,63,39,578	6,61,82,177	2,69,13,634	1,80,18,423	36,83,826	45,33,160
1865-66	6,99,21,375	7,50,00,332	2,56,30,798	1,74,19,087	36,86,907	45,82,531

Account of the Quantities and Values of some of the Principal Articles Exported from the United Kingdom to Singapore, in 1865, 1866, and 1867.

Principal Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Apparel and haberdashery	value	..	..	..	11,787	13,479	10,525
Arms and ammunition:							
fire-arms (small)	no.	4,097	1,453	1,646	3,309	1,370	1,441
gunpowder	lb.	921,197	1,339,981	324,700	25,663	34,132	8,967
Beer and ale	barrels	2,782	3,582	2,836	12,116	14,939	10,490
Coals, cinders, and culm	tons	44,944	64,617	80,743	23,502	36,548	48,332
Copper, wrought and unwrought	cwt.	11,868	4,563	11,164	51,604	19,344	42,549
Cotton yarn	lb.	1,297,300	1,759,954	3,111,030	147,181	173,048	294,540
Cottons, entered by the yard	yards	43,217,688	59,317,082	74,930,212	918,966	1,333,779	1,420,671
at value	value	..	..	..	8,990	18,243	18,274
Earthenware and porcelain	"	..	..	..	7,109	11,273	11,447
Glass manufactures	"	..	..	..	7,451	10,850	9,063
Hardwares and cutlery, unenumerated	cwt.	4,516	6,521	2,499	19,321	26,077	11,110
Iron, wrought and unwrought	tons	6,000	4,890	5,374	56,019	50,082	55,417
Linens, entered by the yard	yards	1,044,662	1,008,613	997,029	45,586	41,979	34,224
Machinery: steam-engines	value	..	..	..	13,863	6,949	5,517
all other sorts	"	..	..	..	4,678	8,867	5,490
Woollens, entered by the yard	yards	390,599	1,083,425	899,005	50,636	90,885	60,305
All other articles	value	..	..	..	79,067	92,900	73,450
Total		..	..	..	1,410,118	1,986,892	2,065,916

Account of the Quantities and Values of the Articles Imported into the United Kingdom from Singapore and the Straits Settlements in 1865, 1866, and 1867.

Principal Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Antimony, ore	tons	50	31	10	435	279	100
Camphor	cwt.	503	404	—	2,894	2,475	—
Canes, rattans, not ground	no.	15,021,749	15,620,033	6,792,030	37,728	28,555	10,805
or sticks, other sorts	value	—	—	—	15,058	12,758	6,419
Caoutchouc	cwt.	4,119	3,999	3,315	27,315	38,897	29,948
Coffee	lb.	1,665,947	971,125	2,301,814	48,761	26,553	58,240
Cotton, raw	cwt.	1,636	4,157	212	4,774	17,749	692
Cutch	tons	472	320	62	11,658	9,730	2,380
Gamboge	cwt.	173	1	101	1,642	70	3,605
Gum, benzoin	"	1,353	1,167	2,293	12,125	12,804	18,375
copal	"	1,498	1,609	277	5,492	6,436	1,108
stick lac	"	165	1,701	67	346	4,842	164
other sorts	"	1,111	1,360	741	9,895	7,448	3,572
Gutta percha	"	21,585	19,211	12,487	119,810	69,693	76,467
Hides, not tanned	"	15,213	12,135	11,125	56,146	41,685	39,280
Horns, horn tips, and pieces of horn	tons	127	154	115	3,768	6,035	3,578
Isinglass	cwt.	459	440	255	8,143	7,305	4,248
Mace	lb.	15,870	26,949	17,719	1,152	2,855	2,162
Mother-of-pearl shells, rough	cwt.	163	125	9	1,180	1,207	80
Nutmegs	lb.	286,998	212,000	190,638	18,818	14,863	13,411
Oil, chemical, essential, and perfumed	"	2,330	4,802	5,994	845	994	1,535
Pepper	"	16,919,575	13,008,365	12,531,749	243,958	198,315	183,946
Rice, not in the husk	cwt.	37,464	44,899	1	17,689	25,382	1
Sago	"	106,409	151,748	142,444	89,162	126,384	119,295
Sprits, rum	gallons	100,940	144,448	89,997	7,740	10,230	7,395
Sugar, unrefined	cwt.	37,535	15,984	22,095	29,356	13,379	2,760
Tapioca	"	18,191	14,346	15,680	27,289	25,665	31,007
Tea	lb.	100,535	3,774	—	8,042	306	—
Terra japonica (or gambier)	tons	13,110	12,180	13,164	510,843	296,559	363,775
Tin	cwt.	96,603	76,499	85,952	450,101	291,692	377,886
Tortoiseshell or turtleshell, unmanufact.	lb.	4,518	6,746	4,037	3,066	4,338	2,264
Wood, teak	loads	48,092	28,695	12,291	532,579	276,244	119,597
sapan wood	tons	281	357	436	5,176	14,031	4,546
All other articles	value	—	—	—	22,121	28,010	19,625
Total		..	..	..	2,155,931	1,619,863	1,491,529

The number of square-rigged vessels, including the flags of every European maritime nation, as well as of Arabia, China, Cambodia, Siam, and Chili, which arrived in the roads of Singapore during 1865–66, amounted to 1730, and comprised 738,083 tons, of which 1,036 of 380,529 tons were British.

It may be remarked that a considerable portion of the trade which used at an earlier period to be carried on in native vessels, has of late years been transferred to square-rigged vessels, owned and fitted out by resident Chinese traders.

Much communication with Europe is kept up by the steamers of the Peninsular and Oriental Company and of the Messageries Impériales Company, both of which arrive and depart twice every month; and the Netherlands India Steam Company run a line of steamers, timed to meet the arrival and departure of the Europe mails, between Singapore, Batavia, and the principal outports of the Archipelago.

Telegraphic communication throughout Java has been for some years established by the Government of the Netherlands India, and more recently extended to Sumatra, where a junction is proposed with a line from Singapore, in continuation of the Indian system of telegraphs, which already reaches Moulmein. And the European inhabitants of Singapore look forward with confidence to the prolongation of the line from Java to the Australian colonies, as an immediate consequence of the early connection of England and India by submarine telegraph.

The straits within which the three settlements are situated are formed by the Malayan peninsula on the east, and by the large extent of Sumatra on the west. They bear in a direction from north-west to south-east, and their extreme length may be stated at 500 miles, with numerous islands at both ends, particularly at the south-easterly one. The straits vary in breadth from 40 to 300 miles, and, as already shown, are lighted sufficiently to render the navigation safe.

The greater portion of the materials for this article have been kindly supplied by a gentleman long resident in, and well acquainted with, Singapore. See also *Parl. Papers* on Straits Settlements &c.

SINOPE. A town of Asia Minor, on the south coast of the Black Sea, lat. 42° 2′ 30″ N., long. 35° 9′ 45″ E. Population uncertain, estimated at 10,500. Sinope is situated on a low narrow isthmus, connecting the high rocky promontory of Ada with the mainland. Its port, which is the best on this coast, on the south side of the town, is protected from the north and north-east gales by the isthmus and promontory already mentioned. Ships anchor within ½ mile of the town, in from 13 to 17 fathoms; or nearer to it, in from 5 to 7 fathoms. There is a roadstead on the north side of the isthmus, but it is open and exposed. Sinope is one of the principal stations of the Turkish fleet, and there are docks and arsenals for its accommodation and outfit. But the fortifications can afford sufficient protection neither to the town nor the shipping. This was strikingly exemplified in the latter part of 1853, when a Russian squadron attacked, and, without any material loss to itself, totally destroyed, 6 Turkish frigates with several transports at anchor in the roads. Its exports are inconsiderable, the principal being timber, salt, cordage, fish oil &c.

In ancient times, Sinope was a city of great wealth, magnitude, and importance. It was the birthplace of Diogenes the Cynic; and Mithridates made it the capital of his dominions. After its conquest by the Romans under Lucullus, it became the seat of a colony; and continued for a lengthened period to enjoy a good deal of consideration.

Should civilisation and the arts once more revive in the ancient Pontus and the other countries to the south of the Black Sea, the excellence of its port could not fail to restore to Sinope some portion of its former grandeur. Even now a considerable intercourse is beginning to take place with the countries east and south of Sinope. Diarbekr on the Tigris, in lat. 37° 54′ N., long. 39° 53′ 45″ E., is one of the principal seats of eastern commerce; and caravans set out regularly from it for Aleppo, Smyrna, and Constantinople: but anyone who consults a map of Asia Minor, and of the contiguous countries, will see at once that Trebisond and the neighbouring ports on the south-east coast of the Black Sea are the natural channels through which Armenia, Koordistan, and the north-western ports of Persia may best maintain an intercourse with Europe. We shall afterwards show that the danger to vessels in the roads of Trebisond has been very much exaggerated. [TREBISOND.] In the event, however, of the commerce with the countries referred to becoming of any considerable importance, Sinope would be an advantageous entrepôt to which goods might be brought, and whence they might be conveyed in proper vessels, and at proper times, to the other ports. At all events, it is of material importance that a direct intercourse with the southern coast of the Black Sea should be established, and that the trade with it should not be carried on, as hitherto, through Odessa. (For further particulars as to Sinope, see Tournefort, *Voyage au Levant*, tom. ii. pp. 202—212; and Norie's *Sailing Directions for the Black Sea.*) [TREBISOND.]

SKINS. The term is applied in commercial language to the skins of those animals, as deer, goats, kids, lambs &c., which, when prepared, are used in the lighter works of bookbinding, the manufacture of gloves, parchment &c.; while the term hides is applied to the skins of the ox, horse &c. which, when tanned, are used in the manufacture of shoes, harness, and other heavy and strong articles. Lamb and kid skins are principally used in the glove manufacture; 120 skins being supposed to produce, at an average, 18 dozen pairs of gloves. [LEATHER.]

Account of the Quantities of the Chief Kinds of Skins Imported into the United Kingdom during 1866 *and* 1867, *specifying the Countries whence they were brought, and the Quantities brought from each.*

Countries	1866	1867
Deer (undressed):	No.	No.
British India	11,629	—
Other countries	12,789	—
Total	24,418	—
Goat (undressed):		
Norway	20,742	22,438
Hamburg	63,158	74,693
Holland	4[illegible],696	4,609
Belgium	166,995	90,032
France	35,041	30,673
Austrian territories	27,600	—
Turkey Proper	144,858	65,440
East coast of Africa	11,400	—
British possessions in S. Africa	307,610	321,090
British India:		
Bombay and Sinde	2,200	1,760
Madras	34,616	68,100
Bengal and Pegu	78,350	126,438
Other countries	9,114	25,169
Total	941,380	761,442
Kid (undressed):		
Hamburg	32,016	71,499
British India	5,000	11,700
Other countries	2,000	5,910
Total	37,016	89,509
Kid (dressed):		
France	257,032	313,376
Other countries	9,253	15,236
Total	266,285	329,612

Quantities of Skins—continued.

Countries	1866	1867
	No.	No.
Lamb (undressed):		
Hamburg	51,015	15,167
France	282,606	112,763
Italy and the Italian islands	607,838	12,000
Turkey	155,562	122,820
Other countries	111,595	750,558
Total	1,209,616	1,011,308
Seal (undressed):		
British N. American colonies	323,570	422,254
The whale fisheries	61,540	103,117
Other countries	128,561	218,140
Total	513,671	743,511
Sheep (undressed):		
Hamburg	22,522	—
Holland	10,413	19,200
Belgium	265,536	155,690
France	209,532	134,455
Turkey Proper	263,249	278,634
Egypt	13,965	—
Morocco	19,316	—
Uruguay	200,009	455,215
Argentine Confederation	1,074,995	915,948
Malta	8,025	—
British possessions in S. Africa	762,904	862,746
British India	40,169	219,932
Australia	180,935	219,983
Other countries	21,782	52,218
Total	3,091,352	3,316,081
Sheep (tanned, tawed, or dressed):		
Hamburg	193,039	183,370
Bremen	23,056	—
Holland	163,574	197,884
Belgium	15,193	27,262
France	93,583	109,978
French possessions in India	46,683	50,500
British India:		
Bombay and Sinde	2,000	15,410
Madras	1,164,472	1,689,562
Bengal and Pegu	2,650	3,000
Ceylon	80	—
Australia	44,870	54,291
Other countries	10,733	11,070
Total	1,761,865	2,276,160

The duty on skins having been repealed in 1846, the quantities retained for consumption cannot be stated.

SLATE (ROOF), (Ger. schiefer; Fr. ardoise; Ital. lavagna, lastra; Span. pizarra). A fossil or compact stone (argillaceous schistus) that may be readily split into even, smooth, thin laminæ. There are several varieties of this valuable mineral, the prevailing colours being grey, blue, and brown. But the tints are very various; and slates are often marked with streaks of a different colour from the ground. Slate is principally used in the covering of houses, for which purpose it is infinitely superior to thatch or tiles, and is far less expensive than lead. Good roofing slate should not absorb water; and it should be so compact as not to be decomposed by the action of the atmosphere. When properly selected, roof slates are of almost perpetual duration; but those which are spongy and imbibe moisture speedily get covered with moss, and require, at no very distant period, to be renewed.

The use of slates in the covering of houses is entirely European. From the Hellespont to China inclusive there is not a single slated house; and this does not arise from any want of slate, which is as abundant in Asia as in Europe.

Slates carried by land have never been subjected to any duty; but those carried coastwise were, until 1831, charged with duties varying according to their size and species. The injustice of this distinction, and the impolicy of laying any duty on an article of this sort, are obvious. The revenue it produced was quite inconsiderable, not exceeding 35,000*l.* a-year. It was repealed at the same time as the duty on coal carried coastwise.

Since the repeal of the duty, the consumption of slate has been materially increased; and it is now extensively employed for various purposes to which it was not formerly made applicable, such as the flooring of warehouses and vaults, the paving of streets, the formation of cisterns, the covering of worn or decayed floors, and of the walls of houses in exposed situations &c. The slate used for these purposes is cut by the circular saw into pieces of from ½ an inch to 2 inches thick. Many hundred tons have been used in the course of the last few years in paving, flooring &c. at the London Docks, and other large establishments.

The principal slate quarries in Great Britain are in Caernarvonshire. Those belonging to Colonel Pennant (now Lord Penrhyn), near Bangor, employ about 1,500 men and boys, and are the most extensive and valuable in the empire. The other quarries in the same county employ about 1,620 men and boys: and there are some in other parts of Wales. There are also extensive quarries at Ulverstone, in Lancashire; and others, of inferior magnitude, in various parts of Westmoreland and Cumberland.

The principal slate quarries in Scotland are at Easdale and Balachulish, in Argyleshire. Speaking generally, the Scotch quarries do not afford slates of the size and smoothness of those obtained from the Welsh quarries; and the woodwork of the roofs covered with them requires to be stronger.

Roofing slates are of different sizes, and are denominated Imperials, Queens, Princesses &c. Their price, supposing their quality to be in other respects equal, depends partly on their size and partly on their weight. In 1867 we exported (chiefly to the United States and Australia) besides 5,364,000 slates by tale, 14,628 tons of slates, the value of the whole being 81,318*l.*

SLAVES AND SLAVE TRADE. A slave, in the ordinary sense of the term, is an individual at the absolute disposal of another, who has a right to employ and treat him as he pleases. But the state of slavery is susceptible of innumerable modifications; and it has been usual, in most countries where it has been long established, to limit in various ways the power of the master over the slave. *The slave trade* is, of course, the business of those who deal in slaves.

Origin of Slavery.—A great deal of learning has been employed in tracing the history of slavery, though the subject is still far from exhausted. It seems most probable that it originally grew out of a state of war. In rude uncivilised communities, where the passion of revenge acquires a strength unknown in more advanced states of society, captives taken in war are adjudged to belong to the victors, who may either put them to the sword, or reduce them to a state of servitude. In antiquity, the ideas of war and slavery were inseparable. Probably in very remote ages, prisoners were most commonly put to death; but the selfish gradually predominated over the more passionate feelings, and for many ages it was usual to reduce them to the condition of slaves; being either sold by their captors to others, or employed by them, as they might think fit.

The practice of reducing men to a state of slavery, having once begun, was extended in various ways. The progeny of slaves or of women in a state of slavery were slaves; men born free might sell themselves as slaves; and parents had authority, in Judæa and Rome, to dispose of their children for the same purpose. (Michaëlis *On the Laws of Moses*, ii. 163, Eng. ed.) It was the law of Rome, and of most other ancient states, that the persons of debtors who had contracted obligations which they could not discharge, should become the property of their creditors. 'Servi,' says Justinian, 'autem aut nascuntur aut fiunt: nascuntur ex ancillis nostris, fiunt aut jure gentium, id est ex captivitate; aut jure civili, cum liber homo major viginti annos ad pretium participandum sese venundari passus est.' (*Instit.* lib. i. tit. 3.)

Treatment of Slaves.—The treatment of slaves

in antiquity, as in more modern times, differed very widely in different countries and periods, and among different classes of slaves in the same country and at the same time. A great deal also depended on the character of particular masters. Slaves bred up in the house or family of the masters were uniformly treated with greater indulgence than others, and became entitled, by custom, to several important privileges. At Athens, slaves appear to have been better treated than in any other ancient state; and Demosthenes affirms, in his second Philippic, that 'a slave was better off at Athens than a free citizen in many other countries.' In republican Rome, the masters had the power of life and death over their slaves, who were often treated with the most detestable barbarity. It was not an uncommon practice to expose old, useless, or sick slaves to starve in an island in the Tiber. We may, as Hume has justly remarked, 'imagine what others would practise, when it was the professed maxim of the elder Cato to sell his superannuated slaves at any price, rather than maintain what he esteemed a useless burden.' (Plutarch, in *Vitâ Catonis.*) *Ergastula*, or dungeons, where slaves were confined and chained at night, and where they were sometimes made to work in the day, were common all over Italy. Columella advises that they be always built under ground (lib. i. c. 6): and remains of them are still seen in the lower stories of ancient buildings in Italy and Sicily. Hundreds of slaves were sometimes put to death for the crime of one only: and they were exposed, when they committed any petty fault, to all the violence of the most capricious and unrestrained despotism.

It was not uncommon in the barbarous ages to immolate captives on the tomb of such chiefs as had fallen in battle; and magnificent games were celebrated on these occasions. (Achilles sacrificed twelve Trojan captives on the tomb of Patroclus. *Iliad*, lib. xxiii.) The gladiatorial exhibitions, so common at Rome after the Punic wars, seem to have grown out of this practice. These were contests between slaves, denominated gladiators, trained to fight in public for the amusement of a ferocious populace, who took the greatest delight in their sanguinary combats. Thousands of unfortunate wretches were annually sacrificed in this inhuman sport. After his triumph over the Dacians, Trajan exhibited spectacles, in which no fewer than 11,000 wild beasts of different kinds were killed, and 10,000 gladiators fought. (Adam's *Roman Antiquities*, p. 317.)

The cruelties inflicted on the slaves occasioned frequent revolts, attended by the most dreadful excesses. Spartacus, a Thracian captive, destined for the profession of a gladiator, headed a rebellion of gladiators and slaves, which continued for three years, and required all the force of the republic to suppress. When finally defeated by Crassus, about 6,000 of the gladiator's followers were nailed to the cross, in double rows, that extended almost from Capua to Rome. (Ferguson's *Roman Republic*, c. 16.) No one acquainted with the manners of the Romans can be surprised at the atrocities of so many of the emperors. The worst of them treated the citizens better than the latter treated the slaves. Humanity could not be looked for in the rulers of a state in which human life was held in contempt, and human suffering made the subject of popular sport.

In consequence partly of their ill-usage, and partly of its being accounted cheaper to buy than to breed slaves, vast numbers were annually imported into Italy. Thrace and the countries round the Black Sea furnished large supplies of the best slaves; and numbers were obtained from Egypt, Syria, Britain, Gaul, and other countries. The famous island of Delos, in the centre of the Cyclades, was the greatest slave market of antiquity; as many as 10,000 slaves have been sold there in a single day. (Strabo, lib. xiv.)

It should, however, be observed, that slavery among the ancients was very different from the slavery of modern times, at least from the slavery that lately existed in our West India islands, the United States, Cuba &c. Slaves in antiquity were physically identical with freemen, and were discriminated only by peculiar marks, or by the character of their employments. (Slaves wore their beards and hair long; and when manumitted, they shaved their head and put on a cap, which has in consequence become the symbol of liberty. Brutus, after the assassination of Cæsar, coined money, on which the figure of a cap was impressed, to indicate that the people had been rendered free. See Adam's *Antiquities*, p. 376; see, also, Burlamaqui, *Principes du Droit des Gens*, iv. 454, where the reader will remark a singular error.) It was truly said of them, 'Servi homines sunt, et æque unum lactem biberunt, etiamsi illos malum fatum oppresserit.' (Petronius, ed. Burm. cap. 71.) But modern slaves belong to a different variety of the human race, the distinction between them and their masters being obvious and striking. Owing to this difference between the slaves of ancient and modern times, the influence of slavery at the two periods has been materially different. The freemen of antiquity, who were accustomed to tyrannise over persons in all respects (except their social rank) on a level with themselves, could hardly fail to acquire a ferocity of disposition, and coarseness of manner, that either disappear, or are much softened down, in a society where all are equal. But such results do not certainly follow to the same, nor perhaps to any extent, from the practice of modern slavery. In this case the masters do not tyrannise over their equals, but over those who differ from the class to which they belong by the broadest and most distinctly marked characters; and their behaviour towards their slaves is found to have very little influence over their behaviour towards their fellow-citizens. The white inhabitants of Virginia, for example, so lately slaveowners, are quite as gentlemanlike in their manners, and observant of the respect due to others, as their countrymen of New York or New England. Indeed, if there be any difference between them, it will probably be found to be in favour of the former.

Although, therefore, there can be no doubt that the slavery that existed in the ancient world had a brutalising influence over the manners of the people, and gave them a degree of ferocity to which happily we have long been strangers, it by no means follows that the slavery which prevails in the New World should have the same influence. In the former case, masters and slaves were of the same variety of the species; but in the latter, the masters belong to one variety, and the slaves to a totally distinct, and most probably lower, variety; so that the domination of the one set, and the subjection of the other, partake in some measure of the character of the supremacy exercised by man over the lower animals, and have comparatively little influence over the morals or conduct of the masters. There can be no manner of doubt that the slavery that existed in the ancient world was unfavourable to the progress of arts and industry. In the most celebrated nations of antiquity, the greater number of mechanical employments were principally carried on by slaves and the dregs of the free population;

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so that, while the workmen employed in them were without emulation or invention, the employments themselves were looked upon as mean and servile. To such an extent did this prejudice operate, that in Rome, Sparta, and other celebrated states, agriculture and arms were the only occupations that were reckoned worthy of a freeman, or in which he could engage without being degraded.

But the principal difference between the slavery of the ancient and modern world consists in the fact that in the former freemen were quite as well suited as slaves for carrying on every art and employment; while in the latter the peculiar constitution of the slaves fit them for employments which, though of the highest importance, cannot be carried on by their masters. The greater intelligence of the whites enables them to exercise a decided superiority over the black or coloured natives of the torrid zone, notwithstanding the latter are incomparably better adapted for the prosecution of those laborious occupations which are indigenous, as it were, to the soil they occupy. It is doubtful whether the constitution of the whites will ever be so accommodated to the climate of the tropics as to enable them to engage in that field labour, carried on in the lower and hotter districts (*tierras calientes*), which is congenial to the blacks. At all events, no such accommodation has hitherto taken place; and, therefore, it would appear that some modification of slavery, or that a supply of suitable compulsory labour of some sort or other, is necessary to enable civilised man to occupy, and to turn to a useful account, some of the most fertile and extensive regions of the earth. And hence the propriety of enquiring into the policy of institutions like this, and of carefully considering the peculiar conditions or circumstances under which they are to be acted upon. Slavery in Europe may be, and we believe is (notwithstanding the opinion of Michaëlis to the contrary), in all respects most objectionable; but it is quite another matter with slavery in Louisiana, Cuba, and Brazil; the circumstances under which they are placed are so very different from ours, that an institution exceedingly inexpedient on this side the Atlantic may be especially suited to them.

The establishment of Christianity contributed more, perhaps, than anything else, first to mitigate, and finally to suppress, slavery in Europe. But, within no very long period after its abolition had been completely effected in this part of the world, it began to be established in America.

The African Slave Trade was commenced by the Portuguese in 1442. It was, however, but of trifling extent till the commencement of the sixteenth century. In consequence, however, of the rapid destruction of the Indians employed in the mines of St. Domingo or Hayti, Charles V. authorised, in 1517, the introduction into the island of African slaves from the establishments of the Portuguese on the coast of Guinea. The concurrence of the emperor was obtained by the intercession of the celebrated Las Casas, bishop of Chiapa, who laboured to protect the Indians by enslaving the Africans; though, as the latter were certainly more vigorous and capable of bearing fatigue than the former, the measure was not in reality so contradictory as it would, at first sight, appear to be. (Robertson's *History of America*, book iii.)

The importation of negroes into the West Indies and America, having once begun, gradually increased, untill the traffic became of great extent and importance. Sir John Hawkins was the first Englishman who engaged in it; and such was the ardour with which our countrymen followed his example, that they exported from Africa more than 300,000 slaves between the years 1680 and 1700; and between 1700 and 1786, 610,000 Africans were imported into Jamaica only; to which adding the imports into the other islands and the continental colonies, and those who died on their passage, the number carried from Africa will appear immense. (Bryan Edwards, *History of the West Indies*, ii. 64.) The importations by other nations, particularly the French and Portuguese, were also very great.

We do not intend, though the subject be one of the highest interest, to make any lengthened enquiries as to the legitimacy or illegitimacy, the policy or impolicy, of the slave trade. We may, however, shortly observe that there can be no doubt that slavery has always existed in Africa; and it is sufficiently well known that previously to the commencement of the traffic, such of the captives taken in war as could not be advantageously employed as slaves were most commonly put to death—cannibalism, the exposure of infants, and human sacrifices, being then also very frequent. The slave trade, by opening a ready and profitable market for slaves, assisted in putting an end to these enormities, though it be, at the same time, true that the desire of profiting by their sale has tempted the petty princes to make war on each other for the chance of making captives, and has given a stimulus to man-stealing and other atrocities. (*Geographical Dictionary*, art. 'Africa.') There can, however, be no reasonable doubt that civilisation has been, on the whole, advanced by the practice of the trade. At all events, no evidence either has been, or, we believe, can be, produced to show that the state of Africa would have been perceptibly improved had the slave trade never been heard of. But it is quite certain, had such been the case, that there would have been a wide difference in the condition of the West Indies, the Southern States of North America, Brazil &c. It will, we apprehend, be found that the culture of sugar and other great colonial staples cannot be profitably carried on in these countries, nor, perhaps, anywhere within the tropics, without a supply of compulsory labour of some sort or other (see ante, COLONIES). Neither, we apprehend, can there be a question that the extensive culture of these staples has added greatly to the comforts and conveniences of the inhabitants of most civilised countries; and, if this addition to their enjoyments has been effected without injury to the slaves, it will not be so easy a matter as has been supposed to show the impolicy of the trade. But those who enquire dispassionately into the subject will probably come to the conclusion that, instead of being injured, the slaves have gained by being carried from the Old to the New World. Speaking generally, the negroes are in the lowest state of abasement, possessing merely the rudiments of the most indispensable arts, a prey to the vilest superstition and tyranny, without any tincture of learning, and with little or no regard for the future. The circumstances under which they are placed in their native land may, perhaps, account for the low state in which we find them; but, however explained, the genuine negroes of Africa are admitted, even by those least inclined to depreciate them, to be, for the most part, 'either ferocious savages, or stupid, sensual, or indolent.' (Prichard, *History of Man*, ii. 288, 3rd ed.) Excepting the violence done to their habits and inclinations, no one who knows anything of their state in Africa and in the western hemisphere can possibly

doubt that they have gained most materially by their transference to the latter.

But, supposing their character to be such as represented, still it may be contended that their weakness or inferiority gives the whites no right to lord it over them, to convey them to foreign countries, and to reduce them to a state of bondage; and no doubt it is exceedingly difficult to specify in how far the civilised portion of mankind may be entitled to control those that are decidedly less intelligent and advanced than themselves. That they have done so from the earliest ages is, however, indisputable; and everyone who has any acquaintance, however slight, with the history of society, is aware that the consequences of this control have been in the highest degree advantageous; for, though polished nations have too often abused their superior power and intelligence, still it is abundantly certain that but for their dictating to and subjugating others, half the civilised world would at this moment have been immersed in the grossest barbarism. But without entering into any discussion respecting the application of this principle in the case of Africa, it is enough to know that the Europeans did not originate slavery in that continent; the Africans were enslaved and disposed of as other goods and chattels for centuries before they began to be purchased by the former; and the conduct of the whites is to be determined by the nature of the treatment which the slaves received at their hands.

Now, though it be abundantly certain that this has been on the whole indulgent, it is not to be denied that very many enormities have been perpetrated, which the law should have prohibited and severely punished. The crowding of slaves together in their passage across the Atlantic, and the cruelties which some worthless masters have been accustomed to commit, are of this description. But these outrages are not of the essence of slavery; and they might and should, no doubt, have been suppressed. An institution is not to be confounded with its abuse. The object of the slave trade was to procure a supply of compulsory labourers for the service of the colonists in the West Indies and other tropical countries; but it did not, therefore, follow that the colonists were to be under no restraint, either as to the methods by which they sought to procure such bondmen, or as to the power which they might exercise over them.

Neither does it follow, because the slave trade may have been for the general advantage of mankind at a particular period, that it should be indefinitely extended. When as large a supply of negroes has been imported as may be necessary to supply its markets with labour, there can be no good reason for allowing their further importation into a country, at the same time that there seem to be sundry good reasons why it should be put a stop to. By preventing the importation of fresh slaves, the proprietors may find it for their interest to be more attentive to the condition of those already in their possession than they might otherwise be; for it is evident that in such cases they could only look to the natural increase of their slaves for a supply of labour in future, and that they could not expect to supply by foreign importations the place of those who might perish by bad treatment. On these grounds we are inclined to think that the English and Americans acted with quite as much prudence as humanity, in forbidding, in 1807, the further importation of slaves into their dominions. In consequence of the operations of our cruisers in Brazilian waters, the Brazilian Government in 1850 also passed a severe penal law against the trade. No doubt, too, the slave population in Cuba and Brazil has of late been quite large enough to furnish, with proper treatment, an adequate supply of labourers, how rapidly soever we may suppose them to advance in the career of industry.

We have ventured to submit these statements to the consideration of the reader, not because we have any desire to extenuate the evils inseparable from a state of slavery, or the cruelties of which slave-dealers and slave-proprietors may be justly accused. But, after making every allowance for these drawbacks, it is evident, if the preceding statements be well founded, that slavery as it has existed in more modern times, and still more as it might be established, is not the unqualified abuse it has almost uniformly been represented. On the contrary, we are disposed to regard it as being, under proper modifications, all but indispensable to the profitable cultivation of the western countries in which it is still met with. It is to no purpose to say that free labour is cheaper than slave labour. We more than doubt whether, when applied to them, there be any foundation for such a statement; but that is really immaterial, the fact being, that, were slavery abolished, few or no free labourers would be found to engage in the great departments of industry carried on in the slave-holding countries. It would, indeed, be a contradiction and an absurdity to suppose that it should be otherwise. In countries with a fruitful soil and under a tropical sun, the principal wants of the inhabitants are supplied with but little exertion, and the dolce far niente is their summum bonum. In such situations industry is a sickly plant; and instead of employing their surplus time in the production of articles of ostentation and luxury, the inhabitants most commonly waste it in idleness and apathy. Were the slaves completely emancipated in Brazil, as they have lately been in the Southern States of America, and are about to be in Cuba, it is all but certain that the culture of sugar and cotton would be as completely abandoned in them as in Hayti. And if the change were accompanied by a considerable improvement in the condition of the black population, the sacrifice might not, perhaps, be deemed too great. But where is the ground for supposing that such would be the case? Indeed the fair presumption seems to be the other way. Little, at all events, would be gained by turning a laborious well-fed slave into an idle, improvident, and perhaps beggarly freeman.

There may, however, be such a thing in a colony as a quasi emancipation of slaves, or, which is the same thing, regulations may be enacted giving the slaves freedom, and at the same time excluding them from the possession of that which can alone make that freedom of any practical value. Speaking generally, the blacks in our colonies have little or no capital; and, therefore, they must live either by occupying patches of land on their own account, or by working for others. And provided they be debarred, by regulations effectual to their object, from acquiring or occupying small portions of land, they will necessarily be compelled, how much soever they may dislike it, to engage as labourers on the estates of others. This, however, is probably the very worst sort of compulsory labour. It gives the blacks enough of freedom to make them in the last degree dissatisfied with the regulations by which it is sought practically to nullify it, and makes them at once discontented, refractory, and idle. But, wretched as it is, we believe that at this moment the obstacles that have been and

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may be thrown in the way of the blacks obtaining patches of land are the principal dependence of the colonists in our West India islands for the continued culture of colonial staples.

Without entering further on a subject which would require a long essay for its discussion, we may remark that a good work on the subject of slavery is a desideratum which will not, probably, be speedily supplied. In this country it has been treated as if it were everywhere the same, and as if it were in every case an unmixed evil, and an outrage on humanity. This, however, is to confound the most obvious distinctions, to substitute abuse for reasoning, assertion for enquiry, and prejudice for principle. Those who enquire dispassionately into the matter will, perhaps, see abundant reason for agreeing in opinion with Michaëlis and Grotius (*De Jure Belli*, lib. ii. cap. 27), that while slavery has its evils, it may also have its advantages, and that if there be countries and states of society in which the former very decidedly preponderate, there are those also in which the preponderance is as certainly on the side of the latter.

Abolition of the Slave Trade.—Notwithstanding the sanction it received from Parliament, and the supineness of the public, the slave trade was frequently denounced by distinguished individuals, in this and other countries, as essentially cruel and unjust.

The first motion with relation to it in Parliament was made in 1776; but the subject was not taken up systematically till 1787, when a committee was formed, of which Mr. Granville Sharp and Mr. Clarkson, whose names are imperishably associated with the abolition of the slave trade, were members. This committee collected some highly coloured evidence of the enormities produced by the trade, which they circulated throughout the country, and thereby succeeded in making a great impression on the public mind. After a number of witnesses on both sides had been examined before the Privy Council, Mr. Wilberforce, on May 12, 1789, moved a series of resolutions condemnatory of the traffic. They were supported by Mr. Burke, Mr. Pitt, and Mr. Fox. But notwithstanding the resolutions were carried, nothing was done to give them effect. The friends of the trade having obtained leave to produce evidence at the bar of the House, contrived to interpose so many delays that the session passed off without anything being done. In the following sessions the struggle was continued with various success, but without any definite result. At length the triumph of the abolitionists was finally consummated in 1807; a bill for the total and immediate abolition of the slave trade, having been carried in both Houses by immense majorities, received the royal assent on March 25, being the last Act of the administration of Mr. Fox and Lord Grenville.

America abolished the slave trade at the same time as England.

But notwithstanding what had been done, further measures were soon discovered to be necessary. The Spanish and the Portuguese continued to carry on the trade to a greater extent than ever; and British subjects did not hesitate, under cover of their flags, to become partners in their adventures. An effectual stop was put to this practice in 1811, by the enactment of a law introduced by Mr. (afterwards Lord) Brougham, that made trading in slaves punishable by transportation for 14 years, or by confinement to hard labour for a term of not more than 5 years nor less than 3 years. And since that period the British Government has zealously exerted itself for the suppression of the slave trade in every part of the world. But, in defiance of its efforts, considerable numbers of slaves continued for many years to be carried across the Atlantic to Brazil and Cuba, and it will be no easy matter wholly to suppress the trade. Provided, indeed, the great Powers were to concede a mutual right of search, and to make the traffic in slaves piracy, it might be effectually put down; but there are all but insuperable prejudices and jealousies in the way of their consenting to adopt such measures. (Mr. Bandinel's work on the Slave Trade contains the clearest and best exposition that is anywhere to be found of its rise, progress, and suppression; and of the efforts made by the British Government to induce other nations to abandon it.)

The British laws relative to the slave trade were consolidated by the Act 5 Geo. IV. c. 113. But, as the greater part of this Act was superseded by the statute for the extinction of slavery (3 & 4 Wm. IV. c. 73), we shall merely lay before the reader the clauses still in force relating to dealing in slaves.

Dealing in Slaves in the High Seas &c. to be deemed Piracy.—And if any subject or subjects of his Majesty, or any person or persons residing or being within any of the dominions, forts, settlements, factories, or territories, now or hereafter belonging to his Majesty, or being in his Majesty's occupation or possession, or under the government of the United Company of Merchants of England trading to the East Indies, shall, except in such cases as are by this Act permitted, after January 1, 1825, upon the high seas, or in any haven, river, creek, or place where the admiral has jurisdiction, knowingly and wilfully carry away, convey, or remove, or aid or assist in carrying away, conveying, or removing, any person or persons as a slave or slaves, or for the purpose of his, her, or their being imported or brought as a slave or slaves into any island, colony, country, territory, or place whatsoever, or for the purpose of his, her, or their being sold, transferred, used, or dealt with as a slave or slaves; or shall, after the said January 1, 1825, except in such cases as are by this Act permitted, upon the high seas or within the jurisdiction aforesaid, knowingly and wilfully ship, embark, receive, detain, or confine, or assist in shipping, embarking, receiving, detaining, or confining, on board any ship, vessel, or boat, any person or persons for the purpose of his, her, or their being carried away, conveyed, or removed as a slave or slaves, or for the purpose of his, her, or their being imported, or brought as a slave or slaves into any island, colony, country, territory, or place whatsoever, or for the purpose of his, her, or their being sold, transferred, used, or dealt with as a slave or slaves; then and in every such case the *persons so offending shall be deemed and adjudged guilty of piracy*, felony, and robbery, *and being convicted thereof shall suffer death without benefit of clergy*—and loss of lands, goods, and chattels, as pirates, felons, and robbers upon the seas ought to suffer. (Sec. 9.)

Persons dealing in Slaves, or exporting or importing Slaves &c. guilty of Felony.—And (except in such special cases as are by this Act permitted) if any persons shall deal or trade in, purchase, sell, barter, or transfer, or contract for the dealing or trading in, purchase, sale, barter, or transfer of slaves, or persons intended to be dealt with as slaves; or shall, otherwise than as aforesaid, carry away or remove, or contract for the carrying away or removing of slaves or other persons, as or in order to their being dealt with as slaves; or shall inport or bring, or contract for the importing or bringing, into any place whatsoever,

slaves, or other persons, as or in order to their being dealt with as slaves; or shall, otherwise than as aforesaid, ship, tranship, embark, receive, detain, or confine on board, or contract for the shipping, transhipping, embarking, receiving, detaining, or confining on board of any ship, vessel, or boat, slaves or other persons, for the purpose of their being carried away or removed, as or in order to their being dealt with as slaves; or shall ship, tranship, embark, receive, detain, or confine on board, or contract for the shipping, transhipping, embarking, receiving, detaining, or confining on board of any ship, vessel, or boat, slaves or other persons, for the purpose of their being imported or brought into any place whatsoever, as or in order to their being dealt with as slaves; or shall fit out, man, navigate, equip, despatch, use, employ, let, or take to freight or on hire, or contract for the fitting out, manning, navigating, equipping, despatching, using, employing, letting, or taking to freight, or on hire, any ship, vessel, or boat, in order to accomplish any of the objects, or the contracts in relation to the objects, which objects and contracts have hereinbefore been declared unlawful; or shall knowingly and wilfully lend or advance, or become security for the loan or advance, or contract for the lending or advancing, or becoming security for the loan or advance of money, goods, or effects, employed or to be employed in accomplishing any of the objects, or the contracts in relation to the objects, which objects and contracts have hereinbefore been declared unlawful; or shall knowingly and wilfully become guarantee or security, or contract for the becoming guarantee or security, for agents employed or to be employed in accomplishing any of the objects, or the contracts in relation to the objects, which objects and contracts have hereinbefore been declared unlawful, or in any other manner to engage, or contract to engage, directly or indirectly, therein, as a partner, agent, or otherwise; or shall knowingly and wilfully ship, tranship, lade, or receive or put on board, or contract for the shipping, transhipping, lading, receiving, or putting on board of any ship, vessel, or boat, money, goods, or effects, to be employed in accomplishing any of the objects, or the contracts in relation to the objects, which objects and contracts have hereinbefore been declared unlawful; or shall take the charge or command, or navigate or enter and embark on board, or contract for the taking the charge or command, or for the navigating or entering and embarking on board of any ship, vessel, or boat, as captain, master, mate, surgeon, or supercargo, knowing that such ship, vessel, or boat is actually employed, or is in the same voyage, or upon the same occasion, in respect of which they shall so take the charge or command, or navigate or enter and embark, or contract so to do as aforesaid, intended to be employed in accomplishing any of the objects, or the contracts in relation to the objects, which objects and contracts have hereinbefore been declared unlawful; or shall knowingly and wilfully insure, or contract for the insuring, of any slaves, or any property or other subject-matter engaged or employed in accomplishing any of the objects, or the contracts in relation to the objects, which objects and contracts have hereinbefore been declared unlawful; or shall wilfully and fraudulently forge or counterfeit any certificate, certificate of valuation, sentence or decree of condemnation or restitution, copy of sentence or decree of condemnation or restitution, or any receipt (such receipts being required by this Act), or any part of such certificate, certificate of valuation, sentence or decree of condemnation or restitution, copy of sentence or decree of condemnation or restitution, or receipt as aforesaid; or shall knowingly and wilfully utter or publish the same, knowing it to be forged or counterfeited, with intent to defraud his Majesty, or any other person or persons whatsoever, or any body politic or corporate; then, and in every such case, the persons so offending, and their procurers, counsellors, aiders, and abettors, *shall be felons, and shall be transported* for a term not exceeding 14 years, or shall be confined and kept to hard labour for a term not exceeding 5 or less than 3 years, at the discretion of the court before whom such offenders shall be tried. (Sec. 10.)

Seamen &c. serving on board such Ships guilty of Misdemeanor.—And (except in such special cases or for such special puposes as are by this Act permitted) if any person shall enter and embark on board, or contract for the entering and embarking on board of any ship, vessel, or boat, as petty officer, seaman, marine, or servant, or in any other capacity not hereinbefore specifically mentioned, knowing that such ship, vessel, or boat is actually employed, or is in the same voyage, or upon the same occasion, in respect of which they shall so enter and embark on board, or contract so to do as aforesaid, intended to be employed in accomplishing any of the objects, or the contracts in relation to the objects, which objects and contract have hereinbefore been declared unlawful; then, and in every such case, the persons so offending, and their procurers, counsellors, aiders, and abettors, shall be guilty of a misdemeanor only, and shall be punished by imprisonment for a term not exceeding 2 years. (Sec. 11.)

Abolition of Slavery.—We have already alluded (ante, COLONIES) to the memorable Act of 1833, for the abolition of slavery throughout the British colonies. In enacting this celebrated statute, Parliament endeavoured to reconcile the apparently conflicting claims of humanity and justice, by providing for the emancipation of the slaves, without prejudice to the just rights and claims of their proprietors. This was effected by assigning to the latter the sum of *twenty millions* sterling, which was distributed amongst them on their complying with the provisions of the Act. This is, perhaps, the greatest pecuniary sacrifice ever voluntarily made by any nation in vindication of the right of property. But it was not too great for the object in view: for had that right been violated in this instance, a precedent would have been set for its violation in others, and the consequences would have been most disastrous. The measure, in fact, reflects quite as much credit on the wisdom and honesty, as on the generosity, of the British nation. In addition to the famous statutes already cited, we may mention that the following also bear on the subject viz., 5 & 6 Vict. c. 101, for preventing the importation of slaves into India by sea, 6 & 7 Vict. c. 98, and 8 & 9 Vict. c. 93 ss. 88 and 89.

We gave, in the previous edition of this work, an abstract of this celebrated statute, to which we beg to refer the reader who may wish to become minutely acquainted with its provisions. It is sufficient, now, to mention that it enacted that slavery should cease in all our possessions on August 1, 1834; when the slaves were to become apprenticed labourers, their final and complete emancipation taking place partly on August 1, 1838, and partly on August 1, 1840. But a clamour having been raised against the duration of the apprenticeship, its period was shortened, and the blacks became universally free in 1838.

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Distribution of Slave Compensation.—The commissioners for the apportionment of the 20,000 000*l.* granted by Parliament as compensation to slave owners, under the Act 3 & 4 Wm. IV. c. 73, issued the following Table, showing the average value of a slave in each colony; the number of slaves in each; the total value of the slaves, supposing the annual value of each were realised; and the proportion of the 20,000,000*l.* received by each colony.

Colony	Average Value of a Slave from 1822 to 1830	Number of Slaves by the last Registration in this Country	Relative Value of the Slaves	Proportion of the 20,000,000*l.* to which each Colony is entitled
	£ s. d.		£ s. d.	£ s. d.
Bermuda	27 4 11½	4,203	114,527 7 5½	80,584 7 0·41
Bahamas	29 18 9½	9,705	290,573 15 5½	125,340 7 5·47
Jamaica	44 15 2½	311,693	13,951,139 2 3	6,161,927 5 10·58
Honduras	120 4 7½	1,920	230,844 0 0	101,958 19 7·92
Virgin Islands	31 16 1½	5,192	165,143 9 2	72,940 8 5·76
Antigua	32 12 10½	29,537	964,198 0 10½	425,866 7 0·13
Montserrat	36 17 10½	6,355	234,466 8 0½	103,558 18 5·38
Nevis	39 3 11½	8,722	341,893 6 3½	151,007 2 11·35
St. Christopher's	36 6 10½	20,660	750,840 7 1	331,630 10 7·32
Dominica	43 8 7½	14,384	624,715 2 0	275,923 12 8·30
Barbadoes	47 1 3½	82,807	3,897,276 19 0½	1,721,345 19 7·87
Grenada	59 6 0	23,536	1,395,684 16 0	616,444 17 7·08
St. Vincent's	38 6 8	22,997	1,341,491 13 4	592,508 18 0·93
Tobago	45 12 0½	11,621	529,941 16 2½	234,064 4 11·55
St. Lucia	56 18 7	13,348	759,890 10 4	335,627 15 11·19
Trinidad	105 4 5½	22,359	2,352,655 18 0½	1,039,119 1 5·11
British Guiana	114 11 5½	84,915	9,729,047 13 5½	4,297,117 10 6·30
Cape of Good Hope	73 9 11	38,497	2,821,224 7 9	1,247,101 0 7·76
Mauritius	69 14 3	68,613	4,785,183 15 3	2,112,632 10 11·06
				Deficient fractions ·08
Total	..	780,993	45,281,734 15 10½	20,000,000 0 0

During the civil war in the United States of America, a law was passed abolishing slavery throughout this territory, and there can be little doubt that the Spanish revolution of 1868 will lead to the extinction of slavery in Cuba.

SMALTZ or SMALT (Ger. schmalz; Dutch, smalt; Fr. smalt; Ital. smalto azzurro, smaltino; Span. esmalte, azul azur; Russ. lazor). An oxide of cobalt, melted with siliceous earth and potash. It is a sort of glass, of a beautiful deep blue colour; and being ground very fine, is known by the name of powder blue. The colour of smaltz is not affected by fire; and it is consequently in great demand in the painting of earthenware. It is also employed in the colouring of paper, and for other purposes in the arts. Beckmann has proved that the process used in the preparation of smaltz was invented about the end of the 15th or the beginning of the 16th century; and that the blue glass of the ancients owes its colour, not to the presence of cobalt or of smaltz, but to that of iron. (*Hist. of Inventions*, vol. ii. art. 'Cobalt.')

Smaltz is principally manufactured in Germany and Norway. 766 cwt., of the value of 5,362*l.*, were imported into the United Kingdom in 1867, and the exports in the same year amounted to 56 cwt.

SMUGGLING. The offence of importing prohibited articles, or of defrauding the revenue by the introduction of articles into consumption, without paying the duties chargeable upon them. It may be committed indifferently either upon the excise or customs revenue.

Origin and Prevention of Smuggling.—This crime, which occupies so prominent a place in the criminal legislation of all modern states, is wholly the result of vicious commercial and financial legislation. It is the fruit either of prohibitions of importation, or of oppressively high duties. It does not originate in any depravity inherent in man; but in the folly and ignorance of legislators. A prohibition against importing a commodity does not take away the taste for it; and the imposition of a high duty on any article occasions a universal desire to escape or evade its payment. Hence the rise and occupation of the smuggler. The risk of being detected in the clandestine introduction of commodities under any system of fiscal regulations may always be valued at a certain average rate; and whenever the duties exceed this rate, smuggling immediately takes place. Now, there are plainly but two ways of checking this practice—either the temptation to smuggle must be diminished by lowering the duties, or the difficulties in the way of smuggling must be increased. The first is obviously the more natural and efficient method of effecting the object in view; but the second has been most generally resorted to, even in cases where the duties were quite excessive. Governments have uniformly almost consulted the persons employed in the collection of the revenue with respect to the best mode of rendering taxes effectual; though it is clear that the interests, prejudices, and peculiar habits of such persons utterly disqualify them from forming a sound opinion on such a subject. They cannot recommend a reduction of duties as a means of repressing smuggling and increasing revenue, without acknowledging their own incapacity to detect and defeat illicit practices; and the result has been, that, instead of ascribing the prevalence of smuggling to its true causes, the officers of customs and excise have almost universally ascribed it to some defect in the laws, or in the mode of administering them, and have proposed repressing it by new regulations, and by increasing the number and severity of the penalties affecting the smuggler. As might have been expected, these attempts have, in the great majority of cases, proved signally unsuccessful. And it has been invariably found, that no vigilance on the part of the revenue officers, and no severity of punishment, can prevent the smuggling of such commodities as are either prohibited or loaded with oppressive duties. The smuggler is generally a popular character; and whatever the law may declare on the subject, it is ludicrous to expect that the bulk of society should ever be brought to think that those who furnish them with cheap brandy, geneva, tobacco &c. are guilty of any very heinous offence.

'To pretend,' says Adam Smith, 'to have any scruple about buying smuggled goods, though a manifest encouragement to the violation of the revenue laws, and to the perjury which almost always attends it, would, in most countries, be regarded as one of those pedantic pieces of hypocrisy, which, instead of gaining credit with anybody, seems only to expose the person who affects to practise them to the suspicion of being a greater knave than most of his neighbours. By this indulgence of the public, the smuggler is often encouraged to continue a trade, which he is thus

taught to consider as, in some measure, innocent; and when the severity of the revenue laws is ready to fall upon him, he is frequently disposed to defend with violence what he has been accustomed to regard as his just property; and from being at first rather imprudent than criminal, he, at last, too often becomes one of the most determined violators of the laws of society.' (*Wealth of Nations*, p. 406.)

To create by means of high duties an overwhelming temptation to indulge in crime, and then to punish men for indulging in it, is a proceeding completely subversivè of every principle of justice. It revolts the natural feelings of the people; and teaches them to feel an interest in the worst characters—for such smugglers generally are—to espouse their cause, and avenge their wrongs. A punishment which is not proportioned to the offence, and which does not carry the sanction of public opinion along with it, can never be productive of any good effect. The true way to put down smuggling is to render it unprofitable; to diminish the temptation to engage in it: and this is not to be done by surrounding the coasts with cordons of troops, by the muliplication of oaths and penalties, and making the country the theatre of ferocious and bloody contests in the field, and of perjury and chicanery in the courts of law; but by repealing prohibitions, and reducing duties, so that their collection may be enforced with a moderate degree of vigilance; and that the forfeiture of the article may be a sufficient penalty upon the smuggler. It is in this, and in this only, that we must seek for an effectual check to illicit trafficking. Whenever the profits of the fair trader become nearly equal to those of the smuggler, the latter is forced to abandon his hazardous profession. But so long as prohibitions or oppressively high duties are kept up, or, which is in fact the same thing, so long as *high bounties* are held out to encourage the adventurous, the needy, and the profligate to enter on this career, we may be assured that armies of excise and customs officers, backed by the utmost severity of the revenue laws, will be insufficient to hinder them.

It would be useless to enter in this place into any lengthened details to prove the truth of these statements. Unluckily the entire financial and commercial history of this country and others abounds with instances in point, many of which must be familiar to every reader. The prohibition of foreign products, or the imposition of heavy duties on foreign or native products, does not take away the taste for them. On the contrary, it would seem as if the desire to obtain prohibited or over-taxed articles acquired new strength from the obstacles opposed to its gratification.

Per damna, per cædes, ab ipso
Ducis opes animumque ferro.

The prohibition of foreign silks which existed previously to 1826 did not hinder their importation in immense quantities. The vigilance and integrity of the custom-house officers were no match for the ingenuity, daring, and douceurs of the smugglers. And at the very moment when the most strenuous efforts were made to effect their exclusion, the silks of France and Hindostan were openly displayed in Almack's, in the drawing-rooms of St. James's, and in the House of Commons, in mockery of the impotent legislation by which it was attempted to shut them out. There is, in truth, great room for doubting whether the substitution of an ad valorem duty for the whole system of prohibition was at first productive of any material increase in the imports of foreign silks. The repeal of the prohibition was a most judicious measure; but the duty being unfortunately fixed at too high a limit, it gave an overwhelming stimulus to smuggling. Before the abolition of the duty on silks, the expense of their clandestine importation from France was roughly estimated at about 15 per cent. ad valorem; and as the duty on silks, down to 1845, was double that amount, or 30 per cent., we need not wonder that it was estimated, by well-informed parties, that from a third to a half of the total quantity of imported silks escaped the duty. Indeed, everyone is aware that their clandestine importation was carried on to a great extent, within the port of London, and in the custom-house itself, by the corruption and connivance of the officers. And this, we may be assured, was not a solitary instance. The corruption of the officers is in truth an inevitable consequence of the over-tax system.

The enormous duties that were imposed previously to 1823 on home-made Scotch and Irish spirits produced, as is seen in the art. SPIRITS, an extent of smuggling and demoralisation of which it is not easy for those who have not attended to such matters to form an idea. At present, however, the duties on tobacco, brandy, and hollands, but especially the first, are the great incentives to smuggling. The preventive water-guard is kept up at great expense for little other purpose than to hinder the clandestine importation of these articles. But notwithstanding its efforts, considerable quantities of them find their way into the country without being subjected to any duty. And how should it be otherwise? The price of tobacco in the contiguous continental ports may, at an average, be taken at from 8*d.* to 10*d.* per lb.; and as the duty on tobacco is from 3*s.* 6*d.* to 5*s.* per lb., need we be surprised to learn that, allowing for the expenses of smuggling, if one cargo out of three be safely landed, the business is as profitable as it is adventurous and exciting? 'But it is not so much by the introduction of tobacco from abroad as by its admixture or adulteration with other articles that the contraband dealers endeavour to defeat the duty.' (*Treatise on Taxation*, 3rd ed. p. 347.)

It may, however, be right to state that it must not be imagined that the mere diminution of an oppressive duty on any article will put down the smuggling to which the duty may have given rise. The diminution may not be sufficiently great; and if so, it will have but little influence. Thus, taking, as above, the cost of smuggling French and other silks into England at 15 per cent. ad valorem, a reduction of the late duty of 30 to 25 or even 20 per cent. would, it is plain, have done little or nothing to prevent their clandestine importation. But its reduction, in 1845, to 15 per cent., by taking away the supposed advantage on the side of the smuggler, all but destroyed his occupation. In reducing duties, either for the prevention of smuggling or the increase of consumption, the reduction must be effectual to its end; that is, in the former case, it must be such as to bring the duty below, or nearly to the level of, the cost of smuggling, and in the latter it must be such as to bring the article within the command of a decidedly larger class of consumers. A reduction of 5*s.* or 6*s.* from the late duty of 22*s.* 10*d.* per gallon on foreign brandy and hollands would have been of no use; for it would not have had any sensible influence either in lessening smuggling or increasing consumption. Even the reduction effected in 1845, by Sir Robert Peel, of 7*s.* 10*d.* per gallon, though advantageous, was too small to have the desired effect. It should have been 10*s.* per gallon.

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These considerations show the degree of weight which should be attached to the statements of those who endeavour to excuse or apologise for exorbitant duties by showing that they have sometimes been reduced without any material increase taking place in the consumption of the articles on which they are laid, or any material diminution of smuggling. In exemplification of this, it has been stated that though the duty on tobacco was reduced in 1825 from 4*s.* to 3*s.* per lb., the consumption was not increased in anything like the same proportion; and that notwithstanding the rapid growth of population, a period of 10 years elapsed before the tobacco revenue rose to its former level. But no one acquainted with the facts could have anticipated any other result. Taking the cost of tobacco at an average at 6*d.* per lb. (which is beyond the mark), the duty previously to and since the reduction has been respectively 800 and 600 per cent. ad valorem. And it is needless to say that the least of these duties holds out an overwhelming temptation to smuggling and fraud. The truth is, that the reduction of duty in 1825 was an ill-advised measure; and there is perhaps no great reason to conclude that the further reduction of the present duty of 3*s.* per lb. to 2*s.* would be much wiser, or that, while it sacrificed revenue, it would be at all sufficient to suppress illicit practices. It is idle, therefore, by referring to instances of this sort, to endeavour to make it be believed that an adequate diminution of taxation is not followed by a corresponding increase of consumption. Had the duty on coffee, instead of being reduced, in 1808, from 1*s.* 8*d.* per lb. to 7*d.*, been reduced only to 1*s.* 3*d.* (the proportion in which the tobacco-duty was reduced), the effect would have been all but imperceptible; and instead of the consumption being immediately increased from about 1,000,000 lb. to 9,000,000 lb., the presumption is it would not have been increased to 1,500,000 lb. In taxation, as in everything else, unless the means be adequate to the desired ends, the result will be nothing. If you offer a premium of 8 to 1 on smuggling, do you imagine you will abate the nuisance you have called into existence by reducing the premium to 6 to 1 or 4 to 1? It will be found in every case in which a reduction of duty is not followed by a more than corresponding increase of consumption, that the article continues to be over-taxed, or that the duty left upon it either exceeds the cost of smuggling, or places it beyond the reach of those who might otherwise become its consumers. We are bold to say that no instance can be found in the financial history of this or any other country of an adequate reduction of the duty on an over-taxed article not being followed by a cessation of smuggling and a great increase of consumption. (See *Treatise on Taxation*, by the author of this work, part ii. c. 9, 3rd ed.)

Law as to Smuggling in England.—The penalties imposed on illicit dealing in commodities subject to duties of excise have been specified in the articles on such commodities. The following extract from the Customs Consolidation Act, the 16 & 17 Vict. c. 107, refers expressly to smuggling. The importance of the subject has induced us to give a full abstract of the clauses.

RESTRICTIONS ON SMALL CRAFT, AND THE REGULATIONS FOR THE PREVENTION OF SMUGGLING.

Commissioners may make General Regulations for Vessels and Boats not exceeding 100 tons.—The Commissioners of Customs may from time to time, by order under their hands, make such general regulations as they shall deem expedient in respect of vessels and boats not exceeding 100 tons burden, for the purpose of prescribing, with reference to the tonnage, build, or description of such vessels or boats, the limits within which the same may be employed, the mode of navigation, the manner in which such vessels or boats shall be so employed, and if armed, the number and description of arms, the quantity of ammunition, and such other terms, particulars, conditions, and restrictions as the said commissioners may think fit, and also from time to time may revoke, alter, or vary such regulations; and the general regulations made under any former Act, and in force at the time of the passing of this Act, shall remain and continue in force until altered, varied, or revoked. (Sec. 196.)

Vessels and Boats used contrary to Regulations forfeited.—Every ship or boat which shall be used or employed in any manner contrary to the regulations prescribed by the Commissioners of Customs shall be liable to forfeiture, unless the same shall have been specially licensed by the Commissioners of Customs to be so used or employed as next hereinafter provided. (Sec. 197.)

Commissioners of Customs may grant Special Licenses on Terms.—The Commissioners of Customs may, if they shall so think fit, grant licenses in respect of any vessels or boats not exceeding 100 tons burden, upon such terms and conditions, and subject to such restrictions and stipulations, as in such licenses mentioned, notwithstanding any general regulations made in pursuance of this Act, whether the said regulations shall be revoked or not; and if any vessel or boat so licensed shall not comply with the conditions imposed by or expressed in any such license, or if such vessel or boat shall be found without having such license on board, such vessel or boat shall be forfeited. (Sec. 198.)

Commissioners may revoke Licenses.—The Commissioners of Customs may revoke, alter, or vary any license or licenses granted under any former Act, or which may hereafter be granted under this or any other Act relating to the customs. (Sec. 199.)

Vessels made use of in Removal of uncustomed or prohibited Goods forfeited.—If any such vessel or boat shall be used in the importation, landing, removal, carriage, or conveyance of any uncustomed or prohibited goods, the same shall be forfeited, and the owner and master of every such vessel or boat shall each forfeit and pay a penalty equal to the value of such vessel or boat, not in any case exceeding 500*l.* (Sec. 200.)

Regulations to extend to Channel Islands.—All the regulations which shall be so made by the said commissioners of customs relating to vessels and boats, and the power to grant, revoke, or vary such licenses, shall extend to the Channel Islands. (Sec. 201.)

Ships not to sail from Channel Islands without Clearance.—No ship or boat belonging wholly or in part to her Majesty's subjects shall sail from the Channel Islands without a clearance, whether in ballast or having a cargo; and if with cargo, the master shall give bond to her Majesty in double the value of such cargo for the due landing thereof at the port for which such ship or boat clears; and every such ship or boat not having such clearance, or which, having a clearance for her cargo, shall be found light, or to have discharged any part of her cargo before arrival at the port or place of discharge specified in the clearance, shall be forfeited. (Sec. 202.)

Boats of Vessels to bear Name of Vessel, Port, and Master.—The owner of every ship belonging

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wholly or in part to any of her Majesty's subjects shall paint or cause to be painted upon the outside of the stern of every boat belonging to such ship the name of such ship and the port or place to which she belongs, and the master's name within-side the transom, in white or yellow Roman letters, not less than 2 inches in length, on a black ground, on pain of the forfeiture of every such boat not so marked, wherever the same shall be found. (Sec. 203)

Boat not belonging to Ships to have Name of Owner and Port thereon.—The owner of every boat not belonging to any ship shall paint or cause to be painted upon the stern of such boat, in white or yellow Roman letters, of 2 inches in length, on a black ground, the name of the owner of the boat and the port or place to which she belongs, on pain of the forfeiture of such boat not so marked, wherever the same shall be found. (Sec. 204.)

British Vessels having secret Places for concealing or Devices for running Goods, and Foreign Vessels having Goods in secret Places, forfeited.—All ships and boats belonging wholly or in part to her Majesty's subjects having false bulkheads, false bows, double sides or bottoms, or any secret or disguised place whatsoever, adapted for the purpose of concealing goods, constructed in such ships or boats, or having any hole, pipe, or device in or about such ships or boats adapted for the purpose of running goods, shall be forfeited; and all foreign ships or boats coming into any port of the United Kingdom having on board any goods liable to the payment of duties, or prohibited to be imported into the United Kingdom, concealed in false bulkheads, false bows, double sides or bottoms, or in any secret or disguised place whatsoever, constructed in such ships or boats, shall be forfeited. (Sec. 205.)

Goods unshipped without Payment of Duty, and prohibited Goods, liable to Forfeiture.—If any goods liable to the payment of duties shall be unshipped from any ship or boat in the United Kingdom (customs or other duties not being first paid or secured), or if any prohibited goods whatsoever shall be imported or brought into any part of the United Kingdom, or if any goods whatever which shall have been warehoused or otherwise secured in the United Kingdom, either for home consumption or exportation, shall be clandestinely or illegally removed from or out of any warehouse or place of security; or if any goods which are prohibited to be exported shall be put on board any ship or boat, with intent to be laden or shipped for exportation, or shall be brought to any quay, wharf, or other place in the United Kingdom, in order to be put on board any ship or boat for the purpose of being exported; or if any goods which are prohibited to be exported shall be found in any package produced to any officer of customs as containing goods not so prohibited; or if any goods subject to any duty or restriction in respect of importation, or which are prohibited to be imported into the United Kingdom, shall be found or discovered to have been concealed in any manner on board any ship or boat within the limits of any port of the United Kingdom, or shall be found either before or after landing to have been concealed in any manner on board any such ship or boat, within such limits as aforesaid; then and in every of the foregoing cases all such goods shall be forfeited, together with any goods which shall be found packed with or used in concealing them. (Sec. 206.)

Spirits and Tobacco found removing to be deemed run.—All spirits and tobacco which shall be found removing without a legal permit or certificate for the same shall be deemed to be spirits or tobacco respectively liable to and unshipped without payment of duty, unless the party in whose possession the same shall be found or seized shall prove to the contrary. (Sec. 207.)

Restricted Goods to be deemed run.—All goods the importation of which is in any way restricted, which are of a description admissible to duty, and which shall be found or seized in the United Kingdom under any law relating to the customs or excise, shall, for the purpose of proceeding for the forfeiture of them, or for any penalty incurred in respect of them, be described in any information exhibited on account of such forfeiture or penalty as and on the trial or hearing thereof be deemed and taken to be goods liable to and unshipped without payment of duties, unless the contrary be proved. (Sec. 208.)

Vessels found within certain Distances of the Coast of the United Kingdom or Channel Islands with certain Goods on board forfeited, with the Goods.—If any ship or boat belonging wholly or in part to her Majesty's subjects, or having half the persons on board subjects of her Majesty, shall be found or discovered to have been within 4 leagues of that part of the coast of the United Kingdom which is between the North Foreland on the coast of Kent and Beachy Head on the coast of Sussex, or within 8 leagues of any other part of the coast of the United Kingdom, or if any foreign ship or boat having one or more subjects of her Majesty on board shall be found or discovered to have been within 3 leagues of the coast of the United Kingdom, or if any foreign ship or boat shall be found or discovered to have been within 1 league of the coast of the United Kingdom, or if any ship or boat shall be found or discovered to have been within 1 league of the Channel Islands, any such ship or boat so found or discovered, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, any spirits, not being in a cask or other vessel capable of containing liquids of the size or content of 20 gallons at the least, or any tea exceeding 6 lb. weight in the whole, or any tobacco or snuff not being in a cask or package containing 200 lb. weight of tobacco or snuff at the least, or being separated or divided in any manner within any cask or package, or any tobacco stalks, tobacco stalk flour, snuff work, or any cordage or other articles adapted and prepared for slinging or sinking small casks, or any casks or other vessels whatsoever of less size or content than 20 gallons, of the description used for the smuggling of spirits, then and in every such case the said spirits, tea, tobacco, snuff, tobacco stalks, tobacco stalk flour, and snuff work, together with the casks or packages containing the same, and the cordage or other articles, casks, and other vessels of the description aforesaid, and also the ship or boat, shall be forfeited. (Sec. 209.)

Vessels or Boats arriving within any Port of the United Kingdom or of the Channel Islands having prohibited Goods on board or attached thereto forfeited.—If any ship or boat shall be found or discovered to have been within any port, bay, harbour, river, or creek of the United Kingdom or the Channel Islands, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, any spirits, not being in a cask or other vessel capable of containing liquids of the size or content of 20 gallons at the least, or any tobacco or snuff, not being in a cask or package containing 200 lb.

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weight of such tobacco or snuff at the least, or being separated or divided in any manner within any cask or package, or any tobacco stalks, tobacco stalk flour, or snuff work, every such ship or boat, and such spirits, tobacco, snuff, tobacco stalks, tobacco stalk flour, and snuff work shall be forfeited; but if it shall be made to appear to the satisfaction of the Commissioners of Customs that such spirits, tobacco, snuff, tobacco stalks, tobacco stalk flour, or snuff work were on board without the knowledge or privity of the owner or master of such ship or boat, and without any wilful neglect or want of reasonable care on their parts, then and in such case the said Commissioners shall deliver up the said ship or boat to the owner or master of the same. (Sec. 210.)

Forfeiture not to extend to Ships and Goods in certain Cases.—Nothing herein contained shall extend to render any ship of 120 tons burden or upwards liable to forfeiture on account of any tobacco coming direct from the East Indies or the Turkish dominions, including Egypt, if in packages each containing not less than 100 lb. nett weight of such tobacco; nor on account of any snuff or negrohead tobacco the produce of and imported direct from the United States of America, if in packages each containing not less than 150 lb. nett weight of such snuff or tobacco; nor on account of any tobacco imported from Malta in packages each containing not less than 80 lb. nett weight of such tobacco; nor on account of any tobacco the produce of Porto Rico, Mexico, South America, St. Domingo, Cuba, the British possessions in America and the West Coast of Africa, if in packages each containing not less than 80 lb. nett weight of such tobacco, and imported direct from those places or from the United States of America; nor on account of any cigars, if in packages each containing not less than 100 lb. nett weight of such cigars; nor on account of any cigarillos or cigarettos, if in packages each containing not less than 75 lb. nett weight of such cigarillos or cigarettos; nor to render any ship of 150 tons burden or upwards liable to forfeiture on account of any tea, or of any spirits in glass bottles or stone bottles not exceeding the size of 3 pints each, such tobacco, snuff, cigars, cigarillos or cigarettos, tea, and spirits being really part of the cargo of such ship; nor to render any ship liable to forfeiture on account of any spirits, tea, or tobacco really intended for the consumption of the seamen or passengers on board during their voyage, and not being more in quantity than is necessary for that purpose; nor to render any ship liable to forfeiture if really bound from one foreign port to another foreign port, and pursuing such voyage, wind and weather permitting. (Sec. 211.)

Ships in Port with a Cargo and afterwards found in Ballast, and Cargo unaccounted for, forfeited.—If any ship or boat whatever shall be found within the limits of any port of the United Kingdom with a cargo on board, and such ship or boat shall afterwards be found light or in ballast, and the master is unable to give a due account of the port or place within the United Kingdom where such ship or boat shall have legally discharged her cargo, such ship or boat shall be forfeited. (Sec. 212.)

Certain Ships from which Goods are thrown overboard to prevent Seizure to be forfeited.—Every ship or boat belonging wholly or in part to her Majesty's subjects, or having on board one or more of her Majesty's subjects, which shall be found or discovered to have been within 4 leagues of that part of the coast of the United Kingdom which is between the North Foreland on the coast of Kent and Beechy Head on the coast of Sussex, or within 8 leagues of any other part of the coast of the United Kingdom from which any part of the lading of such ship or boat shall have been thrown overboard, or on board which any of the goods shall be staved or destroyed to prevent seizure, shall be forfeited. (Sec. 213.)

Ships throwing overboard any Goods during Chase, forfeited, and Persons escaping deemed Subjects.—When any ship or boat belonging wholly or in part to her Majesty's subjects, or having half the persons on board subjects of her Majesty shall be found within 100 leagues of the coast of the United Kingdom, and shall not bring to upon signal made by any vessel or boat in her Majesty's service or in the service of the revenue, hoisting the proper pendant and ensign in order to bring such ship or boat to, and thereupon chase shall be given, if any person or persons on board such ship or boat so chased shall during the chase, or before such ship or boat shall bring to, throw overboard any part of her lading, or shall stave or destroy any part of such lading, to prevent seizure thereof, then and in any such case such ship or boat shall be forfeited; and all persons escaping from any such ship or boat, or from any foreign ship or boat, during any chase made thereof by any vessel or boat in her Majesty's service or in the service of the revenue, shall be deemed subjects of her Majesty, unless the contrary be proved. (Sec. 214.)

Ships not bringing to may be fired into.—If any ship or boat liable to seizure or examination under this or any Act for the prevention of smuggling shall not bring to when required so to do, on being chased by any vessel or boat in her Majesty's navy having the proper pendant and ensign of her Majesty's ships hoisted, or by any vessel or boat duly employed for the prevention of smuggling, having a proper pendant and ensign hoisted, it shall be lawful for the captain, master, or other person having the charge or command of such vessel or boat in her Majesty's navy, or employed as aforesaid (first causing a gun to be fired as a signal), to fire at or into such ship or boat, and such captain, master, or other person acting in his aid or by his direction, shall be and is hereby indemnified and discharged from any indictment, penalty, action, or other proceeding for so doing. (Sec. 215.)

Ships may be searched within the Limits of the Ports.—Any officer or officers of the army, navy, or marine duly employed for the prevention of smuggling, and on full pay, or any officer or officers of customs, producing his or their warrant or deputation (if required), may go on board any ship which shall be within the limits of any port of the United Kingdom, and rummage and search the cabin and all other parts of such ship for prohibited or uncustomed goods, and remain on board such ship so long as she shall continue within the limits of such port. (Sec. 216.)

Officers of Customs may, on probable Cause, stop Carts &c., and search for Goods.—Any officer of customs or excise, or other person acting in his or their aid, or duly employed for the prevention of smuggling, may, upon reasonable suspicion, stop and examine any cart, waggon, or other means of conveyance, for the purpose of ascertaining whether any smuggled goods are contained therein; and if no such goods shall be found, the officer or other person so stopping and examining such cart, waggon, or other conveyance, having had probable cause to suspect that such cart, waggon, or other conveyance had smuggled goods contained therein, shall not, on account of such stoppage and search, be liable to any prosecution or action at law on account thereof; and all persons driving or conducting such cart, waggon,

or other conveyance, refusing to stop or allow any such examination when required in the Queen's name, shall forfeit the sum of 100*l.* (Sec. 217.)

Officers authorised by Writ of Assistance may search Houses for uncustomed or prohibited Goods.—Any officer of customs, or person acting under the direction of the Commissioners of Customs, having a writ of assistance issued from the Court of Exchequer, may, in the daytime, enter into and search any house, shop, cellar, warehouse, room, or other place, and in case of resistance break open doors, chests, trunks, and other packages, and seize and bring away any uncustomed or prohibited goods, and put and secure the same in the Queen's warehouse, and may take with him any constable, headborough, police, or other public officer, duly sworn as such, who may act as well without the limits of the parish or other place for which he shall be so sworn as within such limits; and all writs of assistance so issued shall continue in force during the reign for which they were granted, and for six months afterwards. (Sec. 218.)

Ships and Boats used in Removal of run Goods to be forfeited.—All ships, boats, carriages, or other means of conveyance, together with all horses and other animals made use of in the removal, carriage, or conveyance of any goods liable to forfeiture under this or any other Act relating to the customs, shall be forfeited. (Sec. 219.)

Ships, Boats, Goods, and Persons may be seized or detained, and Goods delivered to the proper Officer.—All ships and boats, and all goods whatsoever, liable to forfeiture, and all persons liable to be detained for any offence under this or any other Act relating to the customs, shall and may be seized or detained in any place, either upon land or water, by any officer or officers of her Majesty's army, navy, or marines, duly employed for the prevention of smuggling, and on full pay, or by any officer or officers of customs or excise, or by any person having authority from the Commissioners of Customs or Inland Revenue to seize, or duly employed for the prevention of smuggling; and all ships, boats, and goods so seized shall, as soon as conveniently may be, be delivered into the care of the proper officer appointed to receive the same; and the forfeiture of any ship or boat shall be deemed to include her tackle, apparel, and furniture, and the forfeiture of any goods shall be deemed to include the package in which the same are found, and all the contents thereof. (Sec. 220.)

Police Officers seizing Goods to carry them to the Customs Warehouse.—If any goods liable to forfeiture under this or any other Act relating to the customs shall be stopped or taken by any police officer or other person acting by virtue of any Act of Parliament, or otherwise duly authorised, such goods shall be carried to the customs warehouse next to the place where the goods were stopped or taken, and there delivered to the proper officer appointed to receive the same, within 48 hours after the said goods were stopped and taken. (Sec. 221.)

Goods stopped by Police Officers may be retained until Trial of Persons charged with stealing them.—If any such goods shall be stopped or taken by any police officer on suspicion that the same had been feloniously stolen, the said officer may carry the same to the police office to which the offender is taken, there to remain until and in order to be produced at the trial of the offender, and in such case the officer is required to give notice in writing to the Commissioners of Customs of his having so detained the said goods, with the particulars of the same; and immediately after the trial of such offender all such goods shall be conveyed to and deposited in the customs warehouse as aforesaid, to be proceeded against according to law; and in case any police officer making detention of any such goods shall neglect to convey the same to such warehouse, or to give the notice of having stopped the same as before prescribed, such officer shall forfeit the sum of 20*l.* (Sec. 222.)

Notice to be given by seizing Officer to Owner of Ships or Goods seized, and Seizures to be claimed within One Month.—Whenever any ship, boat, or goods shall be seized as forfeited under this or any Act relating to the customs, the seizing officer shall forthwith give notice in writing of such seizure, and of the grounds thereof, to the master or owner of such ship, boat, or goods, if known, either by delivering the same to him personally, or by letter addressed to him at his place of abode, if known, and transmitted by post; and all ships, boats, or goods so seized under any law relating to the customs shall be deemed and taken to be condemned, and may be sold, in the manner directed by law in respect to ships, boats, and goods seized and condemned for breach of any law relating to the customs, unless the person from whom such ships, boats, and goods shall have been seized, or the owner of them, or some person authorised by him, shall, within one calendar month from the day of seizing the same, give notice in writing, if in London, to the person seizing the same, or to the secretary or solicitor for the customs, and, if elsewhere, to the person seizing the same, or to the collector, comptroller, or other chief officer of the customs at the nearest port, that he claims the ship, boat, or goods, or intends to claim them. (Sec. 223.)

Commissioners of Treasury or of Customs may restore Seizures.—The Commissioners of the Treasury or of the Customs may, by any order made by them for that purpose, direct any ship, boat, goods, or commodities whatever seized under this or any Act relating to the customs to be delivered to the proprietor thereof, whether condemnation shall have taken place or not, upon such terms and conditions as the said commissioners respectively may see fit. (Sec. 224.)

Ships and Goods seized may be disposed of as Commissioners of Customs direct.—All ships and boats and all goods whatsoever which shall have been seized and condemned for breach of any law relating to the customs shall be disposed of, as soon as conveniently may be after the condemnation thereof, in such manner as the Commissioners of Customs may direct; and any nets, dredges, instruments, or implements of fishing liable to seizure or forfeiture, and seized under the Act 6 & 7 Vict. c. 79, and the convention and articles therein referred to, shall and may be sold or otherwise disposed of, as the Commissioners of Customs may direct, unless claimed within one month after seizure thereof, or within one month after the passing of this Act as to such as may be then under seizure, such claim being made in the same manner as is prescribed by the 223rd sec. of this Act with respect to ships, boats, or goods seized under this Act. (Sec. 225.)

As to Offences committed by and Penalties attaching to Persons.

Persons may be searched if Officers have Reason to suspect smuggled Goods are concealed upon them.—Any officer of customs, or of the army, navy, or marines, duly employed in the prevention of

smuggling and on full pay, may search any person on board any ship or boat within the limits of any port in the United Kingdom or the Channel Islands, or any person who shall have landed from any ship or boat, provided such officer shall have good reason to suppose that such person has any uncustomed or prohibited goods secreted about his person; and if any person shall obstruct any such officer in going, remaining, or returning from on board, or in searching such ship or boat or person, every such person shall forfeit the sum of 100*l.*; and if any passenger or other person on board any such ship or boat, or who may have landed from any such ship or boat, shall, upon being questioned by any such officer whether he has any foreign goods upon his person or in his possession, deny the same, and any such goods shall after such denial be discovered to be or to have been upon his person or in his possession, such goods shall be forfeited, and such person shall forfeit treble the value of such goods. (Sec. 226.)

Person before Search may require to be taken before a Justice or Officers of Customs.—Before any person shall be searched by any such officer as aforesaid, such person may require such officer to take him or her before any justice, or before the collector, comptroller, or other acting principal officer of the customs, who shall, if he see no reasonable cause for search, discharge such person, but if otherwise, direct such person to be searched, and if a female, she shall not be searched by any other than a female. (Sec. 227.)

Penalty on Officers for Misconduct.—Any officer required to take any such person before such justice, collector, comptroller, or other superior officer of customs shall do so with all reasonable despatch; but if such officer shall require any person to be searched, not having reasonable ground to suppose that he has uncustomed or prohibited goods about his person, such officer shall forfeit and pay any sum not exceeding 10*l.* (Sec. 228.)

Persons concerned in importing prohibited or restricted Goods &c. to forfeit treble the Value, or 100*l.*—Every person who shall be concerned in importing or bringing into the United Kingdom any prohibited goods, or any goods the importation of which is restricted, contrary to such prohibition or restriction, and whether the same be unshipped or not; and every person who shall unship or assist or be otherwise concerned in the unshipping of any goods which are prohibited or of any goods which are restricted and imported contrary to such restriction, or of any goods liable to duty, the duties for which have not been paid or secured; or who shall knowingly harbour, keep, or conceal, or shall knowingly permit or suffer or cause or procure to be harboured, kept, or concealed, any such goods, or any goods which shall have been illegally removed without payment of duty from any warehouse or place of security in which they may have been deposited; or to whose hands and possession any such goods shall knowingly come; or who shall assist or be concerned in the illegal removal of any goods from any warehouse or place of security in which they shall have been deposited as aforesaid; or who shall be in any way knowingly concerned in conveying, removing, depositing, concealing, or in any manner dealing with any goods liable to duties of customs, with intent to defraud her Majesty of such duties or any part thereof; or who shall be in any way knowingly concerned in any fraudulent evasion or attempt at evasion of such duties or any part thereof; shall in each and every of the foregoing cases forfeit either treble the value of the goods or the penalty of 100*l.*, at the election of the commissioners of customs. (Sec. 229.)

If Goods be removed Prior to Examination, Penalty upon the Party concerned in the Removal.—Every person who shall remove any goods imported into the United Kingdom from any ship, quay, wharf, or other place previous to the examination thereof by the proper officer of customs, unless under the care or authority of such officer, or who shall remove or withdraw from any quay, wharf, or other place any goods entered to be warehoused after the landing thereof, so that no sufficient account is taken thereof by the proper officer, or so that the same are not duly warehoused, and every person who shall assist or be otherwise concerned in such removal or withdrawal, or shall knowingly harbour, keep, or conceal, or shall knowingly permit or suffer, or cause or procure to be harboured, kept, or concealed, any such goods, or to whose possession any such goods shall knowingly come, every such person shall forfeit either treble the value thereof or the penalty of 100*l.*, at the election of the commissioners of customs. (Sec. 230.)

Persons unshipping or concerned in the carrying away or concealing Spirits or Tobacco to forfeit 100*l. and may be detained.*—Every person who shall unship or be aiding or concerned in the unshipping of any spirits, tobacco, snuff, tobacco stalks, tobacco stalk flour, or snuff-work, or of any tea, such tea being of the value of 10*l.* or upwards, liable to forfeiture under this or any other Act relating to the customs or excise, or who shall carry, convey, or conceal, or be aiding, assisting, or concerned in the carrying, conveying, or concealing of any such spirits, tobacco, snuff, tobacco stalks, tobacco stalk flour, or snuff-work, or of any such tea as aforesaid, shall forfeit for each such offence treble the value of such goods, or the sum of 100*l.*, at the election of the commissioners of customs; and every such person may be detained, to be dealt with as hereinafter directed. (Sec. 231.)

Persons found or discovered to have been on board Vessels liable to Forfeiture subject to be committed to any House of Correction.—Every subject of her Majesty who shall be found or discovered to have been on board any ship or boat liable to forfeiture under this or any Act relating to the customs for being found or discovered to have been within any of the distances in this Act mentioned from the United Kingdom or the Channel Islands, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, such goods or things as subject such ship or boat to forfeiture, or who shall be found or discovered to have been within any such distances as aforesaid on board any ship or boat from which any part of the cargo or lading shall have been thrown overboard, or staved or destroyed, to prevent seizure, and every person, not being a subject of her Majesty, who shall be found or discovered to have been on board any ship or boat liable to forfeiture for any of the causes last aforesaid within one league of the coast of the United Kingdom or of the Channel Islands, shall, upon being duly convicted of any of the said offences before any justice, be adjudged by such justice, for the first of such offences, to be imprisoned in any house of correction, and there kept to hard labour, for any term not less than 6 nor more than 9 months, and for the second of such offences for any term not less than 9 nor more than 12 months, and for the third or any subsequent offence for 12 months: and every such person may be detained, and taken before any justice, to be dealt with as hereinafter directed. (Sec. 232.)

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Persons on board Vessels within Ports of the United Kingdom with Contraband Articles, subject to Penalty of 100*l. and Detention.*—Every person who shall be found or discovered to have been on board any ship or boat liable to forfeiture under this or any other Act relating to the customs for being found or discovered to have been within any port, bay, harbour, river, or creek of the United Kingdom, or of the Channel Islands, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, such goods or things as subject such ship or boat to forfeiture, or who shall be found or discovered to have been on board any of her Majesty's ships or vessels, or on board any ship or vessel in her Majesty's employment or service, or on board of any foreign post-office packet, being a national vessel, employed in carrying the mails between any foreign country and the United Kingdom, such last-mentioned ships, vessels, or packets being found or discovered to have been within any port, bay, harbour, river, or creek of the United Kingdom or the Channel Islands, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, any spirits, not being in a cask or other vessel capable of containing liquids of the size or content of 20 gallons at the least, or any tobacco or snuff, not being in a cask or package containing 200 lb. of such tobacco or snuff at least, or being separated or divided in any manner within any cask or package, shall forfeit the sum of 100*l.*; and every such person shall and may be detained, and taken before any justice, to be dealt with as hereinafter directed. (Sec. 233.)

Persons in her Majesty's Service detained, to be secured on board until Warrant procured.—Where any person or persons, being part of the crew of any of her Majesty's ships or vessels, or of any ship or vessel in her Majesty's employment or service, and liable to detention, shall have been detained under any law relating to the customs, such person or persons, upon notice thereof by the detaining officer to the commanding officer of the ship or vessel, shall be placed in security by such commanding officer on board such ship or vessel until such detaining officer shall have obtained a warrant from a justice for bringing such person or persons before him or any other justice or justices, to be dealt with according to law, which warrant such justice is required to grant upon complaint made to him by such officer of customs stating the offence for which such person or persons is or are liable to detention. (Sec. 234.)

Any Person escaping may afterwards be detained.—If any person liable to be detained under this or any other Act relating to the customs shall not be detained at the time of committing the offence for which he is so liable, or shall after detention make his escape, such person shall and may at any time afterwards be detained and taken before any justice, to be dealt with as if detained at the time of committing such offence. (Sec. 235.)

Magistrates to proceed to Conviction of Smugglers in certain Cases without an Order of Customs.—Whenever any person shall have been detained, and taken before any justice, for being found or discovered to have been on board any ship or boat within any port, bay, harbour, river, or creek of the United Kingdom or the Channel Islands, such ship or boat having on board or having had on board spirits or tobacco in such casks or packages as would, under this or any other Act relating to customs, subject the same to forfeiture, or for unshipping or for aiding or being concerned in th unshipping of any spirits or tobacco liable to for feiture under this or any other Act relating to th customs or excise, or for carrying, conveying, o concealing, or for aiding or being concerned in th carrying, conveying, or concealing of any suc spirits or tobacco, and it shall appear before suc justice that the quantity of spirits in respect o which such person has been so detained does no exceed 2 gallons, or that the quantity of tobacc in respect of which such person has been so de tained does not exceed 10 lb. weight, such justic may proceed summarily upon the case without any information, and although no direction shall have been given by the Commissioners of Customs, and convict such person of such offence, and adjudge that such person shall, in lieu of any other penalty, forfeit any sum not less than the single value nor more than treble the value of such goods, including the duties of importation due thereon, and in default of payment of such sum of money commit such person to any of her Majesty's gaols for any time not exceeding one month. (Sec. 236.)

Where Persons are taken before a Justice under any Act relating to the Customs, such Justice may order them to be detained a reasonable Time, or admit to Bail.—When any person shall have been detained for any offence against this or any other Act relating to the customs, and taken before any justice, such justice may, if he see reasonable cause, order such person to be detained in gaol, or in the custody of the police or constabulary force, a reasonable time, to obtain the order of the Commissioners of Customs or Inland Revenue, and to prepare the necessary informations, convictions, and warrants of commitment, and at the expiration of such time to be brought before him, or any other justice or justices, who may then finally hear and determine the matter: but any person so detained may be liberated, on giving, by recognisance, security to the satisfaction of such justice in the sum of 100*l.*, or in the amount of the penalty sought to be recovered, to appear at such time and place as shall be appointed by such justice for hearing the case. (Sec. 237.)

Penalty on persons offering Goods for Sale under Pretence of being run or prohibited.—If any person shall offer for sale any goods under pretence that the same are prohibited, or have been unshipped and run on shore without payment of duties, all such goods (although not liable to any duties or prohibited) shall be forfeited, and every person so offering the same for sale shall forfeit treble the value of such goods. (Sec. 238.)

No subjects except Officers to take up Spirits in small Casks sunk or floating upon the Sea.—No subject of her Majesty, other than officers of the navy, customs, or excise, shall intermeddle with or take up any spirits, being in casks of less content than 20 gallons, which may be found floating upon or sunk in the sea within 100 leagues of the United Kingdom, and if any spirits shall be so intermeddled with or taken up, the same shall be forfeited, together with any ship or boat in which they are found. (Sec. 239.)

Commissioners of Treasury or Customs may restore Seizures &c.—The Commissioners of the Treasury or Customs may mitigate or remit any penalty or fine, or any part of any penalty or fine, incurred under this or any Act relating to the customs, or release from confinement any person committed under this or any Act relating to the customs, on such terms and conditions as to them shall appear proper. (Sec. 240.)

Persons signalling Smuggling Vessels may be detained, and forfeit 100*l., or be kept to Hard Labour*

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for One Year.—No person shall, after sunset and before sunrise between September 21 and April 1, or after the hour of 8 in the evening and before the hour of 6 in the morning at any other time of the year, make, aid, or assist in making any signal in or on board or from any ship or boat, or on or from any part of the coast or shore of the United Kingdom, or within 6 miles of any part of such coast or shore, for the purpose of giving notice to any person on board any smuggling ship or boat, whether any person so on board of such ship or boat be or not within distance to notice any such signal; and if any person, contrary to this Act, shall make or cause to be made, or aid or assist in making, any such signal, such person so offending shall be guilty of a misdemeanor; and any person may stop, arrest, and detain the person so offending, and convey him before any justice, who, if he see cause, shall commit the offender to the next county gaol, there to remain until delivered by due course of law; and it shall not be necessary to prove on any indictment or information in such case that any ship or boat was actually on the coast; and the offender being duly convicted shall, by order of the court before whom he shall be convicted, either forfeit the penalty of 100*l.*, or, at the discretion of such court, be committed to the common gaol or house of correction, there to be kept to hard labour for any term not exceeding one year. (Sec. 241.)

Proof of a Signal not being intended on Defendant.—If any person be charged with or indicted for having made or caused to be made, or for aiding or assisting in making, any such signal as aforesaid, the burden of proof that such signal so charged as having been made with intent and for the purpose of giving such notice as aforesaid was not made with such intent and for such purpose shall be upon the defendant against whom such charge is made or such indictment is found. (Sec. 242.)

Any Person may prevent Signals, and enter Lands for that Purpose.—Any person whatsoever may prevent any signal being made as aforesaid, and may go upon any lands for that purpose, without being liable to any indictment, suit, or action for the same. (Sec. 243.)

Persons assembling to the Number of Three or more to run Spirits, Tobacco, or obstructing Officers, to be sent to House of Correction.—All persons assembling to the number of 3 or more, for the purpose of unshipping, carrying, conveying, or concealing any spirits or tobacco, or any tea or silk (such tea or silk being of the value of 10*l.* or more), liable to forfeiture under this or any other Act relating to the customs or excise, and every person who shall by any means procure or hire, or shall depute or authorise any other person to procure or hire, any person or persons to assemble for the purpose of being concerned in the landing or unshipping, or carrying, conveying, or concealing any goods which are prohibited to be imported, or the duties for which have not been paid or secured, and every person who shall obstruct any officer or officers of the army, navy, or marines, being duly employed for the prevention of smuggling, or any officer or officers of customs or excise, or any person acting in his or their aid or assistance, or duly employed for the prevention of smuggling, in the execution of his or their duty, or in the due seizing of any goods liable to forfeiture by this Act or any Act relating to the customs, or who shall rescue, attempt or endeavour to rescue, or cause to be rescued, any goods which have been duly seized, or who shall before or at or after any seizure stave, break, or otherwise destroy, or attempt or endeavour to break, stave, or otherwise destroy, any goods, to prevent the seizure thereof or the securing of the same, shall, upon being duly convicted of any of the said offences before any justice of the peace, be adjudged by such justice for the first offence to be imprisoned in any house of correction and there kept to hard labour for any term not less than 6 nor more than 9 months, and for the second offence for any term not less than 9 nor more than 12 months, and for the third or any subsequent offence for 12 months. (Sec. 244.)

Three or more armed Persons assembled to land or rescue smuggled goods guilty of Felony.—If any persons, to the number of 3 or more, armed with firearms or other offensive weapons, shall, within the United Kingdom, or within the limits of any port, harbour, or creek thereof, be assembled in order to be aiding and assisting in the illegal landing, running, or carrying away of any prohibited goods, or any goods liable to any duties which have not been paid or secured, or in rescuing or taking away any such goods as aforesaid after seizure from the officer of the customs, or other officer authorised to seize the same, or from any person or persons employed by or assisting them, or from the place where the same shall have been lodged by them, or in rescuing any person who shall have been apprehended for any offence made felony by this or any Act relating to the customs, or in the preventing the apprehension of any person who shall have been guilty of such offence, or in case any persons to the number of 3 or more so armed as aforesaid shall, within the United Kingdom, or within the limits of any port, harbour, or creek thereof, be so aiding or assisting, every person so offending, and every person aiding, abetting, or assisting therein, shall, being thereof convicted, be adjudged guilty of felony, and shall be liable, at the discretion of the court before which he shall be convicted, to be transported beyond the seas for the term of his natural life, or for any term not less than 15 years, or to be imprisoned for any term not exceeding 3 years. (Sec. 245.)

Persons shooting at Boats belonging to Navy or Revenue Service, guilty of Felony.—If any person shall maliciously shoot at any vessel or boat belonging to her Majesty's navy, or in the service of the revenue, within 100 leagues of any part of the coast of the United Kingdom, or shall maliciously shoot at, maim, or wound any officer of the army, navy, or marines, being duly employed for the prevention of smuggling, and on full pay, or any officer of customs or excise, or any person acting in his aid or assistance, or duly employed for the prevention of smuggling, in the execution of his office or duty, every person so offending, and every person aiding, abetting, or assisting therein, shall, upon conviction, be adjudged guilty of felony, and shall be liable, at the discretion of the court before which he shall be convicted, to be transported beyond the seas for the term of his natural life, or for any term not less than 15 years, or to be imprisoned for any term not exceeding 3 years. (Sec. 246.)

Any person in company with Four others, having smuggled Goods, or with one other, armed or disguised, guilty of Felony.—If any person in company with more than 4 others be found with any goods liable to forfeiture under this or any other Act relating to the customs or excise, or in company with 1 other person, within 5 miles of the sea coast or of any tidal river, and carrying offensive arms or weapons, or disguised in any way, every such person shall be adjudged guilty of felony, and shall, on conviction of such offence, be transported as a felon for the term of 7 years. (Sec. 247.)

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Persons assaulting Officers by Force or Violence may be transported.—If any person shall, by force or violence, assault, resist, or obstruct any officer of the army, navy, or marines, being duly employed for the prevention of smuggling, and on full pay, or any officer of customs or excise, or other person duly employed for the prevention of smuggling, in the due execution of his or their duty, or any person acting in his or their aid, every person so offending, being thereof convicted, shall be transported for 7 years, or sentenced to be imprisoned in any house of correction or common gaol, and kept to hard labour, for any term not exceeding 3 years, at the discretion of the court before whom such offender shall be tried and convicted as aforesaid. (Sec. 248.)

Clause 249 enacts that the commanding officers of boats for the prevention of smuggling may haul them on shore without being liable to be sued for so doing.

Clause 250 authorises officers of army, navy, and marines, to patrol the coasts for the prevention of smuggling without being liable to suit for so doing.

As to Compensations and Rewards.

Officers wounded to be provided for &c.—If any officer or seaman employed in the service of the customs or inland revenue shall be killed, maimed, wounded, or in any way injured in the due execution of his office, or if any person acting in his aid, or duly employed for the prevention of smuggling, shall be so killed, maimed, wounded, or in any way injured while so aiding such officer or seaman, or so employed, the Commissioners of Customs or Inland Revenue respectively may, with the sanction of the Commissioners of the Treasury, make such provision for such officer or person, or for the widows and families of such as shall be killed, as they may see fit. (Sec. 251.)

Rewards for detaining Smugglers.—The Commissioners of Customs may award to any officer or other person detaining any person liable to detention under this or any other Act relating to the customs, if convicted, such reward as they may think fit, not exceeding the sum of 20*l.* for each person. (Sec. 252.)

Rewards out of Penalties.—The Commissioners of Customs may order such reward as they see fit out of any pecuniary penalty or composition to any officer or other person by whose means the same is recovered. (Sec. 253.)

Rewards to Officers making Seizures.—The Commissioners of Customs may order to be paid in respect of any seizure made under this or any Act relating to the customs, to the person or persons making the same, such rewards as they may see fit, not exceeding the value of the goods or things so seized, and for this purpose the value of spirits and tobacco seized as aforesaid shall be deemed and taken to be such as the Lords of the Treasury or the Commissioners of Customs may think fit. (Sec. 254.)

How Value is to be ascertained.—In all cases where any penalty the amount of which is to be determined by the value of any goods, is directed to be sued for under any Act relating to the customs or excise, such value shall, as regards proceedings in any court or before justices, be estimated and taken according to the rate and price for which goods of the like kind but of the best quality upon which the duties of importation shall have been paid were sold at or about the time of the offence, or according to the rate and price for which the like sort of goods were sold in bond at or about the time of the offence, with the duties due thereon added to such rate or price in bond, except as to tobacco stalks, tobacco stalk flour, and snuff-work, the value of which shall, for the purpose of any suit or proceeding under this or any Act relating to the customs, be estimated at the same rate as that of unmanufactured tobacco upon which the duties of importation shall have been paid. (Sec. 255.)

All Rewards and Seizures payable to Officers of Army, Navy, or Marines to be regulated by Order in Council.—Every reward or share of any such seizure, or of the value thereof, payable to any officer or officers, non-commissioned officers, petty officers, seamen, or privates of her Majesty's army, navy, or marines, or acting under the orders of the Lord High Admiral or Commissioners of the Admiralty, shall be divided and distributed in such proportions, and according to such rules, regulations, and orders, as her Majesty shall, by royal proclamation in that behalf, be pleased to direct and appoint. (Sec. 256.)

Commissioners may distribute Officers' Shares of Seizures so as to reward Persons not actually present.—The Commissioners of Customs or Inland Revenue respectively may, in case of any seizure of ships, boats, or goods, or of the apprehension of any parties, under this or any other Act relating to the customs, direct the distribution of the seizor's share of such ship, boats, or goods, or of any penalties or rewards that may be recovered on account of any seizure, so that any other person through whose information or means such seizure shall have been made or penalty recovered or party apprehended, and who may by them be deemed to be so entitled, may participate in such proportions as the said Commissioners shall respectively deem expedient. (Sec. 257.)

Rewards to Persons giving Information of Goods floating or sunk in the Sea.—If any person shall discover any spirits in casks of less content than 20 gallons found floating upon or sunk in the sea, and shall give information to any officer of the customs, or other person duly authorised to make seizure of such spirits, so that seizure shall be made of the same, the person giving such information shall be entitled to and shall receive such reward as the Commissioners of Customs may direct. (Sec. 258.)

As to Collusive Seizures.

Penalty on Officers and Persons making collusive Seizures, or taking Bribes, and on Persons offering them.—If any officer of customs or excise, or of the army, navy, or marines, duly employed for the prevention of smuggling, and on full pay, or any other person or persons whomsoever duly employed for the prevention of smuggling, shall make any collusive seizure, or deliver up, or make any agreement to deliver up or not to seize any vessel or boat, or any goods liable to forfeiture, or shall take any bribe, gratuity, recompense, or reward for the neglect or nonperformance of his duty, or conspire or connive with any person to import or bring into the United Kingdom or the Channel Islands, or any of the British possessions abroad, or be in any way concerned in the importation or bringing into the United Kingdom, or the said islands or possessions, of any goods prohibited to be imported or liable to duties of customs for the purpose of seizing any ship, boat, or goods, and obtaining any reward for such seizure or otherwise, every such officer or other person shall forfeit for every such offence the sum of 500*l.*, and be rendered incapable of serving her Majesty in any office whatever, either civil or military; and every person who shall give or offer, or promise to give or procure to be given, any bribe, recompense, or reward to, or shall make any collusive agreement with, any such offi-

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cer or person as aforesaid to induce him in any way to neglect his duty, or to do, conceal, or connive at any act whereby any of the provisions of any Act of Parliament relating to the customs may be evaded, shall forfeit the sum of 200*l.* (Sec. 259.)

SMYRNA. A large city and seaport of Asiatic Turkey, on the western side of Asia Minor, lat. 38° 25′ 36″ N., long. 27° 6′ 45″ E. Population estimated at from 130,000 to 150,000, of whom ⅓ may be Turks, and the remainder Greeks, Armenians, Franks, Jews &c. Smyrna is situated at the bottom of a deep gulf; the entrance to which lies between Mytilene on the north, and Cape Carabourun, in lat. 38° 41′ 30″ N., long. 26° 21′ E., on the south. In addition to the light placed on Sanjak Kalessi in 1848, there were three other lights placed in the gulf in 1863, viz. a lighthouse on Cape Merminji, 38° 37′ N. lat., 26° 46′ 20″ E. long., and two light vessels, one off Tani Kodesse, and the other on Sanjak Spit. The accompanying illustration gives a better idea of the Gulf of Smyrna than could be derived from any description. The dotted line shows the course inwards. The passage between James' Castle (D) on the south and the opposite sand-bank is narrow; but there is from 9 to 10 fathoms water, with blue clay bottom. Merchant ships anchor abreast of the city in from 7 to 8 fathoms; but the water is so deep that they may come close to the quays. The *inbat*, or sea breeze, blows from morning till evening, and is always waited for by ships going up to the city. There is excellent anchorage in most parts of the gulf, merely avoiding the shoals on the north side.

Smyrna is a place of great antiquity. The excellence of its port, and its admirable situation, have made it to be several times rebuilt, after being destroyed by earthquakes. On approaching it from the sea, it has the appearance of an amphitheatre; the castle is at the back of the town, which it commands on the top of the hill; but it is in a state of decay, and could oppose no resistance to an invading force. The interior of the city does not correspond to its external appearance; the streets being, for the most part, narrow, dirty, and ill-paved. Owing to the want of cleanliness, and of all sorts of precautions, on the part of the Turks, Smyrna is frequently visited by the plague. In 1814 from 50,000 to 60,000 of the inhabitants are said to have been cut off by this dreadful scourge. The trade of this city is more extensive than that of any other in the Turkish empire, and Smyrna is the great steam centre for the whole Levant. The caravans from Persia are chiefly composed of Armenians. They arrive and depart at fixed periods, which are nearly identical with those of the arrival and departure of most of the foreign ships frequenting the port. But it is now connected by railway with Ghuzel-Hissar, or Aidin, near the Mendere, 62 miles S.E. of Smyrna. Bargains are principally effected by Jew brokers, many of whom have amassed considerable fortunes. The principal articles of import consist of furs, iron, butter &c. from Odessa and Taganrog; and of cotton-stuffs and twist, silk and woollen goods, coffee, sugar, cochineal, and dye-woods, iron, coal, tin and tin plates, rum, brandy, paper, cheese, glass, wine &c. from Great Britain, France, Italy, the United States &c. The exports consist principally of cotton, which is the most valuable article, madder, dried fruits, valonia, opium, sponges, carpets, silk, wool, box-wood, emery-stone, drugs, yellow-berries, galls, wax, copper, hare-skins, goats' wool, &c.

We are indebted to Mr. Rolleston's *Report* on Smyrna, to Mr. Consul Cumberbatch's *Report* of June 20, 1868, and to private information, for most part of the following details.

'The business,' says Mr. Rolleston, 'of exporting and importing goods to and from Europe is becoming more and more monopolised by the Greek merchants. They are compelled by the conditions of the insurance companies to employ European bottoms and sailors to transport their freight, and they have a line of English steamers in their employment. It is in great measure their local knowledge and connections which enable them to compete with merchants of other nations at so great an advantage in this particular branch of business. There are many instances to be pointed out in Smyrna of Greek merchants who have raised themselves by their own exertions and industry from a very poor condition to one of opulence, and on the other hand it is said that their very wealthiest merchants are in the habit of furthering their own interests by methods which, though not positively dishonest, are yet such as none but the pettiest tradesman of another race would condescend to employ.'

But this natural result of the brutal tyranny under which (thanks to the jealousies and selfishness of the principal Christian Powers) they have so long groaned, is now rapidly wearing away; and at the present time there are many Greek merchants who are not more distinguished by their intelligence and enterprise than by their straightforwardness and integrity.

Mr. Rolleston says that hatred of the Turks is so deeply rooted in the heart of every Greek as to constitute a part of their moral nature; and it would have been extraordinary indeed had such not been the case.

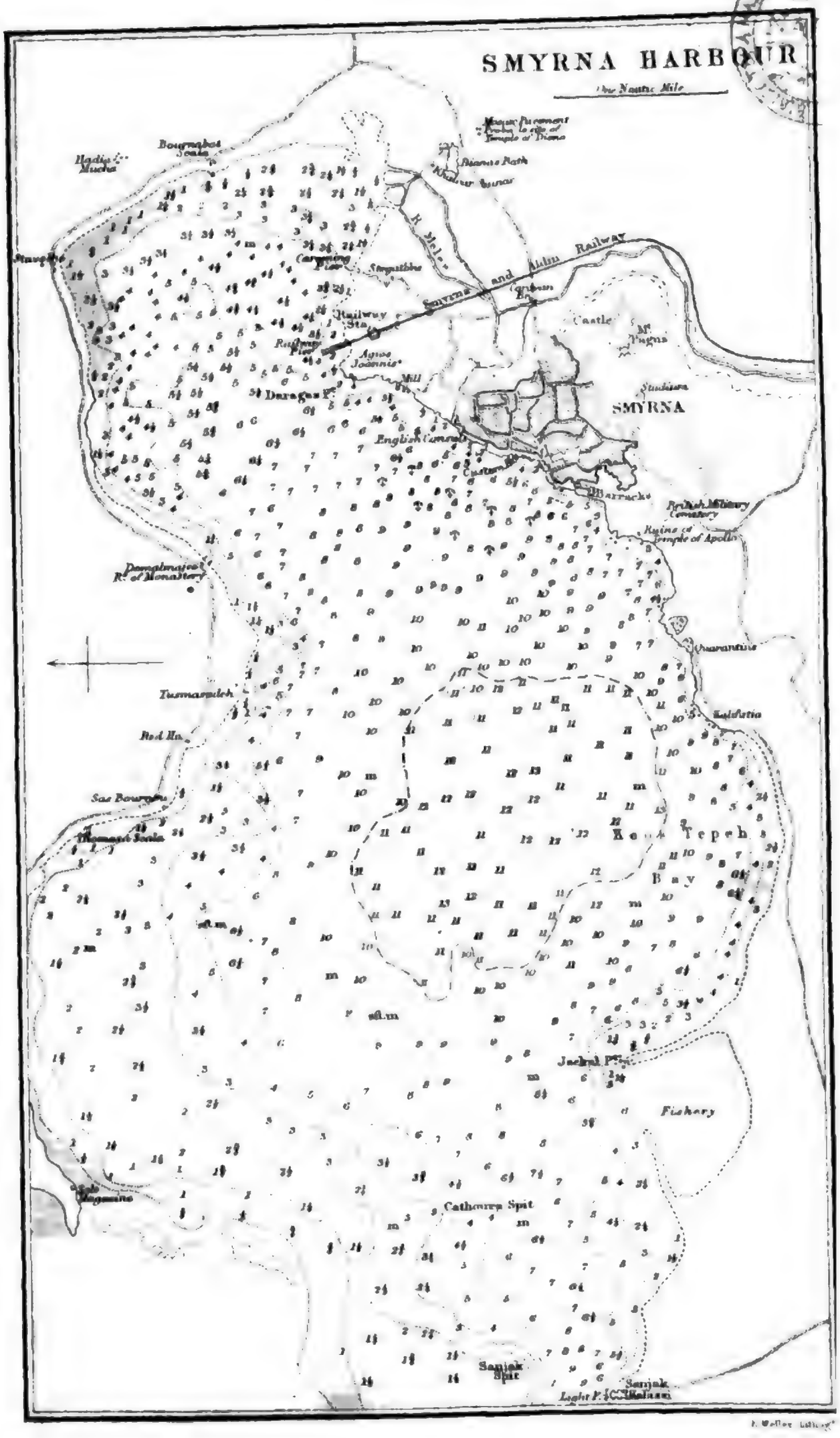
The Turkish population is almost wholly occupied in agricultural labour, or in the rudest sorts of manufactures. The porterage of Smyrna gives employment to about 3,000 of the lowest order of Turks.

Sales are effected by a merchant's broker, and what is termed a street or out-door broker; the former receiving his instructions from the seller, and the latter acting on behalf of the buyer. When the terms are mutually agreed upon, the real buyer and seller personally meet; and a bond or obligatory note stating the terms and amount of the transaction is drawn out and signed by the buyer; and when not much approved of, one or more signatures are required to the bond, who individually and collectively become responsible for the fulfilment of it.

Purchases are similarly made, except that the purchaser or agent himself, in the first instance, and his brokers, inspect the goods he is about to treat for: cash down is generally expected; and it is but seldom that a short credit of 1 or 2 couriers is obtained: it not unfrequently happens, also, that ¼ or even ½ of the purchase amount is advanced to the seller, when an insufficient quantity of the article wanted by the buyer is in the place, and which must then be procured from the interior or place of growth. The money advanced (which is to be returned if the quality does not suit) is sent by a confidential person on the part of the purchaser, accompanied either by the seller in person, or by some one representing him.

Barters are generally attended with delay, impediments, and sacrifices to the European agent who exchanges his constituents' goods for native produce, and are never completed without his paying a large portion in cash, which is mostly ¼, sometimes even ½, but never less than ¼ of the full amount; besides always paying a higher price for the produce than if it were bought for ready money. On the other hand, so far as the agent's transaction goes in goods, the price of

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which he also advances, it is equal to an advantageous cash sale, deducting a discount; but still he loses, as we have just stated, on that part of the operation which subjects him to the necessity of giving ready money for such part of the produce as remains above the counter-value given in goods, at a higher rate than it is worth in the open market. Thus the advantage is all in favour of this country, and against the agent. Indeed, barters are seldom undertaken unless when a profitable result is anticipated, when European goods are difficult to be placed upon saving conditions, either from the want of demand or a glutted market, or when (which is mostly the case) the holder of such goods has orders from the owners of them to remit them in produce, and thus realise their property, if not upon profitable terms, at least without the risk arising from bad debts; sometimes, also, outstanding bonds are taken in part payment, to the extent occasionally of ¼; another ¼ is taken in goods at an advance of from 5 to 10 or 12 per cent. above current prices; and the remaining ½ in cash against produce, at from 5 to 10 per cent. more than it fetches in the bazaars. However, it is by barter alone that any extensive transaction ever takes place, or that it can be either readily or safely effected.

Sales on Credit.—The terms of credit vary considerably, and depend entirely upon the quality of the goods which the agent sells.

Sales for Cash.—These very seldom occur indeed, and then only when money is abundant, or the article sold scarce and in great demand; in fact, not 1 sale in 100 is made on these terms; and in about the same ratio is a discount taken off from a bazaar bond at even an exorbitant rate, however short the period may be that it has to run; occasionally a sale is, however, effected for ½ cash, and the other ½ short credit, for some very current goods.

Imports.

The value of the imports in 1867 was less than in 1866 by 186,790*l.*

Coffee.—This is one of the most current articles received here, and is sent from England, France, Holland, Trieste, Marseilles, Leghorn, Genoa, and America; but first, and principally of late years, from the latter country—600 sacks, although occasionally that amount is doubled. France follows, but on a less extensive scale; and Austria, Holland, and the small ports in the south of Europe, do not together export more than 4 different qualities of coffee in the market; namely, Mocha, St. Domingo, Havannah, and Brazil: the first is sent from Alexandria, and by American vessels, and but seldom from Europe; the consumption is, however, limited, and does not exceed 60,000 okes annually. At Constantinople the consumption is much greater. An Asiatic cannot do without his coffee; and it is well known that in Smyrna alone not less than perhaps 400,000 cups of it are daily drunk, which, computed at the cost price of 2 paras each, amount to 20,000 piastres. St. Domingo and Havannah coffees are preferred to the Brazil, although, when the latter is of a fair round quality, there is not more than 5 per cent. difference in price; the small green West India berry certainly commands a ready sale; but, for the finest sort, not more than 6 or 8 per cent. can be obtained above the middling and sound quality. Coffee is amongst the very few articles which occasionally meet with a partial and entire cash sale and short credit; and is, moreover, from the means and character of the dealers in it, the least liable to risk from insolvency. It is also the easiest through which an advantageous barter can be effected, as a much larger quantity of coffee will be taken in exchange for produce than almost any other item of European merchandise.

Sugar is the next in consequence. This article is supplied from the same sources as coffee, and is attended in its disposal with similar results. White crushed, white Havannah, brown do., white East India, refined in small loaves of 4 lb. and in large of 8 lb. each: the 2 latter are mostly shipped from America and England. The brown and ordinary sorts are not so current.

Indigo always meets a ready sale, and not unfrequently a profitable one; it is attended likewise with all the advantages and facilities attached to coffee and sugar, and is furnished by Europe and America, but principally by England. The qualities received consist of East India purple and copper, ditto common, and Guatemala. The first of the 3 is the kind best adapted for our markets, and is placed sooner and better than the other 2; but, as is the case with coffee, the *very fine* will not pay cost price, and ought therefore never to be sent. The pieces suited for our buyers ought to be good sized, with about an equal proportion of purple and copper in each piece.

Manufactures.—White or unprinted cotton goods are most in demand during the warm weather, and the coloured or printed stuffs during winter, although a considerable quantity of all sorts is regularly and largely sold throughout the whole year. East Indian manufactures are supplied by America and England exclusively; the latter country also sends fair imitations of the East Indian loom, in long cloths, seersuckers &c. The native consumers are exceedingly fastidious in their choice of designs and colours, which ought very frequently to be altered, in order to meet their capricious taste. Manufactured goods are always sold at long credits, but large barters are often effected through them. A person desirous of entering into this item of our commerce is almost certain ultimately to reap an advantage; but he must have patience, a large capital, and must not be disheartened at the first or second result of his enterprise, should it disappoint his hopes of profit. He must also enter into the thing with spirit, and keep his agent always supplied with the goods he may recommend; and he is to remember that many months must elapse before he can expect a return by bills of exchange, but sooner if he order a barter. The capital employed must also at least be to the amount of 20,000*l.* to do any good; and further, this sum ought to be disbursed by him without any pecuniary embarrassment or inconvenience. For a person willing to undertake such a step, he would require to be regularly furnished with patterns, and advices of the manner in which they ought to be printed and varied; and with *competent means*, a real desire to follow the branch up firmly, and full information of what is required, a most extensive and finally lucrative business would be done.

Cotton Twist forms no inconsiderable article in this trade, and is supplied exclusively from England. Mule twist has, however, superseded, in some degree, the demand which formerly existed for water twist, and is consequently more in request. Water twist is nevertheless saleable, and both qualities ought to be of rather high numbers. This article is often given in barter, but mostly sold at rather long credits, and hardly ever for cash.

Iron, machinery, and *coal* are all largely imported, especially since the commencement of the railway to Aidin. They are wholly supplied by England.

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Rum and Brandy.—Leeward Island and Jamaica are furnished by America and England; the former particularly in the lower qualities, of which we have a full market at low prices. The better kind and brandy are supplied from England, but do not obtain a proportionate advance compared with the common sorts. Brandy is but of limited demand, and 2 or 3 puncheons are sufficient at a time. It ought, as well as rum, to be deeply coloured.

Spices are all saleable in small parcels at a time, particularly pepper and pimento; the latter of which, in small sound berries, is demanded at good prices. Nutmegs are very abundant, and offering very low without finding purchasers. France, America, and England supply spices, but France more cloves than other kinds; and it may be remarked that the qualities received from England are preferred. Credit on selling is generally short.

Cochineal is a fair article now and then in small quantities; and when in demand, at times fetches good prices, occasionally a cash sale, and always one of the shortest credits. Annual consumption, 4,500 okes.

In concluding our observations on imports, we could wish to impress the conviction that a poor man's purpose cannot be answered in speculating to this country; for, should his circumstances require a speedy remittance in bills, he must submit to a heavy sacrifice, in order to meet his wants, by selling his property for whatever it may fetch in cash; and such a measure cannot but be attended with very heavy loss. On the contrary, when an opulent person finds that his property cannot be realised at saving prices, he can afford to wait until a more favourable moment presents itself; and such a moment, in less than 12 months, is almost certain to arrive, when he retires his money with an advantage more than equal to any interest he could obtain for it in Europe.

Account of the Quantities and Values of the Articles Imported into Smyrna in 1866.

Articles		Quantities	Value
			£
Iron shot, nails &c.	packages	31,670	397,810
	tons	12,795	
Manufactures, silk &c.	packages	34,320	861,280
Butter and cheese	,,	5,295	150,807
Wood and timber	,,	241,581	45,781
Coffee	bags	70,351	361,522
Cochineal, indigo &c.	packages	1,971	13,381
Coals	tons	45,752	30,671
Cloth, cotton, stuff, linen	packages	8,690	462,252
Drugs and medicines	,,	7,309	95,372
Flour, wheat, rice &c.	,,	61,179	225,552
Stoneware, glass &c.	,,	12,567	60,720
Gold wire, watches &c.	cases	157	42,550
Dried fish &c.	packages	3,567	30,565
Skins	,,	2,731	50,722
Furniture, hardware, stationery, firearms &c.	,,	40,781	440,724
Rum, brandy, and spirits	barrels	19,780	211,782
Sugar	,,	18,200	95,672
Tobacco, snuff &c.	bales	5,200	70,960
Sundries	packages	21,750	74,707
	pieces	22,781	
	tons	2,750	
Total		—	3,764,534

Exports.

The value of the exports in 1867 exceeded in value those of 1866 by 848,930*l.*

Figs are exported in larger quantity for America than for England, but those intended for the English market are of a finer quality. A considerable quantity of the figs intended for America are shipped on board the Liverpool line of steamers for England, and are subsequently transhipped at that port. The certainty and expedition of this route to America have begun to cause a diminution in the number of clippers employed in the fruit trade between America and Asia Minor.

Carpets.—England takes more than ⅓ of the carpets manufactured in Anatolia. These carpets are made in the interior, and by the aid of very simple machinery, manual labour entering largely into the means employed. Orders are given by an agent, and it is generally necessary for him, on account of the poverty of the workers, to advance a considerable sum of money to enable them to purchase materials. As much as ⅓ of the entire value of the carpets is thus advanced sometimes previously to their completion. As regards the dyeing of the carpet, the red colour in the Turkey carpet is generally, and ought to be always, produced by madder. Logwood is also employed, and cochineal; but where the latter is made use of, the colour of the carpet is apt to fade. Blue comes from indigo, and yellow from the yellow Persian berries.

Silk.—Much of the silk exported from Smyrna is brought from Brusa and other places in the interior; but within the last few years a good deal has been prepared in Smyrna.

Drugs and Gums form a principal branch of commerce, and are almost entirely in the hands of the Jews. It is only when gum-arabic and mastic are scarce, or the demand for exportation very brisk, that much variation exists in the price of drugs. Trieste, and occasionally America, consume a considerable portion of gums, but the largest quantity goes to the English markets. Barters are often effected through this medium. It is impossible to ascertain the quantities of drugs received in Smyrna, and equally so to know the quantity remaining, as they are dispersed all over the city, and consumed so irregularly in Europe as bids defiance to all regular calculation.

Opium.—The produce in 1867 was about 4,200 chests, and of good quality, and exported principally to China, Europe, and America.

Sponges are an article of considerable moment, particularly for the English markets, and are found among the islands in the Grecian Archipelago, brought here, and cleaned for exportation. They vary in price from 6 to 90 piastres per oke, according to fineness and quality: the better sorts alone answer for speculation, and they are, from the considerable quantity sent to London, turned to good account. The produce depends so entirely on chance, that no correct estimate of the yearly quantity can be formed; however, we are seldom in want of a moderate supply. The malpractices of the sponge agents at Smyrna in loading them with black sand and gum water lead to much litigation.

Galls are shipped in considerable quantities for the English, German, and French markets; the two former, however, being the largest consumers: for England, the blue galls are those principally sent. Annual produce of all sorts, 5,500 kintals.

Valonia employs more British shipping for full cargoes of only one article than any other species of produce, if we except, perhaps, fruit. It can be had to any extent, and at all periods. The crop of 1867 produced 32,000 tons, half of which was exported to Europe.

Fruit.—This is an article which occupies the attention of all Smyrna, more or less, and produces, during the season, great interest and activity. Figs come to market early in September, and raisins are ready for shipping early in October; the former are procurable only at Smyrna, where the latter in all their qualities may be procured; but the shipments are generally made at Cesné, Vouria, Carabourna, Usbeck &c., from which ports the name of the raisin takes its origin. Large sums are frequently gained in fruit speculations; and when the demand in England is brisk, and

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the prices and quality fair with us, it very seldom happens indeed that any loss is sustained: it is, however, attended with risk; must be shipped dry; and ought only to go in a very fast, sound vessel, as much depends upon a first, or at least an early arrival, which obtains in general a higher price than the latter arrivals. The quantity produced is always uncertain.

Account of the Quantities and Values of the Articles Exported from Smyrna in 1866.

Articles		Quantities	Value
			£
Madder roots	bales	20,724	250,714
Wheat, barley, flour	tons	2,408	15,705
Boxwood &c.	pieces	4,809	1,650
Cotton	bales	51,850	591,600
Wax, gums, galls	packages	8,660	122,367
Drugs, opium &c.	,,	15,980	587,910
Sponges &c.	,,	9,070	257,785
Otto of roses	boxes	135	3,150
Dry fruits	packages	125,100	657,683
Ditto	boxes and cases	680,420	182,950
Yellow berries &c.	bags	42,850	128,675
Wool, hair &c.	bales	8,020	30,582
Lamb skins &c.	,,	5,070	75,890
Cocoons, silk &c.	,,	410	161,780
Carpets, cloths &c.	packages	1,815	385,361
Valonia	tons	28,980	24,630
Wines, spirits &c.	barrels	1,160	
Sundries	(packages	25,320	220,193
	tons	2,845	
Total			3,606,240

Prices of the Principal Exports at the Port of Smyrna in the Year 1866.

		£	s.	d.
Barley	imp. qr.	1	0	0
Beans	,,	1	1	0
Bones	ton	3	10	0
Boxwood	,,	6	0	0
Carpets	sq. pike	0	2	0
Chrome ore	ton	7	0	0
Cocoons	cwt.	14	0	0
Figs	,,	2	0	0
Raisins, red	,,	1	5	0
black	,,	0	9	0
sultanas	,,	1	15	0
Galls	,,	5	10	0
Gums	,,	10	0	0
Liquorice	case	9	0	0
Madder roots	cwt.	1	15	0
Opium	lb.	0	17	0
Otto of roses	oz.	1	15	
Resin	barrel	1	15	0
Rags	cwt.	0	15	0
Rugs	piece	6	0	0
Scammony	lb.	0	18	0
Seed, cotton	ton	2	0	0
canary	imp. qr.	2	10	0
hemp	,,	1	12	0
Silk, waste	lb.	0	6	0
Sponges	,,	0	16	0
Storax	,,	0	10	0
Stones, emery	cwt.	2	0	0
Tobacco	ton	4	0	0
Valonia	lb.	0	5	0
Wine	ton	18	0	0
Wool, goats'	barrel of 10 gals.	3	10	0
sheep's	lb.	0	3	0
cotton	,,	0	0	10
Skins, lamb	,,	0	0	10
Yellow berries	bale	16	0	0
	cwt.	4	10	0

Accounts are kept in piastres, composed of 40 paras and 80ths.

Exchange.

London, 108 to 110½ piastres per £ sterling in 1867.

English Equivalents of Weights, Measures, and Moneys.

Weights.

1 oke or 400 drams = 2¾ lb.
1 cantar or 44 okes = 1 cwt. 8 lb.
1 tchoki = 2 cwt. 15¾ lb.

Dry Measure.

8½ kilos = 1 imperial quarter

Currency.

1 piastre = 2d.
5½ piastres = 1s.
110 ,, = 1l. sterling

Shipping in 1866 and 1867.—The total number of vessels which entered the port of Smyrna, by steam and sail, in 1866, was 1,606, of 600,317 tons. The total number of those which left it was 1,508, of 600,630 tons, as follows:—

Nationality	Entered		Cleared	
	Vessels	Tons	Vessels	Tons
British	162	92,665	164	93,954
American	6	1,886	6	1,886
Austrian	194	122,612	196	122,628
Dutch	10	1,480	10	1,480
French	168	99,727	164	99,474
Greek	272	50,732	265	50,330
Hanoverian	2	266	2	266
Hanse Towns	3	460	3	460
Italian	36	10,963	36	10,870
Mecklenburg	2	462	2	462
Oldenburg	6	701	6	701
Prussian	6	1,310	6	1,310
Russian	57	36,861	59	36,852
Spanish	11	3,620	11	3,620
Swedish and Norwegian	4	1,037	4	1,077
Turkish and Egyptian	567	173,550	574	175,000
Total	1,506	600,317	1,508	600,630

Comparison of the Navigation and Trade of Smyrna in 1866 and 1867.

Years	Entered			Cleared		
	Number	Tonnage	Value of Cargoes	Number	Tonnage	Value of Cargoes
			£			£
1866	1,606	600,317	3,584,630	1,508	600,630	3,558,640
1867	1,464	451,917	3,403,900	1,424	513,804	4,407,570
	Decrease 142	Decrease 148,400	Decrease 180,730	Decrease 84	Decrease 86,826	Increase 848,930

Coasting Trade 1866, 1867.—The native coasting trade is not included, and may be stated as follows:—

Entered.—1,603 small craft, of 23,506 tons, value of cargoes 172,840*l.*, in 1866; and 1,420 small craft, of 21,004 tons, with cargoes worth 164,280*l.*, in 1867.

Cleared.—1,576 small craft, of 22,602 tons, value of cargoes 47,660*l.*, in 1866; and 1,396 small craft, of 20,584 tons, with cargoes worth 58,630*l.*, in 1867.

Port Regulations.—No alterations have taken place in the port and quarantine regulations and dues since 1865, which are as follows:—

Masters can anchor their vessels in this port at discretion. Immediately after their anchoring they are requested to proceed to the health office, to produce bill of health, and to perform certain other formalities in order to obtain free entry.

No master is allowed to throw ballast overboard in this port.

Charges on Entrance. Anchorage.—A fee of 6*d.* is payable by every vessel anchoring.

For obtaining Pratique the following fees are payable by the master:—

	s.	d.
For a vessel not exceeding 75 tons	0	4½
200 ,,	0	11
250 ,,	1	10
over 250 tons	3	8

Charges on Clearing. Bill of Health.—Vessels clearing for a Turkish port are required to be furnished with a Turkish bill of health, the charge for which varies as follows:—

	s.	d.
For a vessel not exceeding 25 tons	0	4½
75 ,,	1	1
125 ,,	1	10
175 ,,	2	2
250 ,,	2	11
300 ,,	3	8
over 300 tons	4	5

If provided from any other Turkish port with such a document, the same can be used, and then half of the above is payable.

Consular Fees (British).—For every vessel: entrance and clearance fee, 10s.; hospital dues, 3*d.* per ton. This latter payment is not demanded from vessels which arrive and depart in ballast, which do not receive any benefit from the hospital.

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Light Dues are payable at this port by all vessels before clearing as follows:—

About 1*d.* per ton for entry;
1*d.* per ton for clearing;

but for every ton exceeding 800 tons the dues are reduced to one-half the above amounts.

Quarantine.—The following expenses are to be defrayed by the ship, in case she is placed in quarantine:—

	s.	*d.*
For 2 guards on board, per day, each	4	4
Besides on every vessel not exceeding 25 tons	1	6
75 ,,	1	10
125 ,,	2	9
175 ,,	3	8
250 ,,	4	6
300 ,,	5	6
Over 300 tons	6	3

Goods are required to be landed at the lazaretto.

	d.
For 1 bale not weighing over 110 lb.	2½
220 ,,	5
330 ,,	7½
Above those weights	9

Goods of value, from which disinfection is difficult:—

	s.	*d.*
Each bale not exceeding 110 lb.	0	9
220 ,,	1	6
330 ,,	2	2
Over 330 tons	3	3
Guards for ditto if required, each per day	4	4

Passengers must be landed likewise at the lazaretto: each room per day, 8*s.* 2*d.*; guard required per day, 4*s.* 4*d.*

Pilots.—There are no regular pilots at this port, but some are procurable; they are generally engaged by masters merely to assist in navigating their vessels free of this gulf, and are landed before getting out of the same, for which the fee is about 1*l.*

Ships can likewise be provided at the entrance of the Gulf of Smyrna at the cost of 2*l.* for bringing their vessels to this anchorage.

The number of British vessels entered and cleared in 1866 and 1867 was as follows:—

Entered			Cleared		
Vessels	Tonnage	Value of Cargoes	Vessels	Tonnage	Value of Cargoes
		£			£
162	92,665	1,165,500	161	93,954	1,520,040
212	117,544	1,817,065	206	115,158	1,774,150

Of which 76 were steamers.

Lines of Steamers.—Austrian, French, and English call regularly at Smyrna. Most of the merchant steamers carrying thither the Austrian or the French flag belong either to the Austrian Lloyd, or the Messageries Impériales Company. Both these companies are richly endowed by their respective Governments, and the latter of the two has for some time carried the English mails. Though these steam companies aim especially at securing passenger traffic, they nevertheless afford considerable facilities for shipping cargo, and goods of all kinds are weekly exported and imported by their agency.

There are several lines of steam-ships between Smyrna and Liverpool. These ships are all, without exception, propelled by the screw; the majority are barque and a few ship-rigged. Their average tonnage is much larger than that of the other two lines, and they direct their attention to the securing of good freights rather than passengers, who, though well provided for in other respects, might be inconvenienced in these boats by the long stay which their waiting for cargo sometimes entails upon them in Smyrna and Alexandria. The Liverpool ships generally go to Constantinople first, and having discharged cargo there, they return by Smyrna. If they succeed in getting a full cargo there, they return direct to England; but if not, they go round by Alexandria. Besides the English lines belonging to English houses, there is also, as already mentioned, a line of English steam-ships in the employ of a company of Greek and Armenian merchants. Though there is no regular line of steam communication between Smyrna and London, yet this means of intercourse between the two places does exist, and about once every month a steamer sails direct for London.

The profuse supply of steam-ships has begun to affect the interests of sailing vessels engaged in the Smyrna trade. A good average passage for a sailing vessel, when favoured by the wind, from England to Smyrna, may be estimated at 30 days; it is not unfrequently done in less time; and we have heard of an instance in which a ship arrived in Smyrna in 21 days after leaving Cardiff. But these are all voyages performed under favourable conditions, and these favourable conditions are very frequently wanting. The Liverpool steamers will, under the most unfavourable circumstances, reach Liverpool within 17 days from the date of their leaving Smyrna. It it obvious that sailing vessels must compete with great disadvantage with these steamers, in all cases where certainty and expedition are required; and in the fruit trade it is said that steam will at no distant period enjoy almost a monopoly in freights. The merchant in America finds it answer his purpose better in many cases to have his cargo of figs shipped in a steamer at Smyrna for Liverpool, and subsequently transhipped at the latter port, than to have them brought direct without any transhipment in a sailing ship from Smyrna to America. The same causes will operate still more powerfully upon the European fruit ships. In fact, the peculiarities of the Mediterranean navigation seem to require steam more than most other seas. The Mediterranean possesses no trade winds, and is, on the contrary, especially liable to sudden changes and dead calms. Schooners and brigs were the favourite class of vessels employed in the Smyrna fruit trade, but have been superseded by a somewhat higher style of vessel.

Railways.—The Aidin and Smyrna Railway was open to Aidin in September 1866, as well as the Casaba line to Casaba. The result of the former has not been satisfactory, as the expenses are barely defrayed; but it has not yet had a fair trial. Nearly half of the traffic of this district is still carried on by the camels.

The Casaba line was more successful, and obtains at least nine-tenths of the traffic from that district, realising about 7 per cent. upon the capital expended.

In his *Lettres sur la Turquie* (i. 425), the well-informed M. Ubicini estimated the value of the imports into Smyrna in 1851 at 28,473,000 fr., and that of the exports at 36,682,000 fr. The coasting trade, as that between Smyrna, Constantinople, Syra, Alexandria, and the Levant generally is usually denominated, is almost entirely in the hands of the Greeks, and is very extensive. Ubicini reckoned the value of the imports of English and Swiss cottons at above 14,000,000 fr.: the other leading articles of import are English and German woollens, French silks, and colonial products.

SNUFF (Ger. schnupftabak; Fr. tabac en poudre; Ital. tabacco da naso; Span. tabaco de polvo; Russ. nosowoi tabak). A powder formerly in very general use as an errhine. Tobacco is the usual basis of snuff; but small quantities of other articles are frequently added to it, to vary its pungency, flavour, scent &c. Though substantially

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the same, the kinds and names of snuff are infinite, and are perpetually changing. There are, however, three principal sorts: the first, granulated; the second, an impalpable powder; and the third, the bran or coarse part remaining after sifting the second sort. Unless taken in excess, no bad consequences result from its use; but the fashion of snuffing has been for some years rapidly on the decline.

The customs duty on snuff is now (1869) from 3*s.* 9*d.* to 4*s.* 6*d.* per lb.

It would appear, from the 12th Customs' report, published in 1868, that the exportation of snuff has materially increased since the introduction of the drawback on that article in 1863. In 1867 we exported 225,370 lb., and imported 21,023 lb. of snuff. Manufacturers of tobacco and snuff pay license duty (according to the amount of business done), from 5*l.* 5*s.* to 31*l.* 10*s.*

Dealers in tobacco and snuff are obliged to take out a license, renewable annually, which costs 5*s.* 3*d.* (an occasional license to sell off the premises may be had at the rate of 4*d.* per diem). They must have their premises duly enrolled, and have their names written in large legible characters over their door, or on some conspicuous part of their house, under a penalty of 50*l.* The dyeing of snuff with ochre, amber, or any other colouring matter except water tinged with colour, is prohibited under a penalty of 100*l.*; and its intermixture with fustic, yellow, ebony, touchwood, sand, dirt, leaves &c. is prohibited under a penalty of 100*l.* and the forfeiture of the article. (1 & 2 Geo. IV. c. 109.) If snuff be found to contain 4 per cent. of any substance, not being tobacco, and other than water only, or water tinged with colour, or flavoured only, such snuff shall be deemed adulterated, and shall be forfeited, and the parties subjected to a penalty of 100*l.* over and above all other penalties and forfeitures. (Ib.) No quantity of snuff weighing above 2 lb. shall be removed by land or water without a permit. (29 Geo. III. c. 68.) [TOBACCO.]

SNUFF-BOXES are made of every variety of pattern, and of an endless variety of materials. We only mention them here for the purpose of giving the following details, not elsewhere to be met with, with respect to the manufacture of Laurencekirk or Ayrshire boxes. These are made of wood, admirably jointed, painted, and varnished. These beautiful boxes were first manufactured at Laurencekirk, in Kincardineshire, about 60 years since. The original inventor was a cripple, and instead of curtains, his bed (rather a curious workshop) was surrounded with benches and receptacles for tools, in the contrivance and use of which he discovered the utmost ingenuity. Instead of taking out a patent, the inventor confided his secret to a joiner in the same village, who in a few years amassed considerable property; while the other died, as he had lived, in the greatest poverty. The great difficulty of the manufacture lies in the formation of the hinge, which, in a genuine box, is so delicately made as hardly to be visible. Peculiar, or, as they are called, secret tools, are required in its formation; and though greatly improved by time and experience, the mystery attached to their preparation is still so studiously kept up, that the workmen employed in one shop are debarred having any communication with those employed in another.

About the beginning of this century, an ingenious individual belonging to the village of Cumnock, in Ayrshire, of the name of Crawford, having seen one of the Laurencekirk snuff-boxes, succeeded, after various attempts, by the assistance of a watchmaker of the same village, who made the tools, in producing a similar box; and by his success greatly enriched his native parish and province. Unfortunately, however, he did not improve his own fortune by his ingenuity; and died early in 1844 in very poor circumstances. For a while, the Laurencekirk boxes were most in demand; but Crawford and his neighbours in Cumnock not only copied the art, but so improved and perfected it, that in a few years for every box made in the north there were, probably, 20 made in the south. In 1826, the Cumnock trade was divided among 8 master manufacturers, who employed considerably more than 100 persons. But after having greatly declined in the interval, it did not in 1859 employ more than 5 per cent. of that number, and now (1869) this business is extinct in Cumnock. The manufacture is almost wholly confined to Mauchline, and about 380 hands are engaged in it and in the manufacture of work-boxes, tea-boxes, and fancy wood work, principally the latter. The popularity of the boxes has of late years declined in Britain (they never had any sale in Ireland); but, on the other hand, the taste for them has gained ground in several parts of the Continent and in America, and the demand for them is brisk and gradually increasing. The manufacture is also carried on, though to a very limited extent, at Auchinleck, and one or two other places. Plane is the wood in common use, and the cost of the wood in an ordinary-sized box does not exceed 1*d.*; the paints and varnish are rated at 2*d.*; and though something is lost by selecting timber of the finest colour, the whole expense of the raw material falls considerably short of ½ per cent. on the return it yields, which consists almost wholly of the wages of labour.

The snuff-box manufacture, like most other departments of industry, has been greatly facilitated by the division of labour; and in all workshops of any size four classes of persons are employed—turners, box-makers, painters, and checkers or polishers. When Crawford first commenced business, he obtained almost any price he chose to ask; and many instances occurred in which ordinary-sized snuff-boxes sold at 2*l.* 12*s.* 6*d.*, and ladies' work-boxes at 25*l.* But as the trade increased it became necessary to employ apprentices, who first became journeymen, and then masters; and such have been the effects of improvement and competition, that articles such as those specified above may be obtained at the respective prices of *two* and *twenty-five shillings*; while common boxes, which, in 1837, sold for 18*s.* a dozen, might, in 1850, be bought for 7*s.* By means of the *Pentagraph*, which is much employed, the largest engravings are reduced to the size most convenient to the workman, without injury to the prints; so that a snuff-box manufacturer, like a Dunfermline weaver, can work to order by exhibiting on wood his employer's coat of arms, or any object he may fancy within the range of the pictorial art. Some of the painters display considerable talent, and, when they put forth their strength, produce box-lids worth being preserved as pictures. At first, nearly the whole subjects chosen as ornaments were taken from Burns's poems; and there can be no doubt that the 'Cotter's Saturday Night,' 'Tam O'Shanter,' 'Willie brewed a peck o'maut' &c. &c. have penetrated in this form into every quarter of the habitable globe. Now, however, the artists take a wider range; the studios of Wilkie, Landseer &c. have been laid under contribution; landscapes are as often met with as figures; and there is scarcely a celebrated scene in the country that is not pictured forth more or lessperfectly on the

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lid of an Ayrshire snuff-box. Some very wretched imitations of Ayrshire boxes have been produced in different parts of England; but they can deceive no one who ever saw a genuine box. The hinge, as well as the finishing, is clumsy in the extreme.

The article on this curious manufacture in our former edition was written by the late John M'Diarmid, Esq., editor of the *Dumfries Courier*; but the business has materially changed during the last 20 years. The statements in the present article have been derived from Mauchline.

SOAP (Ger. seife; Fr. savon; Ital. sapone; Span. jabon; Russ. mülo; Lat. sapo). The soap met with in commerce is generally divided into two sorts, *hard* and *soft*: the former is made of soda and tallow or oil, and the latter of potash and similar oily matters. Soap made of tallow and soda has a whitish colour, and is, therefore, sometimes denominated *white* soap: but it is usual for soap-makers, in order to lower the price of the article, to mix a considerable portion of resin with the tallow; this mixture forms the common *yellow* soap of this country. Soap made of tallow &c. and potash does not assume a solid form; its consistence is never greater than that of hog's lard. The properties of soft soap as a detergent do not differ materially from those of hard soap, but it is not nearly so convenient to use. The alkali employed by the ancient Gauls and Germans in the formation of soap was potash; hence we see why it was described by the Romans as an unguent. The oil employed for making soft soap in this country is whale oil. A little tallow is also added, which, by a peculiar management, is dispersed through the soap in fine white spots. The soap made in countries which produce olive oil, as the south of France, Italy, and Spain, is preferable to the soap of this country, which is usually manufactured from grease, tallow &c. (Thomson's *Chemistry*.) For a full account of the manufacture, see Ure's *Dictionary*, by Hunt.

The use of soap as a detergent is well known: it may, in fact, be considered as a necessary of life. Its consumption in most civilised countries is immense. Pliny informs us that soap was first invented by the Gauls; that it was composed of tallow and ashes; and that the German soap was reckoned the best. (Lib. xviii. c. 51.)

Down to 1833, a duty was charged on hard soap, which is by far the most extensively used, of 3*d.* per lb., or 28*s.* per cwt., while the price of soap duty paid rarely exceeded 6*d.* per lb., or 56*s.* per cwt., so that the duty was fully 100 per cent. But besides this high duty, the substances of which soap is made, viz. tallow, barilla, and turpentine, or resin, were respectively charged with duties of 3*s.* 4*d.*, 2*s.*, and 4*s.* 4*d.* per cwt.; and taking these indirect taxes into account, it may be truly stated that soap was taxed from 120 to 130 per cent. ad valorem. The imposition of so exorbitant a duty on an article indispensable to the prosecution of many branches of manufacture, and to the comfort and cleanliness of all orders of persons, was in the last degree inexpedient. During the five years ending with 1832, the consumption of duty-paid soap was nearly stationary; though there can be little doubt, from the increase of manufactures and population during that period, that it would have been very considerably extended, but for the increase of smuggling. This practice was facilitated by the total exemption which Ireland enjoyed from this duty; for it not unfrequently happened that the soap made in this country, and sent to Ireland under a drawback, was again clandestinely introduced into Great Britain. It is, perhaps, needless to say that nothing but the effectual reduction of the duty could put a stop to the smuggling and fraud that had been so generally practised. So long

An Account of the Quantity of Soap made in different Towns of Great Britain, distinguishing between Silicated, Hard, and Soft Soap, during the Year ending January 5, 1832.

Towns	Silicated Soap	Other Hard Soap	Soft Soap
England.	lb.	lb.	lb.
Bath	..	409,030	..
Hempstead	..	151,627	..
Birmingham	..	363,110	..
Smethwick	..	2,373,780	54,690
Blackburn	..	322,550	..
Burnley	..	311,780	..
Haslingden	..	614,640	..
St. Helen's	..	..	111,040
Bristol	..	12,898,630	407,900
Canterbury	..	534,040	..
Chester	6,480	651,620	..
Derby	..	297,320	..
Dorchester	..	194,680	..
Gateshead	..	7,151,590	..
Braintree	6,000	6,010	..
Maldon	3,800	86,950	..
Clare	53,880	212,630	..
Gloucester	..	1,543,730	..
Stamford	..	464,310	..
Bradford	..	..	1,561,570
Huddersfield	..	..	726,910
Arundel	..	278,850	..
Gosport	..	448,500	..
Portsmouth	..	406,710	..
Hull	..	2,522,042	155,360
Bridlington	..	34,400	..
Southampton	..	4,180	..
Preston	..	225,970	..
Leeds	..	935,880	774,910
Wakefield	..	3,795,810	..
Leicester	4,550	31,700	..
Oakham	..	2,060	..
Dudley	..	809,200	..
Wednesbury	..	635,090	..
Lincoln	..	263,080	..
Louth	..	405,790	..
Spilsby	..	26,070	..
Liverpool	250,250	39,334,595	7,375,270
Birkenhead	..	290,526	..
Holt	..	16,000	..
Manchester	..	1,143,550	163,043
Salford	..	779,010	..
Newcastle	..	3,531,040	..
South Shields	..	1,076,880	..
Towcester	..	29,230	..
Runcorn	..	11,787,360	..
Warrington	..	5,147,090	..
Norwich	2,870	1,941,550	..
Lowestoft	..	129,260	..
Yarmouth	..	65,890	..
Oxford	..	5,350	..
Plymouth	..	3,851,820	3,080
Liskeard	..	..	1,560
Wallingford	..	12,278	..
Greenwich	..	8,712,130	..
Sheffield	7	425,546	..
Bury	..	168,300	..
Ipswich	7,710	572,100	..
Brentford	..	4,440,450	..
Horsham	..	24,420	..
Staines	..	11,420	..
Wandsworth	..	3,484	..
Brighton	..	311,490	..
Lewes	..	360,890	..
Taunton	..	20,080	..
Bridgewater	..	12,190	..
Cardiff	4,650	97,270	..
Llandilo	..	4,620	..
Bromsgrove	..	1,749,183	..
York	..	853,040	..
	430,297	125,485,099	11,535,333
London	899,736	44,034,102	339,599
Total, England	1,330,033	169,519,201	11,874,932
Scotland.			
Aberdeen	..	..	447,990
Ayr	..	..	21,128
Greenock	..	111,045	310,003
Paisley	..	698,270	661,830
Leith	..	2,297,480	136,990
Glasgow	7,150	10,647,219	5,560,908
Preston Pans	..	874,910	..
Linlithgow	..	338,650	12,670
Dunfermline	..	213,490	..
Total, Scotland	7,150	15,206,064	7,150,119
	Totals Collected		
England	1,330,033	169,519,201	11,874,932
Scotland	7,150	15,206,064	7,150,119
	1,337,183	184,725,265	19,025,051

as the profit to be made by breaking the law was so high as 120 or 130 per cent., so long was it sure to be broken, despite the multiplication of penalties and the utmost activity and vigilance of the officers. But the duty having been reduced 50 per cent. in 1833, the temptation to smuggle was materially diminished. And the increased consumption which followed the reduction of duties hindered the revenue from declining more than ¼th, or 25 per cent. Hence the advantages resulting from the diminished temptation to smuggling and fraud, and the influence of the reduced price of the article, in facilitating manufacturing industry, and in promoting habits of cleanliness, were obtained without any very considerable sacrifice.

In a former edition of this work we took leave to observe that 'the entire repeal of the soap duty would be a popular measure; but, seeing that a large amount of revenue must be raised, and that those taxes only are productive which affect all classes of the community, we should not be disposed to recommend such a measure. It is not the tax itself, but the oppressive extent to which it was carried, that made it objectionable. Instead of proposing its repeal, we think it should be extended to Ireland. The exemption of one part of the empire from a duty of this sort imposed on another part, is contrary to all principle, and is fraught with pernicious results. It will be impossible to get rid of smuggling so long as this unjust distinction is suffered to exist. Were the duty extended to Ireland, the necessity for granting drawbacks on the soap exported to it, and of laying countervailing duties on that imported from it, would, of course, fall to the ground. And we feel pretty confident, that though a still further deduction were made from the rate of duty its productiveness would not, under such circumstances, be impaired, even in England.'

Government, however, not feeling disposed to support an unpopular, and, in some respects, an objectionable tax, consented in 1853 to its repeal.

The Table on preceding page is interesting, inasmuch as it shows the extent of the manufacture during the last year but one that it was subject to a duty, and as it will be an authentic standard with which to compare its future progress.

The total nett revenue derived from soap amounted in 1852 to 1,126,046*l.* In 1851, 13,487,270 lb. soap were exported, the drawback on which amounted to 88,468*l.*

Drawbacks and allowances were also made during the same year of 104,420*l.* to the woollen, silk, flax, and cotton manufacturers on account of the soap used by them. And the trouble to the manufacturers arising from this system, with the opportunities which it afforded for the commission of fraud, constituted the principal objections to the duty.

The declared value of 219,372 cwt. of soap exported in 1867 amounted to 289,206*l.*

SODA. [Alkali.]

SOUTH SEA DUTIES. The Act of the 9 Anne, c. 21 establishing the South Sea Company, conveyed to them the exclusive privilege of trading to the Pacific Ocean, and along the east coast of America, from the Orinoco to Cape Horn.

This privilege was taken away by 47 Geo. III. c. 23; and to raise a guarantee fund for the indemnification of the Company, a duty of 2 per cent. ad valorem was imposed by 55 Geo. III. c. 57 on all goods, except those from Brazil and Dutch Surinam (the provinces of Rio de la Plata were afterwards added), and except blubber, oil &c. of whales, or fish caught by crews of British or Irish ships, imported from within the aforesaid limits. A duty of 1*s.* 6*d.* per ton was also imposed on all vessels (except in ballast or importing the produce of the fishery of British subjects) entering inwards or clearing outwards from or to places within the said limits. The duties ceased when the guaranteefund was completed.

SOY. A species of sauce prepared in China and Japan from a small bean, the produce of the *Dolichos soja*. It is eaten with fish and other articles. It should be chosen of a good flavour, not too salt nor too sweet, of a good thick consistence, a brown colour, and clear: when shaken in a glass it should leave a coat on the surface of a bright yellowish-brown colour; if it do not, it is of an inferior kind, and should be rejected. Japan soy is deemed superior to the Chinese. It is worth from 3*s.* to 4*s.* per gallon. It is believed to be extensively counterfeited. In 1867 we imported 11,493 gallons of soy, valued at 1,795*l.*, and exported 2,166 gallons. (Milburn's *Orient. Com.*; *Chinese Repository*; &c.)

SPAIN. [Alicante; Barcelona; Cadiz; Malaga; &c.] An order of the Spanish Provisional Government is published in the *London Gazette* (March 23, 1869), extending to the ships of every nation the power, hitherto enjoyed by Spanish vessels only, of going to foreign ports with cargoes from foreign America, and with cargoes of dried fish from the same ports, with a consular register under the same rates and formalities as are established by Articles 8 and 260 of the customs ordinances, and by a subsequent decree (see *London Gazette* of April 8, 1869). British vessels coming from British India are entitled to national treatment in respect of the payment of port and navigation dues on the Spanish colonies.

SPELTER. A name frequently given to Zinc.

SPERMACETI (Ger. wallrath; Fr. blanc de baleine, sperme de baleine; Ital. spermaceti; Span. esperma de ballena; Russ. spermazet). A product obtained from the brain of the *Physeter macrocephalus*, a species of whale inhabiting the Southern Ocean. The brain being dug out from the cavity of the head, the oil is separated from it by dripping. The residue is crude spermaceti, of which an ordinary-sized whale will yield 12 barrels. After being brought to England, it is purified. It then concretes into a white, crystallised, brittle, semitransparent, unctuous substance, nearly inodorous and insipid. On being cut into small pieces, it assumes a flaky aspect. Its specific gravity is 9·433. It is used in the manufacture of candles, in medicine &c. We imported in 1867, besides 320,081 lb. of spermaceti, 3,226 tons of spermaceti, or head matter, valued at 373,367*l.*, of which 2,822 tons were from the United States.

SPICES (Ger. spezereien; Dutch, specerijen; Fr. épiceries, épices; Ital. spezj, spezierie; Span. especias, especerias; Port. especiaria; Russ. prănîte korenja). Under this denomination are included all those vegetable productions which are fragrant to the smell and pungent to the palate; such as cloves, ginger, nutmegs, allspice &c. These will be found under their proper heads.

SPIRIT OF WINE. [Alcohol.]

SPIRITS. All inflammable liquors obtained by distillation, as brandy, rum, geneva, whisky, gin &c., are comprised under this designation. The term *British spirits* is applied indiscriminately to the various sorts of spirits manufactured in Great Britain and Ireland. Of these, gin and whisky are by far the most important.

The manufacture of spirits is placed under the *surveillance* of the excise, and a very large revenue is obtained from it. The Act 23 & 24 Vict. c. 114 lays down most of the regulations to be followed

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by the distillers in the manufacture, and by the officers in charging the duties. This Act is of great length, having no fewer than 223 clauses: it is, besides, exceedingly complicated, and the penalties in it amount to many thousand pounds. It would, therefore, be to no purpose to attempt giving any abstract of it in this place. Everyone carrying on the business of distillation must have the Act in his possession, and be practically acquainted with its operation.

Several subsequent Acts, such as the 24 & 25 Vict. c. 91 s. 3; the 28 & 29 Vict. c. 96 s. 27; and the 31 & 32 Vict. c. 124 s. 5, refer more especially to methylated spirits.

1. *Spirit Duties. Consumption of British Spirits in Great Britain and Ireland.*—There are, perhaps, no better subjects for taxation than spirituous and fermented liquors. They are essentially luxuries; and while moderate duties on them are, in consequence of their being very generally used, exceedingly productive, the increase of price which they occasion has a tendency to lessen their consumption by the poor, to whom, when taken in excess, they are exceedingly pernicious. Few Governments, however, have been satisfied with imposing moderate duties on spirits; but, partly with the view of increasing the revenue, and partly with the view of placing them beyond the reach of the lower classes, have almost invariably loaded them with such oppressively high duties as have entirely defeated both objects. The imposition of such duties does not take away the appetite for spirits; and as no vigilance of the officers or severity of the laws has been found sufficient to secure a monopoly of the market to the legal distillers, the real effect of the high duties has been to throw the supply of a large proportion of the demand into the hands of the illicit distiller, and to superadd the atrocities of the smuggler to the idleness and dissipation of the drunkard.

During the latter part of the reign of George I. and the earlier part of that of George II. gin-drinking was exceedingly prevalent; and the cheapness of ardent spirits, and the multiplication of public houses, were denounced from the pulpit, and in the presentments of grand juries, as pregnant with the most destructive consequences to the health and morals of the community. At length ministers determined to make a vigorous effort to put a stop to the further use of spirituous liquors except as a cordial or medicine. For this purpose an Act was passed in 1736, the history and effects of which deserve to be studied by all who are clamorous for an increase of the duties on spirits. Its preamble is to this effect:—'Whereas the drinking of spirituous liquors, or strong water, is become very common, especially among people of lower and inferior rank, the constant and excessive use of which tends greatly to the destruction of their health, rendering them unfit for useful labour and business, debauching their morals, and inciting them to perpetrate all vices; and the ill consequences of the excessive use of such liquors are not confined to the present generation, but extend to future ages, and tend to the destruction and ruin of this kingdom.' The enactments were such as might be expected to follow a preamble of this sort. They were not intended to repress the vice of gin-drinking, but to root it out altogether. To accomplish this, a duty of *twenty shillings* per gallon was laid on spirits, exclusive of a heavy license duty on retailers. Extraordinary encouragements were at the same time held out to informers, and a fine of 100*l.* was ordered to be rigorously exacted from those who, were it even through inadvertency, should vend the smallest quantity of spirits which had not paid the full duty. Here was an Act which might, one should think, have satisfied the bitterest enemy of gin. But instead of the anticipated effects, it produced those directly opposite. The respectable dealers withdrew from a trade proscribed by the Legislature; so that the spirit business fell almost entirely into the hands of the lowest and most profligate characters, who, as they had nothing to lose, were not deterred by penalties from breaking through all its provisions. The populace having in this, as in all similar cases, espoused the cause of the smugglers and unlicensed dealers, the officers of the revenue were openly assaulted in the streets of London and other great towns; informers were hunted down like wild beasts; and drunkenness, disorders, and crimes increased with a frightful rapidity. 'Within two years of the passing of the Act,' says Tindal, 'it had become *odious and contemptible*, and policy as well as humanity forced the Commissioners of Excise to mitigate its penalties.' (*Continuation of Rapin*, vol. viii. p. 358, ed. 1759.) The same historian mentions (vol. viii. p. 390), that during the two years in question no fewer than 12,000 persons were convicted of offences connected with the sale of spirits. But no exertion on the part of the revenue officers and magistrates could stem the torrent of smuggling. According to a statement made by the Earl of Cholmondeley in the House of Lords (Timberland's *Debates in the House of Lords*, vol. viii. p. 388), it appears that at the very time when the sale of spirits was declared to be illegal, and every possible exertion made to suppress it, upwards of SEVEN MILLIONS of gallons were annually consumed in London and other parts immediately adjacent. Under such circumstances Government had but one course to follow—to give up the unequal struggle. In 1742 the high prohibitory duties were accordingly repealed, and such moderate duties imposed as were calculated to increase the revenue by increasing the consumption of legally distilled spirits. The bill for this purpose was vehemently opposed in the House of Lords by most of the bishops, and many other peers, who exhausted all their rhetoric in depicting the mischievous consequences that would result from a toleration of the practice of gin-drinking. To these declamations it was unanswerably replied, that whatever the evils of the practice might be, it was impossible to repress them by prohibitory enactments; and that the attempts to do so had been productive of far more mischief than had ever resulted, or could be expected to result, from the greatest abuse of spirits. The consequences of the change were highly beneficial. An instant stop was put to smuggling; and if the vice of drunkenness was not materially diminished, it has never been stated that it was increased.

But it is unnecessary to go back to the reign of George II. for proofs of the impotency of high duties to take away the taste for such an article, or to lessen its consumption. The occurrences that took place in later reigns, though they would seem to be already forgotten, are equally decisive as to this question.

Duties in Ireland.—Perhaps no country has suffered more from the excessive height to which duties on spirits have been carried than Ireland. If heavy taxes, enforced by severe fiscal regulations, could make a people sober and industrious, the Irish would be the most so of any on the face of the earth. In order to make the possessors of property join heartily in suppressing illicit distillation, the novel expedient was here resorted to, of imposing a heavy fine on every parish, town land, manor land, or lordship in which an unlicensed still was found; while the unfortunate wretches found working it were subjected to

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transportation for seven years. But instead of putting down illicit distillation, these unheard-of severities rendered it universal, and filled the country with bloodshed, and even rebellion. It is stated by the Rev. Mr. Chichester, in his valuable pamphlet on the *Irish Distillery Laws*, published in 1818, that 'the Irish system seemed to have been formed in order to perpetuate smuggling and anarchy. It has culled the evils of both savage and civilised life, and rejected all the advantages which they contain. The calamities of civilised warfare are, in general, inferior to those produced by the Irish distillery laws; and I doubt whether any nation of modern Europe, which is not in a state of actual revolution, can furnish instances of legal cruelty commensurate to those which I have represented.' (Pp. 92—107.)

These statements are borne out to the fullest extent by the official details in the *Reports of the Revenue Commissioners.* In 1811, say the Commissioners (*Fifth Report*, p. 19), when the duty on spirits was 2*s.* 6*d.* per gallon, duty was paid in Ireland on 6,500,361 gallons (Irish measure); whereas, in 1822, when the duty was 5*s.* 6*d.*, only 2,910,483 gallons were brought to the charge. The Commissioners estimate that the annual consumption of spirits in Ireland was at this very period not less than TEN MILLIONS of gallons; and, as scarcely *three* millions paid duty, it followed that *seven* millions were illegally supplied; and 'taking *one* million of gallons as the quantity fraudulently furnished for consumption by the licensed distillers, the produce of the unlicensed stills may be estimated at *six millions of gallons.*' (*Ib.* p. 8.) Now, it is material to keep in mind that this vast amount of smuggling was carried on in the teeth of the above barbarous statutes, and in despite of the utmost exertions of the police and military to prevent it; the only result being the exasperation of the populace, and the perpetration of revolting atrocities both by them and the military. 'In Ireland,' say the Commissioners, 'it will appear, from the evidence annexed to this report, that parts of the country have been absolutely disorganised, and placed in opposition not only to the civil authority, but to the military force of the Government. The profits to be obtained from the evasion of the law have been such as to encourage numerous individuals to persevere in these desperate pursuits, notwithstanding the risk of property and life with which they have been attended.'

To put an end to such evils, the Commissioners recommended that the duty on spirits should be reduced from 5*s.* 6*d.* to 2*s.* the wine gallon (2*s.* 4*d.* the imperial gallon), and Government wisely consented to act upon this recommendation. In 1823 the duties were accordingly reduced; and the official account given on p. 1318 will show what has been the result of this measure.

It may appear, on a superficial view of this table, as if the consumption of spirits in Ireland had been nearly trebled in consequence of the reduction of the duty in 1823; but in point of fact it was not in any degree increased. The reduction of the duties substituted legal for illicit distillation, and freed the country from the perjuries and other atrocities that grew out of the previous system; but it would be wholly erroneous to say that it increased drunkenness. We have already seen that the Commissioners, who had the best means of obtaining accurate information, estimated the consumption of spirits in Ireland, in 1823, at TEN millions of gallons; and when greatest, in 1838, 15 years after, the consumption was only 12,296,342 gallons. No doubt, therefore, the measure deserves to be considered as having been in every point of view most successful. It will be seen that the increase of duty from 2*s.* 10*d.* to 3*s.* 4*d.* in 1830 perceptibly diminished the quantity of spirits brought to the charge; and as it was found to give a considerable stimulus to illicit distillation, which had previously been nearly extinct, the duty was reduced to 2*s.* 4*d.* in 1835. The extraordinary decrease in the consumption of spirits after 1839, though in some degree, perhaps, ascribable to the addition of 4*d.* per gallon made to the duty in 1840, was no doubt principally owing to the exertions of Father Mathew, and the spread of temperance societies; and notwithstanding the loss of revenue it occasioned, the change was certainly of great public advantage: provided it had been maintained, it is not easy to suppose that anything could have occurred better fitted to improve the physical and moral condition of the people. The addition of 1*s.* per gallon made to the duty in 1842 was repealed in 1844; for while it gave a stimulus to clandestine distillation, it was pretty obvious it would not have added anything to the revenue, or given any additional impetus to the temperance movement. The apparent effect of the additions to the duty in 1858 and 1860 on the consumption in Ireland was a fall from 6,783,207 gallons in the year ended March 31, 1858, to 5,418,409 gallons in the following official year, and a further fall from 5,950,241 gallons in the year ended March 31, 1860, to 4,191,560 gallons in the succeeding year.

Duties in Scotland.—The experience of Scotland is hardly decisive as to this question. The exorbitancy of the duties produced nearly the same effects there as in Ireland. Mr. John Hay Forbes, sheriff-depute of Perthshire, and afterwards a lord of session, stated in evidence before the Commissioners, that, according to the best information he could obtain, the quantity of illegally distilled spirits annually produced in the Highlands could not amount to less than TWO *millions of gallons.* In corroboration of this, he stated that, in 1821, only 298,138 gallons were brought to the charge in the Highlands; and of these, 254,000 gallons were permitted to the Lowlands, leaving only 44,000 gallons for the consumption of the whole country—a supply which, we are well assured, would hardly be sufficient for the demand of two moderately populous parishes. In a letter of Captain Munro of Teaninich to the Commissioners, it is stated that, 'at Tain, where there are upwards of 23 licensed public houses, *not one gallon had been permitted from the legal distilleries for upwards of twelve months,*' though a small quantity of smuggled whisky had been purchased at the excise sales, to give a colour of legality to the trade. The same gentleman thus expresses himself in another part of his letter:—'The moral effect of this baneful trade of smuggling on the lower classes is most conspicuous, and increasing in an alarming degree, as evidenced by the multiplicity of crimes, and by a degree of insubordination formerly little known in this part of the country. In several districts, such as Strathconan, Strathcarron &c., the excise officers are now often deforced, and dare not attempt to do their duty; and smuggled whisky is often carried to market by smugglers escorted by armed men, in defiance of the laws. In short, the Irish system is making progress in the Highlands of Scotland.'

To arrest the progress of demoralisation, Government, pursuant to the judicious advice of the Commissioners, reduced the duties on Scotch to the same level as those on Irish whisky; and the consequences were equally salutary. The prefixed statement sets the influence of the reduction of the duty in 1823 in the most striking point

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of view, the consumption of duty-paid spirits having more than doubled in the course of 2 years, at the same time that illicit distillation was all but suppressed. But we much doubt whether the existing duties (1869) be not a great deal too high. They are now, it is true, more easily collected than formerly, and spirit drinking is, no doubt, much too prevalent in Scotland; but the latter will not be lessened by any increase of duty that gives a stimulus to smuggling.

Duties in England.—Previously to the reduction of the duty on Irish and Scotch spirits, the duty on English spirits had been as high as 11*s.* 8*d.* per gallon. This high duty, and the restrictions under which the trade was placed, were productive of the worst effects. They went far to enable the distillers to fix the price of spirits, 'and consequently' (we quote the words of the Commissioners of Excise Inquiry) 'to raise it much beyond that which was sufficient to repay, with a profit,

I.—*An Account of the Quantities of Home-made Spirits charged with Consumption Duties, and specifying the Rates of Duty in each Division of the Empire since* 1800, *with the Total Amount of the Duty.*

Years	England		Scotland		Ireland		United Kingdom	
	Imperial Gallons charged with Consumption Duty	Rate of Duty	Imperial Gallons charged with Consumption Duty	Rate of Duty	Imperial Gallons charged with Consumption Duty	Rate of Duty	Total Gallons	Total Amount of Duty
				Lowlands, per gallon of still content				
		s. d.		*£ s. d.*		*s. d.*		*£*
1801	4,552,888	4-10$\frac{18}{19}$ 5-4$\frac{6}{19}$	1,277,566	6 16 4	1,330,500	2-4$\frac{1}{2}$	6,960,984	1,370,051
1802	2,555,920	5-4$\frac{6}{19}$	295,931	"	355,106	"	3,206,957	723,992
				per gal. of spirits				
1803	3,981,072	"	1,158,558	5-10$\frac{50}{105}$	4,715,098	2-10$\frac{1}{2}$	9,854,728	1,956,313
1804	5,570,577	5-4$\frac{6}{19}$ 8-0$\frac{1}{19}$	2,042,409	"	4,343,095	2-10$\frac{1}{2}$ 3-6$\frac{1}{2}$	11,735,581	2,508,256
1805	5,699,745	8-0$\frac{1}{19}$	1,889,757	5-9$\frac{27}{105}$	3,543,599	3-6$\frac{1}{2}$ 4-1	9,124,101	2,078,413
1806	4,752,649	"	1,625,987	" "	3,686,233	4-1	10,244,865	3,122,820
1807	4,091,685	"	1,813,237	" "	3,856,107	"	9,765,329	2,817,052
1808	4,747,365	"	2,653,478	5-8$\frac{157}{105}$ 5-9$\frac{6}{23}$ 4-11$\frac{15}{23}$	5,497,291	"	12,998,047	3,863,055
1809	5,709,884	"	2,683,542	" 4-11$\frac{18}{23}$	5,575,430	"	11,649,556	3,365,442
1810	4,035,825	"	1,315,435	" "	1,360,586	"	6,711,346	1,873,147
1811	4,787,555	"	1,748,140	" "	4,728,337	4-1 2-6$\frac{1}{2}$	11,264,277	2,843,404
1811	4,776,330	8-0$\frac{1}{10}$ 10-2$\frac{7}{19}$	1,951,092	5-8$\frac{157}{105}$ 8-0$\frac{10}{45}$ 4-11$\frac{18}{23}$ 6-7$\frac{1}{2}$	6,378,479	2-6$\frac{1}{2}$	13,105,901	2,969,136
1812	5,243,470	10-2$\frac{7}{19}$	1,687,995	8-0$\frac{1}{45}$ 6-7$\frac{1}{2}$	4,009,301	2-6$\frac{1}{2}$ 5-1$\frac{1}{2}$	10,939,676	4,176,977
1813	4,292,477	"	1,234,291	" "	3,158,693	5-1$\frac{1}{2}$ 5-7$\frac{1}{2}$	8,685,461	3,029,546
1814	4,956,665	"	1,674,187	" "	5,383,713	5-7$\frac{1}{2}$	11,824,965	4,227,011
				Lowlands and Highlands				
1815	5,468,987	"	1,591,148	9-4$\frac{1}{2}$	4,323,544	5-7$\frac{1}{2}$ 6-1$\frac{1}{2}$	11,383,979	4,897,006
1816	4,745,484	"	918,869	"	3,557,290	6-1$\frac{1}{2}$ 5-7$\frac{1}{2}$	9,221,543	3,911,981
1817	4,153,953	"	1,936,950	6-2	3,586,032	5-7$\frac{1}{2}$	9,676,945	3,757,766
1818	5,279,692	"	2,066,998	"	4,284,347	"	11,610,997	4,496,709
1819	4,146,505	10-2$\frac{7}{19}$ 11-8$\frac{10}{19}$	2,125,150	"	3,676,316	"	9,948,171	3,913,705
1820	4,294,798	11-8$\frac{10}{19}$	1,863,987	"	3,799,680	"	9,488,435	4,012,707
1821	4,125,616	"	2,385,495	"	3,311,162	"	9,822,573	4,085,673
1822	4,094,055	"	2,225,124	"	3,910,483	"	9,829,662	4,252,010
1823	5,503,312	"	2,503,286	6-2 2-4$\frac{5}{23}$	5,990,376	5-7$\frac{1}{2}$ 2-4$\frac{5}{23}$	9,696,974	3,407,449
1824	4,592,611	"	4,760,301	2-4$\frac{5}{23}$	6,690,315	2-4$\frac{5}{23}$	15,433,227	3,895,285
1825	3,681,049	"	5,981,549	"	9,282,744	"	18,925,342	3,884,830
1826	7,402,201	7-0	3,098,788	2-10	6,854,867	2-10	18,350,459	4,175,508
1827	6,671,362	"	4,758,199	"	8,260,604	"	19,684,425	4,171,800
1828	7,759,687	"	5,716,180	"	9,937,965	"	23,413,270	4,933,852
1829	7,705,766	"	5,777,280	"	9,219,224	"	22,690,270	4,818,781
1830	7,538,101	7-0 7-6	6,807,631	2-10 3-0 3-4	9,901,539	2-10 3-0 3-4	22,741,271	5,209,590
1831	7,434,017	7-6	5,700,089	3-4	8,710,672	3-4	21,845,008	5,149,661
1832	7,281,960	"	5,407,297	"	8,697,256	"	21,386,713	5,074,854
1833	7,217,253	"	5,588,546	"	8,168,596	"	21,374,455	5,213,813
1834	7,614,301	"	6,043,043	"	9,708,116	3-4 3-4	23,397,780	5,524,450
1835	7,315,653	"	6,013,932	"	11,381,223	3-4	24,710,808	5,973,276
1836	7,875,702	"	6,629,826	"	12,948,772	"	26,745,300	6,465,882
1837	7,133,869	"	6,174,035	"	11,225,635	"	24,493,539	5,930,697
1838	7,950,190	"	9,253,711	"	12,296,543	"	26,486,445	6,451,792
1839	8,186,562	"	6,188,382	"	10,815,709	"	25,190,843	6,563,201
1840	8,878,148	7-6 7-10	6,180,138	3-4 3-8	7,601,051	2-4 2-8	21,659,337	5,209,760
1841	9,166,985	7-10	5,989,905	3-8	6,485,443	2-8	20,642,333	5,161,610
1842	7,980,054	"	5,963,186	"	5,200,650	2-8 3-8	18,941,890	5,046,813
1843	7,794,051	"	5,593,798	"	5,446,185	3-8 2-8	18,834,034	4,903,201
1844	8,234,440	"	5,973,948	"	4,861,157	2-8	19,069,545	5,171,481
1845	9,076,281	"	6,441,031	"	5,599,196	"	21,116,508	5,749,794
1846	9,179,550	"	6,977,091	"	7,959,026	"	24,116,667	6,709,359
1847	8,404,165	"	6,193,749	"	6,057,583	"	20,655,797	5,931,993
1848	8,581,727	"	6,418,180	"	7,077,933	"	22,077,840	5,504,575
1849	9,035,676	"	6,955,095	"	6,977,553	"	22,968,324	5,747,218
1850	9,331,304	"	7,129,887	"	6,468,086	"	23,929,283	5,918,167
1851	9,504,568	"	6,870,710	"	7,550,518	"	23,925,296	6,031,215
1852	7,822,038	"	7,174,016	"	8,608,856	"	23,604,879	6,208,508
1853	10,510,307	"	6,534,448	3-8 4-8	8,136,362	2-8 3-4	25,021,117	6,700,422
1854	10,869,611	"	6,555,259	4-8 5-8 6-0	8,440,734	3-4 4-0	25,865,584	7,660,774
1855	10,581,103	7-10 8-0	5,343,319	6-0 7-10 8-0	6,278,655	4-0 6-2	21,997,275	7,017,560
1856	9,343,549	8-0	7,175,950	8-0	6,781,068	6-2	23,300,566	8,009,624
1857	10,166,955	"	7,959,899	"	6,704,046	"	24,130,935	9,007,835
1858	10,958,461	"	6,781,879	"	6,446,149	6-2 8-0	23,216,612	9,005,598
1859	9,876,518	"	5,404,173	"	5,748,534	8-0	21,139,926	8,491,610
1860	8,864,385	8-0 8-1 10-0	4,760,705	8-0 8-1 10-0	4,714,358	8-0 8-1 10-0	17,338,448	9,001,256
1861	10,844,605	10-0	5,149,998	10-0	4,286,598	10-0	20,281,201	9,717,100
1862	10,448,892	"	4,160,271	"	3,997,974	"	18,606,137	9,118,953
1863	10,561,995	"	4,005,550	"	3,849,837	"	19,119,092	9,060,046
1864	11,208,121	"	5,014,121	"	4,030,119	"	20,252,432	10,101,246
1865	11,2 8,193	"	5,198,987	"	4,374,445	"	20,811,155	10,301,577
1866	11,715,311	"	5,402,165	"	5,036,814	"	22,216,330	11,008,193
1867	11,349,713	"	4,985,270	"	4,892,654	"	21,199,376	10,509,688

1859-66 years ended March 31.

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II.—*An Account of the Foreign, Colonial, and Channel Island Spirits Imported into, Exported from, and Retained for Home Consumption in the United Kingdom &c. in the Year ending December* 31, 1867.

Spirits	Quantities imported	Quantities retained for Home Consumption	Quantities exported as Merchandise	Quantities shipped as Stores	Quantities delivered for the Use of the Navy	Quantities remaining in Bond, in United Kingdom Dec. 31, 1867
	proof gals.	proof gals.	proof gals.	proof gals.	proof gals.	proof gals.
Rum: Of British possessions, and mixed in bond	6,055,301	4,255,069	..	..	..	..
Foreign	792,292	57,089	..	..	..	..
Brandy	4,849,832	3,186,524	365,316	76,551	3,288	7,452,563
Geneva	219,226	128,435	..	21,810	95	128,792
Other foreign and colonial spirits	1,122,781	714,391	65,398	161,210	316,222	6,819,676
All sorts	6,845,503	4,516,098	5,036,198	..	..	..
Total	19,867,342	8,545,156	5,466,912	259,574	319,605	14,401,031

the cost of the manufacture and the duty advanced to the Crown.' And, in proof of this, the Commissioners mention, that in November 1823, 'when corn spirits might be purchased in Scotland for about 2*s.* 3*d.* per gallon, raw spirits could not be purchased in England for less than 4*s.* 6*d.* ready money, and 4*s.* 9*d.* credit, omitting, in both cases, the duty.' In consequence of this state of things the adulteration of spirits was carried on to a great extent in England; and the large profits made by the smuggler occasioned clandestine importation in considerable quantities from Scotland and Ireland. To obviate these inconveniences, and at the same time to neutralise the powerful additional stimulus that the reduction of the duties in Scotland and Ireland would have given to smuggling, had the duties in England been continued at their former amount, the latter were reduced, in 1826, to 7*s.* per gallon, facilities being at the same time given to the importation of spirits from the other parts of the empire. Many complaints have been made of the influence of this measure in increasing drunkenness, but nothing can be imagined more completely destitute of foundation. The Commissioners estimated the consumption of British spirits in England and Wales, in 1823, at 5,000,000 gallons (*Supp. to Fifth Report*, p. 8); and it appears from the prefixed account that it amounted, for the year ending January 5, 1844, to 7,724,051 gallons, producing 3,025,245*l.* of revenue; so that, making allowance for the increase of population since 1823, and for the check given to adulteration and smuggling, and considering, also, that the consumption of foreign spirits was not greater in 1843 than in 1823, it may be safely affirmed that the practice of spirit-drinking had not increased in England during the 20 years ending with 1844; nor has it increased in the 10 years ending with 1867. No doubt, however, it is still a great deal too prevalent, and large sums of money are wasted by the poor on gin which had far better be expended on other things. But how much soever we may deplore the prevalence of gin-drinking, we may be assured that the evil is not one that can be cured, or even mitigated, by increasing the existing duties on spirits. Such increase would substitute illegitimate for legitimate channels of supply; it would injure the public revenue, and diffuse among the populace the idle, disorderly, and predatory habits that mark the character of the smuggler; and it would do all this without lessening in any degree the vice of drunkenness.

Spirit Drinking in Scotland.—The extraordinary prevalence of spirit drinking in Scotland, and the many abuses to which it gives rise, have occasioned a great deal of discussion, and led to sundry efforts for its diminution. But, speaking generally, we doubt whether these have been bottomed on sound principles. They all, or mostly all, have too much of a puritanical spirit about them; and expect to bring that reformation about by dint of police regulations, that would be more likely to be introduced and promoted by a less officious system.

An Act was passed in 1853, the 16 & 17 Vict. c. 67 (applicable to Scotland only), which, among other things, gave the justices of the peace increased power over the licensing of public houses, and added considerably to the duties on licenses. Much discussion has taken place with respect to the real influence of this very questionable measure, and there would seem to be no little exaggeration in the statements both of its opponents and defenders. It has certainly reduced, though in a very arbitrary manner, the number of licensed taverns; and if the facilities for getting whisky or aught else be diminished, the chances are ten to one that its consumption will also be diminished. But it is alleged that the diminution in the number of public houses in Scotland is not real, but apparent only; and that while some have been legally shut up, an equal number have been surreptitiously opened, and that the latter are at the same time of a comparatively worthless description. And the convictions that have taken place of parties for selling spirits without licenses show that this statement has some foundation, and that in endeavouring to put down one form of abuse, we may introduce another and a much more dangerous one in its stead.

The better, as well as the more constitutional plan, would be to make an end of the system of interference. Why should not A, or B, or C be entitled to open a house for the sale of spirituous liquors, and be permitted to keep it open so long as he pays the license duty, and conducts his establishment in an orderly and proper manner? To weaken the taste for liquor, let all sorts of cheap, interesting, and innocent amusements be open to the public. To prohibit the sale of spirits on Sundays, and at the same time to shut up museums, parks, and public places, and to prevent as far as possible (as is done at Glasgow) all travelling by sea or land, is a contradictory as well as an oppressive policy; and wherever it is carried to the greatest extent, there the population is the most brutalised and debased.

It is not easy, since the equalisation of the duties, to obtain any accurate information in regard to the consumption of spirits in any one of the great divisions of the empire. But though great in Scotland, it is not so very great as is commonly supposed. Spirits may be sent from one part of the United Kingdom to another under bond, under permit, or under certificate from the dealer's stock. In the first case the duty is not paid till the spirits are taken for consumption; whereas in the last two cases it is paid before the spirits are removed. And hence, unless we knew the quantity of spirits removed from and brought into Scotland under permits and certificates, the

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fact of so many gallons having been charged in it with the consumption duty, would not enable us to specify what the consumption really amounted to. Thus, in 1858, duty was paid in Scotland on 6,836,037 gallons; but the Commissioners of Inland Revenue, after making the previously mentioned allowances, estimated the consumption at only 5,301,000 gallons, this amount being, of course, exclusive of foreign spirits, and of all such British spirits as might have been illegally brought into consumption.

Equalisation of the Duties on Spirits.—It would require very cogent reasons to vindicate the policy of imposing different duties on the same article in the different divisions of the United Kingdom. And it was supposed that in the case of the duties on spirits, the greater facilities for illegal distillation in Scotland and Ireland afforded a valid plea for the duties being less in them than in England. Though this may have been the case formerly, the more perfect civilisation of both countries has doubtless tended, in this respect, to assimilate them more and more to England. And there cannot, as we think, be a doubt of the expediency of the recent equalisation of the duties. But it does not, therefore, follow that 8*s.* or 10*s.* per gallon is a proper sum at which to fix the general duty. We apprehend that either will be found to be too high, and that while a lower duty would yield as large, or perhaps a larger revenue, it would do this without stimulating drunkenness, by checking smuggling and adulteration.

Trade in Spirits.—The old law, 6 Geo. IV. c. 80, as to rectifying, dealing in, and retailing spirits has been repealed, and the Spirits Act (23 & 24 Vict. c. 114) already referred to contains the present regulations for the guidance of those connected with these branches of the business.

For the regulations as to the importation &c. of foreign spirits, and duties thereon, see Brandy, Geneva, and Rum.

SPONGE (Ger. schwamm; Fr. éponge; Ital. spugna; Span. esponja). A soft, light, very porous, and compressible substance, readily imbibing water, and as readily giving it out again.

It is found adhering to rocks, particularly in the Mediterranean Sea, about the islands of the Archipelago. It was formerly supposed to be a vegetable production, but is now classed among the zoöphytes; and analysed, it yields the same principles as animal substances in general. The inhabitants in several of the Greek islands have been trained from their infancy to dive for sponges. They adhere firmly to the bottom, and are not detached without a good deal of trouble. The extraordinary clearness of the water facilitates the operations of the divers. Smyrna is the great market for sponge. The price varies from 6 to 16 piastres per oke for ordinary and dirty, and from 80 to 100 piastres per oke for fine and picked specimens. Sponge is also fished for in the Red Sea. (Ure's *Dictionary*; Savary's *Letters on Greece*, Eng. ed. p. 109; and *private communications*.)

About 20 miles S.E. from Napoli di Romania (Nauplia), in the gulf of that name, is the small town of Cranidi, the inhabitants of which are the principal sponge-fishers of the Archipelago and Levant. The fishery is carried on partly by spearing, and partly by diving: the latter securing the sponge free from injury, which is not the case with the former. The Cranidiots are most expert divers, and anecdotes approaching to the marvellous are told of their feats. After the sponge is fished up, when perfectly free from sand, and dry, it is so very light that large pieces of it are moved with the slightest breath of air. It is customary, however, to impregnate it with sand. This is done by stringing the sponges together, and laying them on the sand to allow the ripple of the sea to slush them with the finest particles. They are then placed in heaps under piles of stones which press them closely together, so that they become, when dry, hard and flat, and have to be beaten and sifted. But though this be done, and though they are sometimes further washed and sifted, they will, though apparently quite clean, weigh three or four times their original weight. It is, perhaps, needless to add that they are always sold by weight.

Sponge is used in surgery, and for a variety of purposes in the arts. It was formerly charged with a duty of 6*d.* per lb., which was repealed in 1845. In 1867, our imports and exports of sponge were respectively 980,259 lb. and 149,968 lb., valued at 86,201*l.* and 15,154*l.*

SQUILL (Ger. meerzwiebel; Fr. scille, oignon marin; Ital. scilla, cipolla marina; Span. cebolla albarrana), or, as it is sometimes denominated, the *Sea onion*, is a plant with a large pear-shaped, bulbous root, which is the only part that is used.

It grows spontaneously on sandy shores in Spain and the Levant; whence we are annually supplied with the roots. They should be chosen large, plump, fresh, and full of a clammy juice; some are of a brownish-red colour, and others white; but no difference is observed in the qualities of the two sorts. The root is very nauseous, intensely bitter, and acrid; much handled, it ulcerates the skin. The bulbs are brought to England preserved fresh in sand. The acrimony of the roots, on which their virtue depends, is partially destroyed by drying and long keeping, but if exposed readily recovers moisture. Squill is one of the most powerful and useful remedies in the materia medica. (*British Pharmacopœia*, 1867; Lewis's *Mat. Med.*; Thomson's *Dispensatory*.)

STADE. A small city of Hanover, on the Schwinge, 22 miles W. by N. of Hamburg, lat. 53° 36′ 32″ N., long. 9° 28′ 34″ E. Pop. (1864) 8,424. It has very little trade, and would be quite unworthy of notice in a work of this sort, except for the circumstance that a toll or duty, charged by the Government of Hanover (before it fell into the hands of Prussia), on goods conveyed up the Elbe to Hamburg, whether for consumption or transit, used to be charged at the castle of Brunshausen contiguous to this town.

All vessels bound for Hamburg had to heave to (and those of some countries to anchor) in passing the guard-ship opposite to the castle, and send their papers, including manifests, bills of lading, cockets &c., on shore, that the duty, which was in general about ½ per cent. ad valorem, might be computed from them. This being done, the ship was allowed to proceed, and the duty was paid at Hamburg.

On former occasions we expressed our surprise that an obstruction of this sort should have been tolerated for so long a period. The duties fell heavily on certain descriptions of goods; and were, at an average, decidedly higher than the duties charged in Hamburg. They were most objectionable, however, from their requiring many troublesome regulations to be complied with; the unintentional deviation from any one of which exposed the cargo to confiscation, and never failed to occasion a great deal of delay, trouble, and expense. As the principal part of the foreign trade of the Elbe was in our hands, we were, of course, principally affected by the Stade toll; and considering the source of the nuisance, it was not a little astonishing it should not have been abated long ago. The

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sum which the Hanoverian Government derived from the duties was but trifling compared with the injury they inflicted on our trade; and we suggested that the British Government should buy an exemption from so vexatious a duty; as few things would do more to extend our trade with Hamburg than the completion of an arrangement of this sort.

By an agreement effected with Hanover in 1844, the duties were reduced and placed on an improved footing; and British vessels, with those belonging to countries having reciprocity treaties with Hanover, were no longer obliged to *heave to* in passing the guard-ship at Brunshausen, but might proceed direct to Hamburg, and pay the duties in the toll-office in that city. Still, however, this arrangement was merely an improvement of what was in its nature incurably bad. This toll on the Elbe was an outrage on all commercial nations; and the precedent set by the abolition of the Sound dues was followed, and the different countries which trade with Hamburg, by a self-imposed contribution in proportion to the number of their ships engaged in the trade, at length bought it up.

But it is not enough that the Stade duties have been abolished. All the duties imposed on the traffic carried on by the Elbe above Hamburg ought, also, to be suppressed. This great highway should be open to the free use of those who may be inclined to avail themselves of the facilities which it affords for the importation and exportation of products into and from the centre of Europe. It is quite monstrous that it should be in the power of the governments of petty states to shut up or encumber one of the principal channels of the trade of this quarter of the world. (For full details with respect to the Stade duty, see the *Report* of the Committee of the House of Commons on the subject, Paper No. 429, Sept. 1858. Mr. Consul Ward in his last *Report* holds out a hope of speedy abolition of the tolls in the Upper Elbe.)

STARCH (Ger. amidan; Fr. amidon; Ital. amodi, amito; Span. amidon, almidon; Russ. kruchmal). A substance obtained from vegetables. It has a fine white colour, and is usually concreted in longish masses: it has scarcely any smell, and very little taste. When kept dry, it continues for a long time uninjured, though exposed to the air. It is insoluble in cold water; but combines with boiling water—forming with it a kind of jelly. It exists chiefly in the white and brittle parts of vegetables, particularly in tuberose roots, and the seeds of the gramineous plants. It may be extracted by pounding these parts, and agitating them in cold water; when the *parenchyma* or fibrous parts will first subside; and these being removed, a fine white powder diffused through the water will gradually subside, which is the starch. Or the pounded or grated substance, as the roots of potatoes, acorns, or horse chestnuts, for instance, may be put into a hair sieve, and the starch washed through the cold water, leaving the grosser matter behind. Farinaceous seeds may be ground and treated in a similar manner. Oily seeds require to have the oil expressed from them before the farina is extracted. Potato starch goes a good deal further than wheat starch—a less quantity of it sufficing to form a paste of equal thickness with water. It has a very perceptible crystallised appearance, and is apparently heavier than common starch. (Thomson's *Chemistry*; Ure's *Dictionary*.)

Starch was charged, down to 1834, with an excise duty of 3½*d.* per lb.; but the injurious influence of the duty, the nett produce of which did not exceed 85,000*l.*, having been forcibly pointed out by the Commissioners of Revenue Inquiry, it was repealed in the course of the above year. In 1833, duty was paid on 8,070,026 lb. starch. The manufacture has since, however, been greatly extended. In 1867 we exported 14,965 cwt. of starch, valued at 13,468*l.*

STATIONERY. A term which is not very well defined; but which is now commonly understood to designate the pens, ink, paper, wax, wafers, and other materials necessary to the writing of letters, including pen-knives, erasers &c. Formerly the term had a wider signification, stationer and bookseller being held to be synonymous. (Johnson, voce 'Stationer.') And hence it is that the Stationers' Company formerly comprised, and continues to comprise, all the more eminent booksellers and publishers of the metropolis. The name has no doubt been derived from the *stationes* (stations) that were assigned in the forum at Rome to the vendors of books, which were classed among the *mercium vilissimarum*. (Ducange, vi. 715, voce 'Stationarii.')

Besides the vast quantities of stationery consumed at home, the value of our exports amounted, in 1867, to 943,602*l.*, while our imports, chiefly of paper, were valued at 564,486*l.* [PAPER; &c.]

The stationery for the British Government is supplied by a peculiar department called the 'Stationery Office,' which has, also, the charge of the public printing.

STEAM VESSELS (REGULATION OF). Subjoined are those parts of the Merchant Shipping Act of 1854 (17 & 18 Vict. c. 104) and the Merchant Shipping Act Amendment Act of 1862 (25 & 26 Vict. c. 63) which refer more especially to the regulation of steam navigation, and the lights &c. to be carried by sea-going vessels.

Board of Trade may appoint Inspectors.—The Board of Trade may from time to time, whenever it seems expedient to them so to do, appoint any person, as an inspector, to report to them upon the following matters (that is to say):—

(1) Upon the nature and causes of any accident or damage which any ship has sustained or caused, or is alleged to have sustained or caused:

(2) Whether the provisions of this Act, or any regulations made under or by virtue of this Act, have been complied with:

(3) Whether the hull and machinery of any steam ship are sufficient and in good condition. (Sec. 14.)

Powers of Inspectors.—Every such inspector as aforesaid shall have the following powers (that is to say):—

(1) He may go on board any ship, and may inspect the same or any part thereof, or any of the machinery, boats, equipments, or articles on board thereof to which the provisions of this Act apply, not unnecessarily detaining or delaying her from proceeding on any voyage:

(2) He may enter and inspect any premises the entry or inspection of which appears to him to be requisite for the purpose of the report which he is directed to make:

(3) He may, by summons under his hand, require the attendance of all such persons as he thinks fit to call before him and examine for such purpose, and may require answers or returns to any enquiries he thinks fit to make:

(4) He may require and enforce the production of all books, papers, or documents which he considers important for such purpose:

(5) He may administer oaths, or may, in lieu of requiring or administering an oath, require every person examined by him to make and subscribe a declaration of the truth of the statements made by him in his examination. (Sec. 15.)

The Board of Trade have issued a Book of

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Instructions to their surveyors of steam vessels under the Merchant Shipping Act of 1854, par. 4. See also Regulations as to Passenger Ships. [PASSENGERS.]

Allowance for Engine Room in Steamers.—In every ship propelled by steam or other power requiring engine room, an allowance shall be made for the space occupied by the propelling power, and the amount so allowed shall be deducted from the gross tonnage of the ship ascertained as aforesaid, and the remainder shall be deemed to be the register tonnage of such ship; and such deduction shall be estimated as follows (that is to say):—

(*a*) *To be rateable in ordinary Steamers.*—As regards ships propelled by paddle-wheels in which the tonnage of the space solely occupied by and necessary for the proper working of the boilers and machinery is above 20 per cent. and under 30 per cent. of the gross tonnage of the ship, such deduction shall be $\frac{37}{100}$ of such gross tonnage; and in ships propelled by screws in which the tonnage of such space is above 13 per cent. and under 20 per cent. of such gross tonnage, such deduction shall be $\frac{32}{100}$ of such gross tonnage:

(2) *In case of separate Compartments.*—If in any ship in which the space aforesaid is to be measured the engines and boilers are fitted in separate compartments, the contents of each shall be measured severally in like manner, according to the above rules, and the sum of their several results shall be deemed to be the tonnage of the said space:

(3) *Shaft Trunk of Screw Steamer.*—In the case of screw steamers in which the space aforesaid is to be measured, the contents of the shaft trunk shall be added to and deemed to form part of such space, and shall be ascertained by multiplying together the mean length, breadth, and depth of the trunk, and dividing the product by 100:

(4) *Alteration of Engine Room.*—If in any ship in which the space aforesaid is to be measured any alteration be made in the length or capacity of such space, or if any cabins be fitted in such space, such ship shall be deemed to be a ship not registered until remeasurement:

(5) *Penalty for carrying Goods in such Space.*—If in any ship in which the space aforesaid is to be measured any goods or stores are carried in such space, the master and owner shall each be liable to a penalty not exceeding 100*l.* (Sec. 23.)

Power to remeasure Engine Rooms improperly extended.—If it appears to the Commissioners of Customs that in any steam ship measured before this Act comes into operation store rooms or coal bunkers have been introduced into or thrown across the engine room, so that the deduction from the tonnage on account of the engine room is larger than it ought to be, the said Commissioners may, if they think fit, direct such engine room to be remeasured according to the rules in force before this Act comes into operation, excluding the space occupied by such store rooms or coal bunkers, or may, if the owners so desire, cause the ship to be remeasured according to the rules hereinbefore contained, and subject to the conditions contained in the last preceding section; and after remeasurement, the said Commissioners shall cause the ship to be registered anew, or the registry thereof to be altered, as the case may require. (Sec. 28.)

Officers may be appointed and Regulations made for Measurement of Ships.—The Commissioners of Customs may, with the sanction of the Treasury, appoint such persons to superintend the survey and admeasurement of ships as they think fit; and may, with the approval of the Board of Trade, make such regulations for that purpose as may be necessary; and also, with the like approval, make such modifications and alterations as from time to time become necessary in the tonnage rules hereby prescribed, in order to the more accurate and uniform application thereof, and the effectual carrying out of the principle of admeasurement therein adopted. (Sec. 29.)

Build and Equipment of Steam Ships.

Iron Steamers to be divided by water-tight Partitions.—The following rules shall be observed with respect to the build of iron steam ships (that is to say):—

(1) Every steam ship built of iron, of 100 tons or upwards, the building of which commenced after August 28, 1846, and every steam ship built of iron of less burden than 100 tons, the building of which commenced after August 7, 1851, (except ships used solely as steam tugs), shall be divided by substantial transverse water-tight partitions, so that the fore part of the ship shall be separated from the engine room by one of such partitions, and so that the after part of such ship shall be separated from the engine room by another of such partitions:

(2) Every steam ship built of iron, the building of which commences after the passing of this Act, shall be divided by such partitions as aforesaid into not less than 3 equal parts, or as nearly so as circumstances permit:

(3) In such last-mentioned ships each such partition as aforesaid shall be of equal strength with the side plates of the ship with which it is in contact:

(4) Every screw steam ship built of iron, the building of which commences after the passing of this Act, shall, in addition to the above partitions, be fitted with a small water-tight compartment inclosing the after-extremity of the shaft:

Officers of Customs not to grant Certificates except so divided.—And no officer of customs or other person shall grant a clearance or transire for any iron steam ship required to be divided or fitted as aforesaid, unless the same is so divided and fitted; and if any such ship attempts to ply or go to sea without such clearance or transire, any such officer may detain her until she is so divided and fitted; and if any steam ship hereinbefore to be so divided or fitted plies or goes to sea without being so divided or fitted, the owner shall incur a penalty not exceeding 100*l.* (Sec. 300.)

Equipment of Steam Ships.—Steam ships shall be provided as follows (that is to say):—

(1) *Safety Valve.*—Every steam ship of which a survey is hereby required shall be provided with a safety valve upon each boiler, so constructed as to be out of the control of the engineer when the steam is up, and, if such valve is in addition to the ordinary valve, it shall be so constructed as to have an area not less and a pressure not greater than the area of and pressure on that valve:

(2) *Compasses to be adjusted.*—Every sea-going steam ship employed to carry passengers shall have her compasses properly adjusted from time to time; such adjustment, in the case of ships surveyed as hereinafter mentioned, to be made to the satisfaction of the shipwright surveyor, and according to such regulations as may be issued by the Board of Trade:

(3) *Fire Hose.*—Every sea-going steam ship (unless used solely as a steam tug) shall be provided with a hose adapted for the purpose of extinguishing fire in any part of the ship, and capable of being connected with the engines of the ship:

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(4) *Signals.*—Every sea-going steam ship employed to carry passengers shall be provided with the following means of making signals of distress (that is to say): 12 blue lights or 12 port fires, and 1 cannon with ammunition for at least 12 charges, or, in the discretion of the master or owner of such ship, with such other means of making signals (if any) as may have previously been approved by the Board of Trade:

(5) *Shelter for Deck Passengers.*—Every home trade steam ship employed to carry passengers by sea shall be provided with such shelter for the protection of deck passengers (if any) as the Board of Trade, having regard to the nature of the passage, the number of deck passengers to be carried, the season of the year, the safety of the ship, and the circumstances of the case, may require: and if any steam ship as aforesaid plies or goes to sea from any port in the United Kingdom without being so provided as hereinbefore required, then for each default in any of the above requisites the owner shall (if he appears to be in fault) incur a penalty not exceeding 100*l.*, and the master shall (if he appears to be in fault) incur a penalty not exceeding 50*l.* (Sec. 301.)

Penalty for improper Weight on Safety Valve.—If any person places an undue weight on the safety valve of any steam ship, or, in the case of steam ships surveyed as hereinafter mentioned, increases such weight beyond the limits fixed by such engineer surveyor as hereinafter mentioned, he shall, in addition to any other liabilities he may incur by so doing, incur a penalty not exceeding 100*l.* (Sec. 302.)

Survey of Passenger Steamers.

Definition of 'Passengers' and 'Passenger Steamer.'—For the purpose of the enactments herein contained with respect to surveys and certificates of passenger steam ships, the word 'passengers' shall be held to include any person carried in a steam ship, other than the master and crew and the owner, his family and servants; and the expression 'passenger steamer' shall be held to include every British steam ship carrying passengers to, from, or between any place or places in the United Kingdom, excepting steam ferry boats working in chains, commonly called steam bridges. (Sec. 303.) [PASSENGERS.]

Passenger Steamers to be surveyed.—Every passenger steamer shall be surveyed twice at the least in each year in manner hereinafter mentioned. (Sec. 304.)

Board of Trade to appoint Surveyors, and fix their Remuneration.—The Board of Trade may from time to time appoint such number of fit and proper persons to be shipwright surveyors and engineer surveyors for the purposes of this Act at such ports or places as it thinks proper, and may also appoint a surveyor-general for the United Kingdom, and may from time to time remove such surveyors or any of them, and may from time to time fix and alter the rates of remuneration to be received by such surveyors. (Sec. 305.)

Surveyors to have Power to inspect.—It shall be lawful for the said surveyors in the execution of their duties to go on board any steam ships at all reasonable times, and to inspect the same or any part thereof, or any of the machinery, boats, equipments, or articles on board thereof, or any certificates of the master or mate to which the provisions of this Act or any of the regulations to be made by virtue thereof apply, not unnecessarily detaining or delaying the ship from proceeding on any voyage, and if in consequence of any accident to any such ship or for any other reason they consider it necessary so to do, to require the ship to be taken into dock for the purpose of surveying the hull thereof; and any person who hinders any such surveyor from going on board any such steam ship, or otherwise impedes him in the execution of his duty under this Act, shall incur a penalty not exceeding 5*l.* (Sec. 306.)

307. *Board of Trade to regulate Mode of making Surveys.*—The said surveyors shall execute their duties under the direction of the Board of Trade, and such Board shall make regulations as to the manner in which the surveys hereinafter mentioned shall be made, and as to the notice to be given to the surveyors when surveys are required, and as to the amount and payment of any travelling or other expenses incurred by such surveyors in the execution of their duties, and may thereby determine the persons by whom and the conditions under which such payment shall be made.

Penalty on Surveyors receiving Fees unlawfully.—Every surveyor who demands or receives directly or indirectly from the owner or master of any ship surveyed by him under the provisions of this Act any fee or remuneration whatsoever for or in respect of such survey, otherwise than as the officer and by the direction of the Board of Trade, shall incur a penalty not exceeding 50*l.* (Sec. 308.)

Owners to have Surveys made by Shipwright and Engineer Surveyors, and Surveyors to give Declarations.—The owner of every passenger steamer shall cause the same to be surveyed at the times hereinafter directed by one of the said shipwright surveyors and by one of the said engineer surveyors so appointed as aforesaid; such shipwright surveyor being, in the case of iron steamers, a person who is, in the judgment of the Board of Trade, properly qualified to survey such ships; and such surveyors shall thereupon, if satisfied that they can with propriety do so, give to such owner declarations as follows.

The declaration of the shipwright surveyor shall contain statements of the following particulars (that is to say):—

(1) That the hull of the ship is sufficient for the service intended, and in good condition:

(2) That the partitions, boats, life buoys, lights, signals, compasses, and shelter for deck passengers, and the certificates of the master and mate or mates, are such, and in such condition, as required by this Act:

(3) The time (if less than 6 months) for which the said hull and equipments will be sufficient:

(4) The limits (if any) beyond which, as regards the hull and equipments, the ship is, in the surveyor's judgment, not fit to ply:

(5) The number of passengers which the ship is, in the judgment of the surveyor, fit to carry, distinguishing, if necessary, between the respective numbers to be carried on the deck and in the cabins, and in different parts of the deck and cabins; such numbers to be subject to such conditions and variations, according to the time of year, the nature of the voyage, the cargo carried, or other circumstances, as the case requires.

And the declaration of the engineer surveyor shall contain statements of the following particulars (that is to say):—

(1) That the machinery of the ship is sufficient for the service intended, and in good condition:

(2) The time (if less than 6 months) for which such machinery will be sufficient:

(3) That the safety valves and fire hose are such and in such condition as are required by this Act:

(4) The limits of the weight to be placed on the safety valves:

(5) The limits (if any) beyond which, as re-

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gards the machinery, the ship is, in the surveyor's judgment, not fit to ply :

And such declarations shall be in such form as the Board of Trade directs. (Sec. 309.)

Transmission of Declarations to Board of Trade. Penalty for Delay.—The said owner shall transmit such declarations to the Board of Trade within 14 days after the dates of the receipt thereof respectively, and in default shall forfeit a sum not exceeding 10*s.* for every day that the sending of such declarations is delayed ; and such sum shall be paid upon the delivery of the certificate hereinafter mentioned, in addition to the fee payable for the same, and shall be applied in the same manner as such fees. (Sec. 310)

Times appointed for Surveys and Transmission of Declarations.—In all cases where it is possible the said half-yearly surveys shall be made in the months of April and of October, and the declarations shall be transmitted on or before April 30 and October 31 respectively ; but if the owner of any passenger steamer is unable to have the same surveyed in the month of April or October (as the case may be), either by reason of such ship being absent from the United Kingdom during the whole of those periods respectively, or by reason of such ship or the machinery thereof being under construction or repair, or of such ship being laid up in dock, or for any other reason satisfactory to the Board of Trade, then he shall have the same surveyed as aforesaid as soon thereafter as possible, and shall transmit such declarations to the Board of Trade within 14 days after the receipt thereof, together with a statement of the reasons which have prevented the survey of such ship at the time hereinbefore prescribed, and shall, in case of delay in transmitting the declarations, be liable to a forfeiture similar to that mentioned in the last preceding section. (Sec. 311.)

Board of Trade to issue Certificates.—Upon the receipt of such declarations the Board of Trade shall, if satisfied that the provisions of the fourth part of this Act have been complied with, cause a certificate in duplicate to be prepared and issued, to the effect that the provisions of the law with respect to the survey of the ship and the transmission of declarations in respect thereof have been complied with; and such certificate shall state the limits (if any) beyond which, according to the declaration of the surveyors, such ship is not fit to ply, and shall also contain a statement of the number of passengers which, according to the declaration of the shipwright surveyor, such ship is fit to carry, distinguishing (if necessary) between the respective numbers to be carried on the deck and in the cabins and in different parts of the deck and cabins, such number to be subject to such conditions and variations according to the time of year, the nature of the voyage, the cargo carried, and other circumstances, as the case requires. (Sec. 312.)

Issue and Transmission of Certificates.—The Board of Trade shall transmit such duplicate certificate to the shipping master or to some other public officer at such port as the owner may mention for the purpose, or at the port where the owner or his agent resides or where the ship was surveyed and is for the time being lying, and shall cause notice of such transmission to be given by post or otherwise to the master or owner or his agent ; and the said shipping master or officer shall deliver such duplicate certificate to the said owner, master, or agent, on his applying and paying the fees and other sums (if any) herein mentioned as payable in that behalf ; and in proving the due issue and transmission to the owner, agent, or master of such certificate, it shall be sufficient to show that the same has been duly received by such shipping master or public officer as aforesaid, and that due notice of the transmission thereof to such shipping master or officer has been given to such owner, master, or agent. (Sec. 313.)

Fees to be paid for Certificates.—The owner of every passenger steamer requiring a certificate under the fourth part of this Act, shall pay for every certificate granted by the Board of Trade such fees as such Board directs, not exceeding the fees mentioned in the Table marked T. in the schedule hereto. (Sec. 314.)

How long Certificates to continue in force.—No certificate shall be held to be in force for the purposes of the fourth part of this Act beyond the date fixed by the Board of Trade for the expiration thereof ; and no certificate shall be in force after notice is given by the Board of Trade to the owner, agent, or master of the ship to which the same relates, that such Board has cancelled or revoked the same : provided, that if any passenger steamer is absent from the United Kingdom at the time when her certificate expires, no penalty shall be incurred for the want of a certificate until she first begins to ply with passengers after her next subsequent return to the United Kingdom ; and the Board of Trade may require any certificate which has expired, or has been revoked or cancelled, to be delivered up as it directs; and any owner or master who, without reasonable cause, neglects or refuses to comply with such requirement, shall incur a penalty not exceeding 10*l.* (Sec. 315.)

Board of Trade may cancel Certificates and require fresh Declarations.—The Board of Trade may revoke and cancel such certificates, in any case in which it has reason to believe—

(1) That the declarations of the sufficiency and good condition of the hull, equipments, and machinery of any passenger steamer, or either of them, have been fraudulently or erroneously made ; or,

(2) That such certificate has otherwise been issued upon false or erroneous information ; or,

(3) That since the making of such declarations the hull, equipments, or machinery of such ship have sustained any injury, or are otherwise insufficient :

And in every such case the Board of Trade may, if it thinks fit, require the owner to have the hull, equipments, or machinery of such ship again surveyed, and to transmit a further declaration or declarations of the sufficiency and good condition thereof, before re-issuing any certificate or granting a fresh one in lieu thereof. (Sec. 316.)

Copy of Certificate to be placed in conspicuous part of Ship.—The owner or master of every passenger steamer shall forthwith, on the transmission of any such certificate as aforesaid to him or his agent, cause one of the duplicates thereof so transmitted to be put up in some conspicuous part of the ship, so as to be visible to all persons on board the same, and shall cause it to be continued so put up so long as such certificate remains in force and such ship is in use ; and in default such owner or master shall for every offence incur a penalty not exceeding 10*l.* (Sec. 317.)

Ship not to proceed on her Voyage without Certificate.—It shall not be lawful for any passenger steamer to proceed to sea or upon any voyage or excursion with any passengers on board, unless the owner thereof has transmitted to the Board of Trade the declarations hereinbefore required, nor unless the owner or master thereof has received from such Board such a certificate as hereinbefore provided for, such certificate being

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a certificate applicable to the voyage or excursion on which such ship is about to proceed; and no officer of customs shall grant any clearance or transire for any passenger steamer unless upon the production of such certificate as aforesaid (being a certificate then in force and applicable as aforesaid); and if any passenger steamer attempts to ply or go to sea without such production, any such officer may detain her until such certificate is produced; and if any passenger steamer plies or goes to sea with any passengers on board, without having one of the duplicates of such certificate as aforesaid (being a certificate then in force, and applicable as aforesaid), so put up as aforesaid in some conspicuous part of the ship, the owner thereof shall for such offence incur a penalty not exceeding 100*l.*, and the master of such ship shall also incur a further penalty not exceeding 20*l.* (Sec. 318.)

Penalty for carrying Passengers in Excess of Numbers specified in Certificate.—If the owner or master or other person in charge of any passenger steamer receives on board thereof or on or in any part thereof, or if such ship has on board thereof or on or in any part thereof, any number of passengers which, having regard to the time, occasion, and circumstances of the case, is greater than the number of passengers allowed by the certificate, the owner or master shall incur a penalty not exceeding 20*l.*, and also an additional penalty not exceeding 5*s.* for every passenger over and above the number allowed by the certificate, or, if the fare of any of the passengers on board exceeds 5*s.*, not exceeding double the amount of the fares of all the passengers who are over and above the number so allowed as aforesaid, such fares to be estimated at the highest rate of fare payable by any passenger on board. (Sec. 319.)

Forgery of Declaration or Certificate a Misdemeanor.—Every person who knowingly and wilfully makes or assists in making or procures to be made a false or fraudulent declaration or certificate with respect to any passenger steamer requiring a certificate under the fourth part of this Act, or who forges, assists in forging, or procures to be forged, fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any declaration or certificate required by the fourth part of this Act, or any words or figures in any such declaration or certificate, or any signature thereto, shall be deemed guilty of a misdemeanor. (Sec. 320.)

Surveyors to make Returns of the Build and other Particulars of Steam Ships, and Owners and Masters to give Information for that purpose.—The said surveyors shall from time to time make such returns to the Board of Trade as it requires with respect to the build, dimensions, draught, burden, rate of sailing, room for fuel, and the nature and particulars of machinery and equipments of the ships surveyed by them; and every owner, master, and engineer of any such ship shall, on demand, give to such surveyors all such information and assistance within his power as they require for the purpose of such returns; and every such owner, master, or engineer who, on being applied to for that purpose, wilfully refuses or neglects to give such information or assistance, shall be liable to a penalty not exceeding 5*l.*

Misconduct by Passengers in Steamers.

Penalties on Persons forcing way on board, or refusing to quit the Ship.—The following offenders, that is to say—

(1) Any person who, after having been refused admission into any steamer by the owner or person in charge thereof or by any person in the employ of the owner thereof, on account of such steamer being full, and after having had the full amount of his fare (if he has paid the same) returned or tendered to him, nevertheless persists in attempting to enter the same; and

(2) Any person, having got on board any steamer, who, upon being requested on the like account by the owner or person in charge thereof or by any person in the employ of the owner, to leave such steamer before the same has quitted the place at which such person got on board, and upon having the full amount of his fare (if he has paid the same) returned or tendered to him, refuses to comply with such request;

Shall for each such offence incur a penalty not exceeding 40*s.*, to be paid to the said owner. (Sec. 322.)

Penalty on avoiding Payment of Fares.—The following offenders, that is to say—

(1) Any person who travels or attempts to travel in any passenger steamer which has been duly surveyed in conformity with the provisions of this Act, without having previously paid his fare, and with intent to avoid payment thereof; and

(2) Any person who, having paid his fare for a certain distance, knowingly and wilfully proceeds in any such steamer beyond such distance, without previously paying the additional fare for the additional distance, and with intent to avoid payment thereof; and

(3) Any person who knowingly and wilfully refuses or neglects, on arriving at the point to which he has paid his fare, to quit any such steamer;

Shall for every such offence incur a penalty not exceeding 5*s.*, in addition to the fare payable by him, such penalty to be payable to the owner of such steamer. (Sec. 323.)

Penalty on Persons refusing to give their Name and Address.—Every person who, having committed any of the offences mentioned in the two last preceding sections or either of them, refuses, on application of the master of the ship or of any other person in the employ of the owner thereof, to give his name and address, or who on such application gives a false name or address, shall incur a penalty not exceeding 20*l.*, to be paid to the said owner. (Sec. 324.)

Power to refuse or remove Passengers who are drunk or misconduct themselves.—The master of any home trade passenger steam ship may refuse to receive on board thereof any person who by reason of drunkenness or otherwise is in such a state, or misconducts himself in such a manner, as to cause annoyance to other passengers on board, or, if such person is on board, may put him on shore at any convenient place; and no person so refused admittance or put on shore shall be entitled to the return of any fare he may have paid. (Sec. 325.)

Accidents.

Accidents to Steam Ships to be reported to Board of Trade.—Whenever any steam ship has sustained or caused any accident occasioning loss of life or any serious injury to any person, or has received any material damage affecting her seaworthiness or her efficiency either in her hull or in any part of her machinery, the owner or master shall, within 24 hours after the happening of such accident or damage, or as soon thereafter as possible, send to the Board of Trade, by letter signed by such owner or master, a report of such accident or damage, and of the probable occasion thereof, stating the name of the ship, the port to which she belongs, and the place where she is;

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and if such owner or master neglect so to do, he shall for such offence incur a penalty not exceeding 50*l.* (Sec. 326.)

Notice to be given of apprehended Loss of Steam Ships.—If the owner of any steam ship have reason, owing to the non-appearance of such ship or to any other circumstance, to apprehend that such ship has been wholly lost, he shall as soon as conveniently may be send notice thereof in like manner to the Board of Trade; and if he neglect so to do within a reasonable time, he shall for such offence incur a penalty not exceeding 50*l.* (Sec. 327.)

Collisions to be entered in Official Log.—In every case of collision, in which it is practicable so to do, the master shall immediately after the occurrence cause a statement thereof, and of the circumstances under which the same occurred, to be entered in the official log book (if any), such entry to be signed by the master, and also by the mate or one of the crew, and in default shall incur a penalty not exceeding 20*l.* (Sec. 328.) [COLLISION.]

Carrying dangerous Goods.

Provisions to prevent the taking dangerous Goods on board without due Notice.—No person shall be entitled to carry in any ship, or to require the master or owner of any ship to carry therein, any aquafortis, oil of vitriol, gunpowder, or any other goods which, in the judgment of such master or owner, are of a dangerous nature; and if any person carries or sends by any ship any goods of a dangerous nature without distinctly marking their nature on the outside of the package containing the same, or otherwise giving notice in writing to the master or owner at or before the time of carrying or sending the same to be shipped, he shall for every such offence incur a penalty not exceeding 100*l.*; and the master or owner of any ship may refuse to take on board any parcel that he suspects to contain goods of a dangerous nature, and may require them to be opened to ascertain the fact. (Sec. 329.)

Certificates for Engineers (Part III. of Merchant Shipping Act, 1854).

Steam Ships to carry Certificated Engineers.—On and after June 1, 1863, every steam ship which is required by the principal Act to have a master possessing a certificate from the Board of Trade shall also have an engineer or engineers possessing a certificate or certificates from the Board of Trade as follows (that is to say):—

(1) Engineers' certificates shall be of two grades, viz. 'first-class engineer's certificates,' and 'second-class engineer's certificates':

(2) Every foreign-going steam ship of 100 nominal horse power or upwards shall have as its first and second engineers 2 certificated engineers, the first possessing a 'first-class engineer's certificate,' and the second possessing a 'second-class engineer's certificate' or a certificate of the higher grade:

(3) Every foreign-going steam ship of less than 100 nominal horse power shall have as its only or first engineer an engineer possessing a 'second-class engineer's certificate' or a certificate of the higher grade:

(4) Every sea-going home trade passenger steam ship shall have as its only or first engineer an engineer possessing a 'second-class engineer's certificate' or a certificate of the higher grade:

(5) Every person who, having been engaged to serve in any of the above capacities in any such steam ship as aforesaid, goes to sea in that capacity without being at the time entitled to and possessed of such certificate as is required by this section, and every person who employs any person in any of the above capacities in such ship without ascertaining that he is at the time entitled to and possessed of such certificate as is required by this section, shall for each such offence incur a penalty not exceeding 50*l.* (25 & 26 Vict. c. 63 s. 5.) [PASSENGERS; SEAMEN; SHIPPING.]

STEEL (Fr. acier; Ger. stahl; Ital. acciajo; Lat. chalybs; Russ. stal; Span. acero; Swed. stål) is iron combined with a small portion of carbon, and has been, for that reason, called carburetted iron. The proportion of carbon has not been ascertained with much precision. It is supposed to amount, at an average, to $\frac{1}{140}$. Steel is so hard as to be unmalleable while cold; or at least it acquires that property by being immersed, while ignited, in a cold liquid: for this immersion, though it has no effect upon iron, adds greatly to the hardness of steel. It is brittle, resists the file, cuts glass, affords sparks with flint, and retains the magnetic virtue for any length of time. It loses this hardness by being ignited, and cooled very slowly. It is malleable when red hot, but scarcely so when raised to a white heat. It may be hammered out into much thinner plates than iron. It is more sonorous; and its specific gravity when hammered is greater than that of iron—varying from 7·78 to 7·84. Steel is usually divided into 3 sorts, according to the method in which it is prepared; as *natural steel*, *steel of cementation*, and *cast steel*. The latter is the most valuable of all, as its texture is the most compact, and it admits of the finest polish. It is used for razors, surgeons' instruments, and similar purposes. Steel is chiefly employed in the manufacture of swords, knives, and cutting instruments of all sorts used in the arts; for which it is peculiarly adapted by its hardness, and the fineness of the edge which may be given to it. We imported from Sweden in 1867, exclusive of manufactured articles, 4,656 tons of unwrought steel, valued at 69,042*l.* (Thomson's *Chemistry*; see also Ure's *Dictionary* by Hunt.) [IRON.]

STETTIN. A city of Prussia, on the left bank of the Oder, about 36 miles from its mouth, in lat. 53° 25′ 8″ N., long. 14° 34′ E. It is well built, strongly fortified, and had in 1867 a population, including military, of 73,581.

Stettin is the seat of an extensive and growing commerce. She owes this distinction mainly to her situation. The Oder, which flows through the centre of the Prussian dominions, is navigable as far as Ratibor, near the extreme southern boundary of Prussian Silesia, and is united by means of canals with the Vistula, the Elbe, the Spree &c. Stettin is, consequently, the principal emporium of some very extensive and flourishing countries; being not only the port of Frankfort-on-the-Oder, Breslau &c., but also of Berlin. She is also the centre of an extensive system of railways, communicating with Berlin and the west parts of Germany on the one hand, and on the other with Posen, Bromberg, and Dantzic. Hence, at the proper seasons, her wharves are crowded with lighters that bring down the produce of the different countries traversed by the river, and bring back colonial products, and other articles of foreign growth and manufacture. Vessels of considerable burden, or those drawing above 7 or 8 feet water, load and unload, by means of lighters, at the mouth of the river, at Swinemunde, the outport of Stettin, on the east coast of the isle of Usedom, in lat. 53° 55′ N., long. 14° 15′ 15″ E. Formerly there were not more than 7 feet water over the bar adjacent to Swine-

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munde; but the harbour of the latter has recently been so much improved by the construction of piers and breakwaters, dredging &c., that it is now the best on the Prussian coast, and admits vessels drawing from 18 to 19 feet water. A lighthouse has been erected at the extremity of the eastern pier, in 53° 56′ N. lat. and 14° 17′ E. long., visible 10 miles off, and there is another (visible for 21 miles) situated a mile and a half south of the Mole Light. There are also two light-ships between Swinemunde and Stettin. Stettin is a free port; that is, a port into and from which all sorts of goods may be imported and re-exported free of duty. Goods brought through the Sound, imported at Stettin, and entered for home consumption in the Prussian states, used to be charged with 2½ per cent. less duty than if they had been imported through any other channel. This was intended to reimburse the merchant for the Sound duties, and to encourage importation by this direct route in preference to that carried on through Hamburg and Embden; but as the Sound duties have been abolished, it is probable that goods imported at Stettin will no longer enjoy this preference. There is a great wool fair in the month of June each year.

Moneys, Weights, and Measures, same as at DANTZIC. The Bank of Berlin has a branch at Stettin, and there are also insurance offices.

Imports and Exports.—The principal articles of import at Stettin are sugar, coffee, dye-woods, wine, iron, and hardware, oil, tallow, cotton and cotton goods, herrings, spirits, linseed, coal, salt &c. The principal exports are corn, especially wheat; spirits, seeds, spelter, timber &c.

Shipping Dues.—In 1863, the shipping dues were considerably reduced, viz. the sea dues 37 per cent., and the river dues 25 per cent.

On December 1, 1867, a still greater reduction took place; the dues to be levied on and from that day being fixed by a royal edict, as follows:—

Sea Dues for all Vessels entering and leaving the Harbour of Swinemunde.

	Groschen		Groschen
With cargoes—			
On entering	4	instead of	8
On leaving	4	,,	8
In ballast—			
On leaving	2	,,	4
On entering	2	,,	4

Per normal last—about 1½ register ton.

River Dues.—The river dues for vessels navigating the Swine, Peene, and Divenow, and the Haff—consequently for all vessels proceeding from Swinemunde to Stettin, and from Stettin to Swinemunde—which amounted to 1 groschen and ½ groschen per last, are abolished.

The present rate of 4 groschen per last would be about 26*s.* 8*d.* per 100 reg. tons.

Vessels above 40 lasts burden have also to pay 9 pfennige per last—about 5*s.* per 100 reg. tons—for port charges at Stettin.

By another royal decree, which came into operation on March 1, 1868—

1. Vessels under 40 lasts are to pay one-half of the dues levied on vessels above that burden, i.e. 2 groschen and 1 groschen.

2. Vessels with cargoes consisting entirely of coals, coke, turf, slates, tiles, bricks, paving and quarry stones, granite, limestone, gypsum, chalk, clay, sand, raw sulphur, or salt, to be charged the same as vessels in ballast, viz. 2 groschen per last.

3. No dues to be levied:—

(*a*) On vessels in ballast that enter the harbour of Swinemunde in search of freight, and leave it in ballast.

(*b*) On vessels that enter the harbour to receive orders and leave it without either discharging or taking in cargo.

4. Vessels above 40 lasts proceeding directly between any of the following ports, viz. Swinemunde, Colbergermunde, Stolpmunde, Rugenwalde, Dantzic, and Neufahrwasser, are exempted from the entrance dues of the harbour to which they are bound.

As the river dues are now abolished, and the sea dues reduced 50 per cent., and vessels with cargoes of coals pay the same dues as vessels in ballast, and as almost all the British vessels that discharge at Swinemunde arrive at that port with coals and leave in ballast, the reduced charges for such vessels will amount to 66⅔ per cent., and for vessels bound to Stettin, with other cargoes than coals, slates &c., to 55⅓ per cent.

Pilotage.

From Stettin to Swinemunde } Swinemunde to Stettin }	up to	10 lasts,	2 r. dols.
	from 11 to 20	,, 3	,,
	21 ,, 30	,, 3½	,,
	31 ,, 40	,, 4	,,
	41 ,, 150	,,	

and upwards, for each 10 lasts, ½ dollar more.

Ships of more than 150 lasts burden to pay the same dues as those of 141 to 150 lasts.

Stettin is one of the principal shipping ports in the Prussian dominions, and is connected with Berlin by railway. See also DANTZIC.

Port Regulations.—All vessels are prohibited entering Swinemunde unless forced by stress of weather, without previously heaving to for, and receiving a pilot on board. But when compelled to enter without a pilot, the master is to observe the signals made from the beacon erected on the eastern and western moles as follows:—

Notice.

1. When pilots cannot put to sea, and captains of ships are nevertheless resolved to enter the harbour, a red flag will be hoisted on the direction beacon of the eastern mole.

2. The captains will then steer until they find themselves S.E. by S. on the compass, from the lighthouse placed on the utmost point of the east mole, taking care to keep the outermost great white buoy, situate on the end of the western ground in a depth of 16 feet, on the starboard, and the next black buoy, in an oblique line towards the lighthouse, on the larboard.

3. In that situation of the vessel the two new beacons cover themselves in the direction of S.S.E., and in this course, keeping the two beacons completely covered, the captains sail into the port up to the second landing berth of the eastern mole, four cables' length beyond the lighthouse, keeping off the mole half a cable's length.

4. At that place, the captains, taking care to remain a little South, are expected by the pilots to go on board of their vessels.

5. On entering the port all the white buoys are to remain on the starboard side of the vessel (see 2).

6. For facilitating the finding and keeping the directions given in this instruction in case the buoys should have been removed by sea, or taken up on account of the advanced season, signals will be given with a red flag from the direction beacon on the eastern mole.

7. The captains must follow the signals in so far as to steer to that part where the flag is hoisted perpendicularly.

8. Should there be no pilot at sea, and no flag hoisted on the beckoning beacon, the captains must not attempt to enter the port at all, but either anchor in the roads or remain at sea.

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Shipping and Navigation.

Account of the Number, Tonnage &c. of British Vessels arrived at Stettin and Swinemunde in 1866 *and* 1867.

Description of Vessels	1866			1867		
	Number of Vessels	Tonnage	Number of Crews exclusive of Masters	Number of Vessels	Tonnage	Number of Crews exclusive of Masters
Stettin—						
Steamers	137	66,318	2,405	180	83,856	3,146
Sailing vessels	263	26,706	1,295	298	30,955	1,426
Total	400	93,024	3,700	478	114,811	4,572
Swinemunde—						
Steamers	14	8,034	264	23	12,825	478
Sailing vessels	167	41,077	1,302	81	19,392	598
Total	181	49,111	1,566	104	32,217	1,076
Grand Total	581	142,135	5,266	582	147,028	5,648

Left Stettin in ballast—

	Vessels	Tons	
1865	71	20,386, or 22·78 per cent.	of the total tonnage entered.
1866	38	11,011 „ 11·83	„ „
1867	52	14,452 „ 12·58	„ „

Account of the Mercantile Marine of the Province of Pomerania on January 1, 1868, *distinguishing Steamers from Sailing Vessels, and Sea-going from River and Coasting Craft, stating Tonnage of each in Prussian Lasts, and contrasting the Amount of the same with the Amounts on January* 1, 1859 *and* 1867.

Ports where the Managing Owners reside	Steamers				Sailing Vessels				Total January 1, 1868	
	Sea-going		River		Sea-going		Coasting (under 40 lasts)			
	Number of Vessels	Lasts	Number of Vessels	Lasts	Number of Vessels	Lasts	Number of Vessels	Lasts	Number of Vessels	Lasts
Stettin	18	2,467	28	385	155	26,115	7	216	208	29,203
Stralsund	..	..	1	33	153	23,493	22	718	176	24,244
Barth, Franzenburg District	..	..	1	7	151	21,610	114	2,610	246	24,227
Greifswalde	..	..	..	..	48	8,661	9	220	57	8,881
Uckermunde	..	..	1	14	43	7,700	..	..	44	7,714
Wolgast	1	188	2	45	48	6,689	11	288	62	7,210
Rugenwalde	..	..	..	..	25	4,485	20	430	45	4,918
Swinemunde	..	..	2	17	25	4,270	17	363	44	4,650
Kolberg	..	..	..	..	18	2,899	17	351	35	3,250
Minor Ports	1	60	7	210	43	6,514	171	4,484	222	11,278
Total in 1868	20	2,735	42	721	689	119,437	538	9,660	1,139	135,555
„ 1867	21	2,590	43	761	698	111,415	395	9,871	1,157	124,707
„ 1859	15	1,898	28	887	672	101,131	288	6,529	1,003	109,545

Account of the Number and Tonnage, in Prussian Lasts, of all Sea-going Vessels, except Coasting Craft, entered at Swinemunde in 1865 *and* 1866.

Nationality	1865		1866	
	Number of Vessels	Lasts	Number of Vessels	Lasts
Prussian	1,082	124,683	919	115,608
British	586	85,872	566	86,542
German States	297	22,512	237	19,734
Dutch	116	11,929	88	12,063
Swedish and Norwegian	250	9,096	146	7,383
Danish	143	4,276	107	5,819
Russian	13	1,209	14	1,864
Other nations	22	1,878	15	904
Total	2,509	261,385	2,092	249,910

Of the vessels entered at Swinemunde, there arrived at Stettin—

In 1865	2,078	vessels, of	182,545 lasts
1866	2,043	„	175,934 „
1867	2,214	„	200,487 „

Trade.—The abolition of the Sound dues, and the improved communications by means of railways with the interior, have led to a great increase in the trade of Stettin. This is evident from the following account of the imports and exports of the town by sea:—

Years	Imports	Exports	Total
	£	£	£
1855	2,601,934	1,011,969	3,646,902
1856	3,602,567	1,709,693	5,312,260
1857	4,208,636	2,722,451	6,931,088
1865	6,905,778	2,420,969	9,326,745
1866	5,395,346	3,237,419	8,632,765
1867	8,374,547	4,665,773	13,040,320

This is a very extraordinary increase. In the import trade it has principally taken place in the articles of coals, iron, and raw cotton, from England; oils, seeds, coffee, potash &c. The great articles of export from Stettin are corn, timber, and spirits.

Account of the Quantities of the different Varieties of Corn Exported from Stettin in 1866, *specifying the Quantities sent to Great Britain and to other Countries, in Imperial Quarters.*

Articles	1866			Total in 1865
	To Great Britain	To other Countries	Total	
	Imp. qr.	qr.	qr.	qr.
Wheat	313,861	53,688	367,549	219,535
Rye	6,380	73,120	79,500	70,974
Barley	269,650	29,104	298,754	167,046
Oats	51,424	8,223	59,647	8,709
Total Corn	641,315	164,135	805,450	496,264
Buckwheat, vetches	..	..	..	3,170
Peas, beans	27,425	8,941	35,366	22,561
Potatoes	22	16,458	16,480	17,216
Total	668,762	186,534	855,296	539,211

The total quantity of corn exported in 1867 was 972,076 quarters.

In addition to corn, timber, and spirits, the principal articles of export are spelter, oil-cake, bones, clover and other seeds, wool, glass &c.

We also send to Prussia large quantities of foreign and colonial produce, the value of the exports thereof in 1867 having amounted to 2,498,165*l*. Sometimes, however, they are much greater. But it can hardly be necessary to add, that a large (though not so large now as formerly) portion of our trade with Prussia is indirect, being carried on through the Hanse Towns, Holland &c. (Much of the information in this article has been derived from Mr. Consul Blackwell's very instructive *Report* of March 25, 1868.)

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Direct Trade of the United Kingdom with Prussia.—Account of the Quantities and of the Computed Values of the Principal Articles Imported from Prussia into the United Kingdom in each of the 4 Years ending with 1867.

Principal Articles		Quantities				Computed Real Value			
		1864	1865	1866	1867	1864	1865	1866	1867
						£	£	£	£
Beer, spruce	gals.	116,736	91,788	68,884	69,735	22,764	19,889	14,926	15,119
Bones of animals and fish (except whalefins)	tons	1,449	2,644	4,727	4,181	8,315	14,544	22,550	21,013
Corn:—Wheat	cwt.	1,935,328	5,403,914	4,401,407	5,572,265	2,497,017	2,778,531	2,810,851	4,359,806
Barley	,,	706,911	799,910	1,081,537	543,011	240,472	288,108	776,647	299,773
Oats	,,	151,779	69,601	496,134	393,859	43,407	23,621	206,416	179,388
Rye	,,	587,419	62,147	74,969	14,181	127,363	19,196	28,884	5,412
Peas and beans	,,	654,442	366,947	493,288	268,175	253,261	151,345	207,498	118,376
Wheat flour	,,	33,557	66,267	65,675	41,067	89,293	45,627	48,408	39,081
Flax, dressed	,,	..	1,101	2,235	3,220	..	4,872	8,112	11,270
rough or undressed	,,	86,479	54,299	45,381	89,730	223,017	136,880	134,693	245,973
tow and codilla of	,,	5,464	3,378	3,403	1,220	12,295	5,647	8,581	3,050
Hides, not tanned	,,	2,951	3,201	5,676	5,653	13,974	15,790	24,228	19,620
Oil of turpentine	,,	1,430	2,240	2,447	..	3,704	3,862	5,345	..
rapeseed	tuns	1,891	814	1,918	2,688	83,666	39,080	81,812	105,944
Oil-seed cake	tons	7,640	4,840	5,258	2,337	57,914	38,643	40,241	19,015
Pork, salted	cwt.	9,677	12,154	8,977	2,417	22,916	31,248	25,200	5,972
Rags, and other materials, for making paper	tons	7,484	7,002	9,305	6,333	169,960	157,891	211,102	137,917
Seed:—Clover	cwt.	5,323	2,162	2,677	5,527	14,856	7,909	8,592	18,243
Linseed and flaxseed	qr.	89,501	73,920	61,115	67,536	188,499	169,002	149,871	168,694
Rape	,,	54,336	7,055	94,956	85,189	162,092	21,304	254,674	230,577
Tares	,,	12,964	13,609	11,503	14,188	21,583	28,098	21,279	29,284
Spelter or zinc	tons	1,294	5,952	5,001	5,640	30,523	135,563	124,935	127,307
Spirits, unenumerated, not sweetened	gal.	75,077	419,001	213,616	31,061	5,039	27,937	12,824	2,845
Wood and timber :—									
not sawn or split	loads	279,271	389,170	274,385	227,278	1,051,907	1,256,245	807,813	587,076
deals, battens, boards &c., sawn or split	,,	39,087	63,354	67,002	75,056	128,243	185,746	190,648	209,088
staves	,,	22,638	21,647	29,905	19,614	290,136	300,093	363,612	221,553
lathwood	,,	12,707	17,011	8,656	8,206	25,165	34,779	15,837	15,075
Wool, sheep and lambs'	lb.	420,425	279,611	1,097,502	375,789	39,113	26,780	106,008	33,952
Woollen rags, torn up, to be used as wool	,,	506,912	676,032	761,712	628,768	11,339	13,883	14,070	8,366
All other articles	value	..	..	..	..	92,616	116,491	138,051	97,759
Total	value	..	..	..	..	5,862,919	6,120,205	6,866,751	..

Account of the Quantities and Values of the Principal Articles of Domestic Growth and Manufacture Exported from the United Kingdom to Prussia in each of the 3 Years ending with 1867.

Principal and other Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Alkali, soda	cwt.	182,984	78,413	196,034	70,629	39,613	89,238
Beer and ale	barrels	3,168	2,809	2,495	10,280	9,292	9,018
Borax, refined in the United Kingdom	lb.	2,019	1,578	2,895	5,522	4,480	8,725
Cement	cwt.	188,788	193,858	147,813	23,322	11,496	16,706
Coals, cinders, and culm	tons	597,771	481,228	507,969	227,392	206,114	221,157
Copper, wrought and unwrought	cwt.	5,342	3,613	6,561	15,773	16,660	29,433
Cotton yarn	lb.	3,121,121	4,184,250	7,029,086	290,492	380,980	701,083
Cottons, entered by the yard	yards	933,236	660,222	3,970,978	26,216	20,990	122,050
at value	value	—	—	—	7,498	8,615	12,385
Drugs and chemical products	,,	—	—	—	16,779	10,482	13,623
Fish, herrings	barrels	159,824	176,731	255,575	235,155	270,870	374,421
Hardwares and cutlery, unenumerated	cwt.	7,080	4,803	5,969	32,329	25,136	32,235
Iron, wrought and unwrought	tons	72,084	61,477	42,099	341,859	272,261	260,052
Lead and shot	,,	131	594	67	2,648	12,163	1,327
Leather, wrought and unwrought	value	—	—	—	2,067	801	1,824
Linen yarn	lb.	951,765	514,076	1,547,615	69,401	43,900	108,403
Linens, entered by the yard	yards	773,437	752,420	901,660	41,494	42,404	52,450
Machinery: steam engines	value	—	—	—	31,449	5,960	50,065
all other kinds	,,	—	—	—	156,458	96,762	210,664
Molasses	cwt.	6,093	7,445	12,581	5,169	6,765	10,071
Oil, seed	gallons	876,319	256,443	288,149	112,973	38,344	40,642
Painters' colours (not otherwise described)	value	—	—	—	2,259	2,310	4,334
Salt	tons	53,110	40,740	49,916	25,271	22,464	30,953
Tin, unwrought	cwt.	2,591	1,980	4,278	12,358	8,699	19,533
Tin plates	value	—	—	—	14,649	4,139	12,102
Woollen and worsted yarn	lb.	688,477	392,125	1,248,294	109,142	63,576	193,545
Woollens, entered by the yard	yards	402,652	375,411	1,111,035	34,995	35,002	91,709
at value	value	—	—	—	4,201	4,803	2,787
All other articles	,,	—	—	—	166,210	136,008	136,925
Total	value	—	—	—	2,095,380	1,800,499	2,857,460

STOCKHOLM. The capital city of Sweden, situated at the junction of the lake Maelar with an inlet of the Baltic, in lat. 59° 20′ 6″ N., long. 18° 3′ 7″ E.; a well-built, handsome city. Population in 1865, 133,361.

The entrance to the harbour is intricate and dangerous, and should not be attempted without a pilot; but the harbour itself is capacious and excellent, the largest vessels lying in safety close to the quays, which can accommodate several hundreds. The depth of water in the harbour varies from 5 to 6 fathoms. 'Kodjupet,' directly to the north of Stockholm, is the passage which determines the draught of vessels bound for this port. The highest water line at Kodjupet is from 28 to 29 feet, but in consequence of the sudden bends in the passage it is not safe, especially for vessels of much length, to attempt to pass with a greater draught than 24 feet. Off Stockholm is the Svenskar Bjorn light-vessel, in 59° 35′ N. lat., and 19° 46′ W. long. Stockholm possesses from a third to a half of the foreign trade of Sweden; but this is confined within comparatively narrow limits. The Government was long accustomed to endeavour to promote industry by excluding foreign products; latterly, however, this system has been very considerably relaxed, with great advantage to the trade of the country, and the well-being of the people. Notwithstanding the general inferiority of the soil, and the backwardness of the climate, agriculture has, within the last 20 years, made a more rapid progress in Sweden than in, perhaps, any other country of Europe; and instead of importing, as was formerly

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the case, she now exports large quantities of oats and other grain. (See post, for her exports of corn to England.) Still iron, timber, and deals form the principal articles of export. Swedish iron is of very superior quality, and is rather extensively used in Great Britain, our imports of pig and bar iron from Sweden amounting, in 1867, to upwards of 76,343 tons, exclusive of 4,656 tons of steel. In addition to the above leading articles, Stockholm exports pitch, tar, copper &c. The timber is inferior to that from the southern ports of the Baltic. The imports principally consist of colonial products; cotton stuffs and yarn; iron, hardware, machinery, and coal, mostly from England; with woollens, wine, silks, salt, hides, guano, fish, brandy, wool, fruit &c.

Pilotage.—Pilots may be obtained by vessels coming from the north, at Arholm and Söderam; and by vessels from the east and south, at Landsort, Hufvudskär, and Sandhamn.

The entrance from Sandhamn is the shortest and straightest, and therefore the easiest and cheapest passage to Stockholm.

Pilotage Charges.

Swedish Fot	From Landsort to Stockholm, 72 English Miles	Swedish Fot	From Sandhamn to Stockholm, 38 English Miles	Swedish Fot	From Arholm to Stockholm, 56 English Miles
	rksdl. öre		rksdl. öre		rksdl. öre
6	30 20	6	16 00	6	24 80
7	37 80	7	20 00	7	31 20
8	45 30	8	24 20	8	37 60
9	52 80	9	28 30	9	44 10
10	60 40	10	32 40	10	50 70
11	67 90	11	36 60	11	57 30
12	75 50	12	40 70	12	63 10
13	83 10	13	44 80	13	70 50
14	90 50	14	49 00	14	76 90
15	98 20	15	53 00	15	83 30
16	105 60	16	57 20	16	89 70
17	113 30	17	61 30	17	96 30
18	120 70	18	65 50	18	102 90
19	128 30	19	69 60	19	109 40
20	135 90	20	73 70	20	115 90

For vessels clearing outward in ballast, the above charges are reduced by one-half. An extra charge of 1 riksdaler 50 öre is made for attestation.

The winter charges, dating from September 1 to April 30, are increased by 25 per cent. from the sea to the first pilot station inside the buoys.

Pilot's return fares, about 12 riksdaler.

Vessels bound to any place on the line of passage up to Stockholm must take pilots at Landsort.

Light Dues.—Inwards—84 riksdaler; outwards with cargo—84 riksdaler.

Outwards in ballast—42 riksdaler.

Lock Dues.—For the vessel—Under 50 Swedish nyläst, 6 öre per nyläst; for every nyläst above 50, 35 öre per nylast.

For the cargo—For every nyläst, 30 öre per nyläst.

Shipping and Character of Sailors.—In 1866 there belonged to Sweden 3,323 vessels, of the aggregate burden of 447,795 English tons. 'I would,' says the British consul at Stockholm, 'beg to remark, that in consequence of the superior education of the masters and mates of Swedish mercantile vessels, the subordination and steadiness of their crews, combined with great care in loading and unloading their cargoes, they and the Norwegians have become favourite carriers with merchants of all nations. This preference is not to be attributed to a lower rate of freight, though they offer that advantage also, but to the confidence reposed in the zeal and intelligence of the masters and crews.' This is the true cause of the great increase, of late years, in the number of Swedish ships bringing cargoes from foreign countries to England.

Table, showing the Number and Tonnage of British Vessels which arrived at the Port of Stockholm in the Decade 1858–67.

Years	Number of Sailing Vessels	Number of Steamers	Total	Aggregate Tonnage
1858	16	1	17	3,391
1859	28	1	29	5,935
1860	16	1	17	3,513
1861	26	4	30	6,812
1862	43	2	45	9,499
1863	39	5	44	10,914
1864	34	5	39	9,579
1865	63	18	81	21,647
1866	48	20	68	20,811
1867	55	21	76	20,093

Currency.

The unity is the riksdaler divided into 100 öre.
Taking the exchange at par, 18 riksdaler to the £ sterling.
1 riksdaler = 1*s.* 1½*d.* English.
1 öre = about ½*d.* English.

Weights.

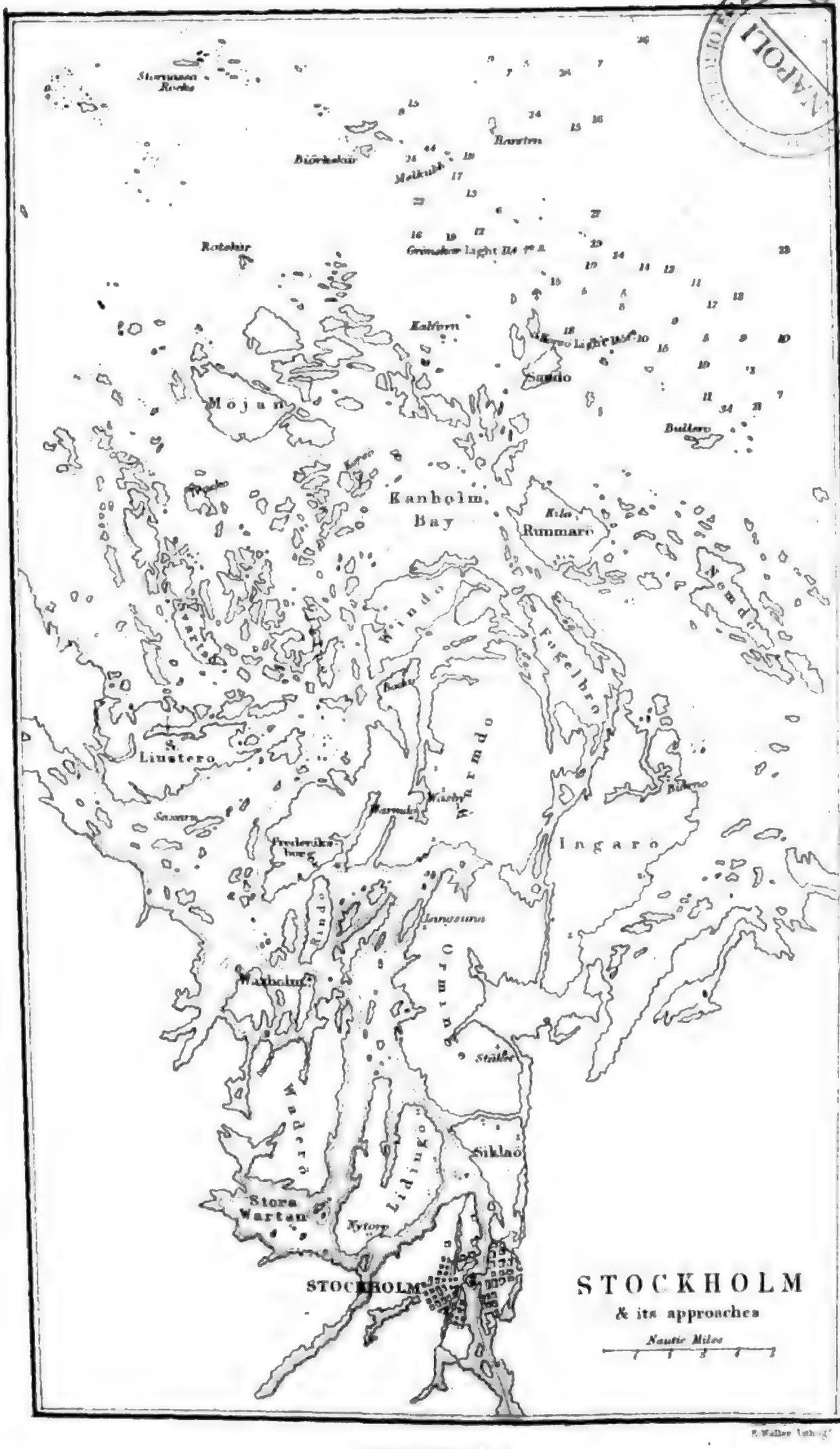
The unity is the skalpund (100 skalpund = 93·7147 lb. avoirdupois).
The skalpund is subdivided into 100 ort, and 10,000 korn; 100 skalpund make 1 centner, and 10,000 skalpund 1 nyläst.
1 nyläst = about 83 cwt. 75 lb. avoirdupois.
1 centner = 93 lb. 11 oz. avoirdupois.
1 skalpund = 14 oz. 7 dr. 2 sc. 9 gr. avoirdupois
1 skippund = 400 Swedish skalpund.

Measures.

Long Measure.—The unity is the fot (100 fot = 97·410 English feet).
The fot is subdivided into 10 tum, and 100 linier.
10 fot make 1 stang, and 100 fot 1 ref.
1 ref = about 15 fathoms 1 yd. 4 in. 2 barley-corns English.
1 stang = 1 fathom 1 yd. 4 in.
1 fot = 11 in. 2 barley-corns.
1 tum = 1 in.
Square Measure.—The unity of Swedish superficial measurement is the square fot.
11 square fot = 136·63,808 English square inches.
The square fot is subdivided into 100 square tum, and 10,000 square linier.
100 square fot make 1 square stang, and 10,000 square fot 1 square ref.
1 square ref = about 35 square rods, 4 yds. 2 ft. 10 in. 7 barley-corns.
1 square stang = 10 sq. yds. 4 ft. 127 in. 7 barley-corns.
1 square fot = 136 in. 6 barley-corns.
1 square tum = 1 in. 5 barley-corns.
Cubic *Measure.*—Applied to the measurement of dry goods, liquids, and solids.
The unity is the cubic fot (100 cubic fot equal to 92 English cubic feet—743·1117 inches).
The cubic fot is subdivided into 10 kannor, 1,000 cubic tum, and 1,000,000 cubic linier.
1 cubic fot = 1597·194117 English cubic inches.
1 cubic kannor = 159·719117 "
For dry goods:—1 tunna = 5 cubic fot 6 kannor, Swedish.
For liquids:—1 tunna = 4 cubic fot 8 kannor, Swedish.

We export to Sweden considerable quantities of colonial and foreign produce, the value thereof having amounted in 1866 to 716,717*l.*, and in 1867 to 752,889*l.*

The Swedish smelting furnaces and iron-works are licensed to produce certain quantities, some being as low as 50 tons, and others as high as 400 or 500 tons; and some fine bar iron-works have licenses for 1,000 tons each. These licenses are granted by over all the College of Mines, which has a control iron-works and mining operations. The iron-masters make annual returns of their manufacture, which must not exceed the privileged or licensed quantity, on pain of the overplus being confiscated. The college has established courts of mines in every district, with supervising officers of various ranks. All iron sent to a port of shipment must be landed at the public weigh-house, the superintendent of which is a delegate of the college, so that it is impossible for an iron-master to send more iron to market than his license authorises. It is true that sales are made to inland consumers at the forges, of which no returns are made out, and in so far the licenses are exceeded; but it is not supposed that the quantity so disposed of exceeds a few thousand tons a-year. Every furnace and forge pays a certain annual duty to the Crown. Its amount is fixed by the college when the license is granted; and care is taken not to grant the license to anyone unless he have the command of forests equal to the required supply of charcoal without encroaching on the supply of this material required for the existing forges in the neighbour-


Stormasan Rocks
Rastem
Björkskar
Malkuilt
Rotskär
Grimskar light
Kalfvorn
Möjan
Sandö
Bullaro
Kanholm Bay
Rummaro
Lindö
Fogelbro
Ingaro
Lindö
Liustero
Warmdo
Ingarö
Waxholm
Cremo
Siklaö
Stora Wartan
Lidingö
STOCKHOLM
STOCKHOLM
& its approaches
Nautic Miles

Account of the Values of the Imports and Exports of Sweden in 1865-6, from and to each Country traded with; showing the Average Amounts of the 5 Years ending with 1865.

	1865		1866		1861–65	
	Exports	Imports	Exports	Imports	Average Exports	Average Imports
	riksdaler	riksdaler	riksdaler	riksdaler	riksdaler	riksdaler
Great Britain and Ireland	53,244,000	31,441,000	53,520,000	35,853,000	44,696,000	24,209,800
Northern Germany and the Hanseatic Towns	8,544,000	32,834,000	8,781,000	32,246,000	7,699,000	33,887,600
France	11,313,000	3,715,000	12,623,000	3,212,000	10,060,400	2,378,800
Denmark, Schleswig-Holstein	10,850,000	10,079,000	9,985,000	10,342,000	7,880,600	8,815,800
Norway	3,592,000	5,881,000	4,213,000	6,581,000	2,677,400	5,526,000
Russia and Finland	1,951,000	5,467,000	2,085,000	8,443,000	2,128,200	6,981,400
Holland and Belgium	6,651,000	5,158,000	5,858,000	4,876,000	5,143,800	5,016,000
Spain and Portugal	6,167,000	1,205,000	3,601,000	1,113,000	5,925,000	1,152,200
United States	1,096,000	686,000	2,786,000	651,000	1,330,000	1,647,800
East Indies and Australia	30,000	3,022,000	—	3,204,000	34,000	3,366,200
West Indies	1,121,000	485,000	1,355,000	222,000	1,257,200	813,200
Cape of Good Hope and District	160,000	—	38,000	42,000	598,200	7,800
Gibraltar and Malta	55,000	—	72,000	—	112,800	200
Other States	5,272,000	6,893,000	2,169,000	6,125,000	2,895,000	6,988,600
Total	108,056,000	105,863,000	107,067,000	112,910,000	92,467,000	100,825,800
			£5,944,111	£6,272,777		

Account of the Quantities and Values of the Principal Articles Imported from Sweden into the United Kingdom in each of the 3 Years ending with 1867.

Principal Articles	Quantities			Computed Real Value		
	1865	1866	1867	1865	1866	1867
				£	£	£
Animals: oxen and bulls — no.	5,176	5,153	4,439	61,913	98,651	85,974
cows and calves — ,,	157	642	784	1,682	4,917	4,454
Corn: wheat — cwt.	26,786	29,598	18,270	11,976	15,942	12,593
barley — ,,	174,282	240,423	129,452	64,147	125,465	68,843
oats — ,,	3,009,280	2,291,241	3,468,796	1,091,516	968,526	1,389,141
other kinds — ,,	25,277	7,366	6,941	10,170	3,366	2,986
Copper ore — tons	983	2,095	1,191	15,237	29,027	11,910
Cotton, raw — cwt.	91	23	..	825	183	..
Iron, ore — tons	6,358	4,985	366	12,890	6,746	475
in bars, unwrought — ,,	40,016	51,933	60,006	502,350	525,504	604,544
pig — ,,	7,284	6,253	16,287	43,704	34,935	81,435
bloom — ,,	2,735	3,155	5,264	24,618	27,783	26,296
steel, unwrought — ,,	4,340	2,966	4,636	64,253	44,093	69,042
Lucifers of wood — cubic feet of packages	129,500	168,888	174,117	22,552	31,666	32,723
Oilseed cake — tons	980	1,080	845	7,560	8,767	6,855
Paper, of all sorts — cwt.	2,697	6,259	13,477	5,871	14,371	33,875
Tar — casks	309	24	111	2,110	214	990
Wood and timber, not sawn or split — loads	214,365	235,342	204,462	490,555	453,441	452,412
deals, battens, boards &c., sawn or split — ,,	506,440	503,747	389,419	1,588,595	1,499,784	1,569,682
firewood — ,,	35,944	39,972	40,582	31,147	28,857	30,166
lathwood — ,,	25,510	11,390	13,701	22,893	10,278	14,241
All other articles — value	..	..	..	88,952	90,991	66,446
Total	..	..	..	4,199,794	4,001,856	4,756,905

Account of the Quantities and Values of the Principal Articles of Domestic Produce and Manufacture Exported from the United Kingdom to Sweden in each of the 3 Years ending with 1867.

Principal Articles	Quantities			Declared Real Value		
	1865	1866	1867	1865	1866	1867
				£	£	£
Alkali, soda — cwt.	25,696	32,345	32,388	9,837	13,182	12,376
Apparel and haberdashery — value	..	..	..	44,387	30,470	20,674
Brass manufactures — cwt.	743	709	532	3,844	3,690	1,699
Coals, cinders, and culm — tons	261,084	274,285	275,899	116,879	133,855	137,235
Copper, wrought and unwrought — cwt.	3,143	3,565	3,616	14,218	14,949	14,365
Cotton yarn — lb.	1,431,740	1,599,888	1,699,170	129,687	136,317	101,807
Cottons, entered by the yard — yards	1,545,980	2,297,500	1,557,977	37,782	49,469	41,808
at value — value	..	..	..	8,121	11,878	7,982
Hardwares and cutlery, unenumerated — cwt.	7,096	4,134	3,905	42,027	28,569	26,303
Iron, wrought and unwrought — tons	25,024	12,450	8,175	201,021	108,907	55,403
Lead and shot — ,,	91	109	77	1,920	2,483	1,607
Machinery: steam engines — value	..	..	..	22,015	43,584	12,772
all other sorts — ,,	..	..	..	24,771	36,676	42,750
Oil, seal — gallons	38,781	32,756	24,527	7,993	6,723	5,487
Painters' colours (not otherwise described) — value	..	..	..	2,909	2,056	2,094
Tin, unwrought — cwt.	473	344	310	2,854	2,516	1,439
Tin plates — value	..	..	..	6,455	6,396	6,823
Wool, sheep and lambs' — lb.	38,781	32,331	33,617	4,474	3,234	2,666
Woollen and worsted yarn — ,,	111,435	85,155	34,656	19,798	14,183	5,199
Woollens, entered by the yard — yards	798,659	699,975	755,027	74,513	68,874	53,246
at value — value	..	..	..	835	661	263
All other articles — ,,	..	..	..	127,524	81,096	93,401
Total	..	..	..	903,507	823,488	647,318

hood. As the supply of pig-iron is limited to the quantity licensed to be made, the college, in granting new licenses to bar-iron works, always takes into consideration how far this may be done without creating a scarcity of pig-iron. Hence, the erection of new forges depends—1st, on having a supply of charcoal, without encroaching on the forests which supply your neighbours; and 2nd, on the quantity of pig-iron which the college, knows to be disposable. The courts of the mines decide all disputes that arise among the iron-masters regarding the exceeding of their licenses, encroachments &c.; an appeal to the college lying from their decision, and ultimately to the king in council, or to the supreme court of the kingdom.

It is needless to dwell on the impolicy of such regulations. No doubt it is quite right for Government to interfere to prevent the waste and destruction of the forests; but, having done this, it should abstain from all other interference, and leave everyone at liberty to produce as much iron as he may think proper. Mines of any importance are usually held by a society of shareholders. Some of them are only worked occasionally; and, as the labour is performed by peasants, who live ostensibly by industry, it is impossible to form any

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correct estimate of the numbers engaged in mining industry. Sweden now (1869) boasts upwards of 1,000 English miles of railway.

STOCKINGS, as everyone knows, are coverings for the legs. They are formed of only one thread entwined, so as to form a species of tissue, extremely elastic, and readily adapting itself to the figure of the part it is employed to cover. This tissue cannot be called cloth, for it has neither warp nor woof, but it approaches closely to it; and for the purposes to which it is applied, it is very superior.

1. *Historical Sketch of the Stocking Manufacture.*—It is well known that the Romans and other ancient nations had no particular clothing for the legs. During the middle ages, however, hose or *leggings*, made of cloth, began to be used; and at a later period the art of knitting stockings was discovered. Unluckily, nothing certain is known as to the individual by whom, the place where, or the time when, this important invention was made. Howell, in his *History of the World* (vol. iii. p. 222), says that Henry VIII. wore none but cloth hose, except there came from Spain by great chance a pair of silk stockings; that Sir Thomas Gresham, the famous merchant, presented Edward VI. with a pair of long silk stockings from Spain, and that the present was much taken notice of; and he adds, that Queen Elizabeth was presented, in the third year of her reign, with a pair of black knit silk stockings, and that from that time she ceased to wear cloth hose. It would appear from this circumstantial account, that the art of knitting stockings, or at least that the first specimens of knit stockings, had been introduced into England from Spain about the middle of the 16th century; and such seems to have been the general opinion, till an allusion to the practice of knitting, in the pretended poems of Rowley, forged by Chatterton, made the subject be more carefully investigated. The result of this investigation showed clearly that the practice of knitting was well known in England, and had been referred to in Acts of Parliament, a good many years previously to the period mentioned by Howell. But it had then, most probably, been applied only to the manufacture of woollen stockings; and the general use of cloth hose shows that even these had not been numerous. There is no evidence to show whether the art is native to England, or has been imported. (Beckmann's *Inventions*, vol. iv. art. 'Knitting, Nets, and Stockings.')

It is singular that the stocking frame, which, even in its rudest form, is a very complex and ingenious machine, that could not be discovered accidentally, but must have been the result of deep combination and profound sagacity, should have been discovered so early as 1589: before, in fact, the business of knitting was generally introduced. The inventor of this admirable machine was Mr. William Lee, of Woodborough, in Nottinghamshire. He attempted to set up an establishment at Calverton, near Nottingham, for the manufacture of stockings, but met with no success. In this situation he applied to the queen for assistance; but instead of meeting with that remuneration to which his genius and invention so well entitled him, he was discouraged and discountenanced! It need not, therefore, excite surprise that Lee accepted the invitation of Henry IV. of France, who having heard of the invention, promised him a magnificent reward if he would carry it to France. Henry kept his word, and Lee introduced the stocking frame at Rouen with distinguished success; but after the assassination of the king, the concern got into difficulties, and Lee died in poverty at Paris. A knowledge of the machine was brought back from France to England by some of the workmen who had emigrated with Lee, and who established themselves in Nottinghamshire, which still continues to be the principal seat of the manufacture. (Beckmann's *Inventions*, vol. iv. pp. 313–324; and *Letters on the Utility and Policy of Machines*, Lond. 1870.)

During the first century after the invention of the stocking frame, few improvements were made upon it, and two men were usually employed to work one frame. But in the course of last century the machine was very greatly improved. The late ingenious Mr. Jedediah Strutt, of Derby, was the first individual who succeeded in adapting it to the manufacture of *ribbed* stockings.

2. *Statistical View of the Stocking Trade.*—It is not possible, perhaps, to obtain any very satisfactory information in regard to the extent or value of the stocking trade. It embraces not only stockings, properly so called, but a great many other articles, including woollen and cotton drawers, gloves, mitts, nightcaps, socks, knitted shawls &c. And even as respects stockings, the varieties are so very numerous and differ so widely, comprising all sorts, from those of the finest to those of the coarsest silk, cotton, and wool, that nothing better than a rough estimate can be formed of their value.

In 1832, Mr. Felkin, of Nottingham, who made many elaborate enquiries into the subject, estimated the number of frames at work at 33,000, and the total value of the hosiery produced at 1,991,000*l.* This estimate was probably underrated at the time; and is now, there can be no doubt, greatly below the mark. From the best information we can obtain, we incline to think that the entire value of the hosiery produced in Great Britain, whether by frames or otherwise, may (1868) amount to somewhere about 6,500,000*l.* a-year. The average consumption per individual of hosiery in the same division of the empire may, it is believed, be taken at about 4*s.* a-year; and if we take the population at 25 millions, this will give 5,000,000*l.* for their consumption; and adding to this 1,000,000*l.* for the value of the exports to foreign countries (1,200,627*l.* in 1866), a sum of 500,000*l.* will remain to defray the cost of those sent to Ireland. We are pretty well satisfied that this estimate is not far from the mark. And moderate as it may seem to be when compared with others that have been put forward, it sets the great importance of the manufacture in a very striking point of view.

Of 1,206,626 dozen pairs of cotton and woollen stockings and socks, of the value of 448,028*l.*, exported in 1867, 334,951 dozen pairs, worth 131,445*l.*, were shipped for Australia. Of the residue, which were sent to a great many places, the United States and the Argentine Confederation took the largest numbers.

In Mr. Felkin's paper on the state of the lace and hosiery trades of Nottingham, read at the meeting of the Social Science Association held in 1866, he says:—

'In the hosiery business of Nottingham there were at work in 1865 11,000 narrow hand machines, employing domestically 7,500 men and 3,500 women and youths, at wages from 6*s.* to 26*s.*, averaging, by the statements of the accounts of the hands themselves, 40*s.* 6*d.* weekly; also 4,250 wide hand machines, likewise domestically employing 4,250 men, from 10*s.* to 30*s.*, averaging, according to the workmen's statement, 15*s.* weekly wages. These 15,250 hand frames were placed in 4,620 shops, in 80 parishes spread over the

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county of Nottingham. The entire average wages of 42,000 frames in 1844 was about 6*s.* a week only. These two classes of hand machines, it is computed, give employment to about 20,000 women and girls as winders and seamers, earning 4*s.* each on an average. There are about 1,000 wide power rotary frames, employing 700 men, at from 20*s.* to 32*s.*; and about 16,000 girls and women, seamers and winders, on an average of 5*s.* weekly. There are about 1,200 sets of circular round power frames improved, employing 500 men and 500 youths, at from 12*s.* to 35*s.* weekly; and 1,000 women, getting 12*s.* to 20*s.* weekly wages. The winders, cutters, menders, and others attached to these are about 11,000 women and girls, averaging 7*s.* to 12*s.* a week. And there are about 400 warp machines making hosiery by power, employing 400 men, at 14*s.* to 35*s.*; and 200 youths, at 12*s.* to 20*s.*; besides 400 warpers &c. (men), gaining about 25*s.*; and also 2,000 women and girls stitching &c., at 8*s.* a week on an average. It is probable that there are 2,000 men employed in bleaching, dyeing &c., and as porters &c., at 20*s.* to 35*s.* weekly; besides 5,000 menders, folders &c., working in warehouses, at from 8*s.* to 12*s.* weekly. To these must be added the warehousemen and clerks in 86 establishments for finishing and sale of goods in Nottingham. The Nottingham hosiery business is now believed to be giving employment to about 17,000 males and 44,000 females—together 61,000 workpeople. The estimated returns amounted in 1865 to about 3,000,000*l.* The two staple trades of Nottingham, therefore, distributed in return an amount of somewhat more than 8,000,000*l.* sterling last year, and furnished, in the aggregate, employment to nearly 200,000 workpeople.'

STORAX. [BALSAM.]

STORES, MILITARY AND NAVAL, include arms, ammunition &c. It is enacted that the importation of arms and ammunition may be prohibited by proclamation or order in council (s. 45), and the exportation, or carrying coastwise of military and naval stores, may be prohibited in the same way (s. 150), and the importation of gunpowder, ammunition, arms, or utensils of war, into British America or the Mauritius, except from the United Kingdom or any British possession, is absolutely prohibited (s. 159). (16 & 17 Vict. c. 107, or Customs Consolidation Act.)

STORES. In Commercial Navigation, the supplies of different articles provided for the subsistence and accommodation of the ship's crew and passengers.

It is laid down, in general, that the surplus stores of every ship arriving from parts beyond seas are to be subject to the same duties and regulations as those which affect similar commodities when imported as merchandise; but if it shall appear to the collector of customs that the quantity of such stores is not excessive, nor unsuitable, under all the circumstances of the voyage, they may be entered for the private use of the master, purser, or owner of such ship, on payment of the proper duties, or be warehoused for the future use of such ship, although the same could not be legally imported by way of merchandise. (16 & 17 Vict. c. 107.)

For such places as are not included in the annexed list, the same allowance should be granted as is given to the place nearest thereunto.

Goods delivered into the charge of the searchers to be shipped as stores, may be so shipped without entry or payment of any duty, for any ship of the burden of 50 tons at least bound upon a voyage to foreign parts, the probable duration of which out and home will not be less than 40 days: provided such stores be duly borne upon the ship's victualling bill, and be shipped in such quantities, and subject to such directions and regulations, as the Commissioners of Customs shall direct and appoint. (16 & 17 Vict. c. 107 s. 140.)

Rum of the British plantations may be delivered to the searcher, to be shipped as stores for any ship, without entry or payment of any duty; and any surplus stores of any ship may be delivered to the searcher, to be re-shipped as stores for the same ship, or for the same master in another ship, without entry or payment of any duty—such rum and such surplus stores being duly borne upon the victualling bills of such ships respectively; and if the ship, for the future use of which any surplus stores have been warehoused, shall have been broken up or sold, such stores may be so delivered for the use of any other ship belonging to the same owners, or may be entered for payment of duty, and delivered for the private use of such owners or any of them, or of the master or purser of the ship. (Sec. 17.)

The searchers in London, on clearance of vessels coastwise to take in cargoes for foreign parts, are to apprise the collectors of customs at the outports where the vessels may be bound, of the quantity and description of the goods which may have been shipped as stores on board such vessels, and that bond has been given by the masters of the vessels that no part of such stores shall be consumed by the crews, or any package opened or altered, until the vessels have actually been cleared on their foreign voyages; and the collectors of customs at the out-ports are in like manner to cause a similar communication to be made to the ports where the outward cargoes are to be taken on board, and the officers at such ports are to take care to ascertain that the several goods so shipped are actually on board the vessels on their arrival, and have neither been consumed nor run on shore during the coasting voyage; and if so, to report the same to the Board. (*Min. by Com. of Customs*, February 19, 1833.)

List of Foreign Goods allowed (with the addition of 25 per cent. to guard against the casualties of a sea voyage) to be shipped as Stores from the bonded Warehouses free of Duty. (*Customs Minute*, November 29, 1832, and numerous subsequent orders of that Board, and the 11 & 12 Vict. c. 122.)

Tea, ¼ oz.; coffee or cocoa, or cocoa paste, 1 oz. per day for each person on board, with the option to ship the entire quantity required for the voyage of either species of these articles, *half* an oz. of tea being considered equal to *one* oz. of coffee or cocoa, or cocoa paste.

Wine, 1 quart per day for the master, each mate, and cabin passenger.

Wine may be shipped instead of spirits, or a proportion of each, 1 pint of wine being equal to ½ pint of spirits.

Wine bottled in the bonded warehouses for exportation may be shipped as stores, in packages containing not less than 1 doz. reputed quarts or 2 doz. reputed pint bottles.

Spirits, viz. brandy, geneva, rum (British plantation), ¼ pint per day for each person on board.

British plantation or East India rum or British spirits to be in the proportion of ½ of the whole quantity of spirits shipped. Spirits imported in bottles, or bottled in the bonded warehouses for exportation, may be shipped as stores, in pack-

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A List by which to calculate the Amount of Stores for the estimated Average Number of Days' Duration of a Voyage from the United Kingdom to the different Ports enumerated and back.

Ports of Destination	Days of Voyage
Abo	100
Acapulco, Mexico	450
Alexandretta	180
Alexandria	180
Algoa	120
Amoy	110
Ancona	100
Ancona	110
Arcona	120
Archangel	150
Antigua	180
Archangel	120
Archipelago Isles	180
Ascension Isle	240
Augustine's Bay	150
Azores	120
Azores Isles	90
Bahama Isles	150
Bahia	240
Baltimore	120
Barbadoes	180
Barcelona	110
Barcoon	365
Batavia	400
Bay of Campeachy	240
Bay of Roses	110
Bayonne	80
Bengal	400
Berbice	180
Bergen	100
Bermuda	120
Bilboa	80
Bombay	365
Bona	120
Bordeaux	80
Bornholm	100
Boston	120
Botany Bay	420
Brazils	200
Bremen	42
Buenos Ayres	240
Cadiz	90
Calabar	180
Calcutta	400
Callao	400
Canary Isles	95
Candia Isle	160
Canton	420
Cape Coast Castle	200
Cape of Good Hope	240
Cape Hayti	240
Cape St. Mary	180
Cape de Verde Islands, viz.—	
St. Antonio	100
St. Jago	
St. Vincent	
Carberona	100
Carthagena	100
Carthagena, Spanish main	240
Cayenne	180
Cephalonia	160
Cette	130
Ceuta	120
Ceylon	365
Charlestown	120
Chesapeake Bay	120
Chili	360
China	420
Christiania	100
Civita Vecchia	130
Colombia River	700
Colombo	365
Constantinople	180
Copenhagen	100
Coquimbo	400
Corfu Isle	160
Corsica Isle	120
Corunna	120
Cowesedt	80
Cuba	100
Cuddalore	240
Cumana	400
Curaçoa	240
Cyprus	180
Dantzic	100
Davis's Straits	240
Delaware Bay	120
Demerara	150
Dominica	150
Dronthelm	100
Elba Isle	100
Elsineur	150
Emboden	95
Emboden	140
Esseguibo	42
Falkland Isles	180
Faro Islands, N. Sea	240
Faro Islands, Canaries	100
Fayal	95
Fernando Po	80
Ferrol	180
Friendly Islands	80
Gallipoli	420
Gandapatam	180
Genoa	400
Gibraltar	130
Goa	160
Gothe	365
Göttenburg	120
Greek Islands, and Greece	100
Greenland Fishery	180
Grenada	180
Guadaloupe	180
Guayaquil	180
Halifax	420
Hamburg	120
Havannah	42
Hayti	200
Helgoland	240
Hobart Town	42
Honduras	400
Hudson's Bay	240
Iceland	240
Ionian Isles	100
Islands in the Archip.	130
Isle of Sable	180
Isles of France and Bourbon	120
Italy	270
Ivica	130
Jamaica	110
Java	210
Königsberg	400
La Conception	100
Ladrones	430
La Guayra	240
Leghorn	170
Lima	400
Lisbon	80
Long Island	130
Lubeck	100
Madeira	100
Madagascar	270
Madeira	90
Madras	400
Majorca	110
Malabar	365
Malacca	400
Malaga	100
Malta	160
Mangalore	140
Manilla	365
Maranham	420
Marigalante	180
Marseilles	180
Martinico	130
Masulipatam	180
Mauritius	400
Mecca	470
Messina	100
Mexico, Vide Vera Cruz and Acapulco	120
Minorca	
Mirzamichi	
Mocha	110
Mogadore	100
Mogadore	365
Monte Video	105
Montreal	120
Montserrat	250
Nantes	100
Naples	180
Narsenne	80
Negapatam	130
Nevis	130
New Brunswick	400
Newfoundland	180
New Guinea	120
New Orleans	400
Newport	190
New Providence	120
New South Wales	165
New York	400
New Zealand	120
Nice	400
North Bergen	130
Nova Scotia	100
Odessa	120
Oporto	240
Otaheite	80
Owhyhee	420
Palermo	420
Panama	130
Para	420
Pellew Islands	185
Pensacola	420
Pernambuco	190
Peru	190
Petersburg	400
Philadelphia	100
Philippine Islands	120
Pilau	420
Placentia Harbour	100
Pondicherry	120
Port-au-Prince, Hayti	400
Port St. John, Newfoundland	210
Porto Bello	150
Porto Rico	240
Providence, Bahama Islands	210
Quebec	160
Queen Ann's Point	150
Revel	180
Rhodes Island	100
Riga	180
Rio Grande	100
Rio Janeiro	200
River Gambia	190
Rochelle	80
Rome	130
Rugen	100
St. Andero	100
St. Andrew, N. Brunsw.	100
St. Augustine's Bay	80
St. Bartholomew	120
St. Christopher's	150
St. Croix	150
St. Domingo	180
St. Eustatia	180
St. Helena	210
St. John, New Brunsw.	186
St. John's, Newfound.	240
St. Lucia	120
St. Martin	120
St. Mary's	180
St. Michael's, Azores	180
St. Salvador, or Bahia	95
St. Sebastian	80
St. Thomas	200
St. Ubes	240
St. Vincent's	180
Salee	80
Salerno	180
Salonica	120
Sandwich Isles	150
Santa Martha	180
Santinda Isle	480
Savannah	240
Scandaroon	130
Senegal	150
Sierra Leone	180
Singapore	180
Smyrna	180
Society Islands	365
South Sea Fishery	180
Stettin	420
Stockholm	3 years
Sumatra	100
Surat	100
Susa	400
Swan River	365
Sydney, N.S. Wales	120
Syra	365
Syracuse	100
Tangier	180
Tarragona	140
Teignmouth	120
Tenerife	110
Timor	365
Tobago	95
Tonningen	420
Tortola	180
Toulon	42
Tranquebar	180
Trieste	130
Trincomalee	400
Trinidad	160
Trinity Bay	380
Tripoli	180
Trujillo	120
Tunis	410
Valdivia	120
Valencia	400
Valparaiso	110
Van Diemen's Land	400
Venezuela	365
Venice	240
Vera Cruz	160
Vigo	260
Wyburg	80
Zante Isle	100
Zara	160
Zea	160

ages or cases containing not less than 1 dozen bottles each.

Raw Sugar, Bastard, Refined, and Molasses, Cane Juice or Syrup (together or separate), 1 lb. per week for each person on board.

Dried Fruits, 2 lb. per week for each person on board.

Rice, 2 lb. per week for each person on board.

Foreign or British Segars, ¼ oz. per day for the master, each mate, and each cabin passenger.

The entire quantity of foreign segars allowed as stores for each voyage to be shipped in *one* package.

A List of British manufactured Goods to be allowed to be shipped as Stores on the usual Bounty or Drawback.

British refined Sugar, 3 oz. per day for the master, each mate, and each cabin passenger.

British manufactured Tobacco, ¼ oz. per day per man.

British exciseable Goods, viz. beer, ale, and porter (together or separate), 1 quart per day for the master, each mate, and each passenger.

Vinegar, ½ pint per week for each person on board.

For Temperance Ships, Brandy ⅓ of the allowances of spirits of all sorts issued to other ships.

Sugar, Molasses, Cane Juice, or Syrup, 3 oz. per day.

STRAITS SETTLEMENTS. [SINGAPORE.]

STRANDING. In Navigation, the running of a ship on shore, or on the beach.

It is the invariable practice to subjoin the following *memorandum* to policies of insurance executed by private individuals in this country: 'N.B.—Corn, fish, salt, fruit, flour, and seed are warranted free from average, unless general, *or the ship be stranded*; sugar, tobacco, hemp, flax, hides, and skins are warranted free from average under 5*l.* per cent.; and all other goods, also the ship and freight, are warranted

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free of average under 3*l.* per cent. unless general, *or the ship be stranded.*'

It is, therefore, of the greatest importance accurately to define what shall be deemed a stranding. But this is no easy matter; and much diversity of opinion has been entertained with respect to it. It would, however, appear that merely striking against a rock, bank, or shore, is not stranding; and that, to constitute it, the ship must be upon the rock &c. for some time (how long?). Mr. Justice Park has the following observations on this subject: 'It is not every touching or striking upon a fixed body in the sea or river that will constitute a stranding. Thus Lord Ellenborough held, that in order to establish a stranding, the ship must be *stationary*; for that merely striking on a rock, and *remaining there a short time* (as in the case then at the bar, about a minute and a half), and then passing on, though the vessel may have received some injury, is not a stranding. Lord Ellenborough's language is important. —*Ex vi termini* stranding means lying on the shore, or something analogous to that. To use a vulgar phrase, which has been applied to this subject, if it be *touch and go* with the ship, there is no stranding. It cannot be enough that the ship lie for a few moments on her beam ends. Every striking must necessarily produce a retardation of the ship's motion. If by the force of the elements she is run aground, and becomes stationary, it is immaterial whether this be on piles, on the muddy bank of a river, or on rocks on the sea shore; but a mere *striking* will not do, *wherever* that may happen. I cannot look to the consequences, without considering the *causa causans*. There has been a curiosity in the cases about stranding not creditable to the law. A little common sense may dispose of them more satisfactorily.'

This is the clearest and most satisfactory statement we have met with on this subject; still it is very vague. Lord Ellenborough and Mr. Justice Park hold, that to constitute a stranding, the ship must be *stationary*; but they also hold, that if she merely remain upon a rock &c. for a *short time*, she is not to be considered as having been stationary. Hence everything turns upon what shall be considered as a short time. And we cannot help thinking that it would be better, in order to put to rest all doubts upon the subject, to decide either that every striking against a rock, the shore &c., by which damage is done to the ship, should be considered a stranding; or that no striking against a rock &c. should be considered as such, provided the ship be got off within a *specified time*. Perhaps a *tide* would be the most proper period that could be fixed.

The insurance companies exclude the words '*or the ship be stranded*' from the memorandum. [INSURANCE, MARINE.]

STURGEON FISHERY. The sturgeon is a large, valuable, and well-known fish, of which there are several species, viz. the sturgeon, properly so called, or *Acipenser sturo*; the beluga, or *Acipenser huso*; the sevruga, or *Acipenser stellatus* &c. The sturgeon annually ascends our rivers, but in no great number, and is taken by accident in the salmon nets. It is plentiful in the North American rivers, and on the southern shores of the Baltic; and is met with in the Mediterranean &c. But it is found in the greatest abundance on the northern shores of the Caspian, and in the rivers Wolga and Ural; and there its fishery employs a great number of hands, and is an important object of national industry. Owing to the length and strictness of the Lents in the Greek Church, the consumption of fish in Russia is immense; and from its central position, and the facilities afforded for their conveyance by the Wolga, the products of the Caspian fishery, and those of its tributary streams, are easily distributed over a vast extent of country. Besides the pickled carcasses of the fish, caviar is prepared from the roes; and isinglass, of the best quality, from the sounds, and both are largely exported. The caviar made by the Ural Cossacks is reckoned the best. The belugas are sometimes of a very large size, weighing from 1,000 lb. to 1,500 lb.; and yield a good deal of oil. The seal fishery is also pretty extensively prosecuted in the Caspian. The reader will find a detailed account of the mode in which the fishery is carried on in this sea, and in the rivers Wolga and Ural, in Tooke's *Russia*, vol. iii. pp. 49–72.

M. Tegoborski estimated the total value of the produce of the fisheries now referred to at 5,000,000 silver roubles a-year. In 1867, 22,192 cwt. of caviar were exported from Taganrog. In 1867 we imported 120 cwt., valued at 1,826*l.*

SUCCADES. Of succades and confectionery (including fruits and vegetables preserved in sugar, and exclusive of 341,799 lb. of preserved ginger (valued at 25,769*l.*), we imported, in 1867, 1,636,185 lb., valued at 81,764*l.* Of these, 794,167 lb. were entered for home consumption, paying a duty of 1*d.* per lb. In 1867 we exported 1,636,644 lb. of British, and 1,618,977 lb. of foreign confectionery, worth in all 130,312*l.*

SUGAR (Fr. sucre; Ger. zucker; Ital. zucchero; Russ. sachar; Span. azúcar; Arab. sukhir; Malay, soola; Sans. sarkarā). A sweet granulated substance, too well known to require any particular description. It is everywhere in extensive use; and in this country ranks rather among the indispensable necessaries of life than among luxuries. In point of commercial importance it is second to very few articles. It is chiefly prepared from the expressed juice of the *arundo saccharifera*, or sugar cane; but it is also procured from an immense variety of other plants, as maple, beet-root, birch, parsnep &c.

I. *Species of Sugar.*—The sugar met with in commerce is usually of four sorts—brown, or muscovado sugar; clayed sugar; refined, or loaf sugar; and sugar candy. The difference between one sort of sugar and another depends altogether on the different modes in which they are prepared.

1. *Brown*, or *Muscovado Sugar.*—The plants or canes being crushed in a mill, the juice, having passed through a strainer, is collected in the clarifier, where it is first exposed to the action of a gentle fire, after being 'tempered' (mixed with alkali), for the purpose of facilitating the separation of the liquor from its impurities. It is then conveyed into the large evaporating copper, and successively into two others, each of smaller size; the superintending boiler freeing it, during the process, from the scum and feculent matters which rise to the surface. The syrup then reaches the last copper vessel, called the 'striking tache,' where it is boiled till sufficiently concentrated to be capable of granulating in the cooler, whence it is transferred with the least possible delay, to prevent charring. Here it soon ceases to be a liquid; and when fully crystallised, is put into hogsheads (called 'potting'), placed on their ends in the curing-house, with several apertures in their bottoms, through which the molasses drain into a cistern below. In this state they remain till properly cured, when the casks are filled up, and prepared for shipment.

2. *Clayed Sugar* is prepared by taking the

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juice, as in the case of muscovado sugar when boiled to a proper consistency, and pouring it into conical pots with the apex downwards. These pots have a hole at the lower extremity, through which the molasses or syrup is allowed to drain. After this drain has continued for some time, a stratum of moistened clay is spread over the surface of the pots; the moisture of which, percolating through the mass, is found to contribute powerfully to its purification.

3. *Refined Sugar* may be prepared from muscovado or clayed sugar, by redissolving the sugar in water, and, after boiling it with some purifying substances, pouring it, as before, into conical pots, which are again covered with moistened clay. A repetition of this process produces *double refined* sugar. But a variety of improved processes are now resorted to.

4. *Sugar Candy.*—Solutions of brown or clayed sugar, boiled till they become thick, and then removed into a hot room, formed upon sticks or strings put into the vessels for that purpose, into crystals, or candy.

II. *Historical Notice of Sugar.*—The history of sugar is involved in a good deal of obscurity. It was very imperfectly known by the Greeks and Romans. Theophrastus, who lived about 320 years before the Christian era, the first writer whose works have come down to us by whom it is mentioned, calls it a sort of 'honey extracted from canes or reeds.' Strabo states, on the authority of Nearchus, Alexander's admiral, that 'reeds in India yield honey without bees.' And Seneca, who was put to death A.C. 65, alludes to sugar in a way which shows how little was then known respecting it (Epist. 84):—'Aiunt,' says he, 'inveniri apud Indos mel in arundinum foliis, quod aut ros illius cœli, aut ipsius arundinis humor dulcis et pinguior gignat.'

Of the ancients, Dioscorides and Pliny have given the most precise description of sugar. The former says, it is 'a sort of concreted honey, found upon canes, in India and Arabia Felix; it is in consistence like salt, and is, like it, brittle between the teeth.' And Pliny describes it as 'honey collected from canes, like a gum, white and brittle between the teeth; the largest is of the size of a hazel nut: it is used in medicine only.' (Saccharum et Arabia fert, sed laudatius India; est autem mel in arundinibus collectum, gummium modo candidum, dentibus fragile, amplissimum nucis avellanæ magnitudine, ad medicinæ tantum usum.—Lib. xii. c. 17.)

It is evident, from these statements, that the knowledge of the Greeks and Romans with respect to the mode of obtaining sugar was singularly imperfect. They appear to have thought that it was found adhering to the cane, or that it issued from it in the state of juice, and then concreted like gum. Indeed, Lucan expressly alludes to Indians near the Ganges—

Quique bibunt tenerâ dulces ab arundine succos.—Lib. iii. 237.

But these statements are evidently without foundation. Sugar cannot be obtained from the cane without the aid of art. It is never found native. Instead of flowing from the plant, it must be forcibly expressed, and then subjected to a variety of processes. It is not, however, quite so clear as has been generally supposed that the Romans were wholly unacquainted with the mode of procuring sugar. The remarkable line of Statius—

Et quas percoquit Ebusia cannas.—Sylv. lib. i. v. 15.

has been conjectured, apparently on pretty good grounds, to refer to the boiling of the juice of the cane. But the passage has been differently read, and is too enigmatical to be much depended on.

Dr. Moseley conjectures, apparently with much probability, that the sugar described by Pliny and Dioscorides, as being made use of at Rome, was sugar candy obtained from China. This, indeed, is the only sort of sugar to which their description will at all apply. And it would seem that the mode of preparing sugar candy has been understood and practised in China from a very remote antiquity; and that large quantities of it have been in all ages exported to India, whence, it is most probable, small quantities found their way to Rome. (*Treatise on Sugar*, 2nd edit. pp. 66–71. This, as well as Dr. Moseley's *Treatise on Coffee*, is a very learned and able work.)

Europe seems to be indebted to the Saracens, not only for the first considerable supplies of sugar, but for the earliest example of its manufacture. Having, in the course of the 9th century, conquered Rhodes, Cyprus, Sicily, and Crete, they introduced into them the sugar cane, with the cultivation and preparation of which they were familiar. It is mentioned by the Venetian historians, that their countrymen imported, in the 12th century, sugar from Sicily at a cheaper rate than they could import it from Egypt. (*Essai de l'Histoire du Commerce de Venise*, p. 100.) The Crusades tended to spread a taste for sugar throughout the Western world; but there can be no doubt that it was cultivated as now stated, in modern Europe, antecedently to the æra of the Crusades; and that it was also previously imported by the Venetians, Amalfitans, and others, who carried on a commercial intercourse, from a very remote epoch, with Alexandria and other cities in the Levant. It was certainly imported into Venice in 996.—(*See the Essai, &c.* p. 70.)

The art of refining sugar, and making what is called loaf-sugar, is said, by Dr. Moseley, to be a modern European invention, the discovery of a Venetian about the end of the 15th or the beginning of the 16th century. (Moseley, p. 66.) But this is doubtful, for Le Grand d'Aussy has shown that white or, as he calls it, refined sugar (*sucre blanc ou raffiné*), had been introduced into and used in France for more than a century and a half previously to the date assigned for the discovery of the process of refining in Venice. (*Vie privée des François*, ii. 198, ed. 1815.) But white sugar is not necessarily, as Le Grand d'Aussy seems to suppose, refined; it may be merely clayed, like Havannah sugar, which is as white as refined sugar. This sugar was imported from Egypt principally by Italians; and the probability is, that the latter were the first Europeans who practised the art, which, however, would appear to have originated in the East.

The cane had, as already seen, been introduced into Sicily, and its culture practised, previously to the middle of the 12th century. It also was carried to Spain and cultivated by the Saracens soon after they obtained a footing in that country. The first plantations were at Valencia; but they were afterwards extended to Granada and Murcia. Mr. Thomas Willoughby, who travelled over great part of Spain in 1664, has given an interesting account of the state of the Spanish sugar plantations, and of the mode of manufacturing the sugar.

Plants of the sugar cane were carried by the Spaniards and Portuguese to the Canary Islands, and Madeira, in the early part of the 15th century; and it has been asserted by many, that these islands furnished the first plants of the sugar cane that ever grew in America.

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But though it is sufficiently established that the Spaniards early conveyed plants of the sugar cane to the New World, there can be no doubt, notwithstanding Humboldt seems to incline to the opposite opinion (*Essai Politique sur la Nouvelle Espagne*, liv. iv. c. 10), that this was a work of supererogation, and that the cane was indigenous both to the American continent and islands. It was not for the plant itself, which flourished spontaneously in many parts when it was discovered by Columbus, but for the art of making sugar from it, that the New World is indebted to the Spaniards and Portuguese; and these to the nations of the East. (Lafitau, *Mœurs des Sauvages*, tome ii. p. 150; Edwards's *West Indies*, vol. ii. p. 238.)

Barbadoes is the oldest settlement of the English in the West Indies. We took possession of it in 1627; and so early as 1646 began to export sugar thence to England. The trade of Barbadoes attained its maximum in 1676, furnishing, it is said, employment, at that period, for 400 sail of vessels, averaging 150 tons burden; but this statement is most probably exaggerated.

Jamaica was discovered by Columbus, in his second voyage, and was first occupied by the Spaniards. It was wrested from them by an expedition sent against it by Cromwell in 1656; and has since continued in our possession, forming by far the most valuable of our West Indian colonies. At the time when it was conquered, there were only 3 small sugar plantations upon it, but, in consequence of the influx of English settlers from Barbadoes and the mother country, fresh plantations were speedily formed, and continued rapidly to increase.

The sugar cane is said to have been first cultivated in St. Domingo, or Hayti, in 1506. It succeeded better there than in any other of the West Indian Islands. Peter Martyr, in a work published in 1530, states that, in 1518, there were 20 sugar-works in St. Domingo established by the Spaniards. 'It is marvellous,' says he, 'to consider how all things increase and prosper in the island. There are now 28 sugar presses, wherewith great plenty of sugar is made. The canes or reeds wherein the sugar groweth are bigger and higher than in any other place; and are as big as a man's wrist, and higher than the stature of a man by the half. This is more wonderful, that whereas in Valencia, in Spain, where a great quantity of sugar is made yearly, whensoever they apply themselves to the great increase thereof, yet doth every root bring forth not past 5 or 6, or at most 7 of these reeds; whereas at St. Domingo, 1 root beareth 20, and oftentimes 30.' (*Eng. trans.* p. 172.)

Sugar from St. Domingo formed, for a lengthened period, the principal part of the European supplies. Previously to its devastation in 1790, no fewer than 65,000 tons of sugar were exported from the French portion of the island.

III. *Sources whence the Supply of Sugar is derived.*—The West Indies (including Cuba), Louisiana, Java, Brazil, Mauritius, Madras, the Isle de Réunion, and the Philippines, are the principal sources whence the foreign supplies required for the European, American, and Australian markets are derived. But of late years the supplies of tropical sugar brought to Europe have been materially increased by the beet-root sugar raised in France, Belgium, Germany, Russia &c.

On the whole we incline to think that we shall be sufficiently near the mark if we estimate the produce of sugar in 1868 at about 1,600,000 tons cane, and 400,000 tons beet-root, making a total produce of perhaps 2,000,000 tons, or even more.

Loaf or lump sugar is unknown in the East, sugar candy being the only species of refined sugar that is made use of in India, China &c. The manufacture of sugar candy is carried on in Hindostan, but the process is extremely rude and imperfect. In China, however, it is manufactured in a very superior manner, and large quantities are exported. When of the best description, it is in large white crystals, and is a very beautiful article. Two sorts of sugar candy are met with at Canton, viz. Chinchew and Canton; the former being the produce of the province of Fokien, and the latter, as its name implies, of that of Canton. The Chinchew is by far the best, and is about 50 per cent. dearer than the other. Chinese sugar candy is extensively consumed by Europeans at the different settlements throughout the East. With the exception of 1852, when 2,085 tons raw sugar were imported from China, very little has latterly been brought to our markets from that empire. It seems, indeed, to be pretty well understood that the sugar of China is unable to withstand the competition of that of Java, Brazil, and Cuba.

Consumption of Tropical Sugar.—It is exceedingly difficult, or rather we should say quite impossible, to get any correct information with respect to the consumption of sugar in most countries. In as far as regards this country, the subjoined tables furnish ample information. It appears from them that, at an average of the 3 years ending with 1844, the consumption of sugar in the United Kingdom amounted to about 200,000 tons a-year, exclusive of about 10,000 tons of bastard or inferior sugar, obtained from boiling molasses. In the course of the ensuing year Sir Robert Peel reduced the duties on British colonial muscovado sugars from 25*s.* 2⅔*d.* to 14*s.* per cwt., a considerable reduction being made, at the same time, in the duty on foreign sugar the produce of free labour. In consequence of this reduction the entries of sugar for home consumption increased from 206,472 tons in 1844 to 242,830 tons in 1845, exclusive in both years of molasses equivalent to about 15,000 tons. In 1846 further changes were made in the duties by the admission of foreign slave-grown sugar at a reasonable rate; and in 1854 the entries for consumption amounted to 416,619 tons. But they declined during the next 3 years. The entries in 1858, however, rose, including refined, to about 437,000 tons, and in 1868, with lower duties, they reached, including the quantities used in breweries &c., 600,000 tons, to which about 20,000 tons may be added for molasses. (See post.)

The statements given by Schnitzler (*Statistique de la France*, i. 296) show that, at an average of 1840 and 1841, the consumption of colonial and foreign sugars amounted in France to 73,139,000 kilog., or 71,425 tons a-year; and adding to this quantity the produce of the beet-root plantations for these years, amounting to about 30,000,000 kilog., the whole consumption would be about 103,000,000 kilog., exclusive of the quantity surreptitiously introduced. But the home supply of sugar has greatly increased in the interval; and it further appears that, in 1865, 209,585,832 kilog. of foreign and colonial sugar were entered for home consumption. Perhaps we should hardly be justified in estimating the imports (minus re-exports) of foreign and colonial sugar into France at above 200,000 tons in ordinary years, making, with beet-root, the consumption about 350,000 tons.

The Low Countries, Germany, and Austria are supplied through Holland, the Hanse Towns, the

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ports on the south shore of the Baltic, and Trieste. Most part of the produce of the Dutch colonies is imported into Holland, and considerable quantities are also imported from other countries; so that, on the whole, the imports into the Dutch ports may be fairly estimated at from 90,000 to 100,000 (97,912 in 1865) tons a-year. The imports into Hamburg, Bremen, and Lubeck, amount (including refined), at an average, to about 25,000 tons a-year, and those into Belgium to above 20,000 tons. There is also a considerable importation of sugar into Stettin and other Baltic ports belonging to Germany and Prussia. The imports into the Austrian dominions through Trieste and other channels may be taken at about 30,000 tons.

The consumption of sugar in Spain was estimated by Montveran (*Statistique des Colonies*, p. 92) at 41,050 tons. But, despite the considerable consumption of cocoa in Spain, and the moderation of the duties on sugar, we have little or no doubt that this estimate at the time was beyond the mark. Probably, were the consumption now stated at 55,000 tons, it would be quite as much as it amounts to. We may, perhaps, estimate the consumption of Portugal at about 12,000 tons.

In 1863 duty was paid in Russia on nearly 35,000 tons of raw sugar, exclusive of what is clandestinely imported, and exclusive, also, of the clandestine imports of refined sugar. This, with beet-root sugar, may raise the total supply to 70,000 tons.

Table showing the Quantities and Values of the Imports of Foreign Sugar, of all Sorts, into European Russia, exclusive of Finland, in 1861, 1862, 1863, *and* 1865.

Years	Quantities	Values
	poods	silver roubles
1861	1,092,436	5,396,524
1862	1,264,502	6,121,448
1863	2,150,806	10,769,412
1865	243,728	1,218,640

To the average, or 950,000 poods, has to be added about 35,000 tons of beet-root sugar raised in the empire, besides what is smuggled.

During the year ending June 30, 1865, the United States imported (principally from Cuba and Porto Rico) 607,937,674 lb., of which 30,360,084 lb. were re-exported, leaving 577,587,590 lb., or upwards of 257,000 tons, for the consumption of the Union. But in addition to increasing imports of foreign sugar the United States draw a large portion of their supply from the plantations in Louisiana, the produce of which had increased rapidly down to the commencement of the Civil War. Perhaps the produce might then be estimated at about 180,000 tons at an average. Mr. Consul Donohoe, of New Orleans, in Feb. 1867, says that the production in 1866 was greater than in 1865, but that there is no foreign export of sugar and molasses from that port. The whole shipments of native raw and refined sugar from the Union during the year ended June 30, 1864, amounted only to 2,328,483 lb., or about 1,040 tons. The States derive a further supply of 18,000 or 20,000 tons of sugar from the maple.

On the whole, therefore, we shall not perhaps be far wrong in estimating the consumption of colonial, tropical, and beet-root sugar as follows, viz.:

	tons	tons
The United Kingdom, inclusive of distilleries &c.		350,000
France, including beet-root		350,000
Colonial sugars for the Netherlands, Belgium, Germany, Prussia, Austria, Hungary, and Italy, per Dutch ports, deducting re exports to Russia and other countries	70,000	
Hanse Towns	30,000	
Belgium	20,000	
Rostock, Stettin, Königsberg, and other ports on the Baltic, including the imports from Holland and the Hanse Towns	10,000	
Austria by Trieste	30,000	
Beet-root	100,000	
		260,000
Spain		55,000
Portugal		12,000
Russia, including beet-root		70,000
Denmark and Sweden		14,000
Italy, Sicily, Malta, Turkey, Greece, and the Levant generally		55,000
United States		500,000
Canada, Australia, Cape of Good Hope &c.		50,000
		1,916,000

Now, supposing these statements to be reasonably correct, it would appear that the aggregate supply of sugar so far exceeds the demand, that it may be fairly presumed that the permission now given to employ sugar in our distilleries and breweries, at an excise duty of 3*s.* 6*d.* per cwt., can have no lasting influence over its price. The quantities taken for this purpose have hitherto been inconsiderable, viz. in 1856, 134,628 cwt.; 1857, 5,225 do.; 1858, 17,553 do.; and in the year ended March 31, 1868, 356,088 do. It is, no doubt, true that the demand for sugar is rapidly increasing in this and most other countries; but, as the power to increase its supply (so long, at least, as Cuba and Brazil are supplied with slave labour) is all but illimitable, no permanent rise of prices need at present be anticipated.

Taking the price of sugar at the rate of only 20*s.* per cwt. or 20*l.* per ton, the prime cost of the article (1,846,000 tons) to the people of Europe, the United States, and other countries above mentioned, will be 36,920,000*l.* sterling; to which adding 50 per cent. for duty, its total cost will be 55,380,000*l.* This is sufficient to prove the paramount importance of the trade in this article. Exclusive of sugar, the other products of the cane, as rum, molasses, treacle &c., are of very great value. The gross revenue derived by the British treasury from rum alone, amounted, in the year ended March 31, 1868, to 2,137,535*l.*

Progressive Consumption of Sugar in Great Britain.—We are not aware that there are any authentic accounts with respect to the precise period when sugar first began to be used in England. It certainly was imported in small quantities by the Venetians and Genoese in the 14th and 15th centuries (in Marin's *Storia del Commercio de' Veneziani*, vol. v. p. 306, there is an account of a shipment made at Venice for England in 1319, of 100,000 lb. sugar, and 10,000 lb. sugar candy: the sugar is said to have been brought from the Levant); but honey was then, and for long after, the principal ingredient employed in sweetening liquors and dishes. Even in the early part of the 17th century the quantity of sugar imported was very inconsiderable; and it was made use of only in the houses of the rich and great. It was not till the latter part of the century, when coffee and tea began to be introduced, that sugar came into general demand. In 1700 the quantity consumed in Great Britain was about 10,000 tons, or 22,400,000 lb.; whereas, in 1867, the consumption amounted to above 584,866 tons, or more than 1,310,000,000 lb.; so that sugar forms not only one of the principal articles of importation and sources of revenue, but an important necessary of life.

Great, however, as the increase in the use of sugar has certainly been, it may, we think, be fairly presumed that the demand for it is still a good deal below its natural limit; and now that the duties are reasonable, and the trade placed on a proper footing, we confidently anticipate that the consumption of sugar, and also the revenue derived from it, will yet be considerably increased.

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During the first half of last century the consumption of sugar increased five-fold. It amounted, as already stated—

	tons		lb.
In 170 ,	to 10,000	- or	22,400,000
1710,	14,000	-	31,360,000
1754,	42,000	-	94,080,000
1754,	53,270	-	119,320,000
1770-75,	72,500 (average)	-	162,500,000
1786-90,	81,000 „	-	181,500,000

In the reign of Queen Anne, the duty on sugar amounted to 3*s.* 5*d.* per cwt. Small additions were made to it in the reign of George II.; but in 1780 it was only 6*s.* 8*d.* In 1781 a considerable addition was made to the previous duty; and in 1787 it was as high as 12*s.* 4*d.* In 1791 it was raised to 15*s.*; and while its extensive and increasing consumption pointed it out as an article well fitted to augment the public revenue, the pressure on the public finances, caused by the French war, occasioned its being loaded with duties, which, though they yielded a large return, would, there is good reason to think, have been more productive had they been lower. In 1797 the duty was raised to 17*s.* 6*d.*; two years after, it was raised to 20*s.*; and by successive augmentations in 1803, 1804, and 1806, it was raised to 30*s.*; but in the last-mentioned year it was enacted that, in the event of the market price of sugar in bond, or exclusive of the duty, being for the four months previous to January 5, May 5, or September 5, below 49*s.* per cwt., the lords of the Treasury might remit 1*s.* per cwt. of the duty; that if the prices were below 48*s.*, they might remit 2*s.*; and if below 47*s.* they might remit 3*s.*, which was the greatest reduction that could be made. In 1826 the duty on West India sugar was declared to be constant at 27*s.*, without regard to price; the duty on sugar from the Mauritius being then also reduced to 27*s.* In 1830 the duty was reduced to 24*s.* on West India and Mauritius sugar, and to 32*s.* on East India sugar; and in 1836 the duty on the latter was reduced to the same level as that on the former.

Account of the Quantity of Sugar retained for Home Consumption in Great Britain, the Nett Revenue derived from it, and the Rates of Duty with which it was charged, in each Year from 1789 *to* 1814, *both inclusive.*

Years	Quantities retained for Home Consumption	Nett Revenue	Rates of Duty: British Plantation Sugar	Rates of Duty: East India Sugar, including Mauritius	
			per cwt.	per cwt.	per cwt. ad valorem
	cwt.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1789	1,547,109	862,532 11 11	0 12 4	..	37 16 3
1790	1,536,234	908,934 17 4	..	..	..
1791	1,103,211	1,071,903 16 5	0 15 0	0 2 8	37 16 3
1792	1,361,592	1,012,558 12 1	..	..	..
1793	1,677,097	1,316,502 14 3	..	..	..
1794	1,189,392	1,031,492 4 2	..	..	..
1795	1,336,230	949,961 16 1	..	..	..
1796	1,554,062	1,225,213 7 5	..	..	..
1797	1,473,732	1,299,744 0 7	0 17 6	0 5 2	37 16 3
1798	1,476,552	1,764,990 15 9	0 19 0	0 5 2	40 16 3
1799	2,772,438	2,321,955 16 5	1 0 0	0 2 6	42 16 3
1800	1,506,921	1,835,112 11 1	..	..	..
1801	2,773,795	2,782,232 18 1	..	0 3 2	42 16 3
1802	2,250,311	2,210,801 6 11	..	..	..
1803	1,492,565	1,551,457 17 11	1 4 0	1 6 4½	1 4 0
1804	2,141,369	2,458,124 18 3	1 6 6	1 9 1½	1 6 6
1805	2,076,103	2,439,785 1 10	1 7 0	1 9 8½	1 7 0
1806	2,801,747	3,097,360 3 6	..	..	..
1807	2,277,665	3,150,753 6 3	..	..	..
1808	2,842,813	4,177,916 3 4	..	1 10 0	1 0 0
1809	2,504,507	3,273,995 2 3	..	..	..
1810	3,489,312	3,117,350 12 9	£1 9 0	1 12 0	1 0 0
1811	3,226,757	3,339,218 4 3	£1 8 0	1 11 0	1 0 0
1812	2,604,019	3,939,939 17 2	1 7 0	1 10 0	1 0 0
1813	2,209,063	3,447,560 1 5	..	..	..
1813			1 10 0	1 15 0	1 0 0
1814	1,997,999	3,276,513 6 5	..	per cwt. £1 10 0 / 1 11 0 / 1 19 0	

* Sugar used in distilleries included in these years.

Account of the Quantities of Sugar Imported into the United Kingdom from the West Indies and British Guiana, distinguishing the Quantities from each Colony, in the undermentioned Years, from 1845 *to* 1867, *both inclusive.*

Colonies from which Imported	Sugar, unrefined								
	1845	1850	1855	1862	1865	1866	1865	1866	1867
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Antigua - -	210,013	125,860	219,939	258,650	202,360	52,650	140,095	251,607	124,736
Barbadoes - -	391,485	324,658	592,567	701,255	649,869	534,706	661,764	750,345	745,823
Dominica - -	57,885	51,816	55,078	57,442	50,568	46,650	55,991	54,752	58,556
Grenada - -	71,842	92,850	65,981	88,200	90,181	80,387	74,016	84,591	96,603
Jamaica - -	748,867	575,092	450,282	553,013	511,854	471,521	421,305	570,936	495,510
Montserrat - -	11,865	1,607	455	5,117	6,647	7,967	8,209	19,386	10,300
Nevis - -	30,858	15,518	33,982	35,733	39,424	16,109	29,718	35,954	23,701
St. Christopher - -	122,773	70,717	111,745	180,913	200,961	96,890	203,794	222,998	162,415
St. Lucia - -	71,950	55,903	65,952	97,567	95,711	85,821	99,471	121,992	101,925
St. Vincent - -	132,673	139,581	98,121	145,288	136,253	125,346	124,627	170,679	168,139
Tobago - -	62,709	44,897	39,554	72,305	47,933	43,557	49,749	79,478	68,065
Turnola - -	7,177	1,095	..	1,748	..	..	..	..	..
Trinidad - -	364,159	366,220	478,902	687,441	601,030	672,726	556,455	814,944	752,895
Bahamas - -	1,669	..	..	670	1	1	478	..	..
Bermudas - -	..	..	2	..	360	3	1,086	1	..
Demerara - -	499,102	478,750	675,851	875,589	889,087	915,991	1,035,577	1,104,711	886,848
Berbice - -	180,575	85,215	85,461	130,429	97,939	99,334	97,758	129,009	124,020
Total - -	2,857,703	2,589,420	2,915,592	3,865,188	3,622,778	3,261,478	3,569,088	4,410,855	3,824,470

We had occasion, in a former edition of this work, to remark on the impolicy and injustice of charging sugar from our possessions in the East Indies with a higher rate of duty than was laid on sugar from the West Indies. But, as already seen, this distinction was suppressed in 1836, and the sugar of our various colonial possessions and dependencies is now admitted for consumption on the same terms.

Previously to 1845 the duty on sugar from a

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An Account, showing the Quantities in Cwts. of the several Sorts of Raw, excluding Refined, Sugar Imported into the United Kingdom; the Quantities retained for actual Consumption within the same; the Rates of Duty charged on Sugar when entered for Home Consumption, and the Nett Revenue accruing thereon; in each Year since 1815: with a Statement of the Average Prices per Cwt. of British and Foreign Sugar in Bond for the same Years.

Years	Quantities of Sugar Imported into the United Kingdom, in cwts.					Quantities of Sugar retained or entered for Consumption in the United Kingdom, in cwts.*				Rates of Duty per cwt.				Nett Revenue from Duties on Sugar	Prices per cwt. of	
	British Plantation	Mauritius	East India	Foreign	Total Quantity Imported	British Plantation	East India	Foreign	Total Quantity retained or entered for Consumption.	British Plantation	Mauritius	East India	Foreign		British Muscovado — London Gazette	Havannah (Brown and Yellow) — Price Current
1815	3,642,807	Considered as East India sugar in these years	125,639	366,889	4,134,335	2,131,030	43,041	37,228	2,211,299	(Muscovado) £ 1 10 0	..	£ s. d. from May 5 - - 1 17	(Muscovado) £ 3 3 0	£ 3,151,335	s. d. 61 10	s. d. 74 2
1816	3,560,317		127,052	192,780	3,880,149	2,446,458	33,980	49,493	2,529,931	£ 1 10	..	1 17	£ s. from Sept. 5 - 3 0	3,612,193	48 7	53 8
1817	3,679,392		125,493	105,916	3,911,161	3,267,031	27,352	4,575	3,298,941	from (Sept. 5, 1 7	..	1 17	3 0 0	4,133,926	49 8	51 6
1818	3,775,379		162,395	138,032	4,076,806	1,701,421	25,056	419	1,726,896	1 10 0	charged as East India	1 17	3 0 0	2,751,107	50 0	52 2
1819	3,907,151		205,527	?, 85,837	4,198,515	2,720,609	100,046	245	2,820,900	to May 5, 1 10 / May 5 to Sept. 5, 1 8 / from Sept. 5, 1 7	sugar in these years	to May 5 - - 2 0 / May 5 to Sept. 5 - 1 18 / from Sept. 5 - - 1 17	to May 5 - - 3 3 / May 5 to Sept. 5 - 3 1 / from Sept. 5 - 3 0	3,996,513	41 4	42 2
1820	3,769,448		277,228	168,990	4,209,676	2,816,758	84,795	281	2,901,861	1 7 0	..	1 17	3 0 0	3,995,387	36 2	38 4
1821	3,606,967		269,162	197,037	4,373,166	2,936,411	120,203	268	3,056,882	1 7 0	..	1 17	3 0 0	4,188,958	35 2	30 4
1822	3,435,061		226,371	112,954	3,774,386	2,851,678	137,092	287	2,989,057	1 7 0	..	1 17	3 0 0	4,060,444	31 0	26 6
1823	3,773,328		219,580	208,598	4,201,506	3,125,807	102,201	185	3,228,193	1 7 0	..	1 17	3 0 0	4,107,410	32 11	32 10
1824	3,935,092		271,848	205,760	4,412,650	3,214,701	152,673	50	3,367,124	1 7 0	..	1 17	3 0 0	4,641,901	31 6	26 10
1825	3,501,281	93,723	145,995	167,136	3,908,135	2,972,623	107,200	25	3,079,848	1 7 0	charged as B. P. from July 5, 1825.	1 17	3 0 0	4,176,655	38 6	37 6
1826	4,002,486	186,782	155,986	73,901	4,419,095	3,430,662	143,312	26	3,573,990	Brown or Muscovado and clayed 1 7 0	..	1 17	Muscovado and clayed 3 3 0	4,950,998	30 7	32 8
1827	3,550,918	201,344	160,585	194,171	4,106,018	3,270,845	69,856	186	3,340,927	1 7 0	..	1 17	3 3 0	4,650,192	35 9	37 0
1828	4,315,450	361,325	132,722	160,543	4,968,040	3,304,161	97,244	11	3,401,419	1 7 0	..	1 17	3 3 0	5,007,297	31 8	34 8
1829	4,159,715	297,958	174,036	231,581	4,856,393	3,421,409	218,400	12	3,639,821	1 7 0	..	1 17	3 3 0	4,896,242	28 7	30 8
1830	3,915,268	485,710	213,494	303,532	4,916,004	3,590,041	131,979	24	3,722,044	from July 5, 1 4	..	from July 5 - - 1 12	3 3 0	4,767,942	24 11	24 2
1831	4,103,716	517,553	161,779	583,184	5,366,232	3,667,396	113,536	79	3,781,011	1 4 0	..	1 12	3 3 0	4,650,590	23 8	23 10
1832	3,781,315	541,770	88,057	453,477	4,867,749	3,575,529	79,600	605	3,655,734	1 4 0	..	1 12	3 3 0	4,394,338	27 8	24 10
1833	3,666,612	529,352	111,731	442,597	4,750,292	3,553,450	98,283	71	3,651,804	1 4 0	..	1 12	3 3 0	4,414,302	29 8	24 9
1834	3,841,211	555,860	76,617	266,695	4,745,414	3,600,572	121,007	50	3,741,529	1 4 0	..	1 12	3 3 0	4,559,392	29 5	29 11
1835	3,592,918	558,237	101,331	261,751	4,448,267	3,757,951	98,680	31	3,856,562	1 4 0	..	1 12	3 3 0	4,667,900	33 5	31 4
1836	3,600,517	497,305	152,929	399,112	4,649,161	3,578,148	110,222	33	3,688,399	1 4 0	..	1 12 — From August 15: Of any Brit. Pos. within the E. I. C.'s charter in which Foreign Sugar is Prohibited £ 1 4 0 / Of any other British Pos. within those Limits, and thence Imported £ 1 12 0	3 3 0	4,184,165	40 10	33 7

* These are the quantities retained for consumption, after the quantities exported in a raw or refined state, subsequently to payment of the duty, have been deducted.

1837	3,305,338	537,961	296,629	342,700	4,482,578	3,684,712	270,055	43	3,951,810	1 4 0	..	1 4 0	1 12 0		3 3 0		4,760,563	31 7	27 10
1838	3,521,151	604,671	428,751	475,115	5,030,574	3,491,225	418,375	65	3,909,665	1 4 0	..	1 4 0	1 12 0		3 3 0		4,656,892	35 8	27 3
1839	2,873,931	612,586	518,925	722,777	4,678,219	3,348,298	477,252	49	3,825,599	1 4 0	..	1 4 0	1 12 0		3 3 0		4,586,856	39 2	24 8
1840	2,302,833	543,009	482,836	805,167	4,033,845	3,074,198	518,320	2,316	3,594,834	1 5 2½	..	1 5 2½	1 13 7½		3 6 1½		4,449,070	49 1	25 4
1841	2,145,500	216,112	1,239,738	803,668	4,905,018	2,991,953	1,065,414	261	4,057,628	1 5 2½	..	1 5 2½	1 13 7½		3 6 1½		5,114,380	39 8	21 6
1842	2,508,910	689,535	940,492	617,314	4,756,011	2,932,415	955,948	108	3,888,466	1 5 2½	..	1 5 2½	1 13 7½		3 6 1½		4,871,812	36 11	20 1
1843	2,503,567	476,923	1,102,176	937,903	5,020,569	2,972,564	1,055,667	76	4,028,307	1 5 2½	..	1 5 2½	1 13 7½		3 6 1½		5,076,326	33 9	21 2
														Of any F. Country, not produced by Slave Labour		Other Foreign Sugar			
1844	2,452,778	540,620	1,101,761	785,416	4,880,075	3,084,139	1,045,208	98	4,129,443	{from Nov. 10 / 1 5 2½}	..	1 5 2½	1 13 7½	1 15 6		3 6 1		5,205,270	33 3	21 8
										Equal *	Not Equal *	Equal *	Not Equal *	Equal *	Not Equal *	Equal *	Not Equal *			
										£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.			
1845	2,851,010	716,173	1,338,786	911,921	5,820,890	3,548,141	1,231,176	77,307	4,856,624	{from Mar. 14 / 0 16 4}	0 14 0	0 16 4	0 14 0	1 1 9	0 18 8	1 8 0	1 3 4	3 3 0	5,571,171	32 11	26 4
														Of any Foreign Country						
														If Imported Direct			Otherwise Imported			
														Equal *	Not Equal *					
1846	2,147,363	845,196	1,432,274	1,197,852	5,622,507	3,176,600	1,440,909	602,739	5,220,248	{from Aug. 18 / 0 16 4}	0 14 0	0 16 4	0 14 0	1 0 5	0 17 6	1 4 6	1 1 0	2 2 0	3,896,780	31 5	21 6
1847	3,199,821	1,193,571	1,407,154	2,408,981	8,209,527	3,625,066	1,182,425	974,019	5,779,508	{from July 5 / 0 16 4}	0 14 0	0 16 4	0 14 0	0 19 10	0 17 6	1 3 4	1 0 0	2 2 0	4,405,237	28 5	25 10
1848	2,795,311	846,284	1,332,747	1,855,589	6,869,931	3,571,581	1,349,751	1,220,964	6,142,296										4,567,557	23 8	21 4
1849	2,839,911	897,815	1,474,474	1,728,149	6,937,349	4,054,981	1,354,228	496,478	5,905,687										3,884,111	26 1	21 2
1850	2,587,420	1,003,296	1,350,296	1,350,523	6,291,535	3,786,602	1,397,095	908,395	6,091,492	From 1848 to 1854 the duties were progressively reduced.									3,979,111	25 6	23 5
1851	3,065,560	1,000,036	1,570,834	2,296,304	7,932,534	3,596,868	1,257,638	1,379,011	6,233,547										3,893,656	22 5	21 11
1852	3,402,551	1,121,995	1,345,650	1,068,565	6,896,761	4,684,329	1,559,012	682,586	6,898,867										4,093,836	24 6	24 5
1853	2,830,724	1,252,207	1,225,909	1,977,400	7,284,290	4,379,481	1,561,373	1,331,979	7,272,833												
										From July 5, 1854, the duties have been on all sorts and whencesoever imported:—										
										Equal *		Not Equal *		Not equal to Brown-Clayed						
										£ s. d.		£ s. d.		£ s. d.						
1854	3,434,316	1,661,619	786,674	3,219,751	9,119,364	4,599,064	990,403	2,439,291	8,028,758	0 14 0		0 12 0		0 11 0				4,741,757	22 8	23 9
1855	2,892,671	1,365,152	732,095	2,301,235	7,324,153	4,174,254	763,460	2,321,454	7,259,148	0 17 6		0 13 9		0 13 9				5,178,646	20 0	31 6
1856	2,817,678	1,847,256	1,330,419	2,005,827	7,761,180	4,551,947	859,773	1,618,750	6,813,170	0 17 6		0 15 0		0 13 9				5,253,234	36 11	38 0
1857	2,960,109	1,184,329	1,181,537	3,064,721	8,390,696	5,431,971	1,073,447	2,616,172	7,121,590	0 16 0		0 13 10		0 12 8				5,348,170	27 6	29 7
1858	3,499,071	1,286,501	796,312	3,628,912	9,010,796	4,527,308	951,821	3,117,127	8,490,256	0 16 0		0 13 10		0 12 8						
1859	3,144,831	1,169,341	935,236	4,117,597	9,361,005	4,326,537	946,073	3,375,508	8,641,926											
1860	3,375,610	1,165,732	760,875	3,862,071	9,162,288	4,317,192	775,840	3,413,850	8,506,882	From April 1857, to April 1864	Refined	Equal *	Not Equal *	Not equal to brown						
1861	3,687,325	1,503,961	750,236	4,703,687	10,645,259	4,951,959	547,091	3,439,149	8,937,302		s. d.	s. d.	s. d.	s. d.						
1862	3,864,771	644,433	410,315	5,247,136	10,208,655	4,402,009	447,679	4,261,934	9,111,622		18 4	16 0	13 10	12 8						
1863	3,021,524	1,535,671	293,277	5,471,639	11,022,111	4,983,479	516,438	5,962,606	9,202,523											
											Refined	White Clayed and Unrefined Equal to Ditto	Yellow Muscovado and Brown Clayed Equal to Ditto	Equal to Brown Muscovado	Not Equal to Ditto	For nett revenue and prices of Muscovado, from 1858 downwards, see table on p. 1041.			
1864	3,260,360	1,054,499	826,276	6,550,152	11,700,116	3,959,082	387,219	4,591,012	8,937,313	{from April 16, / 1864}	s. d. / 12 10	s. d. / 11 8	s. d. / 10 6	s. d. / 9 4	s. d. / 8 2				
1865	3,538,992	992,316	467,748	6,050,015	11,070,101	4,696,923	467,121	4,714,819	9,878,933			Not equal to 1st class	Not equal to 2nd class	Not equal to 3rd class	Not equal to 4th class				
1866	4,110,767	1,006,337	358,744	5,925,721	11,299,469	5,419,119	298,550	4,579,538	10,297,196										

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British possession was decidedly too high, being no less than 25*s.* 2*d.* (24*s.* + 5 per cent.) per cwt. But whether this were so or not, there cannot, we apprehend, be so much as the shadow of a doubt that the duty on foreign sugars was then more than twice as great as it should have been. This duty, which amounted for a lengthened period to 63*s.* per cwt., was, in fact, intended to be prohibitory; and so long as our foreign dependencies furnished so much sugar as not only to supply the markets of the United Kingdom, but to furnish, besides, a considerable excess for exportation to others, there was little to object to in the magnitude of the duty. Latterly, however, it became most oppressive in its operation. In consequence, as already seen, of the measures connected with the emancipation of the slaves, the imports of sugar from the West Indies declined from 4,103,746 cwt. in 1831, to 2,857,703 cwt. in 1845. Owing to the immigration of hill-coolies, and other circumstances, the emancipation of the slaves in the Mauritius had comparatively little effect; and since 1845 there has been a very great increase in the exports of sugar from that island. [Port Louis.] But despite this circumstance, and the increase in the imports of sugar from India since 1840, the decrease in the imports from the West Indies was not, for a considerable time, fully compensated. On the one hand, therefore, we had a rapidly increasing population, and on the other we had that population confined by an oppressive duty to a market for sugar, the supply of which had been diminished. The consequences were such as every man of sense might have anticipated from the outset. The business of refining for the foreign market, and our export trade in sugar, were all but annihilated, while the average Gazette price of muscovado sugar admissible to the English markets amounted during the 3 years ending with 1844 to about double the price of foreign sugar in bond, of equal or superior quality. We beg, in illustration of what is now stated, to subjoin an

Account of the Quantities of Sugar retained for Consumption, of the Nett Produce of the Duties thereon, and of the Prices per Cwt. of British Sugar (ex Duty), and Brazil Sugar in Bond, in 1842, 1843, 1844, *with the Average of these* 3 *Years.*

Years	Quantities	Nett Revenue from Duties on Sugar	Average Prices of British Muscovado Sugar	Average Prices of Brazil Sugar (Brown and Yellow)
	cwt.	£	s. d.	s. d.
1842	3,868,437	4,874,812	36 11	18 3
1843	4,028,307	5,076,326	33 9¼	17 2
1844	4,129,094	5,203,222	33 3	17 0
Total	12,026,738	15,154,360	103 11¼	£2 12 5
Average of 3 years	5,008,912¾	5,051,453¼	34 7½	17 5½

Now, it appears from this statement, that while the price of British sugar (exclusive of duty) amounted during the 3 years ending with 1844 to 34*s.* 7½*d.* per cwt., the price of Brazil (and Cuba) sugar was only 17*s.* 5½*d.* per do. And hence it follows, that, had the then prohibitory duty of 63*s.* on foreign sugar been reduced to the same rate (25*s.* 2*d.*, or 24*s.* + 5 per cent.) as the then duty on British sugars, the people of the United Kingdom might have bought the same quantity of sugar for 17*s.* 5½*d.* that cost them 34*s.* 7½*d.*; that is, they might have got about 2 lb. of sugar for the same sacrifice it cost them to get 1 lb. The aggregate loss to the public from this preposterous arrangement of the sugar duties, during the period in question, was quite enormous. It appears from the above account that the average consumption of sugar, during each of the 3 years ending with 1844, amounted to 4,008,912¾ cwt., which at 34*s.* 7½*d.* cost 6,944,605*l.* 14*s.* 5*d.* But had we been allowed to go into the foreign market for sugar, we might have got the same quantity for 3,502,230*l.* 13*s.*, being a saving in 1 year of no less than 3,442,375*l.* 1*s.* 5*d.*, and in 3 years, of 10,327,125*l.* 4*s.* 3*d.* But it may, perhaps, be said, that had our ports been open to the free importation of Brazilian and other foreign sugars, the price of the latter would have been raised: and so probably it would; though, considering the vast extent and productiveness of the field from which sugar may be brought, we doubt whether this effect would be very sensible. But, supposing that the opening of our ports had raised the price of foreign sugar from 17*s.* 5½*d.* to 22*s.* per cwt., still the saving would have amounted to 2,534,801*l.* 15*s.* 9*d.* a-year.

Under these circumstances there could no longer be a doubt that the reduction of the old prohibitory duty of 66*s.* per cwt. on foreign sugar was imperatively required; this was partially effected in 1844, when the duty on foreign sugar, if produced by free labour, was reduced to 35*s.* 8½*d.* per cwt.; and when, in 1845, the duty on British colonial sugars was reduced to 14*s.* per cwt., that on free labour sugar was further reduced to 23*s.* 4*d.* per cwt.

But though these reductions of duty effected a great improvement in the old system, they were inadequate to place it on a satisfactory footing. The reduction of the duty on foreign sugar applied to that only which was produced by free labour, the sugar produced by the labour of slaves (unless we happened to be bound by treaty to admit it at the low duty) continuing subject to the old prohibitory duty of 66*s.* per cwt. Nothing, however, could be more inexpedient than this distinction, on which we took the liberty to animadvert as follows in a former edition of this work:—

'We take, without any scruple, the cotton, tobacco, rice, and other products of slave-holding countries; and such being the case, it is not very easy to see on what principle we refuse to take their sugar. There is no reason to think that we are at all likely to hasten, by this refusal, the emancipation of their slaves (even if that were certainly desirable), or to improve their condition: our policy in this respect is injurious to ourselves, without being of the smallest advantage to anyone else.

'But the truth is, if we look a little narrowly into the circumstances, we shall find that we do the very thing we pretend not to do. We annually export large quantities of British produce to Cuba and Brazil; but the sugar of those countries, the principal article they have to send us, being excluded from our markets, we cannot bring it direct to this country, but we carry it to Hamburg and other continental emporiums, and there exchange it for wool, flax, and other articles we are allowed to import; so that, in effect, we transmute the slave-grown sugar into other things, and consume it under its new form. We do not employ it to sweeten tea and coffee; but we clothe ourselves with wool and flax, manure our lands with bones,

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and manufacture our paper of rags, which are all bought by it. But suppose we were a little more Quixotic, and that after getting the sugar we threw it into the sea, the result, as respects Cuba and Brazil, would be the same. We give, by buying their sugar, all the encouragement in our power to the slavery that exists in them; what we shall do with the sugar is our own affair; and whether we use it, sell it to others, or destroy it, is, as far as slavery is concerned, quite immaterial. But it is by no means immaterial as respects our trade with slave-holding countries; inasmuch as the preference we give to the sugars of others tempts them to lay discriminating duties on our products, and to discourage and embarrass our trade. And even were it otherwise desirable, it may be doubted whether it be in our power to exclude slave-grown sugar. Certificates of origin will, we apprehend, be rather a slender security for this result. But supposing them to be effectual, the consequence will be that a greater quantity of Java and Manilla sugar being consumed in England, less of it will remain to be sent to the Continent, where, by means of our policy, a corresponding market will be opened for slave-grown sugar.

'But admitting that something might be found to say in favour of the policy of wholly excluding slave-grown sugar, we, in effect, abandon it, by admitting the slave-grown sugar of the United States and other countries with which we have treaties of reciprocity; so that, after all, our policy in this respect is prohibitive only of the sugars of Cuba, Porto Rico, and Brazil. If the Americans chose to send us the whole sugar grown in Louisiana, every ounce of which is the produce of slave labour, importing in its stead sugar from the Havannah and Bahia, it would be freely admitted to our markets. Hence it is that, while we exclude the slave-grown sugar of those friendly countries of whose trade we might, if we chose, have a virtual monopoly, we admit the slave-grown sugar of our rivals—of the only people whose commercial marine can come into competition with our own. And to show that this contradiction is not imaginary, we may mention that, during the (then) present year (1845) about 300 tons of the sugar of Louisiana (the quality of the latter is not, as now prepared, well suited to our markets) and Venezuela have been admitted to consumption under the new Act. Is it, we beg to ask, possible to speak too harshly of such a policy? to imagine anything more perverse, contradictory, and absurd?

'It were really, therefore, to be wished that we should cease to rave, as we have done for the last 20 years, about slavery; and that we should allow our merchants to buy sugar, as we allow them to buy cotton and other things, without enquiring how, or by whom, it is produced. We may be assured that we should give as little encouragement to slavery by so doing as we give by our present system, while we should, at the same time, give greater facilities to our trade, and full scope to the late, and in other respects, wise and liberal measures.'

We are glad to have to state that the principle contended for in the above paragraphs has since been fully admitted by the Legislature; the Act of 1846, 9 & 10 Vict. c. 63, having equalised the duty on all descriptions of foreign sugars.

It will further be observed that under the system adopted in 1845, a discriminating duty of 9*s.* 4*d.* per cwt. was imposed on foreign muscovado sugar admitted to consumption over and above the duty (14*s.* per cwt.) imposed on British sugar. Inasmuch, however, as the latter was inadequate to the supply of the United Kingdom, the effect of this regulation was to add 9*s.* 4*d.* per cwt. to the price of all the sugar, British as well as foreign, entered for consumption. And it was hardly to be supposed, after the striking recognition of the principles of free trade given by the Legislature in passing the Act for the abolition of the corn laws, that the protective system would be permitted to continue for the sake of the sugar colonies. The abolition of the former was, in truth, all but equivalent to the abolition of the latter. And the 9 & 10 Vict. c. 63, referred to above, which put an end to the distinction between free and slave-grown sugar, provided also for the equalisation of the duties on British and foreign sugars, which, had it been maintained, would have been finally effected on July 5, 1851.

This last Act, however, was afterwards superseded by the 11 & 12 Vict. c. 97, which, exclusive of some changes in the duties, deferred their complete equalisation till 1854.

Comparative Efficiency of Free and Slave Labour in the Production of Sugar.—But though it was not to be expected that a discriminating duty in favour of the sugar of our colonies would be tolerated, it is by no means clear that its abolition has not been an injustice to the latter. The equalisation of the duties would have been *in all respects* unobjectionable, were the circumstances under which the planters in our colonies are placed identical with or similar to those under which their competitors are placed in Cuba, Brazil, and Java. Such, however, is not the case. The instruments of production possessed by the latter are totally different from those possessed by the former. In Brazil and Cuba the planters are furnished with slave labour, and in Java the population, though not enslaved, is subjected to compulsory service. Unless, therefore, it can be shown that free labour is as efficient in the production of sugar in the West Indies and Demerara as slave or compulsory labour, it will necessarily follow that the equalisation of the duties on British and foreign sugars was an injustice to our colonists.

It has been alleged over and over again in vindication of this equalisation, that free labour is at once cheaper and more efficient than slave labour; and without enquiring into the truth of this allegation, we shall admit the greater cheapness of free labour in countries where freemen and slaves are equally suited to the employments carried on in them, and where these employments would be spontaneously followed by the slaves were they emancipated. But the conditions under which the production of sugar is carried on in the intertropical regions of the New World are entirely different from those now stated. Whites are not capable of field labour in such climates; and the raising of sugar is not an employment that would be voluntarily undertaken by free blacks. The latter have few wants. They reckon as useless incumbrances many articles indispensable in cold or temperate climates. Hence the *curis acuens mortalia corda*, so powerful in Europe, has but little influence in Jamaica and Trinidad. Men are not instinctively laborious or enterprising. Industry is with them merely a means to an end, a sacrifice they make to obtain supplies of the necessaries and conveniences of human life. Whenever the sacrifice required to procure food, clothes, and other necessary accommodations is considerable, the population is generally industrious; and a taste for labour being widely diffused, those who are not obliged to apply

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themselves to the production of necessaries, engage in the production of superfluities. But wherever the principal wants of man may be supplied with but little exertion, indolence becomes the distinguishing characteristic of the population; and, instead of employing their spare time in the production of articles of ostentation and luxury, they usually waste it in idleness and apathy. Now this is the precise state of the blacks in the West Indies. Their necessities and desires are of a very limited description; and are generally indeed fully satisfied by the produce of a small patch of land, requiring but little labour in its cultivation: and such being the case, it would be contradictory to suppose that they should voluntarily employ themselves in the hard labour necessary to produce sugar. Consistently with what is now stated, we find that Hayti, or St. Domingo, though the most fruitful of the West Indian islands, and though, when a colony of France, it furnished immense supplies of sugar, does not export, now that it is occupied by free blacks, a single ton. This, also, is the case in Mexico: and what reasonable ground have we for supposing that the result would be different in Jamaica, Cuba, or Brazil, were the blacks free and able (which is not the case in our islands) easily to obtain patches of land? The possession of the latter is requisite to enable them to exist without engaging in laborious service; and in the event of their not being able to obtain land, they may be forced to employ themselves in the culture of sugar; though, as it is against their inclination, they will withdraw from their work on the first opportunity, and will, while employed, indulge as much as possible in idleness.

Hence it would seem that, whether slave and compulsory labour be cheaper or dearer than free labour, it is indispensable to the production of sugar. We do not presume, in making this statement, to give any opinion in regard to the policy or impolicy of the suppression of slavery in our colonies. The freedom of the blacks may be a more than sufficient compensation for the cessation of supplies of sugar from them. But, whether it be so or not, we regard it as the merest illusion to suppose that the severe drudgery of sugar planting will ever be efficiently carried on in the West Indies by really free labourers.

The mere exclusion of slave-grown sugar would not, however, as many seem to suppose, have in any degree obviated the hardships to which our planters have been exposed. It would merely have forced a larger quantity of the sugars of Java and China upon our markets, and opened a larger field for the consumption of slave-grown sugar on the Continent. Justice to our colonists required that either a discriminating duty should have been imposed in their favour on all foreign sugars, or that they should have been compensated in some other way. But as the former method of dealing fairly by them would have been repugnant to the national feeling and highly objectionable, at the same time that it is more than doubtful whether it would have done real service to the planters, some less offensive and more efficient alternative should have been resorted to. We subjoin

An Account of the Quantities of the different Descriptions of Unrefined Sugar entered for Consumption in the United Kingdom during each of the 35 Years ending with 1867; with an Account of the Amount of Duty received on the same, the average Price of Muscovado Sugar in Bond &c.

Years	Quantities entered for Consumption				Nett Revenue from Duties on Sugar	Average Prices of British Muscovado Sugar per cwt.
	British Plantation (including Mauritius)	East India	Foreign	Total		
	cwt.	cwt.	cwt.	cwt.	£	£ s. d.
1832	3,573,320	79,660	605	3,653,584	4,394,358	1 7 8
1833	3,555,450	98,983	71	3,654,504	4,414,302	1 9 8
1834	3,670,572	121,007	50	3,741,579	4,599,392	1 9 5
1835	3,747,851	98,680	31	3,856,562	4,667,900	1 13 5
1836	3,378,144	110,222	33	3,488,399	4,184,165	2 0 10
1837	3,684,712	270,055	43	3,954,810	4,760,565	1 14 7
1838	3,491,225	418,375	65	3,909,665	4,656,891	1 13 8
1839	3,548,198	477,892	49	4,026,139	4,586,956	1 19 2
1840	3,074,198	518,320	2,316	3,594,834	4,449,070	2 9 1
1841	2,692,203	1,965,511	261	4,657,875	5,114,390	1 19 8
1842	2,932,586	935,948	104	3,868,437	4,874,812	1 16 11
1843	2,972,564	1,465,667	76	4,438,307	5,076,396	1 13 9
1844	3,084,139	1,035,996	98	4,120,443	5,203,270	1 13 8
1845	3,348,141	1,231,176	77,307	4,656,624	5,254,471	1 12 11
1846	3,176,600	1,440,969	609,739	5,229,248	5,896,780	1 14 5
1847	3,623,066	1,182,423	974,019	5,779,508	4,405,237	1 8 3
1848	3,571,581	1,349,751	1,220,064	6,142,396	4,597,337	1 3 8
1849	4,004,981	1,344,228	496,478	5,905,687	3,972,170	1 5 4
1850	3,786,002	1,392,095	608,395	6,084,492	3,884,441	1 6 1
1851	3,986,858	1,237,638	1,379,041	6,253,547	3,979,141	1 5 6
1852	4,084,329	1,332,012	682,526	6,098,867	3,863,936	1 4 5
1853	4,379,431	1,361,373	1,531,979	7,272,833	4,083,856	1 4 6
1854	4,599,056	990,403	2,459,291	8,048,750	4,741,567	1 2 8
1855	4,174,795	765,460	2,321,434	7,259,148	5,058,900	1 5 1
1856	4,334,947	859,773	1,618,750	6,813,470	5,129,646	1 10 0
1857	3,431,971	1,073,447	2,646,172	7,151,590	5,865,034	1 6 11
1858	4,527,308	951,921	3,117,127	8,596,356	5,876,950	1 4 6
1859	4,326,357	940,075	3,375,508	8,641,936	5,944,893	1 5 1
1860	4,317,192	776,340	3,413,560	8,506,892	5,858,199	1 6 2
1861	4,251,059	547,094	3,449,149	8,937,302	6,133,227	1 2 4
1862	4,402,089	447,679	4,261,934	9,111,622	6,260,750	1 1 7
1863	4,925,479	316,438	3,969,605	9,202,523	6,324,979	1 0 6
1864	3,959,693	387,119	4,591,012	8,937,815	6,165,109	1 6 10
1865	4,696,993	467,191	4,714,819	9,878,953	5,991,174	1 2 0
1866	5,419,119	298,539	4,579,538	10,297,196	5,392,626	1 0 0
1867	4,332,911	394,545	6,199,437	10,926,793	5,585,586	

Sugar Duties.—The 11 & 12 Vict. c. 97 regulated and materially reduced the duties on colonial and foreign sugars. But the war with Russia occasioned their subsequent increase. And though they have since been thrice reduced, viz. by the 20 & 21 Vict. c. 61, the 27 & 28 Vict. c. 18, and by the 30 Vict. c. 10, it is very doubtful whether that reduction will be permanent. The probability, indeed, seems to be quite the other way. And it must be admitted that when fairly imposed, and not carried to an extravagant height, these duties afford one of the least exceptionable means by which a large revenue may be most conveniently raised. The sugar duties at present are as follow, viz.:—

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Customs Duties on Sugar Imported into Great Britain and Ireland, imposed by Act 30 Vict. c. 10.

		s.	d.
Candy, brown or white, refined sugar, or sugar rendered by any process equal in quality thereto, and manufactures of refined sugar	cwt.	12	0
Sugar not equal to refined;—			
First class	,,	11	3
Second class	,,	10	6
Third class	,,	9	7
Fourth class, including cane juice	,,	8	0
Molasses	,,	3	6

Excise Duties on Sugar made in the United Kingdom.

		s.	d.
Candy, brown or white, refined sugar, or sugar rendered by any process equal in quality thereto, and manufactures of refined sugar	cwt.	12	0
Sugar not equal to refined, according to the standard samples approved by the Lords of the Treasury for assessing the duties of customs on sugar imported into the United Kingdom, viz.:—			
First class	,,	11	3
Second class	,,	10	6
Third class	,,	9	7
Fourth class	,,	8	0
Molasses	,,	3	6

The quantity of sugar consumed in Great Britain, previously to the change in 1845, allowing for the quantity sent to Ireland, was more than double what it was in 1790. But had the duty continued at 12*s.* 4*d.*, its amount in that year, there cannot, we think, be much doubt, provided foreign sugars had also been admitted under a reasonable duty, that the consumption would have been trebled or more. During the intervening period the population had been little less than doubled, and the proportion which the middle classes bear to the whole population had been decidedly augmented. The consumption of coffee—an article in the preparation of which a great deal of sugar is used in this country by all who can afford it—is about 35 times as great now as in 1790; that is, it has increased from under 1,000,000 lb. to about 35,000,000 lb. The consumption of tea is more than sixfold; and there has been a great increase in the use of home-made wines, preserved and baked fruits &c. Instead, therefore, of having done little more than increase proportionally to the increase of population, it may be fairly presumed that the consumption of sugar would, had there not been some powerful countervailing cause in operation, have increased in a far greater degree. Instead of amounting, in 1844, to little more than 4,000,000 cwt., the consumption of Great Britain should have amounted to about 6,000,000 cwt.

Taking the aggregate consumption of sugar in Great Britain previously to 1845 at 400,000,000 lb., and the population at 20,000,000, the average consumption of each individual would have been about 20 lb., ex molasses. This, though a far greater average than that of France, or any of the continental states, was but small compared with what it was supposed it would amount to when supplied under a more liberal system. In workhouses, the customary annual allowance for each individual *is*, we believe, 34 lb.; and, in private families, the smallest separate allowance for domestics is 1 lb. a-week, or 52 lb. a-year. These facts strongly corroborate what we formerly stated as to the extent to which the consumption of sugar would probably be increased under the new system; and others may be referred to, that are little less conclusive. Mr. Huskisson observed, in his place in the House of Commons, on Mr. Grant's motion for a reduction of the sugar duties, May 25, 1829, that 'in consequence of the present enormous duty on sugar, the poor working man with a large family, to whom pence were a serious consideration, was denied the use of that commodity; and he believed *he did not go too far when he stated that* TWO-THIRDS *of the poorer consumers of coffee drank that beverage without sugar.* If, then, the price of sugar were reduced, it would become an article of his consumption, like many other articles—woollens, for example, which are now used for their cheapness—which he was formerly unable to purchase.' (*Speeches*, vol. iii. p. 455.) Mr. Huskisson's conclusions are now in the way of being fully realised. In 1844, for example, the consumption of the United Kingdom amounted to 206,472 tons; in 1847 it had increased to 290,282 tons; in 1850 to 310,390; and in 1854, when the duties were equalised, it amounted to 401,437 tons raw, and 15,182 do. refined; while in the year to March 31, 1868, our consumption of sugar of all kinds exceeded 600,000 tons. And this, it will be observed, is exclusive of about 20,000 tons molasses entered for consumption. And we may add, in illustration of the way in which this extraordinary increase has been effected, that while, in London and other parts of the country, the sales of sugar by the grocers who supply the higher classes have been but little extended, the sales by those who principally deal with the lower classes have augmented from 50 to 100, and, in some cases, to 150 and 200 per cent. This is the best possible proof of the salutary as well as of the powerful influence of the reduction of the duties. But it is only what might have been anticipated; inasmuch as the consumption of the more opulent classes was but little affected by the previous high duty.

In Ireland, especially, the most beneficial effects have resulted from the reduction of the duties on sugar. The direct importations of sugar into Ireland did not, previously to the late changes, exceed 18,500 tons; and, adding to these 6,500 tons for the second-hand importations (including bastards) from Great Britain, which, we believe, was quite as much or more than they amounted to, the entire consumption of that country would be 25,000 tons, or 57,000,000 lb., which, taking the then population at 8,000,000, gave 7·125 lb. to each individual; or nearly ¼ of the average consumption of each individual in Great Britain. So singular a result must, no doubt, be principally ascribed to the poverty of the Irish; but there can be no doubt that it was partly, also, owing to over-taxation. And the reduction of the duty, though it occasioned an immediate loss of revenue in Ireland, was sure in the end to be productive of its increase, besides being attended with other and still more beneficial consequences. Next to the suppression of agitation and assassination, the 'one thing needful' in Ireland is to inspire the population with a taste for the conveniences and enjoyments of civilised life; and the first step towards supplying this desideratum is, if possible, to make articles of convenience and luxury attainable by the mass of the people. If this be done, whether by a reduction of duties or otherwise, we may expect that the desire inherent in all individuals of improving their condition will impel them to exert themselves to obtain them. A taste for such articles will be gradually diffused among all ranks; and ultimately, it may be presumed, it will be thought discreditable to be without them. It is probable, owing to the late extraordinary decrease of the population in Ireland, that the deliveries of sugar may not be so great now as formerly; but if it be maintained at near its old level, it will show a great increase in the consumption per individual.

The Board of Inland Revenue made some elaborate enquiries with respect to the comparative consumption of sugar and tea by the higher, the middle, and the lower classes. But it would be wrong to lay much stress upon the conclusions

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resulting from such investigations. At the best they should be regarded only as very rude approximations. Even as such, however, they are deserving of attention. We subjoin the result of the Board's enquiries in as far as they relate to sugar.

Proportional Consumption of Sugar in Great Britain by the Higher, the Middle, and the Poorer or Working Classes.

	England	Scotland	Great Britain
	per cent.	per cent.	per cent.
The upper classes consume - -	23	22	22½
The middle classes -	37	40	38
The poorer or working classes - -	40	38	39½
Total - -	100	100	100

Mr. Ogilvie, a very intelligent customs officer, has made the following observations in regard to the consumption of sugar:—

'In England, sugar is generally used by the working classes in the raw or unrefined state, though the preference for refined sugar is gradually and extensively increasing. In London and other large towns, when refined sugar can be purchased for 6*d.* per lb., it is universally preferred; but when the price rises above that, the poor are obliged to fall back upon the raw.

'In Scotland, raw sugar is but little used, except by the very poorest: inferior qualities of refined, known as "crushed lump" and "bastards," being generally used by the middling and lower classes, the use of loaf sugar being confined to the wealthier classes.

'In the north of Ireland, particularly in the manufacturing districts around Belfast and Londonderry, the produce of Liverpool and Greenock refineries meets with a large sale. In Limerick it is stated that two-thirds of the consumption consist of refined loaf and crushed; but in the other parts of Ireland raw sugar is the chief article of consumption among the working classes, loaf sugar being consumed only by the rich, and by the better classes of mechanics and farmers in their whisky punch. Among all classes, sugar is more an article of consumption than tea, because the poor use it with coffee and cocoa as well as with tea, and among the rich it enters largely into many culinary preparations.' (*Parl. Paper*, No. 184, sess. 1857.)

United States.—Next to Great Britain, the United States are now, as previously seen, by far the largest consumers of sugar; and Louisiana had become, previous to the commencement of the civil war and the abolition of slavery, a principal producing country.

Allowing 36,000 tons for molasses and maple sugar, and taking the population of the Union at 35,000,000, the total average consumption in 1868 has been estimated at nearly 31 lb. for each individual.

The crops of sugar in Louisiana are very fluctuating, being apt to be injured by frost. Probably the average produce may not, as previously stated, exceed from 170,000 to 180,000 tons. The refining business has made rapid progress in the United States; so much so, that the produce of refined sugar has been estimated at about 170,000 tons.

It may, perhaps, be proper to state that these estimates, like others of the same kind, though nearly, are not to be considered as being entirely accurate; and the best of them always differ more or less from each other. Again, it does not follow that quantities entered for consumption in any one year are actually consumed in that period. To decide this point we must know the stocks on hand at the beginning and end of the year, and these it is either impossible or very difficult to learn exactly.

Use of Sugar in Distilleries and Breweries.—In a former edition of this work we expressed ourselves on this subject as follows: 'The use of sugar in these establishments, though not absolutely prohibited, is at present placed under restrictions which are equivalent to a prohibition. There can, however, be no doubt that these restrictions should be abolished, and free leave given to the growers and importers of sugar and molasses, and, indeed, of everything else, to convert them to any purpose to which they may be applicable. This has hitherto been objected to, except in periods of scarcity, partly from a wish to promote the interests of the barley growers and maltsters in this country, and partly from the alleged risk of smuggling and loss to the revenue. But now that the policy, or rather impolicy, of protection has been renounced by the Legislature, and that foreign barley may be imported and employed in any way, under a nearly nominal duty, there is plainly no ground or pretence on which the agriculturists can object to the use of sugar; and as respects the risk of fraud and loss to the revenue, we do not think it amounts to much. In cases where sugar only is to be used in distilleries and breweries, the risk of fraud could hardly amount to anything; and in the cases in which it is partly used along with malt or raw grain, or both, it would be easy, seeing that the capacity of sugar to produce spirits and beer, as compared with malt and grain, is well known, to take such precautions as would prevent any amount of fraud worth talking about. But, however it may be carried into effect, it would seem to be indispensable that the distilleries and breweries, as well as every other legitimate channel of consumption carried on in the kingdom, should be open to all who raise or import sugar, or anything else, on their paying the customary rates of duty. This is the only way in which the interests of the consumers, which are identical with those of the public, can be effectually secured; and it is obvious that, to carry out the great principle of the freedom of industry, it is not merely necessary to permit the free importation of colonial and other products, but to allow them, after being imported, to be employed in any way their owners may think fit. Under this system justice will be done to all parties, and the public be supplied with the best and the cheapest articles.' And we are glad to have to state that this principle has since been fully carried into effect by the Acts 10 Vict. c. 5, 11 & 12 Vict. c. 100, 27 & 28 Vict. c. 18, and 30 Vict. c. 10, to which we beg to refer.

Adulteration.—Sugar is an article which is especially liable to adulteration; and its high price during many years, coupled with the high duty, gave a powerful stimulus to this nefarious practice. Perhaps we might not be far from the mark, were we to estimate the quantity of foreign matters intentionally mixed up with sugar, and sold as such in this country, previously to the late reduction of duties, at 10,000 or 12,000 tons a-year. Sago and potato flour are the articles which have been most extensively used for this purpose. When mixed with sugar they give it a whiter and finer appearance; and, unless the dose be overdone, increase its price about 4*s.* per cwt. It is extremely difficult to deal with an abuse of this sort. No doubt the fall in the price of sugar following the placing of the trade on a proper footing, and the reduction of the duty, have lessened the temptation to adulterate. But they

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have not wholly removed it, the materials employed to adulterate being decidedly cheaper than sugar, however supplied. In this, as in most cases of the sort, the best security against adulteration is to deal only with grocers of the highest character.

Refining of Sugar for Home Consumption.—Of late years the refining of British colonial sugar for exportation has wholly ceased. Indeed the tide has now turned the other way. In 1857, 14,896, and in 1867 38,576, tons foreign refined sugar, principally from Holland, France, and Belgium, were taken for our consumption, while we only exported 8,632 tons of British refined and candy sugar. But despite this circumstance, the refining of sugar for home use is extensively carried on, and has increased considerably since the reduction of the duties. At present (1868) there are upwards of 50 refining establishments in Great Britain, with a capital probably exceeding 1,500,000*l.* It is supposed that these establishments will use in the course of the current year from 230,000 to 250,000 tons raw sugar, which will produce, exclusive of molasses and bastards, from about 180,000 to 200,000 tons refined sugar. A large proportion of this produce consists of what is called 'crushed lumps,' a variety of refined sugar which is rapidly superseding the finer descriptions of East Indian sugar, and even of West Indian muscovadoes. Refined sugar is now used by very many families by whom it was formerly never tasted.

According to the mean of several estimates—

100 cwts of sugar, double-refined (or corresponding in quality to double refined) are equal to 129 cwts. raw sugar.	cwts.
100 cwts. of sugar single-refined - - -	110
100 „ bastards - - -	85
100 „ molasses - - -	39

Drawback or Bounty on the Exportation of Refined Sugar.—It may be doubted whether the business of refining sugar for exportation has ever been productive of any material national advantage to us. It was long suspected—and the fact seems to have been sufficiently established—that the drawback formerly allowed on the exportation of refined sugar was greater than the duty charged on the raw sugar used in its manufacture: the excess being, in fact, a bounty paid to those engaged in the trade. Previously to 1826, the drawback on double-refined sugar was 46*s.* per cwt.: it was then reduced to 43*s.*; but there is reason to think that that was still considerably above the mark. The average price of sugar in bond in this country was, for several years, from 5*s.* to 6*s.* per cwt. above what sugar of the same quality brought on the Continent; a difference which, as we then exported sugar, could not have been maintained, had it not been for the bounty. The same conclusion was established by trials made at a sugar-house taken for the purpose by Government; and in consequence the drawback was reduced to what was supposed to be the fair equivalent of the duties paid on the raw sugar; a measure of the expediency of which no doubt can be entertained.

The existing bounties or drawbacks on the exportation of British refined sugar are as follows, viz.:—

Drawbacks allowed by the Act 30 *Vict. c.* 10 *on Refined Sugar when Exported to Foreign Parts, or removed to the Isle of Man for Consumption therein, or Deposited in Customs' Warehouse for Delivery as Ships' Stores, or for the purpose of sweetening British Spirits in Bond.*

		s.	d.
Upon refined sugar in loaf, complete and whole, or lumps duly refined, having been perfectly clarified and thoroughly dried in the stove, and being of a uniform whiteness throughout, and upon such sugar pounded, crushed, or broken in a warehouse approved by the Commissioners of Customs, such sugar having been there first inspected by the officers of customs in lumps or loaves, as if for immediate shipment, and then packed for exportation in the presence of such officers, and at the expense of the exporter; and upon candy and also upon sugar refined by the centrifugal or by any other process, and not in any way inferior to the export standard sample No. 1 approved by the lords of the Treasury -	cwt.	12	0
Upon refined sugar unstoved, pounded, crushed, or broken, and not in any way inferior to the export standard sample No. 2 approved by the lords of the Treasury, and which shall not contain more than five per cent. of moisture over and above what the same would contain if thoroughly dried in the stove - -	„	11	5
Upon other refined sugar unstoved, being bastards or pieces, ground, powdered, or crushed:			
Not in any way inferior to the export standard sample No. 3 approved by the lords of the Treasury - - - -	„	11	3
Not in any way inferior to the export standard sample No. 4 approved by the lords of the Treasury - - - -	„	10	6
Not in any way inferior to the export standard sample No. 5 approved by the lords of the Treasury - - - -	„	9	7
Inferior to the above last-mentioned standard sample - - - - -	„	8	0

Most foreign countries have endeavoured to bolster up the refining business, not merely by excluding foreign refined sugars from their markets, but by granting the most lavish bounties on the exportation of sugar refined at home. In France, this sort of policy, if we may so call it, was carried so far, that out of a gross revenue of about 40,000,000 francs (1,570,000*l.*) paid into the treasury on account of the sugar duties in 1832, about 19,000,000 (760,000*l.*) were returned as drawback on the export of refined sugar. As the French Government could not afford to lose the sugar duties, which would very speedily have been swallowed up by the drawback, necessity compelled them to modify their system, by making the allowance to the exporter more nearly correspond with the duty. The refining of sugar has been carried on within the last few years to a very great extent in Holland; but here also the business has received an unnatural extension, by artificial encouragement.

Prussia, and most parts of Germany, to which we formerly exported large quantities of refined sugar, no longer admit it except at a high duty.

Beet-Root Sugar.—The manufacture of sugar from beet-root is carried on to a very considerable extent in several parts of the Continent, particularly in France and the North of Germany. It began in France during the exclusion of colonial products in the reign of Napoleon, and received a severe check at the return of peace, by the admission of West Indian sugars at a reasonable duty. It is probable, indeed, that it would long since have been entirely extinguished, but for the additions made to the duties on colonial and foreign sugars in 1820 and 1822. After the last-mentioned epoch, however, the production of beet-root sugar began rapidly to increase; and such was its progress, that though, in 1828, its produce did not exceed 4,000,000 kilos., it amounted in 1838 to 39,199,408 kilos. But this extension of cultivation, instead of being of any advantage, entailed a heavy loss on the public, inasmuch as the beet-root growers sold their sugar, which paid no duty, at the same rate that the colonists sold theirs, which paid a large revenue to the treasury. It was not possible that such a system could be permanent. And the well-founded complaints of the colonists of the injustice of which they were the victims, enforced by the rapid decline of the revenue derived from sugar, which, indeed, was threatened with total extinction, occasioned the imposition, in 1838, of a duty of 16 fr. 50 cents. per 100 kilos. (about 6*s.* 9*d.* per cwt.) on beet-root sugar, which, in 1840, was increased to 27 fr. 50 cents. (about 11*s.* per cwt.). But even this last

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increase left a differential duty (or bounty) of 20 fr. per 100 kilos. in favour of beet-root sugar, as compared with colonial raw sugar; so that, while the beet-root cultivators affirmed they should be ruined, the colonists vehemently complained of the preference that was given to them. It was, indeed, known, from the facility with which the beet-root growers had previously contrived to evade the duty, that its increase would not be so injurious to them as was supposed; but the manufacture sustained notwithstanding a severe check, and sundry plantations were abandoned.

But further and still more considerable changes have since been made in the conditions under which the culture of beet-root is carried on. In 1842 it was proposed, in order to get rid of the difficulties in which it had involved the country, to grub up the plantations, paying the planters 40,000,000 fr. (1,600,000*l.*) as an indemnity for their loss. And this was at the time considered by many as the best and most equitable mode of dealing with what was confessedly a very difficult matter. It was not, however, adopted; and next year it was resolved annually to raise the duty on beet-root sugar by 5 fr. per 100 kilos., till the duty on it should be equalised with that on colonial sugar. This new system came into operation on August 1, 1844; and in August 1848 the nominal equalisation of the duties was effected. It was very generally believed at the time that this measure would go far to annihilate the production of beet-root sugar; but such has not been the case. The falling off in the supplies of sugar from the French colonies which took place in the 5 or 6 years immediately posterior to 1848, when the slaves were emancipated, and the high differential duty on foreign sugars, were very favourable to the beet-root growers, and gave them, indeed, a modified monopoly of the home market. These, which were uncertain and evanescent advantages, disappeared with the increased production of sugar in the Isle of Réunion (Bourbon) and the diminution of the differential duties. Owing, however, to the very great improvements that had been effected in the interval in the production of beet-root sugar, it was not injuriously affected by these circumstances, and has continued not only to keep its ground in competition with colonial and foreign sugars, but to make a rapid increase. It is affected, of course, by variations in the seasons, in the price of corn, and other circumstances. But such was its progress, that in 1858 (certainly an unusually favourable year), the crop was estimated at 151,514,436 kilos., or about 150,000 tons; and in 1868 sufficient land was sown to expect a production of 300,000 tons. And besides France, the production of beet-root sugar is largely carried on, and is increasing in Belgium, which produces about 40,000 tons per annum, and in Germany and Russia. A table in the *Report* of Mr. Secretary of Legation Baillie, of December 1868, shows that the production of raw sugar in the Zollverein, in the 2 years from September 1 to August 31, 1866 and 1867, was 3,713,912 centners and 3,900,000 centners. See also Mr. Secretary of Legation Fenton's *Report* of June 1868, on the manufacture of beet-root sugar in the States of the Zollverein. Hence it would appear that what was long considered as a sort of exotic industry, introduced when colonial sugar was excluded from the Continent, and depending in great measure on custom-house regulations, will most probably become a well-established, leading, industrial pursuit. This is a very unprecedented result, and one which we certainly did not anticipate. There are very few instances in the history of industry, of any important business or employment, originating under such peculiar circumstances, being able to maintain its ground after they have ceased to exist. Whether, indeed, it be really worth the sacrifices that have been incurred in its establishment, may be fairly doubted. At all events, in this case they appear to have been sufficient to insure their object.

But, though the beet-root sugar of France and the Continent generally were loaded with the same duty as colonial sugar, and though its culture were notwithstanding extensively prosecuted, that would give no countenance to the opinion of those who contend that free labour is universally as effective in the production of sugar as slave or compulsory labour. The question which the Legislature and people of America had to consider, was not between the efficiency of free and slave labour in Europe, but between free and slave labour in the intertropical regions of the New World. Admitting that the free labourers of France and Prussia raise sugar as cheaply as the slaves of Cuba and Brazil, does that afford any solid ground for concluding that the blacks of Louisiana and Texas, now that they are really free, will be equally successful in their competition with them? There is plainly no analogy between the cases. And our conviction is, as previously stated, that without compulsory labour of some sort or other, not a pound of sugar will eventually be raised either in Louisiana, or in our colonies or anywhere else in America.

Sugar raised in the United Kingdom is charged with the like duty that is laid on colonial sugar.

Maple Sugar.—A species of maple (*Acer saccharinum*, Linn.) yields a considerable quantity of sugar. It grows plentifully in the United States and in Canada; and in some districts furnishes the inhabitants with most of the sugar they make use of. Though inferior both in grain and strength to that which is produced from the cane, maple sugar granulates better than that of the beet-root, or any other vegetable, the cane excepted. It is produced from the sap, which is obtained by perforating the tree in the spring, to the depth of about 2 inches, and setting a vessel for its reception. The quantity afforded varies with the tree and the season. From 2 to 3 gallons may be about the daily average yield of a single tree, but some trees have yielded more than 20 gallons in a day, and others not more than a pint. The process of boiling the juice does not differ materially from what is followed with the cane juice in the West Indies. It is necessary that it should be boiled as soon after it is drawn from the tree as possible. If it be allowed to stand above 24 hours, it is apt to undergo the vinous and acetous fermentation, by which its saccharine quality is destroyed. (Bouchette's *British America*, vol. i. p. 371; *Timber Trees and Fruits, Library of Entertaining Knowledge.*)

The following is an extract and relative list of prices in January 1868 and 1869, from the Circular of Messrs. T. & H. Littledale & Co., of Liverpool, January 7, 1869:—

'*Sugar.*—The past year (1868) has been one of general disappointment to the importer and refiner alike. In the spring there was a rally of 1*s.* to 2*s.*, but it was soon lost, large arrivals subsequently taking place in excess of general expectation, and chiefly from Cuba, where the crop turned out 75,000 tons larger than the previous year, being estimated at 670,000 tons against 595,000 tons. The total import has been about 55,000 tons *greater* than in 1867, and the consumption, partly through an indifferent fruit season, 20,000 tons *less*. The stock in the four ports is 147,000 tons, against 123,000 last year, 178,000 in

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1866, and 212,000 in 1865. The out-turn from beet was 10,000 tons less than in 1867, being estimated at 630,000 tons, against 640,000, and for the present season is expected to show a further deficiency of 30,000 tons. The accounts from Mauritius point to a deficiency of 40,000 tons, the estimate of the crop being 75,000 tons, against 115,000. The Cuba crop is again highly spoken of; but there is considerable anxiety in the island, occasioned by the partial revolutionary spirit amongst the slaves. The consumption of the United States has been 70,000 tons in excess of the previous year, and will absorb any increase from Louisiana and other producing districts in that country.'

Description	Prices, Duty Paid. January 7, 1869			Prices, Duty Paid. January 7, 1868.		
	£ s. d.		£ s. d.	£ s. d.		£ s. d.
Bengal:						
Cossimere, fine white	1 17 0	to	1 18 0	1 18 0	to	2 0 0
ditto yellow	1 14 0		1 16 0	1 14 0		1 16 0
Bally	1 14 0		1 15 0	1 16 0		1 18 0
Goosery	1 14 0		1 15 0	1 14 0		1 17 0
Scaldah	1 14 0		1 15 0	1 15 0		1 16 0
Syrups	1 10 0		1 12 0	1 12 0		1 14 0
Benares:						
Good and fine white	1 16 0		1 17 0	1 16 0		1 18 0
Ordinary and middling	1 15 0		1 15 0	1 12 0		1 15 0
Date:						
Gerpatta	1 12 0		1 15 0	1 12 0		1 15 0
Dumma	1 8 0		1 10 0	1 8 0		1 10 0
Khaur	1 7 0		1 8 0	1 8 0		1 10 0
Madras:						
Grainy	1 14 0		1 16 0	1 15 0		1 18 0
Good and fine white	1 14 0		1 15 0	1 15 0		1 17 0
Yellow grocery	1 10 0		1 12 0	1 14 0		1 15 0
Native	1 8 0		1 10 0	1 10 0		1 12 0
Mauritius:						
Grainy	1 15 0		1 17 0	1 15 0		1 18 0
Yellow, good and fine	1 13 0		1 15 0	1 15 0		1 16 0
Ordinary and middling	1 10 0		1 12 0	1 13 0		1 14 0
Strong gray	1 12 0		1 13 0	1 14 0		1 15 0
Low and moist brown	1 7 0		1 8 0	1 10 0		1 12 0
	Prices in Bond			Prices in Bond		
China:						
White	1 2 0		1 4 0	1 4 0		1 5 0
Brown	0 18 0		1 0 0	0 19 0		1 1 6
Manilla:						
Clayed	1 1 6		1 3 0	1 2 0		1 2 6
Unclayed	0 18 9		0 19 0	0 19 0		0 19 6
Siam	1 2 0		1 3 0	1 3 0		1 4 0
Java	1 3 0		1 5 0	1 4 0		1 5 0

Prices Current of the different Varieties of Sugar in the London Market, on April 2, 1869.

		s. d.		s. d.
Sugar, single refined:				
Brown lumps	cwt.	45 9	to	
Grocery ,,	,,	46 0		47 6
Hambro' loaves	,,	46 6		51 6
Tittlers	,,	46 0		49 0
Wet lumps	,,	42 0		43 0
Loaves, Dutch	,,	46 0		46 6
French	,,	43 6		44 0
Pieces	,,	34 6		40 0
Bastards	,,	30 0		31 6
Crushed (bond)	,,	31 6		32 6
Dutch crushed (bond)	,,	30 6		32 10
Treacle, British	,,	17 6		19 0
Scum for feeding	,,	19 0		19 0
Molasses, West India	,,	16 0		16 0
East India and Foreign	,,	15 0		18 0
West India raw:				
fine yellow	,,	37 0		38 0
good ,,	,,	36 0		36 6
low to middling	,,	34 6		35 6
good brown	,,	33 0		34 6
brown	,,	31 6		32 6
crystallised	,,	35 6		43 0
Mauritius, brown	,,	29 6		33 6
yellow	,,	34 0		37 0
grainy	,,	36 0		43 0
Penang, brown	,,	31 0		34 0
yellow	,,	30 0		31 0
Havannah, white (in bond)	,,	42 0		45 6
floreta (duty paid)	,,	38 6		41 6
brown and yellow (duty paid)	,,	32 6		37 6
Bahia, white	,,	36 0		39 6
brown and yellow	,,	31 6		35 6
Pernam and Paraiba	,,	27 0		34 0
Manilla clayed	,,	31 0		32 6
unclayed	,,	27 6		29 0
Java	,,			
Porto Rico	,,	34 0		37 0
Siam and China	,,			
Madras	,,	27 0		29 6
Grocery	,,	33 0		39 0
Penang	,,			
Natal	,,	30 0		36 0

N.B.—Whatever may be thought of the speculative parts of this article, we flatter ourselves that its practical and more important portion will be found to be as accurate as it could well be made.

SULPHUR or BRIMSTONE (Fr. soufre; Ger. schwefel; Ital. zolfo, solfo; Span. azufre; Arab. kibreet). A crystallised, hard, brittle substance, commonly of a greenish yellow colour, without any smell, and of a weak though perceptible taste; its specific gravity is from 1·9 to 2·1.

It burns with a pale blue flame, and emits a great quantity of pungent, suffocating vapours. In some parts of Italy and Sicily it is dug up in a state of comparative purity. That which is manufactured in this country is obtained by the roasting of pyrites. It is denominated *rough* or *roll sulphur*, from its being cast in cylindrical moulds. The Italian roll sulphur does not contain more than 8 per cent. of a simple earth, and is in higher estimation than the English. When roll sulphur is purified, it receives the name of *sublimed sulphur*, and is in the form of a bright yellow powder. (Thomson's *Chemistry*; Watts's *Dictionary of Chemistry*; &c.)

Sulphur is of great importance in the arts. It is used extensively in the manufacture of gunpowder, and in the formation of sulphuric acid, or oil of vitriol. It is also used extensively in medicine, and for other purposes. The entries for home consumption amounted, at an average of the three years ending with 1842, to 333,731 cwt. a-year. The duty on refined or roll brimstone was reduced in 1842 to 2*s.* per cwt.; and that on rough brimstone to 6*d.* per cwt., and they have since been wholly repealed. In 1867 our imports amounted to 1,166,729 cwt., valued at 380,583*l.*, of which 1,152,111 cwt. were brought from Sicily.

The mines of sulphur in Sicily have been wrought for several centuries; but it is only since 1820 that any considerable quantity has been prepared for exportation. Subsequently to 1833, the trade with this country increased so much that the export of sulphur to the United Kingdom rose from 19,120 tons in that year to 38,654 tons in 1838. We have elsewhere [PALERMO] noticed the way in which this rapidly growing trade was interfered with by the Neapolitan Government. Luckily, however, the monopoly in favour of the French company was abolished in 1841, and the trade, as seen above, has since reverted to its old channels. The total exports of sulphur from Italy (almost entirely from Sicily) in 1865 were 145,816,635 kilos. The produce of sulphur in Austria in 1864 was 37,802 Vienna cwt. (See also Mr. Secretary of Legation Middleton's *Report* of December 31, 1866, on the Sulphur Deposits of Mexico.)

SYDNEY. The capital of New South Wales, and of the British settlements in New Holland, or Australia, on a cove on the south side of Port Jackson, about 7 miles from its mouth, lat. 33° 51′ S., long. 151° 14′ E. Population in 1856, 53,358, and in 1861, including suburbs, 93,202.

Owing to a want of attention at first, the streets of Sydney were laid out, and the houses built, according to the views of individuals, without any fixed or regular plan. But latterly this defect has been to a considerable degree remedied in the old streets; and the new ones are systematically laid out. The town covers a great extent of land; almost every house having a considerable piece of ground attached to it. Schools for the instruction of poor children have been established, and there are, besides two establishments dignified with the pompous titles of colleges, numerous seminaries, some of them said to be very well conducted, for the education

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of the middle and upper classes. There are several newspapers and other periodical publications.

Sydney is admirably adapted for the capital of a great trading colony. Port Jackson is one of the finest natural basins in the world. It stretches about 15 miles into the country, and has numerous creeks and bays; the anchorage is everywhere excellent, and ships are protected from every wind. The entrance to this fine bay is between two gigantic cliffs, not quite 2 miles apart. On the most southerly, in lat. 33° 51′ 14″ S., long. 151° 18′ 15″ E., a lighthouse, with a revolving light visible 21 miles off, was erected in 1817, the lantern of which is elevated 76 feet above the ground, and about 345 feet above the sea; and on the inner south head there is a fixed light visible for 14 miles. The bay is navigable for ships of any burden to the distance of 15 miles from its entrance, or 7 miles above Sydney, up what is called the Paramatta River. Ships come close up to the wharves and stores of the town, their cargoes being hoisted from the ship's hold into the warehouses. Sydney is consequently the emporium of all the settlements in this part of Australia, and has a very extensive trade.

Down to the discovery of the gold fields in 1851, wool was by far the most important product raised in the colony. The increase of cattle and sheep, but especially the latter, in Australia, has, in truth, been altogether extraordinary. Previously to the arrival of the English settlers in New South Wales in 1778, neither horse nor cow, sheep nor hog, had ever set foot on the continent. The stock they brought with them was limited in the extreme, consisting only of 7 horses, 7 head of cattle, 29 sheep, 19 goats, and 74 pigs. And from this late and scanty stock, assisted by a few subsequent importations, have been derived all the vast numbers of sheep and other useful animals now to be found in the Australian continent. For a while the rate of increase was comparatively slow. But from 1810 down to the present time, the multiplication of sheep and other stock, especially the former, has been rapid beyond all precedent. This is shown by the following

Account of the Sheep's Wool Annually Imported from Australia into the United Kingdom since 1818.

Years	Quantity	Years	Quantity	Years	Quantity
	lb.		lb.		lb.
1818	86,525	1838	7,857,423	1853	47,076,010
1820	99,415	1839	10,128,774	1854	47,489,650
1825	323,995	1840	9,721,423	1855	49,142,506
1826	1,106,302	1841	12,399,090	1856	52,052,179
1827	512,758	1842	12,959,671	1857	49,209,655
1828	1,574,186	1843	17,435,780	1858	51,104,560
1829	1,838,642	1844	17,589,712	1859	55,700,481
1830	1,967,279	1845	21,150,687	1860	59,165,939
1831	2,511,205	1846	21,865,270	1861	68,506,292
1832	2,377,057	1847	26,056,815	1862	71,339,092
1833	3,516,869	1848	30,034,567	1863	77,173,448
1834	3,558,091	1849	35,771,671	1864	99,037,459
1835	4,210,301	1850	39,018,221	1865	109,734,261
1836	4,996,645	1851	41,810,137	1866	113,774,694
1837	7,060,525	1852	43,197,301	1867	133,108,176

Down to 1851 the colony of New South Wales comprised the extensive province of Port Phillip, now Victoria. But the latter was then separated from the former, and formed into an independent State, with a governor and legislature of its own. And the district called Moreton, on the north, was separated from it in 1859, and formed into the independent colony of Queensland. [See also BRISBANE; MELBOURNE.]

We subjoin a

Table Illustrative of the Progress of the Colony from 1845 *to* 1866 *inclusive.*

Years	Population	Value of Exports (exclusive of specie)	Value of Imports	Value of Imports, Produce or Manufacture of the United Kingdom	Land in Cultivation	Value of Exports of Wool	Value of Exports of Tallow	Produce of Land Sales	Receipts from Leases, Licenses, and Quit Rents
		£	£	£	acres	£	£	£	£
1845	187,556	1,092,389	985,561	612,912	138,237	612,705	90,479	14,104	29,414
1850	265,503	1,357,784	1,555,113	961,364	144,647	788,051	167,858	55,251	41,437
1856	286,875	3,130,880	3,409,971	3,475,359	185,015	1,503,370	137,202		
1866	431,412	3,162,615	8,867,071	2,917,577		2,526,105			

The value of the exports of tallow in 1865 amounted to 131,976*l.*

The revenue of the colony amounted in 1866 to 3,253,179*l.*, and the expenditure to 3,012,571*l.*

N.B.—The returns of the population include the late district of Port Phillip, now the colony of Victoria, down to the year 1850 inclusive, and that of Queensland down to 1856.

Trade of the United Kingdom with New South Wales.

Account of the Quantities and Values of the Principal Articles Imported into the United Kingdom from New South Wales (exclusive of Queensland) in each of the 3 *Years ending with* 1867.

Principal Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Bones of animals and fish (except whalefins)	tons	310	182	149	2,252	1,261	1,236
Copper ore and regulus	,,	1,917	3,009	2,870	34,057	38,841	31,133
unwrought and part wrought	,,	221	521	1,037	19,101	41,037	72,354
Cotton, raw	cwt.	1,304	3,866	5,469	15,136	27,069	28,619
Gum, Kowrie	,,	18,540	15,928	10,285	45,568	31,338	21,205
of other sorts	,,	740	70	438	1,301	200	1,349
Hides, not tanned	,,	76,509	71,892	55,356	131,516	134,455	109,973
tanned, tawed, curried, or dressed	lb.	21,386	97,413	231,121	809	3,794	8,820
Iron, chromate of	tons	151	—	—	706	—	—
Oil, cocoa-nut	cwt.	24,554	24,557	30,067	50,696	54,645	68,178
spermaceti or head matter	tuns	151	7	42	14,851	892	4,599
train or blubber	,,	4	110	—	194	4,981	—
Skins, sheep, undressed	no.	35,237	52,808	55,869	4,902	8,587	8,668
Tallow	cwt.	86,268	23,514	27,602	181,926	51,184	59,177
Tortoiseshell or turtleshell, unmanufact.	lb.	5,555	4,045	7,106	2,924	2,548	4,672
Whalefins	cwt.	119	102	173	2,444	2,135	2,936
Wood: stringy bark, red and blue gum, and other woods for shipbuilding	loads	687	340	162	6,370	1,847	972
Wool, sheep and lambs'	lb.	26,028,103	25,529,528	32,080,437	2,152,964	2,526,105	2,789,034
All other articles	value	—	—	—	39,330	52,372	39,877
Total	—	—	—	—	2,703,347	2,783,291	3,316,016

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Account of the Quantities and Values of the Principal Foreign Articles Exported from the United Kingdom to New South Wales during each of the 3 Years ending with 1867.

Principal Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Cheese, genuine	cwt.	4,147	7,844	5,780	16,140	30,808	21,726
wax	,,	40	102	201	106	2,084	2,014
Cigars, coated or ground	lb.	20,[illegible]	126,[illegible]	100,[illegible]	2,563	5,[illegible]	1,787
Confectionery	,,	141,[illegible]	194,[illegible]	24,[illegible]	7,705	2,[illegible]	2,804
Corks, ready made	,,	37,[illegible]	45,[illegible]	70,[illegible]	1,853	2,041	3,241
Currants	cwt.	8,241	19,[illegible]	15,[illegible]	7,[illegible]	19,115	12,[illegible]
Fish, cured, unenumerated	,,	2,[illegible]	[illegible]	840	9,857	25,702	4,[illegible]
Ginger	,,	489	550	262	3[illegible]	1,425	564
Grass, window	,,	116	267	190	323	274	199
Hats or bonnets of straw	lb.	..	..	..	..	..	..
Oil, castor	cwt.	70	50	215	183	151	763
olive	tuns	54	50	75	2,[illegible]	2,[illegible]	3,[illegible]
Opium	lb.	2,[illegible]	580	691	1,690	1[illegible]	1[illegible]
Paper, not hangings	cwt.	179	302	872	526	917	1,781
Raisins	,,	2,[illegible]	4,021	3,[illegible]	7,649	7,[illegible]	5,[illegible]
Silk manufactures:							
broad stuffs, and ribbons	lb.	1,[illegible]	1,[illegible]	101	[illegible]	[illegible]	240
Spirits: rum	proof gallons	5[illegible],[illegible]	21[illegible],[illegible]	97,[illegible]	[illegible]	1[illegible],[illegible]	28,[illegible]
brandy	,,	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]	15,[illegible]
mixed or British	,,	111,[illegible]	72,[illegible]	11,[illegible]	11,[illegible]	7,[illegible]	1,[illegible]
Sweetmeats	lb.	20,[illegible]	6,[illegible]	4,[illegible]	2,[illegible]	[illegible]	[illegible]
Tar	barrels	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tea	lb.	21,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tobacco, unmanufactured	,,	1[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]
manufactured, and cigars	,,	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]
Wine	gallons	17[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]	[illegible],[illegible]
Wood, sawn or split	loads	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Woollen manufactures:							
entered by the piece	pieces	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
at value	value	..	..	..	[illegible]	[illegible]	[illegible]
All other articles	,,	..	..	..	[illegible]	[illegible]	[illegible]
Total		..	..	..	[illegible]	[illegible]	[illegible]

Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture Exported from the United Kingdom to New South Wales (exclusive of Queensland) during each of the 3 Years ending with 1866.

Principal Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Apparel and haberdashery	value	..	..	..	714,018	637,867	540,792
Arms and ammunition	,,	..	..	..	34,666	26,106	11,764
Bags, empty	dozens	52,062	52,905	45,202	70,982	42,[illegible]	33,967
Beer and ale	barrels	47,020	41,983	38,407	144,002	182,143	145,952
Books, printed	cwt.	2,197	2,404	1,867	27,614	26,877	21,171
Candles	lb.	90,529	331,112	265,490	3,921	11,611	10,776
Carriages, of all sorts	no.	61	14	28	6,450	1,771	13,884
Confectionery	value	..	..	..	11,210	6,536	4,211
Copper, wrought and unwrought	cwt.	5,530	5,514	4,074	24,594	22,495	17,125
Corn: grain, meal, and flour	value	..	..	..	20,915	26,810	12,128
Cottons, entered by the yard	yards	8,319,317	8,011,457	6,750,269	260,281	268,324	180,149
at value	value	..	..	..	37,876	44,527	45,576
Drugs and chemical products	,,	..	..	..	46,946	37,[illegible]	31,262
Earthenware and porcelain	,,	..	..	..	41,118	30,897	15,354
Furniture: cabinet and upholstery wares	,,	..	..	..	19,664	20,360	7,446
Glass manufactures	,,	..	..	..	49,766	49,247	32,624
Hardwares and cutlery, unenumerated	cwt.	32,995	24,822	10,782	132,748	97,085	50,714
Hats, of all sorts	dozens	30,262	23,034	19,721	68,280	51,745	44,316
Iron, wrought and unwrought	tons	14,923	19,313	15,[illegible]	2[illegible],[illegible]	232,032	167,935
Lead and shot	,,	730	550	322	16,401	12,[illegible]	6,978
Leather, wrought and unwrought	value	..	..	..	3[illegible],[illegible]	124,941	138,097
saddlery and harness	,,	..	..	..	61,391	59,850	23,700
Linens, entered by the yard	yards	3,171,289	2,210,536	1,493,574	118,905	80,958	56,501
Machinery and mill work	value	..	..	..	83,931	31,983	30,374
Musical instruments	,,	..	..	..	17,689	19,096	9,799
Paper of all sorts (including paper hangings)	cwt.	19,845	23,040	18,607	55,770	61,379	45,607
Pickles and sauces	value	..	..	..	42,325	60,721	31,568
Silk manufactures	,,	..	..	..	12,811	9,967	7,909
Spirits	gallons	43,573	29,201	23,041	5,797	4,034	3,689
Stationery, other than paper	value	..	..	..	13,[illegible]	17,731	13,228
Woollens, entered by the yard	yards	5,[illegible],[illegible]	4,061,[illegible]	2,907,933	369,[illegible]	2[illegible],[illegible]	20[illegible]
at value	value	..	..	..	23,033	16,997	14,598
All other articles	,,	..	..	..	444,219	364,727	275,511
Total		..	..	..	3,571,133	2,917,[illegible]	2,050,[illegible]

Statement of the Quantities of Gold Exported from New South Wales and Victoria since the commencement of the Discoveries in 1851.

Year	New South Wales		Victoria	
	Quantity Exported	Value	Quantity Exported	Value
	oz.	£	oz.	£
1851	144,120	468,336	145,157	458,777
1852	962,873	3,600,175	1,988,586	6,135,728
1853	548,092	1,781,171	2,497,723	8,644,529
1854	237,910	773,209	2,144,699	8,255,550
1855	64,384	209,250	2,781,535	10,904,150
1856	42,463	138,007	2,985,991	11,943,458
1857	255,564	983,520	2,762,480	10,987,591
1858	254,907	994,960	2,528,478	10,107,836
1859	435,995	1,698,078	2,280,950	9,122,057
1860	483,012	1,876,049	2,128,486	8,513,864
1861	488,293	1,890,908	1,978,864	7,915,532
1862	699,566	2,715,037	1,662,448	6,649,624
1863	605,772	2,361,949	1,627,066	6,508,264
1864	721,297	2,951,671	1,545,449	6,206,237
1865	682,521	2,647,668	1,556,737	6,226,948
1866	742,250	2,924,891	1,480,597	5,928,948
1867	461,775	2,170,165	1,433,687	5,738,993
Total	7,818,704	30,185,374	35,498,713	130,[illegible],066

The establishment of a mint at Sydney will account for the small amount of gold exported in 1855 and 1856.

The colony is naturally better suited for pasturage than for tillage, and, in consequence, considerable quantities of corn and rice are imported from Van Diemen's Land and other places. But we may remark, by the way, that the preference given to pasturage has been in no inconsiderable degree occasioned by the policy (if so we may designate a worthless compound of pedantry and quackery) that has been pursued in regard to the sale of waste lands in the colony. We have elsewhere shown that when the minimum price charged for these waste lands, 4 or 5 acres of which are required to depasture a single sheepwas, fixed at no less than 20s. an acre (l), the purchase of land for agricultural purposes comparatively ceased; and it was taken

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in large tracts for grazing by lessees, or squatters. In consequence the progress of cultivation, and the settlement of the colony, have been seriously interrupted by this system; while, instead of concentrating the population, as we were told it would do, it led to its all but indefinite dispersion. But a *felo-de-se* policy of this sort cannot be long maintained. And when it has been abandoned, a fresh stimulus will be given to agriculture and emigration, and the prosperity of this and the other Australian colonies will be materially increased.

Considering the character of a large proportion of the population, one need not be surprised at the circumstance of drunkenness being a prevalent vice, and consequently that spirits and wines are very largely imported. The other great articles of importation are manufactured goods and apparel of all sorts, hardware, earthenware, saddlery, books and stationery, carriages &c., from England; tea from China; and sugar from the Mauritius and Calcutta.

The value of the imports into Sydney exceeded for a lengthened period the value of the exports; the excess of the former being, in fact, the amount of the remittances from this country on account of the convict establishment. But since the latter was suppressed, the value of the exports has been equal to that of the imports, and now greatly exceeds them. Occasionally there has been a great deal of overtrading at Sydney; and the revulsions consequent thereon have been quite as ruinous there as in England and elsewhere. There are several banks in the town, and a savings' bank.

Population &c.—The British settlements in New South Wales were originally intended to serve as penal establishments, to which convicts might be transported, and employed in public and private works; and were, till very lately, used for this purpose. The first vessel with convicts arrived at Botany Bay in January 1788; but it having been found to be quite unsuitable as a site for a colony, the establishment was removed to Port Jackson. Convicts of all sorts continued to be sent to the latter till 1839; but from that period down to 1843 none were sent, except those who had been confined in Pentonville and other penitentiaries. In the last-mentioned year the system entirely ceased; and from that period no convicts have been sent to Sydney. During the period that transportation continued in force, 54,583 convicts, of whom 47,092 were males and 7,491 females, were carried to Sydney. In 1846 the convicts of all classes in New South Wales amounted to 10,555, of whom 6,500 were liberated in 1848; and the residue had been reduced to 1,708 in December 1851. Convictism (to borrow a colonial phrase) has, therefore, terminated in New South Wales; but the taint it has imparted to the population will not be easily effaced.

The total population of the colony of New South Wales, ex Victoria, amounted, in 1866, to 431,412, of whom 239,820 were males. The progress of the colony has been much more rapid than might have been anticipated, considering the character and habits of the convicts annually landed upon its shores, the difficulties which the great distance from England interposes in the way of an immigration of voluntary settlers, and the inferiority of the soil. Owing to the circumstance of the great majority of the convicts and other emigrants being males, a great disproportion has always existed between the sexes in the colony, which has materially retarded its progress, and been, in other respects, productive of pernicious results. Government, however, availing itself of the assistance of benevolent individuals at home and in the colony, has within these few years materially lessened the disproportion referred to, by sending out considerable numbers of young unmarried females free of expense. Much, it was obvious, of the influence of this measure was to depend on the discrimination with which the female emigrants were selected; and various precautions were taken, by the organisation of committees, and otherwise, to exclude from amongst them those whose character was in any degree suspicious. It could not be expected that these precautions should be completely successful; and very conflicting accounts have been received as to the conduct of the females on their landing, and the influence of their immigration on the colony. But though the results of the scheme may, in some respects, have fallen short of the anticipations of its more sanguine promoters, there can be no manner of doubt that it has been, on the whole, decidedly advantageous; and that it has tended both to increase the population and to improve the morals of the colony.

Emigration to New South Wales, independently of the allurements of the gold fields, holds out several advantages to the industrious emigrant, which, again, are partially countervailed by some disadvantages. There has been at all times a pretty brisk demand for labour; wages, though not extravagant, have been high; provisions, except in years of drought, have been moderately cheap; and the climate is mild, moderately healthy, and suitable for European constitutions. The drawbacks are—the immense distance from Europe, and the consequent cost of the voyage; the general inferiority and exorbitant price of land, which will no doubt be shortly obviated; the frequent recurrence of droughts; and, perhaps, also, the taint of convictism, in a large portion of the population. The greater mildness and salubrity of the climate appears to be the principal recommendation in favour of emigrating to Australia rather than to Canada or the United States. Whether this be a sufficient counterpoise to the disadvantages attending it is a point which we do not presume to decide, but which deserves the serious consideration of intending emigrants. It seems to be the unanimous opinion of everyone acquainted with the colony, and entitled to be heard upon such a subject, that '*in every case, emigrants of every sort will find it for their interest to come out married.*'

The stimulus given to immigration by the discovery of gold has been less felt here than in Victoria; but it has, notwithstanding, been very powerful. Still, it is impossible, to form any conjecture in regard to its continuance, as that must in great measure depend on the future productiveness of the gold fields. But whether it continue about stationary, diminish or increase, it is plain that the demand of those engaged in the search for gold, for provisions and other articles of accommodation, cannot fail in the end to give a corresponding impulse to every branch of industry, and to re-establish that general equality, taking all things into account, which usually subsists between wages and profits in different departments. How prosperous soever the 'diggings' may be, the labourers drawn to them in the first instance from agriculture and other pursuits will be sure to be restored to the latter, or replaced by others.

Moneys, Weights, and Measures.—Accounts are kept in sterling money; the Sydney mint coining large quantities of sovereigns, which are now cur-

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rent coin, and legal tender in the mother country, as well as Australia, but Spanish dollars are abundant. They pass current at 5*s.* each. The weights and measures are the same as those of England.

[Colonies; Tariffs; Colonial.]

SYRA, the ancient Syros, one of the islands of the Greek Archipelago (part of the modern kingdom of Greece), whose salubrity and fertility have been celebrated by Homer (Pope's *Odyssey*, book xv. 438 &c.), in the group called the Northern Cyclades, 15 miles W. from the greater Delos, its port, on the east side of the island, being in lat. 37° 26′ 30″ N., long. 24° 57′ E. It is from 9 to 10 miles in length, by about 5 in breadth. Though rugged, it is carefully cultivated, and produces garden stuffs, wine, olives, figs, cotton &c., with a little barley. The population in 1830 was set down by Mr. Urquhart at 4,500; but in 1861 it had risen to 18,511.

It is indebted for this extraordinary increase of population to the convenience and excellence of its port and its central situation, which have made it a considerable commercial entrepôt. Though small, its harbour is accessible to line-of-battle ships. The holding ground is good, and it has in its centre about 10 fathoms water. Merchantmen of from 400 to 500 tons burden moor within about 100 yards of the wharves. Winds from the S.E. round to E.N.E. throw in a heavy swell; but the port is well protected from winds from all other points. A lighthouse, with a revolving light, visible 20 miles off, has been erected on Gaidaro island, about 1½ mile S.E. from the port, and there is a red fixed light on the East Mole. Most part of the trade that formerly centred at Scio, is now carried on here; and the island has not only received numerous immigrants from Scio, but also from many other parts of Greece. Great Britain and most European Powers have consuls in Syra: and it also is the principal seat of the Protestant missionaries to the Levant. The town is on the N. side of the harbour. The oldest portion occupies the summit of a conical-shaped hill, probably the site of the acropolis of the ancient city. (See the sketch in Tournefort, *Voyage du Levant*, i. 321.) But the new streets and houses, of which there are many, come down to the water's edge. It has an appearance of great bustle and animation. Its copious spring of pure fresh water has been eulogised by Clarke. (*Travels*, vi. 153.) Pherecydes, one of the most celebrated of the ancient Greek philosophers, the disciple of Pittacus, and the master of Pythagoras, was a native of this island.

For *Port Regulations, Quarantine, Tonnage Duty, Tariff &c.*, see Patras.

Pilotage.—There are no fixed dues for pilotage; but when a vessel makes a signal for a pilot, the harbour master sends his boat to pilot the vessel in, for which service a fee of 5 Spanish dollars is paid.

Weights and Measures same as at Patras.

A few miles to the east of Syra lies Delos. This island, regarded in antiquity with peculiar veneration from its being the birthplace of Apollo and Diana, is no less celebrated in the commercial than in the religious history of ancient Greece. Its sacred character, by insuring its immunity from hostile attacks, and its central situation, made it a favourite mart for the products of the states of Greece, Asia Minor, Phœnicia, Egypt &c. Religion, pleasure, and trade had all their votaries at its festivals; which were famous throughout the ancient world for the splendour of the rites and processions, and the magnitude of the business transacted. It were too much to expect that Syra should ever attain to equal importance, even as an entrepôt. But as she enjoys most of those advantages of position that contributed to render Delos one of the principal emporiums of antiquity, it may be hoped, now that there is a reasonable prospect of good order and freedom being again established in Greece, that she may also acquire some portion of her celebrity. It may be worth while mentioning, as strikingly evincing the mutability of human affairs, that at present both the great and the little Delos are uninhabited. And Tournefort states, that the inhabitants of Mycone were, in the early part of last century, in the habit of holding the greater Delos, for the purposes of pasturage, paying to the Grand Seignior a rent of 20 crowns a-year for that famous island. (Tournefort, *Voyage du Levant*, 4to. ed. tome i. pp. 290—325. There is a good account of the religious rites celebrated at Delos, though but a very indifferent one of its commerce, in the *Travels of Anacharsis.*)

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TACAMAHAC. A resin obtained chiefly from the *Fagara octandra*; and formerly in use for fumigation and plasters. There are two sorts, the West and East Indian, the latter being, however, uncommon. It is of a light brown colour, very brittle, and easily melted when heated. When pure, it has an aromatic smell, between that of lavender and musk; and dissolves imperfectly in alcohol, but completely in ether, water having no action upon it. (Thomson's *Chemistry*; Watt's *Dictionary of Chemistry.*)

TAGANROG. A city of European Russia, on the north coast of the Sea of Azof, near the mouth of the river Don, lat. 47° 12′ 48″ N., long. 38° 39′ E. Its population has been estimated at 24,304 in 1863, but Mr. Consul Carruthers, writing in June 1868, says, that without statistical information there are no precise data to rely on. It has a naval hospital, a lazaretto &c.; and there are annual fairs in May, August, and November. Taganrog is a place of considerable commercial importance. It was intended by its illustrious founder, Peter the Great, to replace Azof, the ancient emporium of the Don, the port of which had become all but inaccessible; and its whole consequence is derived from this circumstance, or from its being the entrepôt of the commerce of the countries traversed by that great river. The largest portion by far of the trade is carried on with Constantinople, Smyrna, and other Turkish ports; but a good deal is also carried on with the Italian and other foreign ports; and there is an extensive coasting trade with Odessa and other Russian ports. In 1868 the exports to foreign countries comprised, among other articles, 1,632,541 quarters of wheat, 91,168 lb. tallow, 6,117,264 lb. wool, 25,134 cwt. caviar, 206,629 quarters linseed &c. The highest price per quarter of the best hard wheat in 1868 was 2*l.* 12*s.* 7*d.*, and the lowest 2*l.* 8*s.* 7*d.*, both free on board.

Seeing that Taganrog was built to obviate the difficulties that had to be encountered by vessels

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entering the Don, through the shallowness of the water, it might have been supposed that care would be taken to place it in a position in which it should be, in as far as possible, free from this defect. This important consideration seems, however, to have been to a great degree overlooked. The Gulf of the Don is seldom navigable by vessels drawing more than from 10 to 11 feet water, and even these cannot approach within less than about 700 yards of the town. They are principally loaded by carts, drawn each by a single horse, the expenses being so very considerable that it costs from 120 to 150 copecks to ship a chetwert of wheat. Without altering the position of the town, these defects might, as was suggested in the last edition of this work, be obviated with but little difficulty, by constructing a wooden pier by which vessels in the roads might be sheltered, and from which they might be laden. However, Mr. Consul Carruthers, in his *Report* of January 19, 1869, intimates that at length a new mole is being constructed, and the municipality, under some extraordinary impulse, has also contracted for lighting the streets with gas, a branch bank has been established, and a railway to connect Taganrog with Kharkoff has just been commenced.

Sea of Azof.—Anyone who takes up a map of Russia in Europe will at once perceive the vast importance of this sea (the *Palus Mœotis* of the ancients) as an outlet for the products of the most fertile provinces of the empire. At its N.E. extremity it receives the Don (an. *Tanais*), which, with its navigable tributaries the Donetz, Medveditza &c., flows through an immense extent of fruitful territory. Peter the Great was fully sensible of the paramount importance of this channel of communication; and he not only, as stated above, founded Taganrog on the estuary of the Don, but joined the latter to the Wolga by means of a canal, uniting in this way the Caspian with the sea of Azof. It is singular, however, that the Russian Government, which has, in other respects, so sedulously followed up the plans of the great father of his country, would seem of late years rather to have discouraged the trade of the Sea of Azof. As evidence of this, we may mention that no efforts have been made to deepen the channel over the bar at the mouth of the Don, to remove the other obstructions to the easy navigation of the river, or to improve any of the ports on the sea; and though all vessels entering the sea are no longer obliged to perform a lengthened quarantine at Kertsch on the W. side of the Straits of Yenikalé, still the delays to shipping consequent on the defection and vexatious arrangements as to pilotage, lighterage and quarantine, are loudly complained of. (Mr. Consul Barrow's *Report* of January 1, 1867, and February 10, 1868.) The Russian Government wished to make Kertsch a depôt for the produce of the various ports on the Sea of Azof, which it was supposed would be conveyed to it in lighters. But experience has shown that this expectation is not destined to be realised; the charges attending the bringing of produce to the Straits of Yenikalé by means of lighters, and its transhipment, being so very heavy that more than $\frac{9}{10}$ of the shipping that arrive at Kertsch proceed to load at Taganrog, Mariapol, and other ports on the sea. Kertsch has a population of about 20,000.

It is not surely too much to expect that the Russian Government will see the advantage of removing all obstructions to the navigation of one of the principal channels for the commerce of the empire; and thus to permit its subjects to avail themselves of those gigantic means of production which a less illiberal policy would enable them fully to command. It is plain that ships may load and unload at Taganrog with as little danger to the health of the contiguous provinces as at Kertsch; and such being the case, why should they not be permitted to sail direct for the former? Through the efforts of the British Consul in 1867, much of the extortion and injustice practised at the Quarantine and Customs Departments was suppressed.

The Sea of Azof is usually shut by frost for about 3 months in winter, and it is besides shallow, and in parts encumbered with sand banks. But it may, notwithstanding, be navigated by vessels of considerable burden with but little risk or difficulty. Its greatest depth in the middle is about 7 fathoms: but it shoals gradually to the sides, and at Taganrog there is only from 10 to 11 feet water. Its depth is, however, materially affected by the direction and strength of winds. The only entrance to this sea is by the Straits of Yenikalé, the *Bosporus Cimmerius* of the ancients, a narrow and difficult passage, having in some places not more than 13 feet water. Owing to the great quantity of fresh water poured into the Sea of Azof, and its limited magnitude, its water is brackish merely. (Norie's *Sailing Directions for the Mediterranean and Black Seas*; &c.) Mr. Consul Barrow called attention in 1866 to the fact that the revolution of the Yenikalé light occupied 2·14″, and not 1 minute, as given out, but no doubt the defect has been remedied.

It is impossible to form any estimate of the future magnitude of the trade of this sea, were it placed under a more liberal policy, and reasonable facilities afforded for its extension. No doubt, however, it would be very great; it being the natural seat of the commerce of some of the most extensive and fertile countries of Eastern Europe. The subjoined returns show that even now it is of the first importance; and with a little encouragement, or with the mere absence of obstruction, it would no doubt rapidly increase. It may, indeed, be fully concluded that sooner or later Taganrog is destined to become one of the first corn-shipping ports in the world, if not the very first.

Statement, showing the Quantities of the Principal Articles Exported from Taganrog during each of the 5 Years ending with 1868, *with their Total Value in Pounds Sterling.*

Merchandise		1864	1865	1866	1867	1868
Wheat - - -	qr.	933,795	961,386	1,183,888	1,336,100	1,639,541
Rye - - -	,,	1,554	4,733	94,952	346,289	350,603
Barley - - -	,,	5,153	16,818	70,344	71,748	256,046
Oats - - -	,,	15,424	13,352	75,588	..	..
Linseed - - -	,,	191,846	146,607	193,787	206,689	429,861
Rapeseed - - -	,,	43,750	31,735	15,740	20,650	50,495
Wool - - -	lb.	6,585,400	5,913,720	6,734,504	6,117,264	7,052,564
Tallow - - -	cwt.	68,820	77,965	102,300	87,240	91,168
Butter - - -	,,	34,796	26,410	37,837	53,676	58,881
Caviar - - -	,,	14,055	11,903	23,195	22,192	25,134
Hides - - -	,,	926	862	1,149	124	7,014
Flour - - -	sacks	4,400	3,832	7,502	15,900	..
Macaroni &c. -	cwt.	1,954	1,938	1,370	811	..
Iron - - -	,,	11,571	6,380	7,467	6,765	9,308
Tobacco - - -	,,	9,642	5,313	8,794	4,307	18,357
Rags - - -	,,	3,278	3,651	13,596	3,411	..
Total value in £ sterling -		2,635,276	2,301,590	3,358,513	4,726,657	5,577,300

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Account of the Number of Vessels, and their Tonnage, that have visited Taganrog in each of the 5 Years ending with 1868.

Nationality	1864		1865		1866		1867		1868	
	Ships	Tons	Ships	Tons	Ships	Tons	Ships	Tons	Ships	Tons
British	166	46,679	130	38,581	176	52,611	239	78,392	302	101,250
Russian	78	14,758	51	12,131	62	15,221	65	15,942	80	21,716
Greek	275	63,209	247	58,673	396	93,294	502	68,805	370	82,946
Italian	166	48,527	183	49,825	270	73,018	262	84,567	261	90,369
North German	22	4,929	31	9,348	59	12,878	74	26,864	79	27,946
Swedish and Norwegian	12	3,795	29	10,373	24	10,024	53	18,838	90	31,792
Sundries	98	17,298	95	18,005	87	12,628	86	20,850	177	59,011
Total	817	199,265	766	196,719	1,024	269,747	1,081	314,258	1,359	415,830

Statement exhibiting the Principal Articles Imported into Taganrog in the 5 Years ending with 1867, *and the Total Estimated Value in Pounds Sterling in those Years and* 1868.

Merchandise		1863	1864	1865	1866	1867
Fruits, dried	cwt.	122,618	91,502	90,322	23,454	29,929
green	boxes	37,877	31,800	26,914	47,727	39,300
Oil, olive	cwt.	28,327	27,642	35,994	32,971	30,290
Wine, in casks	gal.	421,344	378,748	194,178	141,286	393,992
bottles	bot.	50,813	29,800	29,043	30,728	35,100
Porter	,,	59,141	74,000	9,358	49,014	34,995
Olives	cwt.	4,138	2,803	2,908	5,759	3,896
Sweetmeats &c.	,,	1,755	2,471	2,819	2,668	3,435
Tea	lb.	135,540	60,840	91,389	86,292	23,436
Coffee	cwt.	2,799	2,475	2,171	1,092	3,236
Sugar	,,	6,474	..	..	792	..
Pepper	,,	882	771	256	181	222
Incense	,,	427	418	445	203	324
Rice	,,	2,182	961	1,518	695	1,258
Tobacco	,,	5,292	3,976	2,253	1,755	3,624
Machinery, Implements, Rails &c.	£	65,000	55,100	17,200	35,000	50,540
Scythes	pieces	106,500	2,400	44,137	207,750	148,800
Total value in £ sterling		665,220	544,433	414,986	473,246	590,408

N.B. The total value of the imports in 1868 was 584,000*l*.

By far the largest portions of the wheat and tallow exported from ports on the Sea of Azof are shipped for England. (For an account of the imports from South Russia, see art. PETERSBURG.) In 1866 the ports on the Sea of Azof were visited by 1,821 British and foreign ships, of the aggregate burden of 303,748 tons, of which only 7,609 were Russian.

Were the navigation of the Don improved, and facilities given to foreigners entering the sea, the exports might be largely increased, even with recent prices, which have been nearly the same as those of Odessa. The harvests in the south of Russia fluctuate very greatly. [ODESSA.]

The imports into the Sea of Azof are but inconsiderable, principally consisting of tobacco, Greek wines, oils, dried fruits, and such like articles.

The Emperor Alexander, whose reign will always form a memorable and brilliant era in the history of Russia, expired at Taganrog on November 19, 1825. (For further particulars see Schnitzler, *La Russie*, p. 717; Hagemeister *On the Trade of the Black Sea*, p. 31 &c.; *Russian Official Accounts*; and *Reports* by the British Consuls at Taganrog and Odessa.)

Moneys, Weights, and Measures, same as those of Petersburg.

Caspian Sea, Magnitude, Ports of &c.—The Caspian Sea, or rather Lake (the *Mare Hyrcanum* of the ancients), extends lengthwise from north to south about 740 miles, varying in breadth from 112 to 275 miles. In some parts, particularly on the southern shores, it is so very deep that a line of 450 fathoms will not reach the bottom; whereas in the northern parts, and opposite to the mouths of the Wolga, it is comparatively shallow; and owing to the frequent occurrence of shoals, it is not safely navigated by vessels drawing more than 10 or 12 feet water. Its level had been variously estimated by Olivier and Lowitz at from 64 to 58 feet below that of the Black Sea; but the observations of M. Humboldt made the difference of level between them no less than 300 feet. This, however, was supposed to involve some mistake; and its level has since been ascertained by an expedition fitted out by the Russian Government to be 116 feet below the level of the Black Sea. The water of the Caspian is not salt, but brackish merely; it has no tides, but gales of wind raise a very heavy sea. It is extremely prolific of fish and seals. The value of the sturgeon caught in the Russian fisheries amounts to a very large sum. [STURGEON FISHERY.] They proceed in shoals up the rivers, where they are captured without the least apparent diminution of their numbers. The salmon is remarkably fine; and herrings are in such abundance, that, after a storm, the shores of the Persian provinces of Ghilan and Mazunderan are nearly covered with them. (Kinneir's *Memoir of the Persian Empire*, p. 6; *Memoir on the Caspian Sea*, in Malte Brun's *Geography*; Humboldt, *Fragmens de Géologie &c.*)

Astrakhan is situated on an island of the Wolga, more than 50 miles from the mouth of that river; and owing to the extensive command of internal navigation it possesses, it is a place of very considerable commercial importance. In 1863 the value of the imports into Astrakhan was 1,330,636 silver roubles, and of the exports 287,277 silver roubles. Baku, acquired by the Russians in 1801, is, however, the best port on the western side of the Caspian. It is situated on the southern shore of a peninsula that projects far into the sea, in lat. 40° 22′ N., long. 51° 10′ E. The harbour is spacious and convenient; and its central and advanced position gives it superior advantages as a trading station. Prodigious quantities of naphtha are procured in the vicinity of Baku. It is drawn from wells, some of which yield from 1,000 to 1,500 lb. a-day. It is used as a substitute for lamp oil; and when ignited, emits a clear light, with much smoke and a disagreeable smell. Large quantities are exported in skins to the Persian and Tartar ports on the south and east shores of the sea.

Vessels.—The largest class of vessels by which the Caspian Sea is navigated are called by the Russians *schuyts*, and belong wholly to Astrakhan and Baku; their burden varies from 90 to 150, and, in some instances, 200 tons. They are not built on any scientific principle, and are con-

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structed of the worst materials, that is, of the timber of the barks that bring grain down the Wolga to Astrakhan. There are supposed to be, in all, about 100 sail of these vessels. There is a second class of vessels employed in the trade of the Caspian, called *razchives*. They carry from 70 to 140 tons, and sail better than the schuyts. Their number is estimated at about 50. Exclusive of the above, there are great numbers of small craft employed in the coasting trade, in the rivers, in the fisheries, and in acting as lighters to the schuyts. Steam boats are extensively employed on the Wolga; and they are now also found in most parts of the Caspian. The masters and crews of the vessels employed on this sea are, for the most part, as ignorant as can well be imagined. They are generally quite incapable of making an observation, or of keeping a reckoning; so that accidents frequently occur, that might be avoided by the most ordinary acquaintance with the principles of navigation. (These statements are made, partly upon official, and partly upon private authority: the latter may, however, be safely relied on.)

The trade of this great sea is entirely in the hands of the Russians; by whom it is carried on from the ports of Astrakhan and Baku, with the Persian ports of Astrabad, Balfroosh &c. on the south; and with the Tartar ports of Mangishlak, Balkan &c. on the east. It is very insignificant, compared with what it ought to be; the value of the total imports into Asiatic Russia having been 3,799,120*l.*, and that of the exports 2,169,256*l.* On the whole, however, a gradual improvement is taking place; and whatever objections may, on other grounds, be made to the encroachments of Russia in this quarter, there can be no manner of doubt, that, by introducing comparative security and good order into the countries under her authority, she has materially improved their condition, and accelerated their progress to a more advanced state.

TALC. This mineral occurs both crystallised and massive. It is soft, smooth, greasy to the feel, and may be split into fine plates or leaves, which are flexible, but not elastic. It has a greenish, whitish, or silver-like lustre. The leaves are transparent, and are used in many parts of India and China, as they were used in ancient Rome (Plin. *Hist. Nat.* lib. xxxvi. c. 22), in windows instead of glass. In Bengal, a seer of talc costs about 2 rupees, and will sometimes yield a dozen panes 12 inches by 9, or 10 by 10, according to the form of the mass, transparent enough to allow ordinary subjects to be seen at 20 or 30 yards' distance. It should be chosen of a beautiful pearl colour; but it has, in general, either a yellowish or faint blue tinge. Its pure translucent flakes are frequently used by the Indians for ornamenting the baubles employed in their ceremonies. Talc is employed in the composition of *rouge végétal*. The Romans prepared with it a beautiful blue, by combining it with the colouring fluid of particular kinds of testaceous animals. Talc is met with in Aberdeenshire, Perthshire, and Banffshire in Scotland; and in various parts of the Continent, where rocks of serpentine and porphyry occur. The talc brought from the Tyrolese mountains is called in commerce Venetian talc. Several varieties are found in India and Ceylon. (Thomson's *Chemistry*; Rees's *Cyclopædia*; Milburn's *Orient. Com.*; Ainslie's *Materia Indica*; Watt's *Chemical Dictionary*, ed. 1868.)

TALLOW (Fr. suif; Ger. talg; Ital. sevo, sego; Russ. salo, toplenoe; Span. sebo). Animal fat melted and separated from the fibrous matter mixed with it. Its quality depends partly on the animal from which it has been prepared, but more, perhaps, on the care taken in its purification. It is firm, brittle, and has a peculiar heavy odour. When pure, it is white, tasteless, and nearly insipid; but the tallow of commerce has usually a yellowish tinge; and is divided, according to the degree of its purity and consistence, into candle and soap tallow.

Tallow is an article of great importance. It is manufactured into candles and soap, and is extensively used in the dressing of leather, and in various processes of the arts. Besides our extensive supplies of native tallow, we annually import a very large quantity, principally from Russia, the River Plate, and the Australian colonies. M. Tegoborski estimated the average annual exports of tallow from Russia at 3,810,000 poods, of the value of 13,871,000 roubles; that is, taking the rouble at 3*s.* 2*d.*, 2,196,241*l.* sterling. (*Forces productives de la Russie*, i. 242.) And the total export from European Russia (ex Finland) in 1865 was 2,938,077 poods, valued at 11,752,308 silver roubles. Of this immense supply by far the largest portion is brought to England; the remainder being exported to Prussia, France, the Hanse Towns, Turkey &c.

We borrow from the work of Mr. Borrisow on the Commerce of Petersburg the following details with respect to the tallow trade of that city:—

Tallow is divided into different sorts; namely, white and yellow *candle tallow*, and common and Siberian *soap tallow*; although it is allowed that the same sort often differs in quality.

Tallow is brought to Petersburg from the interior; and the best soap tallow from Siberia, by various rivers, to the Lake Ladoga; and thence, by the canal of Schlusselburg, to the Neva.

An *ambare*, or warehouse, is appropriated to the reception of tallow, where, on its arrival, it is selected and assorted (*bracked*). The casks are then marked with three circular stamps, which state the quality of the tallow, the period of selecting, and the name of the selector (*bracker*).

The casks in which white tallow is brought have a singular appearance; their form being conical, and their diameter at one end about 2½ feet, and at the other only 1½ foot; the casks of yellow tallow are of the common shape. There are also others, denominated ½ casks.

To calculate the tare, the tallow is removed from a certain number of casks, which are weighed, and an average tare is thence deduced for the whole lot. A cask weighs 8½, 9, 10, or 11 per cent., but the average is generally about 10 per cent. of the entire weight of tallow and cask.

Account of the Quantities and Values of the Tallow Imported into the United Kingdom in 1867, *specifying the Countries whence it was brought, and the Quantities and Values furnished by each.*

Countries	Total Quantities	Computed Value	Average Prices per cwt.
	cwt.	£	£ s. d.
Russia - -	622,860	1,345,680	2 3 3
France - -	7,045	15,453	2 3 10
Morocco - -	2,883	6,456	2 5 0
United States:			
N. Atlantic ports -	138,450	306,605	2 4 3
S. Atlantic ports -	5,418	11,919	2 4 4
Ports on the Pacific -	1,120	2,458	2 4 1
Brazil - -	25,950	58,637	2 5 2
Uruguay - -	144,054	323,512	2 4 11
Argentine Confederation	111,541	249,490	2 4 9
Australia - -	43,273	92,916	2 2 11
Canada - -	1,152	2,549	2 4 3
Other parts - -	1,712	3,796	2 4 4
Total - -	1,105,458	2,419,594	.. ..

Yellow candle tallow, when good, should be clean, dry, hard when broken, and of a fine yellow

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Account of the Quantities of Tallow Imported into the United Kingdom in each of the 6 Years ending with 1867.

	1862	1863	1864	1865	1866	1867
Tallow - - cwt.	1,105,247	1,160,219	1,014,366	1,361,248	1,322,477	1,105,458

colour throughout. The white candle tallow, when good, is white, brittle, hard, dry, and clean. The best white tallow is brought from Woronesch. As for soap tallow, the more greasy and yellow it is, the better the quality. That from Siberia is the purest, and commonly fetches a higher price than the other sorts.

Formerly the oil and tallow warehouses were the same; and this occasioned great difficulties in shipping, because all vessels or lighters taking in tallow or oil were obliged to haul down to the *ambare* and wait in rotation for their cargoes. The consequence was, that when much business was doing, a vessel was often detained for several weeks at the *ambare* before she could get her cargo on board. Now the tallow and oil warehouses are separated, and every article has its own place. When a shipment of tallow is made, the agent is furnished by the selector (*bracker*) with a sample from each cask.

Captains, in order to obtain more freight, usually load some casks of tallow upon deck; but it is more for the interest of the owner to avoid this, if possible, because the tallow loses, through the heat of the sun, considerably both in weight and quality.

One hundred and twenty poods of tallow, at gross weight, make a Petersburg last, and 63 poods an English ton.

Before the abolition of the duty tallow from foreign countries was charged with a duty of 1*s.* 6*d.* per cwt., while that from a British possession was charged with a duty of only 1*d.* per cwt. In a financial point of view, these duties were of little importance; but they were imposed on an illiberal principle, were justly offensive to other countries, and provoked them to retaliate.

The price of tallow fluctuated very much during the last European war, and during the Russian war. This was occasioned, principally, by the obstacles that were at different periods thrown in the way of supplies from Russia. The price of tallow is also affected by the state of the seasons. Some very extensive speculations have at various periods been attempted in tallow; but seldom, it is believed, with much advantage to the parties. Yellow candle tallow was worth, in the London market, in April 1869, from 46*s.* to 46*s.* 6*d.* per cwt. In 1867 we imported 707 cwt. of vegetable tallow.

London and Liverpool Prices, Stocks &c., of Tallow, in the Years undermentioned. From Circular of January 9, 1869, *issued by Messrs. Laird and Adamson, Brokers, of Liverpool.*

Liverpool (all sorts).					
Tallow, in Casks	1858	1862	1866	1867	1868
Prices per cwt. December 31 - -	46*s.* to 55*s.* 6*d.*	43*s.* to 47*s.* 6*d.*	42*s.* to 46*s.* 6*d.*	42*s.* 6*d.* to 45*s.* 6*d.*	46*s.* 6*d.* to 48*s.*
Stocks on December 31 - -	6,150	12,600	13,974	4,230	4,319
Imports from Jan. 1 to Dec. 31 -	24,280	46,580	51,015	41,770	51,715
Consumption and Export, per annum	20,130	45,180	44,341	51,544	51,796
London (all sorts).					
Prices per cwt. of P. Y. C. on Dec. 31	51*s.*	44*s.* 9*d.*	44*s.* 9*d.*	42*s.* 9*d.*	47*s.* 3*d.*
Stocks on December 31 - -	35,757	55,360	48,092	40,017	42,173
Imports from Jan. 1 to Dec. 31 -	103,831	85,102	91,671	77,182	93,064
Deliveries from do. -	100,969	84,761	97,129	85,467	90,892

TALLY TRADE. The name given to a system of dealing carried on in London and other large towns, by which shopkeepers furnish certain articles on credit to their customers, the latter agreeing to pay the stipulated price by certain weekly or monthly instalments.

In the metropolis there are about 60 or 70 tally-shops of note, and from 500 to 600 on a smaller scale. They are also spread over the country to a considerable extent, particularly in the manufacturing districts. The customers of the tally-shops are mostly women; consisting, principally, of the wives of labourers, mechanics, porters &c., servant girls, and females of loose character. Few only of the more respectable classes have been infatuated enough to resort to them. Drapery goods, wearing apparel, coals, household furniture, hardware &c. are furnished; and even funerals are performed; but few or no articles of food, except tea, are sold upon the tally plan.

We believe that this is the very worst mode in which credit is afforded. The facility which it gives of obtaining an article when wanted, and the notion so apt to be entertained that the weekly or monthly instalments may be paid without difficulty, make those who resort to the tally-shops overlook the exorbitant price, and usual bad quality, of the articles they obtain from them, and generate habits of improvidence that seldom fail to involve the parties in irretrievable ruin. It is not going too far to say that nine-tenths of the articles supplied by tally-shops might be dispensed with. As already observed, women are the principal customers; and it is not easy to exaggerate the mischief that has been entailed on the families of many industrious labourers by their wives having got entangled with tally-shops. They buy goods without the knowledge of their husbands; and these are not unfrequently pawned, and the proceeds spent in gin. So destructive, indeed, is the operation of the system, that the establishment of a tally-shop in any district is almost certain to occasion an increase in the paupers belonging to it. Even the unmarried females who do not pay are demoralised and ruined by the system; because, if a woman who buys 3 gowns pays for the 2 first, and runs away from the payment of the last, she gains nothing *in point of saving*, while she becomes indifferent to an act of dishonesty. As tally debts can only be collected whilst a supply of goods is kept up, as soon as that supply is stopped the debtor either flies to another district, or awaits a summons. Where the wife has contracted the debt, she usually appears before the commissioners, who in general order the debt to be paid by weekly or monthly instalments. But it often occurs, from the wife not being able to keep up such payments, that execu-

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tion issues, and the poor husband is frequently arrested and lodged in prison for a debt of the existence of which he was entirely ignorant. In this way numbers of the working classes are completely ruined; they lose their employment, and themselves and families are reduced to beggary. The intelligent keeper of Whitecross-street Prison (Mr. Barrett) stated that from 150 to 200 persons are annually imprisoned there for tally-shop debts, in sums of from 10*s.* to 5*l.*, and that in one year 30 prisoners were at the suit of one tally-shop alone. Such imprisonments, however, are now much decreased, in consequence, as is believed, of the Court of Requests discouraging the tally system by ordering claims of *this* kind to be paid by *extremely small* instalments, and these at *very distant* intervals; and also in consequence of no composition being allowed by the charities for the relief of poor prisoners with reference to such debts.

It is estimated that in London alone about 850,000*l.*, or nearly 1,000,000*l.* sterling, is annually returned in this trade. From his large profits (generally from 25 to 40 per cent.), it is obvious that in a few transactions the tally-shop keeper becomes independent of the existing debt; and with capital and good management, it is said that some have realised considerable sums of money in this business.

According to the custom of the trade, Mondays, Tuesdays, Wednesdays, and Thursdays are the days set apart for collecting money from the customers. The tally-man sends round his collector through the different 'walks,' and the amount of a collection which keeps the collector engaged from morning till night, even in a good tally concern, seldom exceeds 4*l.* a day. The payments are invariably made in *shillings* and *sixpences*—but the people seldom or never pay at the tally-shops; they rarely call there unless something else is wanted. The tally-shop keeper trusts one party on the recommendation of another; but guarantees are never required—certainly no *written* guarantees; and a verbal guarantee is, according to Lord Tenterden's Act, not binding. It is part of the collector's business, besides getting money, to beat up for fresh customers in his walk.

The greater number of the small tally concerns are kept by Scotchmen: it is a curious fact, that when a 'tally-walk' is to be sold, which is often the case, a Scotchman's walk will bring 15 per cent. more than an Englishman's. It is believed to contain a better description of customers.

From the causes above mentioned, assisted, perhaps, by the salutary influence of savings banks, this obnoxious trade is understood to be rather on the wane. It will never, however, be completely rooted out except by adopting the plan we have previously suggested [CREDIT] for placing all small debts beyond the pale of the law; and the fact that the adoption of this plan would have so beneficial a result is an additional and powerful recommendation in its favour. In cases where failures take place, the creditors of a tally-shop keeper are in general *terrified* into the acceptance of a small composition. The very sight of the tally ledgers, from 10 to 20 in number, containing debts from 5*s.* to 5*l.*, dotted over the pages like a small pattern on a piece of printed cotton, and spread over every district in and round London, determines the creditors to accept of any offer, however small, rather than encounter the collection of such disreputable assets. In an affair of this kind, concluded a few years since, where the business was under the management of a respectable accountant in the City, the whole debts due to the concern, good' bad, and doubtful, amounted to 8,700*l.*, while the number of debtors was 7,600, giving an average of 22*s.* 10*d.* each.

N.B.—This article has been compiled wholly from *private*, but *authentic*, *information*.

TAMARINDS (Ger. tamarinden; Fr. tamarins; Ital. and Span. tamarindo; Arab. umblie; Hind. tintiri), the preserved pulp of the *Tamarindus Indica*, a tree which grows in the East and West Indies, in Arabia, and Egypt. In the West Indies the pods or fruit, being gathered when ripe, and freed from the shelly fragments, are placed in layers in a cask, and boiling syrup poured over them till the cask be filled; the syrup pervades every part quite down to the bottom; and when cool, the cask is headed for sale. The East India tamarinds are darker coloured and drier, and are said to be preserved without sugar. When good, tamarinds are free from any degree of mustiness; the seeds are hard, flat, and clean; the strings tough and entire; and a clean knife thrust into them does not receive any coating of copper. They should be preserved in closely covered jars. (Thomson's *Dispensatory*; *British Pharmacopœia*, 1867.) The duty on tamarinds, after being greatly reduced in 1842, was wholly repealed in 1853. Our imports of tamarinds in 1867 amounted to 1,701,673 lb., valued at 17,781*l.*

TAPIOCA. A species of starch or white coarse powder derived from the roots of the bitter cassava (*Janipha manihot*), an American plant, raised all over South America, but principally in Brazil, where it is called *mandioc* or *manioc*, and in Singapore and the Eastern Straits Settlements. The roots of the plant, being peeled, are subjected to pressure under water in a kind of bag made of rushes; the juice which is forced out by this process being a deadly poison, and employed as such by the Indians to poison their arrows. But the residuum, or farinaceous matter remaining after the expulsion of the juice, is perfectly wholesome, and makes excellent bread. Tapioca, as stated above, is prepared from this residuum; and being nutritious, and easy of digestion, is extensively used in the making of puddings. When dressed, it is not easily distinguished from sago. The imports amounted in 1867 to 25,782 cwt., whereof 15,660 cwt. were from Singapore and the Straits Settlements, and 5,066 cwt. from Brazil. Duty 4½*d.* per cwt.

TAR (Fr. goudron; Ger. theer; Ital. catrame; Pol. smola gesta; Russ. degot, smola shitkaja; Swed. tjara). A thick, black, unctuous substance, chiefly obtained from the pine, and other turpentine trees, by burning them in a close smothering heat.

The tar of the north of Europe is very superior to that of the United States, and is an article of great commercial importance. The process followed in making it has been described as follows by Dr. Clarke:—'The inlets of the Gulf (Bothnia) everywhere appeared of the grandest character, surrounded by noble forests, whose tall trees, flourishing luxuriantly, covered the soil quite down to the water's edge. From the most southern parts of Westro-Bothnia to the northern extremity of the Gulf, the inhabitants are occupied in the manufacture of tar, proofs of which are visible in the whole extent of the coast. The process by which the tar is obtained is very simple; and as we often witnessed it, we shall now describe it, from a tar-work we halted to inspect upon the spot. The situation most favourable to the process is in a forest near to a marsh or bog; because the roots of the fir, from which tar is principally extracted, are always most

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productive in such places. A conical cavity is then made in the ground (generally in the side of a bank or sloping hill); and the roots of the fir, together with logs and billets of the same, being neatly trussed in a stack of the same conical shape, are let into this cavity. The whole is then covered with turf, to prevent the volatile parts from being dissipated, which by means of a heavy wooden mallet, and a wooden stamper, worked separately by two men, is beaten down and rendered as firm as possible above the wood. The stack of billets is then kindled, and a slow combustion of the fir takes place, without flame, as in making charcoal. During this combustion the tar exudes; and a cast iron pan being at the bottom of the funnel, with a spout which projects through the side of the bank, barrels are placed beneath this spout to collect the fluid as it comes away. As fast as the barrels are filled, they are bunged and ready for immediate exportation. From this description it will be evident that the mode of obtaining tar is by a kind of distillation *per descensum*; the turpentine, melted by fire, mixing with the sap and juices of the fir, while the wood itself, becoming charred, is converted into charcoal. The most curious part of the story is, that this simple method of extracting tar is precisely that which is described by Theophrastus and Dioscorides; and there is not the smallest difference between a tar-work in the forests of Westro-Bothnia and those of ancient Greece. The Greeks made stacks of pine; and having covered them with turf, they were suffered to burn in the same smothered manner; while the tar, melting, fell to the bottom of the stack, and ran out by a small channel cut for the purpose.'

Tar was charged, previously to 1844, on being admitted to consumption, with a duty of 15*s.* per barrel; but this duty being repealed in the course of that year, it has since been admitted duty free. It is principally brought from Russia. Thus of 155,372 barrels, valued at 116,949*l.*, imported in 1867, 143,814 were supplied by Russia. N.B. The last contains 12 barrels, and each barrel 31½ gallons.

TARE. An abatement or deduction made from the weight of a parcel of goods on account of the weight of the chest, cask, bag &c. in which they are contained. Tare is distinguished into *real tare*, *customary tare*, and *average tare*. The first is the actual weight of the package; the second, its supposed weight, according to the practice among merchants; and the third is the medium tare, deduced from weighing a few packages, and taking it as a standard for the whole. In Amsterdam, and some other commercial cities, tares are generally fixed by custom; but in this country, the prevailing practice, as to all goods that can be unpacked without injury, both at the Custom-house and among merchants, is to ascertain the real tare. Sometimes, however, the buyer and seller make a particular agreement about it. We have, for the most part, specified the different tares allowed upon particular commodities, in the descriptions given of them in this work. (For the tares at AMSTERDAM, BORDEAUX, &c., see these articles; see also ALLOWANCES.)

TARE, VETCH, or FITCH. A plant (*Vicia sativa*, Linn.) that has been cultivated in this country from time immemorial, principally for its stem and leaves, which are used in the feeding of sheep, horses, and cattle, but partly also for its seed. Horses are said to thrive better upon tares than upon clover and rye grass; and cows that are fed upon them to give most milk. The seed is principally used in the feeding of pigeons and other poultry. The imports in 1866 amounted to 15,911 qrs. from Denmark, Prussia, the Hanse Towns, and France.

TARIFF. A table, alphabetically arranged, specifying the various duties, drawbacks, bounties &c. charged and allowed on the importation and exportation of articles of foreign and domestic produce.

I. TARIFF, BRITISH.
II. TARIFFS, COLONIAL.
III. TARIFFS, FOREIGN.

I. BRITISH TARIFF.

The first two columns of the subjoined Table contain an account of the duties existing on January 1, 1869, on the various articles charged with duties on being imported for consumption into the United Kingdom, distinguishing between the duties when the articles come from foreign countries and from colonial possessions.

Those who compare the following tariff with the tariffs in the copies of this work issued previously to 1842 will be forcibly struck with the vast difference between them. Notwithstanding the improvements effected by Mr. Huskisson, the tariff continued, down to the epoch now referred to, on a most objectionable footing. Hundreds of articles were loaded with duties which, while they brought little revenue into the public treasury, opposed formidable obstacles to the extension of commerce; a host of other articles, including live cattle and fresh provisions, were wholly prohibited; high duties were laid on various articles of consumption, and on others that were necessary to the prosecution of some of our principal manufactures; and some most important articles, including corn, sugar, and timber, were burdened with duties imposed not so much for the sake of revenue as of protection. But the change in these respects since 1842 has been greater than any one, however sanguine, could have anticipated. Then Sir Robert Peel began that course of commercial reform which will, for ever, distinguish his administration; and such were the energy, skill, and success with which that great minister prosecuted his plans, that in the brief space of 4 years he obviated, with but little sacrifice of revenue, almost all the defects alluded to above, and effected a vast and most salutary change in our commercial policy.

Sir Robert Peel's commercial reforms were principally embodied in the Acts 5 & 6 Vict. c. 47, 8 Vict. c. 12, 9 & 10 Vict. c. 22, and 9 & 10 Vict. c. 23. The *first* of these Acts permitted cattle, sheep, hogs, beef, salmon, and other articles that had previously been prohibited, to be imported under reasonable duties; the *second*, or the 8 Vict. c. 12, repealed the duties on about 420 different articles; and though many of these were of comparatively trifling importance, the list comprised others of a very different class, such, for example, as ashes, barilla, bark, flax and tow, cotton wool, hemp, hides, indigo, madder; palm, olive, and train oil; sago, saltpetre, raw silk, all sorts of skins and furs, straw for platting, all sorts of fancy woods, with a host of others: the *third* of the above-mentioned statutes, or the 9 & 10 Vict. c. 22, is the famous Act for the modification and repeal of the corn laws: and the *fourth* and last, the 9 & 10 Vict. c. 23, is the Tariff Act of 1846, which entirely repealed the duties on cattle, sheep, hogs, beef, bacon, and other leading products; at the same time that it reduced the duties on silks, butter, cheese, and nearly 100 other articles.

Sir Robert Peel also reduced the duty on

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Table Exhibiting the Duties Payable on January 1, 1869, on Goods, Wares, and Merchandise Imported into the United Kingdom, from Foreign Parts, and from British Possessions; and those Payable on the same Articles in 1819 and 1787 when Imported from Foreign Parts.

Articles	Rates of Duty on Jan. 1, 1869	Rates of Duty in 1819	Rates of Duty in 1787
	£ s. d.	£ s. d.	£ s. d.
Vinegar, paste of - - - - per	0 0 1	60 0 0 per 100*l.* val.	27 10 0 per cent.
* Arrowroot - - - - cwt.	0 0 4½	0 3 2 per lb.	27 10 0 "
* Barley, pearled - - - - "	0 0 4½	0 17 6 per cwt.	0 8 10
Beer and ale:			
Spruce - - - - barrel	1 0 0	1 1 2 per barrel	0 5 8
Of other sorts - - - - "	1 0 0	1 6 0	0 11 0
* Bread and biscuit - - - - cwt.	0 0 4½	..	..
Cream of tartar - - - - doz packs	0 3 9	4 0 0	Prohibited.
Currants - - - - cwt.	0 0 4½	..	..
Custard powder - - - - do	0 0 1	0 0 8	0 4 5
Farina of any other vegetable matter applicable to the same uses as chicory or coffee:			
Raw or kiln dried - - - cwt.	1 6 6	..	..
Roasted or ground - - - lb.	0 0 4	20 0 0 per cent.	27 10 0
Chloroform - - - - "	0 3 0	..	..
Cocoa - - - - "	0 0 1	Excise.	0 0 6
Husks and shells - - - cwt.	0 2 0	Prohibited.	Prohibited.
Paste or chocolate - - - lb.	0 0 2		
Coffee - - - - "	0 0 3	..	..
Kiln dried, roasted or ground - "	0 0 4	..	..
Cordials - - - - gallon	1 4 0	..	..
Cummin, dry - - - - lb.	0 0 1	0 2 6 excise.	0 0 4
Cuttle-bone - - - - "	0 0 1	..	..
Grain, meal, and flour:			
Wheat, barley, oat, rye, peas, beans, tares or vetches, buckwheat, bear or bere - - - - cwt.	0 5 3	..	..
Wheat meal and flour, barley meal, oat meal and groats, rye meal and flour, pea meal, bean meal, the like of Indian corn meal, rice flour, and meal and meal not otherwise enumerated or described - "	0 0 1½	..	..
Currants - - - - "	0 2 0	..	..
Essences of coffee - - for every 24 fl. ounces	10 0 0	20 0 0	1 3 4
Ether, sulphuric - - - gallon	1 5 0	..	27 10 0
Figs - - - - cwt.	0 2 0	..	..
Fruit, dried - - - - "	0 2 0	1 1 6	0 12 10
Ginger, prepared - - - lb.	0 0 1	..	..
* Glass, or Vermicelli:		0 3 2 per lb.	27 10 0
Malt - - - - quarter	1 5 0	..	..
* Macaroni, flour - - - cwt.	0 0 4½	..	..
* Oil of vitriol - - - - "	0 0 4½	..	..
Opium - - - - lb.	0 0 1	..	..
Malt, prepared (as cocoa) - - "	0 0 1	1 3 0	0 0 3
Naphtha or coal tar oil, purified - gallon	0 0 1	..	..
Pickles, preserved in vinegar - - "	0 10 5	..	..
Plate, of gold - - - - oz troy	0 17 0	3 16 0 per cn.	0 0 10½
" - - - - "	0 1 6	0 6 4 "	Prohibited.
Plums, commonly called French plums and prunelloes - - - cwt.	0 7 0	7 0 0	Prohibited.
Dried or preserved (except in sugar), not otherwise enumerated - "	0 7 0	7 0 0	1 8 0
Preserved in sugar - - - lb.	0 0 1	..	1 8 0
* Potato flour - - - - cwt.	0 0 4½	..	..
* Powder, hair - - - - "	0 0 4½	9 15 0 per cwt.	..
" perfumed - - - - "	0 0 4½	13 15 0 "	5 5 8
" unenumerated, applicable to the same uses as starch - - - "	0 0 4½	..	5 5 8
Prunes - - - - "	0 7 0	1 7 6	27 10 0 per 100*l.* val.
Raisins - - - - "	0 7 0	..	0 12 3
* Rice flour and meal - - - "	0 0 4½	..	..
* Sago and sago flour or meal - - "	0 0 4½	3 14 8	..
* Semolina - - - - "	0 0 4½	..	1 8 0
Spirituous and strong waters:			
Spirits or strong waters not being sweetened or mixed with any article so that the degree of strength thereof cannot be ascertained by Sykes's Hydrometer, for every gallon of the strength of proof by such Hydrometer, and so in proportion for any greater or less strength than the strength of proof, and for any greater or less quantity than a gallon:			
Brandy - - - - gallon	0 10 5	0 2 2½	0 0 10½
Geneva - - - - "	0 10 5	0 2 2½	0 0 10½
Rum of and from any foreign country, being the country of its production - "	0 10 2	..	..
Rum from any country not being the country of its production - - "	0 10 5	..	..
Tafia, of and from any colony of France - "	0 10 2	..	..
Rum and spirits of and from a British Possession in America, or the Island of Mauritius, and rum of and from any British Possession within the limits of the East India Company's charter, in regard to which the conditions of the Act 4 Vict. c. 8 have or shall have been fulfilled - "	0 10 2	0 1 6	0 0 6
Unenumerated - - - - "	0 10 5	..	..
Other spirits, being sweetened or mixed so that the degree of strength cannot be ascertained as aforesaid:			
Rum, spirits, liqueurs and cordials, of and from a British Possession in America, or the island of Mauritius, or a British Possession within the limits of the East India Company's charter, in regard to which the conditions of the Act 4 Vict. c. 8 have or shall have been fulfilled - "	0 10 2	0 1 6	0 0 6
Perfumed spirits, to be used as perfumery - - - - "	0 14 0	..	..
Wash, Cologne, in flasks or otherwise, to be charged as "perfumed spirits" - "	0 14 0	..	..
Unenumerated - - - - "	0 14 0	..	..
* Starch - - - - cwt.	0 0 4½	..	..
Gum of, torrified or calcined - "	0 0 4½	..	..
Sugar, including all fruits and vegetables, preserved in sugar, not otherwise enumerated - - - - lb.	0 0 1	..	..

* The Chancellor of the Exchequer this year (1869) proposes to abolish the duties marked thus *, and to reduce those marked thus †.

Table exhibiting the Duties Payable on January 1, 1869 &c.—continued.

Articles		Rates of Duty on Nov. 1, 1868	Rates of Duty in 1819	Rates of Duty in 1787
		£ s. d.	£ s. d.	£ s. d.
Sugar candy, brown or white, refined sugar, or sugar rendered by any process equal in quality thereto; and manufactures of refined sugar	cwt.	0 12 0	0 1 6	0 0 6
Sugar not equal to refined:				
First class	"	0 11 3	..	..
Second class	"	0 10 6	..	..
Third class	"	0 9 7	..	..
Fourth class, including cane juice	"	0 8 0	..	..
Molasses	"	0 3 6	..	..
*Tapioca	"	0 0 4½	2 16 0	0 18 8
Farina, or dandelion root, roasted or				
Tea (without any allowance for tare)	lb.	0 0 6	Excise.	Excise
Tobacco, unmanufactured: stemmed or stripped, containing 10 lb. or more of moisture in every 100 lb. weight thereof, the following duty plus 5 per cent.	"	0 3 0	Excise.	0 3 6
containing less than 10 lb. of moisture in every 100 lb. weight thereof	"	0 3 6	..	..
unstemmed, containing 10 lb. or more of moisture in every 100 lb. weight thereof	"	0 2 6	Excise.	0 3 6
contain no less than 10 lb. of moisture in every 100 lb. weight thereof	"	0 3 6	..	..
manufactured sugars	"	0 3 0	0 6 0	0 3 6
cavendish and negrohead	"	0 4 6	..	..
snuff, containing more than 15 lb. of moisture in every 100 lb. of weight thereof	"	0 3 0	..	..
not containing more than 15 lb. of moisture in every 100 lb. weight thereof	"	0 4 6	..	..
other manufactured tobacco	"	0 4 0	..	..
cavendish or negrohead tobacco, manufactured or sold in the United Kingdom from unmanufactured tobacco, on the entry thereof for home consumption	"	0 4 9	..	..
Vermuth, containing any quantity of absinthe or spirit	gallon	0 10 0	..	..
*Currants and raisins	cwt.	0 1 4½		
Vinegar	gallon	0 0 2	.. 1 ..	3 10 7

		Duty in Degrees	Duty in Degrees	Duty in 1819	Duty in 1787
		s. d.	s. d.	s. d.	s. d.
Wines in casks or bottles, containing less than the following rates of proof spirits, ascertained by Sykes's hydrometer, red and white wine, and the like of such wine	gallon	1 0	1 6	..	..
For every deg. of strength beyond 42 deg. per gal.					

* The Chancellor of the Exchequer this year, 1869, proposes to abolish the duties marked thus *.

muscovado sugar from a British possession, from 25*s.* 2*d.* to 14*s.* per cwt., at the same time that he made a very great reduction in the duty on certain descriptions of foreign sugar. And Lord John Russell subsequently followed up the policy of his predecessor in this respect, by making an end of the distinction between free and slave grown sugars; and providing for the gradual equalisation of the duties on sugars, without regard to their origin.

Independent of the powerful influence which the repeal and reduction of the duties on so many important articles has had on the well-being and industry of the people, it must always be borne in mind that owing to the reciprocity which is of the essence of all commercial transactions, it is impossible to increase the importation of foreign articles, without at the same time proportionally increasing the exportation of the native products with which the former must be paid. It is, therefore, no easy matter to estimate the future influence of such extensive changes on the trade and prosperity of the United Kingdom. It has already been, and there can be no doubt that it will continue to be, very great. And beside contributing to improve our manufactures, it can hardly fail to deepen and enlarge the existing channels of commercial intercourse, and gradually to open others with which we may now, perhaps, be wholly unacquainted.

Sir Robert Peel left but little for others to do in the way of commercial reform; and that little has since been in great measure accomplished. The duty on tea was the only very objectionable one in the amended tariff bequeathed to the country by Sir Robert Peel; and he had merely deferred to a more convenient opportunity his determination to place it on a more reasonable and equitable footing. He did not, unhappily, live to effect this object; but it has since been effected by others. The reduction of the tea duties formed a striking feature in the budget proposed by Mr. Disraeli in 1852, and after the rejection of the latter, the project was introduced into the budget of Mr. Gladstone, and was passed into a law. But, among its other bad consequences, the war with Russia unfortunately interfered to prevent this reduction being carried out so soon as it otherwise would have been; and made the retention, and, in some instances, even the increase of customs duties, not of the most unobjectionable description, a matter not of choice but of necessity. However, in the interval between the peace with Russia and the present time, a host of trifling articles have disappeared from our tariff, and the duties on the rest have been in many cases materially reduced, so that tobacco is now (1869) the only decidedly over-taxed article in our tariff; though, except in the cheek it would give to smuggling and adulteration, the reduction of the duty on it is of secondary importance.

We have excluded from the following table numerous articles which are now (April 1869) duty free; and we have annexed to the table of existing duties two additional columns; the first exhibiting the amount of the customs duties in 1819, as fixed by the Act 59 Geo. III. c. 52; and the second, their amount in 1787, as fixed by Mr. Pitt's Consolidation Act, the 27 Geo. III. c. 13. The reader has, therefore, before him, and may compare, the present customs duties with the duties on the same articles as they existed after the termination of the last European war, and of the American war. It must, however, be carefully borne in mind, that this table does not fully represent the customs duties as they existed in 1787 and 1819. It exhibits those duties only which were charged at the epochs in question on the articles now (April 1869) subject to customs duties; whereas the tariff embraced in 1787 and 1819 more than 500 articles not included in the present tariff. No table of this sort is to be met with in any other publication, unless it be purloined from

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this. It was furnished in its more extended form for a former edition of this work by the late Mr. J. D. Hume, of the Board of Trade.

The duties in the preceding table have been imposed by various statutes.

The rules and regulations to be followed in regard to the importation and exportation of goods are embodied in the Customs Consolidation Act of 1853, and subsequent Acts; and will be found in this work under the head IMPORTATION AND EXPORTATION. But it may be useful to subjoin the following clause in regard to the importation of duty-free goods, viz.:—

Particulars of Entry.—The importer of any goods not subject to duties of customs, or his agent, shall deliver to the collector a bill of entry of such goods in the same manner and form and containing the same particulars as are required on the entry of dutiable goods, so far as the same is practicable, which entry, so far as regards the goods, shall be a transcript of the report, and shall therein describe such goods according to the terms upon which such goods are free of duty, and the value of such goods as shall have been previously chargeable with duty at value; and such bill of entry, when signed by the collector, shall be transmitted to the proper officer, and be his warrant for the delivery of the goods mentioned therein; and the importer, owner, or consignee of such goods, or his agent, shall within 14 days after the entry and landing thereof, deliver to the collector, or other proper officer of customs a full and true account of the goods so landed; provided, that at Liverpool, and with the sanction of the Commissioners of Customs at any other port where the docks, quays, and wharfs shall in like manner be wholly or principally under the control and management of one and the same corporate body, the owner, master, or consignee of the importing ship, or his agent, shall sign and leave with the collector of the customs, within 14 days next after the final discharge of such goods, a full and accurate list thereof, stating the quantities and distinguishing the weights and contents by measurement of such goods, if any, comprised therein, as shall be chargeable by weight or by measurement for the freight payable thereon, and the names of the consignees (according to the bills of lading), or the names of the persons actually paying freight for the same; and on failure to leave such list, such owner, master, consignee, or agent shall forfeit the sum of 20*l.* (Sec. 60.)

Inland Revenue (Excise) Duties in the United Kingdom, January 1, 1869.

		£	s.	d.
Chicory, or any other vegetable matter applicable to the uses of chicory or coffee, grown in the United Kingdom, raw or kiln dried	cwt.	1	4	3
Hackney carriages, London	per week	0	7	0
if not used on Sundays	per week	0	8	0
Malt made from barley	bbl.	*0	2	7
bear or bigg	bbl.	*0	2	0
Plate, gold, wrought	oz. troy	0	16	0
silver, wrought	oz. troy	0	0	6
Race horses	each	3	17	0
Railways, in England and Scotland, on sums received for conveyance of passengers	per cent.	5	0	0
Spirits, made in Great Britain or Ireland	gal.	0	10	0
Guernsey, Jersey, Alderney, or Sark, imported into Great Britain or Ireland	gal.	0	10	5
Stage carriages	mile	0	0	0½
Sugar, made in the United Kingdom, equal to refined	cwt.	0	12	0
Not equal to refined—				
Class 1	,,	0	11	3
2	,,	0	10	6
3	,,	0	9	7
4	,,	0	8	0
Sugar used by any brewer of beer for sale, in the brewing or making of beer	,,	0	5	6
Molasses	,,	0	5	6

* These articles are subject to an additional duty of 5 per cent.

The excise or inland duties are repaid, or, as it is termed, drawn back, on the goods being exported. The drawback on the malt used in brewing is computed at the rate of 5*s.* the barrel of 36 imperial gallons.

Duties repealed.—We subjoin a list of the articles the duties on which were repealed in 1845, 1846, 1853, 1860, and down to 1868, by the Acts 8 Vict. c. 12, 9 & 10 Vict. c. 23, 16 & 17 Vict. c. 106, and 23 & 24 Vict. c. 110 &c. &c.

Agates or cornelians, set or not set
Albumen
Alexandrina seed
Alkali
Alkanet root
Almonds, bitter, sweet &c.
  Jordan
Aloes
Alum
Aluminium
Amber, rough
  manufactured, except beads
Ambergris
Amboyna wood
Ammunition, shot, large and small, lead
  iron
  rockets and other combustibles, for purposes of war, not enumerated
Anchovies
Angelica, not candied
Animals, living; viz.:
  asses
  goats
  kids
  oxen and bulls
  cows
  calves
  horses, mares, geldings, colts, foals
  mules
  sheep
  lambs
  swine and hogs
  pigs, sucking
Annatto, roll or flag
Antimony, ore of
  crude
  regulus of
Apples, raw
  dried
Aquafortis
Argol
Aristolochia
Arms, viz.:
  swords, cutlasses, matchetts, bayonets, gun-barrels, gun-locks, cannon, and mortars of iron, not mounted nor accompanied with carriages
  cannon and mortars of brass, not mounted nor accompanied with carriages
  cannon and mortars, mounted or accompanied with carriages, and other fire-arms, viz: muskets, rifles, carbines, fowling-pieces, or guns of any other sort not enumerated, and pistols
Arsenic
Art, Works of
Ashes, pearl and pot
  soap, weed, and wood
  unenumerated
Asphaltum or Bitumen Judaicum
Bacon
Balsam, Canada
  capivi
  Peru
  Riga
  Tolu
  balm of Gilead, and unenumerated balsam
Bandstring twist
Barilla
Bark, extract of, or of other vegetable substances, to be used for tanning or other manufacturing purposes
  for tanners' or dyers' use
  cascarilla
  Peruvian
  of other sorts
Bar wood
Baryta, sulphate of, ground
Basket rods, peeled and unpeeled
Baskets
Bast ropes, twines, and strands
Beads and bugles of glass
Beads, viz.:
  arango
  coral
  crystal
  jet
  not otherwise enumerated or described
Beef, fresh or slightly salted
  salted
Beef wood
Berries, bay
  juniper
  yellow
  unenumerated
Birds, singing
Bitumen
Blacking
Blackwood
Bladders
Bones (except whale fins), whether burnt or not, or as animal charcoal
Boracic acid
Books, of editions printed prior to 1801, bound or unbound
Borax, refined
Borax or tincal, unrefined
Bottles of glass, earth, and stone, empty
Bores
  brass
Box wood
Bran and pollard
Brass, manufactures of, not otherwise enumerated
  powder of
  old, fit only to be remanufactured
  wire
Brazil wood
Braziletto wood
Bricks or clinkers
  Dutch
  other sorts
Brimstone, refined in rolls
  in flour
  not refined
Bristles, rough, or in any way sorted
Brocade of gold or silver
Bronze, all works of art
  manufactures of, or of metal bronzed or lacquered
  powder
Brooms and brushes of all sorts
Bulrushes
Bullion and foreign coin of gold or silver
Butter
Buttons and studs
Cabinet ware
Cables, not being iron cables, tarred or untarred, old and new
  iron
Cameos, not set
Camomile flowers
Camphor, refined and unrefined
Camwood
Candles
  spermaceti
  stearine
  tallow
  wax
Candlewick
Cassella alba
Canes, bamboo
  reed
  rattans, not ground
  or sticks, unenumerated

Canes, umbrella or parasol sticks
walking canes or sticks, mounted, painted, or otherwise ornamented
Cantharides
Caoutchouc
manufactures of
Capers, including the pickle
Cardamoms
Carmine
Carriages of all sorts
Casks, empty
Cassia buds
fistula
lignea
Castor
Casts of busts, statues, or figure
Catechu
Cattings
Caviare
Cedar wood
Chalk, manufactured or unmanufactured not otherwise enumerated
Cheese
Cherries, raw
Cherry wood
Chestnuts
China or porcelain ware, plain, painted, gilt ornamented
China root
Chloride of lime
Chip, or willow, for plaiting
Cider
Cinnabaris nativa
Cinnamon
Citrate of lime
Citric acid
Citron, preserved with salt
Civet
Cloaks
Cloves
Coals, culm, and cinders
Cobalt
ore of
oxide of
Cochineal
dust
granilla
Cochinella wood
Cocoa nuts
Cocculus Indicus
Coir rope, twine and strands
Colocynth
Columbo root
Copper, ore of
regulus of
old, fit only to be manufactured
unwrought, viz. in bricks or pigs, rose copper, and all cast copper
in part wrought, viz bars, rods, or ingots, hammered or raised
in plates and coin
manufactures of copper, not otherwise enumerated or described, and copper plates engraved
wire
Copperas, blue
green
white
Coral, whole, except beads
polished
unpolished
neglitees
in fragments
Cordage, tarred or untarred
Cork
Corks, ready made
squared for rounding
fishermen's
Cotton, raw, manufactures, viz.:
yarn and East India piece goods, dyed or coloured, viz.—calicoes and muslins, nankeens and handkerchiefs
fringe
manufactures of, not being articles wholly or in part made up, not otherwise charged with duty
gloves of cotton or thread
stockings of cotton or thread
socks or half hose, of cotton or thread
articles or manufactures of cotton, wholly or in part made up, not otherwise charged with duty
Cowries
Cranberries
Cravons
Cream of tartar
Crystal, viz.:
rough
cut or manufactured, except beads
Cubebs
Cubic nitre
Cucumbers, preserved in salt
Cutch
Daguerreotype plates
Dates
Diamonds
Dice
Divi divi
Down
Dragon's blood
Drawings
Drugs, unenumerated
Dyestuffs
Earthenware, not otherwise enumerated or described
Ebony
Eggs
Elderflower water
Embroidery and needlework, viz.:
on silk or silk mixed with other materials, not being silk
Embroidery and needlework, viz.:
silk net, figured with the needle, imitation lace, and articles thereof
cotton net, figured with the needle, being imitation lace, and articles thereof
curtains, commonly called Swiss, embroidered on muslin or net
all other embroidery not enumerated
Emery
Enamel
Engravings
Extract
chestnut bark
quercitron bark
logwood
safflower
bark, &c. for tanning
Feathers for beds, in beds or otherwise
ostrich, dressed
undressed
paddy bird, dressed
undressed
unenumerated and undressed
Fish
eels
turbots
of foreign taking, imported from foreign places in other than fishing vessels, viz.
oysters
salmon
soles
turtle
fresh
cured
of British taking
Flax and tow, or codilla of
dressed and undressed
Flock for paper stainers
Flocks
Flowers, artificial, whether of silk or other materials
Flower roots
Frames for pictures, prints, mirrors, or drawings
Fruit, raw
Furniture woods, except ash, beech, birch, elm, oak, wainscot
Furniture
Fustic
Gallic powder
Galls
Gambier
Gamboge
Garancine
Garnets, cut or uncut, not set
Gauze of thread
Gelatine
Gentian
Ginger
Ginseng
Glass, viz.:—
any kind of window glass, white or stained of one colour only (except plate or rolled), and shades and cylinders
articles of green or common glass
painted
plate glass, cast or rolled of whatever thickness, whether silvered, polished, or rough
white flint glass bottles, not cut, engraved or otherwise ornamented, and bead and bugles of glass
wine glasses, tumblers, and all other white flint glass goods, not cut, engraved, or otherwise ornamented
flint cut glass, flint coloured glass, and fancy ornamental glass of whatever kind
bottles of glass covered with wicker (not being cut glass), or of green or common glass
manufactures not otherwise enumerated or described, and old broken glass, fit only to be remanufactured
Glue
clippings, or waste of any kind, fit only for glue
Gold leaves, and are of
Gongs
Goods unenumerated, not being either in part or wholly manufactured, not enumerated or prohibited
Grains, Guinea and Paradise
Grapes
Grease
Greaves for dogs, and tallow greaves
Ground nuts
Guano
Gum, animi
Arabic
asafœtida
ammoniacum
copal
euphorbium
guaiacum
kino
lac dye
mastic
seed lac
stick lac
Senegal
shellac
tragacanth
unenumerated
Gunpowder
Gun-stocks in the rough, of wood
Gutta percha
manufactures of, not moulded, such as hands, sheets, soles, tubing
articles moulded
Gypsum
Hair, camel hair or wool
cow, ox, bull, or elk
Hair, horse
human
manufactures of, or goats' wool, or of hair or goats' wool and any other material, not particularly enumerated, or otherwise charged with duty
Hams of all kinds
Harp strings or lute strings, all wired
Hats or bonnets—
of chip
of bast, cane, or horse hair,
of straw
of felt, hair, wool, or beaver
made of silk, silk shag laid upon felt, linen, or other material
Hay
Heath, for brushes
Hellebore
Hemp, dressed
rough or undressed, or any other vegetable substance of the nature and quality of undressed hemp, and applicable to the same purposes
tow and codilla of hemp
jute
Hides, or pieces thereof, tawed, curried, varnished, japanned, and enamelled
Muscovy or Russia hides, or pieces thereof, tanned, coloured, shaved, or otherwise dressed, and hides or pieces thereof in any way dressed, not otherwise enumerated
not tanned, tawed, curried, or in any way dressed, dry and wet
Irish hides
or pieces of hides, raw or undressed, and unenumerated
tails, buffalo, bull, cow, or ox
tanned, not otherwise dressed
Horns
Horses
Hoofs of cattle
Hoops of wood
Hops
Horses—horn tips, and pieces of horn
Ice
Indigo
Ink for printers
Indian
Inkle, wrought
unwrought
Instruments
Ipecacuanha
Iron, bloom
cast
chromate of
in bars, unwrought
wire
hoops
old broken, and old cast iron
ore
pig
slit or hammered into rods
rough castings
Iron and steel, wrought or manufactured
machinery
wrought castings
tools
cutlery
other manufactures not enumerated
fancy ornamental articles of iron or steel manufacture of, coated with brass or copper by any galvanic process
Isinglass
Ivory
Jalap
Japanned or lacquered ware
Jet
Jewels, emeralds, and all other precious stones, set
emeralds, and all other precious stones, unset
Juice of lemons, limes, or oranges
Jute
Kingwood
Lac: viz. stick lac
Lace, viz.:
mohair or worsted
thread or cotton pillow lace (not being Brussels point or Saxon loose lace) not exceeding 1 inch in width
exceeding 1 inch in width
silk pillow lace (not being Saxon wire ground lace), and application
silk Saxon wire ground lace, and all lace known as Maltese
Brussels point, and other lace made by the hand, not otherwise charged with duty
Lamp black
Lapis calaminaris
Laral
Latten
shaven and wire
Lavender flowers
Lead ore
red
white
black
pig and sheet
chromate of
Leather manufactures, viz:
boots, shoes, and calashes
women's boots and calashes
shoes, with cork or double soles, quilted shoes and clogs
women's shoes of silk, satin, jean, or other stuffs, kid, morocco or other leather
girls' boots, shoes, and calashes,
men's boots and shoes
boys' boots
boys' shoes

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Leather manufactures, viz.:
boot backs
boot fronts
gloves of leather, viz.—
habit mitts
habit gloves
men's gloves
women's gloves or mitts
any articles made of leather, or any manufacture whereof leather is the most valuable part, not otherwise enumerated or described
Leaves of roses
Leeches
Lentils
Linseed cake
Linseed oil
Liquors
Linens; viz.:
cambrics and lawns, commonly called French lawns, plain
bordered handkerchiefs
damask
damask diaper
sorts of all sorts
lawns of any sort, not French
glass
cambric handkerchiefs, hemmed, or hemstitched, not trimmed
plain linen or diaper, whether chequered or striped with dye yarn or not, and manufactures of linen, or of linen mixed with cotton or with wool, not particularly enumerated, or otherwise charged with duty, not being articles wholly or in part made up
Liquorice root:
paste
juice
powder
Lithotage
Live creatures illustrative of natural history
Logwood
Lob-lolly bark
Lumber of wood, the cubic foot of external passage, measured internally
Mackerel, and vermicelli
Mace
Madder
Madder root
Madras gauze ware
Mahogany
Mangrove, tree of
Manna
Manures, unenumerated
Marble
Marble slabs
Marbles and chalks, or paris thereof, plain or coloured
Marine wood
Mats and matting
Mattresses
Meat, salted or fresh, not otherwise described, or preserved in any other way than salted
Medals of any sort
Medicines
Mercury, prepared
Metal, foil
leaf (not gold) of all kinds
Mill boards
Minerals and fossils, unenumerated
Models of cork or wood
Morphea and its salts
Moss, lichen islandicus
other than rock or Iceland moss
rock, for dyers' use
Mother-of-pearl shells
Mungrass
Musical instruments:
musical boxes, small, not exceeding 1 in. in length
large
overtures or extra accompaniments
pianofortes, horizontal grand
upright or square
harmoniums or seraphines
accordions, commonly called Chinese
other sorts, including flutinas, and common German concertinas
brass instruments, all sorts
not otherwise enumerated or described
Musk
Mustard flour
mixed or manufactured (except flour)
Myrobalan
Myrrh
Naphtha
New Zealand wood
Nicaragua wood
Nickel, arseniate of, in lumps or powder being in an unrefined state
metallic, and oxide of, refined
ores of
Nitre, cubic
Nutmegs
wild, in the shell
wild, not in the shell
or other spices or admixtures thereof, ground
Nuts:
kernels of walnuts, and of peach stones, and of nuts or kernels thereof, unenumerated, commonly used for expressing oil therefrom
cocoa nuts
Pistachio
small nuts
walnuts
nuts and kernels, unenumerated
Nux vomica
Oakum
Ochre
Oil, animal
Oil, castor
cocoa nut
olive
lard
palm
paran
rock
resin
train, blubber, spermaceti oil, or head matter
hempseed
linseed
rapeseed
walnut
or spirit of turpentine
seed, unenumerated
of almonds
bays
chemical, essential, or perfumed
of cloves
Oil cloth for table covers
Oil seed cake
Olibanum
Olive wood
Olives
Onions
Opera glasses, single
double, and all marine and race glasses not being telescopes
Opium
Orange flower water
Oranges and lemons
juice of
Orchal
Ore, unenumerated
Orpiment
Ostrich feet
Ostrich tips
Painters' colours, unenumerated, manufactured or unmanufactured
Palmetto thatch
Palmetto thatch manufactures
Paper:
brown, made of old rope or cordage only, without separating or extracting the pitch or tar therefrom, and without any mixture of other materials therewith
printed, painted, or stained paper hangings, or flock paper
waste, of paper of any other sort not particularly enumerated or described, not otherwise charged with duty
gilt, stained, coloured, embossed, and all fancy kinds, not being paper hangings
Patchouli
Partridge wood
Pasteboard
Pearls
Pears, raw
dried
Pencils of slate and other sorts
Pens
Pepper of all sorts
Pepper cubebs
Perfumery, not otherwise enumerated
Petroleum
Pewter, manufactures of, not otherwise enumerated
Phosphorus
Pickles preserved in vinegar
and vegetables preserved in salt
Pictures
Pimento
Pink root
Burgundy
Plantains
Plants, shrubs, and trees alive
Plaster of Paris
Plate, battered as bullion
wire, gilt or plated
Platina, and ore of platina
Plaiting of chip, not being of greater value than 5d. per piece of 40 yards
or other manufactures of straw, chip, or other materials to be used in, or proper for, making or ornamenting hats or bonnets, not otherwise enumerated or charged with duty
cordonet, single and twist of straw, or of other materials
willow squares
Plumbago
Pollard
Pomatum
Pomegranates
juice of
Pork, fresh
salted, not hams
Potash
Potatoes
Pots, melting, for goldsmiths
of stone
Poultry, game, and rabbits, alive or dead
Precious stones
Prints and drawings, plain or coloured
admitted under treaties of international copyright
or and at the option of the importer, single bound
Puddings and sausages
Purple wood
Purses
Quassia
Quicksilver
Quills, goose
swan
Quinces
Quinine
Radix contrayervæ
ceruleæ serpentariæ
Radix syngil
ipecacuanhæ
rhatanniæ
senekæ
serpentariæ or snake root
Rags, old ropes or junk, or old fishing nets, fit only for making paper or pasteboard
pulp of
woollen
Rape of grapes
Red wood or guinea wood
Rhubarb
Rice, except dust and meal
Rose water
Rosewood
Rosin
Saccharum saturni
Safflower
Saffron
Sal ammoniac
limonum
prunella
Salep or sanap
Saleuve
Salt
Saltpetre
Sandal wood
Sanguis draconis
Santa Maria wood
Sapan wood
Sarsaparilla
Sassafras
Satin wood
Sauces, not otherwise enumerated
Saunders' rest
white or yellow
Sausages or puddings
Scagliolands
Scammony
Seeds:—worn
aniseed
beans, kidney or French
burnet
canary
carraway
carrot
clover
colchicum
cole
coriander
croton
cummin
dari
fenugreek
flax
forest
garden, unenumerated
grass seeds of all sorts
hemp
leek
lentils
lettuce
linseed and flaxseed
lucerne
lupin
maw
millet
mustard
onion
parsely
poppy
quince
rape
sesamum
shrub or tree
tares
tidal
unenumerated, commonly used for expressing oil therefrom
worm
not particularly enumerated or described, or otherwise charged with duty
Seneka root
Senna
Ships, British, broken up or to be broken up, with tackle, apparel, and furniture (except sails)
foreign ships or vessels
British ships, or vessels entitled to be registered as such, not having been built in the United Kingdom
Shumac
Silk, raw
knubs or husks, and waste silk
thrown, not dyed, and dyed, viz.:
singles, or crapes, organzine or crape
corahs, chenpas, handkerchiefs, tassore clothes, romals, and tailures
China crape shawls, scarfs, handkerchiefs, and pieces, viz.:
plain and damask
embroidery
damask
pongees, viz.:
articles, manufactures of silk, or of silk and any other material, not being articles wholly or in part made up, not particularly enumerated or otherwise charged with duty
manufactures of silk, or of silk and any other materials not particularly enumerated or otherwise charged with duty
manufactures of silk, or of silk mixed with metal or any other materials the produce of Europe, viz.:
silk or satin, plain, striped, figured, or brocaded, viz.:
broad stuffs
articles thereof not otherwise enumerated

Silk :
gauze, mixed with silk, satin, or other materials, viz. :
broad stuffs
articles thereof not otherwise enumerated
velvet, plain or figured, viz. :
broad stuffs
articles thereof not otherwise enumerated
broad stuffs, the foundation of which is wholly composed of cotton, or other materials than silk
ribbons, plain silk, of one colour only
plain satin, of one colour only
silk or satin striped, figured, or brocaded, or plain ribbons of more than one colour
gauze or crape, plain, striped, figured, or brocaded
gauze mixed with silk, satin, or other materials
velvet or plush, wholly of silk, or of silk mixed with cotton, viz :
plaid, or embossed by depression, without satin or fancy edge
figured, brocaded, or striped or spotted, or with fancy or satin edge, and silk ribbons, in any way mixed or ornamented with velvet or plush
manufactures of silk, or of silk and any other material called plush, not being ribbons
articles thereof not otherwise enumerated
black plush, commonly used for making hats
fancy silk net or tricot
plain silk lace or net called tulle
parasols and umbrellas
damask of silk and wool, or of silk and other materials for furniture
millinery of silk, or of which the greater part of the materials is of silk, viz. :
turbans or caps
hats or bonnets
dresses
manufactures of silk, or of silk mixed with any other material
Silkworm gut
Silver
Skins and furs, viz. :
pelts and tails
marten, undressed
seal, in the hair, not tanned, tawed, or dressed
squirrel or calabar, undressed
badger, undressed
bear, undressed
beaver, undressed
cat, undressed
chinchilla, undressed
coney, undressed
deer, undressed
dog in the hair, not tanned, tawed, or dressed
dog fish, undressed
elk, undressed
ermine, dressed or undressed
fisher, undressed
fitch, undressed
fox, undressed
fox tails, undressed
goat, raw or undressed
goose, undressed
hare, undressed
hume, undressed
kangaroo, undressed
kid, in the hair, undressed
kolinski, undressed
leopard, undressed
lion, undressed
lynx, undressed
marten tails, undressed
minx, undressed
mole, undressed
musquash, undressed
nutria, undressed
otter, undressed
ounce, undressed
panther, undressed
pelts, undressed
racoon, undressed
sable, undressed
sable tails or tips, undressed
squirrel or calabar, tails of, undressed
swan, undressed
tiger, undressed
weasel, undressed
wolf, undressed or tawed
Skins and furs, viz. :
wolverings, undressed
deer, Indian, half dressed, tanned, tawed, or in any way dressed
ermine, dressed
kid, dressed and dyed or coloured
lamb, tanned or tawed
lamb, dyed or coloured
dressed in oil
minx, dressed
pelts, tanned, tawed, or in any way dressed
goat, tanned, tawed, or in any way dressed
lamb, undressed, in the wool
sheep, undressed, in the wool
tanned or tawed, dressed in oil
squirrel or calabar, undressed, tawed
wolf, tawed
kid, dressed, and dyed or coloured
and furs, or pieces thereof, unenumerated, tanned, tawed, curried, or dressed
and furs, or pieces thereof, tawed or undressed, unenumerated
Smalts
Soap, hard
soft
Naples
scented or fancy soap
Soda
Soy
Spa ware
Specimens of minerals, fossils, illustrative of natural history
Speckled wood
Spectacles
Spelter, manufactures of, not otherwise enumerated
Spelter or zinc, rolled, but not otherwise manufactured
crude, in cakes
oxide and white of
rods for bolts
Spermaceti
Sponge
Squills, dried or not dried
Starch, gum of, torrified or calcined
Stationery
Stavesacre
Staves, not exceeding 72 inches in length, nor 7 inches in breadth, nor 5¼ inches in thickness
Stays or corsets of linen or cotton, or of linen and cotton mixed
Stearine
Steel, unwrought
scrap
manufactures of
Stones in lumps, not in any manner hewn, including stones to be used for lithography
in blocks, shaped or rough scalped
stone and slate, hewn
marble, sawn in slabs, or otherwise manufactured
Straw or grass for platting
Sugar of lead
Sulphur impressions
Sweet wood
Talc
Tallow
Tallow, vegetable
Tamarinds
Tar
Barbadoes
Tarras
Tartaric acid
Teasles
Teeth, elephants'
sea cow, sea-horse, or sea morse
Telescopes
Terra Japonica
Sienna
verde
umbra
Thread, not otherwise enumerated or described
Tiles
Timber
Tin, ore and regulus of
in blocks, ingots, bars, or slabs
manufactures of, not otherwise enumerated
foil
Tobacco-pipes of clay
Tongues
Tormeal
Tortoise-shell or turtle-shell, unmanufactured
Toys
marbles
all other toys
Truffles
Tulip-wood
Turmeric
Turnery, not otherwise described
Turpentine
of Venice, Scio, or Cyprus
Twine
Ultra marine
Vanilla
Vanelloes
Varnish, not otherwise described
Vases, ancient, not of stone or wood
Vegetables
all vegetables not enumerated or described
preserved in salt
Vellum
Veneers
Verdigris
Verjuice
Vermilion
Wafers
Walnut wood
Washing balls
Watches of gold, silver, or other metal
Water
Cologne, the flask
when not in flasks
mineral
Wax, bleached
unbleached
myrtle
sealing
vegetable
Weld
Whale fins
Whipcord
Wire, gilt or plated
silver
Woad
Wood for ship-building, viz. : stringy bark, red and blue gum, green hart, mora, and locust woods, and woods formerly admitted at the same duty as teak
treenails of stringy bark, red and blue gum, and locust woods, and all treenails of and from British possessions
shovel hilts
Wood :
birch and fir, hewn, imported for the sole purpose of making herring barrels for the use of fisheries
waste wood
hoops
firewood of and from British possessions
teak
timber and wood, not being deals, battens, boards, staves, handspikes, oars, lathwood, or other timber or wood sawn, split, or otherwise dressed, except hewn
deals, battens, boards, or other timber or wood sawn or split
staves
firewood
handspikes
knees
lathwood
oars
spars or poles
spokes for wheels
wood planed or otherwise dressed or prepared for use
Wool, beaver
cut and combed
goats' wool or hair
sheep's or lambs' wool
coney
hares'
cotton and waste of cotton wool
Woollens :
articles or manufactures of wool (not being goats' wool), or of wool mixed with cotton
carpets and rugs
shawls, scarfs, and handkerchiefs, plain
printed
gloves, wholly or in part made up
Yarn :
cable yarn
camel or mohair
raw linen
woollen or worsted, scoured, bleached, or coloured
not scoured, bleached, or coloured
silk and worsted spun together, and not dyed
worsted, raw, not dyed, or only partially dyed, and not being fit or proper for embroidering or other purposes
Yeast, dried
Zaffre
Zebra wood
Zinc

The following resolutions of the Chancellor of the Exchequer have been approved by the House of Commons, and will probably become law during the current session (1869).

1. That the duties of customs chargeable upon the articles undermentioned, imported into Great Britain and Ireland, shall cease and determine, viz. :—

Corn, grain, meal, and flour, and articles of the like character, viz :—

Wheat.
Barley.
Oats.
Rye.
Pease.
Beans.
Maize or Indian corn.
Buck wheat.
Bear or bigg.
Wheat meal and flour.
Barley meal.
Oat meal and groats.
Rye meal and flour.
Pea meal.

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Bean meal.
Maize or Indian corn meal.
Buck wheat meal.
Meal, not otherwise enumerated or described.
Arrow root.
Barley, pearled.
Biscuit and bread.
Cassava powder.
Maccaroni.
Mandioca flour.
Manna croup.
Potato flour.
Powder, viz. hair.
perfumed.
not otherwise enumerated or described that will serve the same purpose as starch.
Rice dust and meal.
Sago.
Semolina.
Starch.
gum of, torrified or calcined.
Tapioca.
Vermicelli.

2. That, in lieu of the duties of customs now chargeable on beer and ale, as denominated in the tariff, on importation into Great Britain or Ireland, the following duties shall be charged, viz. :—

Beer and ale, viz. :—

	£	s.	d.
Mum, the barrel of 36 gallons	1	1	0
Spruce, the barrel of 36 gallons	1	1	0

Of other sorts, viz. :—

Beer, the worts of which were before fermentation of a specific gravity not exceeding 1,063°, the barrel of 36 gallons	0	8	0
Exceeding 1,063°, and not exceeding 1,090°, the barrel of 36 gallons	0	11	0
Exceeding 1,090°, the barrel of 36 gallons	0	16	0

Grant of Income Tax.—3. That, towards raising the supply granted to her Majesty, there shall be charged, collected, and paid for one year, commencing on April 6, 1869, for and in respect of all property, profits, and gains mentioned or described as chargeable in the Act passed in the sixteenth and seventeenth years of her Majesty's reign, c. 34, for granting to her Majesty duties on profit arising from property, professions, trades, and offices, the following rates and duties (that is to say) :—

For every 20*s.* of the annual value or amount of all such property, profits, and gains (except those chargeable under Schedule (B) of the said Act), the rate or duty of 6*d.*

And for and in respect of the occupation of lands, tenements, hereditaments, and heritages chargeable under Schedule (B) of the said Act, for every 20*s.* of the annual value thereof, in England, the rate or duty of 3*d.*, and in Scotland and Ireland respectively, the rate or duty of 2½*d.*

Subject to the provisions contained in sec. 3 of the Act 26 Vict. c. 22 for the exemption of persons whose whole income from every source is under 100*l.* a-year, and relief of those whose income is under 200*l.* a-year.

Repeal of Assessed Taxes.—4. That the duties of assessed taxes now payable in Great Britain shall cease to be assessed in respect of male servants, carriages, horses, mares or geldings, mules, hair powder, and armorial bearings employed, kept, used, or worn respectively after April 5, 1869, in England, and after May 24, 1869, in Scotland, and on persons using or exercising the trade and business of a horse dealer after such days respectively.

Repeal of Excise Locomotion Duties.—5. That, on January 1, 1870, the following duties of excise shall cease to be payable (that is to say) :—

Upon licenses to let horses for hire in Great Britain.

Upon licenses to let to hire horses for the purpose of travelling post by the mile, or from stage to stage in Ireland.

Upon licenses to keep, use, and let to hire hackney carriages, within the limits of the metropolitan police district and the city of London, and also the weekly duties payable in respect of such hackney carriages.

Upon licenses to keep, use, and employ stage carriages in Great Britain, and also the mileage duty payable in respect of such stage carriages.

Grant of Excise Duties on Male Servants, Carriages, Horses, Mules, and Armorial Bearings, and on Horse Dealers.—6. That towards raising the supply granted to her Majesty, there shall be granted, charged, levied, and paid on and after January 1, 1870, in and throughout Great Britain the following duties of excise upon licenses to be taken out annually by the persons who shall employ any male servant, or who shall keep any carriage, or horse or mule, or who shall wear or use any armorial bearings, or who shall exercise or carry on the trade of a horse dealer.

Male Servants.

	£	s.	d.
For every male servant employed either wholly or partially in any of the following capacities, viz. :—maître d'hôtel, house steward, master of the horse, groom of the chambers, valet de chambre, butler, under butler, clerk of the kitchen, confectioner, cook, house porter, footman, page, waiter, coachman, groom, postillion, stable boy or helper in the stables, gardener, under gardener, park keeper, game keeper or game watcher, huntsman and whipper-in, or in any capacity involving the duties of any of the above descriptions of servants by whatever style the person acting in such capacity may be called	0	15	0

Carriages.

For every carriage drawn by a horse or mule, or by horses or mules (except a waggon, cart, or other vehicle used solely for the conveyance of any goods or burden in the course of trade or husbandry, and whereon the Christian name and surname, and place of abode or place of business of the owner, shall be visibly and legibly painted)—			
If such carriage shall have 4 or more wheels, and shall be of the weight of 3 cwt. or upwards	2	2	0
If such carriage shall have less than 4 wheels, or having 4 or more wheels, shall be of less weight than 3 cwt.	0	15	0

Horses and Mules.

For every horse or mule (including a horse or pony of any sex or description or age, but not including a foal, colt, or filly, or mule, which shall never have been used for any purpose of draught or riding)	0	10	6

Armorial Bearings.

For armorial bearings (including any armorial bearings, crest, or ensign, by whatever name the same shall be called)—			
If such armorial bearings shall be painted, marked, or affixed on or to any carriage	2	2	0
If such armorial bearings shall be otherwise worn or used	1	1	0

Horse Dealers.

Every horse dealer in Great Britain	12	10	0

Repeal of the Percentage Duty on Fire Insurances.—7. That, on June 25, 1869, the stamp duty at the rate of 1*s.* 6*d.* per cent. per annum, now payable in respect of insurances against loss or damage by fire only, shall cease to be payable.

Repeal of Excise Duties on Tea Licenses.—8. That, from July 5, 1869, the duties of excise now payable upon licenses to be taken out by persons trading in or selling coffee, tea, cocoa nuts, chocolate, or pepper, shall cease to be payable.

For Tariff of the Isle of Man, see MAN, ISLE OF.

II. TARIFFS, COLONIAL.

See also ADELAIDE, CAPE TOWN, MELBOURNE, TASMANIA &c.

Statements showing the alterations on colonial tariffs are laid before Parliament periodically.

For Indian Tariff, see CALCUTTA.

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Rates of Import Duty Levied by the Tariffs of the respective Colonial Possessions of the United Kingdom, according to the latest Returns received down to the date of the Publication of the Fourth Number of the 'Colonial Abstract,' issued by the Board of Trade in 1868.

Colonial Possessions	Yarns				Woven Fabrics				Metals		Leather
	Cotton	Linen, Hemp, and Jute	Silk	Woollen and Worsted	Cotton	Linen, Hemp, and Jute	Silk	Woollen and Worsted	Iron and Ironmongery	Machinery	Manufactured
	per cent. ad val.	per cent. ad val.	per cent. ad val.	per cent. ad val.	per cent. ad val.	per cent. ad val.	per cent. ad val.	per cent. ad val.	per cent. ad val.	per cent. ad val.	per cent. ad val.
India	3½	Free	7½	—	5½, 5, and 7½	5 and 7½	5	Piece goods, 5 Other kinds, 7½	7½	Free	7½
Straits Settlements	3½	3½	3½	½	5	5	5	5 and 7½	1 and 7½	Free	7½
Ceylon	5	5	5	5	5	5	5	5	5	Free	5
Mauritius	6	6	6	6	6	6	6	6	6	Free	6
Labuan	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Hong Kong	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Australia: New South Wales	5	5	5	5	5	5	5	5	5	Free	5
Victoria	Free	Free	Free	Free	Cub. ft. 4*s*	Cub. ft. 4*s*.	10	Cub. ft. 4*s*. Blanket and rugs, 10	Free	Free	Cub. ft. 4*s*.
South Australia	5	5	5	5	5	5	5	5	5	5	5
Western Australia	7	7	7	7	7	7	7	7	7	7, Agricultural and mill, free	7
Tasmania	Free	Free	Free	Free	Cub. ft. 2*s*.	Cub. ft. 2*s*.	Cub. ft. 2*s*.	Cub. ft. 2*s*.	Cwt. 2*s*. 6*d*. Rough castings, per cwt. 6*d*.	Free	Cub. ft. 2*s*.
New Zealand	Free	Free	Free	Free	Cub. ft. 5*s*.	Cub. ft. 5*s*.	Cub. ft. 5*s*.	Cub. ft. 5*s*.	Cwt. 4*s*.	Free	Cub. ft. 1*s*. to 5*s*.
Queensland	7½	7½	7½	7½	7½	7½	7½	7½	7½	Sugar machinery, free	7½
Falkland Islands	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Natal	6	6	6	6	6 Cotton sheets, 15	6	6	6, Blankets and railway rugs 15	6	Free	6
Cape of Good Hope	10	10	10	10	10	10	10	10	10	5, Agricultural free	10
St. Helena	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Gold Coast	—	—	—	—	—	—	—	—	—	—	—
Sierra Leone	4	4	4	4	4	4	4	4	4	4	4
Gambia	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
North America: Canada New Brunswick Nova Scotia	15	15	15	15	15	15	15	15	15	15	10 and 15
Prince Edward Island	10	10	10	10	10	10	10	10	Part free	Agricultural, free All wheel machinery, 20	10 Boots and shoes, 12½
Newfoundland	Free	—	11	—	11	11	11	11	10	Other kinds, 2 to 10	11
British Columbia	12½	12½	12½	12½	12½	12½	12½	12½	5½ and 11	—	12½
Vancouver's Island	Free	Free	Free	Free	Free	Free	Free	Free	12½	Free	Boots and shoes, 15
Bermuda	5	5	5	5	5	5	5	5	Free	Free	Free
Honduras	7	7	7	7	7	7	7	7	5	5	5
West India Islands: Bahamas	15	15	15	15	15	15	15	15	7	Free	7
Turk's Island	10	10	10	10	10	10	10	10	15	15 10	15
Jamaica	12½	12½	12½	12½	12½	12½	12½	12½	10	Used in manufacture of salt, free	10
Virgin Islands	—	—	—	—	7½	7	7½	7½	12½	4	12½
St. Christopher*	8	8	8	8	8	8	8	8	—	—	7½
Nevis	Free	Free	Free	Free	8	8	8	8	8	Steam-engines and sugar machinery, free	8
Antigua†	6	6	6	6	8	8	8	8	6	Free	8
Montserrat	7½	7½	7½	7½	6	6	6	6	6	Free	6
Dominica‡	10	10	10	10	7½	7	7½	7	7½	Free	7
St. Lucia§	5	5	5	5	10	10	10	10	10	5	10
St. Vincent	6	6	6	6	5	5	5	5	5	Free. Subject to the additional duty	5
Barbadoes	3	3	3	3	6 6, Canvas per 43 yds. 1*s*. and 1	6	6	6	6	Free	6
Grenada	5	5	5	5	3	3	3	3	3	3	3
Tobago‖	7½	7½	7½	7½	5	5	5	5	5	5	5
Trinidad	3½	3½	3½	3½	7½	7½	10	7½	7½	7½	7½
British Guiana	Free	Free	Free	Free	Free	Linen 5, Hemp and Jute 3½	10	5	5	3½	5, Gloves 10
Gibraltar	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Malta	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free

25 p.c. additional on all duties for 3 years from Sept. 15, 1867. † 25 p.c. additional on all duties from May 9, 1866. ‡ 10 p.c. additional on all duties. § 5½ p.c. additional on all duties. ‖ 40 p.c. additional on all duties until June 1, 1868.

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Rates of Import Duty levied by Colonial Tariffs &c.—continued.

Colonial Possessions	Oils, Minerals &c.				Articles of Food				
	Oils	Candles	Coals	Soap	Bacon and Hams	Beef and Pork, salted	Butter	Coffee	Corn — Wheat
India	per gallon 7½ p.c. ad val.	per cwt. 7½ p.c. ad val.	per ton Free	per cwt. 7½ p.c. ad val.	per cwt. 7½ p.c. ad val.	per cwt. 7½ p.c. ad val.	per cwt. Free	per cwt. 7 p.c. ad val	per bushel Free
Straits Settlements	7½ p.c. ad val.	7½ p.c. ad val.	Free	7½ p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	Free
Ceylon	5 p.c. ad val.	5 p.c. ad val.	Free	5 p.c. ad val.	6s.	2s. 6d.	5 p.c. ad val.	Free	7d.
Mauritius	Whale and cocoa nut, free	6 p.c. ad val.	Free	6 p.c. ad val.	4s.	2s.	4s.	4s.	Per 100 lb. 6d.
Labuan	6 p.c. ad val.	Free	Free	Free	Free	Free	Free	Free	Free
Hong Kong	Free	Free	Free	Free	Free	Free	Free	Free	Free
Australia:	Free	Free	Free	Free					
New South Wales	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	18s. 8d.	Free
Victoria	Free	9s. 4d.	Free	9s. 4d.	9s. 4d.	4s.	9s. 4d.	18s. 8d.	Free
South Australia	5 p.c ad val.	5 p.c. ad val.	Free	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	9s. 4d.	Free
Western Australia	7 p.c. ad val.	7 p.c. ad val.	Free	7 p.c. ad val.	7 p.c. ad val.	Free	7 p.c. ad val.	4s.	Free
Tasmania	6d. Fish, free	18s. 8d.	Free	9s. 4d.	18s. 8d.	Free	18s. 8d	1l. 8s.	Free
New Zealand	In bulk, 6d. In bottle, 2s. 6d. per cubic foot	Tallow, 4s. 8d. Other kinds, 9s. 6d.	Free	Common, 2s. 6d. Fancy, per cubic foot, 2s. 6d.	9s. 1d.	2s.	9s. 4d.	1l. 8s.	Free
Queensland	7½ p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	1l. 17s. 4d.	Free
Falkland Islands	Free	Free	Free	Free	Free	Free	Free	Free	Free
Natal	6 p.c. ad val.	6 p.c. ad val.	Free	6 p.c. ad val.	6 p.c. ad val.	6 p.c. ad val.	6 p.c. ad val.	6s.	Free
Cape of Good Hope	Lamp, 6d. Cocoa-nut, 1s.	18s. 8d.	1s. 6d.	3s. 4½d.	5s. 7d.	5s. 7½d.	11s. 9d.	15s. 1½d.	Per 100 lb. 8d.
St. Helena	Free	Free	Free	Free	Free	Free	Free	Free	Free
Gold Coast	—	—	—	—	—	—	—	—	—
Sierra Leone	4 p.c. ad val.	9s.	4 p.c. ad val.	2s. 6d.	5s.	5s.	8s.	4 p.c. ad val.	4 p.c. ad val.
Gambia	Free	Free	Free	Free	Free	Free	Free	Free	Free
North America:									
Canada	Crude palm, free	15 p.c. ad val.	Free	4s. 8d.	4s. 8d.	4s. 8d.	18s. 8d.	Green, 14s. Roasted, 18s. 8d.	Free
New Brunswick	Others, 5d. to 7½d. or 15 p.c. ad val.								
Nova Scotia	Fish, free. Mineral, 5d. Other, 10 p.c. ad val.	10 p.c. ad val.	Free	10 p.c. ad val.	6s. 8d.	Per barrel, 4s.	6s. 8d.	Green, 12s. 5½d. Roasted, 13s. 8d.	Free
Prince Edward Island	11 p.c. ad val.	11 p.c. ad val.	Free	11 p.c. ad val.	4s. 2d.	Beef, 1s. 2d. Pork, 1s. 7½d.	2s. 11d.	9s. 4d.	Free
Newfoundland	15 p.c. ad val.	20 p.c. ad val.	Free	12½ p.c. ad val.	15 p.c. ad val.	12½ p.c. ad val.	15 p.c. ad val.	Green, 15 p.c. ad val. Roasted, 20 p.c. ad val.	10 p.c. ad val.
British Columbia	Free	Free	Free	Free	Free	Free	Free	Free	Free
Vancouver's Island	5 p.c. ad val.	5 p.c. ad val.	Free	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.
Bermuda	7 p.c. ad val.	7 p.c. ad val.	Free	1s. 6d. and 2 p.c. ad val.	7 p.c. ad val.	7 p.c. ad val.	7 p.c. ad val.	8s. 11½d. and 2 p.c. ad val.	7 p.c. ad val.
Honduras		Tallow. Other kinds.							
West India Islands:									
Bahamas	6d. to 1s.	5s. 10s.	15 p.c. ad val.	4s.	5s.	5s.	1?s.	4s.	15 p.c. ad val.
Turk's Island	4d. to 1s. 6d.	3s. 4½d. 7s.	Free	3s. 4½d.	4s. 8d.	4s. 8d.	2s. 4d.	5s. 7½d.	2d.
Jamaica	4d.	5s. 14s. to 20s.	Free	6s.	10s.	7s. 10d.	9s.	20s.	1s.
Virgin Islands	Free	Free	Free	Free	2s. 4d.	2s. 4d.	9s. 4d.	Free	Free
St. Christopher	8 p.c. ad val.	7s. 14s.	Free	2s. 6d.	4s. 8d.	4s. 8d.	9s. 4d.	5s. 7½d.	3d.
Nevis	8 p.c. ad val.	4s. 5½d. 8 p.c. ad val.	Free	2s. 3d.	5s. 7½d.	5s. 7½d.	5s. 4d.	5s. 7½d.	3d.
Antigua	6d.	9s. 4d. 28s.	6 p.c. ad val.	4s. 8d.	9s. 4d.	9s. 4d.	5s. 7½d.	9s. 4d.	3d.
Montserrat	7½ per cent. ad val.	7s. 9s. 4d.	7½ p.c. ad val.	2s. 4d.	4s. 8d.	Per barrel, 8s.	9s. 4d.	11s. 2½d.	4d.
Dominica	Olive, 9d. Other kinds, 4d.	4s. 8d. 9s. 4d.	2s.	3s. 4½d.	9s. 4d.	5s. 7½d.	9s. 4d.	10 p.c. ad val.	4d.
St. Lucia	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	3s. 4½d.	5s. 4½d.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.
St. Vincent	Fish, 1d. Other kinds, 3d. and 1 p.c. ad val.	1s. 6d. 5s. to 10s. and 1 p.c. ad val.	6 p.c. ad val.	Common, 1s. Other kinds, 2s. and 1 p.c. ad val.	6s. 8d. and 1 p.c. ad val.	7s. and 1 p.c. ad val.	6s. and 1 p.c. ad val.	2s. and 1 p.c. ad val.	1d. and 1 p.c. ad val.
Barbadoes	Kerosine, 2d.	4s. 8d. 9s. 4d.	2s. 1d.	1s. 2d.	4s. 8d.	4s. 8d.	7s.	2s. 4d.	2½d.
Grenada	Other kinds, 5 p.c. ad val.	5s. 7½d. 8s. 11½d.	9s.	2s. 3d.	5s. 7½d.	4s. 8½d.	8s. 11½d.	6s. 8½d.	5 p.c. ad val.
Tobago	Olive, 6d. Other kinds, 3d. 4d.	9s. 4d. 18s. 8d.	In bulk, 2s. per hogshead, 1s. 6d.	1s. 6d.	18s. 8d.	5s. 4½d.	9s. 4d.	9s. 4d.	3d.
Trinidad	Olive, 5d. Other kinds, 3½ p.c. ad val.	2s. 4d. 6s. 6½d.	In bulk, 3d. per hogshead, 1s. per hogshead, 1s.	1s. 1½d.	4s. 8d.	4s. 8d.	4s. 8d.	5s. 7½d.	2½d.
British Guiana	7½ p.c. ad val.	14s.	4s. 8d.	4s. 8d.	9s. 4d.	Per barrel, 12s. 6d.	9s. 4d.	7s.	2½d.
Gibraltar	Free	Free	Free	Free	Free	Free	Free	Free	Free
Malta	1½d.	Free	Free	Free	Free	Free	Free	Free	1s. 3½d.

Rates of Import Duty Levied by Colonial Tariffs &c.—continued.

Colonial Possessions	Articles of Food—*continued.*										
	Corn—*cont.*			Fish		Sugar		Pickles and Sauces	Tea	Beer and Ale	
	Indian Corn	Flour	Rice	Dried	Pickled	Raw	Refined			In Wood	
India	per bushel	per barrel	per cwt.	per cwt.	per barrel	per cwt.	per cwt.	p.c. ad val.	per lb.	per gal.	
Straits Settlements	Free	7½ p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	Free	7½ p.c. ad val.	7½ p.c. ad val.	7½	7½ p.c. ad val.	1½d.	
Ceylon	Free	7 p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	7½ p.c. ad val.	7½	7½ p.c. ad val.	1½d.	
Mauritius	7d.	Per cwt. 2s.	Per bushel, 7d.	1s.	Per cwt. 1s.	2s. 6d.	7s.	5	6d.	3d.	
Labuan	6 p.c. ad val.	Per cwt. 6d.	4d.	1s.	2s.	6 p.c. ad val.	4s.	6	1d.	7d.	
Hong Kong	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	
Australia:	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	
New South Wales	Free	Free	2s.	5 p.c. ad val.	5 p.c. ad val.	5s.	6s. 8d.	5	3d.	3d.	
Victoria	Free	Free	2s.	5s.	Per cwt. 5s.	5s.	5s.	10	3d.	6d.	
South Australia	Free	Free	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	3s.	5s.	5	3d.	6d.	
Western Australia	Free	Free	Free	7 p.c. ad val.	7 p.c. ad val.	5s.	4s.	7	2d.	4d.	
Tasmania	Free	Free	4s. 8d.	Per cubic foot, 2s.	Per cubic foot, 2s.	6s.	1s.	Pickles, per doz. pts. 2s.	6d.	6d.	
New Zealand	Free	Free	2s.	2s.	Per cwt. 2s.	2s. 4d.	2s. 4d.	Sauces, ditto, 3s.	6d.	12d.	
Queensland	Free	Free	2s.	7½ p.c. ad val.	7½ p.c. ad val.	5s.	6s. 8d.	Per cub. ft. 2s. 6d.	6d.	6d.	
Falkland Islands	Free	Free	Free	Free	Free	Free	Free	7½	Free	Free	
Natal	Free	Free	Free	6 p.c. ad val.	6 p.c. ad val.	3s. 6d.	4s.	6	4½d.	4d.	
Cape of Good Hope	Per 100 lb. 8d.	Per 100 lb. 2s. 6d.	2s. 9½d.	5s. 7½d.	Per cwt. 5s. 7½d.	6s. 2d.	8s. 11½d.	10	7½d.	4d.	
St. Helena	Free	Free	Free	Free	Free	Free	Free	Free	Free	2½d.	
Gold Coast	—	—	—	—	—	—	—	—	—	—	
Sierra Leone	4 p.c. ad val.	5s.	4 p.c. ad val.	1s.	2s.	6s.	10s.	1	8d.	6d.	
Gambia	Free	Free	Free	Free	Free	2s. 4d.	2s. 4d.	Free	Free	Free	
North America:											
Canada	5d.	1s. 0½d.	Free	4s. 8d.	Per cwt. 4s. 8d.	7s. 10d. to 12s. 1½d.	14s.	15	1½d. to 3½d. and 15 p.c. ad val.	2½d.	
New Brunswick				From B. N. A. Colonies, free	From B. N. A. Colonies, free						
Nova Scotia				Free	Free						
Prince Edward Island	10 p.c. ad val.	1s.	5 p.c. ad val.	5s. 6d.	—	4s. 8d.	18s. 8d.	10	2½d.	5½d.	
Newfoundland	5½ p.c. ad val.	1s. 6d.	5½ p.c. ad val.			8s. 5d. to 10s.	17s. 4d.	11	Black, 4d. Other, 5d.	4d.	
British Columbia	12½ p.c. ad val.	15 p.c. ad val.	20 p.c. ad val.	30 p.c. ad val.	12½ p.c. ad val.	20 p.c. ad val.	20 p.c. ad val.	12½	25 p.c. ad val.	20 p.c. ad val	
Vancouver's Island	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	
Bermuda	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5 p.c. ad val.	5	5 p.c. ad val.	5½d.	
Honduras	7 p.c. ad val.	7 p.c. ad val.	7 p.c. ad val.	7 p.c. ad val.	7 p.c. ad val.	15s. 5½d. and 2 p.c. ad val.	17s. 5½d. and 2 p.c. ad val.	7	1s. and 2 p.c. ad val.	2s. and 2 p.c. ad val.	
West India Islands:											
Bahamas	Free	3s.	1s. 6d.	2s.	5s. to 5s.	10s.		15	2d.	4d.	
Turk's Island	2d.	3s. 9d.	1s. 1½d.	1s. 1½d.	4s. 2d. to 4s. 5d.	4s. 8d. to 7s.	9s. 4d.	10	4d. to 6d.	2d.	
Jamaica	3d.	8s.	3s.	Codfish, 7s. 4d. Other, 2s. 6d.	2s. to 4s.	10s	18s. 8d.	12½	1s. 6d.	6d.	
Virgin Islands	Free	5s.	Per bushel, 6d.	Free	Free	Per barrel, 2s.	4s.	Free	Free	6d.	
St. Christopher*	8 p.c. ad val.	4s. 4d.	1s. 3d.	1s. 2d.	Per cwt. 1s. 2d.	5s. 7½d.	9s. 4d.	8	8 p.c. ad val.	1½d.	
Nevis	3d.	4s.	1s. 1½d.	1s. 1½d.	2s.	Free	5s. 7½d.	8	6d.	1½d.	
Antigua†	3d.	5s.	2s. 3d.	1s. 1½d.	2s.	6 p.c. ad val.	4s. 8d.	6	4d.	2½d.	
Montserrat	4d.	4s.	2s. 3d.	1s. 1½d.	2s.	7½ p.c. ad val.	9s. 4d.	7½	4d.	2½d.	
Dominica‡	4d.	4s. 2d.	2s. 3d.	2s.	2s. 6d. to 4s. 9d.	10 p.c. ad val.	9s. 4d.	10	6d.	3d.	
St. Lucia‖	5 p.c. ad val.	3s. 3d.	1s. 1½d.	1s.	Per cwt. 1s.	5 p.c. ad val.	10 p.c. ad val.	5	5 p.c. ad val.	5 p.c. ad val.	
St. Vincent	1d. and 1 p.c. ad val.	4s. and 1 p.c. ad val.	1s. and 1 p.c. ad val.	1s. and 1 p.c. ad val.	2s. and 1 p.c. ad val.	5s. and 1 p.c. ad val.	10s. and 1 p.c. ad val.	6	3d. and 1 p.c. ad val.	2½d. and 1 p.c. ad val.	
Barbadoes	2½d.	3s. 6d.	5½d.	2d.	4d.	2s. 4d.	8s. 4½d.	3	2½d.	2d.	
Grenada	3d.	4s.	2s. 3d.	1s. 1½d.	2s. to 8s. 4d.	8s. 11½d.	13s. 5½d.	5	4d.	2½d.	
Tobago‖	3d.	3s. 6d.	2s. 3d.	1s. 1½d.	2s.	—	From slave countries, 2s. other countries, 2s. 4d.	7½	4d.	2½d.	
Trinidad	2½d.	5s.	2s. 3d.	1s. 1½d.	2s. 6d.	11s. 2½d.	14s. 9½d.	3½	2d.	2d.	
British Guiana	2½d.	4s. 2d.	1s. 2d.	2s. 3d.	1s. 0½d. to 4s. 2d.	Free	Free	Free	Free	4½d.	
Gibraltar	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	
Malta	2½d.	Free	3s. 10d.	Free	Free	Free	Free	Free	Free	2½d.	

* 25 p.c. additional on all duties for 3 years from Sept. 13 1867. † 25 p.c. additional on all duties from May 9, 1866. ‡ 10 p.c. additional on all duties. ‖ 5 p.c. additional on all duties. ‖ 40 p.c. additional on all duties until June 1, 1868.

Rates of Import Duty Levied by Colonial Tariffs &c.—continued.

Colonial Possessions	Articles of Food—*continued*				Miscellaneous Articles				
	Beer and Ale—*cont.*	Spirits	Wines		Tobacco			Paper and Stationery	Books
	In Bottle		In Wood	In Bottle	Unmanufactured	Manufactured	Cigars		
	per dozen	per gallon	per gallon	per dozen	per lb.	per lb.	per lb.	per cent. ad val.	ad val.
India	3*d.*	6*s.*	2*s.* to 3*s.*	4*s.* to 6*s.*	10 p.c. ad val.	10 p.c. ad val.	10 p.c. ad val.	7½ p.c., Paper, free	Free
Straits Settlements	3*d.*	6*s.*	2*s.*	4*s.*	10 p.c. ad val.	10 p.c. ad val.	10 p.c. ad val.	7½ p.c., Paper, free	Free
Ceylon	8*d.*	5*s.*	1*s.* 6*d.*	3*s.*	1*d.*	2½*d.*	8*d.*	Free	Free
Mauritius	2*s.*	6*s.* 6*d.*	2½*d.*	5*s.* 6*d.*	1*s.*	1*s.* 7*d.*	1*s.* 6*d.*	6	Free
Labuan	Free	Free	Free	Free	Free	Free	Free	Free	Free
Hong Kong	Free	Free	Free	Free	Free	Free	Free	Free	Free
Australia:									
New South Wales	1*s.*	10*s.*	3*s.*	6*s.*	1*s.*	2*s.*	3*s.*	5	Free
Victoria	1*s.*	10*s.*	3*s.*	6*s.*	1*s.*	2*s.*	3*s.*	Free	Free
South Australia	1*s.*	10*s.*	2*s.*	6*s.*	5 p.c. ad val.	1*s.* 6*d.*	4*s.*	5	Free
Western Australia	8*d.*	10*s.*	2*s.*	6*s.*	1*s.*	1*s.* 9*d.*	2*s.* 6*d.*	7	Free
Tasmania	2*s.*	12*s.*	2*s.*	4*s.*	2*s.* 6*d.*	2*s.* 6*d.*	4*s.*	Free	Free
New Zealand	1*s.* 3*d.*	12*s.*	2*s.*	8*s.*	2*s.* 6*d.*	2*s.* 6*d.*	5*s.*	Per cubic foot, 1*s.*	Free
Queensland	1*s.*	10*s.*	4*s.*	8*s.*	2*s.* 6*d.*	2*s.* 6*d.*	4*s.*	7½	Free
Falkland Islands	Free	Free	Free	12*s.*	Free	Free	Free	Free	Free
Natal	3*d.*	6*s.*	1*s.* 6*d.*	4*s.*	4½*d.*	9*d.*	Per 1,000, 30*s.*, 2*s.*, and 10 p.c. ad val. or 20*s.* per 1,000, and 10 p.c. ad val.	6	Free
Cape of Good Hope	8*d.*	6*s.* 3*d.* to 7*s.* 6*d.*	4*s.* 4*d.*	8*s.* 8*d.*	6*d.*	1*s.*		10	Free
St. Helena	6*d.*	10*s.*	2*s.* 3*d.*	4*s.* 6*d.*	6*d.*	1*s.*	1*s.*	Free	Free
Gold Coast	—	—	—	—	—	—	—	—	—
Sierra Leone	1*s.*	1*s.* 2*d.*	1*s.* 2*d.*	2*s.* 4*d.*	1½*d.*	1½*d.*	Per 1,000, 8*s.*	4	4 p.c.
Gambia	Free	6*d.* to 1*s.*	2*d.* to 1*s.*	1*s.* 6*d.* to 2*s.*	1*d.*	1*d.*	—	Free	Free
North America:									
Canada									
New Brunswick									
Nova Scotia	10½*d.*	5*s.* 4*d.*	5*d.* to 1*s.* 0½*d.*	6*s.* 3*d.* to 16*s.* 8*d.*	Free	7½ and 5 p.c. ad val.	Per 1,000, 12*s.* 6*d.* to 25*s.*	15	Free
Prince Edward Island									
Newfoundland	6½*d.*	1*s.* 4*d.* to 3*s.*	25 p.c. ad val., or 2*s.* 8*d.* and 5 p.c. ad val.	25 p.c. ad val., or 3*s.* 4*d* and 5 p.c. ad val.	2*d.*	4*d.*	20 p.c. ad val.	10	Free
British Columbia	8*d.*	2*s.* 6*d.* to 5*s.*	1*s.* to 1*s.* 2*d.*, and 2*s.* 6*d.* to 3*s.* and 12½ p.c. ad val.	2*s.* to 8*s.* 4*d.*, and 5*s.* to 6*s.* and 12½ p.c. ad val.	3½*d.*	3½*d.*	Per 1,000, 11*s.*	11 Printing paper, free	Free
Vancouver's Island	20 p.c. ad val.	6*s.* 3*d.* and 20 p.c. ad val.	25 p.c. to 40 p.c. ad val.	25 p.c. to 40 p.c. ad val.	30 p.c. ad val.	30 p.c. ad val.	Per 100, 4*s.* 2*d.*, and 20 p.c. ad val.	12½	Free
Bermuda	Free	Free	Free	Free	Free	Free	Free	Free	Free
Honduras	9*d.*	3*s.*	20 p.c. ad val.	20 p.c. ad val.	2*d.*	2*d.*	1*s.*, or per 1,000, 8*s.*	5	Free
West India Islands:									
Bahamas	4*s.* and 2 p.c. ad val.	5*s.* and 2 p.c. ad val.	5*s.* to 8*s.* and 2 p.c. ad val.	10*s.* to 16*s.* and 2 p.c. ad val.	1½*d.* and 2 p.c. ad val.	2½*d.* and 2 p.c. ad val.	Per 1,000, 12*s.* and 2 p.c. ad val.	7	Free
Turk's Island	1*s.*	Brandy, 5*s.* Other, 2*s.* to 3*s.*	6*d.* and 20 p.c. ad val.	1*s.* and 20 p.c. ad val.	½*d.*	1½*d.*	Per 1,000, 4*s.*, 35 p.c. ad val.	15	Free
Jamaica	6*d.*	3*s.* to 4*s.*	1*s.* and 10 p.c. ad val.	2*s.* and 10 p.c. ad val.	½*d.*	1*d.*	Per 1,000, 10*s.*	10	Free
Virgin Islands	1*s.*	3*s.*	1*s.* 6*d.*	4*s.*	4*d.*	8*d.*	2*s.* 6*d.*	12½	Free
St. Christopher*	1*s.* 3*d.*	1*s.* to 1*s.* 6*d.*	1*s.* 6*d.*	4*s.*	Free	Free	Free	8	Free
Nevis	6*d.*	1*s.* 6*d.*	15 p.c. ad val.	15 p.c. ad val.	1½*d.*	2½*d.*	10 p.c. ad val.	8	Free
Antigua†	3*d.*	1*s.*	8 p.c. ad val.	8 p.c. ad val.	3*d.*	8 p.c. ad val.	8 p.c. ad val.	8	Free
Montserrat	9*d.*	2*s.* to 2*s.* 6*d.*	15 p.c. ad val.	15 p.c. ad val.	5*d.*	4*d.*	Per 1,000, 10*s.*	6	Free
Dominica†	6*d.*	1*s.* 6*d.* to 3*s.*	15 p.c. ad val.	15 p.c. ad val.	4*d.*	10*d.*	8*d.*	7½	Free
St. Lucia†	10*d.*	2*s.* to 4*s.* 2*d.*	20 p.c. ad val.	20 p.c. ad val.	2½*d.*	20 p.c. ad val.	20 p.c. ad val.	10	Free
St. Vincent	5 p.c. ad val.	3*s.* to 4*s.* 3*d.*	10 p.c. ad val.	10 p.c. ad val.	3*d.*	3*d.*	10 p.c. ad val.	5	Free
Barbadoes	8*d.* and 1 p.c. ad val.	4*s.* and 1 p.c. ad val.	21 p.c. ad val.	21 p.c. ad val.	3*d.* and 1 p.c. ad val.	1*s.* and 1 p.c. ad val.	1*s.*, and 1 p.c. ad val.	6	Free
Grenada	3*d.*	2*s.* to 3*s.* 4*d.*	15 p.c. ad val.	15 p.c. ad val.	2½*d.*	2½*d.*	Per 1,000, 25*s.*	3	Free
Tobago†	3*d.*	Gin, 1*s.* Other, 2*s.*	2*d.* to 1*s.*	6*d.* to 3*s.*	1½*d.*	1½*d.*	Per 1,000, 5*s.* to 10*s.*	5	Free
Trinidad	6*d.*	3*s.*	20 p.c. ad val.	20 p.c. ad val.	2*d.*	4*d.*	25 p.c. ad val.	5	Free
British Guiana	6*d.*	6*s.*	2*d.* to 1*s.*	4*s.* to 9*s.*	4½*d.*	6*d.*	9*d.*	3½	Free
Gibraltar	1*s.*	8*s.* 4*d.*	Free	Free	6*d.*	Free	Free	Free	Free
Malta	Free	4*s.* 6*d.*	1*s.* 1*d*	1*s.* 1*d.*	Free	Free	Free	Free	Free
	—	2*s.* 11*d.*	2½*d.* to 1*s.* 2*d.*	—	Free	Free	Free	Free	Free

* 25 p.c. additional on all duties for 3 years from Sept. 15, 1867. † 25 p.c. additional on all duties from May 9, 1866. ‡ 10 p.c. additional on all duties. § 5½ p.c. additional on all duties. ‖ 40 p.c. additional on all duties until June 1, 1868.

III. Tariffs, Foreign.

The more important of these will be found, in more or less detail, under the following heads, viz. Batavia, New York, Petersburg, and under Treaties, see sub-heads, *Austria*, *Belgium*, *China*, *France*, *Morocco*, *Siam*.

But these tariffs, like the colonial, are subject to constant change, as may be seen from the papers on the subject laid before Parliament from time to time, as well as by the Board of Trade notices which appear in almost every number of the *London Gazette*. The most important that has appeared in the *Gazette*, between April 1 and 12, 1869, is the following, as to the increase of duties on exports from Cuba:—

	In Spanish Ships	In other Ships
	dol. cts.	dol. cts.
Sugar, per box - -	0 75	0 87½
Muscovado sugar, in hogsheads, per arroba of 25 lb. - -	0 4	0 5
Leaf tobacco, per quintal, 100 lb.	1 0	1 75
Molasses, per hogshead of 120 gal.	0 50	0 50
Rum, per cask of 30 arrobas -	1 0	1 0

TARTAR. [Argal.]

TASMANIA *or* VAN DIEMEN'S LAND. A large island belonging to Great Britain, forming part of Australia, lying between 41° 20′ and 43° 40′ S. lat., and 144° 40′ and 148° 20′ W. long. It contains 26,215 square miles. (See the *Mercator's Chart* prefixed to this work.)

This land was discovered by the Dutch navigator Tasman in 1642, and was named in honour of Anthony Van Diemen, at that time governor-general of the Dutch possessions in the East Indies; but it is now usually called Tasmania, from its discoverer. Previously to 1798 it was supposed to form part of New Holland, but it was then ascertained to be an island. It was taken possession of by the British in 1803; and in 1804 Hobart Town, the capital, was founded.

The surface is generally hilly and mountainous; but, though none of the land be of the first quality, there are several moderately fertile plains, and a good deal of the hilly ground is susceptible of being cultivated. On the whole, however, it is not supposed that more than about a third part of the entire surface of the island can be considered arable; but about a third more may be advantageously used as sheep pasture. As compared with New Holland, it is well watered. The climate, though variable, is, generally speaking, good, and suitable for European constitutions; and it is not exposed to the tremendous droughts that occasion so much mischief in New South Wales. Wheat is raised in considerable quantities; though wool is at present the staple produce of the colony.

Van Diemen's Land, like New South Wales, was originally intended to serve as a penal colony, and it received between 1823 and 1850 no fewer than 58,243 convicts. It has also received, especially of late years, large numbers of free settlers. In 1867 the total population of the island amounted to 98,454.

For some considerable time great dissatisfaction was felt by the colonists at the continued importation of convicts; and previously to 1850 very vigorous measures were taken to effect its suppression. It was finally abandoned in 1853. In truth, after the discovery of the gold fields in the adjoining continent, it could no longer be continued. The convicts landed in Van Diemen's Land very speedily escaped to Victoria or New South Wales; where a large proportion of them recommenced the same career which had led to their ejection from their mother country. A nuisance of this sort could not be tolerated. And however our criminal population may be disposed of, it is no longer to be permitted to contaminate and brutalise the Australian continent.

Hobart Town or Hobarton, as it is usually termed, is situated in the southern part of the island, on the west side of the river Derwent, near its junction with Storm Bay, lat. (Fort Mulgrave) 42° 53′ 5″ S., long. 147° 21′ 5″ E. The water is deep, and the anchorage good. A jetty has been constructed, accessible to the largest ships. The situation appears to have been very well chosen, and the town has been judiciously laid out. In 1862 Hobarton contained 19,449 inhabitants. The houses are supposed to be worth, at an average, 50*l.* a-year. There are several printing establishments in the town, and various newspapers, some of them very well conducted. There are also a Book Society, a Mechanics' Institute, and several respectable schools and academies. The Van Diemen's Land Banking Company, the Australasian Bank, the Union Bank, the Commercial Bank &c., have offices in Hobarton. They are joint-stock companies. A lighthouse, with a fixed light 70 feet in height, has been erected on Cape Direction, on a small island about 6 miles S. from Hobarton.

Launceston, the second town in the island, is situated in the northern part, at the head of the navigable river Tamar, which falls into Port Dalrymple. Its population amounted in 1862 to 10,359. It has a considerable trade with Sydney and Hobarton, and with England.

Trade of Van Diemen's Land.—In 1867, 643 vessels, of 107,903 tons, entered the ports of Tasmania. Haberdashery, apparel, cotton and linen goods, hardware, malt liquor, tea, sugar, wine &c., form the principal articles of import.

Here, as in New South Wales, wool forms by far the most important article of export; next to it are flour and oats, live stock, timber, sperm oil, potatoes, mimosa bark, and various less important articles. The usual excess of the imports over the exports is accounted for by the remittances to defray the cost of the convict establishment.

We subjoin accounts of the principal articles exported from, and imported into, the two chief ports of Tasmania in 1864, 1865, and 1866.

Account of the Quantities and Values of the Principal Articles Exported from Hobart Town and Launceston in each of the Years 1864, 1865, *and* 1866.

Articles	Quantities			Value		
	1864	1865	1866	1864	1865	1866
				£	£	£
Butter and cheese - - value	..	..	..	12,628	25,053	22,956
Flour - - - tons	4,168	846	1,743	85,295	17,095	22,549
Fruits and preserves - - value	..	..	..	92,181	84,767	86,575
Grain: oats - - bushels	235,555	467,775	276,917	42,243	81,975	50,997
wheat - - - qr.	26,383	36,176	62,568	10,450	14,108	17,438
Horses - - - no.	317	802	566	14,510	27,890	14,411
Oil: sperm - - - tuns	637½	392	381	19,650	24,432	33,570
Potatoes - - - tons	644	1,507	7,298	4,046	8,555	29,411
Timber of all kinds - - value	..	..	..	81,285	56,658	46,876
Wool - - - - lb.	4,972,563	4,925,965	4,765,221	415,491	381,625	383,405
Total value - - -	..	..	..	975,750	880,965	834,606

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Account of the Quantities and Values of the Principal Articles Imported at the Ports of Hobart Town and Launceston in each of the Years 1864, 1865, *and* 1866.

Articles	Quantities			Value		
	1864	1865	1866	1864	1865	1866
				£		£
Apparel and slops - - value	..	..	..	26,233	21,631	29,049
Beef and provisions - packages	3,532	1,576	1,969	8,851	4,514	7,225
Boots and shoes - - value	..	..	..	15,176	20,859	16,985
Canvas and bagging - { packages / yards }		..	..	4,096	3,827	1,978
Drapery - - - value	..	..	..	201,630	166,495	299,974
Iron and tin - - tons	430	779	582	8,388	8,112	9,193
Ironmongery and hardware - value	..	..	..	55,715	46,945	48,629
Live stock - Cattle - - number	4,877	2,987	1,313	47,760	29,165	14,570
Sheep - - ,,	17,484	9,542	15,523	14,470	8,118	15,944
Malt liquor - - value	..	..	..	15,868	15,694	8,197
Oilman's stores - - ,,	..	..	..	11,679	4,066	8,752
Stationery - - value	..	..	..	24,124	20,680	21,588
Sugar, raw - - { packages / cwt. }	bags 1,663 / 40,970	.. / 50,597	value	66,177	86,161	123,439
Tea - - - { packages / lb. }	..	..	..	68,364	41,214	44,981
Tobacco - - - value	..	..	..	44,667	14,036	18,921
Wine - - - ,,	..	..	..	12,692	9,115	15,182
Total value - -	..	..	..	909,265	762,575	942,107

Of the imports, about ⅔ are from the United Kingdom, and more than ¾ of the residue from India and other British possessions. About ⅓ of the exports are destined for the United Kingdom, and the rest for our colonies and possessions. In 1867 the value of the total imports into the United Kingdom from Tasmania was 406,43*l*., and that of the total exports from the United Kingdom to Tasmania 228,923*l*., of which 216,8 0*l*. represented British produce and manufactures.

Number and Tonnage of Vessels Entered and Cleared, with Cargoes and in Ballast, at each of the Two Chief Ports of Tasmania in 1866.

Ports	Entered						Cleared					
	With Cargoes		In Ballast		Total		With Cargoes		In Ballast		Total	
	vessels	tons	vessels	tons	vessels	tons	vessels	tons	vessels	tons	vessels	tons
Hobart Town -	182	46,858	45	7,710	227	54,568	216	50,422	20	4,682	236	55,104
Launceston -	258	42,169	158	11,166	416	53,335	389	49,492	7	1,439	396	50,961
Total -	440	89,027	203	18,876	643	107,903	605	99,914	27	6,121	632	106,065

The discovery of the gold fields in Victoria and New South Wales had an instantaneous and powerful effect on Tasmania. All sorts of industrious undertakings were paralysed. The emigration from the colony was sudden and excessive; and many farmers were all but totally deserted by their labourers. But, though exposed for a while to great difficulties, a revulsion soon began to take effect in favour of the Tasmanian colonists. An unlimited market, at greatly advanced prices, was opened in the adjoining continent for their grain, potatoes, timber, and other products. Hence many of the better class of labourers again returned to the colony, some with considerable sums of money. And the emigration had the effect of ridding the island of the worst portion of the convicts, who were found carrying on their depredations at the 'diggings,' on the roads, and in the towns of Victoria and New South Wales. (See the valuable work of Westgarth, entitled *Victoria, its Gold Mines &c.*, cap. vi.) The emigration, however, has had a marked effect on the imports and exports of the colony, as will be seen from the foregoing as well as the following table.

Statement of the Declared Value of Imports into, and Exports from, Tasmania, and the Rate per Head of Population, for each of Ten Years ending with 1866.

Years	Imports	Exports	Population	Rate per Head of	
				Imports	Exports
	£	£		£ s. d.	£ s. d.
1857	1,271,087	1,551,855	83,812	15 4 0½	16 4 0½
1858	1,328,612	1,151,609	84,480	15 14 9½	13 12 10
1859	1,165,907	1,193,898	86,151	13 9 3½	13 16 9½
1860	1,058,411	962,170	88,065	12 2 8	10 18 6½
1861	933,517	905,663	90,211	10 11 4½	10 0 1
1862	857,423	919,649	90,728	9 9 0	10 2 3½
1863	902,940	999,511	91,519	9 17 3½	10 18 5
1864	908,265	975,730	93,307	9 14 8½	10 9 1½
1865	762,575	880,965	95,201	8 0 2	9 5 8½
1866	942,107	851,606	97,368	9 13 6½	8 11 3½

Tariff.—The Legislature of Van Diemen's Land, after advising with the other Australian colonies, passed an Act, which came into operation in February 1853, simplifying and reducing the tariff. It proceeds on the principle of imposing duties on a few articles in extensive demand, and more especially on those belonging to the class of stimulants, and exempting the others. Hence ardent spirits have attracted the marked attention of the Tasmanian financiers, for the scale of duties is as follows, viz.:—

	s. d.	s. d.
Brandy, per gal. - - -	-	12 0
Hollands, rum, gin, and all other spirits, per gal.	-	12 0
Wine, in wood - - ,,	-	2 0
bottle, per doz. -	- 4 0 and	8 0
Tobacco, per lb. - - -	-	2 6
Sugar, raw, per cwt. - - -	-	6 0
Tea, per lb. - - -	-	0 6
Coffee, per lb. - - -	-	0 3
Malt liquor, in wood, per gal. - -	-	0 6
per doz. - -	- 1	0 and 2 0
Dried fruits, per lb. - - -	-	0 1½

See further under Tariff, Colonial.

Rates of Pilotage, Harbour Dues &c.

Wharfage.

	£ s. d.
On landing each cask, bale, or package -	0 0 9
iron, per ton - - -	0 9 0
salt ,, - - -	0 3 0
timber, per 1,000 feet -	0 2 0
On shipping each cask, bale, or package -	0 0 3
iron, per ton - - -	0 3 0
salt ,, - - -	0 1 0

Colonial produce, when landed or shipped, is not subjected to any charge, except for a wharfage.

Fees.

	£	s.	d.
A sufferance to land or ship goods	0	1	0
A warrant to remove goods from under bond	0	1	0
On landing each cask or package of spirits or wine	0	0	6
On the registry of vessels not exceeding 40 tons	2	0	0
above 40 tons, per ton	0	1	0
To the chief clerk, on the registry of vessels	0	10	0
On indorsing change of master	0	10	0

Rates of Pilotage at the Derwent.

Draught of water	Into £	s.	d.	Out £	s.	d.
10 feet and under	3	0	11½	2	7	4½
11 "	3	3	4½	2	9	3½
12 "	3	8	3	2	13	1½
13 "	3	15	6½	2	18	9½
14 "	4	5	5½	2	6	4
15 "	4	19	11½	3	17	8½
16 "	5	17	0	4	11	0½
17 "	7	1	4½	5	9	11
18 "	8	13	0½	6	14	7½
19 "	10	14	6	8	6	10
20 "	13	3	3	10	4	9

At Port Dalrymple Proceeding above Whirlpool Reach	£	s.	d.	Remaining below Whirlpool Reach £	s.	d.
7 feet and under	2	5	6	1	10	4
Above 7 feet, per foot	0	6	6	0	4	4

If the pilot does not board the vessel outside the middle ground at the Heads at George Town, or, the weather not permitting his going outside, if he be not ready to show the channel by keeping his boat in the fair way until the ship can be boarded, he shall forfeit half the pilotage inwards.

For every number of inches below 6, no charge is to be made; for ½ a foot and upwards, 1 foot is to be charged.

Colonial vessels are exempted from the payment of pilotage, unless the master shall make the signal for a pilot and accept his service.

These details have been partly derived from the *Statistics of the Colony*, published at Hobart Town; and partly from Mr. Westgarth's book, and different *Parliamentary Papers*.

TATTA or TATTAH. A town in the territory of Sinde, situated about 60 miles in a direct line from the sea, at a short distance from the western bank of the river Indus, in lat. 24° 44′ N., long. 68° E. Population uncertain, probably about 8,000. The streets are narrow and dirty; but the houses, though built of mud, chopped straw, and timber, are superior to the low huts seen in the adjoining towns and villages.

Trade.—Being situated a little above the part where the Indus divides into the two great branches by which its waters are poured into the Indian Ocean, it might be supposed that Tatta would be a place of great trade; but, owing to the unwholesomeness of the climate, the barbarism of the tribes on its banks, and other causes, its commerce has never corresponded with what might have been anticipated, looking at its position on the map. It had probably attained the acmé of its prosperity in the beginning of the 16th century. In 1555, the Portuguese, by way, as they stated, of avenging the treachery of the king of Sinde, inhumanly massacred 8,000 of the inhabitants, and burned the town. (*Conquêtes des Portugais*, tome iv. p. 183.) It is probable that Tatta never fully recovered from this dreadful blow; but Mr. Hamilton mentions that in the 17th century it was extensive and populous, possessing much commerce, with manufactures of silk, wool, and cabinet ware. The decayed state in which we now find it, has been a consequence of the misgovernment and rapacity of its late rulers, the Ameers of Sinde, under whose sway it fell more than 50 years before it became, in 1844, British territory.

In 1635 the English established a factory at Tatta, in the view of facilitating the disposal of woollens and other goods in the countries traversed by the Indus; and the building occupied by the factory, though far from magnificent, was recently, if it be not still, the best, not in Tatta only, but in the whole country of Sinde.

The chief exports are rice, shawls from Cashmere, opium from Malwah, hides, ghee, cotton, goats' wool, carpets, drugs &c. Putchock, an article largely consumed in China, is a peculiar export of Sinde. The imports comprise a variety of articles, but the quantities are trifling: they consist principally of spices, dye stuffs, hardware, tin, iron &c., broad cloths, English cottons, silks &c. But at present the trade is quite inconsiderable; and no one could believe, à priori, that the natural emporium of so great a river as the Indus, traversing many extensive countries, would cut so insignificant a figure in the trading world. It may be said to be well nigh superseded by Kurrachee, which now boasts railway communication with Hyderabad and the Indus, and telegraphic communication with Aden.

Navigation and Trade of the Indus.—The navigation of this magnificent river by the fleet of Alexander the Great has conferred on it a classical celebrity not to be matched by any other river of the East. Its magnitude, too, is worthy of its fame. It may be navigated by flat bottomed boats as far as Attock, and its tributary stream the Ravee is navigable to Lahore, both places being above 1,000 miles from the sea. But, unfortunately, its navigation is extremely difficult, and it may be doubted whether it will ever realise any considerable portion of the advantages which have of late years been anticipated from its being opened. The mouths of the river are ill-defined, shallow, and infested with movable sand-banks, while the violence of the *bore*, or tide, makes their entrance at all times a matter of difficulty for vessels of a small draught of water suitable to their navigation, and during the period of the western monsoon they are all but impracticable. Whatever other changes may have taken place in the river, the tides at its mouth would seem to have been nearly the same in antiquity as at present. Their violence created the greatest alarm in the fleet of Alexander; and occasioned, indeed, the loss of several vessels. (Arrian, lib. vi. c. 19.) This, no doubt, is the reason that for centuries past the navigation from and to the sea through the delta of the Indus has been almost wholly abandoned; and that all products brought down the river and destined for exportation by sea are conveyed from Tatta overland to Kurrachee, a seaport a little to the north of the most northerly mouth of the river, about 60 miles in a direct line from Tatta; and that all those coming from parts beyond sea and destined for countries on the Indus are conveyed from Kurrachee to Tatta by the same route, or by the railway to Hyderabad already referred to.

Even after it has been entered, the navigation of the Indus is peculiarly difficult, partly from the strength of the current during the period of the inundation, and partly from shallows, and the sudden and constant shifting of the channel: what was a navigable passage one day is not unfrequently quite unnavigable a day or two after. The *doondees*, or native craft, by which the river is navigated, though of very small burden, frequently get aground.

If the Indus should ever become a considerable commercial highway, it will, most probably, be brought about by the intervention of suitable steamers; and it seems to be the opinion of the best judges, that, provided the steamers employed be flat bottomed, and do not draw more than 28 or 30 inches water, they might, with proper precautions, be navigated from the sea for nearly 1,000 miles inland. But exclusive of the physical obstacles to the navigation of the river, the backward state of the country through which it flows,

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and the poverty and barbarism of the inhabitants, are formidable obstacles to its becoming of much importance as a commercial highway. The inhabitants along its banks have little taste for foreign commodities; and even if they had, they have few products suitable for export to exchange for them. No doubt, should regular government, industry, and civilisation be introduced into the Punjab, Caubul, and the contiguous countries, the case might be very different, and the trade of the Indus might become of very considerable importance. But this, if it be ever effected, must require a lengthened period to bring it about; so that those who look for any material addition being speedily made to our trade, or to that of India, by the opening of the Indus, will, there is too much reason to think, be entirely disappointed. (See, for further particulars, the art. 'Indus' in the *Geographical Dictionary*, and the authorities there referred to; see also Captain Postans' work on Sinde; and especially the memoir in the appendix (p. 361) of Captain Carless, *On the Navigation of the Indus.*)

Dr. Buist, the very well-informed editor of the *Bombay Times*, in his work on the British expedition into Affghanistan, made the following observations on the trade of the Indus:—

'The glowing descriptions of Burnes appear to have given a very exaggerated idea of the value of the internal traffic of the countries beyond the Indus. It was forgotten that where there was no industry, no manufactures or mineral wealth, no sea-coast or rivers to permit exportation, there could be little or nothing to give in exchange for imports; and that the wants of a population purely nomade must at all times be simple and singularly few. The whole of our commerce with Persia has never exceeded 2,000,000*l.* sterling a-year, rarely above 1,000,000*l.*; the total of our trade with Affghanistan certainly never exceeded 1,000,000*l.* annually, and has very rarely amounted to much more than the half of 1,000,000*l.* Besides this, the Indus in reality was never closed save by its own dangerous entrances and shallow depth of water. Lord Ellenborough has opened the Indus as far as Mithen Kote; and the Sutlej, in continuation of this, to the Markunda, where it ceases to be navigable for the smallest craft. Yet the gross value of the British goods consumed by the countries adjoining does not at present amount to a quarter of 1,000,000*l.* sterling, and will not in all likelihood be doubled for 10 years to come; the expense of maintaining troops betwixt Kurrachee and Bukkur, both stations included, exceeding 600,000*l.* a-year; with a less force it would be unwise to think of keeping these stations at all. The great line of traffic was not along but across the Indus, by the Delhi frontier, or parallel to it at a distance of 100 miles, by Sonmeanee and Kelat. The countries beyond the Indus, besides, have always been open to the free admission of every variety of foreign imports on paying a moderate fixed duty. The chief obstruction in reaching these is irremediable by treaty; and arises from the attacks of the plundering tribes in the passes, which cannot be restrained save by the payment of a black mail or subsidy.'

The delta of the Indus has little in common with the delta of the Nile, except its shape. Not a fourth part of it is cultivated, and its few inhabitants principally lead a pastoral life. It is overgrown with tamarisks and other wild shrubs; and though intersected by the numerous mouths of the river, its surface is dry and arid, and it is in a great degree destitute of fresh water. [KURRACHEE.]

Weights and Measures same as at Calcutta.

Money.

Accounts are kept in rupees, carivals, and pice: 12 pice=1 carival; 50 carivals = 1 rupee. Cowries are current in Sinde, 48 cowries = 1 pice.

Small Weights.

24 Moons	=	1 Ruttee
6 Ruttees	=	1 Massa
12 Massas	=	1 Tolah

Gross Weights.

4 Pice	=	1 Anna
16 Annas	=	1 Pucca seer
40 Seers	=	1 Maund, or 74 lb. 5 oz. 7 dwts. avoirdupois

Long Measure.

1 Gauce	=	2 inches
16 Gauces	=	1 Gaz; but 1 Gaz cloth = 54 in. at Tatta

Grain Measure.

4 Puttees	=	1 Twier
4 Twiers	=	1 Coasa
60 Coasas	=	1 Carval of wheat; or 72 Pucca Maunds, or 21 Bombay parahs

Diamonds and pearls are sold by hubbas and ruttees: 8 hubbas = 1 ruttee, about 2 grs. Troy. (Milburn's *Orient. Commerce.*)

TEA (in one Chinese dialect cha, in another te; Dutch, te; Fr. thé; Ital. te; Russ. tchai; Hin. cha; Malay, teh). The leaves of the tree or shrub *Thea viridis*, Linn.

I. DESCRIPTION OF THE TEA PLANT.—TEA TRADE OF CHINA.
II. RISE AND PROGRESS OF THE BRITISH TEA TRADE.—CONSUMPTION OF TEA.
III. EAST INDIA COMPANY'S MONOPOLY.—INFLUENCE OF, ON THE PRICE OF TEA—CONDITIONS UNDER WHICH IT WAS HELD—ABOLITION OF.
IV. DUTIES ON TEA.—CONSUMPTION OF, IN THE UNITED KINGDOM, THE CONTINENT, THE UNITED STATES ETC.

I. DESCRIPTION OF THE TEA PLANT.—TEA TRADE OF CHINA.

Description of the Plant.—Places where it is cultivated.—The tea plant ordinarily grows to the height of from 3 to 6 feet, and has a general resemblance to the myrtle, as the latter is seen in congenial situations in the southern countries of Europe. It is a polyandrous plant, of the natural order *Columniferæ*, and has a white blossom, with yellow style and anthers, not unlike those of a small dog-rose. The stem is bushy, with numerous branches, and very leafy. The leaves are alternate, on short, thick, channelled footstalks, evergreen, of a longish elliptic form, with a blunt, notched point, and serrated except at the base. These leaves are the valuable part of the plant. The *Camellias*, particularly the *Camellia Sasanqua*, of the same natural family as the tea tree, and very closely resembling it, are the only plants liable to be confounded with it by a careful observer. The leaves of the particular camellia just named are, indeed, often used in some parts of China as a substitute for those of the tea tree.

The effects of tea on the human frame are those of a very mild narcotic; and, like those of many other narcotics taken in small quantities—even of opium itself—they are exhilarating. The green varieties of the plant possess this quality in a higher degree than the black; and a stronger infusion of the former will, in most constitutions, produce considerable excitement and wakefulness. Of all narcotics, however, tea is the least pernicious; if, indeed, it be so in any degree, which we very much doubt.

The tea shrub may be described as a very hardy evergreen, growing readily in the open air, from the equator to the 45th degree of latitude. For the last 60 years it has been reared in this country, without difficulty, in greenhouses; and thriv-

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ing plants of it are to be seen in the gardens of Java, Singapore, Malacca, and Penang; all within 6 degrees of the equator. The climate most congenial to it, however, seems to be that between the 25th and 23rd degrees of latitude, judging from the success of its cultivation in China. For the general purposes of commerce, the growth of good tea is confined to China; and is there restricted to 5 provinces, or rather parts of provinces, viz. Fokien and Canton; but more particularly the first, for black tea; and Kiang-nan, Kiang-si, and Che-kiang, but chiefly the first of these, for green. The tea districts all lie between the latitudes just mentioned, and the 115th and 122nd degrees of East longitude. However, almost every province of China produces more or less tea, but generally of an inferior quality, and for local consumption only; or when of a superior quality, like some of the fine wines of France, losing its flavour when exported. The plant is also extensively cultivated in Japan, Tonquin, and Cochin-China; in India, and in some of the mountainous parts of Ava; the people of which country use it largely as a kind of *pickle preserved in oil*.

In 1835-6 the East India Company tried as an experiment the cultivation of tea in the North-west Provinces, and so successfully, that in 1859 2,250 acres were under cultivation; the chief product being bohea. But it is calculated that British India comprises wellnigh 1,000,000 acres suited for tea culture.

Botanically considered, the tea tree is a single species; the green and black, with all the diversities of each, being mere varieties, like the varieties of the grape, produced by difference of climate, soil, locality, age of the crop when taken, and modes of preparation for the market. Considered as an object of agricultural produce, the tea plant bears a close resemblance to the vine. In the husbandry of China it may be said to take the same place which the vine occupies in the southern countries of Europe. Like the latter, its growth is chiefly confined to hilly tracts, not suited to the growth of corn. The soils capable of producing the finest kinds are within given districts, limited, and partial. Skill and care, both in husbandry and preparation, are quite as necessary to the production of good tea as to that of good wine.

The best wine is produced only in particular latitudes, as is the best tea; although, perhaps, the latter is not restricted to an equal degree. Only the most civilised nations of Europe have as yet succeeded in producing good wines, which is also the case in the East with tea; for the agricultural and manufacturing skill and industry of the Chinese are there unquestionably pre-eminent. These circumstances deserve to be attended to in estimating the difficulties which must be encountered in any attempt to propagate the tea plant in colonial or other possessions. These difficulties are obviously very great; and, perhaps, all but insuperable. Most of the attempts hitherto made to raise it in foreign countries were not, indeed, of a sort from which much was to be expected. Considerable efforts, however, have been made by the Dutch Government of Java to produce tea on the hills of that island; and having the assistance of Chinese cultivators from Fokien, who form a considerable part of the emigrants to Java, a degree of success has attended them beyond what might have been expected in so warm a climate. The Brazilians have made similar efforts; having also, with the assistance of Chinese labourers, attempted to propagate the tea shrub near Rio de Janeiro; and a small quantity of tolerably good tea has been produced. But owing to the high price of labour in America, and the quantity required in the cultivation and manipulation of tea, there is no probability, even were the soil suitable to the plant, that its culture can be profitably carried on in that country.

It may, perhaps, succeed in Assam, where its culture is now being attempted; for labour is there comparatively cheap, and the hilly and table lands are said to bear a close resemblance to those of the tea districts of China; but we are not sanguine in our expectations as to the result.

In 1860 about 4,000 acres in Assam were devoted to the growth of tea, but that produced was said to be not so suitable for use separately or in its pure state as for mixing with other teas of less strength and character.

Species of Tea.— Manner in which they are manufactured.—The *black* teas usually exported by Europeans from Canton are as follows, beginning with the lowest qualities: Bohea, Congou, Souchong, and Pekoe. The *green* teas are Twankay, Hyson skin, young Hyson, Hyson, Imperial, and Gunpowder. All the black teas exported (with the exception of a part of the bohea, grown in Woping, a district of Canton) are grown in Fokien—a hilly, maritime, populous, and industrious province, bordering to the north-east on Canton. Owing to the peculiar nature of the Chinese laws as to inheritance, and probably, also, in some degree, to the despotic genius of the Government, landed property is much subdivided throughout the empire; so that tea is generally grown in gardens or plantations of no great extent. The plant comes to maturity and yields a crop in from 2 to 3 years. The leaves are picked by the cultivator's family, and immediately conveyed to market; where a class of persons who make it their particular business purchase and collect them in quantities, and manufacture them in part; that is, expose them to be dried under a shed. A second class of persons, commonly known in the Canton market as 'the tea merchants,' repair to the districts where the tea is produced and purchase it in its half-prepared state from the first class, and complete the manufacture by garbling the different qualities; in which operation, women and children are chiefly employed. A final drying is then given, and the tea packed in chests, and divided, according to quality, into parcels of from 100 to 600 chests each. These parcels are stamped with the name of the district, grower, or manufacturer, exactly as is practised with the wines of Bordeaux and Burgundy, the indigo of Bengal, and many other commodities; and, from this circumstance, get the name of *chops*, the Chinese term for a seal or signet. Some of the leaf-buds of the finest black tea plants are picked early in the spring, before they expand. These constitute pekoe, or black tea of the highest quality; sometimes called 'white-blossom' tea, from there being intermixed with it, to give it a higher perfume, a few blossoms of a species of olive (*Olea fragrans*), a native of China. A second crop is taken from the same plants in the beginning of May, a third about the middle of June, and a fourth in August; which last, consisting of large and old leaves, is of very inferior flavour and value. The younger the leaf, the more highly flavoured, and consequently the more valuable, is the tea. With some of the congous and souchongs is occasionally mixed a little pekoe, to enhance their flavour; and hence the distinction, among the London tea dealers, of these sorts of tea into the ordinary kinds and those of 'Pekoe

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flavour.' Bohea, or the lowest black tea, is partly composed of the lower grades; that is, of the fourth crop of the teas of Fokien, left unsold in the market of Canton after the season of exportation has passed; and partly of the teas of the district of Woping in Canton. The green teas are grown and selected in the same manner as the black, to which the description now given more particularly refers; and the different qualities arise from the same causes. The gunpowder here stands in the place of the pekoe; being composed of the unopened buds of the spring crop. Imperial hyson, and young hyson, consist of the second and third crops. The light and inferior leaves, separated from the hyson by a winnowing machine, constitute hyson skin, an article in considerable demand amongst the Americans. The process of drying the green teas differs from that of the black; the first being dried in iron pots or vases over a fire, the operator continually stirring the leaves with his naked hand. The operation is one of considerable nicety, particularly with the finer teas, and is performed by persons who make it their exclusive business.

The following is Mr. Ball's (*Cultivation and Manufacture of Tea*) summary of the process of manufacture. 'Place the leaves in a sieve, expose them to the sun and air, toss and turn them, as hay, then place them in the shade till they give out a certain degree of fragrance; then roast them in an iron vessel, roll them with hands or feet, and finally dry them over a charcoal fire—and you will have fair congou tea.' Four pounds of fresh leaves make 1 lb. of tea. Mr. Wray calculates that the consumption of tea in China itself is not less than 2,000,000,000 lb., and the area over which it is cultivated as equal to 25,000,000 acres.

Tea Trade in China.—The tea merchants commonly receive advances from the principal merchants and other capitalists of Canton; but, with this exception, are altogether independent of them; nor have the latter any exclusive privilege or claim of pre-emption. They are very numerous; those connected with the green tea districts alone being about 400 in number. The black tea merchants are less numerous, but more wealthy. The greater part of the tea is brought to Canton by land carriage, or inland navigation, but chiefly by the first: it is conveyed by porters; the roads of China, in the southern provinces, not generally admitting of wheel carriages, and beasts of burden being very rare. A small quantity of black tea is brought by sea, but probably smuggled; for this cheaper mode of transportation is discouraged by Government, which it deprives of the transit duties levied on inland carriage. The length of land carriage from the principal districts where the green teas are grown to Canton is probably not less than 700 miles; nor that of the black tea, over a mountainous country, less than 200 miles. The tea merchants begin to arrive in Canton about the middle of October, and the busy season continues until the beginning of March; being briskest in November, December, and January. Tea, for the most part, could, previously to the late changes, only be bought from the Hong or licensed merchants; but some of these, the least prosperous in their circumstances, were supported by wealthy *outside* merchants, as they are called; and thus the trade was considerably extended. The prices in the Canton and other markets vary from year to year with the crop, the stock on hand, and the external demand, as in any other articles, and in any other market. After the season is over, or when the westerly monsoon sets in, during the month of March, and impedes the regular intercourse of foreigners with China, there is a fall in the price of tea, not only arising from this circumstance, but from a certain depreciation in quality, from the age of the tea; which, like most other vegetable productions, is injured by keeping, particularly in a hot and damp climate.

Foreign Trade in Tea.—There seems to be little mystery in the selection and purchase of teas; for the business is both safely and effectively accomplished, not only by the supercargoes of the American ships, but frequently by the masters; and it was ascertained by the sales at the East India House, that there was no difference between the qualities of the teas purchased by the commanders and officers of the Company's ships without any assistance from the officers of the factory, and those purchased for the Company by the latter. An unusual degree of good faith, indeed, appears to be observed, on the part of the Chinese merchants, with respect to this commodity; for it was proved before the select committee of the House of Commons, in 1830, that it was the regular practice of the Hong merchants to receive back, and return good tea for, any chest or parcel upon which any fraud might have been practised, which sometimes happens in the conveyance of the teas from Canton on board ship. Such restitution has occasionally been made even at the distance of 1 or 2 years. The Company enjoyed no advantage over other purchasers in the Canton market except that which the largest purchaser has in every market, viz. a selection of the teas, on the payment of the same prices as others; and this advantage they enjoyed only as respects the black teas, the Americans being the largest purchasers of green teas.

We subjoin a Table for calculating the cost of tea.

Comparison of the Cost of Tea per Picul (133⅓ *lb. Avoirdupois*) *with the Rate per Pound and Ton of* 9 *Cwt. or* 1,008 *lb. per Ton.*

Per Picul	Exchange 4*s.* per Dol.			Exchange 4*s.* 3*d.* per Dol.			Exch. 4*s.* 4*d.* per Dol.			Exchange 4*s.* 5*d.* per Dol.			Exch. 4*s.* 6*d.* per Dol.		
	Per Lb.	Per Ton		Per Lb.	Per Ton		Per Lb.	Per Ton		Per Lb.	Per Ton		Per Lb.	Per Ton	
taels	*d.*	£	*s.* *d.*	*d.*	£	*s.* *d.*	*d.*	£	*s.* *d.*	*d.*	£	*s.* *d.*	*d.*	£	*s.* *d.*
20 equal	10	42	0 0	10·625	44	12 6	10·833	45	10 0	11·042	46	7 6	11·250	47	5 0
21 ,,	10½	44	2 0	11·156	46	17 1½	11·375	47	15 6	11·594	48	13 10½	11·813	49	12 3
22 ,,	11	46	4 0	11·687	49	1 9	11·916	50	1 0	12·146	51	0 3	12·375	51	19 6
23 ,,	11½	48	6 0	12·219	51	6 4½	12·458	52	6 6	12·698	53	6 7½	12·936	54	6 0
24 ,,	12	50	8 0	12·750	53	11 0	13·000	54	12 0	13·250	55	13 0	13·500	56	14 0
25 ,,	12½	52	10 0	13·281	55	15 7½	13·541	56	17 6	13·802	57	19 4½	14·063	59	1 3
26 ,,	13	54	12 0	13·812	58	0 3	14·083	59	3 0	14·354	60	5 9	14·625	61	8 6
27 ,,	13½	56	14 0	14·344	60	4 10½	14·625	61	8 6	14·906	62	12 1½	15·188	63	15 9
28 ,,	14	58	16 0	14·875	62	9 6	15·166	63	14 0	15·458	64	18 6	15·750	66	3 0
29 ,,	14½	60	18 0	15·406	64	14 1½	15·708	65	19 6	16·010	67	4 10½	16·313	68	10 3
30 ,,	15	63	0 0	15·937	66	18 9	16·250	68	5 0	16·562	69	11 3	16·875	70	17 6
31 ,,	15½	65	2 0	16·469	69	3 4½	16·791	70	0 6	17·114	71	17 7½	17·438	73	4 9
32 ,,	16	67	4 0	17·000	71	8 0	17·333	72	16 0	17·666	74	4 0	18·000	75	12 0
33 ,,	16½	69	6 0	17·531	73	12 7½	17·875	75	1 6	18·218	76	10 4½	18·563	77	19 3
34 ,,	17	71	8 0	18·062	75	17 3	18·416	77	7 0	18·770	78	16 9	19·125	80	6 6
35 ,,	17½	73	10 0	18·594	78	1 10½	18·958	79	12 6	19·323	81	3 1½	19·688	82	13 9
36 ,,	18	75	12 0	19·125	80	6 6	19·500	81	18 0	19·875	83	9 6½	20·250	85	1 0
37 ,,	18½	77	14 0	19·656	82	11 1½	20·041	84	3 6	20·427	85	15 10½	20·813	87	8 3
38 ,,	19	79	16 0	20·187	84	15 9	20·583	86	9 0	20·979	88	2 5	21·375	89	15 6
39 ,,	19½	81	18 0	20·718	87	0 4½	21·125	88	14 6	21·531	90	8 7½	21·938	92	1 9
40 ,,	20	84	0 0	21·250	89	5 0	21·666	91	0 0	22·083	92	15 0	22·500	94	10 0

Thus, 4*s.* 3*d.* per dollar, one tael per picul is equal to ¼*d.* per lb.

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Usual Nett Weight and Measurement of a Chest of different Descriptions of Tea.

	weight			sol. meas.
Bohea, whole chests	- catties 138	-	-	feet 5·926
½ do. -	- ,, 84	-	-	,, 5·416
¼ do. -	- ,, 46	-	-	,, 5·374
Congou chests -	- ,, 63	to 64	-	,, 4·085
Souchong -	- ,, 60	62	-	,, 4·025
Pekoe -	- ,, 49	50	-	,, 4·333
Hyson -	- ,, 48	50	-	,, 4
Hyson skin -	- ,, 48	50	-	,, 4·125
Twankay, long chests	- ,, 62	65	-	,, 4·861
Gunpowder -	- ,, 80	84	-	,, 4·100
Imperial -	- ,, 70	74	-	,, 4·074
Young Hyson -	- ,, 70	72	-	,, 4·220

Thus, 4*s.* 3*d.* per dollar, 1 tael per picul is equal to ½*d.* per pound.

II. Rise and Progress of the British Tea Trade.—Consumption of Tea.

The late rise and present magnitude of the British tea trade are among the most extraordinary phenomena in the history of commerce. Tea was wholly unknown to the Greeks and Romans, and even to our ancestors previously to the end of the 16th or the beginning of the 17th century. It seems to have been originally imported in small quantities by the Dutch; but was hardly known in this country till after 1650. In 1660, however, it began to be used in coffee houses; for, in an Act passed in that year, a duty of 8*d.* is laid on every gallon of 'coffee, chocolate, sherbet, and tea,' made and sold. But it is abundantly evident that it was then only beginning to be introduced. The following entry appears in the Diary of Mr. Pepys, secretary to the Admiralty:—'September 25, 1661. I sent for a cup of tea (a China drink), of which I had never drunk before.' In 1664, the East India Company bought 2 lb. 2 oz. of tea as a present for his Majesty. In 1667, they issued the first order to import tea, directed to their agent at Bantam, to the effect that he should send home 100 lb. of the best tea he could get! (Milburn's *Orient, Com.* ii. 530; Macpherson's *Hist. of Com. with India*, pp. 130–132.) Since then, the consumption seems to have gone on regularly though slowly increasing. In 1689, instead of charging a duty on the decoction made from the leaves, an excise duty of 5*s.* per lb. was laid on the tea itself. The importation of tea from 1710 downwards is exhibited in the following Tables.

The reductions made in the duties on tea in 1745 and 1784, strikingly evince the superior productiveness of low duties on articles in general demand, and are, in that respect, especially worth attention. Previously to 1745, tea was charged with an excise duty of no less than 4*s.* per lb., and with a customs duty of 14 per cent. ad valorem; and it appears that at an average of the 5 years ending Midsummer, 1745, the teas entered for consumption amounted to 768,520 lb. a-year, yielding an average excise and customs revenue of 175,222*l.* a-year. But though the taste for tea was then comparatively little diffused, it was well known that its clandestine importation was extensively carried on, and that its real was much greater than its apparent consumption. To check this illegitimate traffic, which enriched the smuggler at the expense of the revenue and of the fair trader, a bill was carried through Parliament in 1745, in pursuance of the recommendation of a Committee of the House of Commons, by which the excise duty on tea was reduced from 4*s.* to 1*s.* per lb. and 25 per cent. ad valorem; and as the price of the teas sold at the Company's sales was then about 4*s.* per lb., the 25 per cent. was, in fact, equivalent to 1*s.* per lb., making the new excise duty 2*s.* per lb., being a reduction of 50 per cent. This measure, which had in a great degree the merit of originality, was eminently successful. In the year immediately after the reduction of the duty, the entries of tea for consumption amounted to about 1,800,000 lb., being nearly three times as much as they had amounted to in the last year of the high duties; and the increase in the second and third years of the new system was also most striking. But to set the operation of this well-considered measure in the clearest point of view, we subjoin—

An Account of the Quantities of Tea entered for Consumption, and of the Produce of the Excise and Customs Duties thereon during each of the Five Years preceding, and subsequent to Midsummer, 1745, when the Excise Duty on Tea was reduced from 4s. to 2s. per lb. (M'Culloch, *On Taxation, p.* 332.)

Years	Quantities	Duties	
	lbs.	£	s.
1741	880,700	200,799	0
1742	836,200	190,655	10
1743	797,200	181,761	10
1744	708,500	161,538	0
1745	620,000	141,360	0
Total	3,842,600	876,112	0
Average of 5 years	768,520	175,222	0
1746	1,801,000	230,400	0
1747	2,000,000	256,000	0
1748*	2,600,000	358,800	0
1749	2,700,000	372,600	0
1750†	2,700,000	372,600	0
Total	11,800,000	1,590,400	0
Average of 5 years	2,360,000	318,080	0

* In 1748, 5 per cent. was added to the customs duty on dry goods, but its influence on tea was next to imperceptible.
† In 1752 the entries increased to 5,000,000 lb.

But notwithstanding this unanswerable demonstration of the superior productiveness of low duties, they were again increased in 1759; and fluctuated, between that epoch and 1784, from about 65 to 120 per cent. ad valorem. The effects which followed this inordinate extension of the duties are equally instructive with those which followed their reduction. The revenue was not increased in anything like a corresponding proportion; and as the use of tea had become comparatively general, smuggling was carried to an infinitely greater extent than at any former period. In the *nine* years preceding 1780, above 118,000,000 lb. of tea were exported from China to Europe in ships belonging to the continent, and about 50,000,000 lb. in ships belonging to England. But from the best information attainable, it appears that the real consumption was almost exactly the reverse of the quantities imported; and that while the consumption of the British dominions amounted to above 13,000,000 lb. a-year, the consumption of the Continent did not exceed 5,500,000. If this statement be nearly correct, it follows that an annual supply of about *eight* million lb. must have been clandestinely imported into this country, in defiance of the revenue laws. But this was not the worst effect of the high duties; for many of the retail dealers who purchased tea at the East India Company's sales, being in a great measure beaten out of the market, were, that they might put themselves in a condition to stand the competition of the smugglers, tempted to adulterate their teas by mixing them with sloe and ash leaves. (Macpherson's '*Commerce with India*,' p. 208; Milburn's '*Oriental Commerce*,' vol. ii. p. 540.) At length, in 1784, ministers, having in vain tried every other resource for the suppression of smuggling, resolved to follow the precedent of 1745, and reduced the duty on tea from 119 to 12½ per cent. This measure was as successful as the former: smuggling and the practice of adulteration were immediately put an end to. The following statement shows that the *quantity* of tea sold by

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the East India Company was about *trebled* in the course of the *two* years immediately following the reduction.

Quantity of Tea sold at the East India Company's Sales.

	lb.		lb.
1781 - -	5,025,419	1785 - -	16,307,433
1782 - -	6,285,664	1786 - -	15,695,992
1783 - -	5,817,883	1787 - -	16,092,426§
1784 (duties reduced)	10,148,257		

§ Macpherson's *Commerce with India*, p. 416.

While the quantity of tea sold at the Company's sales was thus rapidly augmented, in consequence of the reduction of the duty, the quantity of tea imported into the Continent from China, which had, in 1784, amounted to 19,027,300 lb., declined with still greater rapidity, and, in 1791, was reduced to only, 2,291,500 lb. (Ibid. p. 210.)

The duties on tea, at an average of the 5 or 6 years preceding 1784, produced about 700,000*l.* a-year. And, on their being reduced to 12½ per cent., an additional duty, estimated to produce 600,000*l.*, was laid on windows, as a *commutation* tax, to compensate for the deficiency which it was supposed would take place in the revenue derived from tea. But, instead of the duties falling off in the proportion of 119 to 12½, or from 700,000*l.* to 73,000*l.*, they only fell off, in consequence of the increased consumption, in the proportion of about *two* to *one*, or from 700,000*l.* to 340,000*l.* The Commutation Act has been always regarded as one of the most successful financial measures of Mr. Pitt's administration. The plan was generally understood at the time to have been suggested by Mr. Richardson, accountant-general of the East India Company; but the popularity of the measure was so great as to induce several other individuals to claim this honour, and even to occasion some hot disputes on the subject in the House of Commons. In point of fact, however, the merit of originally

Account of the Quantity of Tea retained for Home Consumption in Great Britain from 1789 *to* 1832, *and of the Quantity that paid Duty for Home Consumption in Ireland from* 1789 *to* 1827; *specifying the Nett Produce of the Duties in each Country, and the Rates of Duty.*

Great Britain						Ireland					
Years	Quantities retained for Home Consumption	Nett Amount of Duty			Rates of Duty	Quantity charged with Duty for Home Consumption	Nett Amount of Duty (British Currency.)			Rates of Duty	
	lb.	£	s.	d.		lb.	£	s.	d.		
1789	14,551,601	561,038	14	5	12*l.* 10*s.* per cent.	1,970,898	38,038	14	5	*Black:* 4*d.* per lb.	*Green:* 6*d.* per lb.
1790	14,695,299	547,230	4	8	—	1,756,796	33,132	12	2	,,	,,
1791	15,096,840	607,130	8	4	—	1,994,787	45,295	12	4	4½*d.* per lb.	6½*d.* per lb.
1792	15,822,045	616,775	6	9	—	1,814,598	35,110	0	8	,,	,,
1793	15,241,931	609,816	5	6	—	2,148,755	39,774	9	6	,,	,,
1794	16,647,963	628,091	6	5	—	2,041,230	43,592	6	2	,,	,,
1795	18,594,232	695,108	5	9	20*l.* per cent.	2,970,701	64,095	16	10	,,	,,
1796	18,009,992	677,042	13	0	—	2,526,506	48,633	14	9	,,	,,
1797	16,368,041	1,028,060	9	7	At or above 2*s.* 6*d.* per lb. 30*l.* per cent. Under 2*s.* 6*d.* ditto per lb. 20*l.* per ditto.	2,492,254	60,817	6	5	,,	,,
1798	19,566,934	1,111,893	9	1	At or above 2*s.* 6*d.* per lb. 35*l.* per cent. Under 2*s.* 6*d.* per lb. 20*l.* per ditto.	2,955,240	103,016	5	5	,,	,,
1799	19,906,510	1,176,561	9	9	—	2,873,717	101,727	11	0	5½*d.* per lb.	7*d.* per lb.
1800	20,558,702	1,152,262	0	0	At or above 2*s.* 6*d.* per lb. 40*l.* per cent. Under 2*s.* 6*d.* per lb. 20*l.* per ditto.	2,926,166	69,824	17	7	,,	,,
										All Sorts:	
1801	20,257,753	1,287,808	2	6	At or above 2*s.* 6*d.* per lb. 50*l.* per cent. Under 2*s.* 6*d.* per lb. 20*l.* per ditto.	3,499,801	135,852	3	4	Sold at or above 2*s.* 6*d.* per lb. 35*l.* per cent. ad val.	Sold under 2*s.* 6*d.* per lb. 20*l.* per cent. ad val.
1802	21,149,245	1,450,252	7	9	—	3,576,775	182,914	17	7	38*l.* 10*s.*—	23*l.* 10*s.*—
1803	21,647,922	1,757,257	18	4	At or above 2*s.* 6*d.* per lb. 95*l.* per cent. Under 2*s.* 6*d.* per lb. 65*l.* per cent.	3,239,037	172,355	15	6	,,	,,
1804	18,301,901	2,348,004	4	8	—	3,337,122	251,754	8	9	84*l.* 14*s.*—	51*l.* 14*s.*—
1805	21,025,380	2,925,298	17	9	At or above 2*s.* 6*d.* per lb. 95*l.* 2*s.* 6*d.* per cent. Under 2*s.* 6*d.* per lb. 65*l.* 2*s.* 6*d.* per ditto. On all teas 96*l.* per cent.	3,267,712	411,223	1	4	,,	,,
1806	20,355,038	3,098,422	13	2	—	2,611,458	348,242	7	2	,,	71*l.* 14*s.*—
1807	19,239,312	3,043,224	11	3	—	3,555,129	476,949	4	3	,,	,,
1808	20,854,929	3,370,610	0	10	—	3,706,771	534,685	1	7	,,	,,
1809	19,869,131	3,130,616	14	9	—	3,391,663	462,088	12	3	,,	,,
										On all Teas:	
1810	19,093,246	3,212,450	1	1	—	2,922,568	435,307	10	2	95*l.* per cent. ad val.	
1811	20,702,809	3,242,294	0	9	—	3,517,344	502,816	16	11	,,	
1812	20,018,251	3,258,793	2	9	—	3,758,499	567,156	11	6	,,	
1813	20,443,226	Customs records destroyed.			—	2,353,294	521,299	12	3	,,	
1814	19,224,154	3,428,236	8	4	—	3,387,018	529,818	7	11		
1815	22,378,345	3,526,590	18	3	—	3,164,776	531,500	13	2	96*l.* per cent. ad valorem, and henceforth the same as in Great Britain.	
1816	20,246,144	3,936,719	0	5	—	2,990,580	405,777	16	3		
1817	20,822,936	3,605,650	18	7	—	3,141,035	497,713	7	3		
1818	22,660,177	3,562,588	10	1	—	3,569,431	510,105	6	6		
1819	22,631,467	3,256,433	12	10	At or under 2*s.* per lb. 96*l.* per cent. Above 2*s.* per lb. 100*l.* per ditto.	3,238,498	433,371	11	6		
1820	22,152,050	3,128,449	17	0	—	3,150,344	398,742	5	4		
1821	22,892,913	3,275,612	17	6	—	3,493,960	462,819	16	3		
1822	23,911,884	3,434,292	19	10	—	3,816,966	511,299	5	2		
1823	23,767,470	3,407,983	1	8	—	3,567,710	440,139	4	11		
1824	23,784,838	3,420,205	11	11	—	3,387,510	445,271	15	11		
1825	24,890,015	3,527,944	4	11	—	3,889,658	503,074	13	4		
1826	25,238,067	3,291,813	19	5	—	3,807,785	446,229	5	1		
1827	26,043,223	3,263,206	19	3	—	3,987,956	442,582	14	10		
1828	26,790,481	3,177,179	3	0	—						
1829	29,486,199	3,321,722	2	6	—						
1830	34,017,079	3,587,097	18	8	—						
1831	29,997,100	3,344,318	12	9	—						
1832	31,648,409	3,500,834	13	7	—						

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An Account of the Quantities of Tea Imported into the United Kingdom during each of the undermentioned Years ending with 1867; specifying the Quantities re-exported, the Quantities Annually Retained for Home Consumption, the Rates of Duty, and the Annual Produce of the Duties.

Years	Quantities Imported	Quantities re-exported	Quantities retained for Consumption	Amount of Duty received thereon	Rates of Duty
	lb.	lb.	lb.	£	
1853	32,057,852	254,460	31,529,620	3,441,102	If sold at or under 2s. per lb., 96*l.* per cent. ad valorem. / At or above 2s. per lb., 100*l.* ditto.
1854	35,640,800	1,181,695	34,909,651	3,589,361	Bohea, 1s. 6d. per lb.; Congou, Twankay, Hyson skin, Orange Pekoe, and Campoi, 2s. 2d. per lb.; all other sorts 3s. per lb. (from April 22.)
1855	41,360,559	2,158,029	36,574,004	3,832,427	" "
1856	49,307,701	4,299,863	40,142,236	4,074,535	All sorts 2s. 1d. per lb. (from July 1.)
1857	56,973,981	4,716,548	50,625,206	5,225,810	" "
1858	40,113,714	2,577,877	52,351,993	5,502,075	" "
1859	38,168,898	3,018,012	35,127,987	5,068,805	" "
1860	28,021,882	2,383,794	52,692,628	5,474,804	5*l.* per cent. additional from May 15
1861	50,287,796	4,190,563	36,675,866	3,973,968	" "
1862	40,744,128	3,740,127	37,555,912	4,088,937	" "
1863	46,612,737	4,584,133	46,293,543	4,407,642	" "
1864	53,147,078	4,828,785	41,765,779	4,221,193	" "
1865	51,056,978	4,055,589	44,195,515	4,833,317	" "
1866	54,767,142	5,533,098	46,740,344	5,112,005	" "
1867	55,624,216	4,718,138	46,514,871	5,066,194	" "
1868	47,774,745	3,561,585	48,734,789	5,329,992	" "
1869	53,459,469	4,841,617	50,621,516	5,471,422	" "
1870	60,512,384	5,015,682	51,172,302	5,596,961	" "
1871	71,466,421	1,524,590	53,949,039	5,900,625	2*l.* per lb. plus 5 per cent.
1872	66,360,555	6,134,743	54,715,034	5,984,172	" "
1873	70,735,135	4,839,340	58,834,087	5,683,791	" "
1874	85,792,052	8,655,985	61,953,041	4,780,149	1*s.* 10*d.* per lb.
1875	85,259,657	13,626,607	63,429,286	5,310,275	1*s.* 6*d.* "
1876	86,900,414	5,718,764	63,478,212	5,536,626	1*s.* 9*d.* "
1877	84,193,989	5,707,471	69,159,843	5,060,048	1*s.* 6*d.* "
1878	75,432,928	7,219,270	73,217,483	5,186,171	1*s.* 5*d.* "
1879	159,810,944	56,215,154	102,324,887	2,558,148	6*d.* "
1867	128,028,729	31,651,112	111,059,387	2,776,486	

suggesting the plan neither belonged to Mr. Richardson, nor to any of those who then claimed it; and such of our readers as will take the trouble to look into a pamphlet ascribed to Sir Matthew Decker (*Serious Considerations on the present High Duties*), published in 1743, will find that the measure adopted in 1784 had been strenuously recommended 40 years before.

But the principle of the Commutation Act, and the striking advantage that had resulted from the reduction of the duty, were soon lost sight of. In 1795 the duty was increased to 25 per cent.; and, after successive augmentations in 1797, 1798, 1800, and 1803, it was raised in 1806, to 96 per cent. ad valorem, at which it continued till 1819, when it was raised to 100 per cent. on all teas that brought above 2*s.* per lb. at the Company's sales.

The preceding and following statements show the progress of the consumption of tea in this country from a very remote epoch down to the present time:—

An Account showing the Quantity of Tea annually consumed in the United Kingdom, with the average Rate and aggregate Amount of Duty collected thereon; and the average Price, exclusive and inclusive of the Duty.

Years	Tea consumed in United Kingdom	Amount of Duty	Average Duty per lb.	Average Price per lb. in Bond	Average Price per lb. including Duty
	lb.	£	*s.* *d.*	*s.* *d.*	*s.* *d.*
1838	32,331,593	3,362,035	2 1	1 7½	3 8½
1839	35,127,287	3,658,803	2 1	1 8½	3 9½
1840	32,252,628	3,472,264	2 1½	2 7½	4 9
1841	36,675,667	3,973,668	2 2½	2 1½	4 3½
1842	37,355,911	4,088,957	2 2½	2 0½	4 2½
1843	40,293,393	4,407,642	2 2½	1 4½	3 6½
1844	41,363,770	4,524,193	2 2½	1 2½	3 5
1845	41,193,453	4,833,353	2 2½	1 1½	3 4
1846	46,740,344	5,112,005	2 2½	1 1	3 3½
1847	46,314,821	5,066,194	2 2½	1 1	3 3½
1848	48,734,789	5,329,992	2 2½	1 0½	3 3
1849	50,021,576	5,471,422	2 2½	1 1	3 3½
1850	51,172,302	5,596,961	2 2½	1 0½	3 3
1851	53,949,039	5,900,625	2 2½	1 2½	3 4½
1852	54,715,034	5,984,172	2 2½	1 0½	3 3
1853	58,834,087	5,683,791	1 11½	1 3½	3 2½
1854	61,953,041	4,780,149	1 6½	1 3½	2 10
1855	63,429,286	5,310,275	1 8½	1 3½	2 11
1856	63,478,212	5,536,626	1 9	1 2½	2 11½
1857	69,159,843	5,060,048	1 5½	1 5½	2 11
1858	73,217,483	5,186,171	1 5	1 6½	2 11½
1866	102,324,887	2,558,148	0 6	1 7½	2 1½
1867	111,059,387	2,776,520	0 6	1 6½	0 2½

Account of the Quantity of Tea remaining for Home Consumption in Great Britain from 1711 to 1786, obtained by deducting the Quantity exported from the Quantity sold at the Company's Sales.

Years	Lb.	Years	Lb.	Year	Lb.
1711	141,995	1750	2,700,000	1781	8,578,499
1720	237,904	1755	2,738,136	1782	4,166,854
1725	286,496	1760	2,293,613	1783	3,087,616
1730	537,016	1765	4,906,546	1784	8,608,473
1735	1,380,199	1770	7,723,534	1785	13,165,715
1741	880,700	1775	5,175,498	1786	13,985,506
1745	620,000	1780	5,588,315		

N.B.—We have made up this statement from the accounts given in Milburn's *Oriental Commerce* (vol. ii. p. 534), and Postlethwayt's Dictionary, art. 'Tea.'

Account of the Quantity of Tea entered for Home Consumption in the United Kingdom, the Nett Amount of Duty received thereon, and the Rates of Duty, from 1848 to 1867.

Years	Quantities	Duty received thereon	Rates of Duty
	lb.	£	
1848	48,734,789	5,329,992	2*s.* 2½*d.* per lb. May 15, 1840
1849	50,021,576	5,471,422	"
1850	51,172,302	5,596,961	"
1851	53,949,039	5,900,625	"
1852	54,715,034	5,984,172	"
1853	58,834,087	5,683,791	1*s.* 10*d.* per lb. June 1, 1853
1854	61,953,041	4,780,149	1*s.* 6*d.* per lb. April 6, 1854
1855	63,429,286	5,310,275	1*s.* 9*d.* per lb. April 21, 1855
1856	63,478,212	5,536,626	"
1857	69,159,843	5,060,048	1*s.* 5*d.* per lb. April 6, 1857
1858	73,217,484	5,186,170	"
1859	76,362,008	5,408,924	"
1860	76,842,016	5,442,925	"
1861	77,949,464	5,521,320	"
1862	78,817,080	5,582,793	"
1863	85,206,779	4,632,882	1*s.* per lb. April 25, 1863
1864	88,637,099	4,431,568	"
1865	97,921,944	3,189,282	6*d.* per lb. June 1, 1865
1866	102,057,887	2,558,148	"
1867	111,059,387	2,776,156	"

The following table, compiled by the Inspector-General of Imports and Exports, sets the most material circumstances connected with the tea trade in a very clear and striking point of view. The Inspector-General has added to his table two more columns, one showing the annual population of the United Kingdom, and the other the annual average consumption of tea by each individual of that population. But we have omitted these, inasmuch as the average in question was wholly

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fallacious. The consumption of tea per individual in Great Britain was formerly a good deal more than double its consumption per individual in Ireland. And though the proportional consumption in the latter has increased since the occurrence of the potatoe rot in 1846, it is still much below the consumption either in England or Scotland. This, indeed, is very clearly exhibited in the table showing the comparative consumption of tea at different epochs in each of the three kingdoms. The quantity for Ireland in 1866 is that given on an average of 3 years to 1865, in Thom's *Directory*.

Account of the Total and Average Consumption of Tea by Each Individual of the Population in England, Scotland, and Ireland, in 1841 *and* 1856, *and Great Britain and Ireland in* 1866.

Countries	Total Consumption			Average Consumption by each Individual					
	1841	1856	1866	1841		1856		1866	
	lb.	lb.	lb.	lb.	oz.	lb.	oz.	lb.	oz.
England - - -	28,803,136	47,986,635	90,115,885	1	13	2	8	3	10
Scotland - - -	2,082,176	6,585,233		1	2	2	5		
Ireland - - -	4,887,313	8,508,344	12,209,002	0	10	1	7	0	13
United Kingdom -	35,772,625	63,078,212	102,324,887	1	6	2	4	3	6

III.—East India Company's Monopoly—Influence of, on the Price of Tea—Conditions under which it was held—Abolition of.

From its origin down to 1834, the trade in tea was monopolised by the East India Company. Considerable quantities of tea were, indeed, at different times, smuggled into the country; but no British subject, not authorised by the Company, was ever allowed openly to import tea. Being thus the *only sellers*, they had it in their power, by limiting the quantity brought to market, to raise its price above its natural elevation, and to realise immense profits at the expense of the public. They might, no doubt, have declined availing themselves of this power; but no such forbearance could be rationally expected from the Company, or from any other body of men. All individuals and associations exert themselves to obtain the highest price for whatever they have to sell: and it is found that those who are protected from the competition of others, or who have obtained a monopoly of any market, invariably raise the price of their commodities to a very high pitch. The East India Company did this, probably, to a less extent than most other bodies that have enjoyed such exclusive privileges. Still, however, it is an undoubted fact, that the teas sold by them during the last years of the monopoly cost the people of Britain upwards of 1,500,000*l.* a-year more than they would have cost had they been sold *at the price* at which teas of equal quality were sold, under a system of free competition, in New York, Hamburg, Amsterdam &c. (For proofs of this statement, see 1st edition of this *Dictionary*, p. 1031.)

The Legislature endeavoured at different periods, to prevent the Company from abusing their monopoly, by enacting regulations as to the sale of tea; and though no longer of any practical importance, it may be worth while briefly to notice some of the more important, and the means by which they were defeated. *In* 1745, for example, when the great deduction was made from the amount of the tea duties, it was enacted, by a statute passed in that year (18 Geo. II. c. 26), in order to prevent the Company from depriving the public of the benefit of this reduction, that in case the tea imported by the East India Company shall not always be sufficient to answer the consumption thereof in Great Britain, and to *keep the price of tea in this country upon an equality with the price thereof in the neighbouring Continent of Europe*, it shall be lawful for the said Company, and their successors, to import into Great Britain such quantities of tea as they shall think necessary from any part of Europe: and by another section of the same statute, it is enacted, that if the East India Company shall, at any time, neglect to keep the British market supplied with a *sufficient quantity of tea at reasonable prices*, it shall be lawful for the lords of the Treasury to *grant licenses to any other person or persons*, body politic or corporate, to import tea into Great Britain from any port of Europe.

Had this statute been enforced, it would certainly have restrained the demands of the Company within reasonable limits; but it was very soon forgotten, and the Company continued, as before, to sell their teas at an enormous advance as compared with their prices in Hamburg and Amsterdam.

The same well-founded jealousy, which dictated the Act of 1745, was again displayed in the proceedings at the reduction of the duties in 1784. It was then enacted (24 Geo. III. c. 38), that the East India Company should make 4 sales of tea every year, as near as conveniently may be at equal distances of time from each other, and should put up at such sales such quantities of tea as may be judged sufficient to supply the demand; and at each sale the tea to be put up shall be sold without reserve to the highest bidders, provided an advance of 1*d.* per pound be bid upon the price at which the same is put up. By another clause it was enacted, that it should not be lawful for the East India Company 'to put up their teas for sale at any price which shall, upon the whole of the teas so put up at any sale, exceed the prime cost thereof, with the freight and charges of importation, together with lawful interest from the time of arrival of such teas in Great Britain, and the common premium of insurance as a compensation for the sea risk incurred thereon.' The Company were further ordered to keep a stock, equal to at least 1 year's consumption, according to the sales of the preceding year, always beforehand. And they were bound to lay before the lords of the Treasury copies of the accounts and estimates upon which their orders for importation, prices for sale, and quantities put up to sale, should be grounded.

The object of these conditions is obvious. They were intended to secure a plentiful supply of tea to the public, and to prevent its being sold at an oppressive increase of price. But monopoly and low prices are altogether incompatible. The conditions now referred to were, as to all practicable purposes at least, quite inoperative.

1. In the first place, the Company made various additions to the prime cost, and consequently to the putting-up price of their tea, which they ought not to have made, but which the lords of the Treasury, had they been so disposed, could hardly disallow. They always, for example, charged the cost of the factory in Canton to the price of tea. This establishment consisted of about 20 persons, and cost at an average about 100,000*l.* a-year. We do not presume to say that it was altogether useless. Undoubtedly, however, it might have been conducted at half the expense.

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It is a fact, that the whole American business at Canton has been transacted by the captains of the ships; and every one knows that they have had fewer disturbances with the natives than the English.

2. In the second place, it was established by the evidence taken before the select committee of 1830, that the Company had for many years thrown the whole losses arising from their outward investment upon tea, by estimating the value of the tael, or Chinese money in which the accounts are kept, at the price which it cost for the purpose of being vested in tea. This was a complete evasion of the provisions of the statute; but it was one which it was very difficult, if not impossible, to defeat.

3. In the third place, the obligation imposed on the Company, of keeping a year's supply of tea in their warehouses, contributed both to raise its price, and deteriorate its quality. From a return made to an order of the select committee of the House of Commons in 1830 (*First Report*, App. p. 23), it appeared that the shortest time any tea sold by the Company had been in store was 14 months; and that, at an average, all the teas sold during the 3 years ending with 1829 had been 17 months in store. But, according to the evidence of the most respectable American witnesses, the black and coarser kinds of tea are depreciated at least 5 per cent. by being kept a twelvemonth, and are, indeed, hardly saleable after the arrival of fresh teas from China. Adding, therefore, warehouse rent, interest of capital, and insurance for 17 months, to the deterioration in point of quality, we may estimate the loss to the public, by this well-meant but most injudicious interference of the Legislature, at 15 per cent. upon the price of all the teas sold.

4. In the fourth place, it is obvious, even supposing the prime cost of the Company's teas had not been improperly enhanced, that the regulation obliging them to be sold at an advance of 1*d.* per lb., if offered, on the putting-up price, could not be otherwise than nugatory. Had the trade been open, private merchants would have undersold each other, until the price of tea, like that of sugar or coffee, had been reduced to the very lowest point that would yield the sellers the customary rate of profit. But the Company was in an entirely different situation. Being the *only sellers*, they invariably *understocked* the market. Instead of bringing forward such quantities of tea as might have occasioned its sale at a small advance upon the upset price, they adjusted the supply so that the price was raised to a much higher elevation. Now, it will be observed, that all that this system of management put into the Company's coffers consisted of *extra profit*; for the putting-up price embraced every item that could fairly enter into the cost of the tea, including both *interest* on capital and insurance, and including also, as we have seen, several items that had but little to do with it. To show the extent to which this source of profit was cultivated, we may mention, that at the June sale in 1830, the Company put up congou at 1*s.* 8*d.* and 2*s.* 1*d.* per lb.; the lowest sort, or that put up at 1*s.* 8*d.*, being sold partly at 2*s.* 1½*d.*, being an advance of *twenty-two and a half* per cent., and partly at 2*s.* 5*d.*, being an advance of FORTY-FIVE per cent.; while the highest sort, or that put up at 2*s.* 1*d.*, was sold partly at 2*s.* 2*d.*, being an advance of *four* per cent., and partly at 3*s.* 7*d.*, being an advance of no less than SEVENTY-TWO per cent. above the upset price; that is, above a price calculated to yield *ordinary profits*. Mr. Mills, an intelligent tea merchant, in a paper laid before the committee of the House of Lords on East India affairs, showed, that the advance on teas sold at the Company's June sale in 1830, above the putting-up price, amounted to 122,177*l.* 18*s.* 1*d.*; and as there are 4 such sales in the year, the total advance must have been about 500,000*l.*; and this was considerably under what it had been a few years previously.

These statements show generally how the Company defeated the provisions of the Act of 1784, and, indeed, turned them to its own advantage. But, as already observed, nothing else could be expected. It is nugatory to attempt to combine monopoly with low prices and good qualities. They never have existed, and it is not possible they ever should exist, together. Monopoly is the parent of dearness and scarcity; freedom, of cheapness and plenty.

Great, however, as was the sacrifice entailed on the people of Britain by the Company's monopoly, it is doubtful whether it yielded any considerable amount of revenue to the Company. Everyone, indeed, must be satisfied, on general grounds, that it was impossible for the Company to make anything like the same profits by the privileges conceded to them, that would have been made by private individuals enjoying similar advantages. 'The spirit of monopolists,' to borrow the just and expressive language of Gibbon, 'is narrow, lazy, and oppressive. Their work is more costly and less productive than that of independent artists; and the new improvements, so eagerly grasped by the competition of freedom, are admitted with slow and sullen reluctance, in those proud corporations above the fear of a rival, and below the confession of an error.' We have no doubt that the directors of the East India Company were disposed to extend its commerce, and to manage it according to the most approved principles, but they were wholly without the means of giving effect to their wishes. They had to operate through servants; and is it to be imagined that the *employés* of such bodies will ever display that watchful attention to their interests, or conduct the business entrusted to their care with the unsparing economy practised by private merchants trading on their own account, superintending their own concerns, and responsible in their own private fortunes for every error they may commit? The affairs of the Company, notwithstanding the efforts of the directors to introduce activity and economy, have always been managed according to a system of routine. Their captains and mercantile agents were, we doubt not, 'all honourable men;' but it were an insult to common sense to suppose that they may be compared for a moment with individuals trading on their own account, in the great requisites of zeal, conduct, and skill.

Several gentlemen of great knowledge and experience, who carefully enquired into the state of the Company's affairs in 1830, expressed their decided conviction that they made nothing by the tea trade; the increased price at which they sold the article not being more than sufficient to balance the immense expenses incident to the monopoly. Perhaps this statement may be somewhat exaggerated, though we incline to think it is not far from the mark. Taking, however, the accounts laid by the Company before the committee on Indian affairs, as they stand, it would appear that the profits realised by them during the 3 years ending with 1827-28 amounted to 2,542,569*l.*, being at the rate of 847,523*l.* a-year. (*Appen. to Second Report of Select Committee of* 1830, p. 95.) But we have already seen that the excess of price received by the Company for their teas, over the price of similar teas sold at New York and Hamburg, has been above 1,500,000*l.* a-year; so that,

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according to the Company's own showing, their monopoly occasioned an *absolute loss* of 652,477*l.*, exclusive of its mischievous influence in lessening the consumption of tea, and in confining our trade with China to less than a third of what it will probably amount to under a system giving free scope to the energies of individual enterprise.

The renewal of a monopoly productive of such results was, therefore, wholly out of the question. There was hardly, indeed, in 1833, an individual in the empire out of the pale of the Company who was not anxious for the opening of the trade to China: and the Act 3 & 4 Wm. IV. c. 85 (ante, East India Company), abolishing the company's monopoly, and making it lawful for all individuals to import tea, was passed with almost no opposition.

IV.—Duties on Tea.—Consumption of Tea in the United Kingdom, the Continent, the United States, etc.

Down to April 22, 1834, the duty on tea was an ad valorem one of 96 per cent. on all teas sold under 2*s.* a pound, and of 100 per cent. on all that were sold at or above 2*s.* charged on the prices which they brought at the Company's sales. This was, certainly, a high duty; though, as a large amount of revenue must be raised, we do not know, had the trade been free, that it could have been fairly objected to on that ground. But, under the monopoly system, the duty was, in fact, about 200 per cent. ad valorem. For, the price of the tea sold by the Company being forced up to nearly double what it would have been under a free system, it followed, inasmuch as the duty varied directly as the price, that it also was doubled when the latter was doubled. The price of congou in Hamburg, for example, varied, during the latter years of the monopoly, from 1*s.* 2*d.* to 1*s.* 4*d.* per lb.; and had the Company supplied our markets with congou at the same rate, it would have cost us, duty included, nearly 2*s.* 4*d.* and 2*s.* 8*d.* per lb. But instead of this, the congou sold by the Company was, at an average, a good deal above 2*s.* per lb.; and, the duty being as much, it invariably cost from 4*s.* to 5*s.* per lb. Hence, though the duty was only 100 per cent. on the Company's price, it was really above 200 per cent. on the price of tea in an open market. The mischief of the monopoly was thus greatly aggravated; inasmuch as every addition made by it to the cost of the article made an equal addition to the duty on it.

The ad valorem duties ceased on April 22, 1834; and, under the Act 3 & 4 Wm. IV. c. 101, all tea imported into the United Kingdom for home consumption was charged with a customs duty as follows:—

	per lb. *s.* *d.*
Bohea	1 6
Congou, twankay, hyson skin, orange pekoe, and campoi	2 2
Souchong, flowery pekoe, hyson, young hyson, gunpowder, imperial, and other teas not enumerated	3 0

If we compare these duties with the wholesale prices of tea, they will be seen to have been exceedingly heavy, particularly on bohea and congou. Bohea may be sold, exclusive of duty, at or under 10*d.* or 1*s.* per lb.; so that the fixed duty was equivalent to an ad valorem duty of 150 per cent. or upwards. But to impose such a duty on an article fitted to enter largely into the consumption of the lower classes, seems to be in the last degree oppressive. It must have gone far to neutralise the beneficial effects that would otherwise have resulted from the abolition of the monopoly; and by confining the consumption of the article within comparatively narrow bounds, have rendered the duty less productive than it would have been had it been lower. In consequence, however, of the complaints of the importers of tea that the discriminating duties were not, and could not be, fairly assessed, and that teas were sometimes charged at 2*s.* 2*d.* or 3*s.* per lb. that should only have paid 1*s.* 6*d.*, the duty was repealed in about two years, by the Act 5 & 6 Wm. IV. c. 32, which enacted that an equal duty of 2*s.* 1*d.* per lb. (increased in 1840 to 2*s.* 2¼*d.*) should be charged, after July 1, 1836, on all teas entered for consumption in the United Kingdom.

Considering the very great differences in the qualities and the prices of the different varieties of tea, it would have been extremely desirable, had it been practicable, that the duty on them should have been assessed on an ad valorem principle. But after the Company's sales had ceased, and the trade had been fully opened, this was no longer possible; and it was found in the case of tea, as of wine, sugar, and similar articles, that it was better to adopt an unfair principle which could be fairly carried out, than to adopt a principle which, though fair in the abstract, was sure in its practical operation to lead to every species of abuse.

We remarked on this subject in our Treatise on Taxation, as follows:—

'But while we admit that the necessity of the case, or the impossibility of fairly assessing discriminating duties on the different varieties of tea, fully justified their repeal, and the imposition of a single duty in their stead, we contend that nothing can justify the magnitude of this single duty, which is, beyond all question, the most objectionable in our tariff.

'It has, we are aware, been alleged that the duty of 2*s.* 2¼*d.* per lb. is not really so bad as it looks; that it is a mistake to suppose that the lower classes use inferior teas, *and that* the reduction of the duty on them would not materially increase their consumption. But those who make such statements either know nothing of the facts of the case, or reckon on the ignorance of those to whom they address themselves. It appears from the official returns, that in 1816-17 and 1817-18 the price of bohea sold at the Company's sales was about 5*s.* 6*d.*; so that it must have cost the buyer, duty included, about 5*s.* per lb.; and in these years the consumption amounted, at an average, to 1,784,000 lb. a-year. But in 1830-31 and 1831-32, when the price of bohea to the buyer was reduced to 3*s.* 4*d.* per lb. (1*s.* 8*d.* price and 1*s.* 8*d.* duty), the consumption rose to 6,285,000 lb.; showing, beyond all dispute, that a fall of 1*s.* 8*d.* in the price of bohea had more than trebled its consumption. And though St. Augustine has said that "nullum mendacium tam impudens est ut teste careat," we hardly think that anyone will venture to affirm, in the teeth of an experiment like this, that bohea would not be used, if it could be procured by the poorer classes; or that the demand for it would not be very greatly extended by a reduction of 1*s.* 2*d.* or 1*s.* 3*d.* per lb. in its price.

'Taking the average price of bohea in bond in London at 8*d.*, 10*d.*, or 1*s.* per lb., a duty of the same amount would, of course, be equal to an ad valorem duty of 100 per cent., which is certainly high for a duty on a necessary consumed by the poor. But even with a duty of 1*s.* per lb. bohea might be retailed at 2*s.* or 2*s.* 2*d.* per lb.; and at this price there can be no manner of doubt that the consumption would amount to 10 or 12,000,000 of pounds. The reduction of the duty on congou to 1*s.* per lb. would, also, be of the greatest importance to the lower and middle classes; and the powerful stimulus it would give to consumption,

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and consequently, also, to the demand for sugar, which is indispensable to the use of tea, makes it all but certain, that in no very lengthened period the revenue would lose little by the change.

'We admit, however, that a reduction of the duty to 1*s.* per lb. would occasion at the outset a very considerable loss of revenue, amounting to, perhaps, from 1,000,000*l.* to 1,500,000*l.* a year. But this loss might be advantageously compensated by adding ½ per cent. to the house-tax, and extending it to all houses under 10*l.* a year. A measure of this sort, besides being just and proper in itself, would be in accordance with the precedent set by Mr. Pitt in 1784. And while it would be advantageous to the trade of the country, the occupiers of houses would gain more by the fall in the price of teas than they would lose by the imposition and increase of the house-tax. A duty of 4 per cent. on a house of 10*l.* a year would only amount to 8*s.* And supposing the duty on black teas to be reduced to 1*s.* per lb., a fall of 1*s.* 2½*d.* per lb. would be effected in the price; so that, supposing the consumption of tea by families occupying 10*l.* houses to amount, at an average, to only 10 lbs. a year, they would save 3*s.* 10½*d.* a-year, or nearly half their house-tax, by the commutation.

'Taking the price of bohea and low congou in bond in London at 1*s.* per lb. (and it is usually less), the duty of 2*s.* 2½*d.*, with which they are at present charged, is equivalent to an ad valorem one of considerably more than *two hundred* per cent.; whereas, taking the price of the hyson and other superior teas consumed by the rich at from 3*s.* to 4*s.* per lb., the duty on them does not exceed from about 50 to 67 per cent. ad valorem, that is, it does not amount to more than from ¼ to ⅓ part of the duty laid on the teas consumed by the poor. Surely, however, this is neither an age nor a country in which an anomaly of this sort can be safely maintained. The public necessities require that the tea, sugar, and other necessaries of the poor should be taxed; but the obvious principles of justice, also, require that the duties on them should be, if not lower, at all events no higher than those laid on the necessaries or luxuries of the rich. The existing tea duties contradict this plain principle, and are at once unjust and exorbitant. The duty on bohea and the lower congous should not, in fact, exceed 6*d.* or 8*d.* per lb., and means may be found, in the commutation we have ventured to suggest, of reducing it to that amount.

'It has been supposed that such an effectual reduction of the duties on tea would greatly increase our trade with China. But others doubt whether such would be the case, so far, at least, as regards our exports, and we are inclined to agree with them. The demand of the Chinese for opium far exceeds their demand for any other foreign product; and it is at present, and has long been, the most advantageous article of export to China. The presumption, consequently, is, that were increased quantities of tea sent from China, it would lead rather to an increase of the imports of opium than of the cottons or hardware of England; or it might, perhaps, check or lessen the heavy drain for bullion that is now operating on China. But though it might not increase our exports to China, it would not fail to make a corresponding addition to those to India, which furnishes the opium sent to China. Every increase of imports is sure to occasion, directly or indirectly, an equal increase of exports. But whatever may be its immediate or remote influence on the trade with the east, a reduction of the duty on tea is required by other and more pressing considerations, by a regard to the well-being of our own people, and to those principles of equal and impartial justice with which the duty we have suggested is in perfect harmony, and to which the present duty on tea is in direct contradiction.' (*Treatise on Taxation*, 2nd ed. p. 348.)

The plan we ventured to suggest for a commutation of the duty was not adopted, but its effectual reduction was then determined on and eventually carried out. All parties appear to have become satisfied that the former duty could no longer be maintained. Its reduction formed a prominent feature in the Budget proposed by Mr. Disraeli; and after the rejection of the latter, it formed an equally prominent feature in the Budget introduced by Mr. Gladstone, and was afterwards passed into a law; the duty being regulated as follows, viz.:—

To April 5, 1854	From April 5, 1854, to April 5, 1855	From April 5, 1855, to April 5, 1856	From and after April 5, 1856
1*s.* 10*d.* per lb.	1*s.* 6*d.* per lb.	1*s.* 3*d.* per lb.	1*s.* 0*d.* per lb.

But among its other mischievous effects, the war with Russia made it necessary, not merely to suspend this arrangement, but to raise the duties to 1*s.* 9*d.* per lb., at which rate they continued till April 6, 1857, when they were reduced to 1*s.* 5*d.*

This rate of duty was continued until Mr. Gladstone, in April 1863, as one of the principal features of his Budget, carried the reduction to 1*s.* per lb., which, two years afterwards, in June 1865, he further supplemented by decreasing it to 6*d.* per lb., at which point it now stands.

We beg to subjoin an estimate, which we have submitted to the highest mercantile authorities, showing in detail the different items which enter into the price of tea, and its cost to the public.

Estimate of the Cost to the Public of the Tea retained for Home Consumption in the United Kingdom, supposing it to amount to 114,700,000 *lb.*

	£
Cost of tea free on board in China, all charges inclusive, 114,700,000 lb. at 1*s.* per lb.	5,735,000
Freight at 4*l.* per ton, measuring 50 cubic ft., and averaging about 1,000 lbs. of tea to the ton	459,000
Landing charges and dock rates	293,000
Marine insurance and incidental charges, 3 per cent	179,000
Interest for 6 months on the price of tea in China	143,000
Cost of tea in England	6,779,000
Duty	2,868,750
Outlay, and profits of wholesale and retail dealers &c.	1,800,000
Making the average cost to the consumer very near 2*s.* 10*d.* per lb.	11,388,750

We believe that this estimate comes as near the mark as it is possible to do in such enquiries. It sets the oppressiveness of the late duty in a striking point of view. It may be supposed, perhaps, that we have overrated the profits of the dealers; but we do not admit that such is the case. There are above 177,000 retail dealers in tea, and taking their profits at 10*l.* each at an average, they would exceed 1,770,000*l.* It should, also, be borne in mind that the profits made by the retail of tea are to be regarded as including the greater part of those made by the retail of sugar, which is sold almost at its cost price. Indeed, very many grocers will not supply customers with sugar unless they also supply them with tea.

The following statements in regard to the deliveries &c. and prices of tea, are derived from the valuable circular of Messrs. Percival & Co., 10 Philpot Lane, 1866–1867.

The annexed table shows the sources whence we derived our supplies of tea in 1867.

Capacity of China to furnish additional Supplies of Tea.—It had been sometimes contended, that should the duties on tea be materially reduced,

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Imports and Deliveries of Tea in the United Kingdom in 1866 and 1867, with the Stocks on December 31 in each Year.

Description of Tea	Import		Delivery		Stock	
	1866	1867	1866	1867	1866	1867
	lb.	lb.	lb.	lb.	lb.	lb.
Bohea	2,000	17,000	6,000	2,000	33,000	48,000
Congou	105,037,000	89,097,000	99,153,000	107,822,000	76,217,000	57,492,000
Caper	...	3,000	20,000	36,000	61,000	31,000
Scented caper	4,000,000	3,800,000	4,340,000	4,116,000	2,016,000	1,700,000
Pouchong	17,000	18,000	70,000	28,000	76,000	66,000
Nine Yong and Oolong	4,550,000	5,650,000	5,430,000	4,755,000	4,305,000	5,200,000
Souchong						
Pekoe (black leaf) and H Muey	382,000	370,000	644,000	617,000	978,000	731,000
Pekoe, flowery						
Orange pekoe	6,400,000	5,020,000	4,908,000	5,737,000	3,052,000	2,735,000
Scented orange pekoe						
Twankay	531,000	553,000	621,000	600,000	355,000	308,000
Hyson skin	32,000	21,000	61,000	44,000	114,000	94,000
Hyson	1,856,000	1,110,000	1,803,000	1,593,000	1,548,000	865,000
Young hyson	4,173,000	5,124,000	4,114,000	4,725,000	1,985,000	2,380,000
Imperial	1,110,000	1,525,000	1,260,000	1,323,000	400,000	600,000
Gunpowder	3,990,000	4,345,000	4,657,000	4,280,000	1,260,000	1,325,000
Sorts	6,950,000	8,100,000	5,948,000	7,326,000	2,801,000	3,575,000
Assam and Japan						
Inland navigation	..	..	..	..	..	..
Total	139,000,000	144,750,000	135,000,000	143,000,000	95,000,000	76,750,000
Black	127,168,000	131,925,000	120,401,000	130,285,000	89,402,000	71,048,000
Green	11,832,000	12,825,000	12,599,000	12,715,000	5,598,000	5,702,000

	1866	1867
	lb.	lb.
Total delivered	137,873,000	146,322,000
Exported	30,329,000	31,581,000
Home Consumption	107,544,000	114,741,000

Tea imported into United Kingdom in 1868	Total Imports	Entered for Consumption	Total Value	Average Price	Gross Duties levied at 6d. per lb.
	lb.	lb.	£	per lb. s. d.	£
From Hamburg	57,575	56,422	4,356	1 6 3/16	1,411
Holland	402,253	432,033	31,998	1 7	1,803
France	469,001	397,533	33,536	1 8½	9,933
Egypt	108,777	115,277	12,406	1 8	2,882
China	130,865,501	96,694,428	10,443,488	1 7½	2,417,361
Japan	1,908,800	320,840	132,979	1 4 11/16	8,028
United States:—					
North Atlantic Ports	236,404	161,207	17,537	1 8½	4,032
South Atlantic Ports	901	503	68	1 6	13
Ports on the Pacific	208	208	16	1 6½	5
British India:—					
Bombay and Scinde	49,604	6,339	4,545	1 9	158
Madras	650	663	58	1 6½	17
Bengal and Pegu	8,363,329	5,990,993	521,107	1 11 8/10	99,776
Other parts	89,041	148,641	7,011	1 6½	3,719
Total	139,610,044	102,324,887	11,208,815		2,558,148

Prices Current of Teas in London, in Bond, on December 31, 1865, 1866, 1867, and 1868.

	1865	1866	1867	1868
	per lb.	per lb.	per lb.	per lb.
	s. d. s. d.	s. d. s. d.	s. d. s. d.	s. d. s. d.
Congou, ordinary siftings	0 8 to 0 8½	0 7 to 0 8	0 5½ 0 6½	0 8½ to 0 8½
good ordinary to but middling, broken	0 8½ 0 10½	0 8½ 0 10½	0 7 0 9	0 9 0 11
but middling ra. do	0 11 1 6½	0 11 1 0	0 9½ 0 11	0 11½ 1 0
but middling rather coarse to rather strong	1 0½ 1 1	1 0 1 1	1 0 1 1	1 1 ½
but middling blackish leaf, 2nd cl., Ho How and Ning Chow, and red leafs	1 1½ 1 3	0 11 1 1	0 11½ 1 1	1 1½ 1 2
but middling blackish leaf, Suchukye kind	1 4 1 5	1 1½ 1 3	1 2 1 4	1 2½ 1 4
but middling to middling, Pekoe Souchong, and Kaisow	1 5 1 8	1 4 1 8	1 5 1 9	1 4½ 1 9
but middling to middling blackish leaf, pekoe flavour, Moning	1 8 1 10	1 9 2 0	1 10 2 6	1 9½ 1 11
fine to finest Moning, Ouyack, and Kaisow	1 11 2 6	2 1 2 7	2 2 2 8	2 0 2 4
Ning Yong and Oolong, fair to fine	0 10 2 8	1 2 2 6	1 2 2 6	1 1 2 3
Souchong, ordinary	1 0 1 5	1 1 1 6	1 2 1 6	1 2 1 6
fair to good	1 6 1 8	1 8 2 0	1 7 2 0	1 7 1 11
fine to finest	1 9 2 10	2 2 2 4	2 2 2 8	2 1 2 5
Flowery pekoe, fair to good	0 2 0	2 6 3 0	2 2 2 6	no quotation
fine to very fine and flowery	2 2 3 6	0 10 2 4	2 6 2 9	
Caper, scented	0 10 2 4	1 2 1 6	1 0 2 6	0 10 2 3
Orange Pekoe, scented, common in 10 catty boxes	1 0 1 4	1 7 2 0	1 0 1 6	0 11½ 1 3
fair to fine ditto	1 5 2 0	0 8 0 10	1 7 2 6	1 4 2 2
Twankay, common	1 0 1 0	0 10½ 1 0	0 10 1 0	1 0½ 1 1
fair to Hyson kind	1 0½ 1 1	0 8 0 9	1 0½ 1 3	1 1½ 1 2
Hyson skin, common to fair	0 7½ 1 0	1 0 1 2	0 10 0 11	0 10½ 1 0
Hyson, ordinary to common	1 1 1 6	1 5 2 0	1 4 1 6	1 1½ 1 6
fair	1 8 2 2	2 0 2 4	1 9 2 3	1 8 2 7
good to finest	2 4 2 10	2 6 4 0	2 4 3 0	2 9 3 1
fine to superfine	2 11 3 6	1 2 3 4	3 3 4 6	3 3 4 6
Young hyson, common to finest	1 1 3 1	1 2 2 0	0 11 3 0	1 1 2 10
Imperial, common to fair	0 10 1 6	2 1 2 8	1 1 2 0	1 2 1 9
fine to finest	1 7 2 8	1 6 2 2	2 1 2 9	1 10 2 6
Gunpowder	1 4 2 4	2 4 3 8	1 5 2 1	1 3 2 2
fine to finest	2 5 4 0	1 2 4 0	2 2 4 0	2 4 3 8
Assam tea	1 3 4 2		1 2 4 0	1 2 3 6

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the increased demand of this country could not be supplied, and that the reduction of the duty would not really benefit the British consumer, but the Chinese. Our readers will hardly expect that we should enter at any length into the refutation of so absurd a notion. At the commencement of last century the entire annual consumption of tea in this country, the Continent, and America, did not certainly amount to 500,000 lb.; whereas the consumption of Great Britain, the Continent, the United States, and Australia, amounts at present (1869) to about 160,000,000 or 170,000,000 lb.; and yet every one acquainted with the history of the trade is aware that, though the consumption has increased more than *three hundred and forty times*, the prices in all open markets have, with few exceptions, been regularly declining. We may, therefore, rest quite easy upon this point. The production of tea is rapidly extending in China; and its vast extent, its capacities for raising unlimited quantities of tea, and the extent to which it is there used, negative the idea that any conceivable increase of the consumption of this country should have any perceptible or permanent influence on its cost price. But at the same time, occurrences of rebellion or extensive commotions in the country may for a while interrupt the usual supply, and occasion a temporary rise of price. The export of Assam tea from India to Great Britain has, within the last five years, doubled, and is still apparently on the increase, the greatest attention being now paid to the cultivation of the plant.

The Quantities of Tea exported by Sea from China in ordinary Years may (1868) *be estimated as follows, viz.*:—

	lb.
United Kingdom - - -	120,000,000
America - - - -	22,000,000
Australia - - - -	12,000,000
Holland - - - -	4,000,000
India - - - -	1,000,000
Other places - - -	5,000,000
Total - - -	164,000,000

The exports of tea to Russia by land amount to 14,000,000 or 15,000,000 lb. a-year.

Retail Dealers in Tea.—Retailers in tea are obliged to take out a license, which costs 11*s.* 6½*d.* a-year to those rated at 8*l.* or upwards, and 2*s.* 6*d.* to those rated under 8*l.* In 1868 their numbers were, for the United Kingdom, 104,798 of the first, and 72,914 of the second, but the Chancellor of the Exchequer (Mr. Lowe) proposes to abolish this license tax in the course of this year, 1869.

Adulteration of Tea.—It might have been fairly enough anticipated, from the high price of, and the high duty on tea, and the facility with which it may be mixed up with foreign substances, that it would not escape adulteration; and the records of the courts of justice show that such is the case, several dealers having been convicted of this pernicious practice. The adulteration is usually effected either by the intermixture of sloe or ash leaves with fresh teas, or by mixing the latter with tea that has been already used. The penalties on such offences are stated below; but the best, or rather the only, security on which any reliance can be placed, is to be found in the character and respectability of the parties dealing in tea. Even were he influenced by nothing else, it would be extreme folly in any person carrying on an extensive business to engage in such dishonest practices; for they can hardly fail of being detected; and the ruin of his business, that would follow such exposure, would far more than balance whatever gains he could hope to make by his fraudulent schemes.

Penalties on Adulteration.—If any dealer in or seller of tea dye or fabricate any sloe or other leaves in imitation of tea, or mix or colour leaves of tea with terra Japonica or other ingredient, or vend or expose to sale, or have in possession the same, he shall forfeit, for every pound of such adulteration, 10*l.* (4 Geo. II. c. 14 s. 11.)

Every person, whether a dealer in or seller of tea, or not, who shall dye or fabricate any sloe leaves, liquorice leaves, or the leaves of tea that have been used, or the leaves of the ash, elder, or other tree, shrub, or plant, in imitation of tea, or who shall mix or colour such leaves with terra Japonica, copperas, sugar, molasses, clay, logwood, or other ingredient, or who shall sell or expose to sale, or have in custody, any such adulterations in imitation of tea, shall for every pound forfeit, on conviction, by the oath of 1 witness, before 1 justice, 5*l.*; or on non-payment, be committed to the house of correction for not more than 12 nor less than 6 months. (17 Geo. III. c. 29 s. 1.)

Any person having in possession any quantity exceeding 6 pounds of sloe, ash, or elder leaves, or the leaves of any other tree, plant, or shrub, green or manufactured, and shall not prove to the satisfaction of the justice hearing the matter that the same were gathered with the consent of the owner of the trees &c., and that they were gathered for some other purpose than that of being fabricated in imitation of tea, shall forfeit 5*l.* for every pound in his possession, or, on non-payment, be committed to prison. (Sec. 2.)

If an officer of excise, or other person, make oath that he suspects herbs dyed, or otherwise prepared in imitation of tea, are hid or lodged in any place, a justice may issue a warrant for seizing the same by day or night (in the night in presence of a constable), together with all waggons, tubs, and packages in which they may be contained; the herbs may be directed to be burnt, and the waggons &c. sold, and after deducting expenses, the proceeds to be shared, half to informer, and half to poor of the parish. Obstructing such seizure subjects the offender to a penalty of 50*l.*, or not less than 6 nor more than 12 months' imprisonment. (Sec. 3.)

Herbs not to be burnt, if owner can prove, within 24 hours, that they were gathered with consent of proprietor of trees, plants, or shrubs, and that they were not intended to be fabricated in imitation of tea. (Sec. 4.)

Occupier of premises where herbs are found, liable to the penalties, unless he can prove they were lodged without his consent. (Sec. 5.)

Consumption of Tea on the Continent and in the United States.—Of the Continental states, Russia and Holland are the only ones in which the consumption of tea is considerable. In 1865 the imports of tea into European Russia, ex Finland, amounted to 365,339 poods. The consumption of tea in Holland amounted in 1865 to 5,600,000 lb. The consumption of France does not exceed 700,000 lb. The importations into Hamburg vary between 3,000,000 and 3,500,000 lb., the greater part of which is forwarded to the interior of Germany.

The consumption of the United States amounts to from 35,000,000 to 40,000,000 lb. a-year. Duties on tea used to form one of the largest items of American revenue, having in some years produced 650,000*l.* Their magnitude, however, was justly complained of; and it is probably owing to this circumstance that, while the consumption of tea was for several years pretty stationary in the United States, that of coffee increased with even greater rapidity than in England. The flourishing state of the revenue for a number of years having admitted of a very great reduction of duties, those on tea were for a time wholly re-

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pealed. As was to be expected, the consumption, while duty free, rapidly increased. The duty under the present United States tariff is 25 cents per lb.

TEAK WOOD or INDIAN OAK. The produce of the *Tectona grandis*, a large forest tree, that grows in dry and elevated districts in the south of India, the Burman empire, Pegu, Ava, Siam, Java, the Straits Settlements &c.

Teak timber is by far the best in the East; it works easily, and, though porous, is strong and durable; it is easily seasoned, and shrinks very little; it is of an oily nature, and, therefore, does not injure iron. Mr. Crawfurd says, that in comparing teak and oak together, the useful qualities of the former will be found to preponderate. 'It is equally strong, and somewhat more buoyant. Its durability is more uniform and decided; and to insure that durability it demands less care and preparation; for it may be put in use almost green from the forest, without danger of dry or wet rot. It is fit to endure all climates and alternations of climate.' (Tredgold's *Principles of Carpentry*, p. 206; Crawfurd's *East. Archip.*, vol. i. p. 451; Rees's *Cyclopædia* &c.)

The teak of Malabar, produced on the high table land of the south of India, is deemed the best of any. It is the closest in its fibre, and contains the largest quantity of oil, being at once the heaviest and the most durable. This species of teak is used for the keel, timbers, and such parts of a ship as are under water: owing to its great weight, it is less suitable for the upper works, and is not at all fit for spars. The teak of Java ranks next to that of Malabar, and is especially suitable for planking. The Rangoon or Burman teak, and that of Siam, are not so close grained or durable as the others. They are, however, the most buoyant, and are, therefore, best fitted for masts and spars. Malabar teak is extensively used in the building yards of Bombay. Ships built wholly of it are almost indestructible by ordinary wear and tear; and instances are not rare of their having lasted from 80 to 100 years; they are said to sail indifferently; but this is probably owing as much to some defect in their construction as to the weight of the timber. Calcutta ships are never wholly built of teak; the timbers and framework are always of native wood, and the planking and deck only of teak. The teak of Burma, being conveyed with comparatively little difficulty to the ports of Rangoon and Maulmain, is the cheapest and most abundant of any, and it is mainly owing to the facility with which supplies of it are obtained that ship-building is now carried on so very extensively at Maulmain. It is largely exported to Calcutta and Madras. [Rangoon.] (*Private information.*)

In 1866 we imported, chiefly from Singapore and the Straits Settlements, 35,724 loads of teak, valued at 342,101*l.*

A species of timber called African teak is exported from the west coast of Africa. But, in point of fact, it is not teak, and it is destitute of several of its most valuable properties. It is, however, for some purposes, a useful species of timber.

TEASEL or FULLERS' THISTLE (Ger. weberdistel, kratzdistel; Fr. chardon à carder; Ital. cardo da cardare; Span. cardencha, cardo peinador). This plant, which is cultivated in the north and west of England, is an article of considerable importance to clothiers, who employ the crooked awns of the heads for raising the nap on woollen cloths; for this purpose they are fixed round the periphery of a large broad wheel, against which the cloth is held while the machine is turned. In choosing teasels, the preference should be given to those with the largest bur, and most pointed, which are generally called *male teasels*. They are mostly used in preparing and dressing stockings and coverlets; the smaller kind, commonly called the fullers' or drapers', and sometimes the *female teasels*, are used in the preparation of the finer stuffs, as cloths, rateens &c.

TEETH, ELEPHANTS'. [Ivory.]

TELEGRAPH (the term is derived from the Greek τῆλε and γράφω). An instrument to write at a distance. The use of telegraphs, or of some mode of communication by signals or signs, is of very ancient date (Rollin's *Ancient History*, book xviii. sec. 6), but commerce derived comparatively little direct advantage from them till the modern application of electro-magnetism to telegraphic purposes. Any scientific description of the principle and action of the electro-magnetic telegraph, even if appropriate, as it is not, to a work like this, would be unintelligible to most readers were it not accompanied by diagrams or other illustrations. We would therefore refer for this information, in succinct form and moderate compass, to Brande and Cox's *Dictionary of Science and Art*; or, for a more elaborate dissertation on the subject, to the last edition of the *Encyclopædia Britannica*, the article in which embodies very full descriptions of some of Sir Charles Wheatstone's inventions, and much other interesting matter.

Suffice it here to say, that we can not only send messages in an incredibly short time to the uttermost parts of Europe, but also to America by the Atlantic cable, and to India &c. And doubtless we shall soon be enabled to communicate in this expeditious way with every civilised portion of the globe. A good operator can send 2,000 words per hour.

The introduction of this modern telegraph followed so closely on that of railways, and has been so intimately associated with them, that their direction in this country has not been of that perfectly independent character that the extent and importance of this sort of communication, especially in commercial and political matters, would seem to demand. The Legislature having taken this view of the matter last year (1868), passed an Act (31 & 32 Vict. c. 110), empowering the Government to acquire and maintain the various telegraphs in the United Kingdom, and to work them through the medium of the Post Office. Probably the arrangements for the purchase of the whole will be effected in the course of this year (1869), and the issue of fresh regulations and tables of rates may be looked for ere long.

Already, under East Indies, the scale of charges for messages by the Indian telegraph has been given; but as changes in those at home are immediately in prospect, it would be superfluous to state in detail the present tariffs of the various telegraph companies.

In demonstrating the advantages of a low scale of charges, Mr. Cyrus Field has informed us, that under the 25*l.* tariff the receipts of the Atlantic Telegraph Company were 505*l.* per day, while they were 579*l.* under a 10*l.* rate, and 693*l.* under the 5 guinea tariff. In an extract from the *New York Tribune*, given by the *Times* of October 18, 1868, the number of miles of telegraph lines worked in the United States is stated to have been about 12,000 in 1848, 40,000 in 1858, and 120,000 in 1868.

In 1867 we exported telegraph wire and apparatus (chiefly to Norway, Cuba, India, and Newfoundland) of the aggregate value of 210,008*l.*

THREAD (Ger. zwirn; Dutch, garen; Fr. fil; Ital. filo, refe; Span. hilo, torzal; Russ. nitki). A

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small line made up of a number of fibres of some vegetable or animal substance, such as flax, cotton, or silk; whence its names of cotton, linen, or silk thread. [COTTON; LINEN; SILK.]

Exports of Cotton, Linen, and Silk Sewing Thread, in 1867.

		Quantities	Values
			£
Cotton	lb.	6,311,559	1,115,315
Linen	,,	2,753,859	312,959
Silk	,,	85,348	10,644

TILES (Ger. dachziegel; Fr. tuiles; Ital. tegole, embrici; Span. tejas; Russ. tscherepiza). A sort of thin bricks, dried in kilns, and used in covering and paving different kinds of buildings. The best brick earth only should be made into tiles. [BRICKS AND TILES.]

TIMBER (Ger. bauholz, zimmer; Dutch, timmerhout; Fr. bois de charpente, bois à bâtir; Ital. legname da fabbricare; Span. madera de construccion; Russ. stroewoi gess; Pol. cembrowina). The term used to express every large tree squared, or capable of being squared, and fit for being employed in house or ship building. In the language of the customs, when a tree is sawn into thin pieces, not above 7 inches broad, it is called batten; when above that breadth, such thin pieces are called deal. Wood is the general term, comprehending under it timber, dye woods, fire wood &c.

Timber is generally sold by the load.

The following are the contents of the loads of different species of timber, hewn and unhewn:—

A load of timber unhewn			40	cubic feet.
squared timber			[illegible]	,,
1 inch plank			[illegible]	square feet.
1½ ,,			[illegible]	,,
2 ,,			[illegible]	,,
2½ ,,			240	,,
3 ,,			[illegible]	,,
3½ ,,			140	,,
4 ,,			120	,,

	ft.	in.	in.		
36½ Russian st. deals	12 long,	11 thick,	11	broad, make	1 load timber.
58½ Christiania ditto	11 ,,	1½ ,,	9	,,	1 ,,
53½ Dram ditto	10 ,,	1½ ,,	9	,,	1 ,,
3 Riga logs	-	-	-	-	1

The price of timber has, owing to the reduction of freight and abolition of the duties, and the greater facility of importation, fallen very materially since the peace of 1815. We subjoin an account of the wholesale prices of the principal species of timber in Liverpool on January 29, 1869, from the circular of Messrs. Farnworth and Jardine of Liverpool.

Articles		Prices					
		£	s.	d.	£	s.	d.
From British North America.							
Pine timber:							
Quebec, yellow	cubic ft.	0	1	4	to 0	1	8
St. John, N.B., 18 inches	,,	0	1	10	0	2	0
Miramichi	,,	0	1	2	0	1	5
Richibucto	,,	0	1	2	0	1	4
Red pine	,,	0	1	4	0	1	8
Oak	,,	0	2	2	0	2	4
Elm	,,	0	1	6	0	2	0
Ash	,,	0	1	8	0	2	0
Birch, St. John &c., N.B.	,,	0	1	6	0	1	9
Quebec	,,	0	1	6	0	1	9
N. Scotia and P. Ed.'s Island	,,	0	1	4	0	1	5
Masts, yellow calliper measure	,,	0	1	6	0	2	0
Masts, red ditto	,,	0	1	6	0	2	0
Spars, spruce	,,	0	0	10	0	1	0
Deals and battens:							
Quebec yellow pine, 1st quality	standard	16	10	0	17	0	0
2nd ,,	,,	12	0	0	12	10	0
3rd ,,	,,	8	0	0	8	10	0
Deals, spruce:							
New Brunswick	,,	7	12	6	7	15	0
Nova Scotia &c.	,,	7	7	6	7	12	6
Boards, spruce	,,	6	12	6	6	15	0
Staves, Quebec standard:							
1st quality	per stnd. m.	60	0	0	65	0	0
2nd ,,	,,	45	0	0	50	0	0
W.O. puncheon	per mille						
1st quality	,,	19	0	0	20	0	0
2nd ,,	,,	15	0	0	17	0	0
Lathwood	4 ft. per fa.	8	0	0	5	10	0
Handspikes, hickory	doz.	0	16	0	0	18	0
ash and birch	,,	0	5	6	0	6	6
Oars, ash	run. ft.	0	0	2½	0	0	3
Sleepers, 9 x 10 x 5 Hackmatack	each	0	2	6	0	3	3
9 x 9 x 4½	,,	0	2	0	0	2	3
Furniture and Fancy Woods.							
Mahogany, St. Domingo	per ft. of 1 in.	0	0	7	0	1	6
Cuba	,,	0	0	5	0	0	7½
Honduras	,,	0	0	4½	0	0	5½
Mexican	,,	0	0	4	0	0	5½
Cedar, Havannah &c.	,,	0	0	5½	0	0	6½
pencil	per cubic ft.	0	2	6	0	3	6
Satin wood, St. Domingo	per ft. of 2 in.	0	0	9	0	1	6
Bahama &c.	per ton	6	0	0	8	0	0
Walnut, American	per cubic ft.	0	3	0	0	3	6
Italian &c.	per ft. of 1 in.	0	0	3½	0	0	5½
Maple, bird-eyed	,,	0	0	5	0	0	9
Rosewood, Rio de Janeiro	ton of 20 cwt.	12	0	0	25	0	0
Bahia	,,	8	10	0	15	0	0
Honduras	,,	4	0	0	4	10	0
Zebrawood	,,	0	7	10	0	9	0
Lignum vitæ:							
City of St. Domingo	,,	5	9	0	15	0	0
Hayti and Puerto Cabello	,,	3	0	0	4	10	0
Jamaica	,,	4	0	0	6	0	0
Bahama	,,	3	0	0	6	10	0
Cocuswood	,,	5	10	0	6	0	0
Lancewood spars:							
1st quality and large	each	0	15	0	1	0	0
Other kinds	each	0	7	6	0	15	0
From the United States, East and West Indies, and Africa.							
Pitch pine	per cubic ft.	0	1	4	to 0	1	5
planks	,,	0	1	2	0	1	3
Oak logs	,,	0	2	0	0	2	3
planks	,,	0	1	6	0	1	9
African	per load, calliper	7	0	0	7	10	0
Teakwood	,,	11	0	0	11	0	0
Greenheart	,,	6	0	0	6	15	0
Black Mora	,,	5	0	0	5	10	0
Staves, white oak:							
Wine pipe	per mille	20	0	0	40	0	0
Hogshead	,,	12	0	0	30	0	0
Barrel	,,	12	0	0	16	0	0
From the Baltic &c.							
Timber:							
Riga, red	per cubic ft.	0	1	2	0	1	4
Dantzic, crown	,,	0	1	4	0	1	6
middling and common	,,	0	1	0	0	1	5
Memel, crown	,,	0	1	4	0	1	6
middling and common	,,	0	1	0	0	1	3
Stettin	,,	0	1	0	0	1	2
Swedish	,,	0	1	0	0	1	1
Oak, Dantzic &c.	,,	0	1	9	0	2	0
Wainscot logs, crown—							
Riga	,,	0	3	3	0	5	6
Memel	,,	0	3	3	0	4	6
Spars, 4 inches and upwards, calliper measure in the middle	,,	0	0	8	0	0	10
Deals, Arch. and Onega:							
1st quality, red	standard	12	0	0	12	10	0
St. Petersburg:							
1st quality	,,	10	0	0	10	10	0
2nd quality	,,	8	0	0	8	10	0
Wyburg	,,	8	0	0	8	10	0
Uleaborg	,,	7	10	0	8	0	0
Battens, Arch., St. Petersburg	,,	10	0	0	12	0	0
Wyburg	,,	8	0	0	9	0	0
Swedish and Norway	,,	7	0	0	8	10	0
N.B.—Deal ends and batten ends are generally sold at two-thirds the price of deals and battens respectively.							
Boards, flooring planed—							
1st quality	,,	9	10	0	10	0	0
Lathwood, per fa. 6 ft. wide and 6 ft. high							
Dantzic, 6 feet long	,,	8	10	0	9	0	0
4 ,,	,,	5	0	0	5	10	0
Memel 6 ,,	,,	8	10	0	9	0	0
4 ,,	,,	5	0	0	5	10	0
Riga and St. Petersburg 8 ft.	,,	11	0	0	12	0	0
4 ,,	,,	5	5	0	5	10	0
Handspikes	dozen	0	6	0	0	7	0
Oak staves:							
Dantzic, crown pipe	per mille of 1200 pcs.	100	0	0	120	0	0
Hogshead	,,						
Memel, crown pipe	,,	100	0	0	150	0	0
Bosnian barrel	,,	24	0	0	25	0	0

TIMBER TRADE. Having, in separate articles, described those species of timber most in demand in this country, we shall confine ourselves, in this article, to a few remarks on the policy of the regulations under which the trade in timber has been and is now conducted, thus retaining some statements that appeared in former editions, which may still have historical interest, however inapplicable to the present state of things.

1. *Importance of a cheap Supply of Timber.*—It is surely unnecessary to enter into any lengthened statements on this head. If there be one article more than another with which it is of primary

importance that a great commercial and manufacturing nation like England should be abundantly supplied on the lowest terms, that article is timber. Owing to the deficiency of our home supplies, most part of the timber, with the exception of oak, required for building ships and houses, and most part, also, of that employed in the construction of machinery, is imported from abroad. Any individual acquainted with the purposes to which timber is applied, but ignorant of our peculiar policy with respect to it, would never, certainly, imagine that such an article could have been made the subject of oppressive duties, and of still more oppressive preferences. Timber is not to be looked at in the same light as most other commodities. It is against all principle to impose heavy duties on materials intended to be subsequently manufactured; but timber is the raw material of the most important of all manufactures—that of the instruments of production. Suppose it were proposed to lay a heavy duty on ships, waggons, looms, or workshops when completed; would not such a proposal be universally scouted? And yet this is what was really done. The finished articles were not, indeed, directly taxed; but the principal material of which they were made, and without which they could not be constructed, was burdened with an exorbitant duty. To dwell on the impolicy of such a tax would be worse than useless. Of all things essential to the prosperity of manufacturing industry, improved and cheap machinery is the most indispensable. Most individuals amongst us were ready enough to ridicule the contradictory conduct of the French Government, who, at the very moment that they were endeavouring to bolster up a manufacturing interest, laid enormous duties on foreign iron, and thus doubled or trebled the price of some of the most important manufacturing implements. Timber is, however, of quite as much importance in this respect as iron; and our conduct in having burdened it with exorbitant duties partook as largely of the *felo-de-se* character as that of our neighbours. Indeed, as will be immediately seen, it was perhaps less defensible. Some plausible, and probably conclusive, reasonings may be urged in defence of moderate duties on iron and timber, when they are imposed for the sake of revenue; but this apology for financial rapacity cannot be set up in defence of the iron duties of France or the late timber duties of England. The former, however, were the least objectionable; they were imposed to encourage the production of iron in France: whereas the duties on timber in England were imposed for the sake, principally, of promoting the lumber trade of Canada, and of forcing the employment of a few thousand additional tons of shipping. We did not sacrifice the goose for the sake of the golden eggs, but for the sake of the offal she had picked up.

2. *Origin and Operation of the discriminating Duty in favour of American Timber.*—The practice of encouraging the importation of the timber of Canada and our other possessions in North America in preference to that of foreign countries is but of recent growth. It took its rise during the administration of Mr. Vansittart, and bore in every part the impress of his favourite policy. The events that took place in 1808 having seriously affected our previous relations with the Baltic Powers, a deficiency in the accustomed supply of timber began to be apprehended; and the ship-owners and Canada merchants naturally enough availed themselves of this circumstance to excite the fears of the ministry, and to induce them to change the fair and liberal system on which the trade in timber had been conducted down to that time, by granting extraordinary encouragement to its importation from Canada. Even as a temporary expedient, applicable to a peculiar emergency, the policy of giving any such encouragement is extremely doubtful. Supposing timber not to have been any longer obtainable from the north of Europe, its price would have risen, and it would, of course, have been imported from Canada, the United States, or wherever it could be had, without any interference on the part of Government. But, in 1809, a large addition was made to the duties previously charged on timber from the north of Europe, at the same time that those previously charged on timber from Canada and our other possessions in America were almost entirely repealed; and in the very next year (1810) the duties thus imposed on Baltic timber were *doubled*. Nor did the increase of duties on such timber stop even here. In 1813, after Napoleon's disastrous campaign in Russia, and when the free navigation of the Baltic had been restored, 25 per cent. was added to the duties on European timber. The expediency of increasing the revenue was, no doubt, pleaded in justification of this measure; but we believe it was really intended to augment the preference in favour of Canada timber; for how could it be supposed that an increase of the duties on an article imported from a particular quarter of the world, that was already taxed up to the very highest point, could add any thing considerable to the revenue, when a convertible article might be imported from another quarter duty free? The various duties laid on European timber amounted, when consolidated by the Act 59 Geo. III. c. 52, to 3*l.* 5*s.* per load.

Admitting, for the moment, that the peculiar and unprecedented aspect of things in 1808 and 1809 warranted the giving of some preference to the importation of timber from Canada, such preference should plainly have ceased in 1813. So long as the communication with the bridge is interrupted, we may be forced to use a boat to cross the river; but when the communication is again opened, and when there is not the remotest chance of its future interruption, it would be a singular absurdity to refuse to resume the use of the bridge, and to continue the costly and inconvenient practice of being ferried over. This, however, is exactly what we did in the case of the Canada trade. Because a fortuitous combination of circumstances obliged us, upon one occasion, to import inferior timber at a comparatively high price, we resolved to continue the practice. The history of commerce affords few such displays of gratuitous folly.

The absurdity of this conduct will appear still more striking if we reflect for a moment on the peculiar situation of the countries in the north of Europe. The nations round the Baltic have made little progress in manufacturing industry. They abound in valuable raw products; but they are wholly destitute of the finer species of manufactured commodities, and of colonies. Nor have they any real inducement to attempt supplying themselves directly with the former, or to establish the latter. Their iron and copper mines, their vast forests, and their immense tracts of fertile and hitherto unoccupied land, afford far more ready and advantageous investments for their deficient capital than could be found in manufactures or foreign trade. Russia and Prussia were, indeed, tempted, by our corn and timber laws, to exclude some species of manufactured goods; but it is not possible that they should succeed in materially limiting our exports to

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them, provided we do not second their efforts by refusing to admit their products.

Of all the countries in the world, there is obviously none which has so many facilities for carrying on an advantageous trade with the north as Great Britain. We have a surplus of all those products of which Russia, Prussia, Sweden, Denmark, and Norway stand most in need; and, on the other hand, they have a surplus of many of those of which we are comparatively destitute. The immense traffic we carry on with the Baltic does not, therefore, depend, in any considerable degree, on artificial or accidental circumstances. It does not rest on the wretched foundation of custom-house regulations or discriminating duties, but on the gratification of mutual wants and desires. It has been justly remarked by the Marquis Garnier, the excellent translator of the *Wealth of Nations*, that no inconsiderable portion of the increased power and wealth of England may be traced to the growing opulence of Russia. But the Russian empire is yet only in the infancy of civilisation; she must continue for a very long period to advance in the career of improvement; and it will be our own fault if we do not reap still greater advantages from her progress.

Such is the nature of that commerce against which the discriminating duties on timber from the north of Europe aimed a severe blow. In 1809, when this system began, 428,000 tons of British shipping entered inwards from the Baltic. In 1814, the year after the 25 per cent. of additional duty had been imposed on Baltic timber, and when all the ports of that sea were open to our ships, only 242,000 tons of British shipping entered inwards, being little more than the half of what it amounted to when the system began. And notwithstanding the vast increase, in the interval, of population and wealth in the countries round the Baltic, our trade with the different ports on that sea had not recovered, in 1843, from the blows inflicted on it in 1809 and 1813. In 1842 only 295,435 tons of British shipping left the Baltic for the United Kingdom.

The following extract from the evidence of Mr. Edward Patzcker, a merchant of Memel, given before the committee of the House of Commons on the foreign trade of the country, in 1821, shows the effect that the increased duties on timber had on the commerce with Prussia:—

'Has there been a great alteration in the timber trade between Memel and this country of late years?'—'Since the war, a great alteration; before the war we used to have 950 to 1,000 English ships in a year, and since the war we have had from 200 to 300 only.'

'When you talk of 900 ships, do you mean 900 ships trading between Great Britain and Memel?'—'Yes.'

'Do you mean that number of cargoes were loaded in the year for England?'—'Yes.'

'How many cargoes were loaded for Great Britain during the last year (1820)?'—'About 270 or 280 cargoes; there have not been more.'

'To what cause do you attribute that diminution in the trade?'—'*To the high duties in England*; for formerly the duties were only 16*s.* and some pence; now they are 3*l.* 5*s.* in a British, and 3*l.* 8*s.* in a foreign ship.'

'Has that diminished trade in timber produced a great alteration in the circumstances of the people of Prussia?'—'Yes: for it is the only trade which we can carry on; wheat and all the rest of our articles cannot be brought here: *timber* is the only one that can be brought, and the trade from Poland has very much ceased in consequence of the diminished demand for it; the people cannot sell their goods, and we cannot take such quantities of timber as we used to do; and, therefore, they cannot take English goods from us.'

'If such an alteration was to take place in the duties on timber in this country as to give the Prussians a larger share of the trade than they at present enjoy, do you think that would produce increased friendly feelings on the part of the people of your country to the people of this country?'—'It would. *They would certainly take far more goods from hence*, as they could get better rid of them. The Poles, also, would take more of them.' (*Report*, March 9, 1821, p. 107.)

The effect that the increased duties had on the trade with Norway and Sweden, aggravated as they in some degree were by the method of charging the duty on deals, was still more striking and extraordinary. These countries had few products, except timber and iron, to exchange for our commodities; and as neither of these could be advantageously imported into England under the new system, the trade with them almost entirely ceased; and they were reluctantly compelled to resort to the markets of France and Holland for the articles they had formerly imported from us. In proof of this, we may mention that the exports to Sweden, which amounted in 1814 to 511,818*l.*, declined in 1819 to 46,656*l.*, and even in 1842 were only 199,313*l.*; while the exports to Norway, which had, in 1815, amounted to 199,902*l.*, fell in 1819 to 64,741*l.*, and in 1842 had only increased to 134,704*l.*

This extraordinary falling off in so very important a branch of our commerce having been established beyond all question by evidence taken before the committees of Lords and Commons on the foreign trade of the country in 1820, an approach to a better system was made in 1821, when the duty on timber from the north of Europe was reduced from 3*l.* 5*s.* to 2*l.* 15*s.* per load, at the same time that a duty of 10*s.* per load was laid on timber from British America. This, however, was a comparatively inefficient measure. It was stated, to be sure, at the time, that the 2*l.* 5*s.* per load of excess of duty that was thus continued on Baltic timber over that laid on timber imported from Canada was not more than enough to balance the higher prime cost, the greater freight, and other charges consequent upon the importation of the latter; and that it would, therefore, be in future indifferent to a merchant whether he imported timber from Memel or Miramichi. In point of fact, however, the discriminating duty continued in favour of Canada timber was far too high to allow of this equalisation being effected. So much so was this the case, that there were instances of ships loading with timber in the north of Europe, carrying that timber to Canada, and then bringing it to England as Canada timber; the difference of duty having been about sufficient to indemnify the enormous expense of this round-about voyage. We do not mean to say that this was a common practice; but what are we to think of a commercial regulation that admitted of such an adventure being undertaken with any prospect of success? Admitting, however, that the duty had been adjusted so as to have had the anticipated effect, could anything be more preposterous and absurd than to impose it on such a principle? There are mines of coal in New Holland: but what should we think, were an attempt made to impose such duties on coals from Newcastle as should render it indifferent to a London dealer whether he imported a cargo of coal from the Tyne or Botany Bay? Now, the case of the timber duties was, in point of principle, precisely the same. We may obtain timber from

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countries so near at hand that our ships may make 3, 4, 5, and even 6 voyages a-year to them. According to the evidence of Mr. J. D. Powles, then secretary to the London Dock Company, ships can make *six* voyages from Norway, 3 or 4 from Prussia, and 2 from Russia, in a season. (*Commons' Report*, p. 89.) And we refused to admit it unless loaded with a duty that raised its price to a level with what was brought from the other side of the Atlantic—a voyage which our ships cannot, at most, perform above twice a-year.

3. *Comparative Quality of Baltic and Canada Timber.*—Had the timber of Canada been, at the period we speak of, decidedly superior to that of the north of Europe, something might have been found to say in favour of the discriminating duty; for it might have been contended, with some show of reason, that it was of the utmost consequence, considering the application of timber to ship and house building, and other important purposes, to prevent the importation of an inferior species, even though it might be cheaper. But the system we adopted was of a totally different character. We did not attempt to shut out an article which, though cheap, was inferior; but committed the twofold absurdity of shutting out one that was at once cheap and at that time really, or supposed to be, superior.

The committee of the House of Lords observe, in their *First Report on the Foreign Trade of the Country*, that 'the North American timber is more soft, less durable, and every description of it more liable, though in different degrees, to the dry rot, than timber of the north of Europe. The red pine, however, which bears a small proportion to the other descriptions of timber, and the greater part of which, though imported from Canada, *is the produce of the United States*, is distinguished from the white pine by its greater durability. On the whole, it is stated by one of the commissioners of his Majesty's navy, most distinguished for practical knowledge, experience, and skill, that the timber of Canada, both oak and fir, *does not possess, for the purpose of ship-building, more than half the durability of wood of the same description the produce of the north of Europe.* The result of its application to other purposes of building is described by timber merchants and carpenters to be nearly similar' (p. 4).

Important evidence was given in support of this view; but though such was the opinion of the best informed parties at the time, and though its correctness is in some respects not to be doubted, still there can be no question that the inferiority of British North American timber was set in too strong a light in the evidence referred to, and that it is, in fact, better fitted for several important purposes than Baltic timber. Not only is the red American pine of a very superior quality, but the pine and spruce planks of New Brunswick and Nova Scotia, especially the latter, are universally preferred, for the purposes to which they are applied, to all other varieties of timber; and notwithstanding the reduction of the discriminating duty, and eventual abolition of all duties on timber, their importation, as will be seen, has increased beyond all precedent. These circumstances were not, however, known to the parties who introduced the discriminating system, which was at the time, and for long after, most injurious to the best interests of the United Kingdom.

4. *Apologies for the Discriminating Duty.*—If anything ought, more than another, to make legislators pause before enacting a restrictive regulation, it is the difficulty of receding from it. After it has been enforced for a while, a variety of interests usually grow up under its protection, which may be materially injured by its repeal. All, however, that the persons so interested can justly claim, is, that sufficient time, and every possible facility, should be afforded them to prepare for a change of system. Because the interests of a comparatively small portion of the community may be injuriously affected by the abolition of a regulation ascertained to be inimical to the public, is it, therefore, to be contended that we should, at all hazards, continue to enforce the regulation we have so unwisely enacted? To maintain the affirmative would be to give perpetuity to the worst errors and absurdities, and would be an effectual bar to every sort of improvement. No change, even from a bad to a good system, should be rashly set about; but when once the expediency of an alteration has been clearly established, it ought to be resolutely carried into effect.

It was objected to the abolition of the discriminating duties on timber, that it would be injurious to Canada and the shipping interest. We believe, however, that the injury was not nearly so great as has been represented; that it was, in fact, quite inconsiderable. So far from the *lumber trade*—or the trade of felling wood, squaring it, and floating it down the rivers to the shipping ports—being advantageous to a colony, it is distinctly and completely the reverse. The habits which it generates are quite subversive of that sober, steady spirit of industry so essential to a settler in a rude country: to such a great degree, indeed, is this the case, that lumberers have been described as the pests of a colony, 'made and kept vicious by the very trade by which they live.' But, abstracting altogether from the circumstances now alluded to, it has been shown, over and over again, that the abolition of the lumber trade would materially benefit the real interests of the colonies. It is ludicrous, indeed, seeing that not one tree in a hundred is fit for the purposes of being squared for timber, to suppose that the discontinuance of the trade could be any serious loss. But the fact is, that when trees are cut down by lumberers, for export as timber, instead of being burnt down, so great a growth of brushwood takes place, that it actually costs more to clear the ground where the lumberers have been than where they have not been. Mr. Richards, who was sent out by Government to report on the influence of the lumber trade, represented it as most unfavourable; and observed that, 'when time or chance shall induce or compel the inhabitants to desist from this employment, agriculture will begin to raise its head.' The statements of Captain Moorsom, in his *Letters from Nova Scotia*, are exactly similar. He considered the depression of the timber market, although a severe loss to many individuals, a 'decided gain to the colony,' from the check it has given to the 'lumbering mania' (p. 53).

The statements that were made as to the amount of capital expended on saw mills, and other fixed works for carrying on the lumber trade, had been singularly exaggerated, and Mr. P. Thomson (afterwards Lord Sydenham), who had the best means of acquiring accurate information on this point, stated, in his speech on March 18, 1831, that if 500,000*l.* were taken as the amount, it would be a great deal above rather than under the real value.

The fact is, that in so far as the interests of the colonies are concerned, it is plain they did not really lose by the repeal of the differential duties on foreign timber. For the quality of their timber having been well ascertained, and the prejudice with which it had formerly to contend having subsided, it was found quite able successfully to maintain its ground, under a free system, with the timber of the Baltic or of anywhere else.

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Had the imports of timber from British North America fallen off to the extent that was once anticipated, from the reduction or repeal of the discriminating duty, it would, no doubt, have affected the shipping interest. But it could not, under any circumstances, have done this to any very great extent. And it is material, too, to observe that whatever temporary inconvenience the shipping interest might have sustained from the change, its future consequences would have been singularly advantageous to it. The high price of timber employed in the building of ships was then the heaviest drawback on the British shipowners; but the equalisation, and still more the abolition, of the duties, have reduced and will keep down this price; and, will, consequently, be in so far advantageous to our shipowners.

Changes proposed or effected in the Timber Duties from 1831 *to* 1866 *inclusive.*—Considering the vicious principle on which the duties on timber were imposed, and their pernicious influence, the tenacity with which they were long supported, and the little opposition made to them, may well excite surprise. In 1831 Lord Althorp moved that the duties on foreign timber should be reduced 6*s.* per load on January 1, 1832; 6*s.* more on January 1, 1833; and 3*s.* on January 1, 1834; making the whole reduction 15*s.* per load, and leaving a protection in favour of Canada timber of 30*s.* per load. The only real objection to this proposal was, that it did not go far enough—that it 'scotched the snake without killing it.' But, moderate as it was, it was rejected by a large majority, and the project fell to the ground.

In 1835 a committee of the House of Commons appointed to enquire into the operation of the duties on timber recommended a reduction not exceeding 15*s.* of the protective duty of 45*s.* levied on European timber.

But no step was taken to give effect to these resolutions of the committee, so that the trade continued on its old footing down to 1842.

The differential duty of 45*s.* per load in favour of Canada timber was, however, reduced by the Tariff Act of the above year, from October 10, 1843, to 24*s.* per load on timber properly so called, and to 30*s.* on deals. But, though this was a signal improvement on the previous system, it left much to be desired. It was brought about by reducing the previous duties on foreign timber from 55*s.* to 25*s.* and 32*s.* per load, and the previous duty on British colonial timber from 10*s.* to 1*s.* and 2*s.* per load. While, however, everyone must admit that the reduction of the duty on foreign timber was most proper, it is not easy to see why any reduction should have been made in the duty on Canadian timber. Had it been allowed to remain as it was, or at 10*s.* per load, the discriminating duty in favour of colonial timber would have amounted to 15*s.* and 22*s.* per load, which certainly was a great deal too much, at the same time that there would have been comparatively little loss of revenue. The precedent thus set was, however, further followed up in 1847, when the discriminating duty was reduced to 14*s.* And it was further followed up by the Act of 1851, the 14 & 15 Vict. c. 62, which imposed a duty of 7*s.* 6*d.* per load on squared timber, and of 10*s.* per do. on deals and battens brought from foreign countries. Again in 1860 the duties were reduced to 1*s.* and 2*s.* per load, and in March 1866 the duties were abolished, and importation became free. In the last edition we added, 'if the duty is to be maintained, this (7*s.* 6*d.* per load) is as low as it should be, or, perhaps, lower. But there can be no reason why it should not, and there are many why it should be extended to

Estimate, from the very valuable Circular of Messrs. Churchill and Sim, of the London Importation and Consumption of Wood, 1863 to 1868.

	Of Sawn Wood, or Deals, Battens, Boards, and Ends, in pieces						Of Hewn Timber, Spars, Railway Sleepers &c., in loads						Of Oak Staves, in loads					
	1863	1864	1865	1866	1867	1868	1863	1864	1865	1866	1867	1868	1863	1864	1865	1866	1867	1868
Norway		1,989,000	1,691,000	1,990,000	1,833,000	1,916,000	10,500	15,000	18,700	18,500	15,600	11,900	..	..	..	..	..	..
Sweden Floating Boards		2,600,000	800,000	1,092,000	2,940,000	4,126,000	..	..	..	..	..	..	..	..	..	..	..	..
Sweden		4,188,000	4,188,000	3,611,000	3,613,000	5,473,000	41,000	51,000	79,000	64,100	23,500	21,500	..	..	..	..	..	..
Finland		2,600,000	2,711,000	2,711,000	2,711,000	2,711,000	4,200	1,100	1,100	700	700	1,000	..	..	..	..	..	..
Russia		1,300,000	1,807,000	1,792,000	1,130,000	1,215,000	32,000	50,000	50,000	61,000	43,000	34,000	..	..	..	..	..	..
Prussia and Germany		26,000	39,000	46,000	60,000	60,000	105,000	96,000	134,000	99,000	52,000	60,500	12,000	23,000	23,700	26,000	9,600	14,400
United States		3,000	13,000	14,000	14,000	14,000	..	2,100	500	3,500	4,000	4,500	3,100	2,000	1,500	2,500	2,400	1,500
Total Foreign Importation		7,125,000	7,329,000	10,620,000	12,003,000	12,000,000	191,100	207,000	286,200	247,800	142,100	137,400	16,600	25,800	24,400	28,500	12,000	15,700
Estimated Consumption		6,258,000	7,503,000	9,108,000	9,918,000	11,640,000	211,100	199,000	269,000	261,100	182,500	111,500	..	..	..	..	..	..
Canada		1,970,000	2,711,000	2,693,000	1,013,000	2,357,000	36,900	41,000	12,600	13,800	10,900	18,500	4,700	2,000	2,300	3,700	1,700	2,600
New Brunswick and Nova Scotia		963,000	1,400,000	997,000	677,000	1,997,000	2,100	3,500	1,500	1,400	1,400	2,100	..	..	..	..	..	..
Africa, East and West Indies &c.		..	..	..	..	..	21,000	14,100	37,500	21,900	4,700	6,500	..	..	..	..	..	..
Total Colonial Importation		2,933,000	4,231,000	3,690,000	1,690,000	3,404,000	59,500	58,600	51,100	39,000	16,600	27,100	..	..	..	..	..	..
Estimated Consumption		3,192,000	3,272,000	3,611,000	3,675,000	3,719,000	52,800	60,500	42,300	42,100	41,500	40,400	..	..	..	..	..	..
Total Importation		9,681,000	11,560,000	14,310,000	13,693,000	15,444,000	251,000	269,000	337,300	286,800	158,700	167,100	30,700	28,700	26,700	32,000	13,700	18,300
Total Consumption		9,450,000	10,775,000	12,719,000	12,991,000	15,359,000	264,000	259,500	316,500	303,500	223,500	151,900	..	..	..	..	..	..

Account, showing the Quantities and Values of the various sorts of Wood and Timber Imported into the United Kingdom in 1865, 1866, *and* 1867.

		Quantities			Values		
		1865	1866	1867	1865	1866	1867
					£	£	£
Wood and timber:—							
Not sawn or split, including teak	loads	1,685,883	1,486,093	1,225,686	5,570,304	4,513,372	3,546,818
Sawn or split deals, battens &c.	,,	2,150,495	2,188,075	2,177,749	6,569,931	6,287,423	5,904,066
Staves	,,	67,611	81,790	62,625	649,610	930,858	606,157
Firewood	,,	180,673	134,949	154,972	171,644	117,832	123,949
Hoops	,,	8,159	10,795	12,994	56,439	68,293	77,964
Lathwood	,,	104,992	81,091	68,949	206,048	141,984	119,844
Of certain kinds used for shipbuilding; viz., greenheart, red and blue gum &c.	,,	12,509	4,932	4,039	83,337	28,663	29,548
Dyewoods: Barwood	tons	2,517	4,182	1,228	7,649	13,694	4,038
Brazilwood	,,	2,741	1,201	576	31,250	36,030	15,798
Fustic	,,	11,160	5,053	9,414	69,057	34,316	69,768
Logwood	,,	20,847	35,960	28,550	125,789	170,705	127,425
Nicaragua	,,	342	12	411	4,601	166	6,769
Hardwoods: Boxwood	,,	6,109	4,166	2,730	45,067	28,601	17,791
Cedar	,,	3,805	5,047	4,665	45,679	59,224	46,600
Mahogany	,,	51,376	53,154	52,737	507,224	527,954	480,358
Rosewood	,,	1,068	780	558	15,016	7,457	5,805
Walnut wood	,,	5,689	5,066	3,388	48,957	43,508	28,441

Table, showing the Import of Timber and Wood into Liverpool, including Birkenhead, and the Quantities delivered for Consumption, during each of the 4 *Years ending February* 1, 1869, *from Messrs. Duncan, Ewing & Co.'s Circular of February* 1, 1869.

Produce		Imports to February 1 in each Year				Consumption to February 1 in each year			
		1866	1867	1868	1869	1866	1867	1868	1869
British North America.									
Pine, Quebec yellow	cubic feet	1,991,000	4,235,000	4,467,000	3,796,000	5,631,000	4,592,000	4,313,000	4,093,000
St. John's	,,	475,000	521,000	288,000	270,000	487,000	450,000	373,000	274,000
Other Ports	,,	120,000	121,000	55,000	23,000	84,000	136,000	78,000	29,000
Total, yellow pine of all sorts	,,	2,581,000	4,877,000	4,810,000	4,089,000	6,202,000	5,178,000	4,764,000	4,396,000
red ,,	,,	812,000	347,000	461,000	200,000	853,000	517,000	436,000	276,000
Quebec oak	,,	963,000	732,000	480,000	699,000	851,000	635,000	749,000	648,000
elm	,,	115,000	231,000	153,000	98,000	305,000	188,000	178,000	121,000
ash	,,	14,000	15,000	30,000	23,000	46,000	18,000	23,000	30,000
Birch	,,	339,000	516,000	341,000	352,000	412,000	514,000	357,000	375,000
Quebec deals, St. Petersburg	standards	11,687	11,776	15,894	13,252	11,731	12,413	12,990	13,626
St. John's &c., spruce and pine deals	,,	57,184	65,744	63,697	61,901	67,181	65,329	63,191	60,089
Lathwood	fathoms	815	711	590	618	859	724	591	504
Quebec staves	pipe mille	338	345	311	190	329	285	230	195
Ditto	puncheon ,,	926	928	858	794	1,339	928	703	727
Europe.									
Timber, Dantzic, Memel &c.	cubic feet	814,000	947,000	785,000	662,000	631,000	842,000	884,000	756,000
Deals, battens, and ends	standards	3,749	3,801	4,535	7,952	3,010	3,167	4,542	5,777
Wainscot logs	,,	1,603	694	3,214	2,212	1,081	731	2,974	1,355
Lathwood	fathoms	436	384	697	569	357	330	624	525
Staves, Dantzic and Memel	mille	19	105	22	28	14	81	40	24
Bosnian	,,	840	994	728	571	916	847	740	484
Other Countries.									
Mahogany, St. Domingo	logs	6,641	10,136	12,281	3,961	6,369	9,497	10,211	7,018
Cuba	,,	3,595	6,520	8,565	2,638	3,616	4,201	7,459	4,687
Honduras	,,	3,114	5,591	5,272	3,103	3,201	5,516	4,993	3,489
Mexican	,,	11,765	7,092	8,470	7,702	10,453	8,274	8,233	6,904
Cedar, Havannah	,,	2,056	3,613	3,093	2,025	1,827	2,669	3,724	2,555
pencil	cubic feet	16,000	31,000	6,000	3,000	9,500	23,500	15,000	13,000
Pitch pine: logs and planks	,,	19,000	1,010,000	1,221,000	1,677,000	63,000	758,000	1,157,000	1,546,000
Greenheart and mora	,,	147,000	95,000	32,000	191,000	175,000	120,000	81,000	157,000
Teakwood, African	,,	56,000	..	..	..	17,000	11,000	10,000	2,000
East India	,,	318,000	401,000	1,000	219,000	279,000	274,000	205,000	194,000
United States staves	mille	944	1,121	1,328	912	1,179	1,256	1,111	1,096

colonial timber. Probably, indeed, it may be supposed that it had better be repealed. But we beg to dissent from this opinion; though it might be as well, perhaps, to allow ships to be built in bond. But except on them, the duty, supposing it were extended to colonial timber, is too limited to have any sensible, or, at all events, any prejudicial effect.'

The review of the Liverpool timber trade of 1868, in Mr. Edward Chaloner's annual circular, states 'that the total tonnage employed in the importation of wood to that port had been 377,834 tons in 1868, against 390,278 in 1867. But notwithstanding this falling off, the prospects of the trade were more favourable on February 1, 1869, than on February 1, 1868.

TIN (Ger. blech, weissblech; Fr. fer blanc; Ital. latta, banda stagnata; Span. hoja de lata; Russ. blächa, shest; Arab. resas; Sansc. trapu and ranga). A metal which has a fine white colour like silver; and when fresh, its brilliancy is very great. It has a slightly disagreeable taste, and emits a peculiar smell when rubbed. Its hardness is between that of gold and lead. Its specific gravity is 7·29. It is very malleable: *tinfoil*, or tin leaf, is about $\frac{1}{1000}$ of an inch thick; and it might be beaten out into leaves as thin again, if such were required for the purposes of art. In ductility and tenacity it is very inferior. A tin wire 0·078 inch in diameter is capable of supporting a weight of 34·7 lb. only without breaking. Tin is very flexible, and produces a crackling noise when bent. It may be readily alloyed with copper, zinc &c., forming very valuable compounds. (Thomson's *Chemistry*; *Ure's Dictionary*, by Hunt.)

The ores of this metal are found in comparatively few places; the principal, and perhaps the only, ones are Cornwall, Galicia, Erzgebirge in Saxony, Bohemia, the Malay countries, China, and Banca in Asia. They are peculiar to primitive rocks, generally in granite, either in veins or beds, and are often associated with copper and iron pyrites.

Tin is much used as a covering to several other metals: iron is tinned, to prevent its rapid oxidation when exposed to air and moisture; and the same process is applied to copper, to avoid the injurious effects to which those who are in the habit of employing cooking utensils made of this

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metal are always liable. The solutions of tin in the nitric, muriatic, nitro-sulphuric, and tartaric acids, are much used in dyeing, as giving a degree of permanency and brilliance to several colours, to be obtained by the use of no other mordants with which we are at present acquainted: tin forms the basis of pewter, in the composition of which it is alloyed with lead; when rolled into thin sheets, it is called tin-foil, and is applied, with the addition of mercury, to cover the surface of glass, thus forming looking-glasses, mirrors &c.; and in combination with sulphur, it constitutes what is called mosaic gold. (Joyce's *Chem. Min.*)

Tin Plates, known in Scotland by the name of *white iron*, are applicable to a great variety of purposes. They are formed of thin plates of iron dipped into molten tin. The tin not only covers the surface of the iron, but penetrates it completely, and gives the whole a white colour. It is usual to add about $\frac{1}{10}$ of copper to the tin, to prevent it from forming too thick a coat upon the iron.

The demand for tin plates, which has always been considerable, has latterly increased with extraordinary rapidity. The exports in 1867 amounted to 1,579,692 cwt., valued at 2,063,260*l*., of which no less than 1,390,064*l*. worth went to the United States. In 1866 the value of the exports amounted to 1,896,192*l*. During 1867, 84,209 cwt. of British, and 26,576 cwt. of foreign and colonial tin were exported from this country, in addition to the unwrought tin plates and tin and tinned wares.

Historical Notices of the British Tin Trade.—The tin mines of Cornwall have been worked from a very remote era. The voyages of the Phœnicians to the Cassiterides, or tin islands, are mentioned by Herodotus (lib. iii. c. 115), Diodorus Siculus (lib. iv. p. 301, ed. 1604), and Strabo (*Geog.* lib. iii.). Some difference of opinion has, indeed, been entertained as to the particular islands to which the Phœnicians applied the term Cassiterides; but Borlase (*Account of the Scilly Islands*, p. 72), Larcher (*Herodote*, tome iii. p. 384, ed. 1802), and the ablest critics, agree that they are the Scilly Islands and the western extremity of Cornwall. After the destruction of Carthage, the British tin trade, which was always reckoned of peculiar importance, was carried on by the merchants of Marseilles, and subsequently by the Romans. Besides Britain, Spain furnished the ancients with considerable quantities of tin. We have no very precise information as to the purposes to which they applied this metal. It has been supposed that the Phœnicians, so famous for their purple dyes, were acquainted with the use of the solution of tin in nitro-muriatic acid in fixing that colour. The best of the ancient mirrors, or *specula*, were also made of a mixture of copper and tin: and tin was used in the coating of copper vessels. (Watson's *Chemical Essays*, vol. iv.)

In modern times, the tin mines of Cornwall and Devon have been wrought with various degrees of energy and success. Queen Elizabeth brought over some German miners, by whom some of the processes were improved. During the civil wars, the mines were much neglected. At the commencement of last century, however, the business of mining was carried on with renewed vigour; and from 1720 to 1740 the annual produce was about 2,100 tons. The produce went on gradually increasing, till it amounted, in the 10 years from 1790 to 1800, to 3,254 tons a-year. During the next 15 years the produce fell off; and for the 5 years ending with 1815, it was always considerably under 3,000 tons a-year. But in the last-mentioned year a considerable increase took place: and since 1816, the produce has been, with the exception of 1820, always above 3,000 tons a-year. And latterly it has so increased, that on the average of the 3 years ending with 1867, the annual produce of the mines has been 12,991 tons of tin ore, and 8,385 tons of metallic tin, of the value of 1,441,798*l*.

The price of British tin was 92*l*. per ton in 1800 and at an average, from 1811 to 1815 inclusive, was about 140*l*. per ton. Its fall from 1815 to 1820, and its comparatively low price for several years thereafter, were owing to a variety of causes: partly to improvements in the art of working the mines, partly to the increased supply of metal obtained from them, and partly and principally to the competition of the tin of Banca and of the Malay countries. Previously to 1814, we had in some measure a monopoly of the market of the world. But since then the Banca mines have been wrought with unusual spirit; and their produce has been so much increased, as not only fully to supply the market of China, to which we formerly exported from 600 to 1,000 tons, but to meet us in every European market. Malay tin is now very extensively imported, for warehousing, into England, at the same time that large quantities are carried direct to Holland, where there are refining houses. But, notwithstanding these circumstances, both our exports of tin and its price have increased considerably of late years.

Duty on British Tin.—All tin produced in Cornwall was subject, from a very remote period down to 1837, to a coinage duty of 4*l*. per ton, payable to the Duke of Cornwall: the tin raised in Devonshire was subject to a similar duty of 1*l*. 13*s*. 4*d*. per ton. This duty produced from 16,000*l*. to 20,000*l*. a-year; and was felt to be a serious grievance, not only from its amount, but from the vexatious regulations under which it was collected. Luckily, however, the duty on tin, and all regulations with respect to its coinage, were abolished by 1 & 2 Vict. c. 120. Compensation was made to the duchy of Cornwall for the loss arising from this abolition, by settling on its possessors a perpetual annuity equal to the nett average amount of the duties during the 10 years ending with 1837.

Tin, Oriental (Malay, tima; Hin. kalai; Siamese, dibuk; Burmese, kye-p'kyu, white copper). In commercial language usually called Banca tin. It is found in several provinces of China; but the most extensive and, probably, richest tin district in the world exists in the Malay countries. This comprehends the whole of the peninsula, from the extreme cape to the latitude of 14° on its western side, and to 11° on its eastern, and comprehends several of the small islands lying in the route between the peninsula and Java, as far as the latitude of 3° south; so that the whole of this tin district has an extreme length of near 1,200 miles. By far the greater number of the mines within these limits are as yet unwrought and unexplored. It was only in the beginning of last century that the mines of Banca, the most productive at present worked, were accidentally discovered. The whole tin of the Malay countries is the produce of alluvial ores, or what is called, in Cornwall, 'Stream-work;' and from the abundance in which the mineral has been found by the mere washing of the soil, no attempt has hitherto been made at regular mining, or obtaining the ore from its rocky matrix. Malay tin, consequently, is grain tin, or tin in a very pure state; that being the species which alluvial ore uniformly produces.

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The mines, or rather excavations, are perpendicular pits of from 15 to 25 feet deep; and when the soil and a superstratum of common clay are removed, the bed containing the ore, consisting of quartz and granitic gravel, is reached. The sand and gravel are separated from the ore by passing a stream of water through the whole materials. The ore so obtained is preserved in heaps, and smelted periodically with charcoal in a blast furnace. The mine or pit is kept clear of water by the Chinese wheel. No cattle are used in any part of the process, human labour being had recourse to throughout the whole of its stages. The most imperfect part of the process is the smelting. The stream ores of Cornwall, which are generally poor, afford from 65 to 75 per cent. of grain tin; whereas, owing to the imperfection of the process, from those of Banca not more than 55 or 60 are usually obtained.

With very trifling exceptions, the whole tin of the Malay islands is mined and smelted by Chinese settlers; and before their skill and enterprise were applied to its production, the metal seems to have been obtained by the inhabitants of the countries which produced it, by processes hardly more skilful than those by which the precious metals were procured by the native inhabitants of America, prior to the introduction of European skill and machinery. The following estimate has been given of the annual produce of the principal states and places producing tin:—

	piculs
East coast of the Malay peninsula—	
Junk Ceylon	5,000
Queda	2,000
Pera	3,000
Salangore	3,000
Malacca	4,000
Total	17,000
West coast of the Malay peninsula and islands—	
Sungora and Patani	3,000
Tringanu	7,000
Pahang	3,000
Singkep	5,000
Banca	75,000
Total	93,000

This can be considered only as a rough estimate; but we believe it is not far wide of the truth. The most considerable port of exportation is Batavia; from which there is sent annually, either directly or through orders from the Dutch Government or the authorities at Banca, between 4,000 and 5,000 tons. In Hunt's mineral statistics, the production of the Scotch Banca mines is stated at 4,182 tons in 1865, 4,807 tons in 1866, and 4,260 tons in 1867, and the *Economist* of January 2, 1869, quoting the official returns of the Dutch Trading Company, stated the total stock of Banca tin in Holland in December 1868 to have been 142,014 slabs. From Prince of Wales Island there is also a considerable quantity exported; and a smaller one direct to China in junks, from several of the native ports on the eastern shore of the Malay peninsula. The great marts for the consumption of tin are China, Hindostan, and the continent of Europe. The quality of the different descriptions of Malay tin, although there may be some inconsiderable difference in the quality of the original ores, seems to be derived chiefly from the greater or less skill with which the process of smelting is conducted; and this, again, necessarily depends upon the extent of capital and goodness of the machinery employed. The mining operations of Banca have long been conducted upon a larger scale, and with more skill, than in any other of the Malay countries; and, consequently, the metal produced in this island is superior by from 10 to 12 per cent.: in the market of Canton it is called 'old tin,' in contradistinction to 'new tin,' the produce of the other Malay countries. Next, in point of quality, to the produce of Banca, are those of Tringanu and Singkep, which are not more than 5 per cent. inferior to it. The tin of the state of Pera, a considerable part of which is produced by the natives themselves, without Chinese assistance, is the worst, and usually about 15 per cent. below that of Banca. The native tin of China is 10 per cent. inferior to that of Banca, and is probably block tin, like the greater part of that of Cornwall; and, like it, the produce of regular mining operations, and not alluvial. The produce of the Chinese mines is said of late years to have greatly decreased; probably owing to the great increase which has recently taken place in the produce of the Malay countries, and the cheapness and abundance with which it finds its way to China. It should be added, that of late years, and chiefly owing to the very low price and abundance of German spelter (zinc) in the Indian market, this commodity has occasionally been fraudulently mixed with tin. The Chinese brokers of Canton, however, are sufficiently expert to detect the adulteration; and it is believed that this discreditable practice has lately ceased.

The price of tin, taking the Dutch market as the standard, has fluctuated in the 10 years from 1857 to 1867 from 141*s.* to 81*s.*, 95*s.* being the price in September 7, 1867. (Hunt's *Mineral Statistics* for 1867; Crawfurd's *History of the Indian Archipelago*; Dr. Horsfield's *MS. Statistical View of the Island of Banca*; *Singapore Chronicle*; *Canton Register*; &c.)

TOBACCO (Dan. tobak; Dutch, tabak; Ger. tabak; Ital. tabacco; Pol. tobaka; Russ. tabak; Span. tabaco; Arab. bujjerbhang; Hind. tumbākū; Malay, tambrīcoo). The dried leaves of the *Nicotiana Tabacum*, a plant indigenous to America, but which succeeds very well, and is extensively cultivated, in most parts of the Old World. The recent leaves possess very little odour or taste; but when dried, their odour is strong, narcotic, and somewhat fœtid; their taste bitter and extremely acrid. When well cured, they are of a yellowish green colour. When distilled, they yield an essential oil, on which their virtue depends, and which is said to be a virulent poison. The leaves are used in various ways; being chewed, smoked, and ground and manufactured into snuff. It is in the last mentioned form that tobacco was for many years principally used in Great Britain; but now almost the whole consumption is effected by smoking. Though the contrary has been often asserted, the use of tobacco does not seem to be productive of any perceptible bad consequence.

1. *Historical Sketch of Tobacco.*—The taste for tobacco, though apparently administering only to a frivolous gratification, has given birth to a most extensive commerce, and been a powerful spur to industry. Being a native of the New World, its introduction into Europe dates only from the early part of the sixteenth century. Seeds of the plant were sent, in 1560, from Portugal, to Catherine de' Medici, by Jean Nicot, the French ambassador in that country, from whom it has received its botanical name. The notion, at one time so general, that the specific appellation tobacco was derived from its having been imported from Tobago, is now universally admitted to be without foundation. Humboldt has shown that tobacco was the term used in the Haytian language to designate the pipe, or instrument made use of by the natives in smoking the herb; and the term, having been transferred by the Spaniards from the pipe to the herb itself, has been adopted by the other nations of the

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ancient world. (*Essai politique sur la Nouvelle-Espagne*, vol. iii. p. 50, 2nd edit.) Tobacco is believed to have been first introduced into England by the settlers who returned, in 1586, from the colony which it had been attempted to found in Virginia, under the auspices of Sir Walter Raleigh, in the preceding year. Harriott, who accompanied this expedition, gives, in his description of Virginia, an account of the tobacco plant, and of the manner in which it was used by the natives; adding, that the English, during the time they were in Virginia, and since their return home, were accustomed to smoke it after the fashion of the Indians, 'and found many rare and wonderful experiments of the virtue thereof.' (Hakluyt, vol. i. p. 75.)

Raleigh, and other young men of fashion, having adopted the practice of smoking, it spread amongst the English; as it had previously spread amongst the Spaniards, Portuguese, French, and other Continental nations. But it made its greatest progress in this country after the foundation of the colony at James Town in Virginia, in 1607. The soil of the colony being found particularly well fitted for the culture of tobacco, considerable quantities were raised and sent home; and the numerous individuals interested in the colony contributed to introduce that taste for it which was diffused amongst all classes with astonishing rapidity.

James I. attempted, by repeated proclamations and publications, some of them couched in very strong terms, to restrain the use of tobacco. But his efforts had very little effect; and the settlers in Virginia continued to experience a more rapidly increasing and better demand for tobacco than for any other product of the colony.

During the earlier part of the reign of Charles I., the trade in tobacco was monopolised by the Crown. This monopoly was not, however, of long continuance, and totally ceased at the breaking out of the civil war.

Tobacco plants had been early introduced into England, and were found to answer remarkably well. Their cultivation was, indeed, prohibited by James, and afterwards by Charles, but apparently without effect. At length, however, the growing consumption of tobacco having excited the attention of the government financiers, it was seen that, by imposing a duty on its importation, a considerable revenue might be raised; but that, were it allowed to be freely cultivated at home, it would be very difficult to collect a duty upon it. In 1643, the Lords and Commons imposed a moderate duty, for the sake of revenue, on plantation tobacco; but instead of directly prohibiting the use of native tobacco, they burdened it with such a duty as, it was supposed, would occasion its culture to be abandoned. The facility, however, with which the duty was evaded, soon satisfied the republican leaders that more vigorous measures were required to stop its cultivation, and consequently to render its importation a source of revenue. Hence, in 1652, an Act was passed, prohibiting the growth of tobacco in England, and appointing commissioners to see its provisions carried into effect. This Act was confirmed at the Restoration, by the Act Charles II. c. 34, which ordered that all tobacco plantations should be destroyed. These measures were believed, at the time, to have been principally brought about by the solicitations of the planters; but their real intention was not so much to conciliate or benefit the latter, as to facilitate the collection of a revenue from tobacco; and, considered in this point of view, their policy seems quite unexceptionable.

This Act did not, however, extend to Ireland; and, previous to 1830, the cultivation of tobacco made considerable progress in the country. Had this been allowed to continue, there can be no question that, in a few years, the revenue from tobacco, amounting to about 4,500,000*l.* a year, would have been most materially diminished; for it would be quite visionary to suppose that any plan could have been devised for collecting a duty even of 100 per cent. upon tobacco—(see *post*)—supposing it to have been generally cultivated in Ireland. No one, therefore, can question the wisdom of the Act 1 & 2 Wm. IV. c. 13, prohibiting its growth in that country, and the rigorous enforcement of its provisions. Any advantage Ireland might have gained by its cultivation would have been but a poor compensation for the sacrifice of revenue it must have occasioned.

In some countries, as England, tobacco was, down to a comparatively late period, much used in the form of snuff; in others it is principally chewed; but, in one form or other, it is everywhere made use of. So early as 1624, Pope Urban VIII. issued a bull, excommunicating those who smoked in churches! The practice of smoking was at one time exceedingly prevalent in this country; but during the reign of George III. it was well nigh superseded, at least amongst the higher and middle classes, by the practice of snuff-taking. Latterly, however, smoking has been extensively revived, and is much more generally practised than formerly, while snuffing is no longer in fashion.

We quote the following statement as to the universality of the use of tobacco from a learned paper on its 'Introduction and Use,' in the 22nd volume (p. 142) of the *Asiatic Journal*: 'In Spain, France, and Germany, in Holland, Sweden, Denmark, and Russia, the practice of smoking tobacco prevails amongst the rich and poor, the learned and the gay. In the United States of America, smoking is often carried to an excess. It is not uncommon for boys to have a pipe or cigar in the mouth during the greatest part of the day. The death of a child is not unfrequently recorded in American newspapers, with the following remark subjoined:—"supposed to be occasioned by excessive smoking." If we pass to the East we shall find the practice almost universal. In Turkey, the pipe is perpetually in the mouth; and the most solemn conferences are generally concluded with a friendly pipe, employed like the *calumet of peace* amongst the Indians. In the East Indies, not merely all classes, but both sexes, inhale the fragrant steam; the only distinction among them consisting in the shape of the instrument employed, and the species of the herb smoked. In China, the habit equally prevails; and a modern traveller in that country (Barrow) states, that every Chinese female, from the age of 8 or 9 years, wears, as an appendage to her dress, a small silken purse or pocket to hold tobacco, and a pipe, with the use of which many of them are not unacquainted at this tender age. This prevalence of the practice, at an early period, amongst the Chinese, is appealed to by M. Pallas as an evidence that "in Asia, and especially in China, the use of tobacco for smoking is more ancient than the discovery of the New World." He adds—"Among the Chinese, and amongst the Mongol tribes who had the most intercourse with them, the custom of smoking is so general, so frequent, and has become so indispensable a luxury; the tobacco purse affixed to their belt so necessary an article of dress; the form of the pipes, from which the Dutch seem to have taken the model of theirs, so original; and, lastly, the.

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preparation of the yellow leaves, which are merely rubbed to pieces and then put into the pipe, so peculiar; that they could not possibly derive all this from America by way of Europe; especially as India, where the practice of smoking is not so general, intervenes between Persia and China."

This, however, is a very doubtful proposition. It seems sufficiently established that the tobacco plant was first brought from Brazil to India about the year 1617; and it is most probable that it was thence carried to Siam, China, and other eastern countries. The names given to it in all the languages of the East are obviously of European, or rather American, origin; a fact which seems completely to negative the idea of its being indigenous to the East.

Sources of Supply. Importation into Great Britain.—Tobacco is now very extensively cultivated in France, the Zollverein States, Austria, and other European countries, in the Levant, and in India; but the tobacco of the United States and Cuba is still very generally admitted to be decidedly superior to most others. It is much higher flavoured than the tobacco of Europe; a superiority attributable in some degree, perhaps, to a different mode of treatment; but far more, it is believed, to differences of soil and climate. In the circular of Messrs. Parry and Crosbie, of Liverpool, dated January 4, 1869, the high character of American strips is especially noted.

Previously to the American war, our supplies of tobacco were almost entirely derived from Virginia and Maryland; and they are still principally imported from these states: of 57,586,287 lb. of unmanufactured tobacco imported in 1867, no fewer than 87,547,166 lbs. came from the United States. Mr. Jefferson, in his *Notes on Virginia*, has given a very unfavourable view of the effects of the tobacco culture. It was, indeed, well known to be a crop that speedily exhausted all but the very best lands; and in addition to this, Mr. J. says that 'it is a culture productive of infinite wretchedness. Those employed in it are in a continued state of exertion, beyond the powers of nature to support. Little food of any kind is raised by them; so that the men and animals on these farms are badly fed, and the earth is rapidly impoverished.' (English ed. p. 278.)

Tobacco is extensively cultivated in Mexico, but only for home consumption. It might probably, however, were it not for the restrictions under which it is placed, form a considerable article of export from that country. Under the Spanish Government, the tobacco monopoly was one of the principal sources of revenue; yielding from 4,000,000 to 4,500,000 dollars, exclusive of the expenses of administration, amounting to about 800,000 dollars. No tobacco was allowed to be cultivated, except in a few specified places. Commissioners, or *guardas de tabaco*, were appointed, whose duty it was to take care that all tobacco plantations without the privileged districts should be destroyed. The Government fixed the price at which the cultivators of tobacco were obliged to sell it to its agents. The sale of the manufactured tobacco was farmed out; and *cigars* were not allowed to be sold, except at the royal *estancos*. No one was allowed to use cigars of his own manufacture. This oppressive monopoly was established in 1764. It has been continued, from the difficulty of supplying the revenue which it produces, by the revolutionary Governments. (Humboldt, *Nouvelle-Espagne*, iii. 49; Poinsett's *Notes on Mexico*, note 116, Lond. ed.) In France, Spain, Austria, and some other countries, the trade in tobacco is monopolised by their respective governments, and yields a large revenue.

Cuba is celebrated for its tobacco, particularly its cigars. These consist of the leaves, formed into small rolls, for the purpose of smoking. At one time their importation into this country was prohibited; but for many years this has been permitted, and the exorbitant duty of 9*s.* per lb. having been reduced since March 1863 to 5*s.*, the entries for consumption have more than doubled in the interval, the entries in 1867 having amounted to 885,622 lb. Havannah cigars are usually reckoned the best. Previously to 1820, the cultivation and sale of tobacco were subjected to the same sort of monopoly in Cuba as in Mexico; but, at the period referred to, the trade was thrown open. In consequence of the freedom thus given to the business, the production and exportation of tobacco both rapidly increased, though hardly, perhaps, so much as might have been expected; the culture of sugar and coffee being for a while reckoned more profitable; that, however, is no longer the case. In 1867 were exported from Havannah alone 7,716,802 lb. of tobacco and 199,027,000,000 cigars.

Consumption of Duty-paid Tobacco in the United Kingdom.—It appears from the following account, which is not elsewhere to be met with, that the consumption of duty-paid tobacco in Great Britain has increased from about 8,000,000 lb. in 1789, to 40,726,767 lb. in 1867; the duty on unmanufactured tobacco having fluctuated during the same period from 1*s.* 3*d.* to 4*s.* per lb. The present rates of duty as fixed by the 26 & 27 Vict. c. 7 are specified in the annexed Table No. II. There are, however, *good grounds for thinking that the* consumption would have been much greater, perhaps nearly doubled, had the duty continued at 1*s.* 3*d.* per lb. The subjoined table shows that during the 3 years ending with 1797, when the duty in Ireland was 8*d.* per lb., the annual average consumption of duty-paid tobacco, in that part of the United Kingdom, was 7,455,221 lb. And the population having increased in the interval from about 4 to 5½ millions, the fair presumption is, had the duty continued the same, that the consumption of tobacco would have increased in the same proportion. But, instead of this, the average annual consumption during the 3 years ending with 1865 has only been 6,725,479 lb., or not quite two-thirds of what it might, under the supposed circumstances, have been reasonably expected to be. But the inference thence arising as to the influence of the duty is not, after all, quite so conclusive as it would appear to be from this statement. For it is next to certain that at the first mentioned period duty-paid tobacco would be extensively smuggled from Ireland into England, where the duty was 11*d.* per lb. heavier: and since the equalisation of the duty between the two countries it is probable that some considerable portion of the tobacco used in Ireland, and carried thither by the cross-channel trade, has already paid duty in this country. Apart, however, from all considerations of this sort, there can be no manner of doubt that the consumption both in Britain and Ireland would be very largely increased by reducing the duty to 1*s.* 6*d.* or 1*s.* per lb.

Smuggling.—The price of tobacco in bond varies from 3*d.* and 4*d.* to 6*d.*, 8*d.*, and 10*d.* per lb.; so that a duty of even 3*s.* amounts to 1,200 per cent. on the inferior, and to 360 per cent. on the superior qualities. But, though quite excessive, this is one of those articles on which a high duty is least objectionable. It is true that the more the wants and desires of man are multiplied the more in-

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dustrious he becomes; but tobacco is at once a filthy and an offensive luxury, and, with the exception of ardent spirits, there is hardly any article on which the money of the poor had not better be expended. The only good objection to the duty is the stimulus which it gives to smuggling and adulteration. In every other respect it is unexceptionable. The establishment of the coast-guard has, however, materially obstructed the clandestine importation of tobacco, though it is still said that it is introduced in considerable quantities. But no effectual check has been or can be given to adulteration so long as the present duty is maintained. At the same time it would be quite useless to attempt to deal with an evil of this sort except by very decisive measures. Nothing less, we apprehend, than a reduction of the duty to 1*s.* 6*d.* or rather 1*s.* per lb., would be of any material service in checking illegal practices. And as a reduction to this extent would certainly be attended with great loss of revenue, the question of the tobacco duties may be properly enough deferred to a more convenient opportunity. When, however, the duties on tea, sugar, and other necessaries have been still further reduced or altogether repealed, and we have a considerable surplus revenue, we may proceed to put the tobacco duty on a different footing. We subjoin

I.—*An Account of the Quantities of Unmanufactured Tobacco retained for Home Consumption, the Rates of Duty thereon, and the Total Nett Produce of the Duties in Great Britain and Ireland, from* 1789 *to* 1858, *both inclusive.*

Years	Great Britain: Quantities retained for Home Consumption	Great Britain: Nett Revenue of Customs	Great Britain: Total Rates of Duty per lb. on Unmanufactured Tobacco — American	Great Britain: Total Rates of Duty per lb. on Unmanufactured Tobacco — Of the Dominions of Spain and Portugal	Ireland: Quantities entered for Home Consumption	Ireland: Nett Revenue of Customs	Ireland: Total Rates of Duty per lb. on Unmanufactured Tobacco
	lb.	£ s. d.			lb.	£ s. d.	
1789	8,152,185	408,057 4 1	1*s.* 5*d.*	3*s.* 6*d.*	2,765,441	128,594 8 6	1*s.* Irish currency
1790	8,960,221	514,383 7 1	..	..	2,980,457	133,195 18 10	..
1791	9,340,875	585,866 9 0	..	..	3,349,335	147,420 0 2	..
1792	8,979,721	584,196 7 7	..	..	3,167,881	140,693 4 5	..
1793	8,817,967	547,217 16 4	..	..	3,368,967	125,814 17 1	6*d.* ditto
1794	9,723,536	606,202 12 10	..	..	3,426,211	193,158 10 7	..
1795	10,077,568	630,989 3 6	..	..	2,874,109	215,710 9 0	8*d.* ditto
1796	10,047,945	756,451 15 1	1*s.* 7*d.*	4*s.* 6*d.*	6,048,790	186,789 19 0	..
1797	9,872,459	815,097 16 2	1*s.* 7*d.* 6-20ths	4*s.* 6*d.* 18-20ths	8,115,555	267,721 16 4	..
1798	10,286,741	863,766 14 0	1*s.* 7*d.* 12-20ths	4*s.* 7*d.* 4-20ths	4,894,121	215,377 12 7	1*s.* ditto
1799	10,993,113	799,369 14 2	..	..	5,876,178	248,028 4 9	1*s.* 7-10ths ditto
1800	11,296,415	982,110 8 8	..	..	6,757,275	327,316 9 0	..
1801	10,514,998	923,855 3 5	1*s.* 7*d.* 6-20ths	4*s.* 6*d.* 18-20ths	6,269,764	285,182 6 4	..
1802	12,121,278	928,678 9 1	1*s.* 7*d.* 53-50ths	4*s.* 7*d.* 15-50ths	6,227,342	309,738 9 2	1*s.* 7 10ths per lb. and 5*s.* per 100 lb.
1803	12,589,570	1,028,563 16 1	1*s.* 7*d.*	4*s.* 8*d.*	5,078,511	295,944 5 6	..
1804	12,254,494	1,060,519 18 0	1*s.* 8*d.*	4*s.* 10*d.*	6,283,187	341,902 5 8	1*s.* 8*d.* Brit. currency
1805	12,656,171	1,088,921 4 5	1*s.* 8*d.* 13-20ths	4*s.* 10*d.* 11-20ths	6,178,791	342,316 8 1	..
1806	12,155,055	1,105,850 14 1	2*s.* 2*d.* 13-20ths	5*s.* 4*d.* 19-20ths	5,087,186	349,867 6 4	..
1807	12,672,994	1,306,342 17 9	..	..	4,351,049	316,417 4 3	..
1808	12,876,119	1,448,296 3 7	..	..	5,847,415	402,973 3 8	..
1809	13,034,870	1,325,154 5 7	..	1*s.* 1*d.* 13-20ths	6,197,662	451,278 19 11	..
1810	14,109,193	1,509,576 18 9	..	..	6,042,946	444,198 5 0	..
1811	14,923,243	1,701,848 8 2	..	..	5,443,294	502,082 9 10	2*s.* 2*d.* 13-20ths ditto
1812	15,013,533	1,679,912 2 2	2*s.* 4*d.* 13-20ths	4*s.* 5*d.* 18-20ths	5,996,502	697,897 9 11	..
1813	13,648,945	Customs records destroyed	2*s.* 8*d.* 3-16ths	4*s.* 11*d.* 11-16ths	5,941,817	746,606 5 2	2*s.* 8*d.* 3-16ths ditto
1814	10,503,917	1,581,684 12 9	..	..	4,460,501	655,708 12 11	..
1815	13,397,192	1,764,487 7 10	3*s.* 2*d.*	5*s.* 5*d.*	4,748,305	749,279 15 1	3*s.* 2*d.* ditto
1816	12,813,809	2,035,109 2 8	..	..	4,272,085	720,510 6 2	..
1817	13,595,089	2,158,500 5 11	..	..	3,778,469	757,316 8 3	..
1818	13,688,437	2,173,866 19 2	..	..	4,191,041	684,185 9 1	..
1819	12,911,285	2,285,045 2 10	4*s.*	6*s.*	3,408,852	614,989 5 7	4*s.* ditto
1820	13,916,502	2,610,972 7 9	..	..	2,889,498	516,446 2 6	..
1821	14,083,198	2,660,415 7 4	..	..	2,811,934	525,168 6 9	..
1822	14,270,566	2,709,155 15 1	..	..	3,570,072	684,014 7 4	..
1823	13,418,554	2,695,009 15 0	..	..	3,546,126	730,507 12 8	..
			Of British America	Of the United States	Dominions of Spain and Portugal		
1824	13,083,091	2,627,955 12 6	3*s.* 9*d.*	4*s.*	6*s.*	3,749,733	750,589 5 4	..
1825	14,510,555	2,930,617 6 3	2*s.* 9*d.*	3*s.*	5*s.*	4,160,019	728,288 15 11	3*s.* ditto
			Of the British Possessions in America		Of other parts		
1826	13,781,570	2,077,875 14 7	2*s.* 9*d.*		3*s.*	3,898,647	580,897 11 0	..
1827	14,794,665	2,225,540 18 4	..		..	4,04 .172	603,037 18 9	..
1828	14,940,468	2,198,147 18 2	..		..	4,013,915	593,883 4 5	..
1829	14,760,168	2,236,365 12 5	..		..	4,125,296	613,340 15 6	..
1830	15,170,719	2,309,296 17 6	..		..	4,197,783	614,957 16 5	..
1831	15,350,014	2,358,106 19 5	..		..	4,183,823	626,484 17 5	..
1832	15,992,792	2,418,572 7 7	..		..	4,349,676	632,808 5 8	..
1833	16,094,324	2,450,257 3 9	..		..	4,599,141	680,942 9 2	..
1834	16,477,287	2,516,570 6 1	..		..	4,716,582	707,313 11 0	..
1835	17,069,289	2,607,054 15 0	..		..	4,876,299	727,444 7 3	..
1836	17,264,576	2,659,251 11 6	..		..	5,042,098	737,850 9 0	..
1837	17,587,875	2,655,169 12 8	..		..	5,078,350	762,195 8 6	..
1838	18,234,501	2,705,727 14 10	..		..	5,105,155	766,034 1 5	..
1839	17,767,401	2,715,586 7 3	..		..	5,326,764	782,100 7 11	..
1840	17,320,826	2,736,611 10 3	2*s.* 9*d.* & 3 per cent.		3*s.* & 3 per cent.	5,345,815	829,589 1 3	3*s.* and 3 per cent.
1841	16,609,852	2,697,343 17 10	From all parts 3*s.* & 3 per cent.			5,473,923	863,481 7 5	..
1842	16,838,198	2,724,906 19 5	..			5,400,286	852,296 10 8	..
1843	17,146,896	2,880,440 4 0	..			5,267,730	850,786 17 0	..
1844	19,046,556	3,042,440 16 4	..			5,579,954	880,000 1 2	..
1845	20,290,270	3,271,980 7 4	..			5,871,868	937,169 17 5	..
1846	20,916,096	3,379,419 10 9	..			5,949,691	959,668 3 3	..
1847	21,556,097	3,458,887 4 9	..			5,880,139	960,315 9 9	..
1848	22,056,053	3,539,808 19 7	..			5,136,514	811,528 0 1	..
1849	22,815,977	3,659,056 19 9	..			4,737,267	748,669 15 2	..
1850	22,790,125	3,505,479 1 1	..			4,597,837	726,163 6 9	..
1851	23,255,731	3,606,771 15 8	..			4,419,936	700,864 6 8	..
1852	23,781,746	3,746,804 10 3	..			4,667,111	735,581 7 2	..
1853	24,739,255	3,899,123 16 10	..			4,646,333	737,079 6 11	..
1854	25,296,480	3,988,027 19 9	..			4,880,152	770,050 7 9	..
1855	25,313,440	3,991,658 18 1	..			4,801,280	756,205 18 3	..
1856	27,016,456	4,261,370 4 9	..			5,147,096	810,601 9 11	..
1857	27,125,790	4,277,610 12 0	..			5,298,302	834,360 7 10	..
1858	27,984,114	4,414,174 9 9	..			5,585,193	895,421 3 9	..

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II.—*Account of the Quantities of Tobacco of all sorts Entered for Home Consumption in the United Kingdom; the Nett Revenue of Customs; and the Rates of Duty thereon from* 1859 to 1867.

Years	Quantities Entered for Home Consumption			Nett Revenue of Customs	Rates of Duty	
	Unmanufactured	Manufactured	Total			
	lb.	lb.	lb.	£		
1859	34,493,075	298,197	34,791,272	5,552,347	Unmanufactured, 3s. 1 4/5d. per lb. Manufactured, 9s. 5 2-5d. per lb.	May 15, 1840, and July 9, 1842
1860	35,106,641	283,291	35,389,832	5,649,834	ditto ditto	
1861	34,527,124	302,664	34,829,788	5,585,617	ditto ditto	
1862	35,093,446	334,150	35,427,596	5,690,169	ditto ditto	
1863	36,750,664	582,379	37,333,043	5,950,167	Unmanufactured, containing 10 lb. or more of moisture in every 100 lb., 3s. 1 4/5d. per lb. Containing less than ditto, 3s. 6d. per lb.	March 27, 1865
1864	37,189,856	764,346	37,954,202	6,055,129		
1865	38,076,842	828,158	38,905,000	6,200,635		
1866	39,621,852	881,399	40,503,251	6,457,993	Manufactured, cigars, 5s. per lb.	ditto
1867	39,787,921	932,843	40,720,767	6,496,559	Manufactured, other than cigars, Foreign manufacture, 4s. 9d. per lb. Manufactured in bond, 4s. per lb.	ditto

The tobacco monopoly of Austria, inclusive of an area of 66,000 Austrian acres with a produce of 560,000 cwt. of dried leaf, yielded to the Government in 1865 about 50,000,000 florins.

Prices of Tobacco in Bond in London, February and April 1869.

	W. T. Till & Son's Circular, Feb. 1, 1869	Prince's Price Current, April 1869
	Per lb.	Per lb.
	s. d. s. d.	s. d. s. d.
Maryland fine yellow	0 4 to 0 9	0 5½ to 0 9
yellow	..	0 8 0 8½
brown to colory	..	0 4 0 7
fine spinners active	..	
good middling ditto	..	
ordinary to middling	..	
fine strig and part spinners	..	
fair common ditto	..	
fine black sweet scent	..	0 7 0 11
good stout rich snuff leaf	..	
middling ditto	..	
ordinary short and part faded	..	
strip leaf or fine spinning	..	0 11 1 0
ordinary to middling	..	0 6 0 9
Kentucky, stemmed fine old	..	0 11 1 1
new	..	0 9 0 10
short to middling	..	0 7 0 8
ordinary to middling	..	0 4 0 8
stalks	..	2 10 3 11
Virginia ditto	..	3 0 3 2
mixed ditto	..	2 8 2 9
Virginia leaf, good to fine	0 4 to 1 0	0 9 0 10
strips	0 6½ 1 1	..
Cavendish	0 3 1 6	0 3 to 1 0
Negrohead, part heated		
good	0 4 1 1	0 6 1 1
fine		
Amersfoort	..	0 8½ 0 9½
Brazil	0 3 to 1 2	0 6 0 7
Cuba	0 8 1 0	0 5 1 0
Columbian	0 6 2 6	0 6½ 2 6
Greek	0 3 0 8	0 3 0 5
German	0 4 1 6	1 0 1 0
flat covers	..	1 1 2 0
stemmed	..	0 7 2 0
Havannah leaf	0 9 to 8 0	1 0 10 0
cigars	6s., 22s., 35s.	7 0 22 0
Java	0 5 to 1 0	0 5½ 0 10
Porto Rico	..	0 4½ 0 6
Japan	0 1 to 0 9	0 4½ 0 8½
African	..	0 4 0 4½
St. Domingo leaf	..	0 6½ 0 7
Vara	1 0 to 3 9	0 10 3 0
Manilla	1 3 3 2	..
cheroots	4 6 7 6	6 0 7 6
cigars	5 6 7 3	..
Smalls	..	2 0 2 8
Western leaf	0 3 to 0 11	..
factory dried	5d., 10d., 1s. 1d.	..
strips	0 5½ to 1 0	..
Ohio	0 4 0 9	..
Mexican	0 6 1 6	..
Algerian &c.	0 5 0 10	..
East Indian	0 1½ 0 8½	..
Hungarian	0 2½ 0 5	..
Esmeralda, stripped	0 10 2 11	..
Paraguay	0 6 0 10	..
Dutch	0 3 0 7	..
Turkey	0 3 0 8	..
Stalks, duty paid, per lb.	- -	2s. 7d. to 2s. 0d.
Smalls, "	- -	2s. 2d. 2s. 6d.

Regulations as to Importation.—These are embodied in the Customs Consolidation Act, the 16 & 17 Vict. c. 107 s. 44, and the 26 & 27 Vict. c. 7, under which the existing duties are levied. The latter permits the manufacture of cavendish and negrohead in bond. The chief provisions of the earlier Act are as follows, viz.:—

Not to be Imported.—Tobacco stalks stripped from the leaf, whether manufactured or not, and tobacco stalk flower.

Not to be Imported except under the following Conditions.—Tobacco and snuff from the East Indies, and tobacco from the Turkish dominions, including Egypt, unless direct from any of those places in packages containing not less than 100 lb. nett weight each.

Negrohead tobacco, and also snuff being the produce of the United States of America, unless in hogsheads, casks, chests, or cases containing not less than 200 lb. nett weight each, or unless direct from the United States in packages containing not less than 150 lb. nett weight each.

Tobacco from Malta, and tobacco the produce of Porto Rico, Mexico, South America, St. Domingo, Cuba, the British possessions in America and the West Coast of Africa, unless in hogsheads, casks, chests, or cases containing not less than 200 lb. nett weight each, or unless direct from those places or from the United States of America in packages containing not less than 80 lb. nett weight each.

Tobacco and snuff, the produce of the Philippine Islands, unless in hogsheads, casks, chests, or cases containing not less than 200 lb. nett weight each, or unless such tobacco or snuff be from Manilla direct, in bales or packages containing not less than 200 lb. nett weight each.

Tobacco and snuff, of or from any country or place not before enumerated, unless in hogsheads, casks, chests, or cases containing not less than 200 lb. nett weight each.

Cigars, unless in packages containing not less than 100 lb. nett weight each.

Cigarillos or cigarettos, unless in packages containing not less than 75 lb. nett weight each.

Tobacco, not being cigars, cigarillos, or cigarettos, and snuff, separated or divided in any manner within any package in which the same may by the foregoing table be imported, except tobacco from the dominions of the Turkish empire, or from Egypt, in outer packages containing not less than 100 lb. nett weight each.

Tobacco, snuff, cigars, cigarillos, or cigarettos of any kind, or from any country or place whatever, whether hereinbefore enumerated as especially restricted or not, unless in ships of not less than 120 tons burden, and into such ports only as are or may be approved of by the Commissioners of Customs.

The ports which are at present (1869) authorised to import tobacco and snuff are London, Liverpool, Bristol, Lancaster, Cowes, Falmouth, Fleetwood, Hartlepool, Whitehaven, Hull, Goole, Grimsby, Harwich, Cardiff, Portsmouth, Ramsey, Glasgow, Port Glasgow, Greenock, Aberdeen, Leith, Newcastle, Plymouth, Southampton, Preston, Swansea, Belfast, Cork, Drogheda, Dublin, Galway, Limerick, Londonderry, Newry, Sligo, Waterford, and Wexford. A rent of 4*s.* is charged

upon every hogshead, cask, chest, or case of tobacco warehoused in every warehouse provided by the Crown; 2*s.* being paid immediately upon depositing the tobacco in the warehouse, and 2*s.* more before the tobacco is taken out for home consumption, or exportation; it may remain for *five* years in the warehouse without any additional charge for rent. No abatement is made from the tobacco duties on account of damage. The duty is to be charged on the quantity found on delivery. The allowance of duty-free tobacco for each sailor on board her Majesty's navy, and for each soldier on foreign service, is fixed at 2 lb. per lunar month.

TON. An English weight, containing 20 cwt.

TONNAGE. In Commercial Navigation, the number of tons burden that a ship will carry.

The mode in which the tonnage of British ships was formerly ascertained may be seen in the Registry Act, 3 & 4 Wm. IV. c. 55 ss. 16 and 17. This mode, however, led to very inaccurate conclusions; and as most shipping charges depend on the tonnage, it occasioned the building of ships of an improper form for the purposes of navigation, in order that, by measuring less than their real burden, they might evade part of the duties. It was, therefore, long felt to be desirable that some change should be made in the plan of measuring ships; but the practical obstacles in the way of the change were greater than might have been supposed. The accurate estimation of the tonnage of a ship is a difficult problem; and it is indispensable that any system to be adopted in practice be not very complex; for if so, it will either be wholly inapplicable, or it will be sure to be incorrectly applied. In this case, as in most others, *summa virtus est perspicuitas*. At best, therefore, only an approximate measurement can be obtained. A committee of scientific and practical gentlemen having been appointed in 1834 to consider the subject, a bill was introduced into Parliament, at their recommendation, embodying a plan for the more correct measurement of ships, and was subsequently passed into a law, the 5 & 6 Wm. IV. c. 56. The rules it laid down were not so simple or easily applied as those that were previously used; but they gave the tonnage of all ships, however built, with tolerable accuracy, and consequently took away the temptation, that till then existed, to build ships of such a form that they might measure less than their true burden. But these rules have been again considerably modified. Those which at present (1869) exist are embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104, amended by the 25 & 26 Vict. c. 63, and are subjoined. And whatever may be their merit in other respects, they do not certainly seem to have much of that perspicuity and simplicity which appear to be essential to such rules.

Tonnage Deck; Feet; Decimals.—Throughout the following rules the tonnage deck shall be taken to be the upper deck in ships which have less than three decks, and to be the second deck from below in all other ships; and in carrying such rules into effect all measurements shall be taken in feet and fractions of feet, and all fractions of feet shall be expressed in decimals. (Sec. 20.)

For Ships to be registered of which the Hold is clear.—The tonnage of every ship to be registered, with the exceptions mentioned in the next section, shall previously to her being registered, be ascertained by the following Rule 1; and the tonnage of every ship to which such rule can be applied, whether she is about to be registered or not, shall be ascertained by the same rule.

1. Measure the length of the ship in a straight line along the upper side of the tonnage deck from the inside of the inner plank (average thickness) at the side of the stem to the inside of the midship stern timber or plank there, as the case may be (average thickness), deducting from this length what is due to the rake of the bow in the thickness of the deck, and what is due to the rake of the stern timber in the thickness of the deck, and also what is due to the rake of the stern timber in ½ of the round of the beam; divide the length so taken into the number of equal parts required by the following table, according to the class in such table to which the ship belongs:

TABLE.—Class 1. Ships of which the tonnage deck is according to the above measurement 50 feet long or under, into 4 equal parts:

Class 2. Ships of which the tonnage deck is according to the above measurement above 50 feet long, and not exceeding 120, into 6 equal parts:

Class 3. Ships of which the tonnage deck is according to the above measurement above 120 feet long, and not exceeding 180, into 8 equal parts:

Class 4. Ships of which the tonnage deck is according to the above measurement above 180 feet long, and not exceeding 225, into 10 equal parts:

Class 5. Ships of which the tonnage deck is according to the above measurement above 225 feet long, into 12 equal parts.

2. Then, the hold being first sufficiently cleared to admit of the required depths and breadths being properly taken, find the transverse area of such ship at each point of division of the length as follows: Measure the depth at each point of division, from a point at a distance of ½ of the round of the beam below such deck, or, in case of a break, below a line stretched in continuation thereof, to the upper side of the floor timber at the inside of the limber strake, after deducting the average thickness of the ceiling which is between the bilge planks and limber strake; then, if the depth at the midship division of the length do not exceed 16 feet, divide each depth into 4 equal parts; then measure the inside horizontal breadth at each of the 3 points of division, and also at the upper and lower points of the depth, extending each measurement to the average thickness of that part of the ceiling which is between the points of measurement; number these breadths from above (i.e. numbering the upper breadth 1, and so on down to the lowest breadth); multiply the second and fourth by 4, and the third by 2; add these products together, and to the sum add the first breadth and the fifth; multiply the quantity thus obtained by ⅓ of the common interval between the breadths, and the product shall be deemed the transverse area; but if the midship depth exceed 16 feet, divide each depth into 6 equal parts instead of 4, and measure as before directed the horizontal breadths at the 5 points of division, and also at the upper and lower points of the depth; number them from above as before; multiply the second, fourth, and sixth by 4, and the third and fifth by 2; add these products together, and to the sum add the first breadth and the seventh; multiply the quantity thus obtained by ⅓ of the common interval between the breadths, and the product shall be deemed the transverse area.

3. Having thus ascertained the transverse area at each point of division of the length of the ship as required by the above table, proceed to ascertain the register tonnage of the ship in the

following manner: Number the areas successively 1, 2, 3 &c., No. 1, being at the extreme limit of the length at the bow, and the last number at the extreme limit of the length at the stern; then, whether the length be divided according to the table into 4 or 12 parts as in Classes 1 and 5, or any intermediate number as in Classes 2, 3, and 4, multiply the second and every even numbered area by 4, and the third and every odd numbered area (except the first and last) by 2; add these products together, and to the sum add the first and last if they yield anything; multiply the quantity thus obtained by ⅓ of the common interval between the areas, and the product will be the cubical contents of the space under the tonnage deck; divide this product by 100, and the quotient being the tonnage under the tonnage deck shall be deemed to be the register tonnage of the ship, subject to the additions and deductions hereinafter mentioned.

4. If there be a break, a poop, or any other permanent closed-in space on the upper deck, available for cargo or stores, or for the berthing or accommodation of passengers or crew, the tonnage of such space shall be ascertained as follows: Measure the internal mean length of such space in feet, and divide it into two equal parts: measure at the middle of its height three inside breadths, namely, one at each end and the other at the middle of the length; then to the sum of the end breadths add 4 times the middle breadth, and multiply the whole sum by one-third of the common interval between the breadths; the product will give the mean horizontal area of such space; then measure the mean height, and multiply by it the mean horizontal area; divide the product by 100, and the quotient shall be deemed to be the tonnage of such space, and shall be added to the tonnage under the tonnage deck, ascertained as aforesaid, subject to the following provisoes; 1st, that nothing shall be added for a closed-in space solely appropriated to the berthing of the crew, unless such space exceeds $\frac{1}{10}$ of the remaining tonnage of the ship, and in case of such excess the excess only shall be added; and 2ndly, that nothing shall be added in respect of any building erected for the shelter of deck passengers, and approved by the Board of Trade.

5. If the ship has a third deck, commonly called a spar deck, the tonnage of the space between it and the tonnage deck shall be ascertained as follows: Measure in feet the inside length of the space at the middle of its height from the plank at the side of the stem to the lining on the timbers at the stern, and divide the length into the same number of equal parts into which the length of the tonnage deck is divided as above directed; measure (also at the middle of its height) the inside breadth of the space at each of the points of division, also the breadth of the stem and the breadth at the stern; number them successively 1, 2, 3 &c., commencing at the stem; multiply the second and all the other even numbered breadths by 4, and the third and all other odd numbered breadths (except the first and last) by 2; to the sum of these products add the first and last breadths; multiply the whole sum by one-third of the common interval between the breadths, and the result will give in superficial feet the mean horizontal area of such space; measure the mean height of such space, and multiply by it the mean horizontal area, and the product will be the cubical contents of the space; divide this product by 100, and the quotient shall be deemed to be the tonnage of such space, and shall be added to the other tonnage of the ship ascertained as aforesaid; and if the ship has more than 3 decks, the tonnage of each space between decks above the tonnage deck shall be severally ascertained in manner above described, and shall be added to the tonnage of the ship ascertained as aforesaid. (Sec. 21.)

Rules for Ships not requiring Registry with Cargo on Board.—Ships which, requiring to be measured for any purpose other than registry, have cargo on board, and ships which, requiring to be measured for the purpose of registry, cannot be measured by the rule above given, shall be measured by the following Rule 2;

1. Measure the length on the upper deck from the outside of the outer plank at the stem to the aftside of the stern post, deducting therefrom the distance between the aftside of the stern post and the rabbet of the stern post at the point where the counter plank crosses it; measure also the greatest breadth of the ship to the outside of the outer planking or wales, and then, having first marked on the outside of the ship on both sides thereof the height of the upper deck at the ship's sides, girt the ship at the greatest breadth in a direction perpendicular to the keel from the height so marked on the outside of the ship on the one side to the height so marked on the other side by passing a chain under the keel; to half the girth thus taken add half the main breadth; square the sum; multiply the result by the length of the ship taken as aforesaid; then multiply this product by the factor ·0018 (18-10,000ths) in the case of ships built of wood, and by ·0021 (21-10,000ths) in the case of ships built of iron, and the product shall be deemed the register tonnage of the ship, subject to the additions and deductions hereinafter mentioned.

2. If there be a break, a poop, or other closed-in space on the upper deck, the tonnage of such space shall be ascertained by multiplying together the mean length, breadth, and depth of such space, and dividing the product by 100, and the quotient so obtained shall be deemed to be the tonnage of such space, and shall, subject to the deductions for a closed-in space appropriated to the crew as mentioned in Rule 1, be added to the tonnage of the ship ascertained as aforesaid. (Sec. 22.)

Allowance for Engine Room in Steamers.—In every ship propelled by steam or other power requiring engine room, an allowance shall be made for the space occupied by the propelling power, and the amount so allowed shall be deducted from the gross tonnage of the ship ascertained as aforesaid, and the remainder shall be deemed to be the register tonnage of such ship; and such deduction shall be estimated as follows, viz.:—

a. As regards ships propelled by paddle-wheels in which the tonnage of the space solely occupied by and necessary for the proper working of the boilers and machinery is above 20 per cent. and under 30 per cent. of the gross tonnage of the ship, such deduction shall be 37-100ths of such gross tonnage; and in ships propelled by screws in which the tonnage of such space is above 13 per cent. and under 20 per cent. of such gross tonnage, such deduction shall be 32-100ths of such gross tonnage:

b. As regards all other ships, the deduction shall, if the Commissioners of Customs and the owner both agree thereto, be estimated in the same manner; but either they or he may in their or his discretion require the space to be measured and the deduction estimated accordingly; and whenever such measurement is so required the deduction shall consist of the tonnage of the space actually occupied by or required to be enclosed for the proper working of the boilers and machinery,

with the addition in the case of ships propelled by paddle-wheels of one-half, and in the case of ships propelled by screws of three-fourths of the tonnage of such space; and the measurement and use of such space shall be governed by the following rules, viz.:—

1. Measure the mean depth of the space from its crown to the ceiling at the limber strake, measure also three, or, if necessary, more than three breadths of the space at the middle of its depth, taking one of such measurements at each end, and another at the middle of the length; take the mean of such breadths; measure also the mean length of the space between the foremost and aftermost bulkheads or limits of its length, excluding such parts, if any, as are not actually occupied by or required for the proper working of the machinery; multiply together these three dimensions of length, breadth, and depth, and the product will be the cubical contents of the space below the crown; then find the cubical contents of the space or spaces, if any, above the crown aforesaid, which are framed in for the machinery or for the admission of light and air, by multiplying together the length, depth, and breadth thereof; add such contents to the cubical contents of the space below the crown; divide the sum by 100; and the result shall be deemed to be the tonnage of the said space:

2. If in any ship in which the space aforesaid is to be measured the engines and boilers are fitted in separate compartments, the contents of each shall be measured severally in like manner, according to the above rules, and the sum of their several results shall be deemed to be the tonnage of the said space:

3. In the case of screw steamers in which the space aforesaid is to be measured, the contents of the shaft trunk shall be added to and deemed to form part of such space, and shall be ascertained by multiplying together the main length, breadth, and depth of the trunk, and dividing the product by 100:

4. If in any ship in which the space aforesaid is to be measured any alteration be made in the length or capacity of such space, or if any cabins be fitted in such space, such ship shall be deemed to be a ship not registered until remeasurement:

5. If in any ship in which the space aforesaid is to be measured any goods or stores are stowed or carried in such space, the master and owner shall each be liable to a penalty not exceeding 100*l.* (Sec. 23.)

Open Ships, how Measured.—In ascertaining the tonnage of open ships, the upper edge of the upper strake is to form the boundary line of measurement, and the depths shall be taken from an athwartship line, extending from upper edge to upper edge of the said strake at each division of the length. (Sec. 24.)

Tonnage and Number of Certificate to be carried on Main Beam.—In every registered British ship the number denoting the register tonnage, ascertained as herein-before directed, and the number of her certificate of registry, shall be deeply carved or otherwise permanently marked on her main beam, and shall be so continued; and if it at any time cease to be so continued, such ship shall no longer be recognised as a British ship. (Sec. 25.)

Tonnage when once ascertained to be ever after deemed the Tonnage.—Whenever the tonnage of any ship has been ascertained and registered in accordance with the provisions of this Act, the same shall thenceforth be deemed to be the tonnage of such ship, and be repeated in every subsequent registry thereof, unless any alteration is made in the form or capacity of such ship, or unless it is discovered that the tonnage of such ship has been erroneously computed; and in either of such cases such ship shall be remeasured, and her tonnage determined and registered according to the rules herein contained. (Sec. 26.)

Remeasurement of Ships already registered.—The rules for the measurement of tonnage herein contained shall not make it necessary to alter the present registered tonnage of any British ship registered before this Act came into operation; but if the owner of any such ship desires to have the same remeasured according to such rules, he may apply to the Commissioners of Customs for the purpose, and such commissioners shall thereupon, and on payment of such reasonable charge for the expenses of remeasurement, not exceeding the sum of 7*s.* 6*d.* for each transverse section, as they may authorise, direct such remeasurement to be made, and such ship shall thereupon be remeasured according to such rules as aforesaid, or according to such of them as may be applicable; and the number denoting the register tonnage shall be altered accordingly. (Sec. 27.)

Power to remeasure Engine Rooms improperly extended.—If it appears to the Commissioners of Customs that in any steam ship measured before this Act came into operation store rooms or coal bunkers have been introduced into or thrown across the engine room, so that the deduction from the tonnage on account of the engine room is larger than it ought to be, the said commissioners may, if they think fit, direct such engine room to be measured according to the rules in force before this Act comes into operation, excluding the space occupied by such store rooms or coal bunkers, or may, if the owners so desire, cause the ship to be remeasured according to the rules hereinbefore contained, and subject to the conditions contained in the last preceding section; and after remeasurement the said commissioners shall cause the ship to be registered anew, or the registry thereof to be altered, as the case may require. (Sec. 28.)

Officers may be appointed and Regulations made for Measurement of Ships.—The Commissioners of Customs may, with the sanction of the Treasury, appoint such persons to superintend the survey and admeasurement of ships as they think fit; and may, with the approval of the Board of Trade, make such regulations for that purpose as may be necessary; and also, with the like approval, make such modifications and alterations as from time to time become necessary, in the tonnage rules hereby prescribed, in order to the more accurate and uniform application thereof, and the effectual carrying out of the principle of admeasurement therein adopted. (Sec. 29.)

TOOLS AND MACHINES. Under this designation are comprised all sorts of instruments employed to assist in the performance of any undertaking, from the rudest and simplest to the most improved and complex. But we only mention them here for the purpose of making one or two remarks on the restrictions to which the trade in them was till a comparatively recent period subjected.

Importation and Exportation of Tools and Machines.—Tools and machines being instruments of production, it is obviously of the utmost importance that they should be as much improved as possible; and hence the expediency of allowing their free importation. Their exclusion, or the exclusion of the articles of which they are made, would obviously lay every branch of industry carried on in a nation less advanced than others in their manufacture, under the most serious

disadvantages. And supposing the implements it employed to be superior to those of other countries when the exclusion took place, the absence of foreign competition, and of the emulation which it inspires, would most probably, in a very short time, occasion the loss of this superiority. The injury arising from the prohibition of most other articles is comparatively limited, affecting only the producers and consumers of those that are prohibited. But a prohibition of machines strikes at the root of every species of industry: it is not injurious to one, or a few branches, but to all.

The question whether the exportation of machinery ought to be free, is not so easy of solution. It is the duty of a nation to avail itself of every fair means for its own aggrandisement; and supposing the machinery belonging to any particular people were decidedly superior to that employed by their neighbours, and that they had it in their power to preserve this advantage, their generosity would certainly outrun their sense, were they to communicate their improved machinery to others. We do not, however, believe that it is possible, whatever measures may be adopted in that view, for one country to monopolise, for any considerable period, any material improvement in machinery or the arts: and on this ground we think that the former restraints on the exportation of machinery were wisely abolished. Drawings and models of all sorts of machines used in Manchester, Glasgow, and Birmingham, were always to be found in most parts of the Continent; and at Rouen, Paris, &c., numbers of the best English workmen were employed in the manufacture of prohibited machines. And it did certainly appear not a little preposterous to prevent the exportation of a machine, at the same time that we allowed (it could not, indeed, be prevented) the free egress of the workmen by whom it was made. The effect of this policy was not to secure a monopoly of improved machines for the manufactures of England, but to occasion the emigration of English artizans to the Continent, and the establishment there of machine manufactories under their superintendence. The prejudice that arose from this state of things to the interests of England, is too obvious to require being pointed out. It is plain, therefore, that sound policy dictated that the exportation of all sorts of machinery should be allowed on payment of a moderate duty. And this policy was at length adopted in the Act 6 & 7 Vict. c. 84, which repealed the restraints previously imposed on the exportation of machinery. A policy of this sort affords a much more efficient encouragement to our manufactures than they hitherto enjoyed; for while it lessens the temptation to our artizans to emigrate, it helps to make England the grand seat of the tool as well as of the cotton manufacture. The total declared value of the machinery and mill-work exported in 1867 amounted to 2,737,057*l.*, and that of tools and implements of industry, including agricultural (154,403*l.*), to 208,067*l.*

TOPAZ (Ger. topas; Fr. topaze; Ital. topazio; Span. topacio; Russ. topas). The name topaz has been restricted by M. Haüy to the stones called by mineralogists Occidental ruby, topaz, and sapphire; which, agreeing in their crystallisation and most of their properties, were arranged under one species by M. Romé de Lisle.

The word topaz, derived from an island in the Red Sea, where the ancients used to find topazes, was applied by them to a mineral very different from ours. One variety of our topaz they denominated Chrysolite. Colour, wine yellow. From pale wine yellow it passes into yellowish white, greenish white, mountain green, sky blue: from deep wine yellow into flesh red and crimson red. Specific gravity from 3·464 to 3·641. (Thomson's *Chemistry.*)

'*Yellow Topaz.*—In speaking of the topaz, a gem of a beautiful yellow colour is always understood; it is wine yellow of different degrees of intensity; and the fuller and deeper the tinge, the more the stone is esteemed. In hardness it yields to the spinelle. (Mawe *On Diamonds.*)

The yellow sapphire or oriental topaz is of very little value in commerce. (Emanuel *On Diamonds &c.*)

'There are few gems more universal favourites than the yellow topaz, when perfect: the rich warm tone of its colour, the vivacity of its lustre (which it retains even by the side of the diamond), and its large size, compared with many others, are characters which deservedly entitle it to distinction; it bears accordingly a high price when of good quality.

'It is chiefly employed for necklaces, ear-drops, bracelets &c. in suit. No little skill and taste are required in cutting and duly proportioning this gem; the table should be perfectly symmetrical, and not too large; the bizel of sufficient depth, and the collet side should be formed in delicate steps. It works easily on the mill, and the lapidaries are in general tolerably well acquainted with it; yet it is uncommon to meet with one well cut.

'The yellow topaz varies in price according to its beauty and perfection. A superlatively fine stone, perfect in colour and workmanship, sufficiently large for an armlet, or any other ornament, weighing nearly 80 carats, was sold for 100*l.*

'Topazes have become more common since our intercourse with Brazil; consequently they are less in demand, and lower in price. (Mawe *On Diamonds.*)

They are not now in vogue as they were 50 years ago, and a fine stone can at present be had for a few shillings. (Emanuel *On Diamonds.*)

'*Pink Topaz.*—This is made from the brownish yellow, which, when of intense colour, is put into the bowl of a tobacco pipe or small crucible, covered with ashes or sand; on the application of a low degree of heat, it changes its colour from a yellow to a beautiful pink. This is performed with little hazard; and if the colour produced happens to be fine, the price is much augmented.

'*Red Topaz.*—This beautiful gem, which very seldom occurs naturally, is of a fine crimson colour, tinged with a rich brown; it is extremely rare, and generally taken to be a variety of ruby, for which I have seen it offered for sale. Its price, from its scarcity, is quite capricious; it has an exquisite pleasing colour, very different from the glare of the artificial pink topaz.

'*Blue Topaz.*—It is also a beautiful gem, of a fine celestial blue colour. It has occurred of considerable magnitude; the finest specimen known, I brought in the rough from Brazil; when cut and polished, it weighed about 1¼ oz. Smaller specimens are not uncommon, and when light-coloured are often taken for aqua-marinas, from which they may always be distinguished by their greater weight and hardness &c.

White Topaz—is familiarly called *Minus Nova.* It is a beautiful pellucid gem, and is used for bracelets, necklaces &c. It possesses greater brilliancy than crystal; and from its hardness, has been used to cover paste &c., and to form doublets.' (Mawe *On Diamonds &c.*, 2nd ed. p. 108–112.)

TORTOISESHELL (Fr. écaille de tortue; Ital. scaglia di tartaruga; Ger. schildpatt; Malay, sisik kurakura). The brown and yellow scales of the *Testudo imbricata*, or tortoise, a native of the tropical seas. It is extensively used in the manufacture of combs, snuff-boxes &c., and in inlaying and other ornamental work.

The best tortoiseshell is that of the Indian Archipelago; and the finest of this quarter is obtained on the shores of the Spice Islands and New Guinea. Under the name East Indian, a great deal of inferior shell is imported, brought from various parts of the East Indies. The goodness of tortoiseshell depends mainly on the thickness and size of the scales, and in a smaller degree on the clearness and brilliancy of the colours. Before the opening of the British intercourse with India, the greater part of the tortoiseshell which eventually found its way to Europe, was first carried to Canton, which then formed the principal mart for the commodity. It is still an article of trade from that city; but the imports and exports are inconsiderable, Singapore being now the chief mart for this article. Its price at the latter varies from 750 and 900 to from 1,000 to 1,600 dollars per picul, according to quality. (Crawford's *Indian Archipelago*; *Singapore Chronicle*; *Canton Register*.)

Exclusive of 4,507 lb. of turtleshell, the imports of tortoiseshell in 1867 amounted to 34,825 lb., valued at 21,257*l*.; and the re-exports to 25,576 lb., of the value of 15,559*l*. Duty repealed in 1846.

TOYS (Ger. spielzeug, spielsachen; Dutch, speelgoed; Fr. jouets, bimbelots; Ital. trastulli; Span. dijes, juguetes de niños; Russ. igrushki) include every trifling article made expressly for the amusement of children.

How frivolous soever these articles may appear in the estimation of superficial observers, their manufacture employs hundreds of hands, and gives bread to many families in London, Birmingham &c. The greatness of the demand for them may be inferred from the fact, that a manufacturer of glass beads, and articles of that description, has received a single order for 500*l*. worth of dolls' eyes. (*Fourth Report, Artisans and Machinery*, p. 314.) Considerable quantities are also imported from Holland; which supplies us with several sorts of wooden toys on more reasonable terms than we can afford to produce them. But of late years these have been made in greater abundance in England than formerly.

In 1866, the value of the foreign toys imported was 196,651*l*., and the value of the toys exported was 74,770*l*. In 1853 the duty of 10 per cent. ad valorem was repealed, and subsequently the duty was repealed.

TRADE. Under this head we annex two tables, the information in which was not available at the time the article COMMERCE passed through the press.

Account showing the Value of the Imports and Exports of the United States of America in 1867.

UNITED STATES.	1867
	dollars
Value of imports	367,913,444
Bullion and specie	10,716,501
Total	378,629,945
Of which—	
Entered for home consumption	213,131,079
in warehouse	165,498,389
Value of exports	397,403,885
Bullion and specie	65,991,978
Total	463,395,863

Account of the Total Value of Imports for Home Consumption into France and of Exports of Domestic Produce of France in 1867 *and* 1868, *and of the Value of Imports into and Exports of Bullion and Specie from Austria in* 1867 *and* 1868.

	1867	1868
FRANCE.	francs	francs
Value of imports entered for home consumption, ex specie	3,026,514,000	3,398,572,000
Bullion and specie	848,102,943	682,907,056
Total	3,874,616,943	4,081,479,056
Value of exports of domestic produce	2,895,910,000	2,906,790,000
Bullion and specie	219,689,840	398,555,999
Total	3,075,599,840	3,305,345,999
AUSTRIA.	florins	florins
Value of imports of bullion and specie	21,145,640	30,860,536
Value of exports of do.	19,993,676	15,733,503

[COMMERCE; IMPORTS AND EXPORTS.]

TRADE MARKS. In consequence of the fraudulent use of names of well-known manufacturers or their recognised marks of merchandise for the purpose of vending spurious and inferior articles, the Act 25 & 26 Vict. c. 88 was passed in 1862. For its provisions, see COPYRIGHT.

TRAGACANTH. A species of gum the produce of the *Astragalus Tragacantha*, a thorny shrub growing in Persia, Crete, and the islands of the Levant.

It exudes about the end of June from the stem and larger branches, and soon dies in the sun. It is inodorous: impressing a very slightly bitter taste as it softens in the mouth. It has a whitish colour; is semitransparent; and in very thin, wrinkled, vermiform pieces; it is brittle, but not easily pulverised, except in frosty weather, or in a warmed mortar. It should be chosen in long twisted pieces, white, very clear, and free from all other colours; the brown, and particularly the black pieces, should be wholly rejected. (Dr. A. T. Thomson's *Dispensatory*; Milburn's *Orient. Com.*) In 1866, 698 cwt. tragacanth were imported. Duty repealed in 1846.

TRANSIT. The following are our existing customs regulations as to the treatment of goods in transit:—

Goods for exportation in transit must be imported as merchandise, in packages of legal size and in vessels of legal tonnage; and must be so reported in the ship's inward report, which must also specify the description of the goods.

The exporter is to enter into transhipment bond and pass a shipping bill, which should contain full particulars of the goods; he will then obtain an order for the delivery of the goods from the importing vessel, and a pricking note for the shipment on board the export vessel.

The goods, on delivery from the importing vessel, must be conveyed to the exporting vessel by licensed lightermen (unless the vessels be alongside, to the searcher on the station where the export vessel is lying, within 24 hours in London, and 12 hours at the outports; otherwise the goods to be subject to a more extended examination), and in charge of an officer at the exporter's expense.

Transhipments are not allowed to proceed after dark (excepting by permission of the inspector-general, in cases of real necessity), nor to take place in the river below Deptford Creek.

In order that lighters may not be made floating warehouses, spirits, wines, tea, and tobacco must be shipped within *three* days, and other goods within *six* days from the time of delivery

from the importing vessel, but this time may be extended in case they have been unavoidably shut out.

The officers of customs may make an examination sufficient to satisfy themselves of the integrity of the transaction.

Goods which have been landed from the import ship, except they have been landed in the transit sheds, cannot be exported under the transhipment regulations. At ports where lighters are not in use, and goods in transit are *necessarily* conveyed by cart or van, a cart-follower must be sent in charge of the goods, at the exporter's expense.

Samples of such goods as are usually sold by sample, in transit may be drawn by permission of the surveyor, and under the supervision of the examining officer, either on board the import ship or alongside the import or export vessel, on payment (if dutiable goods) of the duty, if it exceed 1*s.* in amount, but one sample only of each mark is allowed to be taken.

Corn may be transhipped at ports to which the general transhipment regulations do not extend, under similar regulations.

Transhipment of arms and ammunition, not allowed to the British possessions in America, the Mauritius, or Cape of Good Hope.

A duplicate shipping bill is to be furnished to the proper officer at the port at which goods may be entered for exportation, in transit to the British possessions.

These regulations are at present applicable only to the ports of London, Liverpool, Hull, Southampton, Glasgow, Goole, Grimsby, Newhaven, Poole, and Newcastle, but at the latter place it is restricted to vessels lying alongside each other.

The total value of the articles transhipped in 1867 is estimated in the Board of Trade returns at 6,655,527*l.*

The following extract of a letter of March 7, 1867, of the Director-General of Customs &c., with relative statement, shows the regulation adopted by *France* with regard to direct transit.

'The obligation of direct transit, stipulated in our various treaties of commerce, has lost much of its importance since the advantages of the Conventional Tariff have been extended to the majority of the European Powers, and we are able at this moment to depart, without real inconvenience, from the rigour of the laws established in this respect. Commencing from the time of the receipt of this letter, the obligation of direct transit shall be applied, in the case of merchandise mentioned in the Conventional Tariff, only in the case of those articles designated by name in the statement below.

'This special category of goods will also be freed from the above restriction, whenever they have been brought by land, or by means of internal navigation from the place of their origin to the place of their arrival in France, and have not been carried by sea during any part of their transit.

'Statement of the articles which remain subject to the obligation of direct transit, with the exception of importations from the country of origin into France by land or by means of internal navigation without any sea transit.

Sugar.
Molasses, not intended for distillation.
Skins, unprepared.
Wool in mass.
Horse-hair, unprepared, prepared, or crisped.
Wax, unprepared.
Grease, other than of fish.
Scouring from skins.
Bones and hoofs of cattle, unprepared or calcinated.
Horns of cattle, unprepared.
Rice with the straw.
Paste of Italy (macaroni, vermicelli &c.)
Fruits for making oil.
Resins.
Anise, unripe.
Grains for making oil.
Oil of every kind, not denominated.
Roots, herbs, flowers, leaves, and bark, for medicine, not denominated.
Cork of every kind.
Dyeing wood grounded.
Rushes and osiers.
Cotton plant.
Oleic acid.
Potash.
Tartar, unprepared.
Carbonate of potash.
Oil of schist, or petroleum, refined.
Silk crape, plain, embroidered, or worked.'

TREATIES (COMMERCIAL). By a commercial treaty is meant a treaty between two independent nations, for facilitating, and most commonly, also, regulating the commerce carried on between them.

Origin, Objects, and Policy of modern Commercial Treaties.—During the middle ages, and down, indeed, to a comparatively recent period, foreigners resident in a country, whether for commercial or other purposes, were, for the most part, subject to very harsh treatment. At one time, it was usual in England to make aliens liable for the debts and crimes of each other; and the practice, formerly so common, of laying heavier duties on the goods imported and exported by aliens than by British subjects, is not even yet, we grieve to say, altogether abandoned. In France, and some other countries, during the 14th and 15th centuries, a stranger was incapable of bequeathing property by will; and the whole of his personal as well as real estate, fell, at his death, to the king or the lord of the barony. This barbarous law was known by the name of *Droit d'Aubaine*, and was not completely abolished in France till a very late period. (Robertson's *Charles V.* vol. i. note 29.) Previously to last century, the laws with respect to shipwreck, though infinitely more humane than they had been at a more remote period, were calculated rather to promote the interest of the sovereign of the country, or the feudal lords on whose territories shipwrecked vessels might be thrown, than those of the unfortunate owners or survivors. [WRECK.] The practice of confiscating shipwrecked property continued in France till 1681, when it was abolished by an edict of Louis XIV. It was at one time common in Germany, to use the words of M. Bouchaud, 'pour les prédicateurs de prier Dieu en chaire, qu'il se fasse bien des naufrages sur leurs côtes!' (*Théorie des Traités de Commerce*, p. 118.) And the fact, that the celebrated jurist Thomasius wrote a dissertation in defence of such prayers, affords, if possible, a still more striking proof of the spirit of the period. The most serious obstacles were then, also, opposed, by the prevalent insecurity, and the arbitrary nature of the tolls which the lords were in the habit of exacting, to the transit of commodities through the territories of one state to those of another.

Under such circumstances, it became of much importance for commercial states to endeavour to obtain, by means of treaties, that protection and security for the persons and properties of their subjects, when abroad, against unjust treatment

and vexatious exactions, which they could not have obtained from the laws of the countries in which they might happen to reside. Thus, it was stipulated by Edward II., in 1325, that the merchants and mariners of Venice should have power to come to England for 10 years, with liberty to sell their merchandise and to return home in safety, '*without having either their persons or goods stopped on account of other people's crimes or debts.*' (Anderson, anno 1325.) The commercial treaties negotiated during the 15th, 16th, and 17th centuries, are full of similar conditions; and there can be no doubt that by providing for the security of merchants and seamen when abroad, and suspending, with respect to them, the barbarous laws and practices then in force, they contributed materially to accelerate the progress of commerce and civilisation.

Commercial treaties were also negotiated at a very early period for the regulation of neutral commerce during war; and for defining the articles that should be deemed contraband, or which it should not be lawful for neutral ships to convey or carry to either belligerent. These are obviously points that can only be decided by express stipulations. There is a good collection of treaties as to this point, in the appendix to the excellent work of Lampredi, *Del Commercio de' Popoli Neutrali.* [CONTRABAND.]

Instead, however, of confining commercial treaties to their legitimate and proper purposes—the security of merchants and navigators, and the facility of commercial transactions—they very soon began to be employed as engines for promoting the commerce of one country at the expense of another. For more than two centuries, those engaged in framing commercial treaties have principally employed themselves to secure, either by force or address, some exclusive advantage in favour of the ships and products of their particular countries. Hence these compacts are full of regulations as to the duties to be charged on certain articles, and the privileges to be enjoyed by certain ships, according as they were either produced by or belonged to particular countries. It was in the adjustment of these duties and regulations that the skill of the negotiator was chiefly put to the test. It was expected that he should be thoroughly acquainted with the state of every branch of industry, both in his own country and in the country with which he was negotiating; and he was to endeavour so to adjust the tariff of duties, that those branches in which his own country was deficient might be benefited, and those in which the other was superior might be depressed. The idea of conducting a negotiation of this sort on a fair principle of reciprocity is of very late origin: success in circumventing, in over-reaching, or in extorting from fear or ignorance some oppressive, but at the same time worthless privilege, was long esteemed the only proof of superior talent in negotiators.

In an able tract, attributed to Mr. Eden, afterwards Lord Auckland, published in 1787 (*Historical and Political Remarks on the Tariff of the French Treaty*), there is the following outline of the qualifications necessary to the negotiator of a commercial treaty: 'Besides a general knowledge of the trade and reciprocal interests of the contracting parties, he ought to be precisely acquainted with their several kinds of industry and skill, to discover their wants, to calculate their resources, and to weigh with nicety the state of their finances, and the proportionate interest of their money: nay, further, he should be able to ascertain the comparative population and strength of each country, together with the price and quality both of first materials, and also of the labour bestowed upon them: for this purpose he should enquire into the operations of every class of merchants and manufacturers concerned in the trade; should consult their expectations on each of its several branches; and collect their hopes and fears on the effect of such a commercial revolution on the competition of rival nations. A good treaty of commerce, independent of the art of negotiation, is pronounced, by one who well knew the extent and difficulty of the subject, to be a "*masterpiece of skill.*"' (P. 10.)

Had Mr. Eden concluding by stating, that no individual, or number of individuals, ever possessed, or ever would possess, the various qualifications which in his estimation were required in negotiating a 'good commercial treaty,' he would only have affirmed what is most certainly true. We believe, however, that he had formed a totally false estimate, not only of the qualifications of a negotiator, but of the objects he ought to have in view. It was the opinion of the Abbé Mably (*Droit public de l'Europe*, tome ii. p. 561), an opinion in which we are disposed, with very little modification, to concur, that when a few general rules are agreed upon for the effectual security of trade and navigation, including the importation and exportation of all commodities not prohibited by law; the speedy adjustment of disputes; the regulations of pilotage, harbour and lighthouse duties; the protection of the property and effects of merchants in the event of a rupture &c.; all is done that ought to be attempted in a commercial treaty. It may, indeed, be properly stipulated that the goods of the contracting powers shall be admitted into each other's ports on the same terms as 'those of the most favoured nations,' that is, that no higher duties shall be charged upon them than on those of others. But here stipulation ought to cease. It is an abuse and a perversion of commercial treaties, to make them instruments for regulating duties or prescribing custom-house regulations.

We admit, indeed, that occasions may occur, in which it may be expedient to stipulate for a reduction of duties or an abolition of prohibitions on the one side, in return for similar concessions on the other. But all arrangements of this sort should be determined by a convention limited to that particular object; and a fixed and not very distant term should be specified, when the obligation in the convention should expire, and both parties be at liberty to continue or abandon the regulations agreed upon. Generally speaking, all treaties which determine what the duties on importation or exportation shall be, or which stipulate for preferences, are radically objectionable. Nations ought to regulate their tariffs in whatever mode they judge best for the promotion of their own interests, without being shackled by engagements with others. If foreign powers be all treated alike, none of them has just grounds of complaint; and it can rarely be for the interest of any people to show preferences to one over another. Those, for example, by whom we may be most advantageously supplied with foreign products, require no preferences; and if we exclude them, or give a preference to others, we incontestably injure ourselves: and yet 19 out of 20 of the regulations as to duties in commercial treaties have been founded on this preposterous principle. They have been employed to divert trade into channels where it would not naturally flow; that is, to render it less secure and less profitable than it would otherwise have been.

A great deal of stress has usually been laid upon the advantages supposed to be derived from the

privileges sometimes conceded in commercial treaties. But we believe that those who enquire into the subject will find that such concessions have, in every case, been not only injurious to the party making them, but also to the party in whose favour they have been made. The famous commercial treaty with Portugal, negotiated by Mr. Methuen in 1703, was almost universally regarded, for a very long period, as admirably calculated to promote the interests of this country; but it is now generally admitted, by every one who has reflected upon such subjects, that few transactions have taken place by which these interests have been more deeply injured. It stipulated for the free admission of British woollens into Portugal, from which they happened, at the time, to be excluded; but in return for this concession—a concession far more advantageous to the Portuguese than to us—we bound ourselves 'for ever hereafter' to admit wines of the growth of Portugal into Great Britain at ⅔ of the duty payable on the wines of France. Thus, in order to open an access for our woollens to the limited market of Portugal, we consented, in all time to come, to drink inferior wine, bought at a comparatively high price. [WINE.] This, however, was not all. By excluding one of the principal equivalents the French had to offer for our commodities, we necessarily lessened their ability to deal with us; at the same time that we provoked them to adopt retaliatory measures against our trade. It is owing more to the stipulations in the Methuen treaty than to anything else, that the trade between England and France—a trade that would naturally be of vast extent and importance—has so long been confined within comparatively narrow limits.

It is visionary to imagine that any nation will ever continue to grant to another any exclusive advantage in her markets, unless she obtain what she reckons an equivalent advantage in the markets of the other. And if a commercial treaty stipulating for an exclusive privilege be really and bonâ fide observed by the country granting the privilege, we may be sure that the concessions made by the country in whose favour it is granted are sufficient fully to countervail it. Those who grasp at exclusive privileges in matters of this sort, or who attempt to extort valuable concessions from the weakness or ignorance of their neighbours, are uniformly defeated in their object. All really beneficial commercial transactions are bottomed on a fair principle of reciprocity; and that nation will always flourish most, and have the foundations of her prosperity best secured, who is a universal merchant, and deals with all the world on the same fair and liberal principles.

The justness of these principles, we are glad to observe, is now beginning to be very generally admitted. Stipulations as to duties and Custom-house regulations are disappearing from commercial treaties; and it is to be hoped that at no distant period every trace of them may have vanished.

A good work on the principles, style, and history of commercial treaties is a desideratum. The best we have seen are Mascovius *De Fœderibus Commerciorum*, 4to. Leipsic, 1735; and Bouchaud, *Théorie des Traités de Commerce*, 12mo. Paris, 1777. But these are principally works of erudition, and were written before the sound principles of commercial policy had been unfolded. There is no good collection of commercial treaties in the English language; but Mr. Hertslet's work is valuable, as containing the recent treaties in an accessible form.

We subjoin copies of or references to the principal commercial treaties and conventions existing at this moment between Great Britain and other powers, viz. ARGENTINE REPUBLIC, AUSTRIA, BELGIUM, CHINA, DENMARK, FRANCE, GREECE, HANSE TOWNS, ITALY, MEXICO, MOROCCO, NETHERLANDS, PERSIA, PERU, PORTUGAL, PRUSSIA &c., RUSSIA, SIAM, TURKEY, UNITED STATES, URUGUAY, AND ZOLLVEREIN.

ARGENTINE REPUBLIC.

Treaty of Amity, Commerce, and Navigation between his Majesty and the United Provinces of Rio de la Plata. (Feb. 2, 1825.)

Article 1. There shall be perpetual amity between the dominions and subjects of his Majesty the King of the United Kingdom of Great Britain and Ireland, and the United Provinces of Rio de la Plata and their inhabitants.

2. There shall be, between all the territories of his Britannic Majesty in Europe and the territories of the United Provinces of Rio de la Plata, a reciprocal freedom of commerce; the inhabitants of the two countries, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all such places, ports, and rivers in the territories aforesaid, to which other foreigners are or may be permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purposes of their commerce; and generally, the merchants and traders of each nation respectively shall enjoy the most complete protection and security for their commerce, subject always to the laws and statutes of the two countries respectively.

3. His Majesty the King of the United Kingdom of Great Britain and Ireland engages further, that in all his dominions situated out of Europe, the inhabitants of the United Provinces of Rio de la Plata shall have the like liberty of commerce and navigation stipulated for in the preceding article, to the full extent in which the same is permitted at present, or shall be permitted hereafter, to any other nation.

4. No higher or other duties shall be imposed on the importation into the territories of his Britannic Majesty, of any articles of the growth, produce, or manufacture of the United Provinces of Rio de la Plata, and no higher or other duties shall be imposed on the importation into the said United Provinces, of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any other foreign country; nor shall any other or higher duties or charges be imposed, in the territories or dominions of either of the contracting parties, on the exportation of any articles to the territories or dominions of the other, than such as are or may be payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation or importation of any articles the growth, produce, or manufacture of his Britannic Majesty's dominions, or of the said United Provinces, which shall not equally extend to all other nations.

5. No higher or other duties or charges on account of tonnage, light, or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed, in any of the ports of the said United Provinces, on British vessels of the burden of above 120 tons, than those payable in the same ports by vessels of the said United Provinces of the same burden, nor in the ports of any of his Britannic Majesty's territories on the vessels of the United Provinces of

above 120 tons, than shall be payable, in the same ports, on British vessels of the same burden.

6. The same duties shall be paid on the importation into the said United Provinces of any article the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such importation shall be in vessels of the said United Provinces, or in British vessels; and the same duties shall be paid on the importation into the dominions of his Britannic Majesty of any article the growth, produce, or manufacture of the said United Provinces, whether such importation shall be in British vessels, or in vessels of the said United Provinces; the same duties shall be paid, and the same drawbacks and bounties allowed on the exportation of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions to the said United Provinces, whether such exportation shall be in vessels of the said United Provinces, or in British vessels; and the same duties shall be paid, and the same drawbacks and bounties allowed on the exportation of any articles the growth, produce, or manufacture of the said United Provinces to his Britannic Majesty's dominions, whether such exportation shall be in British vessels or in vessels of the said United Provinces.

7. In order to avoid any misunderstanding with respect to the regulations which may respectively constitute a British vessel or a vessel of the said United Provinces, it is hereby agreed, that all vessels built in the dominions of his Britannic Majesty, and owned, navigated, and registered according to the laws of Great Britain, shall be considered as British vessels; and that all vessels built in the territories of the said United Provinces, properly registered, and owned by the citizens thereof, or any of them, and whereof the master and three-fourths of the mariners, at least, are citizens of the said United Provinces, shall be considered as vessels of the United Provinces.

8. All merchants, commanders of ships, and others, the subjects of his Britannic Majesty, shall have the same liberty in all the territories of the said United Provinces as the natives thereof, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as broker, factor, agent, or interpreter; nor shall they be obliged to employ any other persons for those purposes, nor to pay them any salary or remuneration, unless they shall choose to employ them; and absolute freedom shall be allowed in all cases to the buyer and seller to bargain and fix the price of any goods imported into or exported from the said United Provinces, as they shall see good.

9. In whatever relates to the lading and unlading of ships, the safety of merchandise, goods, and effects, the disposal of property of every sort and denomination, by sale, donation, or exchange, or in any other manner whatsoever, as also the administration of justice, the subjects and citizens of the two contracting parties shall enjoy, in their respective dominions, the same privileges, liberties, and rights as the most favoured nation, and shall not be charged in any of these respects with any other duties or imposts than those which are paid or may be paid by the native subjects or citizens of the power in whose dominions they may be resident. They shall be exempted from all compulsory military service whatsoever, whether by sea or land, and from all forced loans, or military exactions or requisitions; neither shall they be compelled to pay any ordinary taxes, under any pretext whatsoever, greater than those that are paid by native subjects or citizens.

10. It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but before any consul shall act as such, he shall, in the usual form, be approved and admitted by the Government to which he is sent; and either of the contracting parties may except from the residence of consuls such particular places as either of them may judge fit to be so excepted.

11. For the better security of commerce between the subjects of his Britannic Majesty and the inhabitants of the United Provinces of Rio de la Plata, it is agreed, that if at any time any interruption of friendly commercial intercourse, or any rupture, should unfortunately take place between the two contracting parties, the subjects or citizens of either of the two contracting parties residing in the dominions of the other shall have the privilege of remaining and continuing their trade therein without any manner of interruption, so long as they behave peaceably and commit no offence against the laws; and their effects and property, whether intrusted to individuals or to the state, shall not be liable to seizure or sequestration, or to any other demands than those which may be made upon the like effects or property belonging to the native inhabitants of the state in which such subjects or citizens may reside.

12. The subjects of his Britannic Majesty residing in the United Provinces of Rio de la Plata shall not be disturbed, persecuted, or annoyed on account of their religion, but they shall have perfect liberty of conscience therein, and to celebrate divine service either within their own private houses, or in their own particular churches or chapels, which they shall be at liberty to build and maintain in convenient places, approved of by the Government of the said United Provinces: liberty shall also be granted to bury the subjects of his Britannic Majesty who may die in the territories of the said United Provinces in their own burial places, which, in the same manner, they may freely establish and maintain. In the like manner, the citizens of the said United Provinces shall enjoy, within all the dominions of his Britannic Majesty, a perfect and unrestrained liberty of conscience, and of exercising their religion publicly or privately, within their own dwelling-houses, or in the chapels and places of worship appointed for that purpose, agreeably to the system of toleration established in the dominions of his said Majesty.

13. It shall be free for the subjects of his Britannic Majesty residing in the United Provinces of Rio de la Plata, to dispose of their property, of every description, by will or testament, as they may judge fit; and in the event of any British subject dying without such will or testament in the territories of the United Provinces, the British consul-general, or, in his absence, his representative, shall have the right to nominate curators to take charge of the property of the deceased for the benefit of his lawful heirs and creditors, without interference, giving convenient notice thereof to the authorities of the country; and reciprocally.

14. His Britannic Majesty being extremely desirous of totally abolishing the slave trade, the United Provinces of Rio de la Plata engage to co-operate with his Britannic Majesty, for the completion of so beneficent a work, and to prohibit all persons inhabiting within the said United Provinces, or subject to their jurisdiction, in the most effectual manner, and by the most solemn laws, from taking any share in such trade.

15. The present treaty shall be ratified, and the ratification shall be exchanged in London within 4 months, or sooner, if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed their seals thereunto.

Done at Buenos Ayres, the 2nd day of February, in the year of our Lord 1825.

WOODBINE PARISH, H.M. Consul-General.
MANL. J. GARCIA.

An order in council, dated September 8, 1827, orders that vessels of the United Provinces of Rio de la Plata entering the ports of the United Kingdom of Great Britain and Ireland, in ballast, or laden direct from any of the ports of Rio de la Plata, or departing from the ports of the said United Kingdom, together with the cargoes on board the same, such cargoes consisting of articles which may be legally imported or exported, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on British vessels entering or departing from such ports; or on similar articles when imported into or exported from such ports in British vessels; and also such articles, when exported from the said ports in vessels of the United Provinces of Rio de la Plata, respectively, shall be entitled to the same bounties, drawbacks, and allowances that are granted on similar articles when exported in British vessels.

Local Dues.—Provided nevertheless, that nothing herein shall extend to any duties or charges on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges to which any vessels of the United Provinces of Rio de la Plata, of the burden of 120 tons, or of any less burden, are now by law liable in the ports of any of his Majesty's dominions; it appearing to his Majesty and his privy council, that British vessels of the burden of 120 tons, or of any less burden, are subject in the ports of the said United Provinces to higher duties and charges than are levied in those ports on vessels of the said United Provinces of the burden of 120 tons, or of any less burden.

AUSTRIA.

Treaty of Amity, Commerce, and Navigation between her Britannic Majesty and the Emperor of Austria. Signed at Vienna, July 3, 1838.

Article 1. From the date of the ratification of this present treaty, British vessels arriving in or departing from the ports of his Majesty the Emperor of Austria, and Austrian vessels arriving in or departing from the ports of the United Kingdom of Great Britain and Ireland, and those of all the possessions of her Britannic Majesty, shall be subject to no other or higher duties or charges, of whatsoever nature they may be, than those which are actually or may hereafter be imposed on national vessels, on their entering into or departing from such ports respectively.

2. All productions of the soil, industry, and art of the states and possessions of his Majesty the Emperor of Austria, including the said productions which may be exported through the northern outlet of the Elbe, and the eastern outlet of the Danube, and which may be imported into the ports of the United Kingdom and the possessions of her Britannic Majesty; and also all the productions of the soil, industry, and art of the United Kingdom and possessions of her Britannic Majesty, which may be imported into the ports of his Majesty the Emperor of Austria, shall enjoy reciprocally, in all respects, the same privileges and immunities, and may be imported and exported exactly in the same manner, in vessels of the one as in vessels of the other of the high contracting parties.

3. All commodities which are not the productions of the soil, industry, and art of the two respective states or their possessions, and which may be legally imported from the ports of Austria, including those of the Danube, into the ports of the United Kingdom of Great Britain and Ireland, of Malta, and Gibraltar, and other possessions of her Britannic Majesty, in Austrian vessels, shall be subject to the same duties only which would be paid on the same articles, if they were imported in British vessels.

Her Britannic Majesty extends by this treaty to Austrian navigation and trade, the full benefits of the two British Acts of Parliament passed on the 28th of August, 1833, regulating the trade and navigation of the United Kingdom and British possessions, as well as all other privileges of commerce and navigation now enjoyed, or to be hereafter granted, by existing laws, by orders in council, or by treaties to the most favoured nations.

4. All Austrian vessels arriving from the ports of the Danube, as far as Galacz inclusively, shall, together with cargoes, be admitted into the ports of the United Kingdom of Great Britain and Ireland, and of all the possessions of her Britannic Majesty exactly in the same manner as if such vessels came direct from Austrian ports, with all the privileges and immunities stipulated by the present treaty of navigation and commerce. In like manner, all British vessels, with their cargoes, shall continue to be placed upon the same footing as Austrian vessels, whenever such British vessels shall enter into or depart from the same ports.

5. In consideration of British vessels, arriving direct from other countries than those belonging to the high contracting parties, being admitted with their cargoes into Austrian ports, without paying any other duties whatever than those paid by Austrian vessels, so also the productions of the soil and industry of the parts of Asia or Africa situated within the Straits of Gibraltar, which shall have been brought into the ports of Austria, may be re-exported from thence in Austrian vessels directly into British ports, in the same manner, and with the same privileges, as to all manner of duties and immunities, as if these productions were imported from Austrian ports in British vessels.

6. All commodities and articles of commerce which, according to the stipulations of the present treaty, or by the existing laws and ordinances of the respective states, may be legally imported into or exported from the states and possessions of the two high contracting parties, whether under the British or the Austrian flag, shall in like manner be subject to the same duties, whether imported by national vessels or by those of the other state; and upon all commodities and articles of commerce which may be legally exported from ports of either state, the same premiums, drawbacks, and advantages shall be accorded, whether they are exported by the vessels of the one or by those of the other state.

7. All commodities and articles of commerce which shall be imported, placed in depôt, or warehoused in the ports of the states and possessions of the two high contracting parties, so long as they shall remain in depôt or warehouse, and shall not be used for internal consumption, shall be subject, upon re-exportation, to the same treatment and duties, whether that re-exportation

shall be made in the vessels of the one or in those of the other state.

8. No priority or preference shall be given, directly or indirectly, by the Government of either country, or by any company or corporation, or agent acting on its behalf or under its authority, in the purchase of any article the production of the soil, industry, or art of either of the two states and their possessions, imported into the ports of the other, on account of the nationality of the vessel in which such articles may be imported; it being the true intent and meaning of the high contracting parties that no difference or distinction whatever shall be made in this respect.

9. In regard to the commerce to be carried on in Austrian vessels with the British possessions in the East Indies, her Britannic Majesty consents to grant the same facilities and privileges to the subjects of his Imperial and Royal Apostolic Majesty as are or may be enjoyed under any treaty or Act of Parliament by the subjects or citizens of the most favoured nations; subject to the laws, rules, regulations, and restrictions which are or may become applicable to the vessels and subjects of any other foreign country enjoying the like advantages and privileges of trading with the said possessions.

10. The present treaty does not include the navigation and carrying trade between one port and another, situated in the dominions of one contracting party, by the vessels of the other, as far as regards the carrying of passengers, commodities, and articles of commerce; this navigation and transport being reserved to national vessels.

11. The vessels and subjects of the high contracting parties shall, by the present treaty, enjoy reciprocally all the advantages, immunities, and privileges, within the ports of their respective states and possessions, which are now enjoyed by the navigation and commerce of the most favoured nations; the effect hereof being to secure, in the United Kingdom and British possessions, to Austrian vessels and subjects, the full and entire advantages of navigation and commerce allowed by the Navigation Act passed in London on the 28th of August, 1833, and by another Act of the same date, regulating the trade of the British possessions abroad; or which may be accorded by orders in council or by treaty to other powers; and in like manner British vessels and subjects shall enjoy, in the ports of the states and possessions of his Imperial and Royal Apostolic Majesty, the full and entire advantages of navigation and commerce granted by existing laws, regulations, and ordinances, or by treaty, to foreign powers; and her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Imperial and Royal Apostolic Majesty, engage reciprocally not to grant any favours, privileges, or immunities whatsoever, in matters of commerce and navigation, to the subjects of any other state, which shall not be also at the same time extended to the subjects of the one or of the other of the high contracting parties, gratuitously if the concession in favour of the other state shall have been gratuitous, or upon giving as nearly as possible the same compensation or equivalent in case the concession shall have been conditional.

12. The clause of Article VII. of the convention concluded at Paris on the 5th November, 1815, between the courts of Great Britain, Austria, Prussia, and Russia, relative to the commerce between the states of his Imperial and Royal Apostolic Majesty and the United States of the Ionian Islands, shall remain in force.

13. The present treaty, after being signed and ratified, shall replace the convention of navigation and commerce concluded the 21st December, 1829, in London, between the Governments of his Britannic Majesty and of his Imperial and Royal Apostolic Majesty; and shall continue in force until the 31st of December, 1848; and further, until the expiration of 12 months after one of the high contracting parties shall have notified to the other the intention to terminate its duration. It is further agreed that in 12 months after one of the high contracting parties has received from the other such notification, this treaty, and all the stipulations it contains, shall cease to be obligatory upon either party.

14. The present treaty shall be ratified, and the ratifications exchanged at Vienna, in the space of one month, or sooner if possible.

In witness whereof &c. plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at Vienna the 3rd day of July, in the year of our Lord 1838.

FREDERIC JAMES LAMB.
METTERNICH.

Declaration signed by the respective Plenipotentiaries on the conclusion of the preceding Treaty.

With a view to prevent beforehand all doubt which might hereafter arise with regard to the true sense of the expressions contained in the treaty of commerce and navigation signed this day between the plenipotentiaries of her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and of his Majesty the Emperor of Austria, King of Hungary and Bohemia, the high contracting parties have agreed, by common consent, that the French text of the said treaty shall be considered by the Austrian Government as the original text.

In witness whereof the present declaration has been done in duplicate, and signed by the respective plenipotentiaries.

Vienna, 3rd July, 1838.

FREDERIC JAMES LAMB.
METTERNICH.

Declaration made by the Plenipotentiary of her Britannic Majesty on the Exchange of the Ratifications of the preceding Treaty.

In proceeding to the exchange of the ratifications of the treaty of commerce and navigation between her Majesty the Queen of the United Kingdom of Great Britain and Ireland and his Majesty the Emperor of Austria, King of Hungary and Bohemia, concluded and signed at Vienna on the 3rd of July, 1838, the undersigned plenipotentiary of her Britannic Majesty is commanded by her Majesty to explain and declare:—

1. That in the preamble of the said treaty, the words 'the commercial relations of their respective states and possessions' shall be understood to mean 'the commercial relations between their respective states and possessions,' the latter form of words being that adopted in the preamble of the convention of commerce between Great Britain and Austria signed at London, December 21, 1829.

2. That the stipulations of the third article of the aforesaid treaty of the 3rd of July, 1838, relating to goods not the produce of the respective states, shall be understood to be mutual.

3. That by the seventh article of the aforesaid treaty of the 3rd of July, 1838, it is understood that goods placed in warehouse shall not be liable to duty unless entered for consumption, and may be exported on the same terms in the ships of the one as in those of the other country.

Her Britannic Majesty's ratification of the aforesaid treaty of commerce and navigation is exchanged under the explicit declarations and understandings above mentioned.

Done at Milan, the 14th day of September, 1838.

FREDERIC JAMES LAMB.

Counter-Declaration made by the Austrian Plenipotentiary.

In consequence of the declaration presented this day by his Excellency Sir Frederic Lamb, Ambassador of her Britannic Majesty to his Imperial and Royal Apostolic Majesty, on the occasion of the exchange of the ratifications of the treaty of commerce and navigation concluded and signed at Vienna on the 3rd of July, between the plenipotentiaries of his Imperial and Royal Apostolic Majesty and of her Britannic Majesty, which declaration is conceived in the following terms:—

1. That in the preamble of the said treaty the words 'the commercial relations of their respective states and possessions' shall be understood to mean 'the commercial relations between their respective states and possessions,' the latter form of words being that adopted in the preamble of the convention of commerce signed at London on the 21st of December, 1829, between Austria and Great Britain.

2. That the stipulations of the 3rd article of the aforesaid treaty of the 3rd of July, 1838, relating to goods not the produce of the respective states, shall be understood to be mutual.

3. That by the 7th article of the treaty of the 3rd of July, 1838, it is understood that goods placed in warehouse shall not be liable to duty unless entered for consumption; and may be exported on the same terms in the ships of the one as in those of the other country.

The undersigned, Chancellor of Court and State, is authorised by his Majesty the Emperor, his august master, to accede, in every particular, to this declaration presented by his Excellency the Ambassador of her Britannic Majesty.

Done at Milan, the 14th of September, 1838.

METTERNICH.

Treaty of Commerce between her Majesty and the Emperor of Austria, with the final Protocol. Signed at Vienna, December 16, 1865.

Article 1. During the continuance of the present treaty, the subjects and commerce of Austria shall enjoy within all the dominions and possessions of her Britannic Majesty, including her Majesty's colonies and foreign possessions, the same advantages which have been conceded to French subjects and commerce by the treaty between her Majesty and the Emperor of the French, signed at Paris on the 23rd of January, 1860, and to the subjects and commerce of the States of the Zollverein by the treaty between her Majesty and his Majesty the King of Prussia, representing the sovereign states and territories united to the Prussian system of customs and contributions, signed at Berlin on the 30th of May, 1865; and further, Austrian subjects and commerce shall be placed in all other respects on the footing of the subjects and commerce of the most favoured nation.

2. From and after the 1st of January, 1867, British subjects and commerce shall, within the dominions of his Imperial and Royal Majesty, be placed in every respect upon the footing of the most favoured nation, and share in all the advantages and favours which are enjoyed by the commerce and subjects of any third power.

From this rule are excepted:—

a. Advantages such as those which, for the sole purpose of facilitating frontier traffic, are at present conceded, or may hereafter be conceded, to the States of the German Zollverein, or to other neighbouring States; and also those reductions of, or exemptions from, customs duties which are valid only at certain parts of the frontier, or for the inhabitants of particular localities.

b. Those advantages which belong, or may hereafter be conceded, to the subjects of the German Confederation in virtue of Federal treaties and Federal laws.

c. Those special and ancient privileges which are enjoyed by Turkish subjects, as such, for Turkish commerce in Austria.

3. The Austrian Customs Tariff (the present system of calculating customs duties by weight being maintained) shall be so regulated that the duty to be levied upon articles the produce or manufacture of the dominions of her Britannic Majesty, upon their importation into the Austrian States, shall, from the 1st of January, 1867, not exceed 25 per cent. of the value, with the addition of the cost of transport, insurance, and commission necessary for the importation into Austria as far as the Austrian Customs frontier; and for this purpose there shall serve as basis the average value of the articles included under one and the same denomination in each position of the future Austrian Tariff.

From and after the 1st of January, 1870, the maximum of these duties shall not exceed 20 per cent. of the value, with the additions above defined.

The articles of State monopolies (tobacco, salt, gunpowder), and further, the goods comprised in Classes 1 and 7 of the present Austrian tariff, are excepted from these maxima.

4. Commissioners from both Governments shall meet, not later than the month of March, 1866, for the purpose of ascertaining and determining the values and additional charges, and they shall take as the basis of their calculations the average prices at the principal centres of production and commerce of the United Kingdom for the year 1865.

Three years after the duties fixed by treaty shall have come into operation, each of the contracting parties shall have the right to claim a revision of the values.

5. Those duties of the future Austrian tariff to come into operation on the 1st of January, 1867, to which England attaches a special interest, shall form the subject of a supplementary convention to be concluded between the two contracting parties.

The articles of State monopoly, as also the goods subject to fiscal duties included in Classes 1 and 7 of the present tariff, remain also here excepted.

6. Internal imposts which are levied in the territory of one party on the production, preparation, or use of any article, whether on account of the state or on account of municipalities and corporations, shall under no pretext affect the productions of the other party in a higher or more onerous degree than the same productions of native origin.

7. The contracting parties agree that every reduction in their tariffs of import or export duties, and every privilege, favour, or immunity which either contracting party may hereafter grant to the subjects and commerce of a third power, shall be extended immediately and unconditionally to the other contracting party, with a reserve, however, of the exceptions enumerated in Article 2, *a* and *b*.

8. The subjects of one of the contracting parties shall enjoy, in the dominions and possessions of the other, equality of treatment with native subjects in regard to charges on loading and unloading, to warehousing, and to the transit trade, as also in regard to bounties, facilities, and drawbacks.

9. The subjects of one of the two high contracting powers shall, in the dominions of the other, enjoy the same protection as native subjects in regard to the rights of property in trade marks, and other distinctive marks, as well as in patterns and designs for manufacture.

10. The high contracting parties reserve to themselves to determine hereafter, by a special convention, the means of reciprocally protecting copyright in works of literature and the fine arts within their respective dominions.

11. The present treaty shall remain in force for the space of ten years, to date from the 1st of January, 1867; and in case neither of the high contracting powers shall have notified to the other, twelve months before the expiration of the said period of ten years, the intention to put an end to its operation, the treaty shall continue in force for another year, and so on from year to year, until the expiration of a year counting from the day on which one or other of the high contracting parties shall have announced its intention to put an end to it.

The high contracting parties reserve to themselves the right to introduce, by common consent, into this treaty, any modification which is not opposed to its spirit and principles, and the utility of which shall have been shown by experience.

12. The present treaty shall be ratified, and the ratifications shall be exchanged in Vienna, in three weeks or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at Vienna, this 16th day of December, 1865.

BLOOMFIELD.
ALEXANDER GRAF MENSDORFF-POUILLY, *F.M.L.*
BERNHARD-BARON WÜLLERSTORF, *C. Admiral.*

Final Protocol.

Upon proceeding to the signature of the treaty of commerce concluded this day between Great Britain and Austria, the plenipotentiaries of the two powers made the following declarations:—

1. The plenipotentiaries of his Majesty the Emperor of Austria declared that in virtue of Article XIII. of the treaty of customs and contributions union of the 23rd December, 1863, between Austria and Liechtenstein, the treaty of commerce concluded this day would apply equally to the principality of Liechtenstein, and the British plenipotentiary accepted this declaration.

2. In order to avoid any future doubt as to the intention of Article III., the plenipotentiaries of the two powers agreed to the following explanation:—

In the construction of a tariff of specific duties by weight within fixed ad valorem rates, it is necessary to determine what shall be the unit of value to which each specific duty shall be applied.

In adopting the basis of value established by Article III., it is understood that it is not intended to depart from the general principle of the article, viz., the application of certain maximum ad valorem rates of duty to all articles of British produce and manufacture, but to guard against the necessity of making separate provision for every variety of each article, thereby creating minute and inconvenient subdivisions in the tariff.

With this view it becomes necessary to group together those different qualities and descriptions of the same article or of similar articles which, from their approximation in value and general resemblance in character, it is found possible to include under one and the same denomination in one position of the tariff.

But it is understood that in fixing the denominations in each position of the future Austrian tariff, they shall be so arranged that the duty affixed to any one position shall not exceed the 'maximum' rates fixed by Article III. of the treaty upon the average value of any kind of goods of commercial importance included under any one denomination in such position, unless by common consent it is considered expedient or necessary.

3. With reference to Article IV., the plenipotentiaries likewise agreed that if it shall be found that the prices of any kinds of goods have been essentially disturbed by exceptional causes during the twelve months of the year 1865, the Commissioners of the two Governments shall endeavour to find such a basis of value as shall be considered to correspond to a fair average value for future years.

In the case of textile manufactures (the prices of which have been seriously deranged during the late war in the United States of America) it is agreed that if the average prices of the year 1865 be taken as a basis of value, either contracting party may claim a revision of such valuation after the 1st of January, 1868.

4. The British plenipotentiary then declared that:

Her Britannic Majesty engages to recommend to Parliament the abolition of the duties payable on the importation of wood and timber into the United Kingdom, and also the reduction of the duties payable on wine in bottle to the amount of those payable on wine in wood upon importation into the United Kingdom.

5. The Imperial Austrian plenipotentiaries on their part declared that:

The duty upon the export of rags from the states and possessions of his Imperial and Royal Majesty shall, from and after the 1st of July, 1866, be reduced to 2 florins the Zollcentner; and that:

The duty upon the importation of salted herrings into the states and possessions of his Imperial and Royal Majesty shall, from the 1st of February, 1866, be reduced to 50 kreutzers per Zollcentner; gross weight.

In witness whereof the undersigned plenipotentiaries have drawn up the present protocol in duplicate form, to which, after it had been duly read, they affixed their signatures.

Vienna, this 16th day of December, 1865.

BLOOMFIELD.
ALEXANDER GRAF MENSDORFF-POUILLY, *F.M.L.*
BERNHARD-BARON WÜLLERSTORF, *C. Admiral.*

Treaty of Navigation between her Majesty and his Majesty the Emperor of Austria. Signed at Vienna, April 30, 1868. Ratifications exchanged at Vienna, June 26, 1868.

Article 1. British ships and their cargoes in all the dominions of his Imperial and Royal Apostolic Majesty, and ships belonging to the citizens

of the Imperial and Royal States and their cargoes in all the dominions of her Majesty the Queen of the United Kingdom of Great Britain and Ireland, from whatever place arriving and whatever may be their place of destination, and whatever may be the place of origin or destination of their cargoes, shall be treated in every respect as national ships and their cargoes.

Every favour or exemption in these respects, or any other privilege in matters of navigation, which either of the contracting parties shall grant to a third power, shall be extended immediately and unconditionally to the other party.

It is, however, agreed that this stipulation shall not be applicable to the national fisheries of either of the two countries.

2. The stipulations contained in the preceding article are also to be applied to the colonies and foreign possessions of her Britannic Majesty, as well as to the ships and cargoes of the same; but, as regards the coasting trade, only in those colonies and foreign possessions the coasting trade of which shall have been, or shall be hereafter, opened to foreign ships in conformity with the Acts of Parliament which govern this matter.

The foreign possessions and colonies of her Britannic Majesty, the coasting trade of which has been already so opened to foreign ships, and in which therefore ships belonging to the citizens of the Imperial and Royal States are placed on the national footing, are—

British India,
Ceylon,
Cape of Good Hope,
Victoria,
St. Lucia.

3. If any ship of war or merchant-vessel of one of the contracting parties should run aground or be wrecked, or meet with any casualty upon the coasts of the other, the same aid and assistance shall be rendered to it, and to the cargo, apparel, and furniture thereof, as to a national vessel; and in such case no other expenses shall be paid by the owners or their agents and representatives for the preservation of the property or of the lives of the persons on board the ship, than would be payable in the like case of a wreck of or casualty to a national vessel.

In case the master of a merchant-vessel should be under the necessity of disposing of a part of his merchandise in order to defray any salvage expenses, no impediment shall be opposed by the authorities, the master being bound, however, to conform to the existing regulations and tariffs.

The goods and merchandise saved from the wreck shall be exempt from all duties of customs, unless cleared for consumption.

The respective consuls-general, consuls, vice-consuls, and consular agents shall, if the owner or master, or other agent of the owner, is not present, or is present and requires it, or is bound by the laws of his country to accept consular assistance, be authorised to interpose in order to afford the necessary assistance to those concerned.

4. The consuls-general, consuls, vice-consuls, and consular agents of each of the contracting parties residing in the dominions and possessions of the other, shall receive from the local authorities such assistance as can by law be given to them for the recovery of deserters from the vessels of their respective countries.

5. All vessels which according to British law are to be deemed British vessels, and all vessels which, according to the laws prevailing in the States of his Imperial and Royal Apostolic Majesty, are to be deemed vessels belonging to the subjects of his Imperial and Royal Apostolic Majesty, shall, for the purposes of this treaty, be respectively deemed British vessels, and vessels belonging to the citizens of the Imperial and Royal States.

6. The present treaty shall remain in force from the exchange of the ratifications thereof until the 31st of December, 1877; and in case neither of the high contracting powers shall have notified to the other, twelve months before the expiration of the said period, the intention to put an end to its operation, the treaty shall continue in force for another year, and so on from year to year, until the expiration of a year, counting from the day on which one or other of the high contracting parties shall have announced its intention to put an end to it.

7. The present treaty shall be ratified, and the ratifications shall be exchanged at Vienna, within eight weeks, or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at Vienna, this 30th day of April, in the year of our Lord 1868.

BLOOMFIELD.
LOUIS MALLET.

BELGIUM.

Treaty of Commerce and Navigation between her Majesty and the King of the Belgians. Signed at London, July 23, 1862. *Ratifications exchanged at London, August* 30, 1862.

Article 1. There shall be reciprocal liberty of commerce between all the dominions and possessions of the two high contracting parties; and the subjects of each of them shall, throughout the whole extent of the territories and possessions of the other, enjoy the same rights, privileges, liberties, favours, immunities, and exemptions, in matters of commerce and navigation, which are or may be enjoyed by native subjects.

2. The subjects of one of the two high contracting parties residing in the dominions of the other, shall have the same liberty as native subjects to manage their own affairs themselves, or to commit them to the management of any other persons, as brokers, factors, agents, or interpreters. They shall not be restrained in their choice, and shall not be obliged to pay any salary or remuneration to any person whom they shall not choose to employ in those capacities; buyers and sellers being at perfect liberty to bargain together, and to fix the price of any goods or merchandise imported or destined for exportation, on condition of observing the regulations and the customs laws of the country.

3. In all that relates to navigation and commerce, the high contracting parties shall not grant any privilege, favour, or immunity to any other country, which shall not be also and immediately extended to their respective subjects.

4. All vessels which according to the laws of Great Britain are to be deemed British vessels, and all vessels which according to the laws of Belgium are to be deemed Belgian vessels, are declared to be British and Belgian vessels respectively.

5. No duties of tonnage, harbour, light-house, pilotage, quarantine, or other similar or corresponding duties, of whatever nature or under whatever denomination, levied for the profit or in the name of the Government, public functionaries, communes, corporations, or establishments of whatever kind, shall be imposed in the ports of either country, upon the vessels of the other country, from whatever port or place arriving, which

shall not be equally imposed in the like cases on national vessels.

6. In all that regards the stationing, the loading, and unloading of vessels in the ports, basins, docks, roadsteads, harbours, or rivers of the two countries, no privilege shall be granted to national vessels which shall not be equally granted to vessels of the other country; the intention of the high contracting parties being, that in this respect also the respective vessels shall be treated on the footing of perfect equality.

7. British vessels entering a port of Belgium, and, reciprocally, Belgian vessels entering a port of Great Britain or of the British possessions, and desiring to discharge only a part of their cargo, may, subject to compliance with the laws and regulations of the respective countries, retain on board that part of the cargo which is destined for another port, whether in the same country or in any other country, and may re-export the same, without being compelled to pay, upon such retained part of their cargo, any duty of customs save those for watching, which, of course, shall be levied only at the rate fixed for national vessels.

8. Goods of every kind which are or may be legally importable into the ports of the United Kingdom of Great Britain and Ireland, its colonies and possessions, in British vessels, may likewise be imported into such ports in Belgian vessels, without being liable to other or higher duties, of whatever denomination, than if such goods were imported in national vessels.

Reciprocally, goods of every kind which are or may be legally importable into the ports of Belgium in Belgian vessels, may likewise be imported into such ports in British vessels, without being liable to other or higher duties, of whatever denomination, than if such goods were imported in national vessels.

9. Goods of every kind which may be exported either from Belgium by British vessels, or from Great Britain and the British possessions by Belgian vessels, for whatever destination, shall not be liable to any other duties or formalities on departure than if they were exported in national vessels; and they shall enjoy, under either flag, all bounties and drawbacks, or other favours which are or may be granted in each of the two countries to national vessels.

10 During the period allowed by the laws of the two countries for the warehousing of goods, no other duties than those for custody and storage shall be levied upon articles imported from one of the two countries into the other, until they shall be removed for transit, re-exportation, or internal consumption.

In no case shall such articles pay higher duties, or be liable to other formalities, than if they had been imported under the national flag, or from the most favoured country.

11. Goods of every kind coming from or going to either of the two countries shall reciprocally be exempted from all transit duty.

The prohibition in regard to gunpowder is, however, maintained; and the two high contracting parties reserve to themselves to subject the transit of arms of war to special authorisations.

The treatment of the most favoured nation is reciprocally guaranteed to each of the two countries in all that concerns transit and warehousing.

12. With regard to the coasting trade, it is agreed between the high contracting parties that the subjects and vessels of each of them shall, in the dominions and possessions of the other, enjoy the same privileges, and be treated in all respects on the same footing, as national subjects and vessels.

With regard to the coasting trade in the colonies, the stipulations of the present article shall be applicable only to the coasting trade of such of the colonies of her Britannic Majesty as have applied or shall hereafter apply, in conformity with the Acts of Parliament which govern this matter, that their coasting trade may be opened to foreign vessels.

13. The regulations established for goods imported from France into Belgium by Articles 18 to 26 inclusive, of the treaty of commerce concluded between the two countries on the 1st of May, 1861, shall equally apply in Belgium to the same goods imported from Great Britain and its possessions.

With regard to pure or mixed tissues, taxed ad valorem, the valuation of which in the ports may appear to the Belgian Government to present difficulties, the Belgian Government reserves to itself the power to designate the custom-house of Brussels exclusively for the admission of such goods.

14. Neither of the two high contracting parties shall impose upon goods the produce or manufacture of the other party, other or higher duties of importation than such as are or may be imposed upon the same goods the produce of any other foreign country.

Each of the two parties engages to extend to the other any favour or privilege, or reduction in the tariff of duties of importation or exportation, on articles mentioned, or not mentioned, in the present treaty, which either of them may grant to any third power. They engage, moreover, not to establish against each other any duty or prohibition of importation or exportation, which shall not, at the same time, be applicable to all other nations.

It is further agreed that if sea salt refined in Belgium should obtain a deduction of more than 7 per cent. from the general duty of excise, British salt refined in Belgium shall enjoy, at the same moment, a deduction from the excise which shall not be inferior by more than 7 per cent. to the deduction granted to sea salt.

15. Articles the produce or manufacture of Belgium shall not be subject in the British colonies to other or higher duties than those which are or may be imposed upon similar articles of British origin.

16. The subjects of one of the high contracting parties shall enjoy, in the dominions of the other, the same protection as native subjects in all that relates to property in trade marks, as well as in industrial and manufacturing patterns and models of every description.

The exclusive right to make use of an industrial or manufacturing pattern or model shall not, with regard to British subjects in Belgium, and reciprocally with regard to Belgian subjects in Great Britain, have a duration longer than that fixed by the law of the country for native subjects.

If the industrial or manufacturing pattern or model is open to the public in the country of origin, it cannot be made the subject of an exclusive right in the other country.

The provisions of the two preceding paragraphs are applicable to trade marks.

The rights of subjects of one of the high contracting parties in the dominions of the other are not subject to the condition that the models or patterns shall be worked there.

The present article shall not be put into operation in either country, with regard to such models or patterns, until the expiration of a year from the date of the signature of the present treaty.

17. Belgian subjects shall not have the right to

claim in Great Britain exclusive property in a mark, model, or pattern, unless they shall have previously complied with the regulations, if any, which are or may be in force for the deposit at London, by British subjects, of marks, models, or patterns.

Reciprocally, British subjects shall not have the right to claim in Belgium exclusive property in a mark, model, or pattern, unless they shall have previously complied with the laws and regulations on those subjects which are or may be in force in Belgium.

18. Each of the high contracting parties shall have the right to name consuls for the protection of trade in the dominions and territories of the other party; and the consuls who may be so appointed shall enjoy, within the territories of each party, all the privileges, exemptions, and immunities which are or may be granted in those territories to agents of the same rank and character appointed by or authorised to act for the Government of the most favoured nation.

Before any consul can act as such, he must, however, in the usual form be approved and admitted by the Government of the country to which he is sent; and each of the two high contracting parties shall have the right to except from the residence of consuls any particular places which either of them may judge proper to be excepted.

19. If any vessel of war or merchant-vessel of either of the two countries should be wrecked upon the coasts of the other, such vessel, or any parts thereof, and all furniture and appurtenances belonging thereunto, as well as all goods and merchandise which shall be saved therefrom, or the proceeds thereof, if sold, shall be restored to the proprietors or to their agents, on being claimed by them. In case there should be no such proprietors or agents upon the spot, the said articles and goods, or the proceeds thereof, as well as all the papers found on board of any such vessel, shall be delivered to the British or Belgian consul in whose district the wreck shall have taken place; and such consul, proprietors, or agents shall not be called upon to pay any charge but the expenses incurred in the preservation of the property, and the same rate of salvage which would be equally payable, under the like circumstances, by a national vessel. The goods and merchandise saved from the wreck shall not be subject to the established duties, unless cleared for consumption.

20. The British flag shall continue to enjoy in Belgium the repayment of the Scheldt toll so long as the Belgian flag shall enjoy the same.

21. From and after, at latest, the day on which the capitalisation of the Scheldt toll shall be effected by a general arrangement—

(1) The tonnage duty imposed in Belgian ports shall cease to be levied:

(2) The pilotage duties in Belgian ports and in the Scheldt, so far as depends upon Belgium, shall undergo a reduction

Of 20 per cent. for sailing vessels;

Of 25 per cent. for vessels towed;

Of 30 per cent. for steam-vessels.

(3) The system of local taxes imposed by the city of Antwerp shall be throughout diminished.

22. As a temporary exception to the stipulations of Article 14, and for the space of 2 years from the 1st of October, 1862, the new system shall be applied in the following manner to certain articles of British origin hereinafter enumerated:—

Cotton yarns twisted, warped, or dyed, shall pay the duties imposed upon single yarns, unbleached or bleached, with an addition of 5 centimes for twisted yarns, 10 centimes for warped yarns, and 15 centimes for dyed yarns, per kilogramme.

The duty on stuff of wool mixed with cotton shall be 22½ per cent. until the 1st of October, 1863, and 20 per cent. until the 1st of October, 1864. During the continuance of the transitory system the importer may, at his choice, pay either 180 francs the 100 kilogrammes, or the duties stipulated above.

The duty upon printed cotton tissues shall be 150 francs the 100 kilogrammes.

23. It is understood that in case the present duty on the importation of foreign spirits should be maintained in the British tariff, the article relative to spirits which is contained in the treaty concluded between Belgium and France on the 1st of May, 1861, shall not be applied to British spirits, so far as regards the reductions therein stipulated, until the 1st of October, 1865.

24. The Ionian Islands being under the protection of her Britannic Majesty, the subjects and vessels of those islands shall enjoy, in the dominions of his Majesty the King of the Belgians, all the advantages which are granted to the subjects and vessels of Great Britain by the present treaty, as soon as the Government of the Ionian Islands shall have agreed to grant to the subjects and vessels of his Majesty the King of the Belgians the same advantages which are granted in those islands to the subjects and vessels of her Britannic Majesty; it being understood, that in order to prevent abuses, every Ionian vessel claiming the benefits of that treaty, shall be furnished with a patent signed by the Lord High Commissioner of her Britannic Majesty, or by *his* representative.

25. The present treaty shall continue in force for 10 years, dating from the 10th day after the exchange of the ratifications. In case neither of the two high contracting parties should have notified, 12 months before the end of the said period, its intention to terminate the treaty, it shall remain in force until the expiration of 1 year dating from the day on which either of the high contracting parties shall have given notice for its termination.

The high contracting parties reserve to themselves the right to introduce into the treaty, by common consent, any modifications which may not be at variance with its spirit or principles, and the utility of which may be shown by experience.

26. From and after the date fixed by the preceding article, the treaty of commerce and navigation of the 27th of October, 1851, shall cease to be in force.

27. The present treaty shall be ratified, and the ratifications shall be exchanged at London before the 1st day of September, 1862.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done in duplicate at London, the 23rd day of July, in the year of our Lord 1862.

RUSSELL.
THOMAS MILNER GIBSON.
SYLVAIN VAN DE WEYER.

Protocol of Conference held at the Foreign Office, July 23, 1862, between the Plenipotentiaries of Great Britain and of Belgium.

The plenipotentiaries of her Britannic Majesty and of his Majesty the King of the Belgians, in proceeding to the signature of the treaty of commerce and navigation between their august

sovereigns, place upon record that they have agreed upon the following points:—

(1) That the declarations relative to the arrest of seamen deserters, dated the 4th of January, 1855, and the order in council bearing date the 8th of February, 1855, and published in the *London Gazette*, of the 13th of February, shall continue in force and validity, as if they had been inserted in the said treaty.

(2) That although the fishery convention concluded on the 22nd of March, 1852, between her Britannic Majesty and his Majesty the King of the Belgians, is provisionally maintained, it is under the reservation made by the Government of his Majesty the King of the Belgians, that they will again bring forward, in a future negotiation, the proposition relative to the reciprocal permission to fish within the marine territorial limit.

In maintaining the said convention concluded on the 22nd of March, 1852, an exception to the stipulations of the treaty of commerce and navigation signed this day, is made in so far as regards the advantages which are or may be given in either country to the produce of national fishery.

(3) With regard to sugar, the Government of his Majesty the King of the Belgians reserve to themselves to renew their proposition that an agreement should be come to between Great Britain, Belgium, France, the Zollverein, and the Netherlands, for respectively bringing the duties upon raw and refined sugars imported from any one of those countries into the others to an equality with the taxes imposed upon the same productions of national origin, and for terminating simultaneously in those 5 countries the system of bounties on the exportation of sugar.

The Belgian Government rely upon the support and co-operation of the Government of her Britannic Majesty for this purpose.

RUSSELL.
THOMAS MILNER GIBSON.
SYLVAIN VAN DE WEYER.

Protocol of Conference held at the Foreign Office, August 30, 1862, between the Plenipotentiaries of Great Britain and of Belgium.

The undersigned, in proceeding to the exchange of the ratifications of the treaty of commerce and navigation concluded on the 23rd of July, 1862, between her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Majesty the King of the Belgians, have agreed to record in the present protocol the modifications in the said treaty arranged this day between them; and in consequence of which the following tariff is adopted:—

No.	*Cotton Yarns.*	1st Year	2nd Year
m.		ct.	ct.
20,000 and under	- -	22	20
20,000 to 30,000	- -	30	25
30,000 40,000	- -	45	35
40,000 65,000	- -	60	50

Above 65,000 free entry (weighing charge of 10 centimes) during the whole duration of the treaty.

These modifications shall have the same force and effect as if they were textually inserted in the said treaty, and they shall come into operation from the 1st of October, 1862, the old duties continuing to be applied to the above-mentioned articles, as well as the mixed tissues (Article 22 of the treaty), up to that date.

In testimony whereof the plenipotentiaries have signed the present protocol, and have thereto affixed their seals.

Done in London the 30th of August, 1862.

RUSSELL.
THOMAS MILNER GIBSON.
SYLVAIN VAN DE WEYER.

CHINA.

Treaty of Peace, Friendship, and Commerce, between her Majesty and the Emperor of China. Signed, in the English and Chinese languages, at Tien-tsin, June 26, 1858. Ratifications exchanged at Peking, October 24, 1860.

Article 1. The treaty of peace and amity between the two nations, signed at Nanking on the 29th day of August, in the year 1842, is hereby renewed and confirmed. [CANTON.]

The supplementary treaty and general regulations of trade having been amended and improved, and the substance of their provisions having been incorporated in this treaty, the said supplementary treaty and general regulations of trade are hereby abrogated.

2. For the better preservation of harmony in future, her Majesty the Queen of Great Britain and his Majesty the Emperor of China mutually agree that, in accordance with the universal practice of great and friendly nations, her Majesty the Queen may, if she see fit, appoint ambassadors, ministers, or other diplomatic agents to the Court of Peking; and his Majesty the Emperor of China may, in like manner, if he see fit, appoint ambassadors, ministers, or other diplomatic agents to the Court of St. James'.

3. His Majesty the Emperor of China hereby agrees, that the ambassador, minister, or other diplomatic agent, so appointed by her Majesty the Queen of Great Britain, may reside, with his family and establishment, permanently at the capital, or may visit it occasionally, at the option of the British Government. He shall not be called upon to perform any ceremony derogatory to him as representing the sovereign of an independent nation on a footing of equality with that of China. On the other hand, he shall use the same forms of ceremony and respect to his Majesty the Emperor as are employed by the ambassadors, ministers, or diplomatic agents of her Majesty towards the sovereigns of independent and equal European nations.

It is further agreed, that her Majesty's Government may acquire at Peking a site for building, or may hire houses for the accommodation of her Majesty's mission, and that the Chinese Government will assist it in so doing.

Her Majesty's representative shall be at liberty to choose his own servants and attendants, who shall not be subjected to any kind of molestation whatever.

Any person guilty of disrespect or violence to her Majesty's representative, or to any member of his family or establishment, in deed or word, shall be severely punished.

4. It is further agreed, that no obstacle or difficulty shall be made to the free movements of her Majesty's representative, and that he, and the persons of his suite, may come and go, and travel at their pleasure. He shall, moreover, have full liberty to send and receive his correspondence, to and from any point on the sea-coast that he may select; and his letters and effects shall be held sacred and inviolable. He may employ, for their transmission, special couriers, who shall meet with the same protection and facilities for travelling as the persons employed in carrying despatches for the Imperial Government; and, generally, he shall enjoy the same privileges as are accorded to officers of the same rank by the usage and consent of Western nations.

All expenses attending the diplomatic mission of Great Britain in China shall be borne by the British Government.

5. His Majesty the Emperor of China agrees to

nominate one of the secretaries of state, or a president of one of the boards, as the high officer with whom the ambassador, minister, or other diplomatic agent of her Majesty the Queen shall transact business, either personally or in writing, on a footing of perfect equality.

6. Her Majesty the Queen of Great Britain agrees that the privileges hereby secured shall be enjoyed in her dominions by the ambassadors, ministers, or diplomatic agents of the Emperor of China, accredited to the court of her Majesty.

7. Her Majesty the Queen may appoint one or more consuls in the dominions of the Emperor of China; and such consul or consuls shall be at liberty to reside in any of the open ports or cities of China, as her Majesty the Queen may consider most expedient for the interests of British commerce. They shall be treated with due respect by the Chinese authorities, and enjoy the same privileges and immunities as the consular officers of the most favoured nation.

Consuls and vice-consuls in charge shall rank with intendents of circuits; vice-consuls, acting vice-consuls, and interpreters, with prefects. They shall have access to the official residences of these officers, and communicate with them, either personally or in writing, on a footing of equality, as the interests of the public service may require.

8. The Christian religion, as professed by Protestants or Roman Catholics, inculcates the practice of virtue, and teaches man to do as he would be done by. Persons teaching or professing it, therefore, shall alike be entitled to the protection of the Chinese authorities, nor shall any such, peaceably pursuing their calling, and not offending against the law, be persecuted or interfered with.

9. British subjects are hereby authorised to travel, for their pleasure or for purposes of trade, to all parts of the interior, under passports which will be issued by their consuls, and countersigned by the local authorities. These passports, if demanded, must be produced for examination in the localities passed through. If the passport be not irregular, the bearer will be allowed to proceed, and no opposition shall be offered to his hiring persons or hiring vessels for the carriage of his baggage or merchandise. If he be without a passport, or if he commit any offence against the law, he shall be handed over to the nearest consul for punishment, but he must not be subjected to any ill-usage in excess of necessary restraint. No passport need be applied for by persons going on excursions from the ports open to trade to a distance not exceeding 100 *li*, and for a period not exceeding 5 days.

The provisions of this article do not apply to crews of ships, for the due restraint of whom regulations will be drawn up by the consul and the local authorities.

To Nanking, and other cities disturbed by persons in arms against the Government, no pass shall be given, until they shall have been recaptured.

10. British merchant-ships shall have authority to trade upon the great river (Yang-tsze). The upper and lower valley of the river being, however, disturbed by out-laws, no port shall be for the present opened to trade, with the exception of Chin-kiang, which shall be opened in a year from the date of the signing of this treaty.

So soon as peace shall have been restored, British vessels shall also be admitted to trade at such ports as far as Han-kow, not exceeding 3 in number, as the British minister, after consultation with the Chinese Secretary of State, may determine shall be ports of entry and discharge.

11. In addition to the cities and towns of Canton, Amoy, Fuchow, Ningpo, and Shanghai, opened by the treaty of Nanking, it is agreed that British subjects may frequent the cities and ports of New-Chwang, Tang-Chow, Tai-Wau (Formosa), Chau-Chow (Swatow), and Kiung-Chow (Hainan).

They are permitted to carry on trade with whomsoever they please, and to proceed to and fro at pleasure with their vessels and merchandise.

They shall enjoy the same privileges, advantages, and immunities at the said towns and ports, as they enjoy at the ports already opened to trade, including the right of residence, of buying or renting houses, of leasing land therein, and of building churches, hospitals, and cemeteries.

12. British subjects, whether at the ports or at other places, desiring to build or open houses, warehouses, churches, hospitals, or burial-grounds, shall make their agreement for the land or buildings they require, at the rates prevailing among the people, equitably, and without exactions on either side.

13. The Chinese Government will place no restrictions whatever upon the employment, by British subjects, of Chinese subjects in any lawful capacity.

14. British subjects may hire whatever boats they please for the transport of goods or passengers, and the sum to be paid for such boats shall be settled between the parties themselves, without the interference of the Chinese Government. The number of these boats shall not be limited, nor shall a monopoly in respect either of the boats, or of the porters or coolies engaged in carrying the goods, be granted to any parties. If any smuggling takes place in them, the offenders will, of course, be punished according to law.

15. All questions in regard to rights, whether of property or person, arising between British subjects, shall be subject to the jurisdiction of the British authorities.

16. Chinese subjects who may be guilty of any criminal act towards British subjects shall be arrested and punished by the Chinese authorities, according to the laws of China.

British subjects who may commit any crime in China shall be tried and punished by the consul, or other public functionary authorised thereto, according to the laws of Great Britain.

Justice shall be equitably and impartially administered on both sides.

17. A British subject having reason to complain of a Chinese, must proceed to the consulate, and state his grievance. The consul will enquire into the merits of the case, and do his utmost to arrange it amicably. In like manner, if a Chinese have reason to complain of a British subject, the consul shall no less listen to his complaint, and endeavour to settle it in a friendly manner. If disputes take place of such a nature that the consul cannot arrange them amicably, then he shall request the assistance of the Chinese authorities, that they may together examine into the merits of the case, and decide it equitably.

18. The Chinese authorities shall at all times afford the fullest protection to the persons and property of British subjects, whenever these shall have been subjected to insult or violence. In all cases of incendiarism or robbery, the local authorities shall at once take the necessary steps for the recovery of the stolen property, the suppression of disorder, and the arrest of the guilty parties, whom they will punish according to law.

19. If any British merchant-vessel, while within Chinese waters, be plundered by robbers or pirates, it shall be the duty of the Chinese authorities to use every endeavour to capture and punish the said robbers or pirates, and to recover the stolen

property, that it may be handed over to the consul for restoration to the owner.

20. If any British vessel be at any time wrecked or stranded on the coast of China, or be compelled to take refuge in any port within the dominions of the Emperor of China, the Chinese authorities, on being apprised of the fact, shall immediately adopt measures for its relief and security; the persons on board shall receive friendly treatment, and shall be furnished, if necessary, with the means of conveyance to the nearest consular station.

21. If criminals, subjects of China, shall take refuge in Hong Kong, or on board the British ships there, they shall, upon due requisition by the Chinese authorities, be searched for, and, on proof of their guilt, be delivered up.

In like manner, if Chinese offenders take refuge in the houses or on board the vessels of British subjects at the open ports, they shall not be harboured or concealed, but shall be delivered up, on due requisition by the Chinese authorities, addressed to the British consul.

22. Should any Chinese subject fail to discharge debts incurred to a British subject, or should he fraudulently abscond, the Chinese authorities will do their utmost to effect his arrest, and enforce recovery of the debts. The British authorities will likewise do their utmost to bring to justice any British subject fraudulently absconding or failing to discharge debts incurred by him to a Chinese subject.

23. Should natives of China who may repair to Hong Kong to trade incur debts there, the recovery of such debts must be arranged for by the English courts of justice on the spot; but should the Chinese debtor abscond, and be known to have property, real or personal, within the Chinese territory, it shall be the duty of the Chinese authorities, on application by, and in concert with, the British consul, to do their utmost to see justice done between the parties.

24. It is agreed that British subjects shall pay, on all merchandise imported or exported by them, the duties described by the tariff; but in no case shall they be called upon to pay other or higher duties than are required of the subjects of any other foreign nation.

25. Import duties shall be considered payable on the landing of the goods, and duties of export on the shipment of the same.

26. Whereas the tariff fixed by Article 10 of the treaty of Nanking, and which was estimated so as to impose on imports and exports a duty at about the rate of 5 per cent. ad valorem, has been found, by reason of the fall in value of various articles of merchandise, therein enumerated, to impose a duty upon these considerably in excess of the rate originally assumed as above to be a fair rate, it is agreed that the said tariff shall be revised, and that as soon as the treaty shall have been signed, application shall be made to the Emperor of China to depute a high officer of the Board of Revenue to meet, at Shanghai, officers to be deputed on behalf of the British Government, to consider its revision together, so that the tariff, as revised, may come into operation immediately after the ratification of this treaty.

27. It is agreed that either of the high contracting parties to this treaty may demand a further revision of the tariff, and of the commercial articles of this treaty, at the end of 10 years; but if no demand be made on either side within 6 months after the end of the first 10 years, then the tariff shall remain in force for 10 years more, reckoned from the end of the preceding 10 years; and so it shall be, at the end of each successive period of 10 years.

28. Whereas it was agreed in Article 10 of the treaty of Nanking, that British imports, having paid the tariff duties, should be conveyed into the interior free of all further charges, except a transit duty, the amount whereof was not to exceed a certain percentage on tariff value; and whereas no accurate information having been furnished of the amount of such duty, British merchants have constantly complained that charges are suddenly and arbitrarily imposed by the provincial authorities as transit duties upon produce on its way to the foreign market, and on imports on their way into the interior, to the detriment of trade; it is agreed that within 4 months from the signing of this treaty, at all ports now open to British trade, and within a similar period at all ports that may hereafter be opened, the authority appointed to superintend the collection of duties shall be obliged, upon application of the consul, to declare the amount of duties leviable on produce between the place of production and the port of shipment, and upon imports between the consular port in question and the inland markets named by the consul; and that a notification thereof shall be published in English and Chinese for general information.

But it shall be at the option of any British subject, desiring to convey produce purchased inland to a port, or to convey imports from a port to an inland market, to clear his goods of all transit duties, by payment of a single charge. The amount of this charge shall be leviable on exports at the first barrier they may have to pass, or, on imports, at the port at which they are landed; and on payment thereof, a certificate shall be issued, which shall exempt the goods from all further inland charges whatsoever.

It is further agreed, that the amount of this charge shall be calculated, as nearly as possible, at the rate of 2½ per cent., ad valorem, and that it shall be fixed for each article at the conference to be held at Shanghai for the revision of the tariff.

It is distinctly understood that the payment of transit dues, by commutation or otherwise, shall in no way affect the tariff duties on imports or exports, which will continue to be levied separately and in full.

29. British merchant-vessels, of more than 150 tons burden, shall be charged tonnage-dues at the rate of 4 mace per ton; if of 150 tons and under, they shall be charged at the rate of 1 mace per ton.

Any vessel clearing from any of the open ports of China for any other of the open ports, or for Hong Kong, shall be entitled, on application of the master, to a special certificate from the customs, on exhibition of which she shall be exempted from all further payment of tonnage-dues in any open port of China, for a period of 4 months, to be reckoned from the date of her port clearance.

30. The master of any British merchant-vessel may, within 48 hours after the arrival of his vessel, but not later, decide to depart without breaking bulk, in which case he will not be subject to pay tonnage-dues. But tonnage-dues shall be held due after the expiration of the said 48 hours. No other fees or charges upon entry or departure shall be levied.

31. No tonnage-dues shall be payable on boats employed by British subjects in the conveyance of passengers, baggage, letters, articles of provision, or other articles not subject to duty, between any of the open ports. All cargo boats, however, conveying merchandise subject to duty shall pay tonnage-dues once in 6 months, at the rate of 4 mace per register ton.

32. The consuls and superintendents of customs shall consult together regarding the erection of beacons and lighthouses, and the distribution of buoys and light-ships, as occasion may demand.

33. Duties shall be paid to the bankers, authorised by the Chinese Government to receive the same in its behalf, either in sycee or in foreign money, according to the assay made at Canton on the 13th day of July, 1843.

34. Sets of standard weights and measures, prepared according to the standard issue to the Canton Custom-house by the Board of Revenue, shall be delivered by the superintendent of customs to the consul at each port, to secure uniformity and prevent confusion.

35. Any British merchant-vessel arriving at one of the open ports, shall be at liberty to engage the services of a pilot to take her into port. In like manner, after she has discharged all legal dues and duties, and is ready to take her departure, she shall be allowed to select a pilot, to conduct her out of port.

36. Whenever a British merchant-vessel shall arrive off one of the open ports, the superintendent of customs shall depute one or more customs officers to guard the ship. They shall either live in a boat of their own, or stay on board the ship, as may best suit their convenience. Their food and expenses shall be supplied them from the custom-house, and they shall not be entitled to any fees whatever from the master or consignee. Should they violate this regulation, they shall be punished proportionately to the amount exacted.

37. Within 24 hours after arrival, the ship's papers, bills of lading, &c., shall be lodged in the hands of the consul, who will, within a further period of 24 hours, report to the superintendent of customs the name of the ship, her register tonnage, and the nature of her cargo. If, owing to neglect on the part of the master, the above rule is not complied with, within 48 hours after the ship's arrival, he shall be liable to a fine of 50 taels for every day's delay; the total amount of penalty, however, shall not exceed 200 taels.

The master will be responsible for the correctness of the manifest, which shall contain a full and true account of the particulars of the cargo on board. For presenting a false manifest, he will subject himself to a fine of 500 taels; but he will be allowed to correct, within 24 hours after delivery of it to the customs officers, any mistake he may discover in his manifest, without incurring this penalty.

38. After receiving from the consul the report in due form, the superintendent of customs shall grant the vessel a permit to open hatches. If the master shall open hatches and begin to discharge any goods without such permission, he shall be fined 500 taels, and the goods discharged shall be confiscated wholly.

39. Any British merchant who has cargo to land or ship, must apply to the superintendent of customs for a special permit. Cargo landed or shipped without such permit, will be liable to confiscation.

40. No transhipment from one vessel to another can be made without special permission, under pain of confiscation of the goods so transhipped.

41. When all dues and duties shall have been paid, the superintendent of customs shall give a port-clearance, and the consul shall then return the ship's papers, so that she may depart on her voyage.

42. With respect to articles subject, according to the tariff, to an ad valorem duty, if the British merchant cannot agree with the Chinese officer in fixing a value, then each party shall call two or three merchants to look at the goods, and the highest price at which any of these merchants would be willing to purchase them, shall be assumed as the value of the goods.

43. Duties shall be charged upon the nett weight of each article, making a deduction for the tare, weight of congee, &c. To fix the tare on any article such as tea, if the British merchant cannot agree with the custom-house officer, then each party shall choose so many chests out of every 100, which being first weighed in gross, shall afterwards be tared, and the average tare upon these chests shall be assumed as the tare upon the whole; and upon this principle shall the tare be fixed upon all other goods in packages. If there should be any other points in dispute which cannot be settled, the British merchant may appeal to his consul, who will communicate the particulars of the case to the superintendent of customs, that it may be equitably arranged. But the appeal must be made within 24 hours, or it will not be attended to. While such points are still unsettled, the superintendent of customs shall postpone the in sertion of the same in his books.

44. Upon all damaged goods a fair reduction of duty shall be allowed, proportionate to their deterioration. If any disputes arise, they shall be settled in the manner pointed out in the clause of this treaty having reference to articles which pay duty ad valorem.

45. British merchants who may have imported merchandise into any of the open ports and paid the duty thereon, if they desire to re-export the same, shall be entitled to make application to the superintendent of customs, who, in order to prevent fraud on the revenue, shall cause examination to be made by suitable officers, to see that the duties paid on such goods, as entered in the custom-house books, correspond with the representation made, and that the goods remain with their original marks unchanged. He shall then make a memorandum on the port-clearance of the goods and of the amount of duties paid, and deliver the same to the merchant; and shall also certify the facts to the officers of customs of the other ports. All which being done, on the arrival in port of the vessel in which the goods are laden, everything being found on examination there to correspond, she shall be permitted to break bulk, and land the said goods, without being subject to the payment of any additional duty thereon. But if, on such examination, the superintendent of customs shall detect any fraud on the revenue in the case, then the goods shall be subject to confiscation by the Chinese Government.

British merchants desiring to re-export duty-paid imports to a foreign country, shall be entitled, on complying with the same conditions as in the case of re-exportation to another port in China, to a drawback-certificate, which shall be a valid tender to the customs in payment of import or export duties.

Foreign grain brought into any port of China in a British ship, if no part thereof has been landed, may be re-exported without hindrance.

46. The Chinese authorities at each port shall adopt the means they may judge most proper to prevent the revenue suffering from fraud or smuggling.

47. British merchant-vessels are not entitled to resort to other than the ports of trade declared open by this treaty. They are not unlawfully to enter other ports in China, or to carry on clandestine trade along the coasts thereof. Any vessel violating this provision shall, with her cargo, be

subject to confiscation by the Chinese Government.

48. If any British merchant-vessel be concerned in smuggling, the goods, whatever their value or nature, shall be subject to confiscation by the Chinese authorities, and the ship may be prohibited from trading further, and sent away as soon as her accounts shall have been adjusted and paid.

49. All penalties enforced, or confiscations made, under this treaty, shall belong and be appropriated to the public service of the Government of China.

50. All official communications addressed by the diplomatic and consular agents of her Majesty the Queen to the Chinese authorities shall, henceforth, be written in English. They will for the present be accompanied by a Chinese version, but it is understood that, in the event of there being any difference of meaning between the English and Chinese texts, the English Government will hold the sense as expressed in the English text to be the correct sense. This provision is to apply to the treaty now negotiated, the Chinese text of which has been carefully corrected by the English original.

51. It is agreed, that henceforward the character barbarian shall not be applied to the Government or subjects of her Britannic Majesty, in any Chinese official document issued by the Chinese authorities, either in the capital or in the provinces.

52. British ships of war coming for no hostile purpose, or being engaged in the pursuit of pirates, shall be at liberty to visit all ports within the dominions of the Emperor of China, and shall receive every facility for the purchase of provisions, procuring water, and, if occasion require, for the making of repairs. The commanders of such ships shall hold intercourse with the Chinese authorities on terms of equality and courtesy.

53. In consideration of the injury sustained by native and foreign commerce from the prevalence of piracy in the seas of China, the high contracting parties agree to concert measures for its suppression.

54. The British Government and its subjects are hereby confirmed in all privileges, immunities, and advantages conferred on them by previous treaties; and it is hereby expressly stipulated, that the British Government and its subjects will be allowed free and equal participation in all privileges, immunities, and advantages that may have been, or may be hereafter, granted by his Majesty the Emperor of China to the Government or subjects of any other nation.

55. In evidence of her desire for the continuance of a friendly understanding, her Majesty the Queen of Great Britain consents to include in a separate article, which shall be in every respect of equal validity with the articles of this treaty, the conditions affecting indemnity for expenses incurred and losses sustained in the matter of the Canton question.

56. The ratifications of this treaty, under the hand of her Majesty the Queen of Great Britain and Ireland, and his Majesty the Emperor of China, respectively, shall be exchanged at Peking, within a year from this day of signature.

In token whereof, the respective plenipotentiaries have signed and sealed this treaty.

Done at Tien-tsin, this 26th day of June, in the year of our Lord 1858; corresponding with the Chinese date the 16th day 5th moon of the 8th year of Hien-Fung.

ELGIN AND KINCARDINE.

Signature of first Chinese Plenipotentiary.
Signature of second Chinese Plenipotentiary.
Seal of the Chinese Plenipotentiaries.

Agreement made in pursuance of Article XXVI. of the Treaty. Signed November 8, 1858.

Whereas it was provided by the treaty of Tien-tsin that a conference should be held at Shanghai between officers deputed by the British Government on the one part, and by the Chinese Government on the other part, for the purpose of determining the amount of tariff-duties and transit-dues to be henceforth levied, a conference has been held accordingly; and its proceedings having been submitted to the Right Honourable the Earl of Elgin and Kincardine, high commissioner and plenipotentiary of her Britannic Majesty the Queen, on the one part; and to Kweiliang, Hwashana, Ho Kweitsing, Mingshen, and Twau Ching-Shih, high commissioners and plenipotentiaries of his Imperial Majesty the Emperor, on the other part; these high officers have agreed and determined upon the revised tariff hereto appended, the rate of transit-dues therewith declared, together with other rules and regulations for the better explanation of the treaty aforesaid; and do hereby agree that the said tariff and rules—the latter being in ten articles thereto appended—shall be equally binding on the Governments and subjects of both countries with the treaty itself.

In witness whereof, they hereto affix their seals and signatures.

Rule 1.—*Unenumerated Goods.*—Articles not enumerated in the list of exports, but enumerated in the list of imports, when exported will pay the amount of duty set against them in the list of imports; and similarly, articles not enumerated in the list of imports, but enumerated in the list of exports, when imported will pay the amount of duty set against them in the list of exports.

Articles not enumerated in either list, nor in the list of duty-free goods, will pay an ad valorem duty of 5 per cent., calculated on their market value.

Rule 2.—*Duty-free Goods.*—Gold and silver bullion, foreign coins, flour, Indian meal, sago, biscuit, preserved meats and vegetables, cheese, butter, confectionery, foreign clothing, jewellery, plated ware, perfumery, soap of all kinds, charcoal, firewood, candles (foreign), tobacco (foreign), cigars (foreign), wine, beer, spirits, household stores, ship's stores, personal baggage, stationery, carpeting, druggeting, cutlery, foreign medicines, and glass and crystal ware.

The above pay no import or export duty; but, if transported into the interior, will, with the exception of personal baggage, gold and silver bullion, and foreign coins, pay a transit duty at the rate of 2½ per cent. ad valorem.

A freight or part-freight of duty-free commodities (personal baggage, gold and silver bullion and foreign coins excepted) will render the vessel carrying them, though no other cargo be on board, liable to tonnage dues.

Rule 3.—*Contraband Goods.*—Import and export trade is alike prohibited in the following articles: Gunpowder, shot, cannon, fowling-pieces, rifles, muskets, pistols, and all other munitions and implements of war; and salt.

Rule 4.—*Weights and Measures.*—In the calculations of the tariff, the weight of a pecul of 100 catties is held to be equal to 133⅓ lb. avoirdupois; and the length of a *chang* of ten Chinese feet, to be equal to 141 English inches.

One Chinese *chih* is held to equal 14 1/10 inches English; and 4 yards English, less 3 inches, to equal 1 *chang*.

Rule 5.—*Regarding certain Commodities heretofore Contraband.*—The restrictions affecting trade in opium, cash, grain, pulse, sulphur, brimstone,

saltpetre, and spelter, are relaxed, under the following conditions:—

1. Opium will henceforth pay 30 taels per pecul import duty. The importer will sell it only at the port. It will be carried into the interior by Chinese only, and only as Chinese property; the foreign trader will not be allowed to accompany it. The provisions of Article 9 of the Treaty of Tien-tsin, by which British subjects are authorised to proceed into the interior with passports to trade, will not extend to it, nor will those of Article 28 of the same treaty, by which the transit-dues are regulated; the transit-dues on it will be arranged as the Chinese Government see fit: nor, in future revisions of the tariff, is the same rule of revision to be applied to opium as to other goods.

2. *Copper Cash.*—The export of cash to any foreign port is prohibited; but it shall be lawful for British subjects to ship it at one of the open ports of China to another, on compliance with the following regulation:—The shipper shall give notice of the amount of cash he desires to ship, and the port of its destination, and shall bind himself, either by a bond with two sufficient sureties, or by depositing such other security as may be deemed by the customs satisfactory, to return, within six months from the date of clearance, to the collector at the port of shipment, the certificate issued by him, with an acknowledgment thereon of the receipt of the cash at the port of destination, by the collector at that port, who shall thereto affix his seal; or, failing the production of the certificate, to forfeit a sum equal in value to the cash shipped. Cash will pay no duty inwards or outwards; but a freight or part-freight of cash, though no other cargo be on board, will render the vessel carrying it liable to pay tonnage-dues.

3. The export of rice and all other grain whatsoever, native or foreign, no matter where grown or whence imported, to any foreign port, is prohibited; but these commodities may be carried by British merchants from one of the open ports of China to another, under the same conditions in respect of security as cash, on payment at the port of shipment of the duty specified in the tariff.

No import duty will be leviable upon rice or grain; but a freight or part-freight of rice or grain, though no other cargo be on board, will render the vessel importing it liable to tonnage-dues.

4. *Pulse.*—The export of pulse and bean-cake from Tung-chau and Niu-chwang, under the British flag, is prohibited. From any other of the open ports, they may be shipped on payment of the tariff-duty, either to other ports of China or to foreign countries.

5. Saltpetre, sulphur, brimstone, and spelter, being munitions of war, shall not be imported by British subjects, save at the requisition of the Chinese Government, or for sale to Chinese duly authorised to purchase them. No permit to land them will be issued until the customs have proof that the necessary authority has been given to the purchaser. It shall not be lawful for British subjects to carry these commodities up the Yang-tze-kiang, or into any port other than those open on the seaboard, nor to accompany them into the interior on behalf of Chinese. They must be sold at the ports only; and except at the ports they will be regarded as Chinese property.

Infractions of the conditions, as above set forth, under which trade in opium, cash, grain, pulse, saltpetre, brimstone, sulphur, and spelter may be henceforward carried on, will be punishable by confiscation of all the goods concerned.

Rule 6.—*Liability of Vessels entering Port.*—To the prevention of misunderstanding, it is agreed that the term of 24 hours, within which British vessels must be reported to the consul under Article 37 of the treaty of Tien-tsin, shall be understood to commence from the time a British vessel comes within the limits of the port; as also the term of 48 hours allowed her by Article 30 of the same treaty to remain in port without payment of tonnage-dues.

The limits of the port shall be defined by the customs, with all consideration for the convenience of trade, compatible with due protection of the revenue; also the limits of the anchorages within which lading and discharging is permitted by the customs; and the same shall be notified to the consuls for public information.

Rule 7.—*Transit Dues.*—It is agreed that Article 28 of the treaty of Tien-tsin shall be interpreted to declare the amount of transit-dues legally leviable upon merchandise imported or exported by British subjects, to be ½ of the tariff-duties, except in the case of the duty-free goods liable to a transit-duty of 2½ per cent. ad valorem, as provided in Article 2 of these rules. Merchandise shall be cleared of its transit-dues under the following conditions:—

In the case of Imports.—Notice being given at the port of entry from which the imports are to be forwarded inland, of the nature and quantity of the goods, the ship from which they have been landed, and the place inland to which they are bound, with all other necessary particulars; the collector of customs will, on due inspection made, and on receipt of the transit-duty due, issue a transit-duty certificate. This must be produced at every barrier station, and *visé'd*. No further duty will be leviable upon imports so certificated, no matter how distant the place of their destination.

In the case of Exports.—Produce purchased by a British subject in the interior will be inspected and taken account of at the first barrier it passes on its way to the port of shipment. A memorandum, showing the amount of the produce and the port at which it is to be shipped, will be deposited there by the person in charge of the produce; he will then receive a certificate, which must be exhibited and *visé'd* at every barrier on his way to the port of shipment. On the arrival of the produce at the barrier nearest the port, notice must be given to the customs at the port, and the transit-dues due thereon being paid, it will be passed. On exportation the produce will pay the tariff-duty.

Any attempt to pass goods inward or outwards, otherwise than in compliance with the rule here laid down, will render them liable to confiscation.

Unauthorised sale, *in transitu*, of goods that have been entered as above for a port, will render them liable to confiscation. Any attempt to pass goods in excess of the quantity specified in the certificate, will render all the goods of the same denomination named in the certificate liable to confiscation. Permission to export produce which cannot be proved to have paid its transit-dues, will be refused by the customs until the transit-dues shall have been paid.

The above being the arrangement agreed to regarding the transit-dues, which will thus be levied once and for all, the notification required under Article 28 of the treaty of Tien-tsin, for the information of British and Chinese subjects, is hereby dispensed with.

Rule 8.—*Foreign Trade under Passports.*—It is agreed that Article 9 of the treaty of Tien-tsin shall not be interpreted as authorising British subjects to enter the capital city of Peking for purposes of trade.

Rule 9.—*Abolition of the Meltage Fee.*—It is agreed that the percentage of 1 tael 2 mace, hitherto charged in excess of duty-payments, to

defray the expenses of melting by the Chinese Government, shall be no longer levied on British subjects.

Rule 10.—*Collection of Duties under one System at all Ports.*—It being, by treaty, at the option of the Chinese Government to adopt what means appear to it best suited to protect its revenue, accruing on British trade, it is agreed that one uniform system shall be enforced at every port.

The high officer appointed by the Chinese Government to superintend foreign trade, will accordingly, from time to time, either himself visit, or will send a deputy to visit, the different ports. The said high officer will be at liberty, of his own choice, and independently of the suggestion or nomination of any British authority, to select any British subject he may see fit to aid him in the administration of the customs revenue; in the prevention of smuggling; in the definition of port boundaries; or in discharging the duties of harbour-master; also in the distribution of lights, buoys, beacons, and the like, the maintenance of which shall be provided for out of the tonnage-dues.

The Chinese Government will adopt what measures it shall find requisite to prevent smuggling up the Yang-tze-kiang, when that river shall be opened to trade.

Done at Shanghai, in the province of Kiang-su, this 8th day of November, in the year of our Lord 1858, being the 3rd day of the 10th moon of the 8th year of the reign of Hien-Fung.

ELGIN AND KINCARDINE.

Signatures and Seal of the Five Chinese High Commissioners and Plenipotentiaries.

Tariff on Imports.

Articles	Quantities	Duty			
		t.	m.	c.	r.
Agar-agar	per 100 catties	0	1	5	0
Assafœtida	,,	0	6	5	0
Bees'-wax, yellow	,,	1	0	0	0
Betel-nut	,,	0	1	5	0
husk	,,	0	0	7	5
Bicho-de mar, black	,,	1	5	0	0
white	,,	0	3	5	0
Birds' nests, 1st quality	catty	0	5	5	0
2nd ,,	,,	0	3	5	0
3rd, or uncleaned	,,	0	1	5	0
Buttons, brass	gross	0	0	5	5
Camphor, barcos, clean	catty	1	3	0	0
refuse	,,	0	7	2	0
Canvas and cotton duck, not exceeding 50 yds. long	piece	0	4	0	0
Cardamoms, superior	100 catties	1	0	0	0
Inferior, or grains of Paradise	,,	0	5	0	0
Cinnamon	,,	1	5	0	0
Clocks	5 per cent.	ad val.			
Cloves	100 catties	0	5	0	0
mother	,,	0	1	5	0
Coal, foreign	ton	0	0	5	0
Cochineal	100 catties	5	0	0	0
Coral	catty	0	1	0	0
Cordage, Manilla	100 catties	0	3	5	0
Cornelians	100 stones	0	3	0	0
beads	100 catties	7	0	0	0
Cotton, raw	,,	0	3	5	0
Cotton piece-goods:					
Grey, white, plain, and twilled, exceeding 34 in. wide, and not exceeding 40 yds. long	piece	0	0	8	0
exceeding 34 in. wide, and exceeding 40 yds. long	every 10 yards	0	0	2	0
Drills and jeans, not exceeding 30 in. wide, and not exceeding 40 yds. long	piece	0	1	0	0
not exceeding 30 in. wide, and not exceeding 30 yds. long	,,	0	0	7	5
T-cloths, not exceeding 34 in. wide, and not exceeding 48 yds. long	,,	0	0	8	0
not exceeding 31 in. wide, and not exceeding 24 yds. long	,,	0	0	4	5
Cotton, dyed, figured and plain, not exceeding 36 in. wide, and not exceeding 40 yds. long	,,	0	1	5	0
fancy, white brocades and white spotted shirtings, not exceeding 36 in. wide, and not exceeding 40 yds. long	,,	0	1	0	0
printed, chintzes and furnitures, not exceeding 31 in. wide, and not exceeding 30 yds. long	,,	0	0	7	5
cambrics, not exceeding 46 in. wide, and not exceeding 24 yds. long	,,	0	0	7	0
not exceeding 46 in. wide, and not exceeding 12 yds. long	,,	0	0	3	5
muslins, not exceeding 46 in. wide, and not exceeding 24 yds. long	,,	0	0	7	5
not exceeding 46 in. wide, and not exceeding 12 yds. long	,,	0	0	3	5
damasks, not exceeding 36 in. wide, and not exceeding 40 yds. long	,,	0	2	0	0
dimities or quiltings, not exceeding 40 in. wide, and not exceeding 12 yds. long	,,	0	2	6	5
ginghams, not exceeding 28 in. wide, and not exceeding 30 yds. long	,,	0	0	5	5
handkerchiefs, not exceeding 1 yd. square	dozen	0	0	2	5
fustians, not exceeding 35 yds. long	piece	0	2	0	0
velveteens, not exceeding 34 yds. long	,,	0	1	5	0

Articles	Quantities	Duty			
		t.	m.	c.	r.
Cotton thread	per 100 catties	0	7	2	0
yarn	,,	0	7	0	0
Cow bezoar, Indian	catty	1	5	0	0
Cutch	100 catties	0	1	8	0
Elephants' teeth, whole	,,	4	0	0	0
broken	,,	3	0	0	0
Feathers, kingfishers', peacocks'	100	0	4	0	0
Fish maws	100 catties	1	0	0	0
skins	,,	0	2	0	0
Flints	,,	0	0	3	0
Gamboge	,,	0	1	5	0
Gambier	,,	1	0	0	0
Ginseng, American, crude	,,	6	0	0	0
clarified	,,	8	0	0	0
Glass, window	box of 100 sq. ft.	0	1	5	0
Glue	100 catties	0	1	5	0
Gold thread, real	catty	1	6	0	0
imitation	,,	0	0	3	0
Gum benjamin	100 catties	0	6	0	0
oil of	,,	0	6	0	0
Gum dragon's blood	,,	0	4	5	0
myrrh	,,	0	4	5	0
olibanum	,,	0	4	5	0
Hides, buffalo and cow	,,	0	5	0	0
rhinoceros	,,	0	4	2	0
Horns, buffalo	,,	0	2	5	0
deer	,,	0	2	5	0
rhinoceros	,,	2	0	0	0
Indigo, liquid	,,	0	1	8	0
Isinglass	,,	0	6	5	0
Lacquered-ware	,,	1	0	0	0
Leather	,,	0	4	2	0
Linen, fine, as Irish or Scotch, not exceeding 50 yds. long	piece	0	5	0	0
coarse, as linen and cotton, or silk and linen mixtures, not exceeding 50 yds. long	,,	0	2	0	0
Lucernian seed	100 catties	0	0	3	5
Mace	,,	1	0	0	0
Mangrove bark	,,	0	0	3	0
Metals:					
Copper, manufactured, as in sheets, rods, nails	,,	1	5	0	0
unmanufactured, as in slabs	,,	1	0	0	0
yellow metal, sheathing, and nails	,,	0	9	0	0
Japan	,,	0	6	0	0
Iron, manufactured, as in sheets, rods, bars, hoops	,,	0	1	2	5
unmanufactured, as in pigs	,,	0	0	7	5
kentledge	,,	0	0	1	0
wire	,,	0	2	5	0
Lead, in pigs	,,	0	2	5	0
in sheets	,,	0	5	5	0
Quicksilver	,,	2	0	0	0
Spelter (saleable only under regulation appended)	,,	0	2	5	0
Steel	,,	0	2	5	0
Tin	,,	1	2	5	0
plates	,,	0	4	0	0
Mother o' pearl shell	,,	0	2	0	0
Musical boxes	5 per cent.	ad val.			
Mussels, dried	100 catties	0	2	0	0
Nutmegs	,,	2	5	0	0
Olives, unpickled, salted, or pickled	,,	0	1	8	0
Opium	,,	30	0	0	0
Pepper, black	,,	0	5	6	0
white	,,	0	5	0	0
Prawns, dried	,,	0	3	6	0
Putchuk	,,	0	6	0	0
Rattans	,,	0	1	5	0
Rose maloes	,,	1	0	0	0
Salt fish	,,	0	1	8	0
Saltpetre (saleable only under regulation appended)	,,	0	5	0	0
Sandal-wood	,,	0	4	0	0
Sapan-wood	,,	0	1	0	0
Seahorse teeth	,,	2	0	0	0
Sharks' fins, black	,,	0	5	0	0
white	,,	1	5	0	0
Sharks' skins	100	2	0	0	0
Silver thread, real	catty	1	3	0	0
imitation	,,	0	0	3	0

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Tariff on Imports—continued.

Articles	Quantities	Duty				Articles	Quantities	Duty			
	per	t.	m.	c.	c.		per	t.	m.	c.	c.
Sinews, buffalo and deer	100 catties	0	5	5	0	Tinder	100 catties	0	3	5	0
Skins, fur, large	each	0	1	5	0	Tortoiseshell	catty	0	2	5	0
small	,,	0	0	7	5	broken	,,	0	0	7	2
marten	,,	0	1	5	0	Umbrellas	each	0	0	3	5
sea-otter	,,	1	5	0	0	Velvets, not exceeding 34 yds. long	piece	0	1	8	0
tiger and leopard	,,	0	1	5	0	Watches	pair	1	0	0	0
beaver	100	5	0	0	0	émaillés à perles	,,	4	5	0	0
doe, hare, and rabbit	,,	0	5	0	0	Wax, Japan	100 catties	0	6	5	0
squirrel	,,	0	5	0	0	Woods, camagon	,,	0	0	3	0
land otter	,,	2	0	0	0	ebony	,,	0	1	5	0
racoon	,,	2	0	0	0	garroo	,,	2	0	0	0
Smalts	100 catties	1	5	0	0	fragrant	,,	0	4	5	0
Smalt, foreign	,,	7	2	0	0	Kranjee, 35 ft. long, 1 ft. 8 in. wide, and 1 ft. thick	each	0	8	0	0
Stricklac	,,	0	5	0	0	Laka	100 catties	0	1	4	5
Stonefish	,,	0	5	0	0	red	,,	0	1	1	5
Sulphur and brimstone (saleable only under regulation appended)	,,	0	2	0	0	Woollen manufactures, viz.: blankets	pair	0	2	0	0
Telescopes, spy and opera glasses, looking-glasses and mirrors	5 per cent.	ad val.				broadcloth and Spanish stripes, habit and medium cloth, 51 to 64 in. wide	chang	0	1	2	0
Tigers' bones	100 catties	1	5	5	0	long ells, 51 in. wide	,,	0	0	4	5
Timber:						camlets, English, 51 in. wide	,,	0	0	5	0
Mauta and spars, hard wood, not exceeding 40 ft.	each	4	0	0	0	Dutch, 53 in. wide	,,	0	1	0	0
ditto, not exceeding 60 ft.	,,	6	0	0	0	imitation and bombazettes	,,	0	0	3	5
ditto, exceeding 60 ft.	,,	10	0	0	0	cassimeres, flannel and narrow cloth	,,	0	0	4	0
soft wood, not exceeding 40 ft.	,,	2	0	0	0	lastings, 34 in. wide	,,	0	0	5	0
ditto, not exceeding 60 ft	,,	4	5	0	0	imitation and Orleans, 34 in. wide	,,	0	0	3	5
ditto, exceeding 60 ft.	,,	6	5	0	0	bunting, not exceeding 24 in. wide, 40 yds. long	piece	0	2	0	0
Beams, hard wood, not exceeding 26 ft. long, and under 12 in. square	,,	0	1	5	0	and cotton mixtures, viz.: lustres, plain and brocaded, not exceeding 51 yds. long	,,	0	2	0	0
Planks, hard wood, not exceeding 24 ft. long, 12 in. wide, and 3 in. thick	100	3	5	0	0	inferior Spanish stripes	chang	0	1	0	0
ditto, not exceeding 16 ft. long, 12 in. wide, and 3 in. thick	,,	2	0	0	0	yarn	100 catties	3	0	0	0
soft wood	1,000 sq. ft	0	7	0	0						
teak	cubic foot	0	0	3	5						

Tariff on Exports.

Articles	Quantities	Duty				Articles	Quantities	Duty			
	per	t.	m.	c.	c.		per	t.	m.	c.	c.
Alum	100 catties	0	0	4	5	Glass beads	100 catties	0	5	0	0
green or copperas	,,	0	1	0	0	or vitrified ware	,,	0	5	0	0
Aniseed, star	,,	0	5	0	0	Grass cloth, fine	,,	2	5	0	0
broken	,,	0	2	5	0	coarse	,,	0	7	5	0
oil	,,	5	0	0	0	Ground-nuts	,,	0	1	0	0
Apricot seeds, or almonds	,,	0	4	5	0	cake	,,	0	0	3	0
Arsenic	,,	0	4	5	0	Gypsum, ground, or plaster of Paris	,,	0	0	3	0
Artificial flowers	,,	1	5	0	0	Hair, camels'	,,	1	0	0	0
Bamboo ware	,,	0	7	5	0	goats'	,,	0	1	8	0
Bangles, or glass armlets	,,	0	5	0	0	Harns	,,	0	5	5	0
Beans and peas (except from New-chwang and Tang-chow)	,,	0	0	6	0	Hartall, or orpiment	,,	0	3	5	0
Bean cake (except from New-chwang and Tang-chow)	,,	0	0	3	5	Hemp	,,	0	3	5	0
Bone and horn ware	,,	1	5	0	0	Honey	,,	0	0	6	0
Brass buttons	,,	3	0	0	0	Horns, deer's, young	pair	0	0	9	0
foil	,,	1	5	0	0	old	100 catties	0	9	0	0
ware	,,	1	0	0	0	Indian ink	,,	1	5	0	0
wire	,,	1	1	5	0	Indigo, dry	,,	4	0	0	0
Camphor	,,	0	7	5	0	Ivory ware	catty	0	1	0	0
Canes	1,000	0	5	0	0	Joss-sticks	100 catties	1	5	0	0
Cantharides	100 catties	2	0	0	0	Kittysols, or paper umbrellas	100	0	2	0	0
Capoor cutcherry	,,	0	3	0	0	Lacquered ware	100 catties	0	5	0	0
Carpets and druggets	100	3	5	0	0	Lamp-wicks	,,	1	0	0	0
Cassia lignea	100 catties	0	6	0	0	Lead, red (minium)	,,	0	3	5	0	0
buds	,,	0	8	0	0	white (cerruse)	,,	0	3	5	0	0
twigs	,,	0	1	5	0	yellow (massicot)	,,	0	3	5	0	0
oil	,,	9	0	0	0	Leather articles, as pouches, purses	,,	1	5	0	0
Castor oil	,,	0	2	0	0	green	,,	1	8	0	0
Chestnuts	,,	0	1	0	0	Lichee	,,	0	2	0	0
China root	,,	0	1	5	0	Lilly flowers, dried	,,	0	2	7	0
Chinaware, fine	,,	8	5	0	0	seeds, or lotus nuts	,,	0	5	0	0
coarse	,,	0	4	5	0	Liquorice	,,	0	1	3	5
Cinnabar	,,	0	7	5	0	Lung-ngan	,,	0	2	5	0
Clothing, cotton	,,	1	5	0	0	without the stone	,,	0	3	5	0
silk	,,	10	0	0	0	Manure cakes, or poudrette	,,	0	0	2	0
Coal	,,	0	0	4	0	Marble slabs	,,	0	2	0	0
Coir	,,	0	1	0	0	Mats of all kinds	100	0	2	0	0
Copper ore	,,	0	5	0	0	Matting	roll of 40 yds.	0	2	0	0
sheathing, old	,,	0	5	0	0	Melon seeds	100 catties	0	1	0	0
Copper and pewter ware	,,	1	1	5	0	Mother-o'-pearl ware	catty	0	1	0	0
Corals, false	,,	0	3	5	0	Mushrooms	100 catties	1	5	0	0
Cotton, raw	,,	0	5	5	0	Musk	catty	1	5	0	0
rags	,,	0	0	4	5	Nankeen and native cotton cloths	100 catties	1	5	0	0
Cow, Hexur	catty	0	3	5	0	Nutgalls	,,	0	5	0	0
Crackers, fireworks	100 catties	0	5	5	0	Oil, as bean, tea, wood, cotton, and hemp seed	,,	0	3	0	0
Cubebs	,,	1	5	5	0	Oiled paper	,,	0	0	4	5	0
Curiosities, antiques	5 per cent.	ad val.				Olive seed	,,	0	3	0	0
Dates, black	100 catties	0	1	5	0	Oyster-shell, sea-shells	,,	0	0	3	0	0
red	,,	0	1	9	0	Paint (green)	,,	0	4	5	0	0
Dye, green	catty	0	1	0	0	Palampore, or cotton bed-quilts	100	2	7	5	0	0
Eggs, preserved	1,000	0	5	5	0	Paper, 1st quality	100 catties	0	7	0	0	0
Fans, feather	100	0	7	5	0	2nd quality	,,	0	4	0	0	0
paper	,,	0	0	4	5	Pearls, false	,,	2	0	0	0	0
palm-leaf, trimmed	1,000	0	3	6	0	Peel, orange	,,	0	3	5	0	0
untrimmed	,,	0	2	0	0	pumelo, 1st quality	,,	0	4	5	0	0
Felt cuttings	100 catties	0	1	0	0	2nd quality	,,	0	1	5	0	0
cops	100	1	2	5	0	Peppermint leaf	,,	0	1	0	0	0
Fungus, or agaric	100 catties	0	6	0	0	oil	,,	3	5	0	0	0
Galangal	,,	0	1	0	0	Pictures and paintings	each	0	1	0	0	0
Gedda	,,	0	0	3	5	on pith or rice-paper	100	0	1	0	0	0
Ginseng, native	5 per cent.	ad val.				Pottery, earthenware	100 catties	0	0	3	5	0
Corean or Japan, 1st quality	catty	0	3	0	0	Preserves, comfits, and sweetmeats	,,	0	5	0	0	
2nd quality	,,	0	2	5	0							

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Tariff on Exports—continued.

Articles	Quantities	Duty				Articles	Quantities	Duty			
			t.	m.	c.	c.				t.	m.	c.	c.
Rattans, split	per 100 catties		0	2	5	0	Silk, caps	per 100		0	9	0	0
Rattan-ware	,,		0	5	0	0	and cotton mixtures	100 catties		5	5	0	0
Rhubarb	,,		1	2	5	0	Silver and gold ware	,,		10	0	0	0
Rice or paddy, wheat, millet, and other grains	,,		0	1	0	0	Snuff	,,		0	8	0	0
Rugs, of hair or skin	each		0	0	9	0	Soy	,,		0	4	0	0
Samshoo	100 catties		0	1	5	0	Straw, braid	,,		0	7	0	0
Sandalwood ware	catty		0	1	0	0	Sugar, brown	,,		0	1	2	0
Seaweed	100 catties		0	1	5	0	white	,,		0	2	0	0
Sesamum seed	,,		0	1	5	5	candy	,,		0	2	5	0
Shoes and boots, leather or satin	100 pairs		3	0	0	0	Tallow, animal	,,		0	2	0	0
straw	,,		0	1	8	0	vegetable	,,		0	3	0	0
Silk, raw and thrown	100 catties		10	0	0	0	Tea	,,		2	5	0	0
yellow, from Szechuen	,,		7	0	0	0	Tenfoil	,,		1	2	5	0
reeled, from Dupions	,,		5	0	0	0	Tobacco, prepared	,,		0	4	5	0
wild raw	,,		2	5	0	0	leaf	,,		0	1	5	0
refuse	,,		1	0	0	0	Tortoiseshell ware	catty		0	2	0	0
cocoons	,,		3	0	0	0	Trunks, leather	100 catties		1	5	0	0
floss, Canton	,,		1	3	0	0	Turmeric	,,		0	1	0	0
from other provinces	,,		10	0	0	0	Twine, hemp, Canton	,,		0	1	5	0
ribbons and thread	,,		10	0	0	0	Sea Chow	,,		0	5	0	0
Silk piece-goods:							Turnips, salted	,,		0	1	8	0
pongees, shawls, scarfs, crape, satin, gauze, velvet, and embroidered goods	,,		12	0	0	0	Varnish, or crude lacquer	,,		0	5	0	0
Szechuen and Shantung	,,		4	5	0	0	Vermicelli	,,		0	1	8	0
Silk, tassels	,,		10	0	0	0	Vermilion	,,		2	5	0	0
							Wax, white or insect	,,		1	5	0	0
							Wood, planks, poles, and joists	each		0	0	3	0
							ware	100 catties		1	5	0	0
							Wool	,,		0	3	5	0

ELGIN AND KINCARDINE.
Signatures and Seal of the Five Chinese High Commissioners and Plenipotentiaries.

Convention between her Majesty and the Emperor of China. Signed in the English and Chinese Languages, at Peking, October 24, 1860.

Article 1. A breach of friendly relations having been occasioned by the Act of the garrison of Ta-ku, which obstructed her Britannic Majesty's representative when on his way to Peking for the purpose of exchanging the ratifications of the treaty of peace concluded at Tien-tsin in the month of June, 1858, his Imperial Majesty the Emperor of China expresses his deep regret at the misunderstanding so occasioned.

2. It is further expressly declared, that the arrangement entered into at Shanghai in the month of October, 1858, between her Britannic Majesty's ambassador the Earl of Elgin and Kincardine, and his Imperial Majesty's commissioners Kweiliang and Hwashana, regarding the residence of her Britannic Majesty's representative in China, is hereby cancelled, and that, in accordance with Article 3 of the treaty of 1858, her Britannic Majesty's representative will henceforward reside permanently or occasionally at Peking, as her Britannic Majesty shall be pleased to decide.

3. It is agreed that the separate article of the treaty of 1858 is hereby annulled; and that in lieu of the amount of indemnity therein specified, his Imperial Majesty the Emperor of China shall pay the sum of 8,000,000 of taels in the following proportions or instalments, namely: At Tien-tsin, on or before the 30th day of November, the sum of 500,000 taels; at Canton, and on or before the 1st day of December, 1860, 333,333 taels, less the sum which shall have been advanced by the Canton authorities towards the completion of the British factory site at Shameen; and the remainder at the ports open to foreign trade, in quarterly payments, which shall consist of $\frac{1}{2}$ of the gross revenue from customs there collected. The first of the said payments being due on the 31st day of December, 1860, for the quarter terminating on that day.

It is further agreed that these moneys shall be paid into the hands of an officer whom her Britannic Majesty's representative shall specially appoint to receive them, and that the accuracy of the amounts shall, before payment, be duly ascertained by British and Chinese officers appointed to discharge this duty.

In order to prevent future discussion, it is moreover declared, that of the 8,000,000 of taels herein guaranteed, 2,000,000 will be appropriated to the indemnification of the British mercantile community at Canton, for losses sustained by them, and the remaining 6,000,000 to the liquidation of war expenses.

4. It is agreed that on the day on which this convention is signed, his Imperial Majesty the Emperor of China shall open the port of Tien-tsin to trade, and that it shall be thereafter competent to British subjects to reside and trade there under the same conditions as at any other port of China by treaty open to trade.

5. As soon as the ratifications of the treaty of 1858 shall have been exchanged, his Imperial Majesty the Emperor of China will, by decree, command the high authorities of every province to proclaim throughout their jurisdictions, that Chinese choosing to take service in the British colonies, or other parts beyond sea, are at perfect liberty to enter into engagements with British subjects for that purpose, and to ship themselves and their families on board any British vessel at any of the open ports of China; also that the high authorities aforesaid shall, in concert with her Britannic Majesty's representative in China, frame such regulations for the protection of Chinese emigrating, as above, as the circumstances of the different open ports may demand.

6. With a view to the maintenance of law and order in and about the harbour of Hong Kong, his Imperial Majesty the Emperor of China agrees to cede to her Majesty the Queen of Great Britain and Ireland, and to her heirs and successors, to have and to hold as a dependency of her Britannic Majesty's colony of Hong Kong, that portion of the township of Cowloon, in the province of Kwang-tung, of which a lease was granted in perpetuity to Harry Smith Parkes, Esquire, Companion of the Bath, a member of the allied commission at Canton, on behalf of her Britannic Majesty's Government, by Lan Tsung Kwang, governor-general of the Two Kwang.

It is further declared that the lease in question is hereby cancelled; that the claims of any Chinese to property on the said portion of Cowloon shall be duly investigated by a mixed commission of British and Chinese officers; and that compensation shall be awarded by the British Government

to any Chinese whose claim shall be by the said commission established, should his removal be deemed necessary by the British Government.

7. It is agreed that the provisions of the treaty of 1858, except in so far as these are modified by the present convention, shall without delay come into operation as soon as the ratifications of the treaty aforesaid shall have been exchanged.

It is further agreed that no separate ratification of the present convention shall be necessary, but that it shall take effect from the date of its signature, and be equally binding, with the treaty above mentioned, on the high contracting parties.

8. It is agreed that as soon as the ratifications of the treaty of the year 1858 shall have been exchanged, his Imperial Majesty the Emperor of China shall, by decree, command the high authorities in the capital and in the provinces to print and publish the aforesaid treaty and the present convention, for general information.

9. It is agreed that as soon as this convention shall have been signed, the ratifications of the treaty of the year 1858 shall have been exchanged, and an imperial decree respecting the publication of the said convention and treaty shall have been promulgated, as provided for by Article 8 of this convention, Chusan shall be evacuated by her Britannic Majesty's troops there stationed, and her Britannic Majesty's force now before Peking shall commence its march towards the city of Tien-tsin, the forts of Taku, the north coast of Shang-tung, and the city of Canton, at each or all of which places it shall be at the option of her Majesty the Queen of Great Britain and Ireland to retain a force until the indemnity of 8,000,000 of taels, guaranteed in Article 3, shall have been paid.

Done at Peking, in the Court of the Board of Ceremonies, on the 24th day of October, in the year of our Lord 1860.

ELGIN AND KINCARDINE.

Signature and Seal of the Chinese Plenipotentiary.

DENMARK.

Convention of Commerce between Great Britain and Denmark, signed at London, the 16th of June, 1824.

Article 1. From and after the 1st day of July next, Danish vessels entering or departing from the ports of the United Kingdom of Great Britain and Ireland, and British vessels entering or departing from the ports of his Danish Majesty's dominions, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on national vessels entering or departing from such ports respectively.

2. All articles of the growth, produce, or manufacture of any of the dominions of either of the high contracting parties, which are or shall be permitted to be imported into or exported from the ports of the United Kingdom and of Denmark respectively, in vessels of the one country, shall, in like manner, be imported into and exported from those ports in vessels of the other.

3. All articles not of the growth, produce, or manufacture of the dominions of his Britannic Majesty, which can legally be imported from the United Kingdom of Great Britain and Ireland into the ports and dominions of the King of Denmark, in British ships, shall be subject only to the same duties as are payable upon the like articles if imported in Danish ships; and the same reciprocity shall be observed with regard to Danish vessels in the ports of the said United Kingdom of Great Britain and Ireland in respect to all articles not the growth, produce, or manufacture of the dominions of his Danish Majesty, which can legally be imported into the ports of the United Kingdom in Danish ships.

4. All goods which can legally be imported into the ports of either country shall be admitted at the same rate of duty, whether imported in vessels of the other country or in national vessels; and all goods which can be legally exported from the ports of either country shall be entitled to the same bounties, drawbacks, and allowances, whether exported in vessels of the other country or in national vessels.

5. No priority or preference shall be given, directly or indirectly, by the Government of either country, or by any company, corporation, or agent, acting on its behalf or under its authority, in the purchase of any article the growth, produce, or manufacture of either country imported into the other, on account of or in reference to the character of the vessel in which such article was imported, it being the true intent and meaning of the high contracting parties, that no distinction or difference whatever shall be made in this respect.

6. The high contracting parties having mutually determined not to include in the present convention their respective colonies, in which are comprehended, on the part of Denmark, Greenland, Iceland, and the islands of Ferroe; it is expressly agreed that the intercourse which may at present legally be carried on by the subjects or ships of either of the said high contracting parties with the colonies of the other, shall remain upon the same footing as if this convention had never been concluded.

7. The present convention shall be in force for the term of 10 years from the date hereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other, at the end of the said term of 10 years; and it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this convention, and all the provisions thereof, shall altogether cease and determine.

8. The present convention shall be ratified, and the ratifications shall be exchanged at London, within 1 month from the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 16th of June, 1824.

GEORGE CANNING.
W. HUSKISSON.
C. E. MOLTKE.

Separate Articles.

The high contracting parties reserve to themselves to enter upon additional stipulations for the purpose of facilitating and extending, even beyond what is comprehended in the convention of this date, the commercial regulations of their respective subjects and dominions, upon the principle either of reciprocal or equivalent advantages, as the case may be. And in the event of any articles or article being concluded between the said high contracting parties for giving effect to such stipulations, it is hereby agreed that the article or articles which may hereafter be so concluded shall be considered as forming part of the aforesaid convention.

Additional Articles.

Their Britannic and Danish Majesties mutually agree that no higher or other duties shall be levied

in either of their dominions (their respective colonies being excepted from the convention of this date), upon any personal property of their respective subjects, on the removal of same from the dominions of their said Majesties reciprocally, either upon the inheritance of such property, or otherwise, than are or shall be payable in each state upon the like property when removed by a subject of such state respectively.

For treaty as to abolition of sound dues, see ELSINEUR.

FRANCE.

Convention of Navigation between his Britannic Majesty and the Most Christian King, together with two additional Articles thereunto annexed. Signed at London, January 26, 1826.

Article 1. French vessels coming from or departing for the ports of France, or, if in ballast, coming from or departing for any place, shall not be subject, in the ports of the United Kingdom, either on entering into or departing from the same, to any higher duties of tonnage, harbour, light-house, pilotage, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, than those to which British vessels, in respect of the same voyages, are or may be subject on entering into or departing from such ports; and, reciprocally, from and after the same period, British vessels coming from or departing for the ports of the United Kingdom, or, if in ballast, coming from or departing for any place, shall not be subject, in the ports of France, either in entering into or departing from the same, to any higher duties of tonnage, harbour, light-house, pilotage, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, than those to which French vessels, in respect of the same voyages, are or may be subject, on entering into or departing from such ports; whether such duties are collected separately, or are consolidated in one and the same duty—his Most Christian Majesty reserving to himself to regulate the amount of such duty or duties in France, according to the rate at which they are or may be established in the United Kingdom: at the same time, with a view of diminishing the burdens imposed upon the navigation of the two countries, his Most Christian Majesty will always be disposed to reduce the amount of the said burdens in France, in proportion to any reduction which may hereafter be made of those now levied in the ports of the United Kingdom.

2. Goods which can or may be legally imported into the ports of the United Kingdom, from the ports of France, if so imported in French vessels, shall be subject to no higher duties than if imported in British vessels; and, reciprocally, goods which can or may be legally imported into the ports of France, from the ports of the United Kingdom, if so imported in British vessels, shall be subject to no higher duties than if imported in French vessels. The produce of Asia, Africa, and America, not being allowed to be imported from the said countries, nor from any other, in French vessels, nor from France in French, British, or any other vessels, into the ports of the United Kingdom, for home consumption, but only for warehousing and re-exportation, his Most Christian Majesty reserves to himself to direct that, in like manner, the produce of Asia, Africa, and America shall not be imported from the said countries, nor from any other, in British vessels, nor from the United Kingdom in British, French, or any other vessels, into the ports of France, for the consumption of that kingdom, but only for warehousing and re-exportation.

With regard to the productions of the countries of Europe, it is understood between the high contracting parties, that such productions shall not be imported, in British ships, into France, for the consumption of that kingdom, unless such ships shall have been laden therewith in some port of the United Kingdom; and that his Britannic Majesty may adopt, if he shall think fit, some corresponding restrictive measure, with regard to the productions of the countries of Europe imported into the ports of the United Kingdom in French vessels: the high contracting parties reserving, however, to themselves the power of making, by mutual consent, such relaxations in the strict execution of the present article as they may think useful to the respective interests of the two countries upon the principle of mutual concessions, affording each to the other reciprocal or equivalent advantages.

3. All goods which can or may be legally exported from the ports of either of the two countries shall, on their export, pay the same duties of exportation, whether the exportation of such goods be made in British or in French vessels, provided the said vessels proceed, respectively, direct from the ports of the one country to those of the other. And all the said goods so exported in British or French vessels shall be reciprocally entitled to the same bounties, drawbacks, and other allowances of the same nature, which are granted by the regulations of each country, respectively.

4. It is mutually agreed between the high contracting parties, that in the intercourse of navigation between their two countries, the vessels of any third power shall in no case obtain more favourable conditions than those stipulated, in the present convention, in favour of British and French vessels.

5. The fishing-boats of either of the two countries, which may be forced by stress of weather to seek shelter in the ports or on the coast of the other country, shall not be subject to any duties or port charges of any description whatsoever; provided the said boats, when so driven in by stress of weather, shall not discharge or receive on board any cargo, or portion of cargo, in the ports or on the parts of the coast where they shall have sought shelter.

6. It is agreed that the provisions of the present convention between the high contracting parties shall be reciprocally extended and in force in all the possessions subject to their respective dominions in Europe.

7. The present convention shall be in force for the term of 10 years from the 5th of April of the present year; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate its operation; each of the high contracting parties reserving to itself the right of giving such notice to the other, at the end of the said term of 10 years: and it is agreed between them, that, at the end of 12 months' extension agreed to on both sides, this convention, and all the stipulations thereof, shall altogether cease and determine.

8. The present convention shall be ratified, and the ratifications shall be exchanged in London, within the space of 1 month, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 26th day of January, in the year of our Lord 1826.

GEORGE CANNING.
WILLIAM HUSKISSON.
LE PRINCE DE POLIGNAC.

Additional Articles.

Article 1. French vessels shall be allowed to sail from any port whatever of the countries under the dominion of his Most Christian Majesty, to all the colonies of the United Kingdom (except those possessed by the East India Company), and to import into the said colonies all kinds of merchandise (being productions the growth or manufacture of France, or of any country under the dominion of France), with the exception of such as are prohibited to be imported into the said colonies, or are permitted to be imported only from countries under the British dominion; and the said French vessels, as well as the merchandise imported in the same, shall not be subject, in the colonies of the United Kingdom, to other or higher duties than those to which British vessels may be subject on importing the same merchandise from any foreign country, or which are imposed upon the merchandise itself.

The same facilities shall be granted, reciprocally, in the colonies of France, with regard to the importation in British vessels of all kinds of merchandise (being productions the growth and manufacture of the United Kingdom, or any country under the British dominion), with the exception of such as are prohibited to be imported into the said colonies, or are permitted to be imported only from countries under the dominion of France. And whereas all goods, the produce of any foreign country, may now be imported into the colonies of the United Kingdom, in the ships of that country, with the exception of a limited list of specified articles which can only be imported into the said colonies in British ships, his Majesty the King of the United Kingdom reserves to himself the power of adding to the said list of excepted articles any other the produce of the French dominions, the addition whereof may appear to his Majesty to be necessary for placing the commerce and navigation to be permitted to the subjects of each of the high contracting parties with the colonies of the other upon a footing of fair reciprocity.

2. French vessels shall be allowed to export from all the colonies of the United Kingdom (except those possessed by the East India Company) all kinds of merchandise which are not prohibited to be exported from such colonies in vessels other than those of Great Britain; and the said vessels, as well as the merchandise exported in the same, shall not be subject to other or higher duties than those to which British vessels may be subject on exporting the said merchandise, or which are imposed upon the merchandise itself; and they shall be entitled to the same bounties, drawbacks, and other allowances of the same nature, to which British vessels would be entitled, on such exportation.

The same facilities and privileges shall be granted, reciprocally, in all the colonies of France, for the exportation in British vessels of all kinds of merchandise which are not prohibited to be exported from such colonies in vessels other than those of France.

These 2 additional articles shall have the same force and validity as if they were inserted, word for word, in the convention signed this day. They shall be ratified, and the ratifications shall be exchanged at the same time.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, Jan. 26, 1826.

GEORGE CANNING.
WILLIAM HUSKISSON.
LE PRINCE DE POLIGNAC.

A Treasury letter, dated 28th of March, 1826, directs that French vessels, and their cargoes legally imported or exported on board the same, according to the terms of the convention in the preceding pages, are from the 5th of April, 1826 to be charged with such and the like duties only, of whatever kind they may be, that are charged on British vessels, and similar cargoes laden on board thereof; and in like manner the same bounties, drawbacks, and allowances are to be paid on articles exported in French vessels, that are paid, granted, or allowed on similar articles exported in British vessels. And the necessary instructions are to be transmitted to the officers in the colonies for carrying into effect the stipulations contained in the 2 additional articles of the said convention, respecting French vessels and their cargoes, from the 1st of October, 1826.

A convention regulating the respective limits of the British and French oyster and other fisheries was signed at Paris on the 2nd of August, 1839, and another in 1868.

Treaty of Commerce between her Majesty and the Emperor of the French. Signed at Paris, January 23, 1860. Ratifications exchanged at Paris, February 4, 1860.

Article 1. His Majesty the Emperor of the French engages that on the following articles of British production and manufacture, imported from the United Kingdom into France, the duties shall in no case exceed 30 per cent. ad valorem, the two additional decimes included.

The articles are as follows:—

Refined sugar;
Turmeric in powder;
Rock crystal worked;
Iron forged in lumps or prisms;
Brass wire (copper alloyed with zinc), polished or unpolished, of every description;
Chemical productions, enumerated or non-enumerated;
Extracts of dye-woods;
Garancine;
Common soap of every description, and perfumed soap;
Stone-ware and earthen-ware, fine and common;
China and porcelain-ware;
Glass, crystal, mirrors, and plate-glass;
Cotton yarn;
Worsted and woollen yarn of every description;
Yarns of flax and hemp;
Yarns of hair, enumerated or non-enumerated;
Cotton manufactures;
Horse-hair manufactures, enumerated or non-enumerated;
Worsted and woollen manufactures, enumerated or non-enumerated;
Cloth list;
Manufactures of hair;
Silk manufactures;
Manufactures of waste and floss-silk;
Manufactures of bark and all other vegetable fibres, enumerated or non-enumerated;
Manufactures of flax and hemp;
Mixed manufactures of every description;
Hosiery;
Haberdashery, and small wares;
Manufactures of caoutchouc and gutta percha, pure or mixed;
Articles of clothing, wholly or in part made up;
Prepared skins;
Articles of every sort, manufactured from leather or skins, included or not under the denomination of small wares, fine or common;
Plated articles of every description;
Cutlery;

Metal wares, whether enumerated or not;
Pig and cast-iron of every description, without distinction of weight;
Bar and wrought-iron, with the exception of the kinds specified in Article 17;
Steel;
Machinery, tools, and mechanical instruments of every description;
Carriages on springs, lined and painted;
Cabinet ware, carved work, and turnery of every description; worked ivory and wood;
Brandies and spirits, including those not distilled from wine, cherries, molasses, or rice;
Ships and boats;
With respect to refined sugar and chemical productions of which salt is the basis, the excise or inland duties shall be added to the amount of the above specified duties.

2. His Imperial Majesty engages to reduce the import duties in France on British coal and coke to the amount of 15 centimes for the 100 kilogrammes, with the addition of the 2 decimes.

His Majesty the Emperor also engages, within 4 years from the date of the ratification of the present treaty, to establish upon the importation of coal and coke by land and by sea, a uniform duty, which shall not exceed that which is fixed by the preceding paragraph.

3. It is understood that the rates of duty mentioned in the preceding articles are independent of the differential duties in favour of French shipping, with which duties they shall not interfere.

4. The duties ad valorem stipulated in the present treaty shall be calculated on the value at the place of production or fabrication of the object imported, with the addition of the cost of transport, insurance, and commission necessary for the importation into France as far as the port of discharge.

For the levying of these duties, the importer shall make a written declaration at the custom-house, stating the value and description of the goods imported. If the custom-house authorities shall be of opinion that the declared value is insufficient, they shall be at liberty to take the goods on paying to the importer the price declared, with an addition of 5 per cent.

This payment, together with the restitution of any duty which may have been levied upon such goods, shall be made within the 15 days following the declaration.

5. Her Britannic Majesty engages to recommend to Parliament to enable her to abolish the duties of importation on the following articles:—
Sulphuric acid, and other mineral acids;
Agates and cornelians, set;
Lucifers of every description;
Percussion caps;
Arms of every description;
Jewels, set;
Toys;
Corks;
Brocade of gold and silver;
Embroideries and needle-work of every description;
Brass and bronze manufactures, and bronzed metal;
Canes, walking canes or sticks, umbrella or parasol sticks, mounted, painted, or otherwise ornamented;
Hats, of whatever substance they may be made;
Gloves, stockings, socks, and other articles of cotton or linen, wholly or in part made up;
Leather manufactures;
Lace manufactured of cotton, wool, silk, or linen;
Manufactures of iron and steel;
Machinery and mechanical instruments; tools, and other instruments;
Cutlery, and other articles of steel, iron, or cast-iron;
Fancy ornaments of steel and iron;
Articles covered with copper by galvanic process;
Millinery and artificial flowers;
Raw fruits;
Gloves, and other leather articles of clothing;
Manufactures of caoutchouc and gutta percha;
Oils;
Musical instruments;
Worsted and woollen shawls, plain, printed, or patterned;
Coverlids, woollen gloves, and other worsted and woollen manufactures, not enumerated;
Handkerchiefs, and other manufactures not enumerated, of linen and hemp;
Perfumery; cabinet ware, carved work, and turnery of every description;
Clocks, watches, and opera glasses;
Manufactures of lead, enumerated or not enumerated;
Feathers, dressed or not;
Goat's, and other hair manufactures;
China and porcelain ware;
Stone and earthenware;
Grapes;
Sulphate of quinine;
Salts of morphine;
Manufactures of silk, or of silk mixed with any other materials, of whatever description they may be;
Articles not enumerated in the tariff, now paying an ad valorem duty of 10 per cent.; subject, however, to such measures of precaution as the protection of the public revenue may require, against the introduction of materials liable to custom or excise duties, in the composition of articles admitted duty free in virtue of the present paragraph.

6. Her Britannic Majesty engages also to propose to Parliament that the duties on the importation of French wine be at once reduced to a rate not exceeding 8*s.* per gallon, and that from the 1st April, 1861, the duties on importation shall be regulated as follows:—

(1) On wine containing less than 15 degrees of proof spirit, verified by Sykes's hydrometer, the duty shall not exceed 1*s.* per gallon.

(2) On wine containing from 15 to 26 degrees, the duty shall not exceed 1*s.* 6*d.* per gallon.

(3) On wine containing from 26 to 40 degrees, the duty shall not exceed 2*s.* per gallon.

(4) On wine in bottles, the duty shall not exceed 2*s.* per gallon.

(5) Wine shall not be imported at any other ports than those which shall be named for that purpose before the present treaty shall come into force; her Britannic Majesty reserving to herself the right of substituting other ports for those which shall have been originally named, or of increasing the number of them.

The duty fixed upon the importation of wine at ports other than those named, shall be 2*s.* per gallon.

(6) Her Britannic Majesty reserves to herself the power, notwithstanding the provisions of this article, to fix the maximum amount of proof spirit which may be contained in liquor declared as wine, without, however, the maximum being lower than 37 degrees.

7. Her Britannic Majesty promises to recommend to Parliament to admit into the United Kingdom merchandise imported from France, at

a rate of duty equal to the excise duty which is or shall be imposed upon articles of the same description in the United Kingdom. At the same time the duty chargeable upon the importation of such merchandise may be augmented by such a sum as shall be an equivalent for the expenses which the system of excise may entail upon the British producer.

8. In accordance with the preceding article, her Britannic Majesty undertakes to recommend to Parliament the admission into the United Kingdom of brandies and spirits imported from France, at a duty exactly equal to the excise duty levied upon home-made spirits, with the addition of a surtax of 2*d.* per gallon, which shall make the actual duty payable on French brandies and spirits 8*s.* 2*d.* the gallon.

Her Britannic Majesty also undertakes to recommend to Parliament the admission of rum and tafia imported from the French colonies, at the same duty which is or shall be levied on these same articles imported from the British colonies.

Her Britannic Majesty undertakes to recommend to Parliament the admission of paper-hangings imported from France, at a duty equal to the excise tax, that is to say, at 14*s.* per cwt.; and cardboard of the same origin, at a duty which shall not exceed 15*s.* per cwt.

Her Britannic Majesty further undertakes to recommend to Parliament the admission of gold and silver plate imported from France, at a duty equal to the stamp or excise duty which is charged on British gold and silver plate.

9. It is understood between the two high contracting powers, that if one of them thinks it necessary to establish an excise tax or inland duty upon any article of home production or manufacture which is comprised among the preceding enumerated articles, the foreign imported article of the same description may be immediately liable to an equivalent duty on importation.

It is equally understood between the high contracting powers, that in case the British Government should deem it necessary to increase the excise duties levied upon home-made spirits, the duties on the importation of wines may be modified in the following manner:—

For every increase of 1*s.* per gallon of spirits on the excise duty, there may be, on wines which pay 1*s.* 6*d.* duty, an augmentation not exceeding 1½*d.* per gallon; and on wines which pay 2*s.*, an augmentation not exceeding 2½*d.* per gallon.

10. The two high contracting powers reserve to themselves the power of levying upon all articles mentioned in the present treaty, or upon any other article, landing or shipping dues, in order to pay the expenses of all necessary establishments at the ports of importation and exportation.

But in all that relates to local treatment, the dues and charges in the ports, basins, docks, roadsteads, harbours, and rivers of the two countries, the privileges, favours, or advantages which are or shall be granted to national vessels generally, or to the goods imported or exported in them, shall be equally granted to the vessels of the other country, and to the goods imported or exported in them.

11. The two high contracting powers engage not to prohibit the exportation of coal, and to levy no duty upon such exportation.

12. The subjects of one of the two high contracting powers shall, in the dominions of the other, enjoy the same protection as native subjects in regard to the rights of property in trade-marks and in patterns of every description.

13. The ad valorem duties established within the limits fixed by the preceding articles shall be converted into specific duties by a supplementary convention, which shall be concluded before the 1st of July, 1860. The medium prices during the 6 months preceding the date of the present treaty shall be taken as the basis for this conversion.

Duties shall, however, be levied in conformity with the bases above established—

(1) In the event of this supplementary convention not having come into force before the expiration of the period fixed for the execution by France of the present treaty;

(2) Upon those articles the specific duties on which shall not have been settled by common consent.

14. The present treaty shall be binding for the United Kingdom of Great Britain and Ireland, so soon as the necessary legislative sanction shall have been given by Parliament, with the reserve made in Article 6 respecting wines.

Further, her Britannic Majesty reserves to herself the power of retaining, upon special grounds, and by way of exception, during a period not exceeding 2 years, dating from the 1st of April, 1860, half of the duties on those articles, the free admission of which is stipulated by the present treaty.

This reserve, however, does not apply to articles of silk manufacture.

15. The engagements contracted by his Majesty the Emperor of the French shall be fulfilled, and the tariffs previously indicated as payable on British goods and manufactures shall be applied, within the following periods:—

(1) For coal and coke, from the 1st of July, 1860.

(2) For bar and pig iron, and for steel of the kinds which are not subject to prohibition, from the 1st of October, 1860.

(3) For worked metals, machines, tools, and mechanical instruments of all sorts, within a period which shall not exceed the 31st of December, 1860.

(4) For yarns and manufactures in flax and hemp, from the 1st of June, 1861.

(5) And for all other articles from the 1st of October, 1861.

16. His Majesty the Emperor of the French engages that the ad valorem duties payable on the importation into France of merchandise of British production and manufacture, shall not exceed a maximum of 25 per cent. from the 1st of October, 1864.

17. It is understood between the two high contracting powers, as an element of the conversion of the ad valorem duties into specific duties, that for the kinds of bar iron which are at present subjected on importation into France to a duty of 10 francs not including the 2 additional decimes, the duty shall be 7 francs on every 100 kilogrammes until the 1st of October, 1861, and 6 francs from that period, including in both cases the two additional decimes.

18. The arrangements of the present treaty of commerce are applicable to Algeria, both for the exportation of her produce, and for the importation of British goods.

19. Each of the two high contracting powers engages to confer on the other any favour, privilege, or reduction in the tariff of duties of importation on the articles mentioned in the present treaty, which the said power may concede to any third power. They further engage not to enforce one against the other any prohibition of importation or exportation, which shall not at the same time be applicable to all other nations.

20. The present treaty shall not be valid unless her Britannic Majesty shall be authorised by the assent of her Parliament to execute the engage-

ments contracted by her in the articles of the present treaty.

21. The present treaty shall remain in force for the space of 10 years, to date from the day of the exchange of ratifications; and in case neither of the high contracting powers shall have notified to the other, 12 months before the expiration of the said period of 10 years, the intention to put an end to its operation, the treaty shall continue in force for another year, and so on from year to year, until the expiration of a year, counting from the day on which one or other of the high contracting powers shall have announced its intention to put an end to it.

The high contracting powers reserve to themselves the right to introduce by common consent into this treaty any modification which is not opposed to its spirit and principles, and the utility of which shall have been shown by experience.

22. The present treaty shall be ratified, and the ratifications shall be exchanged at Paris within the period of 15 days, or sooner if possible.

In faith whereof, the respective plenipotentiaries have signed it, and affixed thereto the seal of their arms.

Done in duplicate at Paris, the 23rd day of January, in the year of our Lord 1860.

COWLEY.
RICHARD COBDEN.
V. BAROCHE.
F. ROUHER.

Additional Article to the Treaty of Commerce concluded at Paris, January 23, 1860, *between her Majesty and the Emperor of the French. Signed at Paris, February* 25, 1860. *Ratifications exchanged at Paris, February* 28, 1860.

By Article 8 of the treaty of commerce between her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Majesty the Emperor of the French, signed at Paris on the 23rd of January last, her Britannic Majesty undertook to recommend to Parliament the admission into the United Kingdom of brandies and spirits imported from France, at a duty exactly equal to the excise duty levied upon home-made spirits, with the addition of a surtax of 2*d.* per gallon, which would make the actual duty payable on French brandies and spirits 8*s.* 2*d.* per gallon.

Since the ratification of the said treaty the Government of her Britannic Majesty have ascertained that the surtax of 2*d.* per gallon is not sufficient to countervail the charges with which, in consequence of the operation of the laws of customs and excise, home-made British spirits have now to contend; and that a surtax limited to the rate of 2*d.* per gallon would still leave home-made British spirits subject to a differential duty in favour of foreign brandies and spirits.

Consequently the Government of her Britannic Majesty having represented these circumstances to the Government of his Majesty the Emperor of the French, and his Imperial Majesty having consented that the amount of the said surtax shall be increased, the two high contracting parties to the said treaty of commerce do, by the present additional article, agree that the amount of such surtax shall be 5*d.* per gallon; and her Britannic Majesty engages to recommend to Parliament the admission into the United Kingdom of brandies and spirits imported from France at a duty exactly equal to the excise duty levied upon home-made spirits, with the addition of a surtax of 5*d.* per gallon.

The present additional article shall have the same force and validity as if it had been inserted in the treaty of commerce of the 23rd of January last. It shall be ratified, and the ratifications thereof shall be exchanged at Paris within 5 days from the date of its signature.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at Paris, this 25th day of February, in the year of our Lord 1860.

COWLEY.
I. BAROCHE.
F. ROUHER.

Second Additional Article to the Treaty of Commerce concluded at Paris, January 23, 1860, *between her Majesty and the Emperor of the French. Signed at Paris, June* 27, 1860 *Ratifications exchanged at Paris, July* 1, 1860.

It having been found impossible to conclude the negotiation of the arrangement which is to fix, according to paragraph 1 of Article 13 of the treaty of commerce concluded between Great Britain and France, the 23rd of January last, the rate of the specific duties to be levied on British merchandise imported into France, within the period stipulated by the said article, the high contracting parties have considered it advisable, in the interest of the respective commerce of the two countries, to make a fresh arrangement with a view to ensure the gradual execution of the aforesaid treaty within the periods fixed by the same.

In consequence whereof, the undersigned, invested with full powers on the part of her Majesty the Queen of the United Kingdom of Great Britain and Ireland, on one side, and of his Majesty the Emperor of the French on the other, have agreed upon the following articles:—

1. Instead of a single convention establishing the specific duties to be paid by British merchandise imported into France, three separate conventions shall be successively concluded; the first of which shall comprise bar and pig iron, steel and worked metals, machines, tools, and mechanical instruments of all sorts; the second, yarns and manufactures in flax and hemp; the third, all other articles of British production and manufacture enumerated in Article 1 of the treaty of the 23rd of January.

2. These conventions shall be negotiated, concluded, and ratified in such a manner as to come into force with respect to the articles to which they apply, at each of the periods fixed by Article 15, of the treaty of which they will form the complement. Nevertheless, the last of these conventions shall be concluded and ratified before the 1st of November next.

The present additional article shall have the same force and validity as if it had been inserted in the treaty of commerce of the 23rd of January last. It shall be ratified, and the ratifications thereof shall be exchanged at Paris within four days at latest from the date of its signature.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at Paris, this 27th day of June, in the year of our Lord 1860.

COWLEY.
E. THOUVENEL.

Convention between her Majesty and the Emperor of the French, supplementary to the Treaty of Commerce of January 23, 1860, *with a Tariff annexed thereto. Signed at Paris, October* 12, 1860. *Ratifications exchanged at Paris, October* 25, 1860.

Article 1. The articles of British origin or manufacture enumerated in the tariff annexed to

the present convention, shall, when imported direct from the United Kingdom, under the French or the British flag, be admitted into France at the duties specified by the said tariff.

2. In order to establish the fact that the goods are of British origin or manufacture, the importer must present at the French Custom-house either an official declaration made before a British magistrate exercising jurisdiction at the place of despatch, or a certificate granted by the chief officer of the customs at the port of embarkation, or a certificate granted by the consuls or consular agents of France at the places of despatch or at the ports of embarkation. The above-mentioned consuls or consular agents of France shall legalise the signatures of the British authorities.

3. The importer of machines and mechanical instruments, complete or in detached pieces, of British origin or manufacture, shall be exempt from the obligation of producing at the French customs any model or drawing of the imported article.

4. The importer of any goods of British origin or manufacture taxed ad valorem, must attach to the declaration verifying the value of that article, and to the certificate of origin, an invoice emanating from the manufacturer or from the seller, which shall show the real price, and shall be *visé* by a consul or consular agent of France in the United Kingdom.

5. When articles upon which an ad valorem duty is levied have been previously warehoused, the duty shall be levied according to the value of those articles at the time of their actual entry into France.

6. The importer against whom the French customs may desire to exercise the right of pre-emption stipulated in the treaty of the 23rd of January, 1860, may, if he prefers to do so, demand a valuation of his goods by experts.

The same demand may be made by the French customs when they may not think fit to have immediate recourse to pre-emption.

7. If the result of such valuation by experts should prove that the goods have not a value of 5 per cent. above that which has been declared by the importer, the duty shall be levied upon the amount of the declaration.

If the proved value is 5 per cent. above the value declared, the French customs shall be entitled, at their choice, either to exercise the right of pre-emption, or to levy the duty on the value determined by the experts.

This duty shall be increased by 50 per cent., as a fine, if the valuation of the experts is 10 per cent. above the declared value.

If the value, as determined by the arbitration, exceeds the declared value by 5 per cent., the costs of the enquiry by the experts shall be defrayed by the declarant. In the contrary case, they shall be defrayed by the French Custom-house.

8. In the cases contemplated by Article 6 the two arbitrating experts shall be named, one by the declarant, the other by the local chief of the French Custom Service. If there be difference of opinion between them, or if at the time of appointing the experts the declarant shall require it, the experts shall choose an umpire. In default of agreement, this umpire shall be appointed by the president of the tribunal of commerce at the port of importation, or, in his default, by the president of the tribunal of commerce at the nearest place.

The decision of the arbitrators shall be given within the 15 days which follow their nomination.

9. Independently of the duties of customs, articles of goldsmith's work and of jewellery of British manufacture in gold, silver, platina, or other metals, imported into France, shall be subject to the system of control established in that country for similar articles of domestic manufacture, and shall pay, if it becomes necessary, on the same basis as those, the duties of marking and guarantee.

10. The tariff annexed to the present convention shall, independently of the articles already admissible under the treaty of the 23rd of January last, be immediately applicable to refined sugars, to works in metal, to machines, to detached pieces of machines, to tools, and to mechanical instruments of every description.

11. The present convention shall have the same duration as the treaty concluded between the high contracting parties on the 23rd of January last, of which it is a complement.

12. The present convention shall be ratified, and the ratifications shall be exchanged at Paris within 15 days, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed it, and have affixed thereto the seal of their arms.

Done in duplicate, at Paris, the 12th day of October, 1860.

COWLEY.
RICHARD COBDEN.
E. THOUVENEL.
F. ROUHER.

Tariff annexed to the Convention concluded on October 12, 1860, between Great Britain and France.

Description of Articles	Rates of Import Duties	
	1860	1864
METALS.	Per 100 kil. fr. cent.	Per 100 kil. fr. cent.
Iron —		
Ore of	free	free
Filings, slag and dross, from the forge	free	free
Pig and fragments of old cast-iron	2 50	2 00
Purified cast, called 'mazée,' and old broken wrought iron	3 25	2 75
Crude, in lumps or prisms, not freed from the dross	5 00	4 50
Bars, square, round, or flat; rails of all shapes and dimensions; angle and T iron; and wire, with the exceptions hereinafter mentioned	7 00	6 00
Hoops, of the thickness of 1 millimètre or less		
Sheet, rolled or hammered, exceeding 1 millimètre in thickness		
In plates weighing 200 kilos. or less, and of which the breadth does not exceed 1 mètre 20 centimètres, nor the length 4 mètres 50 centimètres	5 50	7 50
In plates exceeding 200 kilos. in weight, or 1 mètre 20 centimètres in breadth, or 4 mètres 50 centimètres in length	9 50	7 50

Description of Articles	Rates of Import Duties	
	1860	1864
METALS.	Per 100 kil. fr. cent.	Per 100 kil. fr. cent.
Iron —		
Sheet, thin, and black iron, in plates of 1 millimètre or less in thickness (N.B. Thin sheet and black iron in flat plates, cut out or trimmed in any way, to pay one-tenth more than rectangular plates.)	15 00	10 (c)
Sheets, tinned, coppered, covered with zinc or lead	16 00	18 60
Wire, not exceeding 4-10th millimètres in diameter, whether tinned, coppered, or covered with zinc	14 00	10 00
Steel —		
In bars of all kinds	15 00	15 00
Sheet, exceeding 2 millimètres in thickness	22 00	18 00
Sheet, not exceeding 2 millimètres in thickness, and wire, including bright wire for instruments	30 00	25 00
Copper —		
Ore, filings and old broken articles and brass smelted, in pigs, bars, or plates	free	free
Rolled or beaten into bars or sheets	15 00	10 00
Wire of all sizes, whether polished or not	15 00	10 00

Tariff annexed to the Convention—continued.

Description of Articles	Rates of Import Duties 1860	Rates of Import Duties 1864
Metals	Per 100 kil. fr. cent.	Per 100 kil. fr. cent.
Copper:		
Gilt or silvered, beaten, drawn, or rolled, and wire laid on thread or silk	100 00	100 00
Zinc:—		
Ore, crude, calcined, or pounded, filings, and old broken articles	free	free
In pigs, bars, or plates	0 10	0 10
Rolled	6 00	4 00
Lead:—		
Ore and dross of all sorts, filings and old broken articles	free	free
In pigs, bars, or plates	8 00	"
Rolled or sheet, alloyed with antimony, in pig and type, old	5 00	5 00
Tin:—		
Ore and metal in pigs, bars, or plates, filings and old broken articles	free	free
Alloyed with antimony (Britannia metal), in ingots	5 00	5 00
Pure metal or alloyed, beaten or rolled	6 00	6 00
Bismuth:—		
Crude	free	free
Antimony:—		
Ore and sulphurated	free	free
Metal or regules	8 00	6 00
Nickel:—		
Ore and speiss	free	free
Pure, and alloyed with other metals, especially copper or zinc (argentine or German silver), in ingots or pigs	15 "00	10 "00
Ditto, ditto, rolled or drawn		
Manganese:—		
Ore	free	free
Arsenic:—		
Metallic		
Ores:—		
Not enumerated		
Metal Manufactures.		
Cast iron:—		
Not turned nor polished:—		
1st Class. Chairs for railways, plates, and other castings from the open mould	3 50	3 00
2nd Class. Cylindrical pipes (straight), rafters, solid columns, and gas retorts	4 25	3 75
3rd Class. Pots and all other manufactures not included in the preceding classes	5 00	4 50
Polished or turned	9 00	6 00
Tinned, enamelled, or varnished	12 00	10 00
Wrought iron:—		
Ironwares (heavy), including framework; pieces of frames		
Knees and girders for ships		
Ironwork for carts and waggons		
Hinges; clamps; large bolts; braces, and other fastenings of doors and windows, not polished nor turned	9 00	8 00
Gratings (solid); beds; seats and furniture for gardens and other kinds, with or without ornaments or adjuncts in cast iron, steel, or copper		
N.B.—Axles, springs, and tires for wheels, are not included in the above category, but are classed among detached pieces of machinery		
Small ironwares ('serrurerie') including: locks and padlocks of all sorts, bolts and hinges, in sheet iron, latches, and flat bolts, and all other articles in wrought or sheet iron for fastenings of doors or windows, and furniture, polished, filed, or turned	15 00	12 00
Nails, forged by machinery	10 00	8 00
by hand	15 00	12 00
Wood screws, screw-bolts, and nuts	10 00	8 00
Anchors	10 00	8 00
Chains and chain-cables		
Tools, in pure iron, with or without handles	12 00	10 00
Tubes of wrought iron, simply welded, of 9 millimètres interior diameter or more	13 00	11 00
Ditto, ditto, less than 9 millimètres, and fittings of tubes	25 00	20 00
Tubes in wrought iron, welded on a mandril, or lap-welded	25 00	20 00
Fish-hooks (for sea-fishing), tinned or not	50 00	50 00
Household articles and other wares unenumerated:—		
In wrought or sheet iron, polished or painted	17 00	14 00
Ditto, ditto, enamelled, varnished, or tinned	20 00	16 00
Steel Wares:—		
Tools in pure steel; files; saws, circular or straight; scythes, sickles, and other unenumerated	40 00	32 00
Needles for sewing, less than 5 centimètres in length	200 00	200 00
Ditto, of 5 and more centimètres in length	100 00	100 00
Fish-hooks (for river fishing), blued or not	100 0	100 00

Description of Articles	Rates of Import Duties 1860	Rates of Import Duties 1864
Metal Manufactures	Per 100 kil. fr. cent.	Per 100 kil. fr. cent.
Steel wares:—		
Metallic pens (other than gold or silver)	100 00	100 00
Small articles of ornament, such as beads, purse garniture, brooches, and thimbles	25 00	20 00
Household articles and other wares unenumerated	40 00	32 00
Cutlery:—		
Of every description	20 per cent. ad valorem, reduced to 15 per cent. ad valorem on January 1, 1866	
Instruments, surgical, optical, and philosophical	10 per cent. ad valorem	10 per cent ad valorem
Arms, not being implements of war:—		
Side arms	40 00	40 00
Fire-arms	240 00	240 00
Sundry Metals.		
Tools of iron tipped with steel, with or without handles	18 00	15 00
Articles made partly of cast and partly of wrought iron, not polished, if the weight of wrought iron is less than half the total weight	5 00	4 50
Ditto, if half or more than half the total weight	10 00	8 00
Ditto, polished, enamelled or japanned, and with ornamental adjuncts in iron, copper, brass, or steel	15 00	12 00
Wire gauze of iron or steel	15 00	10 00
Cylinders of copper or brass for printing, whether engraved or not	15 00	15 00
Copper wares, metal gauze of copper or brass, works of art and ornament, and all other manufactured articles of copper, pure or alloyed with zinc or tin	25 00	20 00
Manufactures of zinc of all kinds	10 00	8 00
Lead pipes, and all other manufactures of lead	5 00	3 00
Printing type, new	10 00	8 00
Tin pots and pans and other manufactures of tin, whether pure or alloyed with antimony	30 00	25 00
Manufactures of nickel allied with copper or zinc (argentine)	100 00	100 00
Plated manufactures of every description	100 00	100 00
Manufactures of metal gilt or silvered by the mercurial or electro plate processes	100 00	100 00
Plate and jewellery of gold, of silver, platina, or other metals	500 00	500 00
Clocks and watches	5 per cent. ad valorem	5 per cent. ad valorem
Clock and watch movements	100 00	100 00
Machines and Machinery.		
With apparatus complete:—		
Steam-engines stationary, with or without boilers or fly-wheels	10 00	6 00
Ditto, marine, with or without boilers	20 00	12 00
locomotives and portable engines	15 00	10 00
Tenders for locomotive engines, complete	10 00	8 00
Spinning machines	15 00	10 00
For weaving		
For paper-making		
For printing		
For agricultural machines, and machines for making sheets and fillets of cards	9 00	6 00
Lace-making machines	15 00	10 00
Distilling apparatus, sugar pans and boilers made of copper	15 00	10 00
Carding machines, not furnished	15 00	10 00
Steam-boilers, of sheet-iron, of cylindrical or spherical shape, with or without boiler-pipes or heating pipes	10 00	8 00
Ditto, tubular, of sheet iron, with tubes of wrought iron, copper, or brass, or of sheet iron rivetted, with interior furnaces, and all other boilers not of cylindrical or spherical shape	15 00	12 00
Ditto, ditto, of sheet steel of every shape	30 00	25 00
Gasometers, open boilers, furnaces and stoves in sheet iron, or in cast and sheet iron	10 00	8 00
Machines for making machines ('machines outils') and machines not enumerated:—		
Containing 75 per cent. or more of their weight in cast iron	9 00	5 00
Containing 50 per cent. and less than 75 per cent. of cast iron	15 00	10 00
Containing less than 50 per cent. of cast iron	20 00	15 00
Detached parts of machines:—		
Sheets and fillets of cards on leather, india rubber, or other materials	50 00	50 00
Dents of reeds in iron or in copper	50 00	50 00
Reeds complete, in iron or copper	50 00	
Pieces in cast iron, polished, filed, and adjusted	9 00	6 00
Pieces in wrought iron, polished, filed, and adjusted or not, without distinction of weight	15 00	10 00

Tariff annexed to the Convention—continued.

Description of Articles	Rates of Import Duties 1860	1864
	Per 100 kil. fr. cent.	Per 100 kil. fr. cent.
MACHINES AND MACHINERY		
With apparatus complete :		
Steel springs for carriages, waggons, or locomotives	17 00	15 00
Pieces in steel, polished, filed, adjusted or not ; weighing more than 1 kilogramme	30 00	25 00
Ditto, 1 kilogramme and less	40 00	35 00
Pieces in copper, pure or mixed with any other metals	25 00	20 00
Sheets and fillets for cards of leather, caoutchouc, or other materials	20 00	20 00
Gold leaf	100 00	100 00
Refined sugar	41 00	41 00
Carriages	10 per cent. ad valorem	10 per cent. ad valorem
Cabinet makers' and turners' small wares, and wares in ivory or carved wood ('tabletterie')	,,	,,
Leather : prepared skins, varnished, dyed, and morocco leather	250 00	250 00
Ditto, all other kinds	50 00	50 00
Leather manufactures of all kinds	10 per cent. ad valorem	10 per cent. ad valorem

Description of Articles	Rates of Import Duties 1860	1864
	Per 100 kil. fr. cent.	Per 100 kil. fr. cent.
MACHINES AND MACHINERY		
With apparatus complete :—		
Wooden wares : empty casks, new or old, not hooped, or hooped with wooden hoops	free	free
Ditto, ditto, iron hoops	10 per cent. ad valorem	10 per cent. ad valorem
Shovels, forks, rakes, handles of tools, of wood, with or without ferrules	free	free
Oars	,,	,,
Plates, spoons, porringers, and other household articles	,,	,,
Pieces of carpenters' work, dressed or not	,,	,,
Parts of cartwrights' work, dressed or not	,,	,,
Other articles of wood, not enumerated	10 per cent. ad valorem	10 per cent. ad valorem
Household furniture	,,	,,
Ships and boats, built in the United Kingdom, not registered or sailing under British flag, in wood	Per ton of French measurement 25 00	20 00
Ditto, ditto, in iron	70 00	60 00
Hulls of ships, in wood	15 00	10 00
in iron	50 00	40 00

N.B.—The machines and machinery on board such ships shall be charged separately, according to the rates fixed by the Tariff for 'Machines and Machinery.'

The present tariff is approved and annexed to the convention concluded on the 12th October, 1860, between Great Britain and France.

COWLEY.
RICHARD COBDEN.
E. THOUVENEL.
F. ROUHER.

Paris, October 12, 1860.

Convention between her Majesty and the Emperor of the French, supplementary to the Treaty of Commerce of January 23, 1860 ; with a Tariff annexed thereto. Signed at Paris, November 16, 1860. Ratifications exchanged at Paris, November 30, 1860.

Article 1. The articles of British origin or manufacture enumerated in the tariff annexed to the present convention shall, when imported direct from the United Kingdom under the British or the French flag, be admitted into France at the duties specified by the said tariff.

2. The rules established by Articles 2, 4, 5, 6, 7, and 8, of the convention concluded on the 12th of October last between the high contracting powers, for the proofs of origin, the declarations of importation, and the valuation by experts of the productions taxed ad valorem, shall equally apply to the various articles of British origin or manufacture enumerated in the tariff annexed to the present convention.

Article 3 of the convention of the 12th of October last, which exempts the importers of machines, or detached pieces of machines, of British origin or manufacture, from the obligation of producing models or drawings, is declared to be applicable to all the goods the importation whereof was subject to that formality, and which are comprised either in the present convention or in that of the 12th of October last.

3. Independently of the duties of customs stipulated in the tariff annexed to the present convention, and by application of Articles 1 and 9 of the treaty concluded between the high contracting powers on the 23rd of January last, the undermentioned articles of British origin or manufacture shall, on their importation into France, and by way of compensation for equivalent duties paid by French manufacturers, be subjected to the supplementary duties hereinafter prescribed :—

	fr. c.	
Raw soda	4 35	100 kil.
Crystals of soda	4 35	,,
Sulphate of soda :		
Pure anhydrate	6 0	,,
crystallised or hydrate	2 40	,,
Impure anhydrate	3 40	,,
crystallised or hydrate	2 10	,,
Sulphite of soda	6 0	100 kil.
Salt of soda	11 0	,,
Hydrochloric acid	3 0	,,
Chloride of lime	10 0	,,
Chlorate of potash	64 0	,,
Chloride of magnesium	4 0	,,
Plate glass or large mirrors	1 0	super. metre
Glass ware, window glass, and other white glass	3 20	100 kil.
Bottles	1 25	,,
Artificial ultramarine	11 0	,,
Sal ammoniac	16 0	,,
Kelp	1 50	,,
Salts or raw residue of the calcination of beet-root refuse	1 25	,,
Salt of tin	3 0	,,
Soap, white or marbled, composed of oil-nuts and oil of olives, or oleaginous seeds, pure or mixed with animal fat :		
The oil composing at least half of the mixture of oleaginous bodies	8 20	,,
The oil composing less than half in the mixture of oleaginous bodies	6 0	,,
Of animal fat :		
Pure	6 0	,,
Mixed with resin	6 0	,,
Of palm or cocoa-nut oil mixed with animal fat	4 0	,,
Coloured, composed of oils from seeds or of animal fat	6 0	,,
Pure alcohol	90 0	hectolitre
Beer	2 40	,,
Spirits of wine varnish, per hectolitre of pure alcohol contained in the varnish	90 0	,,

It is understood that refined sugar is not comprised in this list, because the duty of 41 francs per 100 kilogrammes, fixed on the importation of that article, includes the duty on consumption with which it is now charged in France.

It is equally agreed between the high contracting powers that, in the event of the modification or the suppression of the duties of excise now imposed upon French manufacturers, goods of British origin and manufacture shall, with regard to such duties of excise, be subjected to the same conditions as similar French goods. If, however, in consequence of the suppression of any of such duties, the Government should establish a supervision or control, or an administrative system over certain articles of French manufacture, the direct or indirect charges which may be borne by the French manufacturer shall be countervailed by an equivalent surtax imposed upon similar British articles. It is further understood, that if drawbacks are granted to other articles of French manufacture, the duties of customs which

are imposed upon similar articles of British origin or manufacture shall be augmented by a surtax equal to the amount of the drawbacks.

4. With regard to pure and mixed tissues taxed ad valorem, the valuation of which may appear to the French Government to present difficulties, they reserve to themselves the power to designate the custom-house of Paris exclusively for the admission of such goods.

5. Each of the high contracting powers engages to extend to the other any favour, any privilege or diminution of tariff, which either of them may grant to a third power in regard to the importation of goods mentioned, or not mentioned, in the treaty of the 23rd of January, 1860.

6. The tariff annexed to the present convention shall come into force within a time which shall not be later than the 1st of June, 1861, for yarns and tissues of flax, hemp, and jute, and the 1st of October following for all other articles.

7. The present convention shall have the same duration as the treaty concluded between the high contracting parties on the 23rd of January last, of which it is a complement.

8. The present convention shall be ratified, and the ratifications shall be exchanged at Paris within fifteen days, or sooner if possible.

In witness whereof the respective plenipotentiaries have signed it, and have affixed thereto the seal of their arms.

Done in duplicate, at Paris, the 16th day of November, 1860.

COWLEY.
RICHARD COBDEN.
E. THOUVENEL.
F. ROUHER.

Tariff referred to in Treaty with France.

Description of Articles	Rate of Duty in 1860	Rate of Duty in 1861
TEXTILE FABRICS	per 100 kilos. fr. c.	
Flax and hemp :—		
Flax or hemp, combed	5 0	
Yarn of hemp or flax measuring, to the kilogramme :—		
Single :—		
Unbleached :—		
6,000 mètres, or less	15 0	
6,000 mètres, and not more than 12,000	20 0	
12,000 " " 24,000	30 0	
24,000 " " 36,000	56 0	
36,000 " " 72,000	60 0	
72,000	100 0	
Bleached, or dyed :—		
6,000 mètres, or less	20 0	
6,000 mètres, and not more than 12,000	27 0	
12,000 " " 24,000	40 0	
24,000 " " 36,000	48 0	
36,000 " " 72,000	80 0	
72,000	133 0	
Twisted :—		
Unbleached	Same duties as upon single unbleached yarn, augmented by 40 p.c., according to the class.	
Bleached, or dyed	Same duties as upon single bleached or dyed yarns, augmented by 40 p.c., according to the class.	
Tissues of flax or hemp, plain linens and diaper, having in the warp in the space of 5 square millimètres :—		
Unbleached :—	per 100 kilos.	
8 threads or less	30 0	
9, 10, and 11 threads	55 0	
12, 13, 14 "	90 0	
15, 16, 17 "	115 0	
18, 19, 20 "	170 0	
21, 22, 23 "	260 0	
24 threads and above	400 0	
Bleached, dyed or printed :—		
8 threads or less	40 0	
9, 10, and 11 threads	70 0	
12, 13, 14 "	120 0	
15, 16, 17 "	155 0	
18, 19, 20 "	230 0	
21, 22, 23 "	350 0	
24 threads and above	535 0	
Drills, plain or figured, having in the warp in the space of 5 square millimètres :—		
Unbleached :—		
8 threads in warp, or less	35 0	
9, 10, and 11 threads	55 0	
12, 13, 14 "	90 0	
More than 14 "	115 0	
Bleached, dyed, or printed :—		
8 threads or less	47 0	
9, 10, and 11 threads	70 0	
12, 13, 14 "	120 0	
More than 14 "	155 0	
Yarns and tissues of flax or hemp mixed with other materials will pay the same duties as pure yarns and tissues of flax or hemp, provided that the flax or hemp predominates in weight.		
Damasks	15 p.c. ad val.	
Cambrics	Same duties as plain linens.	
Lawns		
Handkerchiefs, bordered	Same duties as cotton net.	
Net of thread		
Lace, do.		
Hosiery, do.		
Haberdashery, do.		
Ribbon of thread, unbleached, bleached, or dyed	15 p.c. ad val.	
Articles made of flax or hemp, wholly or in part made up		
Articles not enumerated		

Description of Articles	Rate of Duty in 1860	Rate of Duty in 1861
TEXTILE FABRICS.	per 100 kilos. fr. c.	
Jute :—		
In the fibre, or hackled, imported direct from British India, or from British entrepôts, in British or French vessels	Free. 5 0	
Combed		
Jute yarn, measuring per kilogramme :—	per 100 kilos. fr. c.	per 100 kilos. fr. c.
Unbleached :—		
Less than 1,400 mètres	7 0	5 0
From 1,400 to 3,700 mètres, exclusively	9 20	6 0
3,700 4,200 "	10 20	7 0
4,200 6,300 "	15 0	10 0
More than 6,000 mètres	Same as linen yarn.	
Bleached, or dyed :—		
Less than 1,400 mètres	10 0	7 0
From 1,400 to 3,700 mètres, exclusively	13 0	9 0
3,700 4,200 "	15 0	10 0
4,200 6,000 "	22 0	14 0
More than 6,000 mètres	Same as linen yarn.	
Tissues of jute, having in the warp in the space of 5 square millimètres :—		
Unbleached :—		
1, 2, and 3 threads, plain	13 0	10 0
1, 2, 3 " twilled	15 0	12 0
4 5 " "	21 0	16 0
6, 7, 8 " "	30 0	24 0
More than 8 "	Same as tissues of linen, according to class.	
Bleached, or dyed :—		
1, 2, and 3 threads, plain	19 0	15 0
1, 2, 3 " twilled	22 0	17 0
4 5 " "	30 0	23 0
6, 7, 8 " "	44 0	35 0
More than 8 "	Same as tissues of linen, according to class.	
Carpets, rugs, and matting	32 0	24 0
Yarns and tissues of jute mixed with other materials, will pay the same duties as pure yarns and tissues of jute, provided that the jute predominates in weight.		
Vegetable fibres :—		
Phormium tenax, sheen, and other vegetable fibres, not specified :—		
Filaments :—		
Raw or stripped	Free.	
Combed or twisted	1 0	
Threads	5 p.c. ad val.	
Tissues	10 p.c. ad val.	
Horse-hair, raw, of all kinds, prepared or curled	Free.	
Tissues and manufactures of horse-hair, pure or mixed	10 p.c. ad val.	
Cottons :—		
Cotton, raw, imported direct from British India, or from British entrepôts, in British or French vessels	Free. per kilo.	
Cotton, in sheets, carded or gummed (wadding)	0 10	
Cotton yarn, single :—		
Unbleached :—		
Of 20,000 mètres or less to the half kilo.	0 15	
21,000 to 30,000 "	0 20	
31,000 40,000 "	0 30	
41,000 50,000 "	0 40	
51,000 60,000 "	0 50	
61,000 70,000 "	0 60	
71,000 80,000 "	0 70	
81,000 90,000 "	0 80	
91,000 100,000 "	1 0	
101,000 110,000 "	1 20	
111,000 120,000 "	1 40	
121,000 130,000 "	1 60	
131,000 140,000 "	2 0	
141,000 170,000 "	2 50	
171,000 and above	3 0	
Bleached	15 p.c. above the duties on unbleached.	
Dyed	25 cents. per kilo. above the duties on unbleached.	

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Tariff referred to in Treaty with France—continued.

Description of Articles	Rate of Duty in 1860	Rate of Duty in 1864
Textile Fabrics.		
Cotton yarn, twisted in two strands:—		
Unbleached	50 p.c. above the duties on single yarn unbleached.	
Bleached	15 per cent. above twisted unbleached.	
Dyed	25 cents. per kilo. above twisted unbleached.	
Warped yarns:—		
Unbleached	50 p.c. above the duties on single unbleached yarn.	
Bleached	15 p.c. above the duties on unbleached warped yarns.	
Dyed	25 cents. per kilo. above the duties on unbleached warped yarns.	
Yarns of three threads, grey, bleached, or dyed—	per 1,000 metres	
Single twist	0 6	
Double or cable twist	0 12	
Cotton tissues, plain, twilled, and unbleached:—		
1st Class, weighing 11 kilogrammes or more the 100 metres square:—		
Of 35 threads and less to the 5 square millimetres	per kilo. 0 50	
36 threads and above	0 80	
2nd Class, weighing 7 to 11 kilogrammes exclusively the 100 metres square—		
Of 35 threads and less	0 60	
36 to 43 threads	1 0	
44 threads and above	2 0	
3rd Class, weighing 3 to 7 kilogrammes exclusively the 100 metres square—		
Of 27 threads and less	0 50	
28 to 35 threads	1 20	
36 43 ,,	1 90	
44 threads and above	3 0	
Cotton tissues—		
Bleached	15 p.c. above the duty on unbleached.	
Dyed	25 cents. per kilo. above the duty on unbleached.	
Printed	15 p.c. ad val.	
Velvets and fustians—		
Made as silk velvet—		
Unbleached	0 85	
Dyed or printed	1 10	
Other kinds—cords, moleskins &c.—		
Unbleached	0 60	
Dyed or printed	0 85	
Cotton tissues, unbleached, plain or twilled, weighing less than 3 kilogrammes per 100 square metres	15 p.c. ad val.	
Quiltings, dimities, stripes and checks, damasks and ticklenta		
Counterpanes and blankets		
Net, plain or embroidered		
Gauzes and muslins, embroidered or figured in the loom, for furniture or hangings		
Articles wholly or in part made up not denominated		
Embroidery by hand	10 p.c. ad val.	
Lace and blonde	5 p.c. ad val.	
Cotton yarns and tissues mixed with other materials will pay the same duties as yarns and tissues of pure cotton, provided that the cotton predominates in weight.		
Woollens—		
Wool, raw, Australian, imported direct or from British entrepôts in British or French vessels	Free.	
Wool dyed in masses	per 100 kilos. 25 0	
combed (dyed or not)	25 0	
Single yarn of pure wool, bleached or not, containing in the kilogramme—	per kilo.	
Of 1 to 30,000 mètres	0 35	
31,000 40,000 ,,	0 55	
41,000 50,000 ,,	0 65	
51,000 60,000 ,,	0 75	
61,000 70,000 ,,	0 85	
71,000 80,000 ,,	0 95	
81,000 90,000 ,,	1 0	
91,000 100,000 ,,		
101,000 and above		
Double yarn for weaving, bleached or not	50 p.c. above the duty on single unbleached yarn.	
for embroidery	Double the duties on single yarns.	
Dyed yarns, single or double	25 cents. per kilo. above the duties on yarns undyed.	
Tissues of wool, pure	15 p.c. ad val.	10 p.c. ad val.
Felt of all kinds		
Blankets of pure wool		
Carpets of all kinds	15 p.c. ad val.	
Hosiery of pure wool		
Haberdashery of pure wool	15 p.c. ad val.	10 p.c. ad val.
Ribbons of wool		
Lace, woollen		

Description of Articles	Rate of Duty in 1860	Rate of Duty in 1864
Textile Fabrics.		
Woollens:—List sheet	10 p.c. ad val.	
Articles not enumerated	15 p.c. ad val.	10 p.c. ad val.
Cloth list of all kinds, in pieces or not	Free.	
Ready made clothes—		
New	15 p.c. ad val.	10 p.c. ad val.
Old	20 0 per 100 kilos.	
Yarns and tissues of alpaca, llama, or vicuna pure or mixed with wool, will pay the same duties as yarns and tissues of wool in whatever proportions they may be mixed.		
Yarns and tissues of wool, or of other materials above mentioned, mixed with cotton, or with any other filaments whatever, shall pay the same duties as yarns and tissues of pure wool, provided that the wool predominates in weight.		
Yarns of goat's hair will continue to pay the duties at present in force.		
Tissues of goat's hair, other than Indian cashmere shawls and scarfs, will pay as tissues of pure wool.		
Silks—		
Silk in cocoons	Free.	
Raw or thrown	Free.	
Dyed—		
For sewing, embroidery, or lace	3 0	Free.
Others		Free.
Waste silk—		
In mass		Free.
Combed		per kilo. 0 10
In thread, single and twisted, unbleached, bleached, dyed or dyed—		
Of 80,000 mètres single, or less, to the kilo.		0 75
81,000 ,, or more, ,,		1 20
Tissues of pure silk		Free
Hosiery ,,		
Lace ,,		
Crapes, called English, unbleached, black, or coloured	per kilo. 10 0	Free from 1860
Net,—		
Plain, unbleached	20 0	do.
Dressed	15 p.c. ad val.	do.
Figured, unbleached, or dressed	10 p.c. ad val.	Free from Oct. 1, 1864
Tissues of pure waste silk, of silk and of waste silk, unbleached, bleached, dyed, or printed		2 0
Tissues, haberdashery, and lace of silk or of waste silk—		
With fine gold or silver		12 0
With semi fine or false gold or silver		3 50
Tissues of silk or of waste silk, mixed with other materials, in which the silk or waste silk predominates in weight		3 0
Ribbons of silk or of waste silk—		
Of velvet		3 0
Others		8 0
Mixed with other materials, silk or waste silk predominating in weight		10 per cent. ad valorem
Chemical Products and Dye Stuffs.		
Iodine		
Bromine		
Acids—		
Sulphuric		
Nitric		
Tartaric		
Benzoic		
Boracic		
Citric		
Arsenic		
Lemon juice		
Oxides of—		
Iron		
Zinc, grey		
Tin		
Uranium		
Copper		
Zaffre and other combinations of cobalt		
Sulphuret of arsenic		
Chloride of potassium		
Iodide ,,		
Salts of beetroot		
Carbonates of potash		Free
Nitrate ,,		
Sulphate ,,		
Tartrates ,,		
Vegetable ashes, quick and lixivated		
Lees of wine		
Borax, raw		
Nitrate of soda		
Kelp		
Bone black		
Bones, calcined, white		
Phosphates, natural		
Cyanites of iron		
Sulphate of magnesia		
Carbonate ,,		
Chloride of magnesium		
Acetate of iron, liquid		
Garancine		
Sugar of milk		
Albumen		
Phosphorus, white		per 100 kilos. 40 0

Tariff referred to in Treaty with France—continued.

Description of Articles	Rate of Duty in 1860	Rate of Duty in 1864
	per 100 kilos. fr. c.	per 100 kilos. fr. c.
Chemical Products and Dye Stuffs.		
Oxide of zinc (white of zinc)	7 0	7 0
Oxides and carbonates of lead	7 0	4 0
Oleic acid	5 0	5 0
Oxalic acid and oxalates of potash	15 0	10 0
Yellow prussiate ,,	90 0	90 0
Red ,,	30 0	30 0
Extracts of dye woods—		
For blacks and violets	20 0	20 0
reds and yellows	30 0	30 0
Turmeric, in powder	5 0	5 0
Hydrochloric acid (muriatic acid)	0 60	0 60
Caustic soda	8 0	5 0
Carbonate of soda (salt of soda) of all degrees	4 50	3 0
Artificial soda (raw)	2 50	1 50
Carbonate of soda, crystallized (crystals of soda)	2 50	1 50
Sulphate of soda and sulphite of soda	1 20	1 0
of soda, crystallized (Glauber's salts)	1 0	0 70
Bicarbonate of soda, and other salts of soda, not specified	5 25	3 50
Chloride of lime	4 25	2 80
Chlorate of potash	38 60	25 75
Soap, ordinary, and for perfumery	6 0	6 0
Artificial ultramarine	15 0	15 0
Red phosphorus		
Aluminium		
Aluminate of soda		
Chloride of aluminium		
Chromates of potash		
lead		
Colours not specified, dry, in paste and liquid	10 p.c. ad val.	10 p.c. ad val.
Stearic acid		
Glue and gelatine		
Varnish—		
Oil		
Essential oil		
Spirit of wine		
Orchilla dyes of all kinds	5 p.c. ad val.	5 p.c. ad val.
Chemicals not specified		
Glass and Crystal Ware.		
Mirrors of less than 1 mètre square	10 p.c. ad val.	10 p.c. ad val.
Plate-glass and mirrors—	per mètre sq. superficial	per mètre sq. superficial
Unpolished	1 50	1 50
Silvered or polished	4 0	4 0
	per 100 kilos.	per 100 kilos.
Bottles of all shapes	1 50	1 50
Window-glass, plain	3 50	3 50
Glass, coloured, polished, or engraved, and for watches and optical purposes		
Glass ware, and table glass, white or coloured	10 p.c. ad val.	10 p.c. ad val.
Vitrifications		
Enamelled glass		
Articles of glass not enumerated		
Broken glass and cullet	Free	Free
Rock crystal, rough or worked	,,	,,
N.B.—Rock crystal mounted will pay as jewellery.		
Earthenware and Pottery.		
Common ware—		
Tiles of all kinds, bricks, and fire-bricks	,,	,,
Gas retorts, drainage pipes, and others	,,	,,
Crucibles of all sorts, including those of plumbago, or blacklead	,,	,,
Clay pipes	,,	,,
Glazed or not, of all shapes	,,	,,

Description of Articles	Rate of duty in 1860	Rate of duty in 1864
	per 100 kilos. fr. c.	per 100 kilos. fr. c.
Earthenware and Pottery.		
Common ware:—Glazed or not, with decorations in relief, of one or more colours, flat or hollow	5 0	5 0
Stoneware—		
Utensils and apparatus for the manufacture of chemical products	Free	Free
Common of all sorts, flat and hollow, including bottles, flasks, household articles, kitchen utensils, &c.	per 100 kilos. 4 0	per 100 kilos. 4 0
Earthenware—		
With tin glaze-coloured paste, white glaze	Free	Free
With coloured glaze, majolica, with varnish of more than one colour	20 p.c. ad val.	15 p.c. ad val.
Fine earthenware		
Fine stoneware		
Porcelain, white or decorated, of all kinds, Parian and biscuit (white)	10 p.c. ad val.	10 p.c. ad val.
Various Articles.		
Artificial flowers	Free	Free
Models	,,	,,
Mercury, all kinds		
Buttons, fine or common, other than haberdashery	10 p.c. ad val.	10 p.c. ad val.
Brushes of all kinds		
Musical instruments and parts of instruments		
	per 100 kilos. (from December 1, 1860)	per 100 kilos. (from December 1, 1860)
Pins of all kinds	50 0	50 0
India-rubber manufactures—	per 100 kilos.	per 100 kilos.
Pure or mixed	20 0	20 0
Applied upon tissues in pieces or upon other materials	100 0	100 0
Made-up wearing apparel	120 0	120 0
In elastic tissues of any dimensions	200 0	200 0
Boots and shoes	80 0	80 0
N.B.—Articles of gutta-percha pay the same duties as India-rubber.		
Oil and floor cloth—		
For packing	5 0	5 0
furniture, hangings, and other purposes	15 0	15 0
Sealing wax	30 0	30 0
Blacking of all kinds	4 0	4 0
Ink, writing, drawing, and printing	20 0	20 0
Cordage, cables, and fishing-nets	20 0	20 0
Fish, fresh water—		
Fresh	Free	Free
	per 100 kilos.	per 100 kilos.
Prepared	10 0	10 0
Fish, sea—		
Fresh, dry, salted, or smoked (except cod)	10 0	10 0
Sauces and pickles	25 0	25 0
Cheese, hard	10 0	10 0
	per hectolitre, in addition to the internal tax.	per hectolitre, in addition to the internal tax.
Beer	5 0	5 0
Molasses—	per 100 kilos.	per 100 kilos.
Containing less than 50 per cent. of saccharine matter	11 0	11 0
Containing more than 50 per cent.	Same as raw sugar per hectolitre, in addition to the internal tax.	Same as raw sugar per hectolitre, in addition to the internal tax.
Alcohol, per 100 deg.	15 0	15 0
Slates—	per 1,000 kilos.	per 1,000 kilos.
For roofing	4 0	4 0
	per 100 kilos.	per 100 kilos.
In squares or slabs	10	10

Greece.

Convention of Commerce and Navigation between her Britannic Majesty and the King of Greece. Signed at London, October 4, 1837.

Article 1. From and after the exchange of the ratifications of the present convention, Greek vessels entering into or departing from the ports of the United Kingdom of Great Britain and Ireland, and British vessels entering into or departing from the ports of the kingdom of Greece, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on national vessels entering into or departing from such ports, respectively.

2. All articles, the growth, produce, or manufacture of the dominions of either of the high contracting parties, which are or shall be permitted to be imported into, or exported from the ports of the United Kingdom of Great Britain and Ireland, and of the kingdom of Greece, respectively, in vessels of the one country, shall, in like manner, be permitted to be imported into and exported from those ports, in vessels of the other country.

3. All articles not the growth, produce, or manufacture of the dominions of her Britannic Majesty, which can legally be imported from the United Kingdom of Great Britain and Ireland into the ports of the kingdom of Greece in British ships, shall be subject only to the same duties as are payable upon the like articles if imported in Greek vessels. And, reciprocally, a similar rule shall be observed in the ports of the United Kingdom, in respect of all articles not the growth, produce, or manufacture of the dominions of his Majesty the King of Greece, which can legally be imported into the ports of the United Kingdom in Greek vessels.

4. All goods, wares, and merchandise, which can legally be imported into the ports of either country, shall be admitted at the same rate of duty, whether imported in national vessels or in vessels of the other country; and all goods, wares, and merchandise which can legally be exported from the ports of either country, shall be entitled to the same bounties, drawbacks, and allowances, whether exported in vessels of the one country or in those of the other.

5. Neither of the two Governments, and no company, corporation, or agent acting on behalf of, or under the authority of either Government, shall, in the purchase of any article which is the growth, produce, or manufacture of one country, and is imported into the other, give, either directly or indirectly, any priority or preference on account of or in reference to the national character of the vessel in which such article may be imported; it being the true intent and meaning of the high contracting parties, that no distinction or difference whatever shall be made in this respect.

6. In order to avoid any misunderstanding with regard to the regulations which may determine the conditions which constitute a British or Greek vessel, it is hereby agreed that all vessels built in the dominions of her Britannic Majesty, and all vessels which, having been captured from an enemy by her Majesty's ships of war, or by the subjects of her said Majesty, furnished with letters of marque by the Lords Commissioners of the Admiralty, shall have been regularly condemned in one of her said Majesty's prize courts as lawful prize; and all vessels which shall have been condemned in any competent court for a breach of the laws made for the prevention of the slave trade; and which shall be owned, navigated, and registered according to the laws of Great Britain, shall be considered as British vessels: and that all vessels built in the territories of Greece, or which shall have been captured from an enemy by the ships of war of the Greek Government, or by Greek subjects furnished with letters of marque, and shall have been regularly condemned in one of the prize courts of the kingdom of Greece as a lawful prize, and which shall be wholly owned by any subject or subjects of Greece, and whereof the master and three-fourths of the crew are subjects of Greece, shall be considered as Greek vessels.

7. If any ships of war or merchantmen of the one nation should be wrecked on the coasts of the other, all such parts of the said ships of war or merchantmen, or of the furniture or appurtenances thereof, as also all goods and merchandise which shall be saved, or the produce thereof, and likewise the papers found on board the vessel, shall be carefully preserved until they are claimed by the proprietors, or their agents duly authorised, or by the respective consuls in whose district such wreck may have taken place, if such claim be preferred within the period fixed by the laws in force in the states of the high contracting parties; and such consul, proprietor, or agent shall pay only the expenses incurred in the preservation of the property, and the rate of salvage which would have been payable, in the like case, upon a national vessel; and the said goods and merchandise saved from the wreck shall not be liable to pay duties, unless cleared for local consumption.

8. Her Britannic Majesty and his Majesty the King of Greece have agreed that each of the high contracting parties shall have the right to nominate and appoint consuls-general, consuls, and vice-consuls, in all the ports of the dominions of the other contracting party wherein such consular officers are or may be necessary for the advancement of commerce and for the protection of the trade of the subjects of either crown; and it is expresly stipulated that such consuls, of whatever class, shall, in the country in which they are stationed, be placed upon the footing of the consuls of the most favoured nation.

9. Her Britannic Majesty consents to grant to the subjects of his Majesty the King of Greece the same facilities and privileges, with respect to the commerce to be carried on in Greek vessels with the British dominions in the East Indies, as are or may be enjoyed under any treaty or Act of Parliament, by the subjects or citizens of the most favoured nation; it being always understood that the laws, rules, regulations, and restrictions which are or may be applicable to the ships and subjects of any other foreign country, enjoying the like facilities and privileges of trading with the said dominions, shall be equally applicable to the subjects of the King of Greece.

10. All subjects of her Britannic Majesty shall, within the dominions of the King of Greece, be as free as native Greeks to manage their own affairs themselves, or to commit the management of those affairs to any other person whom they may please to appoint, as broker, factor, agent, or interpreter; nor shall British subjects be restrained in their choice of persons to act in such capacities, nor be called upon to pay any salary or remuneration to any person whom they shall not choose to employ. Absolute freedom shall also be allowed, in all cases, to the buyer and seller to bargain together, and to fix, as to them may seem meet, the price of any goods, wares, or merchandise imported into, or to be exported from, the dominions of the King of Greece, observing the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of her Britannic Majesty by the subjects of his Majesty the King of Greece, under the same conditions.

11. In all that relates to the police of ports, to the lading and unlading of vessels, and to the safety of merchandise, goods, and effects, the local laws and police regulations of each country shall be applied to the subjects of both, without discrimination or distinction; and throughout the whole extent of the territories of each contracting party, the subjects of both shall enjoy full and entire protection for their persons and property. They shall have free and easy access to the courts of justice in the prosecution and defence of their rights, and shall be at liberty to employ the lawyers, attorneys, or agents, of whatever denomination, whom they may deem the best qualified to maintain and defend their interests; it being understood that they shall conform, in this respect, to the obligations imposed upon native subjects by the laws of the country. In all that concerns the administration of justice, they shall enjoy the same privileges, rights, and franchises that belong to natives; and in none of these shall they be subject to any other duty or tax than is imposed upon natives. They shall be exempted from all compulsory military service, either by sea or by land; no forced loan shall be imposed upon them; and their property shall be subject to no other charge, requisition, or tax, than those to which the property of natives shall be liable.

12. Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Majesty the King of Greece, agree that the subjects of the respective countries shall enjoy, within the dominions of the other, the full benefit of the complete toleration and protection for the professors of all religious opinions, which at present exists in both countries by law.

13. It shall be free for the subjects of her Britannic Majesty residing in the dominions of the King of Greece, and for the subjects of his Majesty the King of Greece residing in the dominions of her Britannic Majesty, to dispose of their property, of every description, by will or testament, as they may judge fit; and if any British subject shall die in the territories of the King of Greece, or any Greek subject shall die in

the territories of the Queen of Great Britain, without will or testament, the respective consuls or vice-consuls shall exercise the right of administering to the property of subjects of their nation so dying intestate, for the benefit of the legitimate heirs to such property, and of the creditors upon the estate, so far as the laws of the respective countries shall admit.

14. The high contracting parties agree that the stipulations of the present convention shall be applicable to Gibraltar and to the island of Malta.

15. The present convention shall be in force for 10 years from the date of the exchange of the ratifications thereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other at the end of the 10 years above mentioned, or at any other period after that time; and it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this convention, and all the provisions thereof, shall altogether cease and determine.

16. The present convention shall be ratified, and the ratifications shall be exchanged at London, within 8 months from the date hereof.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 4th day of October, in the year of our Lord 1837.

PALMERSTON.
TRICOUPI.

An order in council, dated July 5, 1838, directs that Greek vessels, entering or departing from the ports of the United Kingdom of Great Britain and Ireland, together with the cargoes on board the same (such cargoes consisting of articles which may be legally imported or exported), shall not be subject to any other or higher duties or charges whatever than are or shall be levied on British vessels entering or departing from such ports, or on similar articles, when imported into or exported from such ports in such vessels; and, also, such articles, when exported from the said ports in Greek vessels, shall be entitled to the same bounties, drawbacks, and allowances that are granted on similar articles when exported in British vessels.

HANSE TOWNS.

Convention of Commerce between his Britannic Majesty and the Free Hanseatic Republics of Lubeck, Bremen, and Hamburg. Signed at London, September 29, 1825.

Article 1. From and after the date hereof, British vessels entering or departing from the ports of the free Hanseatic republics of Lubeck, Bremen, or Hamburg; and Lubeck, Bremen, or Hamburg vessels entering or departing from the ports of the United Kingdom of Great Britain and Ireland, shall not be subject to any other or higher ship duties or charges than are or shall be levied on national vessels entering or departing from such ports respectively.

2. All goods, whether the production of the territories of the free Hanseatic republics of Lubeck, Bremen, or Hamburg, or of any other country, which may be legally imported from any of the ports of the said republics into the United Kingdom of Great Britain and Ireland in British vessels, shall, in like manner, be permitted to be imported in Lubeck, Bremen, or Hamburg vessels; and all goods, whether the productions of any of the dominions of his Britannic Majesty, or of any other country, which may be legally exported from the ports of the United Kingdom in British vessels, shall, in like manner, be permitted to be exported from the said ports in Lubeck, Bremen, or Hamburg vessels. And all goods, which may be legally imported into or exported from the ports of Lubeck, Bremen, or Hamburg, in national vessels, shall, in like manner, be permitted to be imported into or exported from the ports of Lubeck, Bremen, or Hamburg, in British vessels.

3. All goods which can be legally imported into the ports of the United Kingdom directly from the ports of Lubeck, Bremen, or Hamburg, or either of them, shall be admitted at the same rate of duty, whether imported in British vessels, or in vessels belonging to either of the said republics; and all goods which can be legally exported from the United Kingdom, shall be entitled to the same bounties, drawbacks, and allowances, whether exported in British or Hanseatic vessels. And the like reciprocity shall be observed in the ports of the said republics, in respect to all goods which can be legally imported into or exported from any or either of the said ports in vessels belonging to the United Kingdom.

4. No priority or preference shall be given, directly or indirectly, by any or either of the contracting parties, nor by any company, corporation, or agent, acting on their behalf or under their authority, in the purchase of any article, the growth, produce, or manufacture of their states respectively, imported into the other, on account of or in reference to the character of the vessel in which such article was imported; it being the true intent and meaning of the high contracting parties that no distinction or difference whatever shall be made in this respect.

5. In consideration of the limited extent of the territories belonging to the republics of Lubeck, Bremen, and Hamburg, and the intimate connection of trade and navigation subsisting between these republics, it is hereby stipulated and agreed, that any vessel which shall have been built in any or either of the ports of the said republics, and which shall be owned exclusively by a citizen or citizens of any or either of them, and of which the master shall also be a citizen of either of them, and provided ¾ of the crew shall be subjects or citizens of any or either of the said republics, or of any or either of the states comprised in the Germanic Confederation, such vessel, so built, owned, and navigated, shall, for all the purposes of this convention, be taken to be and be considered as a vessel belonging to Lubeck, Bremen, or Hamburg.

6. Any vessel, together with her cargo, belonging to either of the three free Hanseatic republics of Lubeck, Bremen, or Hamburg, and coming from either of the said ports to the United Kingdom, shall, for all the purposes of this convention, be deemed to come from the country to which such vessel belongs; and any British vessel and her cargo trading to the ports of Lubeck, Bremen, or Hamburg, directly or in succession, shall, for the like purposes, be on the footing of a Hanseatic vessel and her cargo making the same voyage.

7. It is further mutually agreed that no higher or other duties shall be levied, in any or either of the states of the high contracting parties, upon any personal property of the subjects and citizens of each respectively, on the removal of the same

from the dominions or territory of such states (either upon the inheritance of such property, or otherwise), than are or shall be payable, in each state, upon the like property when removed by a subject or citizen of such state respectively.

8. The high contracting parties reserve to themselves to enter upon additional stipulations for the purpose of facilitating and extending, even beyond what is comprehended in the convention of this date, the commercial relations of their respective subjects and dominions, citizens, and territories, upon the principle either of reciprocal or equivalent advantages, as the case may be; and, in the event of any article or articles being concluded between the said high contracting parties, for giving effect to such stipulations, it is hereby agreed that the article or articles which may hereafter be so concluded shall be considered as forming part of the present convention.

9. The present convention shall be in force for the term of 10 years from the date hereof; and further, until the end of 12 months after the King of the United Kingdom of Great Britain and Ireland, on the one part, or the Governments of the free Hanseatic republics of Lubeck, Bremen, or Hamburg, or either of them, on the other part, shall have given notice of their intention to terminate the same; each of the said high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years; and it is hereby agreed between them, that, at the expiration of 12 months after such notice shall have been received by either of the parties from the other, this convention, and all the provisions thereof, shall altogether cease and determine, as far as regards the states giving and receiving such notice; it being always understood and agreed, that, if one or more of the Hanseatic republics aforesaid shall, at the expiration of 10 years from the date hereof, give or receive notice of the proposed termination of this convention, such convention shall, nevertheless, remain in full force and operation, as far as regards the remaining Hanseatic republics or republic which may not have given or received such notice.

10. The present convention shall be ratified, and the ratification shall be exchanged at London, within one month from the date hereof, or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, September 29, 1825.

GEORGE CANNING.
W. HUSKISSON.
JAMES COLQUHOUN.

Supplementary Convention to the Treaty of Commerce and Navigation of September 29, 1825, between the Senates of the Free Hanseatic Cities of Lubeck, Bremen, and Hamburg, and her Majesty the Queen of Great Britain and Ireland. Signed at London, August 3, 1841.

Article 1. The senate of the free Hanseatic cities of Lubeck, Bremen, and Hamburg, hereby agree that British vessels coming from countries not being part of the dominions of her Britannic Majesty, shall henceforward, together with their cargoes, be admitted into the ports of Lubeck, Bremen, and Hamburg, and all vessels shall on their admission pay dues not higher nor other than those which shall be paid in similar circumstances by vessels belonging to Lubeck, Bremen, or Hamburg, and the duties to be paid upon the cargoes of such British vessels shall not be higher nor other than if such cargoes had been imported in vessels belonging to Lubeck, Bremen, or Hamburg. And in consideration thereof, her Britannic Majesty agrees that from and after the date of the exchange of the ratification of this present convention, the vessels of the said free Hanseatic republics of Lubeck, Bremen, and Hamburg, when coming from Hanseatic ports, shall, together with their cargoes, be admitted into the ports of all her Britannic Majesty's possessions; and such vessels shall, on their admission, pay dues not higher nor other than those which shall be paid in similar circumstances by British vessels; and the duties to be paid upon the cargoes of such Hanseatic vessels shall not be higher nor other than if such cargoes had been imported in British vessels.

2. In consideration of the privileges extended to British trade and navigation by the first article of the present convention, her Britannic Majesty further agrees that all goods, being the produce of the states of the free Hanseatic cities of Lubeck, Bremen, and Hamburg, or of the other states of the Germanic Confederation, or of the states comprised in the Germanic Union of Customs, and which may be imported in any foreign vessels from the ports of Lubeck, Bremen, and Hamburg, or from any port situated on the Elbe or Weser, into the ports of the British possessions abroad, including Gibraltar and Malta, shall also be permitted to be imported from the said ports of the free cities of Lubeck, Bremen, and Hamburg, into the ports of the said British possessions abroad, including Gibraltar and Malta, in vessels belonging to Lubeck, Bremen, and Hamburg, built, owned, and navigated as stipulated in the fifth article of the convention of commerce and navigation, concluded on the 29th of September, 1825, between Great Britain on the one part, and the free Hanseatic cities of Lubeck, Bremen, and Hamburg, on the other part; and such goods, wares, and merchandise being the produce of the free Hanseatic republics, or of the other states of the Germanic Confederation, or of the states of the Germanic Union of Customs, and so imported in Hanseatic vessels into the ports of the said British possessions abroad, including Gibraltar and Malta; and all goods, wares, and merchandise exported in Hanseatic vessels, built, owned, and navigated as aforesaid, from the ports of the British possessions abroad, including Gibraltar and Malta, to any foreign country whatever, shall pay no other or higher duties than if the same were imported or exported in British vessels.

3. The present convention, which shall be considered as supplementary to the convention concluded between Great Britain and the free Hanseatic republics on the 29th of September, 1825, shall be ratified, and the ratifications shall be exchanged at London as soon as possible within the space of six weeks.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed the seals of their arms.

Done at London, on the 3rd day of August, in the year of our Lord 1841.

PALMERSTON.
BANKS.

By an order in council dated September 14, 1841, her Majesty is pleased to order that all goods being the produce of the states of the free Hanseatic cities of Lubeck, Bremen, and Hamburg, or of the other states of the Germanic Confederation, or of the states comprised in the Germanic Union of Customs, and which may be imported in any foreign vessels from the ports of Lubeck, Bremen, and Hamburg, or from any port situated on the Elbe or Weser into the

ports of the British possessions abroad, including Gibraltar and Malta, shall also be permitted to be imported from the said ports of the free cities of Lubeck, Bremen, and Hamburg, into the ports of the said British possessions abroad, including Gibraltar and Malta, in vessels belonging to Lubeck, Bremen, and Hamburg, built, owned, and navigated as stipulated in the fifth article of the convention of commerce and navigation, concluded on the 29th of September, 1825, between Great Britain on the one part, and the free Hanseatic cities of Lubeck, Bremen, and Hamburg on the other part; and such goods, being the produce of the free Hanseatic republics, or of the other states of the Germanic Confederation, or of the states of the Germanic Union of Customs, and so imported in Hanseatic vessels into the ports of the said British possessions abroad, including Gibraltar and Malta, and all goods exported in Hanseatic vessels, built, owned, and navigated as aforesaid, from the ports of the British possessions abroad, including Gibraltar and Malta, to any foreign country whatever, shall pay no other or higher duties than if the same were imported or exported in British vessels.

Italy.

Treaty of Commerce and Navigation between her Majesty and the King of Italy. Signed at Turin, August 6, 1863. *Ratifications exchanged at London, October* 29, 1863.

Article 1. There shall be between all the dominions and possessions of the two high contracting parties reciprocal freedom of commerce and navigation. The subjects of each of the two contracting parties, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all places, ports, and rivers in the dominions and possessions of the other, to which other foreigners are or may be permitted to come; and shall, throughout the whole extent of the dominions and possessions of the other, enjoy the same rights, privileges, liberties, favours, immunities, and exemptions in matters of commerce and navigation, which are or may be enjoyed by native subjects generally.

2. No other or higher duties shall be imposed on the importation into the dominions and possessions of her Britannic Majesty, of any article the produce or manufacture of the dominions and possessions of his Majesty the King of Italy, from whatever place arriving, and no other or higher duties shall be imposed on the importation into the dominions and possessions of his Majesty the King of Italy, of any article the produce or manufacture of her Britannic Majesty's dominions and possessions, from whatever place arriving, than are or may be payable on the like article, the produce or manufacture of any other foreign country; nor shall any prohibition be maintained or imposed on the importation of any article the produce or manufacture of the dominions and possessions of either of the contracting parties into the dominions and possessions of the other, which shall not equally extend to the importation of the like articles being the produce or manufacture of any other country.

His Majesty the King of Italy further engages that he will not prohibit the importation into his dominions and possessions of any article the produce or manufacture of the dominions and possessions of her Britannic Majesty, from whatever place arriving.

3. No other or higher duties or charges shall be imposed in the dominions and possessions of either of the contracting parties, on the exportation of any article to the dominions and possessions of the other, than such as are, or may be, payable on the exportation of the like article to any other foreign country; nor shall any prohibition be imposed on the exportation of any article from the dominions and possessions of either of the two contracting parties to the dominions and possessions of the other, which shall not equally extend to the exportation of the like article to any other country.

4. The subjects of one of the contracting parties shall enjoy, in the dominions and possessions of the other, equality of treatment with native subjects in all that relates to the transit trade; and also in regard to warehousing, bounties, facilities, and drawbacks.

5. All articles which are or may be legally importable into the ports of the dominions and possessions of her Britannic Majesty in British vessels, may likewise be imported into those ports in Italian vessels, without being liable to any other or higher duties or charges, of whatever denomination, than if such articles were imported in British vessels; and reciprocally, all articles which are or may be legally importable into the ports of the dominions and possessions of his Majesty the King of Italy in Italian vessels, may likewise be imported into those ports in British vessels, without being liable to any other or higher duties or charges, of whatever denomination, than if such articles were imported in Italian vessels. Such reciprocal equality of treatment shall take effect without distinction, whether such articles come directly from the place of origin, or from any other place.

In the same manner there shall be perfect equality of treatment in regard to exportation, so that the same export duties shall be paid, and the same bounties and drawbacks allowed, in the dominions and possessions of either of the contracting parties, on the exportation of any article which is or may be legally exportable therefrom, whether such exportation shall take place in Italian or in British vessels, and whatever may be the place of destination, whether a port of either of the contracting parties or of any third Power.

6. No duties of tonnage, harbour, pilotage, lighthouse, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, levied in the name or for the profit of Government, public functionaries, private individuals, corporations, or establishments of any kind, shall be imposed in the ports of the dominions and possessions of either country upon the vessels of the other country, which shall not equally and under the same conditions be imposed in the like cases on national vessels in general. Such equality of treatment shall apply reciprocally to the respective vessels, from whatever port or place they may arrive, and whatever may be their place of destination.

7. In all that regards the stationing, loading, and unloading of vessels in the ports, basins, docks, roadsteads, harbours, or rivers of the dominions and possessions of the two countries, no privilege shall be granted to national vessels which shall not be equally granted to vessels of the other country; the intention of the contracting parties being that in this respect also the respective vessels shall be treated on the footing of perfect equality.

8. The contracting parties agree that, in regard to the coasting trade, the vessels and subjects of each contracting party shall enjoy, in the dominions and possessions of the other, the same privi-

leges, and shall be treated in all respects in the same manner, as national vessels and native subjects.

The provisions of this Article shall, however, as respects the colonial coasting trade, be deemed to extend only to the coasting trade of such of the colonial possessions of her Britannic Majesty as may have petitioned or may hereafter petition her Majesty, under the provisions of the Act relating thereto, to throw open their coasting trade to foreign vessels.

9. All vessels which according to British law are to be deemed British vessels, and all vessels which according to Italian law are to be deemed Italian vessels, shall for the purposes of this treaty be deemed British and Italian vessels respectively.

10. The contracting parties agree that in all matters relating to commerce and navigation, any privilege, favour, or immunity whatever, which either contracting party has actually granted, or may hereafter grant, to the subjects or citizens of any other State, shall be extended immediately and unconditionally to the subjects or citizens of the other contracting party; it being their intention that the trade and navigation of each country shall be placed, in all respects, by the other on the footing of the most favoured nation.

11. Any import duty levied ad valorem in the territories of his Majesty the King of Italy shall be calculated on the value at the place of production or fabrication of the object imported, with the addition of the cost of transport, insurance, and commission necessary for the importation into Italy, its dominions and possessions, as far as the port of discharge.

For the levying of these duties, the importer shall make a written declaration at the custom-house, stating the value and description of the goods imported, with the addition aforesaid. If the custom-house authorities shall be of opinion that the declared value is insufficient, they shall be at liberty to take the goods on paying to the importer the price declared, with an addition of 5 per cent.

This payment, together with the restitution of any duty which may have been levied upon such goods, shall be made within the 15 days following the declaration.

12. The subjects of each of the contracting parties shall have, in the dominions and possessions of the other, the same rights as native subjects in regard to trade-marks and designs of every description applicable to articles of manufacture.

13. It shall be free for each of the contracting parties to appoint consuls-general, consuls, vice-consuls, and consular agents, to reside in the towns and ports of the dominions and possessions of the other. Such consuls-general, consuls, vice-consuls, and consular agents, however, shall not enter upon their functions until after they shall have been approved and admitted, in the usual form, by the Government to which they are sent. They shall exercise whatever functions, and enjoy whatever privileges, exemptions, and immunities are or shall be granted there to consuls of the most favoured nation.

14. The subjects of each of the contracting parties, conforming themselves to the laws of the country:—

1. Shall have full liberty, with their families, to enter, travel, or reside in any part of the dominions and possessions of the other contracting party.

2. They shall be permitted to hire or possess the houses, manufactories, warehouses, shops, and premises, which may be necessary for them.

3. They may carry on their commerce, either in person or by any agents whom they may think fit to employ.

4. They shall not be subject, in respect of their persons or property, or in respect of passports, licenses for residence or establishment, nor in respect of their commerce or industry, to any taxes, whether general or local, nor to imposts or obligations of any kind whatever, other or greater than those which are or may be imposed upon native subjects.

15. The subjects of each of the contracting parties in the dominions and possessions of the other shall be exempted from all compulsory military service whatever, whether in the army, navy, or national guard or militia. They shall be equally exempted from all judicial and municipal functions whatever, as well as from all contributions, whether pecuniary or in kind, imposed as a compensation for personal service; and, finally, from forced loans and military exactions or requisitions.

16. The subjects of each of the contracting parties in the dominions and possessions of the other shall be at full liberty to acquire, possess, and dispose of every description of property which the laws of the country may permit any foreigners, of whatsoever nation, to acquire and possess. They may acquire and dispose of the same, whether by purchase, sale, donation, exchange, marriage, testament, succession *ab intestato*, or in any other manner, under the same conditions as are established by the laws of the country for all foreigners. Their heirs and representatives may succeed to and take possession of such property, either in person or by agents acting on their behalf, in the same manner and in the same legal forms as subjects of the country. In the absence of heirs and representatives the property shall be treated in the same manner as the like property belonging to a subject of the country under similar circumstances.

In none of these respects shall they pay upon the value of such property any other or higher impost, duty, or charge, than is payable by subjects of the country. In every case the subjects of the contracting parties shall be permitted to export their property, or the proceeds thereof if sold, freely, and without being subjected on such exportation to pay any duty as foreigners, or any other or higher duties than those to which subjects of the country are liable under similar circumstances.

17. The dwellings, manufactories, warehouses, and shops of the subjects of each of the contracting parties in the dominions and possessions of the other, and all premises appertaining thereto, destined for purposes of residence or commerce, shall be respected. If there should be occasion to make a search of, or a domiciliary visit to such dwellings and premises, or to examine or inspect books, papers, or accounts, such measure shall be executed only in conformity with the legal warrant or order in writing of a tribunal, or of the competent authority.

The subjects of each of the two contracting parties in the dominions and possessions of the other shall have free access to the courts of justice for the prosecution and defence of their rights. They shall enjoy in this respect the same rights and privileges as subjects of the country, and shall, like them, be at liberty to employ, in all causes, their advocates, attorneys, or agents from among the persons admitted to the exercise of those professions according to the laws of the country.

18. Any ship of war or merchant-vessel of either

of the contracting parties which may be compelled by stress of weather, or by accident, to take shelter in a port of the other, shall be at liberty to refit therein, to procure all necessary stores, and to put to sea again, without paying any dues other than such as would be payable in a similar case by a national vessel. In case, however, the master of a merchant-vessel should be under the necessity of disposing of a part of his merchandise in order to defray his expenses, he shall be bound to conform to the regulations and tariffs of the place to which he may have come.

If any ship of war or merchant-vessel of one of the contracting parties should run aground or be wrecked upon the coasts of the other, such ship or vessel, and all parts thereof, and all furniture and appurtenances belonging thereunto, and all goods and merchandise saved therefrom, including any which may have been cast into the sea, or the proceeds thereof if sold, as well as all papers found on board such stranded or wrecked ship or vessel, shall be given up to the owners or their agents when claimed by them. If there are no such owners or agents on the spot, then the same shall be delivered to the British or Italian consul-general, consul, or vice-consul, in whose district the wreck or stranding may have taken place, upon being claimed by him within the period fixed by the laws of the country; and such consuls, owners, or agents, shall pay only the expenses incurred in the preservation of the property, together with the salvage or other expenses which would have been payable in the like case of a wreck of a national vessel.

The goods and merchandise saved from the wreck shall be exempt from all duties of customs, unless cleared for consumption, in which case they shall pay the same rate of duty as if they had been imported in a national vessel.

In the case either of a vessel being driven in by stress of weather, run aground, or wrecked, the respective consuls-general, consuls, vice-consuls, and consular agents shall, if the owner or master or other agent of the owner is not present, or is present and requires it, be authorised to interpose in order to afford the necessary assistance to their fellow-countrymen.

19. The consuls-general, consuls, vice-consuls, and consular agents of each of the contracting parties, residing in the dominions and possessions of the other, shall receive from the local authorities such assistance as can by law be given to them for the recovery of deserters from the vessels of their respective countries.

20. The present treaty of commerce and navigation, when ratified, shall be substituted for the treaties in force between the high contracting parties, namely, those concluded on the 5th of April, 1847, and 30th of December, 1854, between Great Britain and Tuscany; and on the 29th of April, 1845, between Great Britain and the Two Sicilies; and on the 27th of February, 1851, and 9th of August, 1854, between Great Britain and Sardinia; and shall remain in force for 10 years from the date of the exchange of the ratifications, and further until the expiration of 12 months after either of the contracting parties shall have given notice to the other of its intention to terminate the same; each of the contracting parties being at liberty to give such notice to the other at the expiration of the first 9 years, or at any time afterwards.

21. The present treaty shall be ratified, and the ratifications shall be exchanged at London, in six weeks, or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Turin, August 6, 1863.

JAMES HUDSON.
GIOVANNI MANNA.

MEXICO.

Treaty of Amity, Commerce, and Navigation, between Great Britain and Mexico. Signed at London, December 26, 1826.

Article 1. There shall be perpetual amity between the dominions and subjects of his Majesty the King of the United Kingdom of Great Britain and Ireland, and the United States of Mexico, and their citizens.

2. There shall be, between all the territories of his Britannic Majesty in Europe and the territories of Mexico, a reciprocal freedom of commerce. The inhabitants of the two countries, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all places and rivers in the territories aforesaid, saving only such particular ports to which other foreigners shall not be permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purposes of their commerce; and, generally, the merchants and traders of each nation, respectively, shall enjoy the most complete protection and security for their commerce.

In like manner, the respective ships of war and post-office packets of the two countries shall have liberty freely and securely to come to all harbours, rivers, and places, saving only such particular ports (if any) to which other foreign ships of war and packets shall not be permitted to come, to enter into the same, to anchor, and to remain there and refit; subject always to the laws and statutes of the two countries respectively.

By the right of entering the places, ports, and rivers mentioned in this article, the privilege of carrying on the coasting trade is not understood, in which national vessels only are permitted to engage.

3. His Majesty the King of the United Kingdom of Great Britain and Ireland engages further, that the inhabitants of Mexico shall have the like liberty of commerce and navigation stipulated for in the preceding article, in all his dominions situated out of Europe, to the full extent in which the same is permitted at present, or shall be permitted hereafter, to any other nation.

4. No higher or other duties shall be imposed on the importation into the dominions of his Britannic Majesty, of any article of the growth, produce, or manufacture of Mexico, and no higher or other duties shall be imposed on the importation into the territories of Mexico, of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any other foreign country; nor shall any other or higher duties or charges be imposed in the territories or dominions of either of the contracting parties, on the exportation of any articles to the territories of the other, than such as are or may be payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation of any articles, the growth, produce, or manufacture of his Britannic Majesty's dominions, or of the said territories of Mexico, to or from the said dominions of his Britannic Majesty, or to or from the said territories of Mexico,

which shall not equally extend to all other nations.

5. No higher or other duties or charges on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed, in any of the ports of Mexico, on British vessels, than those payable in the same ports by Mexican vessels (see additional articles at the end of this treaty); nor, in the ports of his Britannic Majesty's territories, on Mexican vessels, than shall be payable, in the same ports, on British vessels.

6. The same duties shall be paid on the importation into the territories of Mexico of any article the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such importation shall be in Mexican (see additional articles at the end of this treaty) or in British vessels; and the same duties shall be paid on the importation into the dominions of his Britannic Majesty, of any article the growth, produce, or manufacture of Mexico, whether such importation shall be in British or in Mexican vessels. The same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation to Mexico of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such exportation shall be in Mexican or in British vessels; and the same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation of any articles the growth, produce, or manufacture of Mexico, to his Britannic Majesty's dominions, whether such exportation shall be in British or in Mexican vessels.

7. In order to avoid any misunderstanding with respect to the regulations which may respectively constitute a British or Mexican vessel, it is hereby agreed that all vessels built in the dominions of his Britannic Majesty, or vessels which shall have been captured from an enemy by his Britannic Majesty's ships of war or by subjects of his said Majesty, furnished with letters of marque by the Lords Commissioners of the Admiralty, and regularly condemned in one of his said Majesty's prize courts as a lawful prize, or which shall have been condemned in any competent court for the breach of the laws made for the prevention of the slave trade, and owned, navigated, and registered according to the laws of Great Britain, shall be considered as British vessels; and that all vessels built in the territories of Mexico, or captured from the enemy by the ships of Mexico, and condemned under similar circumstances, and which shall be owned by any citizen or citizens thereof, and whereof the master and ¾ of the mariners are citizens of Mexico, excepting where the laws provide for any extreme cases, shall be considered as Mexican vessels.

And it is further agreed, that every vessel, qualified to trade as above described under the provisions of this treaty, shall be furnished with a register, passport, or sea letter, under the signature of the proper person authorised to grant the same, according to the laws of the respective countries (the form of which shall be communicated), certifying the name, occupation, and residence of the owner or owners, in the dominions of his Britannic Majesty, or in the territories of Mexico, as the case may be; and that he or they is or are the sole owner or owners, in the proportion to be specified; together with the name, burden, and description of the vessel as to build and measurement, and the several particulars constituting the national character of the vessel, as the case may be.

8. All merchants, commanders of ships, and others, the subjects of his Britannic Majesty, shall have full liberty, in all the territories of Mexico, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as broker, factor, agent, or interpreter; nor shall they be obliged to employ any other persons for those purposes than those employed by Mexicans, nor to pay them any other salary or remuneration than such as is paid, in like cases, by Mexican citizens; and absolute freedom shall be allowed, in all cases, to the buyer and seller, to bargain and fix the prices of any goods, imported into or exported from Mexico, as they shall see good, observing the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of his Britannic Majesty, by the citizens of Mexico, under the same conditions.

The citizens and subjects of the contracting parties, in the territories of each other, shall receive and enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice in the said countries, respectively, for the prosecution and defence of their just rights; and they shall be at liberty to employ, in all causes, the advocates, attorneys, or agents of whatever description, whom they may think proper; and they shall enjoy, in this respect, the same rights and privileges therein as native citizens.

9. In whatever relates to the succession to personal estates, by will or otherwise, and the disposal of personal property of every sort and denomination, by sale, donation, exchange, or testament, or in any other manner whatsoever, as also the administration of justice, the subjects and citizens of the two contracting parties shall enjoy, in their respective dominions and territories, the same privileges, liberties, and rights, as native subjects; and shall not be charged, in any of these respects, with any higher imposts or duties than those which are paid, or may be paid, by the native subjects or citizens of the power in whose dominions or territories they may be resident.

10. In all that relates to the police of the ports, the lading and unlading of ships, the safety of merchandise, goods, and effects, the subjects of his Britannic Majesty, and the citizens of Mexico, respectively, shall be subject to the local laws and regulations of the dominions and territories in which they may reside. They shall be exempted from all compulsory military service, whether by sea or land. No forced loans shall be levied upon them; nor shall their property be subject to any other charges, requisitions, or taxes than such as are paid by the native subjects or citizens of the contracting parties in their respective dominions.

11. It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but, before any consul shall act as such, he shall, in the usual form, be approved and admitted by the Government to which he is sent; and either of the contracting parties may except from the residence of consuls such particular places as either of them may judge fit to be excepted. The Mexican diplomatic agents and consuls shall enjoy, in the dominions of his Britannic Majesty, whatever privileges, exceptions, and immunities are or shall be granted to agents of the same rank belonging to the most favoured nation; and, in like manner, the diplomatic agents and consuls of his Britannic Majesty in the Mexican territories shall enjoy, according to the strictest reciprocity, whatever

privileges, exceptions, and immunities are or may be granted to the Mexican diplomatic agents and consuls in the dominions of his Britannic Majesty.

12. For the better security of commerce between the subjects of his Britannic Majesty and the citizens of the Mexican States, it is agreed that if, at any time, any interruption of friendly intercourse, or any rupture, should unfortunately take place between the two contracting parties, the merchants residing upon the coast shall be allowed 6 months, and those of the interior a whole year, to wind up their accounts, and dispose of their property: and a safe conduct shall be given them to embark at the port which they shall themselves select. All those who are established in the respective dominions and territories of the two contracting parties, in the exercise of any trade or special employment, shall have the privilege of remaining and continuing such trade and employment therein, without any manner of interruption, in full enjoyment of their liberty and property, as long as they behave peaceably, and commit no offence against the laws: and their goods and effects, of whatever description they may be, shall not be liable to seizure or sequestration, or to any other charges or demands than those which may be made upon the like effects or property belonging to the native subjects or citizens of the respective dominions or territories in which such subjects or citizens may reside. In the same case, debts between individuals, public funds, and the shares of companies, shall never be confiscated, sequestrated, or detained.

13. The subjects of his Britannic Majesty residing in the Mexican territories shall enjoy, in their houses, persons, and properties, the protection of the Government; and continuing in possession of what they now enjoy, they shall not be disturbed, molested, or annoyed, in any manner, on account of their religion, provided they respect that of the nation in which they reside, as well as the constitution, laws, and customs of the country. They shall continue to enjoy, to the full, the privilege already granted to them of burying, in the places already assigned for that purpose, such subjects of his Britannic Majesty as may die within the Mexican territories; nor shall the funerals and sepulchres of the dead be disturbed in any way, or upon any account. The citizens of Mexico shall enjoy, in all the dominions of his Britannic Majesty, the same protection, and shall be allowed the free exercise of their religion, in public or private, either within their own houses, or in the chapels and places of worship set apart for that purpose.

14. The subjects of his Britannic Majesty shall on no account or pretext whatsoever be disturbed or molested in the peaceable possession and exercise of whatever rights, privileges, and immunities they have at any time enjoyed within the limits described and laid down in a convention signed between his said Majesty and the King of Spain, on the 14th of July, 1786; whether such rights, privileges, and immunities shall be derived from the stipulations of the said convention, or from any other concession which may at any time have been made by the King of Spain, or his predecessors, to British subjects and settlers residing and following their lawful occupations within the limits aforesaid; the two contracting parties reserving, however, for some more fitting opportunity, the further arrangements on this article.

15. The Government of Mexico engages to cooperate with his Britannic Majesty for the total abolition of the slave trade, and to prohibit all persons inhabiting within the territories of Mexico, in the most effectual manner, from taking any share in such trade.

16. The 2 contracting parties reserve to themselves the right of treating and agreeing hereafter, from time to time, upon such other articles as may appear to them to contribute still further to the improvement of their mutual intercourse, and the advancement of the general interests of their respective subjects and citizens; and such articles as may be so agreed upon, shall, when duly ratified, be regarded as forming a part of the present treaty, and shall have the same force as those now contained in it.

17. The present treaty shall be ratified, and the ratifications shall be exchanged at London within the space of 6 months, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the 26th day of December, in the year of our Lord 1826.

SEBASTIAN CAMACHO.
WILLIAM HUSKISSON.
JAMES J. MORIER.

Additional Articles.

1. Whereas, in the present state of Mexican shipping, it would not be possible for Mexico to receive the full advantage of the reciprocity established by the Articles 5, 6, 7 of the treaty signed this day, if that part of the 7th Article which stipulates that, in order to be considered as a Mexican ship, a ship shall actually have been *built* in Mexico, should be strictly and literally observed, and immediately brought into operation; it is agreed that, for the space of 10 years, to be reckoned from the date of the exchange of the ratifications of this treaty, any ships, *wheresoever built*, being bonâ fide the property of and wholly owned by one or more citizens of Mexico, and whereof the master and ¾ of the mariners, at least, are also natural-born citizens of Mexico, or persons domiciliated in Mexico, by act of the Government, as lawful subjects of Mexico, to be certified according to the laws of that country, shall be considered as Mexican ships; his Majesty the King of the United Kingdom of Great Britain and Ireland reserving to himself the right, at the end of the said term of 10 years, to claim the principle of reciprocal restriction stipulated for in the Article 7 above referred to, if the interests of British navigation shall be found to be prejudiced by the present exception to that reciprocity in favour of Mexican shipping.

2. It is further agreed that, for the like term of 10 years, the stipulations contained in Articles 5 and 6 of the present treaty shall be suspended; and in lieu thereof, it is hereby agreed that, until the expiration of the said term of 10 years, British ships entering into the ports of Mexico from the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, and all articles the growth, produce, or manufacture of the United Kingdom, or of any of the said dominions, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable, in the said ports, by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation; and reciprocally, it is agreed, that Mexican ships entering into the ports of the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, from any port of the States of Mexico, and all articles the growth, produce, or manufacture of the said States, imported in such ships, shall pay no other or higher duties than are

or may hereafter be payable in the said ports, by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation; and that no higher duties shall be paid, or bounties or drawbacks allowed, on the exportation of any article, the growth, produce, or manufacture of the dominions of either country, in the ships of the other, than upon the exportation of the like articles in the ships of any other foreign country.

It being understood that, at the end of the said term of 10 years, the stipulations of the said 5th and 6th Articles shall, from thenceforward, be in full force between the two countries.

The present additional articles shall have the same force and validity as if they were inserted, word for word, in the treaty signed this day. They shall be ratified, and the ratifications shall be exchanged at the same time.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the 26th day of December, in the year of our Lord 1826.

SEBASTIAN CAMACHO.
WILLIAM HUSKISSON.
JAMES J. MORIER.

An order in council, dated September 3, 1827, orders that vessels of the United States of Mexico, entering the ports of the United Kingdom of Great Britain and Ireland in ballast, or laden direct from any of the ports of Mexico, or departing from the ports of the said United Kingdom, together with the cargoes on board the same, such cargoes consisting of articles which may be legally imported or exported, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on British vessels entering or departing from such ports, or on similar articles when imported into or exported from such ports in British vessels; and also such articles, when exported from the said ports in vessels of the United States of Mexico respectively, shall be entitled to the same bounties, drawbacks, and allowances that are granted on similar articles when exported in British vessels.

N.B—Treatises similar to the above have been negotiated with Columbia, Buenos Ayres &c.

MOROCCO.

Convention of Commerce and Navigation between her Britannic Majesty and the Sultan of Morocco.

Article 1. There shall be reciprocal freedom of commerce between the British dominions and the dominions of the Sultan of Morocco. The subjects of her Britannic Majesty may reside in and trade to any port of the territories of the Sultan of Morocco to which any other foreigners are or shall be admitted.

They shall be permitted to hire houses, and to build houses, stores, or warehouses, as stipulated in Article 4 of the general treaty of this date.

They shall enjoy full protection for their persons and properties, as specified in Article 4 of the general treaty; they shall be allowed to buy from, and to sell to, whom they like, all articles not prohibited in Article 2 of this convention, either by wholesale or retail, at all places in the Moorish dominions, without being restrained or prejudiced by any monopoly, contract, or exclusive privilege of purchase or sale whatever, except the articles of export and those of import enumerated in Article 2; and they shall, moreover, enjoy all other rights and privileges which hereafter may be granted to any other foreigners, subjects, or citizens of the most favoured nation.

The subjects of the Sultan of Morocco shall, in return, enjoy in the dominions of her Britannic Majesty the same protection and privileges which are or may be enjoyed by the subjects or citizens of the most favoured nation.

2. The Sultan of Morocco engages to abolish all monopolies or prohibitions on imported goods, except tobacco, pipes of all kinds used for smoking, opium, sulphur, powder, saltpetre, lead, arms of all kinds, and ammunition of war; and further to abolish all monopolies of agricultural produce, or of any other article whatsoever in the dominions of the Sultan, except leeches, bark, tobacco, and other herbs used for smoking in pipes.

3. No tax, toll, duty, or charge whatsoever, beside the export duty hereinafter mentioned, shall, under any pretext or on any account, be imposed by any person whatsoever, in any part of the dominions of Morocco, upon or in respect of any goods or produce whatsoever which may have been purchased for exportation by or on behalf of any British subject; but the said goods or produce, when so purchased, shall be conveyed from any place in Morocco to, and embark from, any port therein, absolutely free and exempt from all other taxes, tolls, duties, or charges whatsoever. No permit, or any similar document, shall be requisite to enable them to be so conveyed or embarked, nor shall any officer or subject of the Sultan offer any impediment to, or lay any restriction on, the conveyance or embarkation of such goods (except those goods or produce which the Sultan of Morocco shall prohibit from being exported, as arranged in Article 5), or on any pretext demand or receive any money in respect or on account of such goods; and should any such officer or subject act contrary to this stipulation, the Sultan shall immediately punish with severity the governor, officer, or other subject who shall have been guilty of such misconduct, and render full justice to British subjects for all injuries or losses which they may duly prove themselves to have suffered thereby.

4. The subjects of her Britannic Majesty, within the dominions of his Majesty the Sultan, shall be free to manage their own affairs themselves, or to commit those affairs to the management of any persons whom they may appoint as their broker, factor, or agent; nor shall such British subjects be restrained in their choice of persons to act in such capacities; nor shall they be called upon to pay any salary or remuneration to any person whom they shall not choose to employ; but those persons who shall be thus employed, and who are subjects of the Sultan of Morocco, shall be treated and regarded as other subjects of the Moorish dominions. Absolute freedom shall be given in all cases to the buyer and seller to bargain together, and no interference on the part of the Sultan's officers shall be permitted. Should any governor or other officer interfere in the bargains between British and Moorish subjects, or place any impediments in the lawful purchase or sale of goods or merchandise imported into, or to be exported from the Sultan's dominions, his Sheriffian Majesty shall severely punish the said officer for such misconduct.

5. Should the Sultan of Morocco at any time think proper to exhibit the exportation of any kind of grain or other article of commerce from his dominions, British subjects shall in no manner be prevented from embarking all the grain or other articles which they may have in their magazines, or which may have been bought previously to the said prohibition; but they shall be

allowed to continue to export all they may have in their possession, during the term of 6 months from the time the prohibition was publicly made known; but on the day when the order of the Sultan of Morocco regarding the prohibition shall arrive, and shall be published to the merchants, British subjects shall, within the term of 2 days, declare and give proofs of the amount of produce they shall possess in their stores, on which the prohibition is imposed, and they shall also present legal certificates regarding the amount of the said produce which they shall have bought in the interior or elsewhere, previously to the promulgation of the order for the prohibition. No prohibition, either as to the exportation, or importation of any article, shall apply to British subjects, unless such prohibition shall apply to subjects of every other nation.

6. Merchandise or goods, except the articles enumerated in Article 2, imported by British subjects in any vessel, or from any country, shall not be prohibited in the territories of the Sultan of Morocco, nor be subject to higher duties than are levied on the same kind of merchandise or goods imported by the subjects of any other foreign power, or by native subjects, after the date of this convention.

All articles, except those enumerated in Article 2, the produce of Morocco, may be exported therefrom by British subjects in any vessels, on as favourable terms as by the subjects of any other foreign country, or by native subjects.

7. In consideration of the favourable terms upon which the produce of Morocco is admitted into the territories of her Britannic Majesty, and with a view to the extension of commercial intercourse between Great Britain and Morocco, for their mutual advantage, his Majesty the Sultan of Morocco hereby agrees that the duties to be levied on all articles imported into the territories of his Majesty by British subjects, shall not exceed 10 per cent. in cash on their value, at the port of their disembarkation; and that the duties to be levied on all articles exported from the territories of his Majesty by British subjects, shall not exceed in amount the duties marked in the following tariff:—

Articles			Dollars	Ounces
Wheat	strike fanega		1	—
Maize and dura	full	,,	½	—
Barley	strike	,,	½	—
All other grain		cantar	¼	—
Flour		,,	—	30
Birdseed		,,	—	12
Dates		,,	—	40
Almonds		,,	—	55
Oranges, lemons, and limes		1,000	—	12
Wild marjoram		cantar	—	10
Cummin seed		,,	—	20
Oil		,,	—	50
Gums		,,	—	20
Henna		,,	—	15
Wax		,,	—	120
Rice		,,	—	16
Wool, washed		,,	—	80
in grease		,,	—	55
Hides, sheep and goat skins		,,	—	36
Tanned skins called fetaly, rawany, and cochines		,,	—	100
Horns		1,000	—	20
Tallow		cantar	—	50
Mules		head	25	—
Donkeys		,,	5	—
Sheep		,,	1	
Goats		,,	—	15
Fowls		dozen	—	22
Eggs		1,000	—	51
Slippers		100	—	70
Porcupine quills		1,000	—	5
Gruaool		cantar	—	15
Ostrich feathers		lb.	—	36
Baskets		100	—	50
Caraway seed		cantar	—	20
Combs of wood		100	—	5
Hair		cantar	—	50
Raisins		,,	—	20
Woollen washes, called karaay		100	—	100
Tarkwar (a dye)		cantar	—	20
Tanned fleeces		,,	—	36
Hemp and flax		,,	—	40

The Sultan of Morocco has the right of prohibiting any article of exportation; but when a prohibition on any article shall be imposed, it shall be in conformity with what is arranged in Article 5; but upon the exportation of articles the prohibition of which shall be taken off, the duties noted in the tariff shall alone be paid. With regard to wheat and barley, should the Sultan think proper to prohibit the exportation of these articles, but should desire to sell to merchants the grain which belongs to Government, it shall be sold at the price the Sultan thinks proper to impose. Should the Sultan augment or diminish the price of the grain, there shall be granted to the purchaser for exporting that which he shall have bought, the term stated in Article 5; but should the grain be free for exportation, the duties imposed thereon shall be in conformity with what is stated in the tariff.

Should the Sultan of Morocco think proper to reduce the duties on articles of exportation, his Majesty shall have the right of doing so, on condition that British subjects shall pay the lowest duty that shall be paid by any other foreign or native subjects.

8. Should a British subject, or his agent, desire to convey by sea, from one port to another in the dominions of the Sultan of Morocco, goods upon which the 10 per cent. duty has been paid, such goods shall be subject to no further duty, either on their embarkation, or disembarkation, provided they be accompanied by a certificate from a Moorish administrator of customs.

9. If any article of Moroquine produce, growth, or manufacture, except the articles enumerated in Article 2, be purchased for exportation, the same shall be conveyed by the British merchant, or by his agent, free of any kind of charge or duty whatsoever, to a convenient place of shipment. Subsequently, on exportation, the export duty according to the tariff in Article 7 shall alone be paid on it.

10. No anchorage, tonnage, import, or other duty or charge, shall be levied in the dominions of the Sultan of Morocco on British vessels, or on goods imported or exported in British vessels, beyond what is, or may be, levied on national vessels, or on the like goods imported or exported in national vessels; they shall not, however, exceed in amount the rates of the following scale, viz.:—

Six moozoonats per ton shall be levied upon every British vessel (except steam-vessels) that does not exceed 200 tons in measurement. Upon every vessel (not a steam-vessel) measuring more than 200 tons, the following charge shall be made, viz. 6 moozoonats per ton shall be paid for 200 of her tons, and 2 moozoonats per ton for the remainder. Should the administrator of customs have any doubt regarding the tonnage of a British vessel, as declared by the master, the British consul or vice-consul shall, on appeal being made to him, cause the ship's papers, whereon the tonnage is formally stated, to be exhibited. The same charges shall be made in all the ports of Morocco except Rabat and Larraiche, at which ports 4 moozoonats per ton shall be paid for pilotage into the river, should the vessel enter the river, and 4 moozoonats per ton for pilotage out of the river; 3 moozoonats per ton shall also be levied upon each vessel entering the river, on account of anchorage. Should a vessel, however, not enter the river, the same charges shall be levied upon her as those which are paid at the other ports. At Mogadore, 4 moozoonats per ton shall be paid on British vessels for pilotage on their entering the port only, and 6 moozoonats per ton for anchorage.

Should the master of a British vessel require, at any other port, a pilot, he shall pay for him at the rate of 2 moozoonats per ton; but this charge shall not be exacted except when the master of a vessel requires a pilot.

The sum of 16 dollars shall be levied, on account of anchorage, on a steam-vessel entering a port in the Moorish dominions for the purpose of discharging or embarking cargo. If, afterwards, the said steam-vessel proceed from that port to any other port or ports in the Moorish dominions, and on her arrival at the latter embark or discharge cargo, the aforesaid charge of 16 dollars for anchorage shall again be levied; but if the said steam-vessel, on her return voyage, should enter a Moorish port at which the said anchorage dues shall have already been paid, no further charge on account of anchorage shall be levied upon her unless the said steam-vessel depart on a second voyage to a Moorish port, or unless during her return voyage she shall have touched at any port other than a port of the Moorish dominions, in which case the aforesaid charge of 16 dollars shall again be levied. The charge, however, for anchorage on a steamer of 150 tons burden, or less, shall not exceed what is due from a sailing-vessel of the same size.

The masters of all vessels shall pay, in addition to the aforesaid charges, the following sums to officers of the ports, but no other payments shall be demanded of them; viz.:—

A vessel measuring 25 tons or less, 20 ounces; a vessel exceeding 25 and not over 50 tons, 40 ounces; a vessel exceeding 50 and not over 100 tons, 60 ounces; a vessel exceeding 100 and not over 200 tons, 80 ounces; a vessel exceeding 200 tons, 100 ounces.

In addition to these charges, the master of every British vessel visiting the port of Tetuan shall pay 10 ounces for the messenger who shall convey the ship's papers from the port of Marteen to Tetuan; 5 ounces to the trumpeter who shall announce the arrival of the vessel; and 3 ounces to the public crier; but no other payments shall be demanded at the port of Tetuan. No charge for anchorage shall be levied on account of British vessels which may enter the ports of Morocco for the purpose of seeking shelter from the weather, and which do not embark or discharge cargo, nor shall any charge for anchorage be levied upon fishing-vessels.

And, in like manner, no anchorage, tonnage, import, or other duty or charge, shall be levied in the British dominions on Moorish vessels, or on goods imported or exported in Moorish vessels, beyond what is or may be levied on national vessels, or on the like goods imported or exported in national vessels.

11. Should British subjects desire to embark in or discharge goods from vessels arriving in the ports of Morocco, they shall employ the Moorish Government boats for that purpose; but if within two days after the arrival of a vessel the Moorish Government boats are not placed at their disposal for the aforesaid purpose, the British subjects shall have the right of employing private boats, and shall not pay, in such case, to the port authorities more than one half of what would have been paid, had they employed the Government boats. This regulation shall not be applicable to the ports of Tangier and Tetuan, inasmuch as there is a sufficient number of Government lighters at those two ports.

The charges now paid for lighterage at the different ports of Morocco shall not be augmented, and the administrator of customs at each port of Morocco shall deliver to the British vice-consul a tariff of the charges now demanded for lighterage.

12. The articles of this convention shall be applicable to all the ports in the empire of Morocco; and should his Majesty the Sultan of Morocco open the ports of Mehedea, Agadeer, or Wadnoon, or any other ports within the limits of his Majesty's dominions, no difference shall be made in the levying of duties, or anchorage, between the said ports and other ports in the Sultan's dominions.

13. If a British subject be detected in smuggling into the Moroquine territories goods of any description, the goods shall be confiscated to the Sultan; and such British subject shall, on conviction before the British consul-general, consul, vice-consul, or consular agent, be liable to be fined in an amount not exceeding treble the amount of duties leviable on such goods, or in case of goods not admitted to importation, treble the value of the goods at the current price of the day; and failing payment of such fines, such British subject shall, on conviction before the British consul-general, consul, vice-consul, or consular agent, be liable to be imprisoned; or, without being fined, any British subject on conviction as aforesaid may be imprisoned, but in either case for a time not exceeding one year, in such place as the consul-general, consul, vice-consul, or consular agent may determine.

14. In order that the two high contracting parties may have the opportunity of hereafter treating and agreeing upon such other arrangements as may tend still further to the improvement of their mutual intercourse, and to the advancement of the interests of their respective subjects, it is agreed that at any time after the expiration of five years from the date of the exchange of the ratifications of the present convention of commerce and navigation, either of the high contracting parties shall have the right to call upon the other to enter upon a revision of the same; but until such revision shall have been accomplished by common consent, and a new convention shall have been concluded and ratified, the present convention shall continue and remain in full force and effect.

Done at Tangier, the 9th of December, in the year 1856, corresponding to the Moorish date of the 10th of Rabbea the second, in the year 1273.

J. H. DRUMMOND HAY.
(Arabic signature of)
SEED MOHAMED KHATEEB.

NETHERLANDS.

Treaty between his Britannic Majesty and the King of the Netherlands, respecting Territories and Commerce in the East Indies. Signed at London, March 17, 1824.

Article 1. The high contracting parties engage to admit the subjects of each other to trade with their respective possessions in the Eastern Archipelago, and on the continent of India and in Ceylon, upon the footing of the most favoured nation; their respective subjects conforming themselves to the local regulations of each settlement.

2. The subjects and vessels of one nation shall not pay upon importation or exportation, at the ports of the other in the Eastern seas, any duty at a rate beyond the double of that at which the subjects and vessels of the nation to which the port belongs are charged.

The duties paid on exports or imports at a British port, on the continent of India, or in Ceylon on Dutch bottoms, shall be arranged so as in no case to be charged at more than double the

amount of the duties paid by British subjects, and on British bottoms.

In regard to any article upon which no duty is imposed when imported or exported by the subjects or on the vessels of the nation to which the port belongs, the duty charged upon the subjects or vessels of the other shall in no case exceed 6 per cent.

3. The high contracting parties engage that no treaty hereafter made by either, with any native power in the Eastern seas, shall contain any article tending, either expressly, or by the imposition of unequal duties, to exclude the trade of the other party from the ports of such native power; and that if, in any treaty now existing on either part, any article to that effect has been admitted, such article shall be abrogated upon the conclusion of the present treaty.

It is understood that, before the conclusion of the present treaty, communication has been made by each of the contracting parties to the other, of all treaties or engagements subsisting between each of them, respectively, and any native powers in the Eastern seas; and that the like communication shall be made of all such treaties concluded by them, respectively, hereafter.

4. Their Britannic and Netherland Majesties engage to give strict orders, as well to their civil and military authorities, as to their ships of war, to respect the freedom of trade, established by Articles 1, 2, and 3; and in no case to impede a free communication of the natives in the Eastern Archipelago, with the ports of the two Governments, respectively, or of the subjects of the two Governments with the ports belonging to native powers.

5. Their Britannic and Netherland Majesties, in like manner, engage to concur effectually in repressing piracy in those seas: they will not grant either asylum or protection to vessels engaged in piracy, and they will in no case permit the ships or merchandise captured by such vessels to be introduced, deposited, or sold in any of their possessions.

6. It is agreed that orders shall be given by the two Governments, to their officers and agents in the East, not to form any new settlement on any of the islands in the Eastern seas, without previous authority from their respective Governments in Europe.

7. The Molucca Islands, and especially Amboyna, Banda, Ternate, and their immediate dependencies, are excepted from the operation of the 1st, 2nd, 3rd, and 4th Articles, until the Netherland Government shall think fit to abandon the monopoly of spices; but if the said Government shall, at any time previous to such abandonment of the monopoly, allow the subjects of any power, other than the Asiatic native power, to carry on any commercial intercourse with the said islands, the subjects of his Britannic Majesty shall be admitted to such intercourse upon a footing precisely similar.

8. His Netherland Majesty cedes to his Britannic Majesty all his establishment on the continent of India; and renounces all privileges and exemptions enjoyed or claimed in virtue of those establishments.

9. The factory of Fort Marlborough, and all the English possessions on the island of Sumatra, are hereby ceded to his Netherland Majesty: and his Britannic Majesty further engages that no British settlement shall be formed on that island, nor any treaty concluded, by British authority, with any native prince, chief, or state therein.

10. The town and fort of Malacca, and its dependencies, are hereby ceded to his Britannic Majesty; and his Netherland Majesty engages, for himself and his subjects, never to form any establishment on any part of the peninsula of Malacca, or to conclude any treaty with any native prince, chief, or state therein.

13. All the colonies, possessions, and establishments which are ceded by the preceding articles, shall be delivered up to the officers of the respective sovereigns on the 1st of March, 1825. The fortifications shall remain in the state in which they shall be at the period of the notification of this treaty in India; but no claim shall be made, on either side, for ordnance, or stores of any description, either left or removed by the ceding power, nor for any arrears of revenue, or any charge of administration whatever.

16. It is agreed that all accounts and reclamations, arising out of the restoration of Java, and other possessions, to the officers of his Netherland Majesty in the East Indies—as well as those which were the subject of a convention made at Java on the 24th of June, 1817, between the commissioners of the two nations, as all others—shall be finally and completely closed and satisfied, on the payment of the sum of 100,000*l.*, sterling money, to be made in London on the part of the Netherlands, before the expiration of the year 1825.

17. The present treaty shall be ratified and the ratifications exchanged at London, within 3 months from the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and affixed thereunto the seals of their arms.

Done at London, the 17th day of March, in the year of our Lord 1824.

GEORGE CANNING.
CHARLES WATKINS WILLIAMS WYNN.
H. FAGEL.
A. R. FALCK.

Treaty of Commerce and Navigation between her Majesty and the King of the Netherlands. Signed at the Hague, October 27, 1837.

Article 1. There shall be reciprocal liberty of commerce and navigation between and amongst the subjects of the two high contracting parties; and the subjects of the two sovereigns respectively shall not pay in the ports, harbours, roads, cities, towns, or places whatsoever in either kingdom, any other or higher duties, taxes, or imposts, under whatsoever names designated or included, than those which are there paid by the subjects of the most favoured nation: and the subjects of each of the high contracting parties shall enjoy the same rights, privileges, liberties, favours, immunities, and exemptions, in matters of commerce and navigation, that are granted, or may hereafter be granted, in either kingdom, to the subjects of the most favoured nation. No duty of customs or other impost shall be charged upon any goods the produce of one country, upon importation, by sea or by land, from such country into the other, higher than the duty or impost charged upon goods of the same kind, the produce of or imported from any other country; and her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Majesty the King of the Netherlands, do hereby bind and engage themselves not to grant any favour, privilege, or immunity, in matters of commerce and navigation, to the subjects of any other state, which shall not be also, and at the same time, extended to the subjects of the other high contracting party, gratuitously, if the concession in favour of that other state shall have been gratuitous; and on giving as nearly as possible the same compensation or equivalent, in case the concession shall have been conditional.

2. No duties of tonnage, harbour, lighthouses, pilotage, quarantine, or other similar or corresponding duties, of whatever nature or under whatever denomination, shall be imposed in either country upon the vessels of the other, in respect of voyages between the two countries, if laden, or in respect of any voyage if in ballast, which shall not be equally imposed, in the like cases, on national vessels; and in neither country shall any duty, charge, restriction, or prohibition be imposed upon, nor any drawback, bounty, or allowance be withheld from, any goods imported from or exported to the other country, in the vessel of that other country, which shall not be equally imposed upon or withheld from such goods when so imported or exported in national vessels.

3. In order to avoid any misunderstanding with regard to the regulations that determine the conditions which constitute a British or a Dutch vessel, it is hereby agreed that all vessels built in the dominions of her Britannic Majesty, and all vessels which, having been captured from an enemy by her Majesty's ships of war, or by the subjects of her said Majesty, furnished by the lords commissioners of the Admiralty with letters of marque, shall have been regularly condemned in one of her said Majesty's prize courts as a lawful prize; and all vessels which shall have been condemned in any competent court, for a breach of the laws made for the prevention of the slave trade; shall, provided they are owned, navigated, and registered according to the laws of Great Britain, be considered as British vessels; and that all vessels built in the territories of the King of the Netherlands, or which, having been captured from an enemy by his Majesty's ships of war, or by the subjects of his said Majesty furnished with letters of marque, shall have been regularly condemned in one of the prize courts of the kingdom of the Netherlands as a lawful prize; and all vessels which shall have been condemned in any competent court, for a breach of the laws made for the prevention of the slave trade, shall, provided they are wholly owned by any subject or subjects of the King of the Netherlands, and provided that the master and three-fourths of the crew are Netherlands subjects, be considered as Netherland vessels.

4. It is further agreed, that in all cases where, in either kingdom, the duty to be levied upon any goods imported, shall be, not a fixed rate, but a proportion of the value of the goods, such ad valorem duty shall be ascertained and secured in the following manner; that is to say, the importer shall, on making his entry for the payment of duty at the custom-house of either country, sign a declaration, stating the value of the goods at such amount as he shall deem proper; and in case the officers of customs should be of opinion that such valuation is insufficient, he or they shall be at liberty to take the goods, on paying to the importer the value according to his declaration, together with the addition of 10 per cent., and on returning the duty paid.

The amount of these sums to be paid by the officers on the delivery of the goods to them, which must be within 15 days from the first detention of the goods.

5. Forasmuch as all merchandise, of whatever origin, whether admissible for home consumption or not, may be received and warehoused in all the ports of the United Kingdom of Great Britain and Ireland, which are by law appointed to be warehousing ports for such articles, pending the entry of the same either for home consumption or for re-exportation, as the case may be, under the regulations appointed for this purpose, and without such articles being liable, in the meantime, to the payment of any of the duties with which they would be charged, if upon arrival they were entered for consumption within the United Kingdom; in like manner, the King of the Netherlands consents and agrees, that all the ports of his Netherland Majesty's dominions, which are now or which shall hereafter become warehousing ports by law, shall be free ports for the reception and warehousing of all merchandise imported in British ships, and of all articles whatever, the produce or manufacture of the British dominions, in whatever ships imported, either for home consumption or for re-exportation, as the case may be; and the articles thus received and warehoused, subject to due regulations, shall not be liable, in the meantime, to any of the duties with which they would be charged, if they were entered for consumption on their arrival in the Netherlands.

6. If any ships of war or merchant vessels should be wrecked on the coasts of either of the high contracting parties, such ships or vessels, or all parts thereof, and all furniture and appurtenances belonging thereunto, and all goods and merchandise which shall be saved therefrom, or the produce thereof, if sold, shall be faithfully restored to the proprietors, upon being claimed by them or by their duly authorised factors; and if there are no such proprietors or factors on the spot, then the said goods and merchandise, or the proceeds thereof, as well as all the papers found on board such wrecked vessels, shall be delivered to the British or Netherland consul in whose district the wreck may have taken place; and such consul, proprietors, or factors shall pay only the expenses incurred in the preservation of the property, together with the rate of salvage which would have been payable in the like case of a wreck of a national vessel; and the goods and merchandise saved from the wreck shall not be subject to duties, unless cleared for home consumption.

7. The present treaty shall be in force for the term of 10 years from the date hereof, and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same: each of the high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years.

And it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this treaty, and all the provisions thereof, shall altogether cease and determine.

8. The present treaty shall be ratified, and the ratifications shall be exchanged at the Hague within 1 month from the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at the Hague, this 27th day of October, in the year of our Lord 1837.

VERSTOLK DE SOELEN.
EDWARD CROMWELL DISBROWE.

Declaration made by the Plenipotentiary of her Britannic Majesty, on the exchange of the Ratification of the preceding Treaty.

In proceeding to the exchange of the ratifications of the treaty of commerce and navigation between her Majesty the Queen of the United Kingdom of Great Britain and Ireland and his Majesty the King of the Netherlands, concluded and signed at the Hague on the 27th of October,

1837, the undersigned, plenipotentiary of her Britannic Majesty, is commanded by her Majesty to explain and declare that her Majesty has ratified the said treaty, notwithstanding that the preamble contains the words 'in Europe,' which her Majesty's Government had objected to as redundant; but that her Majesty considers those words to be without meaning, so far as her Majesty's dominions are concerned; because those words appear to establish a distinction between a kingdom in Europe and a kingdom out of Europe, whereas, by the word 'kingdom,' in the said treaty, her Majesty, as far as regards her own territories, means only the United Kingdom of Great Britain and Ireland, which is well known to be in Europe, and does not mean any of the possessions of her Majesty's crown beyond sea. Her Majesty's ratification of the said treaty is exchanged under the explicit declaration and understanding above mentioned.

Done at the Hague, the 22nd day of November, 1837.

EDWARD CROMWELL DISBROWE.

Counter-Declaration of the Plenipotentiary of his Majesty the King of the Netherlands.

The plenipotentiary of her Britannic Majesty having, previously to the exchange of the ratifications of the treaty of commerce and navigation, concluded on the 27th of October, 1837, between his Majesty the King of the Netherlands and her Majesty the Queen of the United Kingdom of Great Britain and Ireland, delivered to the undersigned, plenipotentiary of his Majesty the King of the Netherlands, a declaration stating that her Britannic Majesty had not in view in the said treaty the possessions of her crown beyond sea; the undersigned is charged by his Majesty the King of the Netherlands to declare that his said Majesty accepts the above-mentioned declaration, and that he likewise, on his part, has not meant to comprise in the said treaty the possessions of his crown beyond sea.

With regard to the observations made as to the use of the words 'in Europe,' the Cabinet of the Hague is of opinion, that their interpretation is to be found in the circumstance, that the phrase 'in Europe' applies to the word 'ports,' and not to the word 'kingdom.'

The Hague, the 22nd of November, 1837.

VERSTOLK DE SOELEN.

PERSIA.

Treaty of Commerce between her Majesty and the Shah of Persia. Signed at Tehran, October 28, 1841.

Article 1. The merchants of the two mighty states are reciprocally permitted and allowed to carry into each other's territories their goods and manufactures of every description, and to sell or exchange them in any part of their respective countries; and on the goods which they import or export, custom duties shall be levied; that is to say, on entering the country, the same amount of custom duties shall be levied, once for all, that is levied on merchandise imported by the merchants of the most favoured European nations; and at the time of going out of the country, the same amount of custom duties which is levied on the merchandise of merchants of the most favoured European nations shall be levied from the merchants, subjects of the high contracting parties; and except this, no claim shall be made upon the merchants of the two states in each other's dominions on any pretext or under any denomination; and the merchants or persons connected with or dependent upon the high contracting parties in each other's dominions, mutually, shall receive the same aid and support, and the same respect, which are received by the subjects of the most favoured nations.

2. As it is necessary, for the purpose of attending to the affairs of the merchants of the two parties respectively, that from both Governments commercial agents should be appointed to reside in stated places; it is therefore proposed that two commercial agents on the part of the British Government shall reside, one in the capital, and one in Tabreez, and in those places only, and on this condition, that he who shall reside at Tabreez, and he alone, shall be honoured with the privileges of consul-general; and as for a series of years a resident of the British Government has resided at Bushire, the Persian Government grants permission that the said resident shall reside there as heretofore. And, in like manner, two commercial agents shall reside on the part of the Persian Government, one in the capital of London, and one in the port of Bombay, and shall enjoy the same rank and privileges which the commercial agents of the British Government shall enjoy in Persia.

3. This commercial treaty, we, the plenipotentiaries of the high contracting parties, have agreed to; and in witness thereof, have set thereunto our hands and seals, at the capital city of Tehran, this 28th day of October, in the year of our Lord 1841, corresponding to the 12th day of the month Ramazan, in the year of the Hejjira 1257.

JOHN M'NEILL.
MEERZA ABU'L HASSAN KHAN.

PERU-BOLIVIAN CONFEDERATION.

Treaty of Amity, Commerce, and Navigation between His Majesty and the Peru-Bolivian Confederation, together with 2 additional Articles thereunto annexed, of June 5, 1837.

Article 1. There shall be perpetual amity between the dominions and subjects of his Majesty the King of the United Kingdom of Great Britain and Ireland, his heirs and successors, and the Peru-Bolivian confederation and its citizens.

2. There shall be, between all the territories of his Britannic Majesty in Europe, and the territories of the Peru-Bolivian confederation, a reciprocal freedom of commerce. The subjects and citizens of the two countries respectively shall have liberty freely and securely to come with their ships and cargoes to all places, ports, and rivers in the territories aforesaid, to which other foreigners are or may be permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purpose of their commerce; and generally, the merchants and traders of each nation, respectively, shall enjoy the most complete protection and security for their commerce; subject always to the laws and statutes of the two countries respectively.

In like manner, the respective ships of war and post-office packets of the two countries shall have liberty freely and securely to come to all harbours, rivers, and places to which other foreign ships of war and packets are or may be permitted to come, to enter into the same, to anchor, and to remain there and refit; subject always to the laws and statutes of the two countries respectively.

By the right of entering the places, ports, and rivers mentioned in this article, the privilege of carrying on the coasting trade is not understood,

in which national vessels only are permitted to engage.

3. His Majesty the King of the United Kingdom of Great Britain and Ireland engages further, that the inhabitants of the Peru-Bolivian confederation shall have the like liberty of commerce and navigation stipulated for in the preceding article, in all his dominions situated out of Europe, to the full extent in which the same is permitted at present, or may be permitted hereafter, to any other nation.

4. No higher or other duties shall be imposed on the importation into the dominions of his Britannic Majesty of any article of the growth, produce, or manufacture of the Peru-Bolivian confederation, and no higher or other duties shall be imposed on the importation into the territories of the Peru-Bolivian confederation of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any other foreign country; nor shall any other or higher duties or charges be imposed in the territories or dominions of either of the contracting parties, on the exportation of any articles to the territories or dominions of the other, than such as are or may be payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation or importation of any article the growth, produce, or manufacture of his Britannic Majesty's dominions, or of the said territories of the Peru-Bolivian confederation, to or from the said dominions of his Britannic Majesty, or to or from the said territories of the Peru-Bolivian confederation, which shall not equally extend to all other nations.

5. No higher or other duties or charges on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed in any of the ports of the Peru-Bolivian confederation, on British vessels, than those payable in the same ports, by Peru-Bolivian vessels; nor in the ports of his Britannic Majesty's territories, on Peru-Bolivian vessels, than shall be payable in the same ports on British vessels.

6. The same duties shall be paid on the importation into the territories of the Peru-Bolivian confederation of any article the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such importation shall be in Peru-Bolivian or in British vessels; and the same duties shall be paid on the importation into the dominions of his Britannic Majesty, of any article the growth, produce, or manufacture of the territories of the Peru-Bolivian confederation, whether such importation shall be in British or in Peru-Bolivian vessels. The same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation to the ports of the Peru-Bolivian confederation, of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such exportation shall be in Peru-Bolivian or British vessels; and the same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation of any articles the growth, produce, or manufacture of the Peru-Bolivian confederation, to his Britannic Majesty's dominions, whether such exportation shall be in British or in Peru-Bolivian vessels.

7. In order to avoid any misunderstanding with respect to the regulations which may respectively constitute a British or Peru-Bolivian vessel, it is hereby agreed that no ship shall be admitted to be a ship of either country, unless she shall be of the built of such country, or have been made prize of war to such country, and condemned as such; or have been forfeited to such country under any law of the same made for the prevention of the slave trade, and condemned in any competent court as forfeiture for a breach of such law; nor unless she be navigated by a master who is a subject of such country, and by a crew, of whom ¾ at least are subjects of such country; nor unless she be wholly owned by subjects of such country, usually residing therein, or under the dominion thereof; excepting where the laws provide for any extreme cases. And it is further agreed, that no ship, admitted to be a ship of either country, shall be qualified to trade as above described, under the provisions of this treaty, unless furnished with a register, passport, or sea-letter, under the signature of the proper person authorised to grant the same, according to the laws of the respective countries (the form of which shall be communicated), certifying the name, occupation, and residence of the owner or owners, in the dominions of his Britannic Majesty, or in the territories of the Peru-Bolivian confederation, as the case may be, and that he or they is or are the sole owner or owners, in the proportion to be specified; together with the name, burden, and description of the vessel, as to build and measurement, and the several particulars constituting the national character of the vessel, as the case may be.

8. All merchants, commanders of ships, and others, the subjects of his Britannic Majesty, shall have full liberty, in all the territories of the Peru-Bolivian confederation, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as broker, factor, agent, or interpreter; nor shall they be obliged to employ any other persons for those purposes than those employed by Peru-Bolivians, nor to pay them any other salary or remuneration than such as is paid, in like cases, by Peru-Bolivian citizens; and absolute freedom shall be allowed, in all cases, to the buyer and seller to bargain and fix the price of any goods, wares, or merchandise imported into or exported from the Peru-Bolivian confederation, as they shall see good, observing the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of his Britannic Majesty, by the citizens of the Peru-Bolivian confederation, under the same conditions.

The citizens and subjects of the contracting parties, in the territories of each other, shall receive and enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice in the said countries respectively, for the prosecution and defence of their just rights; and they shall be at liberty to employ, in all causes, the advocates, attorneys, or agents, of whatever description, whom they may think proper; and they shall enjoy, in this respect, the same rights and privileges therein as native citizens.

9. In whatever relates to the police of the ports, the lading and unlading of ships, the safety of merchandise, goods, and effects, the succession to personal estates by will or otherwise, and the disposal of personal property of every sort and denomination, by sale, donation, exchange, or testament, or in any other manner whatsoever, as also the administration of justice, the subjects and citizens of the two contracting parties shall enjoy, in their respective dominions and territories, the same privileges, liberties, and rights, as native subjects; and shall not be charged, in any of these respects, with any higher imposts or

duties than those which are paid, or may be paid, by the native subjects or citizens of the power in whose dominions or territories they may be resident, subject of course to the local laws and regulations of such dominions or territories. In the event of any subject or citizen of either of the two contracting parties dying without will or testament, in the dominions or territories of the said contracting parties, the consul-general or consul of the said nation, or, in his absence, his representative, shall have the right to nominate curators, to take charge of the property of the deceased, so far as the laws of each country will permit, for the benefit of his lawful heirs and creditors, without interference, giving convenient notice thereof to the authorities of the country.

10. The subjects of his Britannic Majesty residing in the Peru-Bolivian confederation, and the natives and citizens of the confederation residing in the dominions of his Britannic Majesty, shall be exempted from all compulsory military service whatsoever, whether by sea or land; and from all forced loans or military exactions or requisitions; neither shall they be compelled, under any pretext whatsoever, to pay any other ordinary charges, requisitions, or taxes, greater than those that are paid by native subjects or citizens of the territories of the contracting parties, respectively.

11. It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but before any consul shall act as such, he shall, in the usual form, be approved and admitted by the Government to which he is sent: and either of the contracting parties may except from the residence of consuls such particular places as either of them may judge fit to be excepted. The diplomatic agents and consuls of the Peru-Bolivian confederation shall enjoy, in the dominions of his Britannic Majesty, whatever privileges, exceptions, and immunities are or shall be granted to agents of the same rank belonging to the most favoured nation; and in like manner, the diplomatic agents and consuls of his Britannic Majesty in the territories of the Peru-Bolivian confederation shall enjoy, according to the strictest reciprocity, whatever privileges, exceptions, and immunities are or may be granted to the diplomatic agents and consuls of the most favoured nation in the territories of the Peru-Bolivian confederation.

12. For the better security of commerce between the subjects of his Britannic Majesty and the citizens of the Peru-Bolivian confederation, it is agreed that if, at any time, any interruption of friendly intercourse or any rupture should unfortunately take place between the two contracting parties, the subjects or citizens of either of the two contracting parties residing upon the coasts shall be allowed six months, and those residing in the interior a whole year, to wind up their accounts and dispose of their property; and a safe conduct shall be given them to embark at the port which they shall themselves select. All such subjects or citizens of either of the two contracting parties, who are established in the dominions or territories of the other in the exercise of any trade or special employment, shall have the privilege of remaining and continuing such trade and employment therein without any manner of interruption, in full enjoyment of their liberty and property, as long as they behave peaceably, and commit no offence against the laws; and their goods and effects, of whatever description they may be, whether in their own custody, or intrusted to individuals or to the State, shall not be liable to seizure or sequestration, or to any other charges or demands, than those which may be made upon the like effects or property belonging to the native subjects or citizens of the dominions or territories in which such subjects or citizens may reside. In the same case, debts between individuals, public funds, and the shares of companies, shall never be confiscated, sequestrated, or detained.

13. The subjects of his Britannic Majesty, and the citizens of the Peru-Bolivian confederation, respectively, shall enjoy, in their houses, persons, and properties, the protection of the Government; and continue in possession of the privileges which they now enjoy. And the subjects of his Britannic Majesty residing in the territories of the Peru-Bolivian confederation shall furthermore enjoy the most perfect and entire security of conscience, without being annoyed, prevented, or disturbed on account of their religious belief. Neither shall they be annoyed, molested, or disturbed in the proper exercise of their religion, provided that this take place in private houses, and with the decorum due to divine worship, with due respect to the laws, usuages, and customs of the country. In the like manner the citizens of the Peru-Bolivian confederation shall enjoy, within all the dominions of his Britannic Majesty, a perfect and unrestrained liberty of conscience, and of exercising their religion publicly or privately, within their own dwelling-houses, or in the chapels and places of worship appointed for that purpose, agreeably to the system of toleration established in the dominions of his said Majesty. Liberty shall also be granted to bury the subjects or citizens of either of the two contracting parties, who may die in the dominions or territories of the other, in burial-places of their own, which, in the same manner, they may freely establish and maintain; nor shall the funerals or sepulchres of the dead be disturbed in any way or upon any account.

14. The Government of the Peru-Bolivian confederation engages to co-operate with his Britannic Majesty for the total abolition of the slave trade, and to prohibit all persons inhabiting within the territories of the Peru-Bolivian confederation, or subject to their jurisdiction, in the most effectual manner, and by the most solemn laws, from taking any share in such trade.

15. The two contracting parties reserve to themselves the right of treating and of agreeing hereafter, from time to time, upon such other articles as may appear to them to contribute still further to the improvement of their mutual intercourse, and to the advancement of the general interests of their respective subjects and citizens; and such articles as may be so agreed upon shall, when duly ratified, be regarded as forming a part of the present treaty, and shall have the same force as those now contained in it.

16. The present treaty shall be ratified, and the ratification shall be exchanged in London or at Lima, within the space of 20 months or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at Lima this 5th day of June, in the year of our Lord 1837.

BELFORD HINTON WILSON.
LORENZO BAZO.

Additional Articles.

Article 1. Whereas, in the present state of Peru-Bolivian shipping, it would not be possible for the said confederation to receive the full

advantage of the reciprocity established by the Articles 5, 6, and 7 of the treaty signed this day, if that part of the 7th Article which stipulates that, in order to be considered as a Peru-Bolivian ship, a ship shall actually have been built in the Peru-Bolivian confederation, should be strictly and literally observed, and immediately brought into operation; it is agreed that, for the space of 15 years, to be reckoned from the date of the exchange of the ratifications of this treaty, any ships, wheresoever built, being bonâ fide the property of and wholly owned by one or more citizens of the Peru-Bolivian confederation, and whereof the masters and three-fourths of the mariners, at least, are also natural-born citizens of the Peru-Bolivian confederation, or persons domiciliated in the Peru-Bolivian confederation by act of the Government, as lawful subjects of Peru-Bolivian confederation, to be certified according to the laws of that country, shall be considered as Peru-Bolivian ships; his Majesty the King of the United Kingdom of Great Britain and Ireland reserving to himself the right, at the end of the said term of 15 years, to claim the principle of reciprocal restriction stipulated for in the Article 7 above referred to, if the interests of British navigation shall be found to be prejudiced by the present exception to that reciprocity in favour of Peru-Bolivian shipping.

2. It is further agreed that, for the like term of 15 years, the stipulations contained in the Articles 5 and 6 of the present treaty shall be suspended; and, in lieu thereof, it is hereby agreed that, until the expiration of the said term of 15 years, British ships entering into the ports of the Peru-Bolivian confederation, from the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, and all articles, the growth, produce, or manufacture of the United Kingdom, or of any of the said dominions, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable, in the said ports, by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation: and reciprocally, it is agreed that Peru-Bolivian ships entering into the ports of the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, from any port of the Peru-Bolivian confederation, and all articles, the growth, produce, or manufacture of the said confederation, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable, in the said ports, by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation; and that no higher duties shall be paid, or bounties or drawbacks allowed, on the exportation of any article, the growth, produce, or manufacture of the dominions of either country, in the ships of the other, than upon the exportation of the like articles in the ships of any other foreign country.

It being understood that, at the end of the said term of 15 years, the stipulations of the said 5th and 6th Articles shall from thenceforward be in full force between the two countries.

The present additional articles shall have the same force and validity as if they were inserted, word for word, in the treaty signed this day. They shall be ratified, and the ratification shall be exchanged at the same time.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at Lima, 5th of June, 1837.

BELFORD HINTON WILSON.
LORENZO BAZO.

Treaty of Friendship, Commerce, and Navigation between her Majesty and the Republic of Peru. Signed at London, April 10. 1850. Ratifications exchanged at London, October 15, 1852.

Article 1. There shall be perpetual friendship between her Majesty the Queen of the United Kingdom of Great Britain and Ireland, her heirs and successors, and the Republic of Peru, and between their respective subjects and citizens.

2. There shall be, between all the dominions of her Britannic Majesty and the territories of the Republic of Peru, a reciprocal freedom of commerce. The subjects and citizens of each of the two countries, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all places, ports, and rivers in the territories of the other, where trade with other nations is permitted. They may remain and reside in any part of the said territories respectively; and hire and occupy the houses and warehouses which they may require; and may trade by wholesale or retail in all kinds of produce, manufactures, and merchandise of lawful commerce, enjoying the same exemptions and privileges as native subjects or citizens, and subject always to the same laws, decrees, and established customs as native subjects or citizens.

In like manner, the ships of war and post-office packets of each country, respectively, shall have liberty to enter into all harbours, rivers, and places, within the territories of the other, to which the ships of war and packets of other nations are or may be permitted to come, to anchor there, and to remain and refit; subject always to the laws and regulations of each country respectively.

The stipulations of this article do not apply to the coasting trade, which each country reserves to itself respectively, and shall regulate according to its own laws.

3. The two high contracting parties hereby agree that any favour, privilege, or immunity whatever, in matters of commerce or navigation, which either contracting party has actually granted, or may hereafter grant, to the subjects or citizens of any other State, shall be extended to the subjects or citizens of the other contracting party, gratuitously, if the concession in favour of that other State shall have been gratuitous, or in return for an equivalent compensation if the concession shall have been conditional.

4. No other or higher duties shall be imposed on the importation into the dominions of her Britannic Majesty, of any article of the growth, produce, or manufacture of the Republic of Peru; and no other or higher duties shall be imposed on the importation into the Republic of Peru, of any article of the growth, produce, or manufacture of her Britannic Majesty's dominions, than are or shall be payable on the like article, being the growth, produce, or manufacture of any other foreign country; nor shall any other or higher duties or charges be imposed in the dominions or territories of either of the contracting parties, on the exportation of any article to the dominions or territories of the other, than such as are or may be payable on the exportation of the like article to any other foreign country. No prohibition shall be imposed upon the importation of any article the growth, produce, or manufacture of the territories of either of the two contracting parties into the territories of the other, which shall not equally extend to the importation of the like article, being the growth, produce, or manufacture of any other country. Nor shall any prohibition be imposed upon the exportation of any article from the territories of either of the two contracting parties to the territories of the other, which shall not equally extend to the exportation

of the like article to the territories of all other nations.

5. No other or higher duties or charges on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed, in any of the ports of the Republic of Peru, on British vessels of the burden of above 200 tons, than those payable in the same ports by Peruvian vessels of the same burden; nor, in the ports of her Britannic Majesty's territories on Peruvian vessels of the burden of above 200 tons, than shall be payable in the same ports by British vessels of the same burden.

6. The same duties shall be paid on the importation of any article which is or may be legally importable into the Republic of Peru, whether such importation shall be in Peruvian or in British vessels; and the same duties shall be paid on the importation of any article which is or may be legally importable into the dominions of her Britannic Majesty, whether such importation shall be in British or in Peruvian vessels. The same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation of any article which is or may be legally exportable from the Republic of Peru, whether such exportation shall be in Peruvian or in British vessels; and the same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation of any article which is or may be legally exportable from her Britannic Majesty's dominions, whether such exportation shall be in British or in Peruvian vessels.

7. All merchants, commanders of ships and others, the subjects or citizens of each country respectively, shall have full liberty, in all the territories of the other, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as agent, broker, factor, or interpreter; and they shall not be obliged to employ any other persons than those employed by natives, nor to pay to such persons as they shall think fit to employ, any higher salary or remuneration than such as is paid, in like cases, by natives.

The subjects of her Britannic Majesty in Peru, and the citizens of Peru, in the dominions of her Britannic Majesty, shall enjoy the same full liberty which is now or may hereafter be enjoyed by natives of each country respectively, to buy from and sell to whom they like, all articles of lawful commerce, and to fix the prices thereof as they shall see good, without being prejudiced by any privilege granted to other individuals to buy or sell; subject, however, to the general contributions or imposts established by law.

The subjects and citizens of either of the contracting parties, in the territories of the other, shall enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice for the prosecution and defence of their just rights: and they shall be at liberty to employ, in all causes, the advocates, attorneys, or agents, of whatever description, whom they may think proper: and they shall enjoy in this respect the same rights and privileges as native subjects or citizens.

8. In whatever relates to the police of the ports, the lading and unlading of ships, the warehousing and safety of merchandise, goods, and effects, the succession to personal estates by will or otherwise, and the disposal of personal property of every sort and denomination by sale, donation, exchange, or testament, or in any other manner whatsoever, as also with regard to the administration of justice, the subjects and citizens of each contracting party shall enjoy, in the dominions or territories of the other, the same privileges, liberties, and rights, as native subjects or citizens; and shall not be charged, in any of these respects, with any other or higher imposts or duties than those which are or may be paid by native subjects or citizens; subject always to the local laws and regulations of such dominions or territories.

In the event of any subject or citizen of either of the two contracting parties dying without will or testament, in the dominions or territories of the other contracting party, the consul-general, consul, or vice-consul of the nation to which the deceased may belong shall, so far as the laws of each country will permit, take charge of the property which the deceased may have left, for the benefit of his lawful heirs and creditors, until an executor or administrator be named according to the laws of the country in which the decease shall have taken place.

9. The subjects of her Britannic Majesty residing in the Republic of Peru, and the citizens of the Republic of Peru residing in the dominions of her Britannic Majesty, shall be exempted from all compulsory military service whatsoever, whether by sea or land, and from all forced loans or military exactions or requisitions; and they shall not be compelled, under any pretext whatsoever, to pay any ordinary charges, requisitions, or taxes, other or higher than those that are or may be paid by native subjects or citizens.

10. Each of the two contracting parties agrees that it will not knowingly receive into, or retain in, its service, any subjects or citizens of the other party who have deserted from the naval or military service of that other party; but that, on the contrary, each shall respectively discharge from its service any such deserters, upon being required by the other party so to do.

And it is further agreed, that if any of the crew shall desert from the vessels of war or merchant-vessels of either contracting party, while such vessels are within any port in the territory of the other party, the authorities of such port and territory shall be bound to give every assistance in their power for the apprehension of such deserters, on application to that effect being made by the consul of the party concerned, or by the deputy or representative of the consul; and no public body whatever shall protect or harbour such deserters.

It is further agreed and declared, that any other favour or facility with respect to the recovery of deserters, which either of the contracting parties has granted, or may hereafter grant, to any other State, shall be granted also to the other contracting party, in the same manner as if such favour or facility had been expressly stipulated by the present treaty.

11. It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but before any consul shall act as such, he shall, in the usual form, be approved and admitted by the Government to which he is sent; and either of the contracting parties may except from the residence of consuls such particular places as either of them may judge fit to be excepted.

The diplomatic agents and consuls of her Britannic Majesty in the Republic of Peru shall enjoy whatever privileges, exemptions, and immunities, are or may be there granted to the diplomatic agents and consuls of the same rank of the most favoured nation; and in like manner, the diplomatic agents and consuls of the Republic of Peru in the dominions of her Britannic Majesty shall enjoy whatever privileges, exemptions, and im-

munities, are or may be there granted to agents of the same rank of the most favoured nation.

12. For the better security of commerce between the subjects of her Britannic Majesty and the citizens of the Republic of Peru, it is agreed that if, at any time, any interruption of friendly intercourse, or any rupture should unfortunately take place between the two contracting parties, the subjects or citizens of either the two contracting parties, residing upon the coasts, shall be allowed 6 months, and those residing in the interior a year, to wind up their accounts, and dispose of their property; and a safe-conduct shall be given them to embark at the port which they shall themselves select. All subjects or citizens of either of the two contracting parties who may be established in the dominions or territories of the other, in the exercise of any trade or special employment, shall have the privilege of remaining and continuing such trade or employment therein, without any manner of interruption, in full enjoyment of their liberty and property, as long as they behave peaceably, and commit no offence against the laws; and their goods and effects, of whatever description they may be, whether in their own custody, or entrusted to individuals or to the State, shall not be liable to seizure or sequestration, or to any other charges or demands than those which may be made upon the like effects or property belonging to native subjects or citizens. In the same case, debts between individuals, public funds, and the shares of companies, shall never be confiscated, sequestered, or detained.

13. The subjects or citizens of either of the two contracting parties, residing in the dominions or territories of the other, shall continue to enjoy, as hitherto, in regard to their houses, persons, and properties, the protection of the Government.

In like manner, the subjects and citizens of each contracting party shall enjoy, in the dominions or territories of the other, full liberty of conscience, and shall not be molested on account of their religious belief, provided they respect the established laws and customs; and such of those subjects and citizens as may die in the territories of the other party, shall be buried in the public cemeteries or accustomed places, with suitable decorum and respect.

14. If any ship of war or merchant-vessel of either of the contracting parties should be wrecked on the coasts of the other, such ship or vessel, or any parts thereof, and all furniture and appurtenances belonging thereunto, and all goods, and merchandise which shall be saved therefrom, or the produce thereof, if sold, shall be faithfully restored to the proprietors, upon being claimed by them or by their duly authorised agents; and if there are no such proprietors or agents on the spot, then the said goods and merchandise, or the proceeds thereof, as well as all the papers found on board such wrecked ship or vessel, shall be delivered to the British or Peruvian consul in whose district the wreck may have taken place; and such consul, proprietors, or agents, shall pay only the expenses incurred in the preservation of the property, together with the rate of salvage which would have been payable in the like case of a wreck of a national vessel. The goods and merchandise saved from the wreck shall not be subject to duties, unless cleared for consumption.

15. The Republic of Peru engages to co-operate with her Britannic Majesty for the total abolition of the slave trade, and to prohibit all persons inhabiting the territories of the Republic, or subject to its jurisdiction, in the most effectual manner, and by penal laws, from taking any share in such trade.

16. In order that the two contracting parties may have the opportunity of hereafter treating and agreeing upon such other arrangements as may tend still further to the improvement of their mutual intercourse, and to the advancement of the interests of their respective subjects and citizens, it is agreed that, at any time after the expiration of seven years from the date of the exchange of the ratifications of the present treaty, either of the contracting parties shall have the right of giving to the other party notice of its intention to terminate Articles 3, 4, 5, and 6, of the present treaty; and that at the expiration of 12 months after such notice shall have been received by either party from the other, the said Articles, and all the stipulations contained therein, shall cease to be binding on the two contracting parties.

17. The present treaty shall be ratified by her Britannic Majesty the Queen of the United Kingdom of Great Britain and Ireland, and by the President of the Republic of Peru, with the authority of the congress; and the ratifications shall be exchanged at London in 2 years, or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London the 10th day of April, in the year of our Lord 1850.

PALMERSTON.
H. LABOUCHERE.
JOAQ^{n} J. DE OSMA.

Declaration made by the British Plenipotentiary on the exchange of the Ratifications of the preceding Treaty.

Whereas by the second paragraph of Article 10 of the treaty of friendship, commerce, and navigation, between her Majesty the Queen of the United Kingdom of Great Britain and Ireland and the Republic of Peru, concluded and signed at London on the 10th of April, 1850, it was stipulated, that if any of the crew shall desert from the vessels of war or merchant-vessels of either contracting party, while such vessels are within any port in the territory of the other party, the authorities of such port and territory shall be bound to give every assistance in their power for the apprehension of such deserters, on application to that effect being made by the consul of the party concerned, or by the deputy or representative of the consul; and that no public body whatever shall protect or harbour such deserters:

And whereas the power of apprehending such deserters in the British dominions is by law confined to seamen, not being slaves, who may desert from merchant ships belonging to the subjects of a foreign Power:

The undersigned, plenipotentiary of her Britannic Majesty, in proceeding to the exchange of the ratifications of the treaty above mentioned, therefore declares, that the ratifications are exchanged on the understanding that the above quoted stipulations of Article 10 thereof shall, in the British dominions, be held to be applicable only to seamen, not being slaves, who may desert from merchant-ships belonging to citizens of the Republic of Peru.

London, October 15, 1852.

MALMESBURY.

PORTUGAL.

Treaty of Commerce between Great Britain and Portugal. Signed at Lisbon, December 27, 1703.

Article 1. His Sacred Royal Majesty of Portugal promises, both in his own name and that of his

successors, to admit, for ever hereafter, into Portugal, the woollen cloths, and the rest of the woollen manufactures of the Britons, as was accustomed till they were prohibited by the laws; nevertheless, upon this condition:

2. That is to say, that her Sacred Royal Majesty of Great Britain shall, in her own name and that of her successors, be obliged for ever hereafter to admit the wines of the growth of Portugal into Britain; so that at no time, whether there shall be peace or war between the kingdoms of Britain and France, anything more shall be demanded for these wines, by the name of custom or duty, or by whatsoever other title, directly or indirectly, whether they shall be imported into Great Britain in pipes or hogsheads, or other casks, than what shall be demanded from the like quantity or measure of French wine, deducting or abating a third part of the custom or duty: but if at any time this deduction or abatement of customs which is to be made as aforesaid, shall in any manner be attempted and prejudiced, it shall be just and lawful for his Sacred Royal Majesty of Portugal again to prohibit the woollen cloths, and the rest of the British woollen manufactures.

3. The most excellent lords the plenipotentiaries promise, and take upon themselves, that their above-named masters shall ratify this treaty, and that within the space of 2 months the ratifications shall be exchanged.

Given at Lisbon, the 27th of December, 1703.

JOHN METHUEN.
MARCHIS ALEGRETENSIS.

Treaty of Commerce and Navigation between her Majesty and the Queen of Portugal. Signed at Lisbon, July 3, 1842.

Article 1. The subjects of each of the high contracting parties shall, in the dominions of the other, enjoy all the privileges, immunities, and protection enjoyed by the subjects of the most favoured nation. They shall be entitled to travel, to reside, to occupy dwellings and warehouses, and to dispose of their personal, leasehold, and all other property lawfully held by them, by sale, gift, exchange, or will, or in any other way whatever, without the smallest let, and without any hindrance whatever.

They shall be exempt from forced loans, or any other extraordinary contributions not general, or not by law established, and from all military service by sea or by land. Their dwellings, warehouses, and everything belonging thereto, shall be respected, and shall not be subjected to any arbitrary visit or search. No examination or inspection shall be made of their books, papers, or accounts, without the legal sentence of a competent court or judge.

The assessment of the amount to be paid by the British subjects in Portugal and its dominions for *mancio* or *decima industrial*, and from which they have hitherto enjoyed special exemption, shall in all cases in future be made, if so claimed by them, according to the rate to be given by *informadores*, of whom two shall be Portuguese and two British merchants, to be named by the *Concilho de Districto*; and in case any objection should be made by the parties assessed to the amount of the said assessment (which shall in all cases bear a just proportion to the rate at which the native subjects of Portugal are assessed), they shall have a right to appeal to the tribunal of the Treasury, and to appear in person, or to be heard by counsel, before the said tribunal; and in the meantime no execution shall be made on their property, until an ultimate decision shall have been pronounced by the said tribunal.

It is, however, understood that British subjects resident in Portugal and its dominions, not carrying on trade, or exercising any branch of industry therein, but deriving their incomes from other sources, shall, in like manner with Portuguese subjects, be wholly exempt from the operation of the said *mancio* or *decima industrial* tax.

The subjects of each of the high contracting parties shall also, within the dominions of the other, be allowed the free use and exercise of their religion, without being in any manner disturbed on account of their religious opinions: they shall be allowed to assemble together for the purposes of public worship, and to celebrate the rites of their religion in their own dwelling-houses, or in the chapels and places of worship appointed for that purpose, without any the smallest hindrance or interruption whatever, either now or hereafter; and her Most Faithful Majesty does now and for ever graciously grant to the subjects of her Britannic Majesty permission to build and maintain such chapels and places of worship within her dominions. It being always understood that the said chapels and places of worship are not to have steeples and bells.

Her Britannic Majesty's subjects shall likewise have full liberty to bury their dead, after the manner and with the ceremonies usual in their respective countries, and in the grounds and cemeteries which they shall have purchased and prepared for that purpose; and the sepulchres of the dead, in conformity to ancient and existing practice, shall in no way or on any account be disturbed.

2. The subjects of either of the contracting parties may freely dispose by will of the personal effects which they shall possess in the territories of the other; and their heirs, though subjects of the other contracting party, may succeed to their personal effects, either by will or ab intestato, and may obtain possession of the same in due course of law, either in person, or by other persons appointed by them to act on their behalf. In the event of the absence of heirs, or of persons duly appointed to act for them, the consul may be authorised to take charge, in due course of law, of the said effects, until the owner shall have made the necessary arrangements for obtaining possession of the property. If disputes shall arise between several claimants with respect to the title which each may have to the property, such disputes shall be decided by the courts of the country in which the property is situated; and if hereafter any favour as regards the possession or inheritance of landed or funded property (*biens fonds*) shall be granted, in the dominions of either of the high contracting parties, to the subjects of any other nation, the same favour shall extend reciprocally to their respective subjects, as the case may be, either in Portugal or Great Britain.

3. The subjects of either contracting party residing within the dominions of the other, shall be free to manage their own affairs themselves, or to commit those affairs to the management of any persons whom they may appoint as their broker, factor, agent, or interpreter; nor shall any such British subjects be restrained in their choice of persons to act in such capacities, nor shall they be called upon to pay any salary or remuneration to any person whom they shall not choose to employ. Absolute freedom shall be given, in all cases, to the buyer and seller to bargain together, and to fix the price of any goods, wares, or merchandise, imported into, or to be exported from, the

dominions of either contracting party, the laws and established customs of the country being duly observed.

The subjects of either of the high contracting parties residing within the dominions of the other shall be at liberty to open retail stores and shops, under the same municipal and police regulations as native subjects; and they shall not, in this respect, be liable to any other or higher taxes or imposts than those which are or may be paid by native subjects.

4. There shall be reciprocal liberty of commerce and navigation between the subjects of the two high contracting parties; and the subjects of the two sovereigns respectively shall not pay, in the ports, harbours, roads, cities, towns, or places whatsoever in either kingdom, any other or higher duties, taxes, rates, or imposts, under whatsoever names designated or included, than those which are there paid by the subjects or citizens of the most favoured nation.

No duty of customs or other impost shall be charged upon any goods, the produce of the one country, upon importation by sea or by land from that country into the other, higher than the duty or impost charged upon goods of the same kind, the produce of and imported from any other country; and no duty, restriction, or prohibition shall be imposed upon the importation and exportation from one country to the other, of the goods and produce of each, which shall not be imposed upon goods of the same kind, when imported from or exported to any other country: and her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and her Majesty the Queen of Portugal, do hereby bind and engage themselves, their heirs and successors, not to grant any favour, privilege, or immunity, in matters of commerce and navigation, to the subjects or citizens of any other State, which shall not also and at the same time be extended to the subjects of the other high contracting party, gratuitously, if the concession in favour of that other State shall have been gratuitous; and on giving, as nearly as possible, the same compensation or equivalent, if the concession shall have been conditional.

5. No duties of tonnage, and no harbour, light-house, pilotage, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, shall be imposed in either country upon the vessels of the other, in respect of voyages between the two countries, if laden: or in respect of any voyage, if in ballast, which shall not be equally imposed, in the like cases, on national vessels.

6. All goods, the growth, produce, or manufacture of their respective possessions, which can legally be imported into either country from the other, in ships of that other country, shall, when so imported, be subject to the same duties, whether they be imported in ships of the one country or in ships of the other; and in like manner, all goods which can legally be exported from either country to the other, in ships of that other country, shall, when so exported, be subject to the same duties, and be entitled to the same drawbacks, bounties, and allowances, whether they be exported in ships of the one country or in ships of the other.

7. In order to promote and encourage the commercial intercourse between the dominions of the high contracting parties, for the mutual benefit of their respective subjects, her Britannic Majesty and her Most Faithful Majesty agree to take into consideration the duties now levied upon articles the produce or manufacture of either country, with a view to make such reductions in those duties as may be consistent with the interest of the high contracting parties respectively.

This matter shall without delay be made the subject of a special negotiation between the two Governments.

8. British ships shall be allowed to proceed direct from any port of her Britannic Majesty's dominions to any colony of her Most Faithful Majesty, and to import into such colony any goods the growth, produce, or manufacture of the United Kingdom, or of any of the British dominions, except such goods as are prohibited to be imported into such colony, or which are admitted into it only from the dominions of her Most Faithful Majesty; and such British ships, and such goods so imported in them, shall be liable in such colony of her Most Faithful Majesty to no higher or other duties and charges than would be there payable on Portuguese ships importing the like sort of goods, or on the like goods, the growth, produce, or manufacture of any foreign country, and allowed to be imported into the said colony in Portuguese ships.

In like manner, Portuguese ships shall be allowed to proceed direct from any port of her Most Faithful Majesty's dominions to any colony of her Britannic Majesty, and to import into such colony any goods the growth, produce, or manufacture of Portugal, or of any of the Portuguese dominions, except such goods as are prohibited to be imported into such colony, or which are admitted into it only from the dominions of her Britannic Majesty; and such Portuguese ships, and such goods so imported in them, shall be liable, in such colony of her Britannic Majesty, to no higher or other duties and charges than would be there payable on British ships importing the like sort of goods, or on the like goods, the growth, produce, or manufacture of any foreign country, and allowed to be imported into the said colony in British ships.

9. British ships shall be allowed to export from any colony of her Most Faithful Majesty to any place not under the dominion of her said Majesty, any goods not generally prohibited to be exported from such colony; and such British ships, and such goods so exported in them, shall be liable, in such colony, to no other or higher charges than would be payable by, and shall be entitled to the same drawbacks or bounties as would be there allowable on, Portuguese ships exporting such goods, or on such goods exported in Portuguese ships.

In like manner Portuguese ships shall be allowed to export from any colony of her Britannic Majesty to any place not under the dominion of her said Majesty, any goods not generally prohibited to be exported from such colony; and such Portuguese ships, and such goods so exported in them, shall be liable in such colony to no other or higher charges than would be payable by, and shall be entitled to the same drawbacks or bounties as would be there allowable on, British ships exporting such goods, or on such goods exported in British ships.

10. It is hereby declared that the stipulations of the present treaty are not to be understood as applying to the navigation and carrying trade between one port and another, situated in the dominions of either contracting party, if such navigation and trade should in those dominions be reserved by law exclusively to national vessels. Vessels of either country shall, however, be permitted to discharge part of their cargoes at one port in the dominions of either of the high contracting parties, and then to proceed, with the remainder of their cargo, to any other port or ports

in the same dominions, without paying any higher or other duties in such cases, than national vessels would pay in like circumstances; and they shall be permitted to lade, in like manner, at different ports in the same voyage outwards.

11. The reciprocal liberty of commerce and navigation declared and stipulated for by the present treaty, shall not extend to contraband of war, or to articles the property of the enemies of either party.

The power granted by former treaties to carry, in the ships of either country, goods and merchandise of any description whatever, the property of the enemies of the other country, is now mutually renounced.

12. In all cases in which, in either kingdom, the duty to be levied upon any goods imported from the other kingdom shall be not a fixed rate, but a proportion of the value of the goods, such ad valorem duty shall be ascertained and secured in the following manner; that is to say, the importer shall, on making his entry for the payment of duty at the custom-house, sign a declaration, stating the description and value of the goods at such amount as he shall deem proper; and in case the officer or officers of the customs shall be of opinion that such valuation is insufficient, he or they shall be at liberty to take the goods, on paying to the importer the value thereof according to the declaration of the importer, together with an addition of 10 per cent.; and the custom-house officer shall, at the same time, return to the importer any duty which the importer may have paid upon such goods; and the amount of these sums shall be paid to the importer on the delivery of the goods to the said officer or officers, which must not be later than 15 days from the first detention of the goods.

13. Inasmuch as all merchandise, of whatever origin, whether admissible for home consumption or not, may be received and warehoused in all those ports of the United Kingdom of Great Britain and Ireland which are by law appointed to be warehousing ports for such articles, pending the entry of the same, either for home consumption or for re-exportation, as the case may be, under the regulations appointed for this purpose, and without such articles being liable, in the meantime, to the payment of any of the duties with which they would be charged, if upon arrival they were entered for consumption within the United Kingdom;—in like manner the Queen of Portugal consents and agrees that the ports of her Most Faithful Majesty's dominions, which now are, or which shall hereafter become by law, warehousing ports, shall be free ports for receiving and warehousing, either for home consumption or for re-exportation, as the case may be, all merchandise imported in British ships, and all articles whatever, the produce or manufacture of the British dominions, imported by Portuguese ships; and the articles thus received and warehoused, subject to due regulations, shall not be liable, in the meantime, to any of the duties with which they would be charged, if they were entered for consumption on their arrival in the dominions of her Most Faithful Majesty.

14. All goods or merchandise found on board of, or which shall have formed the cargo or part of the cargo of a vessel of the one country, which shall be wrecked, or left derelict, on or near the coast of the other country, unless the importation of such goods or merchandise shall be absolutely prohibited by law, shall be admitted for home consumption in the country on or near the coast of which such vessel shall be wrecked, or left derelict, or such goods or merchandise may be found, on payment of the same duty, as if the said goods or merchandise had been imported in a national vessel, even though such goods or merchandise could not by law be imported into the said country in any other than national vessels; and, in fixing the amount of duty to be paid on such goods or merchandise, regard shall be had to any damage which the said goods or merchandise may have sustained.

To prevent frauds, the Board of Customs of each nation shall exercise their judgment as to the causes of wrecks; and when they are satisfied that the said wrecks were the result of accident or misfortune, and free from suspicion of collusion, they shall authorise, at the option of the proprietor or agent, if present, or otherwise of the consul, the transhipment, or the sale for home consumption, of the goods or merchandise, provided that such goods and merchandise could have been legally imported by the ships of the one country into the ports of the other country.

If any ships of war or merchant vessels should be wrecked on the coasts of either of the high contracting parties, such ships or vessels, or any parts thereof, and all furniture and appurtenances belonging thereunto, and all goods or merchandise which shall be saved therefrom, or the produce thereof if sold, shall be faithfully restored to the proprietors, upon being duly claimed by them, or by their agents duly authorised; or if there are no such proprietors or agents on the spot, by the respective consuls of the nation to which the proprietors of the said ships, vessels, or goods may belong, and in whose district such wreck may have taken place, provided such claim be preferred within a year and a day from the time of such wreck; and such consul, proprietor, or agent shall pay only the expenses incurred in the preservation of the property, together with the rate of salvage which would have been payable in the like case of a wreck of a national vessel; and the goods and merchandise saved from the wreck shall not be subject to duties, unless cleared for local consumption.

15. If any merchant vessel of either country should be driven into the ports of the other by stress of weather, for the purpose of effecting necessary repairs, every facility shall be afforded to such vessel for obtaining the assistance it may be in need of.

The strictest reciprocity shall be observed, in the most favourable sense, as to the relief to be afforded to such vessel from the duties, charges, and expenses in the ports of either nation, to which vessels, entering solely for the purposes of trade, are subjected. Sufficient time shall be allowed for the completion of repairs; and while the vessel shall be undergoing repair, its cargo shall not unnecessarily be required to be landed, either in whole or in part; and any difference of opinion which may arise between the custom-house authorities and the masters of the said vessel, as to the necessity of landing all or any part of the cargo, shall be referred to two sworn or public surveyors, one to be named by the chief custom-house authority of the port, and the other by the consul of the nation to which the vessel belongs.

Her Majesty the Queen of Portugal engages that the commerce of British subjects within the Portuguese dominions shall not be restrained, interrupted, or otherwise affected by the operation of any monopoly, contract, or exclusive privilege of sale or purchase whatsoever; but that the subjects of the United Kingdom shall have free and unrestrained permission to buy from and sell to whomsoever they please, and in whatever form

and manner may be agreed upon between the purchaser and seller, without being obliged to give any preference or favour in consequence of any such monopoly, contract, or exclusive privilege of sale and purchase. And her Britannic Majesty engages that a like exemption from restraint, in respect to purchases or sales, shall be enjoyed by the subjects of her Most Faithful Majesty trading to or residing in the United Kingdom. But it is distinctly to be understood, that the present article shall not be interpreted as affecting the special regulations now in force, or which may hereafter be enacted, with a view solely to the encouragement and amelioration of the Douro wine trade (it being always understood that British subjects shall in respect of the said trade be placed on the same footing as Portuguese subjects), or with regard to the exportation of the salt of St. Ubes.

This article does not invalidate the exclusive right possessed by the crown of Portugal, within its own dominions, to the farm for the sale of ivory, urzela, gold dust, soap, gunpowder, and tobacco for home consumption: provided, however, that should the above-mentioned articles, generally or separately, ever become articles of free commerce within the dominions of her Most Faithful Majesty, the subjects of her Britannic Majesty shall be permitted to traffic in them as freely and on the same footing as the subjects or citizens of the most favoured nation.

16. It is agreed and convenanted, that neither of the high contracting parties shall knowingly receive into, or retain in its service, any subjects of the other party who have deserted from the naval or military service of that other party; but that, on the contrary, each of the contracting parties shall respectively discharge from its service any such deserters, upon being required by the other party to do so.

It is further agreed and declared, that if either of the high contracting parties shall grant to any State any new favour or facility, with respect to the recovery of deserters, such favour or facility shall be considered as granted also to the other contracting party, in the same manner as if the said favour or facility had been expressly stipulated by the present treaty.

And it is further agreed, that if any apprentices or sailors shall desert from vessels belonging to the subjects of either of the high contracting parties, while such vessels are within any port in the territory of the other party, the magistrates of such port and territory shall be bound to give every assistance in their power for the apprehension of such deserters, on application to that effect being made by the consul of the party concerned, or by the deputy or representative of the consul; and no public body, civil or religious, shall protect or harbour such deserters.

17. Her Britannic Majesty, on the representation of her Most Faithful Majesty, and in contemplation of the improving system of law and justice in Portugal, hereby consents to give up the exercise of the rights connected with the Conservatorial Court, so soon and so long as British subjects are admitted in Portugal to the benefit of securities similar or equivalent to those enjoyed by the subjects of her Most Faithful Majesty in Great Britain, as regards trial by jury, protection from arrest without a warrant from a magistrate, and examination within 24 hours after apprehension, *in flagrante delicto*, and admission to bail. It being always understood, that in other respects the subjects of her Britannic Majesty in Portugal shall be placed on the same footing as Portuguese subjects, in all causes, whether civil or criminal; and that they shall not, except in cases *flagrantis delicti*, be liable to imprisonment without formal commitment (*culpa formada*) under a warrant signed by legal authority.

18. It is hereby agreed, that her Britannic Majesty, relying upon the guarantees which are or may be afforded to British subjects by the law of Portugal under the present constitutional system, henceforward claims for British subjects in Portugal no privileges which are not enjoyed by Portuguese subjects in the Portuguese or British dominions. It being, however, understood, that her Britannic Majesty will be entitled, in the event (which God forbid) of political troubles affecting the operation of the above-mentioned guarantees, to claim the re-establishment and observance of the privileges surrendered by the present and preceding Article.

19. The present treaty shall be in force for the term of 10 years from the date hereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years, or at any subsequent time.

And it is hereby agreed between them, that, at the expiration of 12 months after such notice shall have been received by either party from the other, this treaty, and all the provisions thereof, shall altogether cease and determine.

It is agreed, nevertheless, that either of the two high contracting parties shall have the right, at the end of 5 years, to require a revision of any articles not affecting the principle of the treaty, on giving 6 months' notice of a desire to make such revision: provided, however, that it be distinctly understood that the power of giving such notice shall not extend beyond, nor be recognised after, the termination of the fifth year.

The present treaty shall be ratified, and the ratifications shall be exchanged at Lisbon at the expiration of 2 months from the date of its signature, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at Lisbon, the 3rd of July, in the year of our Lord 1842.

HOWARD DE WALDEN.
DUQUE DE PALMELLA.

True Intent and Spirit of certain Points of Treaty.

Lisbon, July 8, 1842.

The undersigned, her Britannic Majesty's plenipotentiary for the negotiation of a treaty of commerce and navigation between Great Britain and Portugal, has the honour to declare to his Excellency the Duke of Palmella, that with reference to Article 5, all vessels built in the territory of her most faithful Majesty, or which shall be British built, or which shall have been captured from the enemy by the ships of the Portuguese Government, and slave vessels condemned under similar circumstances, and which shall be wholly owned by any subject or subjects of her Most Faithful Majesty, and whereof the master and three-fourths of the mariners are subjects of her Most Faithful Majesty, will be considered as Portuguese, and will be entitled to be placed on the footing of national vessels, and to be treated on an equality with the vessels of the most favoured nation, in the ports of her Britannic Majesty, i.e., in Great Britain and Ireland and the colonies hereinafter enumerated.

With reference to Article 8, in the words

'growth, produce, and manufacture,' the wines and brandies of Portugal are comprehended.

With reference to Article 14, the jurisdiction of the Cinque Ports does not interfere with the stipulations of this article.

With reference to Article 17, in respect to the declaration of her Britannic Majesty regarding the conditional surrender of the rights connected with the Conservatorial Court, whenever the Portuguese Government shall have officially communicated to her Majesty's Government any law or laws establishing the guarantees in question, her Majesty will recognise the right of the Portuguese Government to declare the further jurisdiction and authority of the British Conservatorial Court to have ceased by consent of her Majesty.

The colonies referred to are Canada, Newfoundland, Nova Scotia, Cape Breton, New Brunswick, Prince Edward Island, and all other British possessions in North America, British West Indies, including the islands and possessions on the continent of South America, Cape of Good Hope, and other possessions in Africa; the Mauritius, the Island of Ceylon, Van Diemen's Land, New South Wales, New Zealand.

HOWARD DE WALDEN.

Lisbon, July 3, 1842.

The undersigned, her Most Faithful Majesty's plenipotentiary, has the honour to declare, by order of the Government, to Lord Howard de Walden, in reference to the Article 1 of the treaty of commerce and navigation, by both concluded and signed to-day, between Portugal and Great Britain, that the maximo that can be collected from any British subject for *mancio* or *decima industrial*, will be 20 per cent. upon the rent of their shops, dwellings, and warehouses, which will serve as an invariable rule to the tribunal of the treasury for deciding the appeals made by British subjects.

DUKE OF PALMELLA.

Lisbon, July 3, 1842.

PRUSSIA.

Convention of Commerce between his Britannic Majesty and the King of Prussia. Signed at London, April 2, 1824.

Article 1. From and after the 1st of May next, Prussian vessels entering or departing from the ports of the United Kingdom of Great Britain and Ireland, and British vessels entering or departing from the ports of his Prussian Majesty's dominions, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on national vessels entering or departing from such ports respectively.

2. All articles of the growth, produce, or manufacture of any of the dominions of either of the high contracting parties, which are or shall be permitted to be imported into or exported from the ports of the United Kingdom and of Prussia, respectively, in vessels of the one country, shall, in like manner, be permitted to be imported into and exported from those ports in vessels of the other.

3. All articles not of the growth, produce, or manufacture of the dominions of his Britannic Majesty, which can legally be imported from the United Kingdom of Great Britain and Ireland, into the ports of Prussia, in British ships, shall be subject only to the same duties as are payable upon the like articles if imported in Prussian ships; and the same reciprocity shall be observed in the ports of the United Kingdom, in respect to all articles not the growth, produce, or manufacture of the dominions of his Prussian Majesty, which can legally be imported into the ports of the United Kingdom in Prussian ships.

4. All goods, which can legally be imported into the ports of either country, shall be admitted at the same rate of duty, whether imported in vessels of the other country, or in national vessels; and all goods which can be legally exported from the ports of either country, shall be entitled to the same bounties, drawbacks, and allowances, whether exported in vessels of the other country, or in national vessels.

5. No priority or preference shall be given, directly or indirectly, by the Government of either country, or by any company, corporation, or agent, acting on its behalf or under its authority, in the purchase of any article, the growth, produce, or manufacture of either country, imported into the other, on account of or in reference to the character of the vessel in which such article was imported; it being the true intent and meaning of the high contracting parties that no distinction or difference whatever shall be made in this respect.

6. The present convention shall be in force for the term of 10 years from the date hereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other, at the end of the said term of 10 years: and it is hereby agreed between them, that, at the expiration of 12 months after such notice shall have been received by either party from the other, this convention, and all the provisions thereof, shall altogether cease and determine.

7. The present convention shall be ratified, and the ratifications shall be exchanged at London, within 1 month from the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 2nd day of April, in the year of our Lord 1824.

GEORGE CANNING.
W. HUSKISSON.
WERTHER.

An order in council, dated May 25, 1824, directs that, from May 1, 1824, Prussian vessels entering or departing from the ports of the United Kingdom of Great Britain and Ireland, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on British vessels entering or departing from such ports; that all articles of the growth, produce, or manufacture of any of the dominions of his Prussian Majesty, which are or shall be permitted to be imported into or exported from the ports of the United Kingdom of Great Britain and Ireland in British vessels, shall, in like manner, be permitted to be imported into and exported from the said ports in Prussian vessels; that all articles not of the growth, produce, or manufacture of the dominions of his Prussian Majesty, which can legally be imported from Prussia into the ports of the United Kingdom in Prussian vessels, shall be subject only to the same duties as are payable upon the like articles if imported in British ships; that all goods which can legally be imported into the ports of the United Kingdom shall be admitted at the same rate of duty, when imported in Prussian vessels, that is charged on similar articles imported in British vessels; and that all goods which can be legally exported from the ports of the United Kingdom, shall be entitled to the same bounties,

drawbacks, and allowances, when exported in Prussian vessels, that are granted, paid, or allowed on similar articles when exported in British vessels.

A Treasury letter, dated October 13, 1824, directs, that with respect to pilotage and all other duties charged on vessels belonging to Prussia, Sweden, and Norway, Denmark, Hanover, and Hamburg, which have entered or which may enter the ports of the United Kingdom, either from stress of weather or from any other causes, it was the intention of the lords of the committee of Privy Council for Trade, that such dues should not be higher than are charged upon British vessels, and that it is only to the case of goods imported into this country, and not brought direct from the country to which the vessel belongs, that the equality of duty does not apply.

An order in council, dated May 3, 1823, states, that his Majesty is pleased to declare, that the ships of and belonging to the dominions of his Majesty the King of Prussia are entitled to the privileges granted by the law of navigation, and may import from the dominions of his Majesty the King of Prussia, into any of the British possessions abroad, goods the produce of such dominions, and may export goods from such British possessions abroad, to be carried to any foreign country whatever.

Prussia, Bavaria &c.

Convention of Commerce and Navigation between Great Britain, on the one part; and Prussia, Bavaria, Saxony, Wurtemberg, Baden, the Electorate of Hesse, the Grand Duchy of Hesse, the States forming the Commercial Union of Thuringia, Nassau, and Frankfort, on the other part. March 2, 1841.

Article 1. In consideration of the circumstance that British vessels are admitted, together with their cargoes, to entry in the ports of Prussia, and of the other states of the aforenamed Union of Customs, when coming from the ports of all countries, and in consideration of the concessions stipulated in this present convention for British trade with all the states of this Union of Customs; in consideration also of the facility which the application of steam power to inland navigation affords for the conveyance of produce and merchandise of all kinds up and down rivers; and in consideration of the new opening which may by these means be given to the trade and navigation between the United Kingdom and the British possessions abroad on the one hand, and the states now composing the Union of Customs on the other; some of which states use as the natural outlet of their commerce ports not within their own dominions; it is agreed that, from and after the date of the exchange of the ratifications of this present convention, Prussian vessels, and the vessels of the other states forming the said Union of Customs, together with their cargoes, consisting of all such goods as can be legally imported into the United Kingdom and the British possessions abroad, by the said vessels from the ports of the countries to which they respectively belong, shall, when coming from the mouths of the Meuse, of the Ems, of the Weser, and of the Elbe, or from the mouths of any navigable river lying between the Elbe and the Meuse, and forming the means of communication between the sea and the territory of any of the German states which are parties to this treaty, be admitted into the ports of the United Kingdom, and of the British possessions abroad, in as full and ample a manner, as if the ports from which such vessels may have come, as aforesaid, were within the dominions of Prussia, or of any other of the states aforesaid; and such vessels shall be permitted to import the goods above mentioned upon the same terms on which the said goods might be imported if coming from the national ports of such vessels; and also that, in like manner, such vessels proceeding from Great Britain and her colonial possessions abroad to the places thus referred to, shall be treated as if returning to a Prussian Baltic port: it being understood that these privileges are to extend to the vessels of Prussia and of the states aforesaid, and to their cargoes, only in respect to each of the said ports in which British vessels and their cargoes shall, upon their arrival thereat, and departure therefrom, continue to be placed on the same footing as the vessels of Prussia and of the other states of the union.

2. The King of Prussia, in his own name, and in the name of the states aforesaid, agrees to place, always and in every way, the trade and navigation of the subjects of her Britannic Majesty, in respect to the importation of sugar and rice, upon the same footing as that of the most favoured nation.

3. In the event of other German states joining the Germanic Union of Customs, it is hereby agreed that such other states shall be included in all the stipulations of the present convention.

4. The present convention shall be in force until the 1st of January, 1842, and further for the term of 6 years, provided neither of the high contracting parties shall have given to the other 6 months' previous notice that the same shall cease to be in force on the said 1st of January, 1842; and if neither party shall have given to the other 6 months' previous notice that the present convention shall cease on the first day of January, 1848, then the present convention shall further remain in force until the 1st of January, 1854, and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same, each of the high contracting parties reserving to itself the right of giving such notice to the other; and it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this convention, and all the provisions thereof, shall altogether cease and determine.

The present convention shall be ratified, and the ratifications thereof shall be exchanged at London, at the expiration of 2 months, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 2nd day of March, in the year of our Lord 1841.

Palmerston.
H. Labouchere.

By an order in council, dated August 28, 1841, it is ordered, that Prussian vessels, and the vessels of the other states forming the German Union of Customs, together with their cargoes, consisting of all such goods as can be legally imported into the United Kingdom and the British possessions abroad, by the said vessels, from the ports of the countries to which they respectively belong, shall when coming from the mouths of the Meuse, of the Ems, of the Weser, and of the Elbe, or from the mouths of any navigable river, lying between the Elbe and the Meuse, and forming the means of communication between the sea and the territory of any of the German states, which a

parties to this treaty, be admitted into the ports of the United Kingdom and of the British possessions abroad, in as full and ample a manner as if ports from which such vessels may have come as aforesaid, and such vessels shall be permitted to import the goods above-mentioned upon the same terms on which the said goods might be imported if coming from the national ports of such vessels; and also that in like manner such vessels proceeding from Great Britain and her colonial possessions abroad, to the ports or places thus referred to, shall be treated as if returning to a Prussian Baltic port; it being understood that these privileges are to extend to the vessels or Prussia and the states aforesaid, and to their cargoes only in respect to each of the said states, which British vessels and their cargoes shall, upon their arrival thereat and departure therefrom, continue to be placed upon the same footing as the vessels of Prussia and of the other states of the union.

Treaty of Commerce between her Majesty and the Zollverein. Signed at Berlin, May 30, 1865. *Ratifications exchanged at Berlin, June* 30, 1865.

Article 1. The subjects of her Britannic Majesty who dwell either temporarily or permanently in the States of the Zollverein, and the subjects of the States of the Zollverein who dwell either temporally or permanently in the dominions or possessions of her Britannic Majesty, shall enjoy therein, in respect to the exercise of commerce and trades, the same rights as, and be subjected to no higher or other taxes than, the subjects of any third country the most favoured in those respects.

2. The produce and manufactures of the dominions and possessions of her Britannic Majesty which may be imported into the Zollverein, and the produce and manufactures of the States of the Zollverein which may be imported into the United Kingdom of Great Britain and Ireland, whether intended for consumption, warehousing, re-exportation, or transit, shall therein be treated in the same manner as, and in particular shall be subject to no higher or other duties than, the produce and manufactures of any third country the most favoured in those respects.

3. No other or higher duties shall be levied in the Zollverein on the exportation of any goods to the dominions and possessions of her Britannic Majesty, nor in the dominions and possessions of her Britannic Majesty on the exportation of any goods to the Zollverein, than are or may be levied on the exportation of the like goods to any third country the most favoured in that respect.

4. The transit of goods to and from the United Kingdom of Great Britain and Ireland shall be free from all transit duties in the Zollverein, and the transit of goods to and from the Zollverein shall be free from all transit duties in the United Kingdom of Great Britain and Ireland.

5. Any favour, privilege, or reduction in the tariff of duties of importation or exportation, which either of the contracting parties may concede to any third Power, shall be extended immediately and unconditionally to the other.

No prohibition of importation or exportation shall be established by either of them against the other, which shall not at the same time be applicable to all other nations.

The contracting parties engage not to prohibit the exportation of coal, and to levy no duty upon such exportation.

The preceding provisions respecting the prohibition of exportation shall not invalidate the obligations which the constitution of the Germanic Confederation imposes on the German States which compose the Zollverein.

6. With regard to the marks or labels of goods, or of their packages, and also with regard to patterns and marks of manufacture and trade, the subjects of the States of the Zollverein shall enjoy in the United Kingdom of Great Britain and Ireland, and the subjects of her Britannic Majesty shall enjoy in the States of the Zollverein, the same protection as native subjects.

7. The stipulations of the preceding Articles 1 to 6 shall also be applied to the colonies and foreign possessions of her Britannic Majesty. In those colonies and possessions the produce of the States of the Zollverein shall not be subject to any higher or other import duties than the produce of the United Kingdom of Great Britain and Ireland, or of any other country, of the like kind; nor shall the exportation from those colonies or possessions to the Zollverein be subject to any higher or other duties than the exportation to the United Kingdom of Great Britain and Ireland.

8. The present treaty shall come into force on the 1st of July, 1865, and shall remain in force until the 30th of June, 1877. In case neither of the contracting parties shall, 12 months before the last-mentioned day, have given notice to the other of the intention to terminate the operation of the treaty, then the same shall continue in force until the expiration of one year from the day upon which either of the contracting parties shall have given notice to the other to terminate the same.

9. The present treaty shall be ratified, and the ratifications thereof shall be exchanged at Berlin in three weeks (this term was subsequently extended by protocol to the 30th of June), or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at Berlin, the 30th day of May, in the year of our Lord 1865.

NAPIER.
JOHN WARD.
BISMARCK.
V. POMMER-ESCHE.
PHILIPSBORN.
DELBRÜCK.

RUSSIA.

Treaty of Commerce and Navigation between her Majesty and the Emperor of all the Russias; with three Separate Articles thereunto annexed. Signed at St. Petersburg, January 12, 1859.

Article 1. There shall be between all the dominions and possessions of the two high contracting parties, reciprocal freedom of commerce and navigation. The subjects of each of the two contracting parties, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all places, ports, and rivers in the dominions and possessions of the other, to which other foreigners are or may be permitted to come; and shall, throughout the whole extent of the dominions and possessions of the other, enjoy the same rights, privileges, liberties, favours, immunities, and exemptions in matters of commerce and navigation, which are or may be enjoyed by native subjects generally.

It is understood, however, that the preceding stipulations in no wise affect the laws, decrees, and special regulations regarding commerce, industry, and police, in vigour in each of the

two countries, and generally applicable to all foreigners.

2. No other or higher duties shall be imposed on the importation into the dominion and possessions of her Britannic Majesty, of any article the growth, produce, or manufacture of the dominions and possessions of his Majesty the Emperor of all the Russias, from whatever place arriving, and no other or higher duties shall be imposed on the importation into the dominions and possessions of his Majesty the Emperor of all the Russias, of any article the growth, produce, or manufacture of her Britannic Majesty's dominions and possessions, from whatever place arriving, than are or shall be pabable on the like article, the growth, produce, or manufacture of any other foreign country; nor shall any prohibition be imposed on the importation of any article the growth, produce, or manufacture of the dominions and possessions of either of the two contracting parties into the dominions and possessions of the other, which shall not equally extend to the importation of the like articles being the growth, produce, or manufacture of any other country.

3. No other or higher duties or charges shall be imposed in the dominions and possessions of either of the contracting parties, on the exportation of any article to the dominions and possessions of the other, than such as are, or may be, payable on the exportation of the like article to any other foreign country; nor shall any prohibition be imposed on the exportation of any article from the dominions and possessions of either of the two contracting parties to the dominions and possessions of the other, which shall not equally extend to the exportation of the like article to any other country.

4. The same reciprocal equality of treatment shall take effect in regard to warehousing, and to the transit trade, and also in regard to bounties, facilities, and drawbacks, which are or may be hereafter granted by the legislation of either country.

5. All merchandise and articles of commerce, the produce or manufacture either of the dominions and possessions of his Majesty the Emperor of all the Russias, or of any other country, which are or may be legally importable into the ports of the United Kingdom of Great Britain and Ireland, its dominions and possessions, in British vessels, may likewise be imported into those ports in Russian vessels, without being liable to any other or higher duties, of whatever denomination, than if such merchandise and articles were imported in British vessels; and reciprocally, all merchandise and articles of commerce, the produce or manufacture either of the United Kingdom of Great Britain and Ireland, its dominions and possessions, or of any other country, which are or may be legally importable into the ports of the dominions and possessions of his Majesty the Emperor of all the Russias, in Russian vessels, may likewise be imported into those ports in British vessels, without being liable to any other or higher duties, of whatever denomination, than if such merchandise and articles were imported in Russian vessels. Such reciprocal equality of treatment shall take effect without distinction, whether such merchandise and articles come directly from the place of origin, or from any other place.

In the same manner, there shall be perfect equality of treatment in regard to exportation, so that the same export duties shall be paid, and the same bounties and drawbacks allowed, in the dominions and possessions of either of the high contracting parties, on the exportation of any article which is or may be legally exportable therefrom, without distinction, whether such exportation shall take place in Russian or in British vessels, and whatever may be the place of destination, whether a port of the other contracting party, or of any third power.

6. No duties of tonnage, harbour, pilotage, lighthouse, quarantine, or other similar or corresponding duties of whatever nature, or under whatever denomination, levied in the name or for the profit of Government, public functionaries, private individuals, corporations, or establishments of any kind, shall be imposed in the ports of either country upon the vessels of the other country, which shall not equally and under the same conditions be imposed in the like cases on national vessels in general; the intention of the two high contracting parties being that, save certain exemptions which the shipping of some ports of the United Kingdom of Great Britain and Ireland enjoys from old times, in this respect there shall not exist in their respective dominions and possessions, in regard to the above-mentioned duties, any privilege or preference whatever favouring the national flag to the prejudice of the flag of the other party. Such equality of treatment shall apply reciprocally to the respective vessels, from whatever port or place they may arrive, and whatever may be their place of destination.

7. In all that regards the stationing, loading, and unloading of vessels in the ports, basins, docks, roadsteads, harbours, or rivers of the two countries, no privilege shall be granted to national vessels which shall not be equally granted to vessels of the other country; the intention of the contracting parties being that in this respect also the respective vessels shall be treated on the footing of perfect equality.

8. The stipulations of the preceding articles shall not apply to the coasting trade, which each of the high contracting parties shall regulate according to its own laws.

The vessels of each of the two contracting parties shall, however, be at liberty, according as the captain, proprietor, or other person duly authorised to act as agent for the vessel or cargo, shall consider advisable, to proceed from one port of one of the two States to one or several ports of the same State, in order to discharge the whole or part of their cargo brought from abroad, or in order to take in or complete their cargo, without paying other duties than those to which national vessels are, or may hereafter be liable in similar cases.

9. All vessels which according to the laws of Great Britain are to be deemed British vessels, and all vessels which according to the laws of the Empire of Russia are to be deemed Russian vessels, shall for the purposes of this treaty be deemed British and Russian vessels respectively.

10. Her Britannic Majesty engages that in all matters relating to commerce and navigation, the subjects of his Majesty the Emperor of all the Russians shall, in the British dominions, be entitled to every privilege, favour, and immunity which is actually granted, or may hereafter be granted, by her Britannic Majesty to the subjects or citizens of any other power; and his Majesty the Emperor of all the Russias, actuated by a desire to foster and extend the commercial relations of the two countries, engages that any privilege, favour, or immunity whatever, in regard to commerce and navigation which his Imperial Majesty has actually granted, or may hereafter grant, to the subjects or citizens of any other state, shall be extended to the subjects of her Britannic Majesty.

11. The subjects of either of the two high contracting parties, conforming themselves to the laws of the country, shall have—

(1) Full liberty, with their families, to enter, travel, or reside in any part of the dominions and possessions of the other contracting party.

(2) They shall be permitted, in the towns and ports, to hire or possess the houses, warehouses, shops, and premises, which may be necessary for them.

(3) They may carry on their commerce, either in person or by any agents whom they may think fit to employ.

(4) They shall not be subject, in respect of their persons or property, or in respect of passports, licenses for residence or establishment, nor in respect of their commerce or industry, to any taxes, whether general or local, nor to imposts or obligations of any kind whatever, other or greater than those which are or may be imposed upon native subjects.

12. The dwellings and warehouses of the subjects of either of the two high contracting parties in the dominions and possessions of the other, and all premises appertaining thereto, destined for purposes of residence or commerce, shall be respected. If there should be occasion to make a search of, or a domiciliatory visit to, such dwellings and premises, or to examine or inspect books, papers, or accounts, such measure shall be executed only in conformity with the legal warrant or order in writing of a tribunal, or of the competent authority.

The subjects of either of the two contracting parties in the dominions and possessions of the other shall have free access to the courts of justice for the prosecution and defence of their rights. They shall enjoy in this respect the same rights and privileges as subjects of the country, and shall, like them, be at liberty to employ, in all causes, their advocates, attorneys, or agents from among the persons admitted to the exercise of those professions according to the laws of the country.

13. The subjects of either of the two contracting parties in the dominions and possessions of the other shall be at full liberty to acquire, possess, and dispose of every description of property which the laws of the country may permit any foreigners, of whatsoever nation, to acquire and possess. They may acquire and dispose of the same, whether by purchase, sale, donation, exchange, marriage, testament, succession *ab intestato*, or in any other manner, under the same conditions as are established by the laws of the country for all foreigners. Their heirs and representatives may succeed to and take possession of such property, either in person or by agents acting on their behalf, in the same manner and in the same legal forms as subjects of the country. In the absence of heirs and representatives, the property shall be treated in the same manner as the like property belonging to a subject of the country under similar circumstances.

In none of these respects shall they pay upon the value of such property any other or higher impost, duty, or charge, than is payable by subjects of the country. In every case the subjects of the contracting parties shall be permitted to export their property, or the proceeds thereof if sold, freely, and without being subjected on such exportation to pay any duty as foreigners, or any other or higher duties than those to which subjects of the country are liable under similar circumstances.

14. The subjects of either of the two high contracting parties in the dominions and possessions of the other, shall be exempted from all compulsory military service whatever, whether in the army, navy, or national guard or militia. They shall be equally exempted from all judicial and municipal charges and functions whatever, as well as from all contributions, whether pecuniary or in kind, imposed as a compensation for personal service; and, finally, from forced loans and military exactions or requisitions.

In regard, however, to judicial and municipal charges and functions, those shall be excepted which are consequent upon the possession of real property or of a lease; and in regard to military exactions and requisitions, those which all subjects of the country may be required to furnish as landed proprietors or as farmers.

15. It shall be free for each of the two high contracting parties to appoint consuls-general, consuls, vice-consuls, and consular agents, to reside in the towns and ports of the dominions and possessions of the other. Such consuls-general, consuls, vice-consuls, and consular agents, however, shall not enter upon their functions until after they shall have been approved and admitted in the usual form by the Government to which they are sent. They shall exercise whatever functions, and enjoy whatever privileges, exemptions, and immunities are or shall be granted there to consuls of the most favoured nation.

16. Any ship of war or merchant-vessel of either of the high contracting parties which may be compelled by stress of weather or by accident to take shelter in a port of the other, shall be at liberty to refit therein, to procure all necessary stores, and to put to sea again, without paying any dues other than such as would be payable in a similar case by a national vessel. In case, however, the master of a merchant vessel should be under the necessity of disposing of a part of his merchandise in order to defray his expenses, he shall be bound to conform to the regulations and tariffs of the place to which he may have come.

If any ship of war or merchant vessel of one of the high contracting parties should run aground or be wrecked upon the coasts of the other, such ship or vessel, and all parts thereof, and all furniture and appurtenances belonging thereunto, and all goods and merchandise saved therefrom, including any which may have been cast into the sea, or the proceeds thereof if sold, as well as all papers found on board such stranded or wrecked ship or vessel, shall be given up to the owners or their agents when claimed by them. If there are no such owners or agents on the spot, then the same shall be delivered to the British or Russian consul-general, consul, or vice-consul in whose district the wreck or stranding may have taken place, upon being claimed by him within the period fixed by the laws of the country; and such consuls, owners, or agents, shall pay only the expenses incurred in the preservation of the property, together with the salvage, or other expenses, which would have been payable in the like case of a wreck of a national vessel.

The goods and merchandise saved from the wreck shall be exempt from all duties of customs, unless cleared for consumption, in which case they shall pay the same rate of duty as if they had been imported in a national vessel.

In the case either of a vessel being driven in by stress of weather, run aground, or wrecked, the respective consuls-general, consuls, vice-consuls, and consular agents shall, if the owner or master or other agent of the owner is not present, or is present and requires it, be authorised to interpose in order to afford the necessary assistance to their fellow-countrymen.

17. The consuls-general, consuls, vice-consuls, and consular agents of either of the high contracting parties, residing in the dominions and possessions of the other, shall receive from the local authorities such assistance as can by law be given to them for the recovery of deserters from ships of war or merchant vessels of their respective countries.

18. The Ionian Islands being under the protection of her Britannic Majesty, the subjects and vessels of those Islands shall enjoy, in the dominions and possessions of his Majesty the Emperor of Russia, all the advantages which are granted by the present treaty to the subjects and vessels of Great Britain, as soon as the Government of the Ionian Islands shall have agreed to grant the same reciprocal advantages in those islands to Russian subjects and vessels; it being understood that, in order to prevent abuses, every Ionian vessel claiming the benefits of the present treaty shall be furnished with a patent signed by the lord high commissioner or his representative.

19. The stipulations of the present treaty shall be applicable to all vessels navigating under the Russian flag, without any distinction between the Russian Mercantile Marine, properly so called, and that which belongs more particularly to the Grand Duchy of Finland, which forms an integral part of the empire of Russia.

In regard to commerce and navigation in the Russian possessions on the north-west coast of America, the convention concluded at St. Petersburg on the $\frac{16}{28}$th of February, 1825, shall continue in force.

20. The high contracting parties being desirous to secure, each within its own dominions, complete and effectual protection against fraud for the manufactures of the other, have agreed that any piracy, or fraudulent imitation in one of the two countries of the manufacturers' or tradesmen's marks originally affixed, bonâ fide, to goods produced in the other, in attestation of their origin and quality, shall be strictly prohibited and repressed. Her Britannic Majesty engages to recommend to her Parliament to adopt such measures as may be required to enable her to give the more complete execution to the stipulations of this article.

21. The high contracting parties reserve to themselves to determine hereafter, by a special convention, the means of reciprocally protecting copyright in works of literature and of the fine arts, within their respective dominions.

22. The present treaty of commerce and navigation shall remain in force for ten years from the date of the exchange of the ratifications; and further, until the expiration of twelve months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other at the expiration of the first nine years, or at any time afterwards.

The present treaty shall be ratified, and the ratification shall be exchanged at London in six weeks or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at St. Petersburg, this $\frac{12\text{th day of January,}}{31\text{st day of December,}}$ in the year of our Lord $\frac{1859}{1858}$.

JOHN F. CRAMPTON.
PRINCE A. GORTCHACOW.

I. The commercial intercourse of Russia with the kingdoms of Sweden and Norway being regulated by special stipulations, which may hereafter be renewed, and which do not form part of the regulations applicable to foreign commerce in general, the two high contracting parties, being desirous of removing from their commercial relations every kind of doubt or cause for discussion, have agreed that those special stipulations granted in favour of the commerce of Sweden and Norway, in consideration of equivalent advantages granted in those countries to the commerce of the Grand Duchy of Finland, shall in no case apply to the relations of commerce and navigation established between the two high contracting parties by the present treaty.

II. It is equally understood that the exemptions, immunities, and privileges hereinafter mentioned, shall not be considered as at variance with the principle of reciprocity which forms the basis of the treaty of this date, that is to say:—

1. The exemption from navigation dues during the first three years, which is enjoyed by vessels built in Russia, and belonging to Russian subjects:

2. The permission granted to the inhabitants of the coast of the Government of Archangel, to import duty free, or on payment of moderate duties, into the ports of the said Government, dried or salted fish, as likewise certain kinds of furs, and to export therefrom, in the same manner, corn, rope, and cordage, pitch, and ravens-duck:

3. The privilege of the Russian American Company:

4. The immunities granted in Russia to certain English and Netherland Companies, called 'Yacht Clubs.'

III. The present separate articles shall have the same force and validity as if they were inserted, word for word, in the treaty signed this day. They shall be ratified, and the ratifications thereof exchanged at the same time.

In witness whereof &c.

SIAM.

Treaty of Friendship and Commerce between her Majesty the Queen of the United Kingdom and the Kings of Siam.

Article 1. There shall henceforward be perpetual peace and friendship between her Majesty and her successors, and their Majesties the Kings of Siam and their successors. All British subjects coming to Siam shall receive from the Siamese Government full protection and assistance to enable them to reside in Siam in all security, and trade with every facility, free from oppression or injury on the part of the Siamese; and all Siamese subjects going to an English country shall receive from the British Government the same complete protection and assistance that shall be granted to British subjects by the Government of Siam.

2. The interests of all British subjects coming to Siam shall be placed under the regulation and control of a consul, who will be appointed to reside at Bangkok: he will himself conform to, and will enforce the observance by British subjects of, all the provisions of this treaty, and such of the former treaty negotiated by Captain Burney, in 1826, as shall still remain in operation. He shall also give effect to all rules or regulations that are now or may hereafter be enacted for the government of British subjects in Siam, the conduct of their trade, and for the prevention of violations of the laws of Siam. Any disputes

arising between British and Siamese subjects shall be heard and determined by the consul, in conjunction with the proper Siamese officers; and criminal offences will be punished, in the case of English offenders, by the consul, according to English laws, and in the case of Siamese offenders, by their own laws, through the Siamese authorities. But the consul shall not interfere in any matters referring solely to Siamese, neither will the Siamese authorities interfere in questions which only concern the subjects of her Britannic Majesty.

It is understood, however, that the arrival of the British consul at Bangkok shall not take place before the ratification of this treaty, nor until 10 vessels owned by British subjects, sailing under British colours and with British papers, shall have entered the port of Bangkok for purposes of trade, subsequent to the signing of this treaty.

3. If Siamese in the employ of British subjects offend against the laws of their country, or if any Siamese having so offended, or desiring to desert, take refuge with a British subject in Siam, they shall be searched for, and, upon proof of their guilt or desertion, shall be delivered up by the consul to the Siamese authorities. In like manner, any British offenders resident or trading in Siam, who may desert, escape to, or hide themselves in, Siamese territory, shall be apprehended and delivered over to the British consul on his requisition. Chinese, not able to prove themselves to be British subjects, shall not be considered as such by the British consul, nor be entitled to his protection.

4. British subjects are permitted to trade freely in all the seaports of Siam, but may reside permanently only at Bangkok, or within the limits assigned by this treaty. British subjects coming to reside at Bangkok may rent land, and buy or build houses, but cannot purchase lands within a circuit of 200 *sen* (not more than four miles English) from the city walls, until they shall have lived in Siam for ten years, or shall obtain special authority from the Siamese Government to enable them to do so. But with the exception of this limitation, British residents in Siam may at any time buy or rent houses, lands, or plantations, situated anywhere within a distance of twenty-four hours' journey from the city of Bangkok, to be computed by the rate at which boats of the country can travel. In order to obtain possession of such lands or houses, it will be necessary that the British subjects shall, in the first place, make application through the consul to the proper Siamese officer; and the Siamese officer and the consul having satisfied themselves of the honest intentions of the applicant, will assist him in settling, upon equitable terms, the amount of the purchase-money, will mark out and fix the boundaries of the property, and will convey the same to the British purchaser under sealed deeds. Whereupon he and his property shall be placed under the protection of the Governor of the district and that of the particular local authorities; he shall conform, in ordinary matters, to any just directions given him by them, and will be subject to the same taxation that is levied on Siamese subjects. But if through negligence, the want of capital, or other cause, a British subject should fail to commence the cultivation or improvement of the lands so acquired within a term of three years from the date of receiving possession thereof, the Siamese Government shall have the power of resuming the property, upon returning to the British subject the purchase-money paid by him for the same.

5. All British subjects intending to reside in Siam shall be registered at the British consulate. They shall not go out to sea, nor proceed beyond the limits assigned by this treaty for the residence of British subjects, without a passport from the Siamese authorities, to be applied for by the British consul; nor shall they leave Siam, if the Siamese authorities show to the British consul that legitimate objections exist to their quitting the country. But within the limits appointed under the preceding article, British subjects are at liberty to travel to and fro under the protection of a pass, to be furnished them by the British consul, and counter-sealed by the proper Siamese officer, stating, in the Siamese character, their names, calling, and description. The Siamese officers at the Government stations in the interior may, at any time, call for the production of this pass, and immediately on its being exhibited, they must allow the parties to proceed; but it will be their duty to detain those persons who, by travelling without a pass from the consul, render themselves liable to the suspicion of their being deserters; and such detention shall be immediately reported to the consul.

6. All British subjects visiting or residing in Siam shall be allowed the free exercise of the Christian religion, and liberty to build churches in such localities as shall be consented to by the Siamese authorities. The Siamese Government will place no restrictions upon the employment by the English of Siamese subjects as servants, or in any other capacity. But wherever a Siamese subject belongs or owes service to some particular master, the servant who engages himself to a British subject without the consent of his master may be reclaimed by him; and the Siamese Government will not enforce an agreement between a British subject and any Siamese in his employ, unless made with the knowledge and consent of the master, who has a right to dispose of the services of the person engaged.

7. British ships of war may enter the river, and anchor at Paknam, but they shall not proceed above Paknam, unless with the consent of the Siamese authorities, which shall be given where it is necessary that a ship shall go into dock for repairs. Any British ship of war conveying to Siam a public functionary accredited by her Majesty's Government to the Court of Bangkok, shall be allowed to come up to Bangkok, but shall not pass the forts called Pong Phrachamit and Pit-patch-nuck, unless expressly permitted to do so by the Siamese Government; but in the absence of a British ship of war, the Siamese authorities engage to furnish the consul with a force sufficient to enable him to give effect to his authority over British subjects, and to enforce discipline among British shipping.

8. The measurement duty hitherto paid by British vessels trading to Bangkok under the treaty of 1826 shall be abolished from the date of this treaty coming into operation, and British shipping and trade will thenceforth be only subject to the payment of import and export duties on the goods landed or shipped. On all articles of import the duties shall be 3 per cent., payable at the option of the importer, either in kind or money, calculated upon the market value of the goods. Drawback of the full amount of duty shall be allowed upon goods found unsaleable and re-exported. Should the British merchant and the Custom-house officers disagree as to the value to be set upon imported articles, such disputes shall be referred to the consul and proper Siamese officer, who shall each have the power to call in an equal number of merchants as assessors,

not exceeding two on either side, to assist them in coming to an equitable decision.

Opium may be imported free of duty, but can only be sold to the opium farmer or his agents. In the event of no arrangement being effected with them for the sale of the opium, it shall be re-exported, and no impost or duty shall be levied thereon. Any infringement of this regulation shall subject the opium to seizure and confiscation.

Articles of export from the time of production to the date of shipment shall pay one impost only, whether this be levied under the name of inland tax, transit duty, or duty on exportation. The tax or duty to be paid on each article of Siamese produce previous to or upon exportation, is specified in the tariff attached to this treaty; and it is distinctly agreed that goods or produce which pay any description of tax in the interior shall be exempted from any further payment of duty on exportation.

English merchants are to be allowed to purchase directly from the producer the articles in which they trade, and in like manner to sell their goods directly to the parties wishing to purchase the same, without the interference, in either case, of any other person.

The rates of duty laid down in the tariff attached to this treaty are those that are now paid upon goods or produce shipped in Siamese or Chinese vessels or junks; and it is agreed that British shipping shall enjoy all the privileges now exercised by, or which hereafter may be granted to, Siamese or Chinese vessels or junks.

British subjects will be allowed to build ships in Siam, on obtaining permission to do so from the Siamese authorities.

Whenever a scarcity may be apprehended, of salt, rice, and fish, the Siamese Government reserve to themselves the right of prohibiting, by public proclamation, the exportation of these articles.

Bullion, or personal effects, may be imported or exported free of charge.

9. The code of regulations appended to this treaty shall be enforced by the consul, with the co-operation of the Siamese authorities: and they, the said authorities and consul, shall be enabled to introduce any further regulations which may be found necessary, in order to give effect to the objects of this treaty.

All fines and penalties inflicted for infraction of the provisions and regulations of this treaty shall be paid to the Siamese Government.

Until the British consul shall arrive at Bangkok and enter upon his functions, the consignees of British vessels shall be at liberty to settle with the Siamese authorities all questions relating to their trade.

10. The British Government and its subjects will be allowed free and equal participation in any privileges that may have been, or may hereafter be granted by the Siamese Government to the government or subjects of any other nation.

11. After the lapse of ten years from the date of the ratification of this treaty, upon the desire of either the British or Siamese Government, and on twelve months' notice given by either party, the present and such portions of the treaty of 1826 as remain unrevoked by this treaty, together with the tariff and regulations hereunto annexed, or those that may hereafter be introduced, shall be subject to revision by commissioners appointed on both sides for this purpose, who will be empowered to decide on and insert therein such amendments as experience shall prove to be desirable.

The ratifications were exchanged at Bangkok on April 5, 1856.

General Regulations under which British Trade is to be conducted in Siam.

1. The master of every English ship coming to Bangkok to trade, must, either before or after entering the river, as may be found convenient, report the arrival of his vessel at the custom-house at Paknam, together with the number of his crew and guns, and the port from whence he comes. Upon anchoring his vessel at Paknam, he will deliver into the custody of the custom-house officers all his guns and ammunition: and a custom-house officer will then be appointed to the vessel, and will proceed in her to Bangkok.

2. A vessel passing Paknam without discharging her guns and ammunition as directed in the foregoing regulation, will be sent back to Paknam to comply with its provisions, and will be fined 800 ticals for having so disobeyed. After delivery of her guns and ammunition she will be permitted to return to Bangkok to trade.

3. When a British vessel shall have cast anchor at Bangkok, the master, unless a Sunday should intervene, will, within four-and-twenty hours after arrival, proceed to the British consulate, and deposit there his ship's papers, bills of lading &c., together with a true manifest of his import cargo; and upon the consul's reporting these particulars to the custom-house, permission to break bulk will at once be given by the latter.

For neglecting so to report his arrival, or for presenting a false manifest, the master will subject himself, in each instance, to a penalty of 400 ticals; but he will be allowed to correct, within twenty-four hours after delivery of it to the consul, any mistake he may discover in his manifest, without incurring the above mentioned penalty.

4. A British vessel breaking bulk, and commencing to discharge before due permission shall be obtained, or smuggling either when in the river or outside the bar, shall be subject to the penalty of 800 ticals, and confiscation of the goods so smuggled or discharged.

5. As soon as a British vessel shall have discharged her cargo, and completed her outward lading, paid all her duties, and delivered a true manifest of her outward cargo to the British consul, a Siamese port-clearance shall be granted her on application from the consul, who, in the absence of any legal impediment to her departure, will then return to the master his ship's papers, and allow the vessel to leave. A custom-house officer will accompany the vessel to Paknam, and on arriving there she will be inspected by the custom-house officers of that station, and will receive from them the guns and ammunition previously delivered into their charge.

Tariff of Export and Inland Duties to be levied on Articles of Trade.

I. The undermentioned articles shall be entirely free from inland or other taxes, on production or transit, and shall pay export duties as follows:—

	Tical	Salung	Fuang	Hun	
1. Ivory	10	0	0	0	per picul
2. Gamboge	6	0	0	0	"
3. Rhinoceros' horns	50	0	0	0	"
4. Cardamoms, best	14	0	0	0	"
5. bastard	8	0	0	0	"
6. Dried mussels	1	0	0	0	"
7. Pelicans' quills	2	2	0	0	"
8. Betel nut, dried	1	0	0	0	"
9. Kraché wood	0	2	0	0	"
10. Sharks' fins, white	6	0	0	0	"
11. black	3	0	0	0	"
12. Lukkrabau seed	0	2	0	0	"
13. Peacocks' tails	10	0	0	0	Over 100 tails
14. Buffalo and cow bones	0	0	0	3	per picul
15. Rhinoceros' hides	0	2	0	0	"
16. Hide cuttings	0	1	0	0	"
17. Turtle shells	1	0	0	0	"
18. Soft do.	1	0	0	0	"
19. Bêche de mer	3	0	0	0	"
20. Fish maws	3	0	0	0	"

		Tical	Salung	Fuang	Hun	
21.	Birds' nests, uncleaned	20 per cent.				
22.	Kingfishers' feathers	6	0	0	0	per 100
23.	Gutch	0	2	0	0	per pecul
24.	Beyché seed (Nux vomica)	0	2	0	0	"
25.	Pungtarai seed	0	2	0	0	"
26.	Gum Benjamin	4	0	0	0	"
27.	Angrai bark	0	2	0	0	"
28.	Agilla wood	2	0	0	0	"
29.	Ray skins	3	0	0	0	"
30.	Old deer's horns	0	1	0	0	"
31.	Soft, or young do.	10 per cent.				[hides
32.	Deer hides, fine	8	0	0	0	per 100
33.	common	3	0	0	0	"
34.	Deer sinews	4	0	0	0	per pecul
35.	Buffalo and cow hides	1	0	0	0	"
36.	Elephants' bones	1	0	0	0	"
37.	Tigers' bones	5	0	0	0	"
38.	Buffalo horns	0	1	0	0	"
39.	Elephant's hides	0	1	0	0	"
40.	Tigers' skins	0	1	0	0	per skin
41.	Armadillo skins	4	0	0	0	per pecul
42.	Sticklac	1	1	0	0	"
43.	Hemp	1	2	0	0	"
44.	Dried fish. *Plahang*	1	2	0	0	"
45.	*Plaslit*	1	0	0	0	"
46.	Sapan wood	0	2	1	0	"
47.	Salt meat	2	0	0	0	"
48.	Mangrove bark	0	1	0	0	"
49.	Rosewood	0	2	0	0	"
50.	Ebony	1	1	0	0	"
51.	Rice	4	0	0	0	per koyan

II. The undermentioned articles being subject to the inland or transit duties herein named, and which shall not be increased, shall be exempt from export duty.

		Tical	Salung	Fuang	Hun.	
52.	Sugar, white	0	2	0	0	per pecul
53.	red	0	1	0	0	
54.	Cotton, clean and uncleaned	10 per cent.				
55.	Pepper	1	0	0	0	per pecul
56.	Salt fish, *Plalu*	1	0	0	0	per 10,000 fish
57.	Beans and Peas	One-twelfth				
58.	Dried Prawns	One-twelfth				
59	Tilseed	One-twelfth				
60.	Silk, raw	One twelfth				
61.	Bees'-wax	One-fifteenth				
62.	Tallow	1	0	0	0	per pecul
63.	Salt	6	0	0	0	per koyan
64.	Tobacco	1	2	0	0	per 1,000 bdl.

III. All goods or produce unenumerated in this tariff shall be free of export duty, and shall only be subject to one inland tax or transit duty, not exceeding the rate now paid.

TURKEY.

***Capitulations and Articles of Peace between Great Britain and the Ottoman Empire, as agreed upon, augmented, and altered, at different Periods, and, finally, confirmed by the Treaty of Peace concluded at the Dardanelles, in* 1809.**

SULTAN MEHEMED,

MAY HE LIVE FOR EVER.

'*Let everything be done in conformity to these capitulations, and contrary thereto let nothing be done.*'

Article 1. The English nation and merchants, and all other merchants sailing under the English flag, with their vessels and merchandise of all descriptions, may pass safely by sea, and go and come into dominions, without any the least prejudice or molestation being given to their persons, property, or effects, by any person whatsoever; but they shall be left in the undisturbed enjoyment of their privileges, and be at liberty to attend to their affairs.

2. If any of the English coming into our dominions by land be molested or detained, such persons shall be instantly released, without any further obstruction being given to them

3. English vessels entering the ports and harbours of our dominions shall and may at all times safely and securely abide and remain therein, and at their free will and pleasure depart therefrom, without any opposition or hindrance from anyone.

4. If it shall happen that any of their ships suffer by stress of weather, and not be provided with necessary stores and requisites, they shall be assisted by all who happen to be present, whether the crews of our Imperial ships, or others, both by sea and land.

5. Being come into the ports and harbours of our dominions, they shall and may be at liberty to purchase at their pleasure, with their own money, provisions and all other necessary articles, and to provide themselves with water, without interruption or hindrance from anyone.

6. If any of their ships be wrecked upon any of the coasts of our dominions, all beys, cadis, governors, commandants, and others our servants, who may be near or present, shall give them all help, protection, and assistance, and restore to them whatsoever goods and effects may be driven ashore; and in the event of any plunder being committed they shall make diligent search and enquiry to find out the property, which, when recovered, shall be wholly restored by them.

7. The merchants, interpreters, bankers, and others of the said nation, shall and may, both by sea and land, come into our dominions, and there trade with the most perfect security; and in coming and going, neither they nor their attendants shall receive any the least obstruction, molestation, or injury, either in their persons or property, from the beys, cadis, sea captains, soldiers, and others our slaves.

17. Our ships and galleys, and all other vessels, which may fall in with any English ships in the seas of our dominions, shall not give them any molestation, nor detain them by demanding anything, but shall show good and mutual friendship the one to the other, without occasioning them any prejudice.

19. If the corsairs or galliots of the Levant be found to have taken any English vessels, or robbed or plundered them of their goods and effects, also if anyone shall have forcibly taken anything from the English, all possible diligence and exertion shall be used and employed for the discovery of the property, and inflicting condign punishment on those who may have committed such depredations; and their ships, goods, and effects shall be restored to them without delay or intrigue.

21. Duties shall not be demanded or taken of the English or of the merchants sailing under the flag of that nation, on any piastres and sequins they may import into our sacred dominions, or on those they may transport to any other place.

36. English merchants, and all others sailing under their flag, may freely and unrestrictedly, trade and purchase all sorts of merchandise (prohibited commodities alone excepted), and convey them, either by land or sea, or by the way of the river Tanais, to the countries of Muscovy or Russia, and bring back thence other merchandise into our sacred dominions, for the purposes of traffic, and also transport others to Persia and other conquered countries.

38. Should the ships bound for Constantinople be forced by contrary winds to put into Caffa, or any other place of those parts, and not be disposed to buy or sell anything, no one shall presume forcibly to take out or seize any part of their merchandise, or give to the ships or crews any molestation, or obstruct the vessels that are bound to these ports.

40. On their ships arriving at any port, and landing their goods, they may, after having paid their duties, safely and securely depart, without experiencing any molestation.

41. English ships bound to Constantinople, Alexandria, Tripoli of Syria, Scanderoon, or other ports of our sacred dominions, shall in future be bound to pay duties, according to custom, on such goods only as they shall, of their own free

will, land with a view to sale; and for such merchandise as they shall not discharge, no duty shall be demanded, neither shall the least molestation or hindrance be given to them.

44. English and other merchants navigating under their flags, who trade to Aleppo, shall pay such duties on the silks, brought and laden by them on board their ships, as are paid by the French and Venetians, and not one asper more.

55. The Imperial fleet, galleys, and other vessels, departing from our sacred dominions, and falling in with English ships at sea, shall in no wise molest or detain them, nor take from them anything whatsoever. English ships shall no longer be liable to any further search, or exaction at sea, under colour of search or examination.

70. English ships coming to the ports of Constantinople, Alexandria, Smyrna, Cyprus, and other ports of our sacred dominions, shall pay 300 aspers for anchorage duty, without an asper more being demanded of them.

72. No molestation shall be given to any of the aforesaid nation buying camlets, mohairs, or grogram yarn, at Angora and Beghbazar, and desirous of exporting the same from thence, after having paid the duty of 3 per cent., by any demand of customs for the exportation thereof, neither shall one asper more be demanded of them.

75. That it being represented to us that English merchants have been accustomed hitherto to pay no custom or scale duty, either on the silks bought by them at Brussa and Constantinople or on those which come from Persia and Georgia, and are purchased by them at Smyrna from the Armenians; if such usage or custom really exists, and the same be not prejudicial to the empire, such duty shall not be paid in future.

(N.B.—These capitulations may be found entire in Hertslet's *Treaties*; and in Chitty's *Commercial Law*, vol. ii. pp. 290–511. Appen.)

Treaty between Great Britain and the Sublime Porte, concluded at the Dardanelles, the 5th of January, 1809.

Article 1. From the moment of signing the present treaty, every act of hostility between England and Turkey shall cease.

5. In return for the indulgence and good treatment afforded by the Sublime Porte to English merchants, with respect to their goods and property as well as in all matters tending to facilitate their commerce, England shall reciprocally extend every indulgence and friendly treatment to the flags, subjects, and merchants of the Sublime Porte, which may hereafter frequent the dominions of his Britannic Majesty for the purpose of commerce.

The last Custom-house tariff established at Constantinople, at the ancient rate of 3 per cent., and particularly the article relating to the interior commerce, shall continue to be observed, as they are at present regulated, and to which England promises to conform.

English patents of protection shall not be granted to dependents, or merchants who are subjects of the Sublime Porte, nor shall any passport be delivered to such persons, on the part of ambassadors or consuls, without permission previously obtained from the Sublime Porte.

Done near the Castles of the Dardanelles, the 5th of January, 1809, which corresponds with the year of the Hegira 1223, the 19th day of the moon Zilkaade.

Seyd Mehemmed Emin Vaaid Effendi.
Robert Adair.

Treaty of Commerce and Navigation between her Majesty and the Sultan. Signed at Kanlidja, April 29, 1861. Ratifications exchanged at Constantinople, July 9, 1861.

Article 1. All rights, privileges, and immunities which have been conferred on the subjects or ships of Great Britain by the existing capitulations and treaties, are confirmed now and for ever, with the exception of those clauses of the said capitulations which it is the object of the present treaty to modify; and it is moreover expressly stipulated, that all rights, privileges, or immunities which the Sublime Porte now grants or may hereafter grant to, or suffer to be enjoyed by, the subjects, ships, commerce, or navigation of any other foreign Power, shall be equally granted to, and exercised and enjoyed by, the subjects, ships, commerce, and navigation of Great Britain.

2. The subjects of her Britannic Majesty, or their agents, shall be permitted to purchase, at all places in the Ottoman dominions and possessions (whether for the purposes of internal trade or of exportation) all articles, without any exception whatsoever, the produce or manufacture of the said dominions and possessions; and the Sublime Porte having, in virtue of the second Article of the convention of commerce of August 16, 1838, formally engaged to abolish all monopolies of agricultural produce or of any other articles whatsoever, as well as all permits (*teskeres*) from the local governors, either for the purchase of any article, or for its removal from one place to another, when purchased, any attempt to compel the subjects of her Britannic Majesty to receive such permits from the local governors shall be considered as an infraction of treaties, and the Sublime Porte shall immediately punish with severity any viziers or other officers who shall have been guilty of such misconduct, and shall render full justice to British subjects for all injuries or losses which they may duly prove themselves to have suffered thereby.

3. If any article of Turkish produce or manufacture be purchased by British merchants or their agents, for the purpose of selling the same for internal consumption in Turkey, the said British merchants or their agents shall pay, at the purchase and sale of such articles, and in any manner of trade therein, the same duties that are paid in similar circumstances by the most favoured class of Ottoman subjects, or of foreigners engaged in the internal trade of Turkey.

4. No other or higher duties or charges shall be imposed in the dominions and possessions of either of the contracting parties, on the exportation of any article to the dominions and possessions of the other, than such as are or may be payable on the exportation of the like article to any other foreign country; nor shall any prohibition be imposed on the exportation of any article from the dominions and possessions of either of the two contracting parties to the dominions and possessions of the other, which shall not equally extend to the exportation of the like article to any other country.

No charge or duty whatsoever will be demanded on any article of Turkish produce or manufacture purchased by British subjects or their agents, either at the place where such article is purchased, or in its transit from that place to the place whence it is exported, at which it will be subject to an export duty not exceeding eight per cent. calculated on the value at the place of shipment, and payable on exportation; and all articles which shall once have paid this duty shall not again be

liable to the same duty, however they may have changed hands, within any part of the Ottoman dominions.

It is furthermóre agreed that the duty of eight per cent. above mentioned will be annually reduced by one (1) per cent., until it shall be in this manner finally reduced to a fixed duty of one (1) per cent. ad valorem, destined to cover the general expenses of administration and control.

5. No other or higher duties shall be imposed on the importation into the dominions and possessions of her Britannic Majesty, of any article the produce or manufacture of the dominions and possessions of his Imperial Majesty the Sultan, from whatever place arriving, whether by sea or by land, and no other or higher duties shall be imposed on the importation into the dominions and possessions of his Imperial Majesty, of any article the produce or manufacture of her Britannic Majesty's dominions and possessions, from whatever place arriving, than are or may be payable on the like article the produce or manufacture of any other foreign country; nor shall any prohibition be maintained or imposed on the importation of any article the produce or manufacture of the dominions and possessions of either of the contracting parties into the dominions and possessions of the other, which shall not equally extend to the importation of the like articles being the produce or manufacture of any other country.

His Imperial Majesty further engages that, save as hereinafter excepted, he will not prohibit the importation into his dominions and possessions of any article the produce or manufacture of the dominions and possessions of her Britannic Majesty, from whatever place arriving; and that the duties to be imposed on any article the produce or manufacture of the dominions or possessions of her Britannic Majesty imported into the dominions or possessions of his Imperial Majesty, shall in no case exceed one fixed rate of eight (8) per cent. ad valorem, or a specific duty, fixed by common assent, equivalent thereto.

Such rate shall be calculated upon the value of such articles at the wharf, and shall be payable at the time of their being landed, if brought by sea, or at the first custom-house they may reach, if brought by land.

If these articles, after having paid the import duty of eight (8) per cent., are sold either at the place of their arrival or in the interior of the country, neither the buyer nor the seller shall be charged with any further duty in respect to them; and if such articles should not be sold for consumption in Turkey, but should be re-exported within the space of six months, the same shall be considered as merchandise in transit by land, and be treated as is stated in Article XII.; the administration of the customs being bound to restore at the time of their re-exportation to the merchant, who shall be required to furnish proof that the goods in question have paid the import duty of eight (8) per cent., the difference between that duty and the duty levied on goods in transit by land, as set forth in the Article above cited.

6. It is understood that any article the produce or manufacture of a foreign country, intended for importation into the united principalities of Moldo-Wallachia, or into the principality of Servia, which shall pass through any other part of the Ottoman dominions, will not be liable to the payment of customs duty until it reaches those principalities; and on the other hand, that any article of foreign produce or manufacture passing through those principalities, but destined for some other part of the Ottoman dominions, will not be liable to the payment of customs duty until such article reaches the first custom-house under the direct administration of the Sublime Porte.

The same course shall be followed with respect to any article the produce or manufacture of those principalities, as well as with respect to any article the produce or manufacture of any other portion of the Ottoman dominions, intended for exportation: such articles will be liable to the payment of customs duties, the former to the custom-house of the aforesaid principalities, and the latter to the Ottoman custom-house, the object being, that neither import nor export duties shall in any case be payable more than once.

7. The subjects of one of the contracting parties shall enjoy, in the dominions and possessions of the other, equality of treatment with native subjects in regard to warehousing, and also in regard to bounties, facilities, and drawbacks.

8. All articles which are or may be legally importable into the dominions and possessions of her Britannic Majesty, in British vessels, may likewise be imported in Ottoman vessels without being liable to any other or higher duties, or charges, of whatever denomination, than if such articles were imported in British vessels; and reciprocally, all articles which are or may be legally importable into the dominions and possessions of his Imperial Majesty the Sultan in Ottoman vessels, may likewise be imported in British vessels, without being liable to any other or higher duties or charges, of whatever denomination, than if such articles were imported in Ottoman vessels. Such reciprocal equality of treatment shall take effect without distinction, whether such articles come directly from the place of origin or from any other country.

In the same manner, there shall be perfect equality of treatment in regard to exportation, so that the same export duties shall be paid, and the same bounties and drawbacks allowed, in the dominions and possessions of either of the contracting parties, on the exportation of any article which is or may be legally exportable therefrom, whether such exportation shall take place in Ottoman or in British vessels, and whatever may be the place of destination, whether a port of either of the contracting parties or of any third power.

9. No duties of tonnage, harbour, pilotage, lighthouse, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, levied in the name or for the profit of Government, public functionaries, private individuals, corporations, or establishments of any kind, shall be imposed in the ports of the dominions and possessions of either country upon the vessels of the other country, which shall not equally and under the same conditions be imposed in the like cases on national vessels in general. Such equality of treatment shall apply reciprocally to the respective vessels, from whatever port or place they may arrive, and whatever may be their place of destination.

10. All vessels which according to British law are to be deemed British vessels, and all vessels which according to Ottoman law are to be deemed Ottoman vessels, shall for the purposes of this treaty be deemed British and Ottoman vessels respectively.

11. No charge whatsoever shall be made upon British goods being the produce or manufacture of the British dominions or possessions, whether in British or other ships, nor upon any goods the produce or manufacture of any other foreign country carried in British ships, when the same

shall pass through the straits of the Dardanelles or of the Bosporus, whether such goods shall pass through those straits in the ships that brought them, or shall have been transhipped to other vessels; or whether, after having been sold for exportation, they shall, for a certain limited time, be landed in order to be placed in other vessels for the continuance of their voyage.

In the latter case the goods in question shall be deposited at Constantinople in the magazines of the custom-house, called *transit* magazines; and in any other places where there is no entrepôt, they shall be placed under the charge of the administration of the customs.

12. The Sublime Porte desiring to grant by means of gradual concessions all facilities in its power to transit by land, it is stipulated and agreed that the duty of three (3) per cent. levied up to this time on articles imported into Turkey in their passage through Turkey to other countries, shall be reduced to two (2) per cent., payable, as the duty of three per cent. has been paid hitherto, on arriving in the Ottoman dominions; and at the end of eight years, to be reckoned from the day of the exchange of the ratifications of the present treaty, to a fixed and definite tax of one (1) per cent., which shall be levied, as is to be the case with respect to Turkish produce exported, to defray the expense of registration.

The Sublime Porte at the same time declares that it reserves to itself the right to establish, by a special enactment, the measures to be adopted for the prevention of fraud.

13. Her Britannic Majesty's subjects, or their agents, trading in goods the produce or manufacture of foreign countries, shall be subject to the same taxes, and enjoy the same rights, privileges, and immunities as foreign subjects dealing in goods, the produce or manufacture of their own country.

14. An exception to the stipulations laid down in the fifth article shall be made in regard to tobacco, in any shape whatsoever, and also in regard to salt, which two articles shall cease to be included among those which the subjects of her Britannic Majesty are permitted to import into the Ottoman dominions.

British subjects, however, or their agents, buying or selling tobacco or salt for consumption in Turkey, shall be subject to the same regulations, and shall pay the same duties, as the most favoured Ottoman subjects trading in the two articles aforesaid: and furthermore, as a compensation for the prohibition of the two articles above mentioned, no duty whatsoever shall in future be levied on those articles when exported from Turkey by the subjects of her Britannic Majesty.

British subjects shall, nevertheless, be bound to declare the quantity of tobacco and salt thus exported, to the proper custom-house authorities, who shall, as heretofore, have the right to watch over the export of these articles, without thereby being entitled to levy any tax thereon on any pretence whatsoever.

15. It is understood between the two high contracting parties, that the Sublime Porte reserves to itself the faculty and right of issuing a general prohibition against the importation into the Ottoman dominions of gunpowder, cannon, arms of war, or military stores; but such prohibition will not come into operation until it shall have been officially notified, and will apply only to the articles mentioned in the decree enacting the prohibition. Any of these articles which have not been so specifically prohibited, shall, on being imported into the Ottoman dominions, be subject to the local regulations, unless her Britannic Majesty's embassy shall think fit to apply for a special license, which license will in that case be granted, provided no valid objection thereto can be alleged.

Gunpowder, in particular, when allowed to be imported, will be liable to the following stipulations:—

1st. It shall not be sold by subjects of her Britannic Majesty in quantities exceeding the quantities prescribed by the local regulations.

2ndly. When a cargo or a large quantity of gunpowder arrives in an Ottoman port on board a British vessel, such vessel shall be anchored at a particular spot to be designated by the local authorities, and the gunpowder shall thence be conveyed, under the inspection of such authorities, to depôts or fitting places designated by the Government, to which the parties interested shall have access under due regulations.

Fowling-pieces, pistols, and ornamental or fancy weapons, as also small quantities of gunpowder for sporting, reserved for private use, shall not be subject to the stipulations of the present article.

16. The firmans required for British merchant-vessels, on passing through the Dardanelles and the Bosporus, shall always be delivered in such manner as to occasion to such vessels the least possible delay.

17. The captains of British merchant-vessels, with goods on board destined for the Ottoman empire, shall be obliged, immediately on their arrival at the port to which they are bound, to deposit in the custom-house of the said port a true copy of their manifest.

18. Contraband goods will be liable to confiscation by the Ottoman treasury; but a report or procès-verbal of the alleged act of contraband must, as soon as the said goods are seized by the authorities, be drawn up and communicated to the consular authority of the foreign subject to whom the goods said to be contraband shall belong; and no goods can be confiscated as contraband, unless the fraud with regard to them shall be duly and legally proved.

19. All merchandise, the produce or manufacture of the Ottoman dominions and possessions, imported into the dominions and possessions of her Britannic Majesty, shall be treated in the same manner as the like merchandise the produce or manufacture of the most favoured nation.

All rights, privileges, or immunities which are now or may hereafter be granted to, or suffered to be enjoyed by, the subjects, ships, commerce, or navigation of any foreign Power in the British dominions or possessions, shall be equally granted to, and exercised and enjoyed by, the subjects, ships, commerce, and navigation of the Ottoman Porte.

20. The present treaty, when ratified, shall be substituted for the convention concluded between the two high contracting parties on the 16th of August, 1838, and shall remain in force for twenty-eight years from the day of the exchange of the ratifications; each of the high contracting parties being, however, at liberty to give to the other, at the end of fourteen years (that time being fixed, as the provisions of this treaty will then have come into full force), notice for its revision, or for its determination at the expiration of a year from the date of that notice, and so again at the end of twenty-one years.

The present treaty shall receive its execution in all and every one of the provinces of the Ottoman empire, that is to say, in all the possessions of his Imperial Majesty the Sultan situated in Europe

or in Asia, in Egypt and in the other parts of Africa belonging to the Sublime Porte, in Servia, and in the united principalities of Moldavia and Wallachia.

The Sublime Porte declares that she is ready to grant to other foreign Powers who may seek to obtain them, the commercial advantages contained in the stipulations of the present treaty.

21. It is always understood that her Britannic Majesty does not pretend, by any Article in the present treaty, to stipulate for more than the plain and fair construction of the terms employed, nor to preclude in any manner the Ottoman Government from the exercise of its rights of internal administration, where the exercise of those rights does not evidently infringe upon the privileges accorded by ancient treaties, or by the present treaty, to British subjects or British merchandise.

22. The high contracting parties have agreed to appoint, jointly, commissioners for the settlement of a tariff of custom-house duties, to be levied in conformity with the stipulations of the present treaty, as well upon merchandise of every description being the produce or manufacture of the British dominions and possessions imported into the Sultan's dominions and possessions, as upon articles of every description the produce or manufacture of the dominions and possessions of the Sultan, which British subjects or their agents are free to purchase in any part of the Ottoman dominions and possessions for exportation to Great Britain or to any other country.

The new tariff to be so concluded shall remain in force during seven years, dating from the first of October, one thousand eight hundred and sixty-one.

Each of the contracting parties shall have the right, a year before the expiration of that term, to demand the revision of the tariff. But if, during the seventh year, neither the one nor the other of the contracting parties shall avail itself of this right, the tariff then existing shall continue to have the force of law for seven more years, dating from the day of the expiration of the seven preceding years; and the same shall be the case with respect to every successive period of seven years.

23. The present treaty shall be ratified, and the ratifications shall be exchanged at Constantinople in two calendar months, or sooner if possible, and shall be carried into execution from the first of October, one thousand eight hundred and sixty-one.

Done at Kanlidja, on the twenty-ninth day of April, one thousand eight hundred and sixty-one.

HENRY L. BULWER.
AALI.

UNITED STATES.

Convention of Commerce between Great Britain and the United States of America. Signed at London, the 3rd of July, 1815.

Article 1. There shall be between all the territories of his Britannic Majesty in Europe, and the territories of the United States, a reciprocal liberty of commerce. The inhabitants of the two countries respectively shall have liberty freely and securely to come with their ships and cargoes to all such places, ports, and rivers in the territories aforesaid, to which other foreigners are permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; and also to hire and occupy houses and warehouses for the purpose of their commerce; and generally the merchants and traders of each nation respectively shall enjoy the most complete protection and security for their commerce; but subject always to the laws and statutes of the two countries respectively.

2. No higher or other duties shall be imposed on the importation into the territories of his Britannic Majesty in Europe, of any articles, the growth, produce, or manufacture of the United States, and no higher or other duties shall be imposed on the importation into the United States, of any articles, the growth, produce, or manufacture of his Britannic Majesty's territories in Europe, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any other foreign country; nor shall any higher or other duties or charges be imposed in either of the two countries on the exportation of any articles to his Britannic Majesty's territories in Europe, or to the United States, respectively, than such as are payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation or importation of any articles, the growth, produce, or manufacture of the United States, or of his Britannic Majesty's territories in Europe, to or from the said territories of his Britannic Majesty in Europe, or to or from the said United States, which shall not equally extend to all other nations.

No higher or other duties or charges shall be imposed in any of the ports of the United States on British vessels, than those payable in the same ports by vessels of the United States; nor in the ports of any of his Britannic Majesty's territories in Europe on the vessels of the United States, than shall be payable in the same ports on British vessels.

The same duties shall be paid on the importation into the United States of any articles, the growth, produce, or manufacture of his Britannic Majesty's territories in Europe, whether such importation shall be in the vessels of the United States, or in British vessels; and the same duties shall be paid on the importation into the ports of any of his Britannic Majesty's territories in Europe of any articles, the growth, produce, or manufacture of the United States, whether such importation shall be in British vessels, or in vessels of the United States.

The same duties shall be paid, and the same bounties allowed, on the exportation of any articles, the growth, produce, or manufacture of his Britannic Majesty's territories in Europe, to the United States, whether such exportation shall be in vessels of the United States, or in British vessels; and the same duties shall be paid, and the same bounties allowed, on the exportation of any articles, the growth, produce, or manufacture of the United States, to his Britannic Majesty's territories in Europe, whether such exportation shall be in British vessels, or in vessels of the United States.

It is further agreed, that in all cases where drawbacks are or may be allowed upon the re-exportation of any goods, the growth, produce, or manufacture of either country respectively, the amount of the said drawbacks shall be the same, whether the said goods shall have been originally imported in a British or American vessel; but when such re-exportation shall take place from the United States in a British vessel, or from the territories of his Britannic Majesty in Europe in an American vessel, to any other foreign nation, the two contracting parties reserve to themselves, respectively, the right of regulating or diminishing, in such case, the amount of the said drawback.

The intercourse between the United States and his Britannic Majesty's possessions in the West Indies, and on the continent of North America, shall not be affected by any of the provisions of this article, but each party shall remain in the complete possession of its rights, with respect to such an intercourse.

3. His Britannic Majesty agrees that the vessels of the United States of America shall be admitted and hospitably received at the principal settlements of the British dominions in the East Indies, viz. *Calcutta*, *Madras*, *Bombay*, and *Prince of Wales' Island*, and that the citizens of the said United States may freely carry on trade between the said principal settlements and the said United States, in all articles of which the importation and exportation respectively, to and from the said territories, shall not be entirely prohibited; provided only, that it shall not be lawful for them, in any time of war between the British Government and any state or power whatever, to export from the said territories, without the special permission of the British Government, any military stores, or naval stores, or rice. The citizens of the United States shall pay for their vessels, when admitted, no higher or other duty or charge than shall be payable on the vessels of the most favoured European nations, and they shall pay no higher or other duties or charges on the importation or exportation of the cargoes of the said vessels, than shall be payable on the same articles when imported or exported in the vessels of the most favoured European nations.

But it is expressly agreed, that the vessels of the United States shall not carry any articles from the said principal settlements to any port or place, except to some port or place in the United States of America, where the same shall be unladen.

It is also understood, that the permission granted by this article is not to extend to allow the vessels of the United States to carry on any part of the coasting trade of the said British territories; but the vessels of the United States, having in the first instance proceeded to one of the said principal settlements of the British dominions in the East Indies, and then going with their original cargoes, or any part thereof, from one of the said principal settlements to another, shall not be considered as carrying on the coasting trade. The vessels of the United States may also touch for refreshments, but not for commerce, in the course of their voyage to or from the British territories in India, or to or from the dominions of the Emperor of China, at the Cape of Good Hope, the island of St. Helena, or such other places as may be in the possession of Great Britain, in the African or Indian seas; it being well understood, that in all that regards this article, the citizens of the United States shall be subject in all respects to the laws and regulations of the British Government from time to time established.

4. It shall be free for each of the two contracting parties respectively to appoint consuls, for the protection of trade, to reside in the dominions and territories of the other party; but before any consul shall act as such, he shall in the usual form be approved and admitted by the Government to which he is sent; and it is hereby declared, that in case of illegal and improper conduct towards the laws or Government of the country to which he is sent, such consul may either be punished according to law, if the laws will reach the case, or be sent back, the offended Government assigning to the other the reasons for the same.

It is hereby declared, that either of the contracting parties may except from the residence of consuls such particular places as such party shall judge fit to be so excepted.

5. This convention, when the same shall have been duly ratified by his Britannic Majesty and by the President of the United States, by and with the advice and consent of their Senate, and the respective ratifications mutually exchanged, shall be binding and obligatory on his Majesty and on the said United States for 4 years from the date of its signature; and the ratifications shall be exchanged in 6 months from this time, or sooner if possible.

Done at London, the 3rd of July, 1815.

FRED. J. ROBINSON.
HENRY GOULBURN.
WILLIAM ADAMS.
JOHN Q. ADAMS.
H. CLAY.
ALBERT GALATIN.

This convention was subsequently prolonged by conventions for that purpose in 1818 and 1827.

Convention between Great Britain and the United States of America. Signed at London, October 20, 1818.

Article 1. Whereas differences have arisen respecting the liberty claimed by the United States for the inhabitants thereof, to take, dry, and cure fish, on certain coasts, bays, harbours, and creeks, of his Britannic Majesty's dominions in America, it is agreed between the high contracting parties, that the inhabitants of the said United States shall have for ever, in common with the subjects of his Britannic Majesty, the liberty to take fish of every kind on that part of the coast of Newfoundland which extends from Cape Ray to the Rameau Islands, on the western and northern coasts of Newfoundland, from the said Cape Ray to the Quirpon Islands, on the shores of the Magdalen Islands, and also on the coasts, bays, harbours, and creeks, from Mount Joly, on the southern coast of Labrador, to and through the Straits of Belleisle, and thence northwardly indefinitely along the coast, without prejudice, however, to any of the exclusive rights of the Hudson Bay Company: and that the American fishermen shall also have liberty, for ever, to dry and cure fish in any of the unsettled bays, harbours, and creeks of the southern part of the coast of Newfoundland, and of the coast of Labrador; but so soon as the same, or any portion thereof, shall be settled, it shall not be lawful for the said fishermen to dry or cure fish, without previous agreement for such purpose with the inhabitants, proprietors, or possessors of the ground. And the United States hereby renounce for ever any liberty heretofore enjoyed or claimed by the inhabitants thereof to take, dry, or cure fish on or within 3 marine miles of any of the coasts, bays, creeks, or harbours of his Britannic Majesty's dominions in America, not included within the above-mentioned limits: provided, however, that the American fishermen shall be admitted to enter such bays or harbours for the purpose of shelter and of repairing damages therein, of purchasing wood, and of obtaining water, and for no other purpose whatever; but they shall be under such restrictions as may be necessary to prevent their taking, drying, or curing fish therein, or in any other manner abusing the privileges hereby reserved to them.

2. It is agreed that a line drawn from the most north-western point of the Lake of the Woods, along the 49th parallel of north latitude, or if the said point shall not be in the 49th parallel of north latitude, then that a line drawn from the said point due north or south, as the case may be, until

the said line shall intersect the said parallel of north latitude, and from the point of such intersection due west along and with the said parallel, shall be the line of demarcation between the territories of the United States and those of his Britannic Majesty, and that the said line shall form the northern boundary of the said territories of the United States, and the southern boundary of the territories of his Britannic Majesty, from the Lake of the Woods to the Stony Mountains.

3. It is agreed that any country that may be claimed by either party on the north-west coast of America, westward of the Stony Mountains, shall, together with its harbours, bays, and creeks, and the navigation of all rivers within the same, be free and open, for the term of 10 years from the date of the signature of the present convention, to the vessels, citizens, and subjects of the two Powers: it being well understood that this agreement is not to be construed to the prejudice of any claim which either of the two high contracting parties may have to any part of the said country, nor shall it be taken to affect the claims of any other Power or State to any part of the said country, the only object of the high contracting parties, in that respect, being to prevent disputes and differences among themselves.

4. All the provisions of the convention to 'regulate the commerce between the territories of the United States and of his Britannic Majesty, concluded at London,' on July 3, in the year of our Lord 1815, with the exception of the clause which limited its duration to 4 years, and excepting, also, so far as the same was affected by the declaration of his Majesty, respecting the island of St. Helena, are hereby extended and continued in force for the term of 10 years from the date of the signature of the present convention, in the same manner as if all the provisions of the said convention were herein specially recited.

5. Whereas it was agreed by the first article of the treaty of Ghent, that 'all territory, places, and possessions whatever, taken by either party from the other during the war, or which may be taken after the signing of this treaty, excepting only the islands hereinafter mentioned, shall be restored without delay, and without causing any destruction, or carrying away any of the artillery, or other public property originally captured in the said forts or places, which shall remain therein upon the exchange of the ratifications of this treaty, or any slaves, or other private property;' and whereas, under the aforesaid article, the United States claim for their citizens, and as their private property, the restitution of, or full compensation for, all slaves who at the date of the exchange of the ratifications of the said treaty were in any territory, place, or possessions whatsoever, directed by the said treaty to be restored to the United States, but then still occupied by the British forces, whether such slaves were, at the date aforesaid, on shore, or on board any British vessel lying in waters within the territory or jurisdiction of the United States; and whereas differences have arisen, whether by the true intent and meaning of the aforesaid Article of the treaty of Ghent, the United States are entitled to the restoration of, or full compensation for, all or any slaves as above described, the high contracting parties hereby agree to refer the said differences to some friendly sovereign or state to be named for that purpose: and the high contracting parties further engage to consider the decision of such friendly sovereign or state to be final and conclusive on all the matters referred.

6. This convention, when the same shall have been duly ratified by the President of the United States, by and with the advice and consent of their senate, and by his Britannic Majesty, and the respective ratifications mutually, shall be binding and obligatory on the said United States and on his Majesty; and the ratifications shall be exchanged in 6 months from this date, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have thereunto affixed the seal of their arms.

Done at London, October 20, 1818.

ALBERT GALATIN.
RICHARD RUSH.
FREDERICK JOHN ROBINSON.
HENRY GOULBURN.

URUGUAY.

Treaty of Amity, Commerce, and Navigation between her Majesty and the Oriental Republic of the Uruguay. Signed at London, August 26, 1842.

Article 1. There shall be perpetual peace and amity between the dominions and subjects of her Majesty the Queen of the United Kingdom of Great Britain and Ireland, her heirs and successors, and the Oriental Republic of the Uruguay and its citizens.

2. There shall be between all the territories of her Britannic Majesty in Europe, and the territories of the Oriental Republic of the Uruguay, a reciprocal freedom of commerce. The subjects and citizens of the two countries, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all places, ports, and rivers in the territories aforesaid, to which other foreigners are or may be permitted to come; to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purposes of their commerce; and, generally, the merchants and traders of each nation shall enjoy, within the territories of the other, the most complete protection and security for their commerce; subject always to the laws and statutes of the land.

In like manner the respective ships of war and post-office packets of the two countries shall have liberty freely and securely to come to all harbours, rivers, and places, in either country, to which other foreign ships of war and packets are or may be permitted to come; and they shall be allowed to enter into the same, to anchor and to remain there and refit; subject always to the laws and statutes of the two countries respectively.

It is hereby declared, that the stipulations of the present article are not to be understood as applying to the navigation and carrying trade between one port and another, situated in the dominions of either contracting party; such navigation and trade being reserved exclusively to national vessels.

3. There shall be reciprocal liberty of commerce and navigation between and amongst the subjects and citizens of the two high contracting parties; and the subjects and citizens of the two countries respectively shall not pay in the ports, harbours, roads, cities, towns, or places whatsoever in either country, any other or higher duties, taxes, or imposts, under whatsoever names designated or included, than those which are there paid by the subjects or citizens of the most favoured nations and the subjects and citizens of each of the high contracting parties shall enjoy the same rights, privileges, liberties, favours, immunities, and exemptions, in matters of commerce and navigation, that are granted or may hereafter be granted in

either country to the subjects or citizens of the most favoured nation.

No duty of customs or other impost shall be charged upon any goods the produce of one country, upon importation by sea or by land from such country into the other, higher than the duty or impost charged upon goods of the same kind, the produce of or imported from any other country. And her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and the Oriental Republic of the Uruguay, do hereby bind and engage themselves not to grant any favour, privilege, or immunity, in matters of commerce and navigation, to the subjects or citizens of any other state, which shall not be also and at the same time extended to the subjects or citizens of the other high contracting party; gratuitously, if the concession in favour of that other state shall have been gratuitous; and on giving as nearly as possible the same compensation or equivalent, in case the concession shall have been conditional.

4. No higher or other duties or payments on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any local charges, shall be imposed in any of the ports of the one country upon the vessels of the other, than are payable in those ports upon national vessels.

5. The same duties shall be paid on all articles, the growth, produce, or manufacture of her Britannic Majesty's dominions, when imported into the territories of the Oriental Republic of the Uruguay, whether such articles be imported in vessels of the said republic, or in British vessels; and the same duties shall be paid on all articles the growth, produce, or manufacture of the said republic, when imported into the dominions of her Britannic Majesty, whether such articles be imported in British vessels or in vessels of the said republic. The same duties shall be paid, and the same bounties and drawbacks allowed, on all articles the growth, produce, or manufacture of her Britannic Majesty's dominions, when exported to the said republic of the Uruguay, whether such articles be exported in vessels of the said republic, or in British vessels; and the same duties shall be paid, and the same bounties and drawbacks allowed, on all articles the growth, produce, or manufacture of the said republic, when exported to the dominions of her Britannic Majesty, whether such articles be exported in British vessels, or in vessels of the said republic.

6. In order to avoid any misunderstanding with respect to the regulations which may respectively determine what shall be considered a British vessel, or a vessel of the Oriental Republic of the Uruguay, when engaged in commerce between the two countries, it is hereby agreed, that all vessels built in the dominions of her Britannic Majesty, or having been made prize of war and condemned as such, or having been forfeited under any law made for the prevention of the slave trade, and condemned in any competent court for a breach of such law, and which shall be owned and navigated by subjects of her Majesty, and whereof the master and three-fourths at least of the mariners shall be subjects of her Britannic Majesty, and which shall be registered according to the laws of Great Britain, shall be considered as British vessels; and that all vessels built within the territory of the said Oriental Republic of the Uruguay, or having been made prize of war and condemned as such, or having been forfeited under any law made for the prevention of the slave trade, and condemned in any competent court for a breach of such law, or being of bonâ fide British construction, built in any port of her Britannic Majesty's dominions, and acquired by purchase; and which shall be owned and navigated by citizens of the said republic, and whereof the master and three-fourths at least of the mariners shall be citizens of the said republic, or matriculated subjects of her Britannic Majesty, and which shall be registered according to the laws of the said republic, shall be considered as vessels of the said Oriental Republic of the Uruguay, so far as shall relate to any commercial rights or privileges in the several ports of her Britannic Majesty's dominions.

And it is further agreed, that no ship considered as being the ship of either country shall be qualified to trade as above described under the provisions of this treaty, unless she be furnished with a register, passport, or sea-letter, under the signature of the proper person authorised to grant the same, according to the laws of the respective countries, and in a form to be reciprocally communicated by the two Governments to each other. Such register, passport, or sea-letter shall certify the name, occupation, and residence of the owner or owners in the dominions of her Britannic Majesty, or in the territories of the Oriental Republic of the Uruguay, as the case may be; shall declare that he or they is or are the sole owner of the ship, or owners in the proportion to be specified; and shall state the name, burden, and description of the vessel, as to build and measurement; and if the vessel is of foreign build, of what country, and, as far as may be possible, when and from whom purchased; and all other particulars constituting the national character of the vessel, as the case may be.

7. The subjects of her Britannic Majesty shall have full liberty, in all the territories of the Oriental Republic of the Uruguay, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as broker, factor, agent, or interpreter; and they shall not be obliged to employ any other persons in those capacities than those employed by the citizens of the Oriental Republic of the Uruguay; and they shall not be restrained in their choice of persons to act in such capacities, nor be obliged to pay them any other salary or remuneration, than such as is paid in like cases by the citizens of the said republic; and absolute freedom shall be allowed in all cases to the buyer and seller to bargain and fix the price of any goods, wares, or merchandise imported into and exported from the Oriental Republic of the Uruguay, as they shall see fit, provided they observe the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of her Britannic Majesty by the citizens of the Oriental Republic of the Uruguay, under the same conditions.

The subjects and citizens of each of the contracting parties respectively shall, in the territories of the other, receive and enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice in the said countries respectively, for the prosecution and defence of their just rights; and they shall be at liberty to employ, in all causes, the advocates, attorneys, or agents of whatever description, whom they may think proper; and they shall enjoy, in this respect, the same rights and privileges therein as native citizens.

8. In whatever relates to the police of ports; the lading and unlading of ships; the safety of merchandise, goods, and effects; the succession to personal estates by will or otherwise; and the disposal of personal property of every sort and

denomination by sale, donation, exchange, or in any other manner whatsoever; and to the administration of justice; the subjects and citizens of each of the two contracting parties shall enjoy, in the dominions and territories of the other, the same privileges, liberties, and rights, as native subjects or citizens; and they shall not be charged in any of these respects with any higher imposts or duties than those which are or may be paid by natives; conforming, of course, to the local laws and regulations of such dominions or territories.

And it is further agreed, that the subjects and citizens of the two contracting parties shall have and enjoy, in the dominions or territories of each other, the most full and perfect liberty to devise or dispose of their property and effects of every kind and denomination, and wheresoever situate, by will or testament, to such person or persons, and in such proportions, as their own free will may dictate.

If any subject or citizen of either of the two contracting parties should die without will or testament in the dominions or territories of the other, the consul-general or consul, or, in his absence, the representative of such consul-general or consul, shall have the right to nominate curators to take charge of the property of the deceased, so far as the laws of the country will permit, for the benefit of the lawful heirs and creditors of the deceased, without being interfered with by the authorities of the country, but giving to those authorities due and proper notice.

9. The subjects of her Britannic Majesty residing in the territories of the Oriental Republic of the Uruguay, and the citizens of the said republic residing in the dominions of her Britannic Majesty, shall be exempted from all compulsory military service whatsoever, either by sea or land, and from all forced loans or military exactions or requisitions.

Neither shall they be compelled, under any pretext whatsoever, to pay any charges, requisitions, or taxes, greater than those which are or may be paid by native subjects or citizens of the territories in which they reside.

10. It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but no consul shall act as such until he shall in the usual form be approved and admitted by the Government to which he is sent; and either of the contracting parties may except from the residence of consuls such particular places as they may judge fit to be excepted. The diplomatic agents and consuls of the Oriental Republic of the Uruguay, in the dominions of her Britannic Majesty, shall enjoy whatever privileges, exemptions, and immunities are or may there be granted to agents of the same rank belonging to the most favoured nation; and in like manner the diplomatic agents and consuls of her Britannic Majesty, in the territories of the Oriental Republic of the Uruguay, shall enjoy, according to the strictest reciprocity, whatever privileges, exemptions, and immunities are or may there be granted to the diplomatic agents and consuls of the most favoured nation.

11. For the better security of commerce between the subjects of her Britannic Majesty and the citizens of the Oriental Republic of the Uruguay, it is agreed, that if at any time any interruption of friendly intercourse or any rupture should unfortunately take place between the two countries, the subjects or citizens of either of the two contracting parties who may be within the territories of the other, shall, if residing upon the coasts, be allowed 4 months, and if residing in the interior, 9 months, to wind up their accounts and to dispose of their property; and a safe conduct shall be given to all such of the aforesaid persons as may choose to quit the country, to enable them to embark unmolested at the port which the Government of the country shall select. It is, moreover, further agreed, that all subjects or citizens of either of the two contracting parties who, at the time of any such interruption of friendly relations between the two countries, shall be established in the exercise of any trade or special employment in the dominions or territories of the other, shall have the privilege of remaining and of continuing such trade and employment therein, without any manner of interruption, in full enjoyment of their liberty and property, so long as they conduct themselves peaceably, and commit no offence against the laws; and their goods and effects, of whatever description, whether in their own custody or entrusted to individuals or to the state, shall not be liable to seizure or sequestration, or to any other charges or demands than those to which like effects or property belonging to native subjects or citizens may be liable. Debts between individuals, property in the public funds, and shares of companies shall never be confiscated, sequestrated, or detained.

12. The subjects of her Britannic Majesty, and the citizens of the Oriental Republic of the Uruguay, respectively, residing in the territories of the other party, shall enjoy, in their houses, persons, and properties, the protection of the Government, and continue in possession of the privileges which they now legally enjoy. They shall not be disturbed, molested, or annoyed in any manner on account of their religion, but they shall have perfect liberty of conscience, provided they respect the religion of the country in which they reside, as well as the constitution, laws, and customs of the land. They shall also have permission to celebrate divine service, according to the rites and ceremonies of their own church, either within their own private houses, or in their own particular churches or chapels, which they shall be at liberty to build and maintain in convenient places, approved of by the Government. Liberty shall also be granted to the subjects or citizens of either of the two contracting parties resident in the territories of the other, to bury, in burial-places of their own, such of their fellow-subjects or fellow-citizens who may die in such territories. Such burial-places may be freely established and maintained; and the funerals and sepulchres of the dead shall not be disturbed in any way, or upon any account.

13. The present treaty shall be in force for the term of 10 years from the date thereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same: each of the high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years, or at any subsequent time.

And it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this treaty, and all the provisions thereof, shall altogether cease and determine.

14. The present treaty shall be ratified, and the ratifications shall be exchanged at London, as soon as possible within the period of 18 months from the date thereof.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the 26th day of August, in the year of our Lord 1842.

ABERDEEN.
RIPON.
JOSE ELLAURI.

Additional Article.

Whereas by Article 9 of the treaty of amity, commerce, and navigation, concluded and signed this day between her Britannic Majesty and the Oriental Republic of the Uruguay, it is stipulated that the subjects of her Britannic Majesty residing in the said republic shall not be compelled, under any pretext whatsoever, to pay any charges, requisitions, or taxes, greater than those which are or may be paid by native citizens; and whereas, by a law of the Oriental Republic of the Uruguay, a foreigner pays for the license to open a shop, or other establishment included in the provisions of the said law, a sum greater than that which is paid by a native citizen; her Britannic Majesty engages, notwithstanding the provisions of the above-mentioned article, not to insist upon the abolition of this distinction, so long as it exists impartially with regard to the subjects or citizens of every other foreign nation.

And his Excellency the President of the Oriental Republic of the Uruguay engages, on his part, that if at any future time the amount payable by British subjects for such license should be increased, a corresponding increase shall at the same time be made in the sum payable by native citizens of the republic; so that the proportion between the sum payable by British subjects and the sum payable by citizens of the Oriental Republic of the Uruguay, respectively, shall never be altered to the prejudice of British subjects.

The present additional article shall have the same force and validity as if it were inserted, word for word, in the treaty signed this day. It shall be ratified, and the ratifications shall be exchanged at the same time.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the 26th day of August, in the year of our Lord 1842.

ABERDEEN.
RIPON.
JOSE ELLAURI.

Second Additional Article.

Whereas a strict and immediate execution of that part of Article 6 of the treaty of amity, commerce, and navigation, signed at London on the 26th of August, 1842, between her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and the Oriental Republic of the Uruguay, which stipulates that a ship must have been actually built within the territory of the Oriental Republic of the Uruguay, to be considered a ship of that republic, would, in the present state of Uruguay shipping, deprive the republic of the full advantage of the reciprocity intended to be established by the treaty; it is agreed that, for the space of 7 years from the date of the exchange of the ratifications of the said treaty, any ships, wheresoever built, being owned, navigated, and registered in conformity with the provisions of Article 6 of the treaty, shall be considered as ships of the Oriental Republic of the Uruguay; her Majesty the Queen of the United Kingdom of Great Britain and Ireland reserving to herself the right to claim, at the end of the said term of 7 years, the strict enforcement of all the stipulations contained in the said article of the treaty, relative to the conditions which are to determine the national character of vessels of the Oriental Republic of the Uruguay.

The present additional article shall have the same force and validity as if it had been inserted, word for word, in the aforesaid treaty of the 26th of August, 1842. It shall be ratified, and the ratifications shall be exchanged at the same time and place as those of the treaty.

In witness whereof, the undersigned plenipotentiaries of her Britannic Majesty, and of the Oriental Republic of the Uruguay, have signed the same, and have affixed thereto the seals of their arms.

Done at Montevideo, the 8th day of March, in the year of our Lord 1843.

J. H. MANDEVILLE.
SANTIAGO VASQUEZ.

ZOLLVEREIN.

See treaty under Prussia in this article.

TREBIZOND (anciently Trapezus, from its resemblance to a trapezium). A town of Asia Minor, on the south-east coast of the Black Sea, lat. 41° 1′ N., long. 39° 45′ 48″ E. Population estimated by Mr. Consul W. G. Palgrave, in his very instructive *Report on the Provinces of Trebizond &c.*, presented to Parliament in 1869, at 33,301. The old town is built on a rock rising rapidly from the sea. It is a place of great antiquity; and from the year 1203 to the final subversion of the Eastern empire by Mahommed II., in the 15th century was the seat of a dukedom, or, as it was sometimes called, an empire, comprising the country between the Phasis and the Halys. Its fortifications are still of some strength, at least for a Turkish city. The space included within the walls is not of great extent; but the chief part of the western town lies without these walls. The houses are mean in their outward appearance, and comfortless within. (Tournefort, *Voyage du Levant*, tome ii. pp. 231-9; Kinneir's *Journey through Asia Minor &c.* p. 338; Mr. Consul Palgrave's *Report* on Anatolian Provinces, vol. for August to December 1868, pp. 338, 339.)

The increase in the commerce of Trebizond, in consequence of its becoming the entrepôt for the transit trade with Persia as well as for the trade with the adjacent countries, led to its extension and improvement; and the stimulus so given was greatly increased by circumstances growing out of the late war with Russia.

Harbour.—Trebizond has two ports, one on the W. and one on the E. side of a small peninsula, or point of land, projecting a short way into the sea. That on the E. is the best sheltered, and is the place of anchorage for the largest ships. It is, however, exposed to all but the southerly gales; but it does not appear that, with ordinary precaution, any danger need be apprehended. The ground, from ¼ to ½ a mile E., from the point, is good sand and clay, and holds extremely well. Ships moor with open hawse to the north, and a good hawser and stream anchor on shore, as a sternfast. At night, the wind always comes off the land. There is a fixed light on the point, and there is a second light at Platana, about 6 miles west. Captain Middleton says that the only bad weather is from the N.W.; but that, though the swell be considerable, it does not cause any heavy strain upon the cables. (*Nautical Magazine*, vol. ii. p. 181.) At Platana, near Trebizond, and quite as exposed, Turkish vessels have from time immemorial rode in safety the whole winter; a satisfactory proof that the danger supposed to be incident to the roads along the coast are wholly visionary. (*Ibid.* p 214.) Mr.

Palgrave says that only one vessel within living memory has been lost in this harbour.

Trade.—In antiquity, and in more modern times, previously to the conquest of Constantinople by the Turks, and the exclusion of all foreign vessels from the Black Sea, Trebizond was the seat of an extensive trade. Anyone, indeed, who casts his eye over a map of W. Asia, must be satisfied that this city is the natural emporium of all the countries to the S.E. of the Black Sea, from Kars on the east, round by Diarbeker to Amasia on the west. Erzeroum, the principal city of Armenia, is only about 135 miles S.E. from Trebizond. Its merchants are distinguished by their superior attainments, and by their enterprise and activity. For a lengthened period they derived most part of their supplies of European commodities by way of Smyrna or Constantinople: nothing, however, but the impossibility of obtaining them at so convenient a port as Trebizond, could have made them resort to such distant markets as those now mentioned; and it may well excite surprise, considering the period during which the Black Sea has been open, that efforts were not sooner made to establish an intercourse with Armenia, Georgia, and the north-western parts of Persia, through this channel. We are glad, however, to have to state, that within these few years this has been done; and, notwithstanding the difficulties that necessarily attach to every attempt to open new channels of commerce with semi-civilised nations, the experiment has proved more than ordinarily successful.

The transit trade of Trebizond with Persia employs, according to Mr. Palgrave, about 60,000 pack horses, carrying yearly 120,000 loads, each about 3½ cwt., or 21,000 tons in all, 3,000 camels, 3,000 oxen, and 6,000 asses, and is valued at about 1,300,000*l.* yearly. There are no road dues, but a fixed 2 per cent. is charged as customs. Besides the East Anatolian inland traffic, valued at 595,000*l.*, Trebizond has an extensive trade with Batoum, Ridout Kalé, and other ports on the Black Sea; and sometimes, when the crops in the adjacent territory are deficient, it imports large quantities of corn from the Danube and Odessa. The imports from England principally consist of cotton stuffs and twist; iron, hardware, machinery, and coal; tin and tin-plates; sugar, tea, and other articles of colonial produce &c.

Account of the Nationalities, Number, Tonnage, and Crews of the Steamers that Entered and Cleared from Trebizond in 1867, with the Values of the Imports and Exports.

Nationality	Arrived					In Ballast
	Number	Tonnage	Crews	Values in Turkish Money	Values in English Money	
					£ s. d.	
Russian	104	56,014	4,015	84,550,040	287,917 0 0	..
French	86	43,565	3,106	79,947,540	666,229 10 0	..
Turkish	40	14,622	1,258	24,195,480	201,629 0 0	..
Austrian	35	16,862	1,225	50,151,212	417,927 0 0	..
Italian	20	8,760	662	32,955,450	274,462 10 0	..
British	2	1,032	50	3,437,040	28,647 0 0	..
Total	287	140,855	10,296	225,237,322	1,876,813 0 0	..
	Cleared					
Russian	104	56,014	4,015	80,192,560	251,603 0 0	..
French	86	43,565	3,106	67,686,100	564,053 0 0	..
Turkish	40	14,622	1,258	15,632,610	152,268 0 0	..
Austrian	35	16,862	1,225	47,563,680	396,364 0 0	..
Italian	20	8,760	662	18,048,840	150,407 0 0	..
British	2	1,032	50	3,075,920	25,716 0 0	..
Total	287	140,855	10,296	182,139,810	1,519,811 0 0	..

Account of British and Foreign Sailing Ships which Entered and Cleared at Trebizond in 1867.

Nationality	Entered				Cleared			
	With Cargo		In Ballast		With Cargo		In Ballast	
	No.	Tonnage	No.	Tonnage	No.	Tonnage	No.	Tonnage
British	4	2,209	2	529	6	2,738	..	..
Turkish	62	8,995	43	4,201	102	12,784	3	412
Russian	18	710	11	400	25	927	4	203
Greek	3	574	..	..	3	574	..	..
Italian	11	4,445	..	..	9	3,645	2	810
Austrian	..	..	1	419	1	419	..	..
Prussian	..	..	1	264	1	264	..	..
Mecklenburg	1	88	..	..	1	88	..	..
Total	99	16,831	58	5,837	148	21,243	9	1,425

Account of the Vessels Engaged in the Coasting Trade at Trebizond in 1867.

Nationality	Entered				Cleared			
	With Cargo		In Ballast		With Cargo		In Ballast	
	No.	Tonnage	No.	Tonnage	No.	Tonnage	No.	Tonnage
Turkish	851	16,333	41	298	870	16,686	22	145
Russian	5	390	..	..	5	390	..	..
Total	856	16,723	41	298	875	16,876	22	145

Of the exports, silk is the most important; and next to it are raisins, nuts, saffron, tobacco, copper, wax, shawls, beans, galls, leeches &c.

Money, Weights, and Measures, same as at Constantinople.

Port Regulations.—When a vessel arrives at Trebizond, the master comes ashore to the Health Office, to exhibit his bill of health, and, after undergoing a short interrogation, is admitted to pratique, unless his bill of health happens to be a foul one. Sometimes the Health Office sends a boat off to the vessel, and thus saves the master the trouble.

Mode of Landing Cargo.—After a vessel receives pratique, the master may begin to discharge, at his pleasure, into lighters provided by the consignees of the goods at their expense. Each of these lighters takes from 6 to 7 tons goods.

Custom-house.—There are no forms to undergo at the custom-house prior to discharging, nor even after the vessel has landed her cargo. The goods from the vessel are taken to the custom-house, and claimed thence by the owners, the captain's consignee sending a person to superintend the delivery.

Ballast, consisting of sand and shingle, may be had, on application to the harbour-master, for about 10*s.* (50 piastres) the lighter of 6 or 7 tons. The captain may, however, send his own boat to the beach, abreast of his ship, and, by the aid of his crew, load his own ballast, without paying any fee for it.

Water is to be obtained from the Mariamama river, E. of the anchorage. Masters of vessels may send their own boat and men for it; but it is advisable to employ a native boat, the latter being better acquainted with the entrance of the river, and better adapted to the service. English boats are liable to be swamped if there be any swell at the mouth of the stream. The expense of a native boat is moderate, say 5*s.* to 7*s.* 6*d.*

Labourers may be hired to assist at the loading or discharge of vessels at 2*s.* (10 piastres) per diem each.

Provisions are abundant, and moderate in price. The following are about the average rates of the articles generally required by shipping:—

Bread	-	-	1	piastre or 2½*d.* per oke
Beef	-	-	1	,, 2½*d.* ,,
Mutton	-	-	1½	,, 3¾*d.* ,,
Vegetables	-	-	½	,, 1¼*d.* ,,
Wine	-	-	2	,, 4½*d.* to 5*d.* per oke
Eggs	-	-	1½	,, 3¾*d.* per dozen
Tobacco	-	-	12	,, 2*s.* 6*d.* per oke

Weights and Measures.—Everything excepting linen, silken, and cotton stuffs, is sold by weight. Stuffs are sold by measure. The following will serve as a guide to the shipmaster:—

1 kintal,	44 okes	= 121	lb.
1 batman	6 ,,	= 16½	,,
1 oke		= 2¾	,,

The measure of length is called a pike, and is equal to 26 inches English.

Quarantine Dues.—A fee, not exceeding 2 dollars (9*s.* 6*d.*), is exacted by the Health Office for every bill of health granted to a vessel; but its cost depends upon the tonnage of the vessel.

No light dues or port dues are exacted; but the harbour-master, who, on seeing the vessel approaching the port, goes off and pilots her to her anchorage, is entitled to 20 piastres = 1*s.* (Mr. Consul Palgrave's *Report*, and *private information.*)

TRIESTE. A city and sea-port of the Austrian dominions, the capital of a district of Illyria, situated near the N.E. extremity of the Gulf of Venice, lat. of lighthouse on Santa Teresa mole, 45° 38′ 49″ N., long. 13° 40′ 15″ E. Population, in 1864, of the city district comprised within the limits of the free port, 105,000. It is divided into the old and new towns. The former is built upon elevated ground; the latter, which is lower down, is laid out with greater regularity, and is partly intersected by a canal, into which vessels not drawing more than 9 or 10 feet water enter to load and unload.

Harbour.—The harbour of Trieste, though rather limited in size, is easy of access and convenient. It is protected from southerly gales by the *Molo Santa Teresa*, so called from the Empress Maria Theresa, at the extremity of which the lighthouse, already mentioned, has been constructed. The port, with the mole, forms a crescent 1½ mile in length, being a continued quay, faced with hewn stones, with stairs and jetties for the convenience of embarkation. On the north side of the port is a dock or harbour, appropriated exclusively for vessels performing quarantine. It is walled round; and is furnished with hotels, warehouses, and every sort of accommodation required for the use of passengers and goods. Ships under 300 tons burden lie close to the quays; those of greater size mooring a little farther out.

The principal defects of the port are, its limited size, and its being exposed to the N.W. winds, which sometimes blow with much violence, and throw in a heavy sea. The gales, however, are seldom of long continuance; and the holding ground being good, when the anchors are backed and proper precautions taken, no accident occurs. The tide at Trieste is scarcely perceptible; but the depth of water is influenced by the wind, being increased by a long continued sirocco or S.E. wind, and diminished by the prevalence of the E.N.E. wind, known by the name of *Boro.* The access to the port is not obstructed by any bar or shallow; and there is good anchorage in the roads, in from 6 to 7 and 10 fathoms water. A good sailing vessel may beat in by night or by day, except it blow hard from the N.E. or E.N.E., when she had better anchor in the Bay of Roses, or Pirano, where she will ride in perfect safety.

Pilots.—Ships bound for Trieste are under no obligation to take pilots; but those entering the port for the first time would do well to take one on making the coast of Istria. Boats are always hovering off Rovigno; they are not manned by regular pilots, but by fishermen, who, though unfit to be trusted with the management of the ship, know the bearings of the places and the depth of water. The fee usually paid them for pilotage is 20 dollars; in addition to which, they are supported at the ship's expense during the performance of quarantine.

Lighthouses.—The lighthouse at the extremity of the Santa Teresa mole is 106 feet (Eng.) high. The light is intermittent: and may be seen, supposing the eye of the observer to be elevated 12 feet above the level of the sea, about 13 nautical miles, or from Pirano on the side of Istria, and the shoals of Grado on the Italian coast. There are also fixed lights on Mole San Carlo and Mole Giuseppino. A lighthouse has also been erected on the point of Salvore, bearing from Trieste W. by S., distant about 18 miles. The lantern is elevated about 106 feet above the level of the sea, and is visible for 15 miles. From this point Pirano Bay opens, where vessels may anchor in safety in all sorts of weather.

Money.—Mercantile accounts are usually kept at Trieste in what is commonly called *convention* money, from an agreement entered into with respect to it by some of the German princes, in 1763. The current coins that are legal tender are dollars, ½ dollars or florins, zwanzigers, or pieces of 20 kreutzers. Ten dollars are coined out of the Cologne marc (8,608 gr. Eng.) of pure silver, so that the value of the dollar is 4*s.* 3*d.* sterling.

The florin (convention money) = 2*s.* sterli and the florin (Austrian Standard) = abo 1*s.* 10¾*d.*; zwanzigers, or pieces of 20 kreutze (60 to the marc), = 8½*d.* sterling. All contra are either expressly declared, or are understoo to be in silver money; gold coins, not being leg tender, pass only as merchandise.

Weights and Measures.—Those chiefly in use at Trieste are those of Vienna. The commercial pound contains 4 quarters, 16 ounces, or 32 loths: it is = 8,639 English grains. Thus, 100 lb. at Trieste = 123·6 lb. avoirdupois; or 90½ lb. of Trieste = 112 lb. avoirdupois. The Zoll centner = 110¼ lb. avoirdupois.

The principal dry measure is the stajo or staro = 2·84 Winch. bushels. The Vienna metzen, which is sometimes used = 1·723 Winch. bushel. The polonick = 0·861 Winch. bushel.

The principal liquid measure is the orna or eimer = 40 boccali = 14·94 wine or 12½ imperial gallons very nearly. The barile = 173½ English wine gallons.

The orna of oil contains 5½ caffisi, and weighs about 107 commercial pounds. It is = 17 wine or 14·16 imperial gallons.

The ell woollen measure 26·6 English inches. The ell for silk = 25·2 English inches.

Trade.—Trieste has no command of internal navigation; but being the most convenient, or rather the only sea-port, not merely of the Illyrian provinces, but of the Duchy of Austria, and the greater part of Hungary, she possesses an extensive commerce. This has been increased by the facilities afforded to all sorts of mercantile transactions by the privilege of *porto franco* conferred on the town, and a considerable extent of contiguous country. Under this franchise, all goods, with but very few exceptions, may be imported into and exported from the city free of all duties whatever. Foreign products, when taken for consumption into the interior, are subject to duties.

Exports.—These are very various, consisting partly of the raw and partly of the manufactured products of Austria Proper, Illyria, Dalmatia, Hungary, and Italy; with foreign articles imported and warehoused. Among the principal articles of raw produce may be specified, corn, chiefly wheat, rye, and oats, with timber, rice, wine, oil, currants and raisins, shumac, tobacco, wax, &c.; silk, silk rags and waste, hemp, wool, flax, linen rags, hides, furs, skins &c.; the produce of the mines makes an important item, consisting of quicksilver, cinnabar, iron, lead, copper, brass, litharge, alum, vitriol &c.; the forests of Carniola furnish timber, for ship building and other purposes, of excellent quality and in great abundance, with staves, corkwood, box, hoops &c.; marble also ranks under this head. Of manufactured articles, the most important are, thrown silk, silk stuffs, printed cottons from Austria and Switzerland, coarse and fine linens, glass, and all sorts of leather; under this head are also ranked soap, with jewellery, tools and utensils of all sorts, glass ware, and mirrors, refined sugar, and a host of other articles. Of foreign articles imported and re-shipped, the most important are sugar, coffee, and dye stuffs. Trieste is also a considerable depôt for all sorts of produce from the Black Sea, Turkey, and Egypt.

It is not possible to obtain any very accurate account of the quantity and value of the exports; but Mr. Money, the late British consul at Trieste, who carefully enquired into the subject, supposed that they might have amounted in 1833, exclusive of those shipped for Venice, Fiume, and other Austrian ports, to about 1,800,000*l.* a-year.

There has, however, been a considerable increase in the interval; for the entire value of the exports from Trieste to foreign countries was estimated, in 1864, at 6,000,000*l.* a-year.

Mr. Bonar, in his *Report* of March 1, 1867, on the Commerce of Austria, states the value of her foreign commerce in 1865, at 601,300,000 florins (viz. 256,800,000 for imports, and 344,500,000 for exports). We extract from the same gentleman's *Report* of July 10. 1868, an account of the value of the exports and imports (exclusive of the precious metals) of the Austrian dominions in 1866 and 1867.

This table shows that the value of the exports in 1867 from Trieste by sea alone was 10,422,610*l.*

Account of the Value of the Imports into and Exports from Trieste in 1866 *and* 1867.

	Imports		Exports	
	1866	1867	1866	1867
	flor.	flor.	flor.	flor.
By sea -	73,807,562	89,089,690	103,093,547	104,246,107
By land -	79,883,374	83,418,080	34,878,197	43,460,052
Total -	153,690,936	172,457,770	137,971,744	147,706,159

Showing an excess of imports over the exports amounting to a value of 24,751,611 florins, or 2,475,161*l.*

Trieste being a free port, goods destined for its consumption, and that of the adjoining territory, pay no duties whatever, and are exported and imported without notice by the customs. Goods brought from the interior for export at Trieste are charged an export duty on passing the custom-house line. Goods imported at Trieste, to be conveyed through the Austrian dominions to those of any other Power, are charged a small transit duty.

Gunpowder, salt, and tobacco, being articles monopolised by Government, are not allowed to be imported into Trieste except for sale to the Government or its contractors. Vessels arriving with gunpowder on board deliver it at the arsenal, and on their clearing out it is returned to them free of expense. The utmost vigilance is exerted to prevent the introduction of tobacco; but with very little effect. The only articles the exportation of which from the Austrian dominions is at present prohibited are gold and silver in bars, and silk cocoons.

Shipping.—Since the loss of Flanders, the mercantile navy of Austria has been confined wholly to the ports on the Adriatic. But it is, notwithstanding, very considerable; and engrosses at this moment a large share of the trade of the Mediterranean and Black Sea. The oak timber of Carniola and the Dalmatian coast is reckoned about the very best in the world, so that the Austrian ships, being built of it, are very strong, at the same time that they are particularly handsome. They are also well manned and provided. The seamen are expert, temperate, and orderly; and the laws for the regulation of the merchant service are excellent.

Account of the Number and Tonnage of Vessels Entered at the Principal Ports of Austria, in the Years 1862, 1863, 1864.

Ports	Entered					
	1862		1863		1864	
	vessels	tons	vessels	tons	vessels	tons
Porte Levante -	502	22,975	495	19,165	514	11,962
Venice - -	3,369	330,023	3,274	316,251	3,092	305,934
Grado - -	1,124	10,883	1,088	11,360	883	8,764
Duino - -	377	9,595	318	8,103	300	7,313
Trieste - -	10,905	769,352	10,578	725,576	10,148	772,996
Capo d'Istria -	1,543	20,383	1,267	17,421	1,149	19,276
Pirano - -	2,510	117,950	2,789	123,127	2,650	114,547
Rovigno - -	1,179	29,454	1,260	34,532	1,209	40,834
Pola - -	2,811	113,169	2,460	101,787	1,974	113,745
Fiume - -	6,436	131,926	6,611	124,940	6,539	115,579
Zengg - -	1,878	67,801	1,838	65,939	1,990	55,828
Zara - -	1,731	84,547	1,636	89,352	1,483	101,302
Sebenico - -	936	85,271	847	82,557	953	93,906
Spalato - -	2,322	74,627	2,504	75,347	1,901	73,991
Gravosa - -	807	108,525	823	123,878	791	126,793

The number of vessels in 1866 and 1867, as shown by the second table on the next page, was no doubt affected by the events of the war with Prussia.

By far the greater number of vessels of large burden belong to Trieste. The rest belong to Fiume, Ragusa, and the Bocche di Cattaro. On

Number and Tonnage of Vessels of each Nation (Sailing and Steam) Entered at the Port of Trieste, in the Years 1863, 1864, 1865.

Nationality of Vessels		Entered					
		1863		1864		1865	
		vessels	tons	vessels	tons	vessels	tons
Austrian	Sailing	7,552	277,975	7,575	238,700	7,584	318,750
	Steam	741	199,168	703	234,918	734	242,570
Russian		13	2,986	11	2,510	22	7,372
Swedish and Norwegian		19	4,392	22	5,021	21	6,182
Danish		19	3,340	12	1,515	11	1,608
Prussian		3	708	29	7,650	15	4,766
Dutch	Sailing	80	13,238	49	7,806	45	7,356
	Steam	8	2,907	6	2,118	4	2,018
Hanoverian		15	1,878	28	4,053	16	2,107
Mecklenburg		3	835	19	4,721	3	1,105
Oldenburg		8	2,036	7	1,905	5	844
British	Sailing	28	7,110	49	12,381	78	27,222
	Steam	66	61,712	51	45,992	46	46,250
French	Sailing	15	2,268	6	1,018	13	1,835
	Steam	..	..	1	895	..	..
Italian: Neapolitan		631	45,886	511	40,566	650	58,834
Sardinian		9	2,400	12	3,373	19	10,372
Tuscan		2	230	1	83	4	928
Roman	Sailing	563	31,431	550	32,143	519	32,591
	Steam	9	5,776	44	26,135	51	29,182
Portuguese		1	293	3	762	2	581
Greek		311	41,562	296	56,263	234	27,757
Turkish	Sailing	74	5,849	65	5,872	49	2,914
	Steam	..	..	..	..	5	410
Other countries	Sailing	110	10,904	54	8,326	22	4,139
	Steam	..	..	1	467	..	..
Total	Sailing	9,751	451,921	9,279	472,171	9,120	517,022
	Steam	826	270,653	869	300,825	844	320,011
Total		10,578	725,574	10,148	772,996	9,964	837,123

Account, showing the Number of Vessels and their Tonnage that Entered and Cleared from Trieste in 1866 *and* 1867.

	Entered				Cleared			
	1866		1867		1866		1867	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
Sailing vessels	10,501	620,278	9,268	504,736	10,165	640,806	9,561	536,821
Steamers	921	361,827	907	389,601	935	380,289	903	394,853
Total	11,422	982,105	10,175	891,337	11,100	1,020,495	10,264	931,674
Of which in ballast:								
Sailers	3,090	308,121	2,016	192,032	2,956	63,289	3,069	75,709
Steamers	61	28,643	22	8,585	58	32,425	10	4,612

the other hand, the smaller vessels employed in the coasting trade, which is very considerable, are more equally divided; Venice having, probably, as many as Trieste, while a good number belong to the ports of Istria, Hungary, and Dalmatia.

The foreign trade of this port comprises all voyages beyond the limits of the Adriatic; and may be divided as follows:—

1. The Levant trade, including the Ionian Islands, Greece, Constantinople, Smyrna, Odessa &c., the ports in Syria, Cyprus, Candia, and Egypt, more especially Alexandria.

2. The *ponente* or Mediterranean trade, in the west, comprising the coast of Barbary, Spain, France, and Italy; being principally carried on with Marseilles, Genoa, and Leghorn.

3. The commerce on the ocean, which the Austrian merchants have attempted with considerable success. Several ships sail for Brazil, the United States, England, Hamburg &c.

Customs Regulations.—The Custom-house at Trieste has nothing whatever to do with the entry, reporting &c. of vessels. When a ship arrives, she is reported to the Health Office; which publishes a list of arrivals and departures, with a statement of their cargoes, as they appear in the manifests. Ships are cleared by the same office; the masters being assisted by the consuls of the country to which they belong. As soon as a vessel has performed quarantine, she loads or unloads without any interference or inspection by the customs officers, or by anyone else. Goods unsusceptible of contagion may be landed during quarantine.

Tariff.—By the commercial treaties lately concluded between Austria and this country [TREATIES, COMMERCIAL] and between Austria and the Zollverein, decided steps towards freedom of trade have been taken; and Mr. Secretary Bonar, in his *Report* of July 10, 1868, says that, since the introduction of the reduced tariff, an unusual commercial activity is observable throughout the empire. Annexed is a list of the import duties on some articles largely produced in this country.

Articles		Duties per cwt. £ s. d.
Iron and steel wire		0 8 1½
Zinc, in sheets		0 1 6
Cotton yarn	minimum	0 8 1½
	maximum	0 18 3
Flax and hemp	minimum	0 1 6
	maximum	0 12 2
Woollen	minimum	0 1 6
	maximum	0 12 2
Cotton goods	minimum	1 10 5
	maximum	6 2 6
Linen of flax or hemp	minimum	0 12 2
	maximum	7 2 6
Silk goods	minimum	6 2 0
	maximum	2 4 0
Paper for writing and printing	minimum	0 2 0
	maximum	0 12 2
Saddlery	minimum	0 12 2
	maximum	1 1 6
Glass wares	minimum	0 1 6
	maximum	0 12 2
Earthenware	minimum	0 5 0½
	maximum	0 12 2
Needles (sewing)		1 10 5
Firearms		1 10 5

Port Charges.—These are paid at the office of the harbour master on clearing out. They are the same, whatever may be the ship's stay, and are, perhaps, the most moderate of any in Europe.

Port Charges paid by Austrian and Foreign Ships.

	kr.
Austrian, and foreign privileged ships—	
Anchorage, per ton admeasurement	4
Lighthouse	3
Cargo duty, per ton weight of goods	5
N.B.—If grain, per 20 staja.	
Foreign ships not privileged—	
Anchorage, lighthouse, and cargo as above, per ton admeasurement, and per ton weight of goods	10
New tonnage duty, per ton admeasurement	16
Aliboraggio, payable by ships departing in ballast, or with less than half a cargo	9

Comparative Statement of the Port Charges paid at Trieste, respectively, by a native and privileged Foreign Ship, and a Foreign Ship not privileged, each of 300 Tons Burden, with mixed Cargoes.

	fl.
Native and privileged—	
Anchorage and light, as above, 300 tons, at 7 kreutzers per ton admeasurement	35
Cargo duty, 300 tons, at 5 kreutzers	15
Total	50
or about 4*l.* 15*s.* sterling	
Foreign, not privileged—	
Anchorage, light and cargo duty, as above	50
Tonnage duty, 300 tons, at 16 kreutzers	80
	130
or about 12*l.* 10*s.* sterling	

If the ship depart in ballast, or with less than ½ a cargo, there is a further charge of 9 kreutzers per ton, or 45 florins; making in all 175 florins.

Quarantine is strictly enforced at Trieste, and the establishments for facilitating its performance are complete and efficient. The Board of Health at this port is the central or principal one for the Austrian States; and maintains an active correspondence with all the principal ports, both in the Mediterranean and elsewhere. There are 2 lazarettos—that called St. Teresa, or Lazaretto *Nuovo*, is appropriated to vessels from the Levant and Egypt, which are, for the most part, subjected to the long or full quarantine of 40 days. It is spacious, and properly guarded; having a sufficient number of military and medical officers and assistants; with extensive quays and magazines for housing and airing goods, dwelling houses, and apartments for resident officers and passengers &c. It is, in fact, one of the most perfect establishments of the kind in existence. The other, or old (*vecchio*) lazaretto, contiguous to the great mole, is appropriated to ships and passengers performing a quarantine of not more than 28 days; and, though inferior to the former, is sufficiently capacious and convenient. The sanitary offices, including that of harbour master, are near the centre of the port; where also are moored vessels under observation for a term not exceeding 8 days. Here also are facilities for communicating vivâ voce with persons under quarantine; and spacious warehouses, with adequate guards and other officers. But, notwithstanding these conveniences, if a vessel arrive having an infectious malady on board, she is not allowed to enter either lazaretto at Trieste.

Quarantine Dues payable on Goods.—Non-susceptible goods pay ad valorem at the rate of 6 kreutzers per 100 florins or 1 mille. Susceptible goods pay an extra charge, according to tariff, or to circumstances. Besides the above ad valorem duty, goods not susceptible pay 4 kreutzers (1¾*d.*) per every 1,000 lb. weight of Vienna. Grain is subject to an extra charge of about ½ per cent.

Brokers, Commission Merchants, Brokerage &c.—There are a few exceptions to the freedom generally enjoyed of settling and exercising any trade at Trieste. Brokers, for example, are limited in number, and appointed by the Chamber of Commerce. They are obliged to give security, are under various regulations, and may not themselves trade as principals. They are of 3 classes: 1st, brokers for the sale and purchase of merchandise, who are again subdivided into particular classes, according to the articles they are conversant with, as grain, oil, cotton, drugs, hides and leather, colonial produce, manufactures &c.; 2nd, bill brokers, or exchange agents; and, 3rd, ship and insurance brokers. Such authorised brokers are alone allowed to extend contracts, certificates, surveys, or other documents; and they are considered as public functionaries, whose depositions are received as legal evidence.

Anyone may be a commission merchant or factor, but he may not issue printed circulars or lists of prices; nor will his books, however regularly kept, be considered as evidence in a court of justice, unless he is *matriculated*, for which the possession of a certain amount of capital is required. This, however, is little more than mere form, and a great deal of business is done by persons acting both as merchants and brokers, without being duly authorised.

The usual rate of a merchant's or factor's commission on the purchase of goods is 2 per cent.: on sales, ½ per cent. *del credere* is sometimes added.

A merchant's commission for collecting freight, and doing other shipping business, is 2 per cent. on the inward cargo; and by custom of the place, the house to which a ship is consigned or recommended by the charterers, is entitled to a commission of 2 per cent. on the outward cargo, whether it has or has not been instrumental in procuring the goods that are laden outwards.

A broker's commission for freighting a ship, or procuring a charter, is 2 per cent. This does not include the charge for writing charter, or for any other services performed in the clearance. In case of general cargoes, when the broker has to collect goods from different merchants, he charges 3 per cent. commission. A bill broker's commission (courtage) is sometimes 1 per mille, more commonly ½ per mille. Brokerage for the sale or purchase of merchandise varies from ½ per cent. to 1 per cent., according to circumstances, and the nature of the article.

Insurance.—The insurance of ships is carried on to a considerable extent at Trieste. The security is unexceptionable, the terms more moderate than in England, and losses are said to be adjusted promptly and liberally. The former oppressive duties on policies of insurance in England have been the cause that most insurances on ships for the Adriatic, that were at one time effected in London, Liverpool &c., are now effected at Trieste. The insurance of houses is universal; and that of lives is also, of late years, practised to a considerable extent. House insurance is carried on by joint-stock companies, of limited responsibility.

Bankruptcy is not of very frequent occurrence at Trieste. The laws with respect to it do not differ much from those in force in most other countries. Frauds are punishable by imprisonment; but here, as elsewhere, they are very difficult to detect. Honest bankrupts are discharged, on making a complete disclosure of their affairs, and a surrender of their assets. Property settled on a wife is not affected by the debts of the husband; a regulation which, it is evident, must lead to fraud.

Communications by Land.—The intercourse between Trieste and Austria, Hungary &c., is necessarily all carried on by land. The roads leading to the Austrian and Hungarian towns, particularly the first, are kept in good repair, and the tolls are moderate; but owing to the rugged nature of the country, the ascent is in some places very considerable. The draught horses employed on the roads are excellent: but, in some of the mountainous districts, bullocks are used.

Railways.—Despite the difficulties in the way, a

railway has been constructed between Vienna and Trieste, a distance of more than 340 miles. This was a very great undertaking, and its completion reflects great credit on the Austrian Government and engineers. The whole length of Austrian railways now in activity amounts to upwards of 4,000 English miles, and thus Trieste and Vienna are connected with all the great towns of the empire, and with the rest of Europe.

Careening, Stores &c.—Timber at Trieste is excellent, workmen good, and their wages moderate; so that it is a very favourable place for careening and repairing. Water is very good, but rather scarce; so that, if a large supply be required, due notice must be given. Ships are served in regular rotation. Beef is very good, but rather high priced. Butter and cheese are dear; and fuel is excessively so. On the whole, therefore, Trieste cannot be considered as a favourable place for the provisioning of a ship.

Banking.—There are no public banks at Trieste. The bank of Vienna has an office here, but it is merely for the exchange of its notes for cash, or, more frequently, of large notes for small ones. These notes, being guaranteed by Government, are legal tender, and in general circulation, but no other company is allowed to issue notes to be used as a circulating medium. There is not, however, any deficiency of currency. Banking business is transacted by private companies, or by individuals, who are subject to certain regulations, and are obliged to lay before competent authority an attested statement of the capital embarked in their concerns. Their business principally consists in procuring bills of exchange from other places for the use of the merchants of Trieste, or in discounting (in which latter operation they have many private competitors), at the rate of from 4 to 6 per cent. per annum, according to the nature of the paper offered, and in proportion to the scarcity or abundance of cash.

The principal bankers of Trieste are of undoubted solidity, and do not indulge in dangerous speculations; and notwithstanding the apparent want of great banking establishments, the business of buying and selling, and of making payments and remittances, whether in bills or specie, is transacted at this port with great facility; and there seldom arises any distress, pressure, or stagnation, from want of money or credit.

It is not usual for respectable bankers to give interest on deposits. The partners in joint-stock companies, banks &c. are, in general, responsible only to the extent of their declared capital; and the individuals composing them are only liable each to the extent of their share. The same individual is frequently a general merchant, a partner in a banking house, and a member of an insurance company. All these businesses may at present be said to be prosperous.

Credit.—Goods imported into *Trieste* are sometimes sold for ready money, a discount being usually understood, and allowed in such case, of 2 or 2½ per cent. But they are commonly sold at 3 months' credit, that is, by bills of that date; occasionally, but rarely, they are sold at 6 months.

Bills thus obtained, though offering no other guarantee than the signature of the drawer or acceptor, may be discounted or insured at a moderate rate by companies who dedicate themselves to this branch of business, and who, from their extensive dealings, are good judges of the risk. The practice has become almost universal; and it not only facilitates sales, but has a tendency to prevent bankruptcies, as it is difficult for a house long to conceal its insolvency; and its credit is, by this mode of trial, soon ascertained.

Tares.—Real tare is allowed on most articles of export; and on all articles of import, except cotton and sugar. The tare on Brazil sugar in chests depends on their length and size, but in general it amounts to from 15 to 18 per cent.; on Brazil sugar in bags the tare is 3 per cent.; on Havannah sugar a tare is allowed of 62 lb. English per box, being from 13 to 14 per cent.; on Jamaica sugar the tare is 14 per cent. Tare on American cotton, 4 per cent.

Trade of Austria with the United Kingdom.—The direct trade carried on with Austria by the ports on the Adriatic is not so great as might, perhaps, be expected; but it has increased of late years: the value of the exports of British produce to Austria having risen from 637,353*l.* in 1853, to 963,952*l.* in 1867. In addition to this, our indirect

Account of the Quantities and Values of the Principal Articles Imported into the United Kingdom (directly) from the Austrian Territories during the 4 Years ending with 1867.

Articles		Quantities				Computed Real Value			
		1864	1865	1866	1867	1864	1865	1866	1867
						£	£	£	£
Argol	cwt.	317	5	456	370	1,201	18	1,650	1,389
Bones of animals and fish (except whalefins)	tons	353	56	727	872	1,919	288	4,224	4,935
Bugles and glass beads	lb.	47,959	115,169	295,604	89,661	2,399	5,759	14,781	2,983
Corn:									
Wheat	cwt.	11,011	579,980	1,326,529	542,635	4,682	259,572	676,915	308,049
Barley	,,	—	—	126,481	68,101	—	—	47,897	32,079
Oats	,,	420	—	158,886	94,413	157	—	63,551	41,397
Maize or Indian corn	,,	70,958	26,617	45,803	526,955	25,586	7,760	14,089	231,706
Other kinds	,,	—	8	—	131,547	—	3	—	—
Wheat flour	lb.	26,179	26,776	51,525	—	16,575	17,295	40,645	126,349
Cotton, raw	,,	654	1,558	—	1,630	8,560	11,916	—	8,941
Cream of tartar	,,	1,430	1,895	1,261	312	7,540	9,101	5,527	1,997
Fruit:									
Currants	,,	26,306	14,694	4,910	19,536	20,679	11,769	4,608	16,461
Raisins	,,	808	1,039	647	4,767	1,445	1,859	849	5,317
Gum arabic	,,	1,766	4,435	4,939	3,550	6,194	19,458	24,518	16,178
Hemp, dressed	,,	1,196	1,777	1,049	800	3,408	5,066	2,952	2,318
undressed	,,	15,683	13,574	30,581	42,598	35,383	24,880	56,985	77,780
Lard	,,	—	14,745	21,458	120	—	—	60,878	288
Madder root	,,	941	—	5,021	566	1,456	—	4,258	677
Oil, olive	tuns	43	65	5	38	2,567	3,428	441	2,486
Oil seed cake	tons	519	618	976	776	3,436	4,502	8,741	7,199
Paper and pasteboard	cwt.	7,516	6,505	7,188	16,235	19,178	16,280	18,363	41,745
Rags and other materials for making paper	tons	953	541	1,179	1,017	17,969	11,416	25,700	21,721
Shumach	,,	413	471	796	1,745	3,100	3,533	5,504	21,747
Skins, goat	no.	4,200	4,000	27,000	—	420	400	2,700	—
lambs'	lb.	140,780	85,660	14,660	12,049	7,035	1,660	3,700	601
Sponge	lbs.	34,502	99,449	83,474	45,341	4,250	20,700	14,092	6,103
Tallow	cwt.	—	110	2,974	—	—	770	6,685	—
Wood staves	loads	19,277	16,852	20,774	9,803	101,316	117,070	179,944	76,350
Wool, sheep and lambs'	lb.	607,674	281,218	447,905	294,547	30,133	14,602	29,751	12,409
All other articles	value	—	—	—	—	41,907	25,958	45,913	31,142
Total		—	—	—	—	309,312	637,361	1,249,831	1,015,660

Account of the Quantities and Values of the Principal Articles of British Produce Exported from the United Kingdom to the Austrian Territories in each of the 3 Years ending with 1867.

Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Alkali soda	cwt.	37,313	46,942	61,693	15,723	25,586	29,981
Apparel and haberdashery	value	..	..	..	7,390	4,728	8,960
Coals, cinders, and culm	tons	64,617	63,041	57,464	35,252	35,672	31,448
Copper, wrought and unwrought	cwt.	1,734	2,225	3,303	7,203	9,051	12,642
Cotton yarn	lb.	1,531,311	2,854,428	3,020,676	123,936	230,462	194,032
Cottons, entered by the yard	yards	11,010,826	13,676,164	16,927,776	239,024	296,343	29[illegible],198
at value	value	..	..	..	6,880	6,480	7,287
Drugs and chemical products	,,	..	..	..	1,540	1,719	1,145
Earthenware and porcelain	,,	..	..	..	3,919	2,558	2,850
Fish, herrings	barrels	680	4,517	5,039	640	4,119	5,031
pilchards	hhd.	51	106	500	290	600	1,500
Hardware and cutlery, unenumerated	cwt.	573	685	805	3,183	4,198	3,938
Iron, wrought and unwrought	tons	7,478	3,571	8,087	57,699	36,089	89,469
Linen yarn	lb.	84,171	95,913	54,391	5,053	6,459	4,205
Linens, entered by the yard	yards	448,294	309,865	371,239	17,819	12,996	15,604
at value	value	..	..	..	4,986	8,985	8,831
Machinery, steam engines	,,	..	..	..	1,844	733	9,143
all other sorts	,,	..	..	..	9,467	2,842	8,011
Oil, linseed	gallons	701,407	894,813	793,592	95,332	143,150	123,543
unenumerated	,,	7,606	..	..	843	..	..
Saltpetre	cwt.	210	32	700	351	49	825
Silk manufactures	value	..	..	..	1,016	415	637
Tin plates	,,	..	..	..	10,063	4,192	10,741
Woollens, entered by the yard	yards	705,092	700,870	854,068	46,730	41,908	53,252
at value	value	..	..	..	4,891	1,585	1,969
All other articles	,,	..	..	..	23,564	23,679	33,705
Total		..	..	..	724,648	912,038	963,952

Account of the Quantities and Values of the Principal Articles of Foreign and Colonial Produce and Manufacture Exported from the United Kingdom to the Austrian Territories in each of the 3 Years ending with 1867.

Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Bacon	cwt.	..	1	20	..	5	52
Caoutchouc	,,	3	..	225	22	..	1,965
Cochineal	,,	33	10	109	602	191	2,051
Cocoa	lb.	50,593	19,881	119,277	1,469	665	5,479
Coffee	,,	1,334,124	1,168,744	676,585	40,406	35,359	19,711
Copper, unwrought and part wrought	tons	23	10	75	1,906	767	277
Cotton, raw	cwt.	2,769	6,397	5,481	17,439	30,811	20,268
Hides, not tanned	,,	7,607	7,204	11,011	26,634	25,846	39,001
tanned, tawed &c.	lb.	16,463	26,209	42,552	617	1,592	1,773
Indigo	cwt.	251	131	119	8,466	3,891	4,004
Lard	,,	..	..	1,199	..	..	5,037
Nitre, viz. cubic nitre	,,	3,768	..	805	2,449	..	443
Oil, cocoa nut	,,	4,182	1,258	1,874	9,044	2,935	4,653
palm	,,	1,135	47	1,619	2,062	95	3,123
seed	tuns	119	72	49	3,680	3,250	1,855
chemical, essential and perfumed	lb.	2,577	4,513	2,042	995	2,157	931
Pepper	,,	107,956	684,268	111,392	1,574	9,979	1,625
Rosin	cwt.	..	..	3	..	..	3
Spirits: rum	proof gallons	598	296	24,357	57	23	2,263
Tin	cwt.	188	371	491	735	1,493	2,177
Tobacco, unmanufactured	lb.	..	168,157	..	..	6,206	..
manufactured	,,	3,112	2,566	4,279	1,216	996	1,694
Wax, bees	cwt.	..	..	..	..	..	..
Wool, sheep and lambs'	lb.	..	..	..	..	..	..
All other articles	value	..	..	..	17,755	18,631	23,516
Total		..	..	..	137,128	144,491	150,169
Total of British and Foreign produce		..	..	..	861,776	1,056,519	1,113,114

Account of the Total Value of the Imports and Exports of the Austrian Empire (ex Dalmatia) in each of several Years ending with 1867.

Years		Imports		Exports	
		florins	£	florins	£
Ended October 31,	1850	138,955,431	13,895,543	101,847,458	10,184,746
	1851	150,547,298	15,054,730	130,025,756	13,002,575
	1852	199,361,761	19,936,176	186,490,312	18,649,031
	1853	197,392,535	19,739,253	217,562,184	21,756,218
Ended December 31,	1854	208,728,588	20,872,859	218,025,687	21,802,568
	1855	236,464,912	23,646,491	232,508,707	23,250,870
	1862	263,066,536	24,091,321	325,971,616	30,979,584
	1863	284,807,384	27,056,702	321,789,187	30,563,988
	1864	272,536,657	25,890,940	351,318,559	33,375,263
	1865	278,865,000	26,492,175	365,131,000	34,692,487
	1866	208,086,000	20,608,600	321,347,068	32,634,706
	1867	276,280,314	27,628,031	400,888,568	40,085,856

trade, or that carried on with Austria by means of the Elbe and other inlets to her land frontier, though it cannot be exactly ascertained, is known to be much greater: there is, too, every prospect of its future increase; our imports from Austria in 1867, after her loss of Venetia, were valued at 1,204,825*l*. We shall have to notice [ZOLLVEREIN OR GERMAN COMMERCIAL UNION] the reductions that have been made in the tariff of Austria, and the liberal commercial treaties she has negotiated in 1853 and 1865 with Prussia, and that with the Zollverein, which came into force on June 1, 1868. And we have already given in extenso the new treaties of 1865 and 1868 between this country and Austria, under TREATIES, COMMERCIAL (AUSTRIA).

Account of the Values of the Principal Articles Exported from the Austrian Empire (ex Dalmatia) in 1862, 1863, *and* 1864.

Articles	1862	1863	1864
	florins	florins	florins
Animals:			
Oxen and bulls	2,566,000	2,198,000	2,618,000
Cows	772,000	1,026,000	1,026,000
Swine	2,817,000	2,070,000	1,190,000
Books &c.	2,581,000	2,574,000	2,715,000
Butter	1,320,000	965,000	1,940,000
Cheese	308,000	376,000	403,000
Chemical produce and colours	2,066,000	2,017,000	2,327,000
Clothes and millinery	7,[illegible]	6,[illegible]	6,[illegible]
Coals	1,[illegible]	1,[illegible]	1,[illegible]
Cotton manufactures	5,[illegible]	3,[illegible]	3,[illegible]
Flax	2,[illegible]	2,[illegible]	2,[illegible]
Fruit	1,[illegible]	1,[illegible]	1,[illegible]
Glass and glass wares	12,637,000	12,129,000	12,291,000
Grain:			
Wheat and spelt	17,682,000	6,326,000	8,561,000
Rye, millet &c.	2,[illegible]	2,[illegible]	1,[illegible]
Barley and malt	1,[illegible]	1,[illegible]	1,[illegible]
Oats	2,[illegible]	[illegible]	[illegible]
Maize	395,000	513,000	511,000
Hair, textiles and feathers	2,[illegible]	2,[illegible]	2,833,000
Hardwares	28,[illegible]	32,[illegible]	38,[illegible]
Hemp	2,[illegible]	2,[illegible]	1,[illegible]
Hides, skins and pelts	1,[illegible]	5,[illegible]	5,[illegible]
Instruments	1,[illegible]	1,[illegible]	1,[illegible]
Iron and steel, raw	4,[illegible]	4,[illegible]	4,[illegible]
Iron wares	10,[illegible]	7,[illegible]	8,[illegible]
Linen manufactures	8,[illegible]	8,[illegible]	11,[illegible]
Linen yarn	5,[illegible]	4,[illegible]	6,[illegible]
Leather	9,[illegible]	9,[illegible]	10,[illegible]
Machinery	1,[illegible]	860,000	755,000
Metals, precious, and coin	32,593,000	30,519,000	27,910,000
Metals, common	1,051,000	1,227,000	1,060,000
Salt, kitchen	910,000	878,000	1,416,000
Silk	8,673,000	9,778,000	8,242,000
manufactures	4,757,000	5,610,000	6,[illegible]
Spirits	56[illegible]	714,000	1,[illegible]
Wine, all sorts	1,797,000	1,669,000	2,477,000
Wool	29,158,000	28,[illegible]	23,[illegible]
Wooden wares	4,[illegible]	4,[illegible]	5,[illegible]
Wool, sheep's	42,[illegible]	46,[illegible]	47,[illegible]
Woollen manufactures	17,151,000	17,648,000	19,158,000

The great drawback under which Austria labours, is the situation of by far the larger portion of her provinces in the central parts of Europe; and separated from the great markets for their produce, either by a wide tract of intervening country, or by high mountain ridges. Austria is naturally an agricultural country; and, unless compelled by circumstances to devote a portion of her energies to manufactures, will, no doubt, continue such for a lengthened period: and hence, as the products of agricultural industry are at once heavy and bulky in proportion to their value, the advantage of opening improved channels of communication with other countries. In this respect, the free navigation of the Danube is of much importance, though a great deal more stress has been laid upon it in this country than it deserves. The expense of carrying corn and timber from Hungary to the Black Sea, and thence to the ports of Western Europe, will, we apprehend, always be found too heavy to admit of England or France ever supplying themselves, at least to any considerable extent, with the corn, flax, or timber of Hungary or Transylvania. The cost of conveying produce from the interior of the continent to the nearest shipping ports is a most important element, which is too generally lost sight of in this country. To show its influence we may mention that on various occasions when wheat was sold at Lemberg, one of the principal markets of Galicia, for 15*s.* or 16*s.* per quarter, its price at Dantzic at the same time has been 40*s.* and upwards; the difference being occasioned by the difficulty and expense of conveying corn down the Vistula from Lemberg to Dantzic.

The Austrian Government and people have long been alive to the many advantages that would result from opening a communication between Hungary and Fiume, and other ports on the Adriatic. And notwithstanding the obstacles opposed by the interposition of the Julian Alps, and other mountain ridges, an excellent road has been carried from Carlstadt to Fiume. Still, however, the expenses of the carriage of bulky products are too great to make this route sufficiently available; and the advantage of further improving and cheapening the communication is too obvious to need being pointed out. See ante, under the head *Railways* in this article.

TRINITY HOUSE. This society was incorporated by Henry VIII., in 1514, for the promotion of commerce and navigation by licensing and regulating pilots, and ordering and erecting beacons, lighthouses, buoys &c. A similar society, for the like purposes, was afterwards established at Hull; and also another at Newcastle-upon-Tyne in 1537; which 3 establishments, says Hakluyt, were in imitation of that founded by the Emperor Charles V. at Seville, in Spain; who, observing the numerous shipwrecks in the voyages to and from the West Indies, occasioned by the ignorance of seamen, established, at the *Casa de Contratacion*, lectures on navigation, and a pilot-major for the examination of other pilots and mariners; having also directed books to be published on that subject for the use of navigators. But Hakluyt must surely have been in error, for, as Charles V. was not born till 1500, he could not well before 1514 have set up any institution to serve as a model for our Trinity House. It is much more likely that he copied the English example.

Henry VIII., by his charter, confirmed to the Deptford Trinity House Society all the ancient rights, privileges &c., of the shipmen and mariners of England, and their several possessions at Deptford, from which it is plain that the Society had existed long previously. The corporation was confirmed, in 1685, in the enjoyment of its privileges and possessions, by letters patent of the 1st James II. by the name of the master, wardens, and assistants of the Guild or Fraternity of the most glorious and undivided Trinity and of St. Clement's in the parish of Deptford Strond, in the County of Kent. At first, the corporation appears to have consisted of seamen only; but since the charter of James II., noblemen and gentlemen have been enrolled among its elder brethren. It is governed by 31 elder brothers, of whom 1 is master, 4 wardens, and 8 assistants: but the inferior members of the fraternity, named younger brethren, are not limited in point of number; every master or mate, expert in navigation, being admissible as such. Besides the power of erecting lighthouses, and other sea-marks, on the several coasts of the kingdom, for the security of navigation—[LIGHTHOUSES], the master, wardens, assistants, and elder brethren, are invested by charter with the following powers; viz. the appointment of pilots to conduct ships into and out of the Thames; the settling the several rates of pilotage. They formerly, also, enjoyed several other powers, which have since fallen into disuse or been vested in other hands. The corporation is authorised to receive voluntary subscriptions, benefactions &c.; and to purchase, in mortmain, lands, tenements &c. to the amount of 500*l.* per annum. The ancient Hall of the Trinity House at Deptford, where the meetings of the brethren were formerly held, still exists, but is now only used as a Pay Hall for Pensioners. The corporation now meet in a handsome building erected for the purpose in London, near the Tower.

The revenue under the management of the Trinity House, which arose from dues payable to the corporation on account of lighthouses, buoyage, and beaconage, and ballastage, and from the interest of money in the funds and the rent of freehold property, has been principally expended on pensions to poor disabled seamen, and on the

maintenance of their widows, orphans &c. and it is admitted that it was both judiciously and economically administered. The duties for lights, buoys, and beacons henceforth, however, under the provisions of the 16 & 17 Vict. c. 131, form part of the 'Mercantile Marine Fund.' The Act provides that payments now chargeable on the 'fund' for pensions &c., may be commuted. The expenses of lighthouses, ballastage, and beaconage, are also to be charged on the 'fund,' and the rates of toll are to be revised and fixed by her Majesty in council. The ballastage rates under the Trinity House, being a charge peculiar to the Thames, are to be made peculiarly applicable to services performed for the safety and convenience of the shipping frequenting that river. [BALLAST.]

TRINIDAD. [COLONIES.]

TRIPANG or SEA SLUG (*Biche de Mer*). A species of fish of the genus *Holuthuria*, found chiefly on coral reefs in the Eastern seas, and highly esteemed in China, into which it is imported in large quantities. It is an unseemly looking substance, of a dirty brown colour, hard, rigid, scarcely possessing any power of locomotion, or appearance of animation. Sometimes the slug is as much as 2 feet in length, and from 7 to 8 inches in circumference. A span in length, and 2 or 3 inches in girth, is, however, the ordinary size. The quality and value of the fish, however, do not by any means depend upon its size, but upon properties in it neither obvious to nor discernible by those who have not been long and extensively engaged in the trade. In shallow water the animal is taken out by the hand, but in deeper water it is sometimes speared. When taken it is gutted, dried in the sun, and smoked over a wood fire; this being the only preparation it receives.

The fishery is carried on from the western shores of New Guinea, and the southern shores of Australia, to Ceylon inclusive. Indeed, within the last few years it has been successfully prosecuted on the shores of the Mauritius. The whole produce goes to China. In the market of Macassar, the great staple of this fishery, not less than *thirty* varieties are distinguished, varying in price from 5 Spanish dollars a *picul* (133⅓ lb.) to 14 times that price, each variety being distinguished by well-known names. The quantity of tripang sent annually to China from Macassar is about 7,000 piculs, or 8,333 cwt.; the price usually varying from 8 dollars a picul to 110 and 115, according to quality. (Crawford's *Indian Archipelago*, vol. iii. p. 441.) There is also a considerable export of tripang from Manilla to Canton.

Besides tripang, *fish-maws* and *sharks' fins* are exported to China from every maritime country of India.

TROY WEIGHT. One of the most ancient of the different kinds used in Britain. The pound English troy contains 12 ounces, or 5,760 grains. It is used in the weighing of gold, silver, and jewels; the compounding of medicines; in experiments in natural philosophy; in comparing different weights with each other; and was (by 5 Geo. IV. c. 74) made the standard of weight.

TROY WEIGHT, *Scotch*, was established by James VI. in the year 1618, who enacted that only one weight should be used in Scotland, viz. the French troy stone of 16 pounds, and 16 ounces to the pound. The pound contains 7,609 grains, and is equal to 17 oz. 6 dr. avoirdupois. The cwt. or 112 lb. avoirdupois, contains only 103 lb. 2½ oz. of this weight, though generally reckoned equal to 104 lb. This weight is very nearly identical with that formerly used at Paris and Amsterdam; and is generally known by the name of Dutch weight. Though prohibited by the articles of Union, it has been used in most parts of Scotland in weighing iron, hemp, flax, and other Dutch and Baltic goods, meal, butcher's meat, lead &c. [WEIGHTS AND MEASURES.]

TRUCK SYSTEM. A name given to a practice that has prevailed, particularly in the mining and manufacturing districts, of paying the wages of workmen in goods instead of money. The plan has been, for the masters to establish warehouses or shops; and the workmen in their employment have either got their wages accounted for to them by supplies of goods from such depôts, without receiving any money; or they have got the money, with a tacit or express understanding that they were to resort to the warehouses or shops of their masters for such articles as they were furnished with.

Advantages and Disadvantages of the Truck System.—A great deal of contradictory evidence has been given, and very opposite opinions have been held, as to the practical operation and real effect of this system on the workmen. Nor is this to be wondered at, seeing that everything depends on the mode in which it is administered, and that it may be either highly advantageous or highly injurious to the labourer. If a manufacturer of character establish a shop supplied with the principal articles required for the use of the workmen in his employment, and give them free liberty to resort to it or not as they please, it can, at all events, do them no harm, and will, most likely, render them material service. The manufacturer, having the command of capital, may, in general, lay in his goods to greater advantage than they can be laid in by the greater number of retail tradesmen in moderate-sized towns; and not being dependent on the profits of his shop for support, he is, even though he had no advantage in their purchase, able to sell his goods at a cheaper rate than they can be afforded by the majority of shopkeepers. Sometimes, also, a factory is established in a district where shops either do not exist at all, or are very deficient; and in such cases the master consults the interest and convenience of those dependent on him when he provides a supply of the principal articles required for their subsistence. It is easy, therefore, to see that the keeping of shops by masters for the use of their workmen may be very beneficial to the latter. But to insure its being so, it is indispensable that the masters should be above taking an advantage when it is within their reach, and that their conduct towards the workmen should not be in any degree influenced by the circumstance of the latter dealing or not dealing with their shops.

Such disinterestedness is, however, a great deal more than could be rationally expected from the generality of men; and hence, though many instances may be specified in which the truck system was advantageous to the workmen, those of a contrary description were unfortunately far more numerous. It is obvious, indeed, that a practice of this sort affords very great facilities for fraudulent dealings. Under the old law, a manufacturer who had a shop, had means, supposing he were inclined to use them, not possessed by any ordinary shopkeeper as respects his customers, for forcing upon his workmen inferior goods at an exorbitant price. They are at first supplied on liberal terms, and are readily accommodated with goods in anticipation of wages, till they get considerably into debt. The pernicious influence of this deceitful system then begins fully to disclose itself. The workmen cease to be free agents; they are compelled to take such goods and at such prices as the master pleases; for, were they to at-

tempt to emancipate themselves from this state of thraldom by leaving their employment, they would be exposed to the risk of prosecution and imprisonment for the debts they had incurred. It is not easy to imagine the extent to which these facilities for defrauding the labouring class were taken advantage of in various districts of the country. In many instances, indeed, the profits made by the shops exceeded those made by the business to which they were contingent; and thousands of workmen, whose wages were nominally 30*s.* a week, did not really receive, owing to the bad quality and high price of the goods supplied to them, more than 20*s.*, and often not so much.

Abolition of the Truck System.—A system of dealing with the labouring classes, so very susceptible of abuse, and which, in point of fact, was very extensively abused, was loudly and justly complained of. A bill was in consequence introduced for its suppression by Mr. Littleton (now Lord Hatherton), which, after a great deal of opposition and discussion, was passed into a law, 1 & 2 Wm. IV. c. 32. (See abstract subjoined.)

Those who opposed this Act did so on two grounds: 1*st*, that it was improper to interfere at all in a matter of this sort; and 2nd, that the interference would not be effective. The first of these objections does not appear entitled to any weight. In suppressing the truck system, the Legislature did nothing that could in anywise regulate or fetter the fair employment of capital; it interfered merely to put down abuse; to carry, in fact, the contract of wages into full effect, by preventing the workman from being defrauded of a portion of the wages he had stipulated for. The presumption no doubt is, in questions between workmen and their employers, that Government had better abstain from all interference, and leave it to the parties to adjust their disputes on the principle of mutual interest and compromised advantage. Still, however, this is merely a presumption; and must not be viewed as an absolute rule. Instances have repeatedly occurred where the interference of the Legislature to prevent or suppress abuse, on occasions of the sort now alluded to, has been imperiously required, and been highly advantageous. Those who claim its interposition are, indeed, bound to show clearly that it is called for to obviate some gross abuse, or that it will materially redound to the public advantage; and this, we think, was done in the completest manner by the opponents of the truck system. Regard for the interests of the more respectable part of the masters, as well as for those of the workmen, required its abolition; for, while it continued, those who despised taking an advantage of their dependants were less favourably situated than those who did. It is ludicrous, therefore, in a case of this sort, to set up a cuckoo cry about the 'freedom of industry.' The good incident to the truck system was in practice found to be vastly overbalanced by the abuses that grew out of it; and as these could not, under the existing law of debtor and creditor, be separately destroyed, the Legislature did right in attempting to suppress it altogether.

It was said, indeed, that this would be found to be impracticable; and the manufacturers would enter underhand into partnerships with the keepers of shops, and that the system would really be continued, in another and, perhaps, more objectionable form. This anticipation has, we believe, been in some degree realised; but the system has notwithstanding been in many places abandoned, and is nowhere practised to anything like the extent to which it was carried previously to the passing of Lord Hatherton's Act. It will not, however, be completely rooted out, till all small debts, however they originate, be put beyond the pale of the law. We have already vindicated the expediency of this measure on other grounds [CREDIT]; and the influence it would have in effectually destroying whatever is most pernicious in the truck system, is a weighty additional recommendation in its favour. Were all right of action upon debts for less than 50*l.* or 100*l.* taken away, no master would think of acquiring a control over the free agency of his workmen, by getting them in debt to him; and no workmen would, under such circumstances, submit to be directed in his choice of shops or goods. The case of the Scotch colliers affords a curious illustration of what is now stated. Down to 1775, these persons were really *adscripti glebæ*, or prædial slaves; that is, they and their descendants were bound to perpetual service at the works to which they belong, a right to their labour being acquired by any new proprietor to whom the works were sold. The 15 Geo. III. c. 28 was passed for the emancipation of the colliers from this state of bondage. It, however, failed of practically accomplishing its object; for the masters speedily contrived, by making them advances in anticipation of their wages, to retain them as completely as ever under their control. To obviate this abuse, the 39 Geo. III. c. 56 was passed; which most properly took from the masters all title to pursue the colliers for loans, unless advanced for the support of the collier and his family during sickness. This Act had the desired effect; and the colliers have since been as free as any other class of labourers. (See edition of the *Wealth of Nations* by the author of this work, p. 172.) In fact, were small debts put beyond the pale of the law, it would not be necessary to interfere directly with the truck system; for it would not then be possible to pervert it to any very injurious purpose.

The following are the principal clauses in the Act 1 & 2 Wm. IV. c. 37, entitled 'An Act to prohibit the Payment in certain Trades, of Wages in Goods, or otherwise than in the Current Coin of the Realm':—

1. In all contracts hereafter to be made for the hiring of any artificer in any of the trades hereinafter enumerated, or for the performance by any artificer of any labour in any of the said trades, the wages of such artificer shall be made payable only in the current coin of this realm, and not otherwise; any contract to the contrary being illegal, null, and void.

2. If such contract contain any stipulations as to the manner in which the wages shall be expended, it is void.

3. Wages must be paid to the workman in coin only. Payment in goods illegal and void.

4. Artificers may recover wages, if not paid in the current coin.

5. In an action brought for wages, no set-off shall be allowed for goods supplied by the employer, or by any shop in which he is interested.

6. No employer shall have any action or suit in equity against his artificer, for goods supplied to him on account of wages, or supplied by any shop in which he has an interest.

7. If the artificer, or his wife or children, become chargeable to the parish, the overseers may recover any wages earned within the 3 preceding months, and not paid in cash.

8. Nothing in this Act is to invalidate the payment of wages in bank notes or drafts on any bankers within 15 miles, if artificer consents.

9. Any employer of any artificer in any of the

trades hereinafter enumerated, who shall, by himself, or by the agency of any other person directly or indirectly enter into any contract, or make any payment hereby declared illegal, shall, for the first offence forfeit a sum not exceeding 10*l.* nor less than 5*l.*, and for the second offence any sum not exceeding 20*l.* nor less than 10*l.*, and for a third offence he shall be guilty of a misdemeanor, and be punished by fine only, at the discretion of the court, so that the fines shall not in any case exceed 100*l.*

10. Offences shall be enquired of and fines recovered before 2 justices, and the amount of the fines shall be in the discretion of such justices, or in cases of misdemeanor, of the court before which the offence may be tried; and in case of a second offence, it shall be sufficient evidence of the previous conviction, if a certificate, signed by the officer having the custody of the record, be produced, stating in a compendious form the general nature of the offence. But a second or third offence shall only be punished as a first or second offence, if committed within 10 days after the prior conviction; and a fourth or any subsequent offence shall be punished as a third offence. But no second or third offence shall be prosecuted after more than 2 years from the commission of the next preceding offence.

11. Justices may compel the attendance of witnesses, on the request of the parties. Penalty for non-attendance without excuse and after proof of due service of summons at the usual place of abode for such persons, 24 hours at least before the time appointed for appearance, a commitment to some prison within the jurisdiction of the justices, without bail or mainprize, for not exceeding 14 days, or until such person shall submit to be examined.

Sections from 12 to 18 inclusive regulate proceedings.

19. Act only to apply to the following trades: Making, casting, converting, or manufacturing of iron or steel, or any parts, branches, or processes thereof; working any mines of coal, ironstone, limestone, salt rock; or working or getting stone, slate, or clay; or making or preparing salt, bricks, tiles, or quarries; or making or manufacturing any kinds of nails, chains, rivets, anvils &c., keys &c., or any other articles or hardwares made of iron or steel, or of iron and steel combined, or of any plated articles of cutlery, or of any goods or wares made of brass, tin, lead, pewter, or other metal, or of any japanned goods or wares whatsoever; or making, spinning, throwing, doubling, winding, weaving, combing, knitting, bleaching, dyeing, printing, or otherwise preparing any kinds of woollen, worsted, yarn, stuff, kersey, linen, fustian, cloth, serge, cotton, leather, fur, hemp, flax, mohair, or silk manufactures whatsoever, or any manufactures whatsoever made of the said last-mentioned materials, whether the same be or be not mixed one with another; or making or otherwise preparing, ornamenting, or finishing any glass, porcelain, china, or earthenware whatsoever, or any parts, branches, or processes thereof, or any materials used in any of such last-mentioned trades; or making or preparing of bone, thread, silk, or cotton lace, or of lace made of any mixed materials.

20. Not to extend to any domestic servant, or servant in husbandry.

21. No one engaged in any of the trades or occupations enumerated, or his father, son, or brother, shall act as a justice.

22. County magistrates to act in cases where those of towns are disqualified as above.

23. Not to prevent any employer from supplying or contracting to supply to any artificer any medicine or medical attendance, or any fuel, or any materials, tools, or implements to be by such artificer employed in his trade or occupation, if such artificers be employed in mining, or any hay, corn, or other provender to be consumed by any horse or other beast of burden employed by any such artificer in his trade and occupation; nor from demising to any artificer employed in any of the trades and occupations enumerated the whole or any part of any tenement at any rent: nor from supplying or contracting to supply to any such artificer any victuals dressed or prepared under the roof of any such employer, and there consumed by such artificer; nor from making or contracting to make any deduction from the wages of any artificer for any such rent, or medicine or medical attendance, or fuel, materials, tools, implements, hay, corn, or provender, or such victuals, or for any money advanced to each artificer for any such purpose; but such deduction shall not exceed the true value of such fuel, materials, tools, implements, hay, corn, and provender, and shall not be in any case made from the wages of such artificer unless the agreement for such deduction shall be in writing and signed by such artificer.

24. Not to prevent any such employer from advancing to any such artificer any money to be by him contributed to any friendly society or bank for savings, or for his relief in sickness, or for the education of any child of such artificer, nor from deducting or contracting to deduct any money from the wages of such artificers for the education of any such child, provided the agreement for such deduction shall be in writing and signed by such artificer.

25. Workmen, labourers, and other persons in any manner engaged in any employment or operation, in or about the several trades and occupations aforesaid, shall be deemed 'artificers;' and all masters, bailiffs, foremen, managers, clerks, and other persons engaged in the hiring, employment, or superintendence of the labour of any such artificers shall be deemed to be 'employers:' and any money or other thing had or contracted to be paid, or given as a remuneration for any labour done or to be done, whether within a certain time or to a certain amount, or for a time or an amount uncertain, shall be deemed to be the 'wages' of such labour; and any agreement, understanding, device, contrivance, collusion, or arrangement whatsoever on the subject of wages, whether written or oral, whether direct or indirect, to which the employer and artificer are parties, or are assenting, or by which they are mutually bound to each other, or whereby either of them shall have endeavoured to impose an obligation on the other of them, shall be deemed a 'contract.'

TRUFFLES. A sort of vegetable production, like a mushroom, formed under ground. A few have been found in Northamptonshire; they are pretty abundant in Italy, the south of France, and several other countries. The French are black and warty externally, while the Piedmontese are smooth. They are reckoned a great delicacy. The *pâtés aux truffes d'Angoulême* are highly esteemed, and are sent as presents to very distant places. In 1867 we imported 33,003 lb. of truffles, valued at 18,565*l.*, and exported 284 lb. (Brande and Cox's *Dictionary of Science and Art*; &c.)

TUNIS. The capital of the regency of the same name, on the northern coast of Africa, the Goletta fort being in lat. 36° 48′ 30″ N., long. 10° 25′ 45″ E. The bay of Tunis is somewhat in

the form of a horseshoe. Its western extremity, Cape Carthage, is situated about 4 miles N.E. from the Goletta; and its eastern extremity, Cape Zafran, bears from Cape Carthage E. by S., distant about 13 miles. The bay is about 16 miles deep, and has good anchorage all over, in from 10 to 4 fathoms water. It is exposed to the N. and N.E. gales; but they seldom occasion any damage. Tunis lies on the west side of the bay, being separated from it by a large lagoon, having, where deepest, about 7 feet water. The port is at the Goletta, or channel, passing through the narrow belt of land separating the lagoon from the sea; the entrance to it is by a canal, in which there is at all times 15 feet water; and ships may use it on paying a fee of 3 dollars a-day. It is not, however, much resorted to; all vessels of considerable burden loading and unloading from their moorings in the bay, by means of lighters. The population of Tunis has been variously estimated at from 100,000 to 150,000, being the most populous of any African city after Cairo. The streets are narrow, unpaved, and filthy. The buildings, though of stone, are mean and poor; and the inhabitants present the picture of poverty and oppression. There is a fort at the Goletta, of considerable strength.

Trade.—Notwithstanding the various drawbacks arising out of the nature of the government, and the ignorance and prejudices of the people, commerce and industry are in a more advanced state in Tunis than in any other part of Northern Africa, Egypt excepted. Though subject to droughts, the climate is, on the whole, excellent. The soil still preserves that exuberant fertility for which it was famous in antiquity.

> Non quicquid Libycis tenit
> Fervens area mendus. (Senec. in Thyest.)

It seldom receives any other manure than that of sometimes burning the weeds and stubble; and yet, in despite of its slovenly culture, the crops are luxuriant; and there is generally a considerable excess of wheat and barley for exportation. Corn is principally shipped at Biserta, about 50 miles west of Tunis. Olive oil is one of the principal articles of export. It is of various qualities; some good, and some very indifferent. Susa is said to be the best place for its shipment. Soap of an excellent quality is largely manufactured in the regency. It may be had either soft or in wedges. The soft is made of barilla and pure oil, and is much esteemed. The hard soap is made from the lees of oil, and is reckoned very strong. The principal soap-works are at Susa. Little, however, is prepared on a speculative anticipation of a demand for exportation; but any quantity may be had by contracting for it a few months before the period when it is wanted. A sort of woollen scull-caps are largely exported. They are in extensive demand all over the Levant, and are nowhere made in such perfection as here. Ivory and gold dust, hides, wax, morocco leather, sponge, barilla, coral, dates, ostrich feathers &c. are among the articles of export.

The imports from Europe consist of woollens, coarse German linens, cotton stuffs, hardware, sugar, coffee, spices, tin plates, gunpowder, lead, alum, dye stuffs, wine, silk, Spanish wool &c. There is very little direct trade between Tunis and England; but a good deal is indirectly carried on, through the intervention of Malta and Gibraltar. Marseilles has probably the largest share of the trade with the regency. The value of the exports to Tunis of British produce and manufactures, chiefly cotton, was in 1845, 102,077*l.*, and in 1867, 67,204*l.*, while the value of our imports sent thence in 1867 was 6,325*l.*

Exclusive of the trade by sea, a considerable trade is carried on between Tunis and the interior of Africa, by means of caravans. These import slaves, gold dust, ivory, feathers, drugs &c. They carry black cotton stuffs, linens, hardware, spices, cochineal &c.

Naval and military stores imported into Tunis pay no duty. Other articles pay a duty of 3 per cent. ad valorem on a rated tariff. Obstructions arising out of monopolies &c. are occasionally thrown in the way of exportation; and in general it is necessary, before proceeding to ship, to obtain a *tiskery*, or license to that effect, from the bey. That, however, may be, for the most part, procured without much difficulty.

Money.—Accounts are kept in piastres of 16 carobas or 52 aspers. The piastre is worth about 1*s.* 1*d.* sterling. The asper is an imaginary money. The value of foreign coins depends on the state of the exchange.

Weights.—Gold, silver, and pearls are weighed by the ounce of 8 meticals; 16 of these ounces make the Tunis pound = 7,773·5 Eng. grs. The principal commercial weight is the cantaro, containing 100 lb., or rottoli, being equivalent to 111·05 lb. avoird., or 50·36 kilog.

Measures.—The principal corn measure is the cafiz, divided into 16 whibas; and the whiba into 12 sahas. One cafiz = 14½ imperial bushels.

The wine measure is the millerolle of Marseilles = 14·1 imp. gallons, or 64·33 litres. It is divided into 6½ mitres. The principal oil measure is the metal or mettar = 5·125 wine gallons, or 19·39 litres; but it is of different dimensions in different parts of the country; and is larger at Susa, whence most of the oil is exported, than at Tunis.

The pic, or principal long measure, is of 3 sorts; viz. the pic woollen measure = 26·5 Eng. inches; the pic silk measure = 24·8 do.; and the pic linen measure = 18·6 do.

For further particulars see that chapter of Shaw's *Travels in Barbary* &c. (one of the most learned and excellent works of the kind in the English language), that treats of the kingdom of 'Tunis;' Macgill's *Account of Tunis*, passim; Jackson's *Commerce of the Mediterranean*, pp. 55-56; Kelly's *Cambist*; *Parl. Papers*; &c.

Ruins of Carthage.—The famous city of Carthage, one of the greatest emporiums of the ancient world, long the mistress of the sea, and the most formidable enemy of Rome, was situated near the cape which still bears her name, about 10 miles north-east from Tunis. Such, however, have been the alterations on the coast, that the port of the city, within whose ample expanse whole navies used to ride, is now wholly filled up: antiquaries differ as to its situation; and the sea has in some places receded from 2 to 3 miles from the ruins of the buildings by which it was formerly skirted. The common sewers are still in a very perfect state, as are several cisterns, public reservoirs, and other remains of that sort, with the fragment of a noble aqueduct that supplied the city with water. But besides these and a very few Punic inscriptions that have been dug up, there is nothing left to attest the ancient grandeur and magnificence of the city, or to identify it with the illustrious people by whom it was founded and occupied till its destruction by Scipio Nasica. There are no temples, no triumphal arches, no granite columns or obelisks covered with Phœnician characters, and no ancient entablatures. These have all fallen a sacrifice to hostile attacks, or to the destroying hand of time.

> Nunc passim, vix reliquiæ, vix nomina servant
> Obruitur, propriis non agnoscenda ruinis.

Such mutilated fragments of buildings as still remain are evidently the work of a later age; of those who occupied the city between the period when a colony was sent to it by Augustus, and its final subversion by the Saracens in the seventh century.

TURBITH or TURPETH. The cortical part of the root of a species of *Convolvulus*, brought from different parts of the East Indies. It is a longish root about the thickness of the finger, resinous, heavy, of a brownish hue without and whitish within. It is imported cloven in the middle, lengthwise, and the heart or woody matter taken out. The best is ponderous, not wrinkled, easy to break, and discovers to the eye a large quantity of resinous matter. At first it makes an impression of sweetness on the taste; but, when chewed for some time, betrays a nauseous acrimony. It is used in medicine, but only to a small extent. (Lewis's *Mat. Med.*)

TURBITH [MINERAL]. The name given by chemists to the subsulphate of mercury.

TURBOT (*Pleuronectes maximus*). A well-known and highly esteemed species of fish. Very considerable quantities of turbot are now taken on various parts of our coasts, from the Orkneys to the Land's End, yet a preference is given in the London markets to those caught by the Dutch. The latter are said to have sometimes drawn as much as 80,000*l.* in a single year, for turbots sold in London.

Fresh turbots, however taken, or in whatever ship imported, may be imported free of duty. [FISH.]

TURKEY. [CONSTANTINOPLE; GALACZ; SINOPE; SMYRNA; TREBIZOND; &c.]

TURMERIC. The root of the *Curcuma longa*. It is externally greyish, and internally of a deep lively yellow or saffron colour; very hard; and not unlike, either in figure or size, to ginger. That should be preferred which is large, new, resinous, difficult to break, and heavy. It is imported from Bengal, Java, China &c. Small quantities of it have also been grown in England. It has a somewhat aromatic, and not very agreeable, smell; and a bitterish, slightly acrid, but rather warm taste. It used to be in considerable estimation as a medicine; and is extensively used in India for culinary purposes, entering into the composition of curry powder and other articles; in Europe, it is only used as a dye. It yields a beautiful bright yellow colour; which, however, is extremely fugitive, and no means have hitherto been discovered of fixing it. It is sometimes employed to heighten the yellows made with weld, and to give an orange tint to scarlet; but the shade imparted by the turmeric soon disappears. (Lewis's *Mat. Med.*; Bancroft *On Colours*, vol. i. p. 276; *British Pharmacopœia*, 1867.)

The duties on turmeric, after being reduced in 1842, were wholly repealed in 1845. The imports, which have been much augmented since 1850, amounted in 1867 to 1,841 tons, valued at 40,555*l.*; the re-exports during the same year being 1,397 tons. The price of turmeric in London in 1867 varied from 18*l.* 8*s.* to 22*l.* 7*s.* per ton. The Bombay and Sinde bring the lowest, and the Bengal and Pegu the highest price.

TURPENTINE (Ger. terpentin; Fr. térébenthine; Ital. trementina; Russ. skipidar; Pol. terpentyna). There are several species of turpentine, but all of them possess the same general and chemical properties.

1. *Common Turpentine* is a resinous juice which exudes from the Scotch fir or wild pine (*Pinus sylvestris*). The trees which are most exposed to the sun, and have the thickest barks, yield it in the greatest abundance. They begin to produce it when about 40 years old. The bark of the tree is wounded and the turpentine flows out in drops, which fall into a hole, or sort of cup, previously dug at the foot of the tree, holding about 1½ pint. It is purified by being exposed to liquefy in the sun's rays, in barrels perforated in the bottom, through which it filters. In the United States, the collection of turpentine is confided chiefly to negroes, each of whom has the charge of from 3,000 to 4,000 trees. The process lasts all the year, although the incisions are not made in the trees till the middle of March, and the flow of the turpentine generally ceases about the end of October. The boxes are emptied 5 or 6 times during the year; and it is estimated that 250 boxes will produce a barrel weighing 320 lb. Turpentine has a strong, somewhat fragrant odour, and a bitter, disagreeable taste; its consistence is greater than that of honey; its colour dirty yellow; and it is more opaque than the other sorts. We import it chiefly from the United States.

2. *Venice Turpentine* is the produce of the larch (*Pinus Larix*). It is obtained by boring a hole into the heart of the tree about 2 feet from the ground, and fitting into it a small tube through which the turpentine flows into vessels prepared for its reception. It is purified by straining through cloths, or hair sieves. It is more fluid, having the consistence of new honey, a yellowish colour, and is less unpleasant to the smell and taste than the common turpentine. Genuine Venetian turpentine is principally obtained from the forests of Baye, in Provence; but much of that to be found in the shops comes from America, and is, perhaps, obtained from a different species of fir.

3. *Canadian Balsam*, or *Turpentine*, is obtained from incisions in the bark of the *Pinus balsamea*, a native of the coldest regions of North America. It is imported in casks, each containing about 1 cwt. It has a strong, not disagreeable odour, and a bitterish taste; is transparent, whitish, and has the consistence of copaiva balsam. [BALSAM.]

4. *Chian*, or *Cyprus Turpentine*, is obtained from the *Pistacia Terebinthus*, a native of the north of Africa and the south of Europe, and cultivated in Chios and Cyprus. It flows out of incisions made in the bark of the tree in the month of July; and is subsequently strained and purified. It has a fragrant odour, a moderately warm taste, devoid of acrimony or bitterness, and a white or very pale yellow colour; it is about as consistent as thick honey, is clear, transparent, and tenacious. From its comparative high price, Chian turpentine is seldom procured genuine, being for the most part adulterated either with Venetian or common turpentine. The different species of turpentine may be dissolved in rectified spirit, or pure alcohol; and, by distillation, they all give similar oils, which, from their being distilled (and not from any resemblance to alcohol, or spirits properly so called), are vulgarly termed spirit of turpentine. If the distillation be performed with water, the produce is an essential oil, the common spirit of turpentine; and if the distillation be carried on in a *retort*, without water, the product is more volatile and pungent—a concentrated oil, as it were—and is called the ethereal spirit of turpentine. The residuum that is left, in both cases, is a brownish resinous mass, brittle, capable of being melted, highly inflammable, insoluble in water, but mixing freely with oils: it is the common rosin of commerce. (*Lib. of Entert. Knowledge, Vegetable Substances*; Thomson's *Dispensatory*.)

In 1867 our imports of common turpentine were

40,035 cwt., valued at 19,419*l*. Over two-thirds of this quantity came from the United States.

TURPENTINE, OIL OF (Ger. terpentinöl; Fr. eau de raze, huile de térebenthine; Ital. acqua di rasa; Span. aguarras). The essential oil drawn from turpentine by distillation. There are two sorts of this oil: the best, red; and the second, white. It is very extensively used by house painters, and in the manufacture of varnish, in medicine &c. The distillers have been charged with using it in the preparation of gin. Oil of turpentine is very often adulterated. That used in medicine is limpid, colourless, with a strong peculiar odour, and pungent and bitter taste. In 1867 we exported 75,791 gallons, valued at 12,824*l*., chiefly to India and Australia. (*British Pharmacopœia*, 1867.)

TURQUOISE (Ger. türkiss; Fr. turquoise; Ital. turchina; Span. turquesa). A precious stone, in considerable estimation.

Its colour, which is its principal recommendation, is a beautiful celestial blue, which changes into pale blue, and is sometimes tinged with green. Specific gravity, 2·6. It possesses a somewhat waxy lustre, and is somewhat translucent, although generally opaque. It is much worn in necklaces, and every part of ornamental jewellery, from the size of a pin's head to that of an almond: it contrasts beautifully with brilliants, or pearls, set in fine gold, and appears to most advantage when cut spheroidal. (Mawe *On Diamonds*, 2nd ed. p. 129; Emanuel *On Diamonds*, pp. 179—190.)

Real turquoises are exclusively furnished by Persia. The mines whence they are obtained are situated near Nishapore. They are the property of the Crown, and are farmed to the highest bidder. They bring a rent of from 2,000*l*. to 2,700*l*. a-year. (Fraser's *Travels on the Shores of the Caspian*, pp. 343–347.)

TURTLE SHELLS. [Tortoise Shells.]

TUTENAGUE. The name given in commercial language to the zinc or spelter of China. [Zinc.]

But it is improperly applied; for the article to which the Portuguese originally gave the name of *tutenag*, is, in fact, the gong metal of the Chinese, that is, an alloy of copper and tin. It is harder than zinc, though less so than iron, sonorous, compact, and has some malleability. The fresh fracture is brilliant, but soon tarnishes. It is made by melting 100 catties of the mineral called *hung-tung* or red copper, with 25 catties of tin, and running it, when intended for gongs, into a thin plate. The sonorous quality of these instruments is owing chiefly to long-continued and expert hammering, and their price depends in great measure upon the sound. Other instruments are also made of this alloy, as well as wash-basins, dishes, and small bells. Notwithstanding the prohibition which formerly existed against exporting unwrought metals from China, it is supposed that previously to 1820 about 2,500 tons tutenague were annually sent to India and the Malay countries. But this exportation has been superseded by the supplies of zinc which India &c. now get from Europe, and which is better fitted for the purposes to which tutenague was applied. European zinc is, also, finding its way to China. The export price of tutenague varies from 14 to 40 dols. per picul. Large gongs sell at from 40 to 50 cts. per catty. Small ones at half that price. (*Chinese Commercial Guide*, p. 199.)

TYPES. The value of printing types and materials for printing exported from this country in 1867 (chiefly to India, Australia, and the United States) was 68,094*l*.

TYRE. The principal city of Phœnicia, and the most celebrated emporium of the ancient world. This famous city was situated on the S.E. coast of the Mediterranean, where the inconsiderable town of Tsour now stands, in lat. 33° 17′ N., long. 35° 14′ 35″ E. The trade that is at present carried on at Tsour is too trifling to deserve notice; but as this work is intended to give some account, however imperfect, of the revolutions in the channels of commercial enterprise, we may, perhaps, be excused for submitting a few statements with respect to the commerce carried on by so renowned a people as the Tyrians.

Tyre was founded by a colony from Sidon, the most ancient of the Phœnician cities. The date of this event is not certainly known, but Larcher supposes it to have been 1,690 years before the Christian era. (*Chronologie d'Hérodote*, cap. ii. p. 131.) It is singular, that while Homer mentions Sidon, he takes no notice of Tyre, whose glory speedily eclipsed that of the mother city; but this is no conclusive proof that the latter was not in his time a considerable emporium. The prophets Isaiah, Jeremiah, and Ezekiel, who flourished from 700 to 600 years before Christ, represent Tyre as a city of unrivalled wealth, whose 'merchants were princes, and her traffickers the honourable of the earth.' Originally, the city was built on the main land: but having been besieged for a lengthened period by the Babylonian monarch Nebuchadnezzar, the inhabitants conveyed themselves and their goods to an island at a little distance, where a new city was founded, which enjoyed an increased degree of celebrity and commercial prosperity. The old city was, on that account, entitled Palætyre, and the other simply Tyre. The new city continued to flourish, extending its colonies and its commerce on all sides, till it was attacked by Alexander the Great. The resistance made by the Tyrians to that conqueror showed that they had not been enervated by luxury, and that their martial virtues were nowise inferior to their commercial skill and enterprise. The overthrow of the Persian empire was effected with less difficulty than the capture of this single city. The victor had not the magnanimity to treat the vanquished as their heroic conduct deserved. In despite, however, of the cruelties inflicted on the city, she rose again to considerable eminence. But the foundation of Alexandria, by diverting the commerce that had formerly centred at Tyre into a new channel, gave her an irreparable blow; and she gradually declined till, consistently with the denunciation of the prophet, her palaces have been levelled with the dust, and she has become 'a place for the spreading of nets in the midst of the sea.'

Commerce, Colonies &c. of Tyre.—Phœnicia was one of the smallest countries of antiquity. It occupied that part of the Syrian coast which stretches from Aradus (the modern Rouad) on the north, to a little below Tyre on the south, a distance of about 60 leagues. Its breadth was much less considerable, being for the most part bounded by Mount Libanus to the east, and Mount Carmel on the south. The surface of this narrow tract was generally rugged and mountainous; and the soil in the valleys, though moderately fertile, did not afford sufficient supplies of food to feed the population. Libanus and its dependent ridges were, however, covered with timber suitable for ship-building; and besides Tyre and Sidon, Phœnicia possessed the ports of Tripoli, Byblos, Berytus &c. In this situation, occupying a country unable to supply them with sufficient quantities of corn, hemmed in by mountains, and by power-

ful and warlike neighbours, on the one hand, and having, on the other, the wide expanse of the Mediterranean, studded with islands, and surrounded by fertile countries, to invite the enterprise of her citizens, they were naturally led to engage in maritime and commercial adventures; and became the boldest and most experienced mariners, and the greatest discoverers, of ancient times.

From the remotest antiquity, a considerable trade seems to have been carried on between the Eastern and Western worlds. The spices, drugs, precious stones, and other valuable products of Arabia and India, have always been highly esteemed in Europe, and have been exchanged for the gold and silver, the tin, wines &c. of the latter. At the first dawn of authentic history, we find Phœnicia the principal centre of this commerce. Her inhabitants are designated in the early sacred writings by the name of Canaanites —a term which, in the language of the East, means merchants. The products of Arabia, India, Persia &c. were originally conveyed to her by companies of travelling merchants, or caravans; which seem to have been constituted in the same way, and to have performed exactly the same part in the commerce of the East, in the days of Jacob, that they do at present. (Gen. xxxvii. 25 &c.) At a later period, however, in the reigns of David and Solomon, the Phœnicians, having formed an alliance with the Hebrews, acquired the ports of Elath and Ezion-geber, at the north-east extremity of the Red Sea. Here they fitted out fleets, which traded with the ports on that sea, and probably with those of southern Arabia, the west coast of India, and Ethiopia. The ships are said to have visited Ophir; and a great deal of erudition has been expended in attempting to determine the exact situation of that emporium or country. We agree, however, with Heeren, in thinking that it was not the name of any particular place; but that it was a sort of general designation given to the coasts of Arabia, India, and Africa, bordering on the Indian Ocean; somewhat in the same loose way as we now use the terms East and West Indies. (See the chapter on the *Navigation and Commerce of the Phœnicians*, in the translation of Heeren's work.)

The distance of the Red Sea from Tyre being very considerable, the conveyance of goods from the one to the other by land must have been tedious and expensive. To lessen this inconvenience, the Tyrians, shortly after they got possession of Elath and Ezion-geber, seized upon Rhinocolura, the port in the Mediterranean nearest to the Red Sea. The products of Arabia, India &c., being carried hither by the most compendious route, were then put on board ships, and conveyed by a brief and easy voyage to Tyre. If we except the transit by Egypt, this was the shortest and most direct, and for that reason, no doubt, the cheapest, channel by which the commerce between Southern Asia and Europe could then be conducted. But it is not believed that the Phœnicians possessed any permanent footing on the Red Sea after the death of Solomon. The want of it does not, however, seem to have sensibly affected their trade; and Tyre continued, till the foundation of Alexandria, to be the grand emporium for Eastern products, with which it was abundantly supplied by caravans from Arabia, the bottom of the Persian Gulf and from Babylon, by way of Palmyra.

The commerce of the Phœnicians with the countries bordering on the Mediterranean was still more extensive and valuable. At an early period, they established settlements in Cyprus and Rhodes. The former was a very valuable acquisition, from its proximity, the number of its ports, its fertility, and the variety of its vegetable and mineral productions. Having passed successively into Greece, Italy, and Sardinia, they proceeded to explore the southern shores of France and Spain, and the northern shores of Africa. They afterwards adventured upon the Atlantic; and were the first people whose flag was displayed beyond the pillars of Hercules. (Mons Calpe and Mons Abyla, the Gibraltar and Ceuta of modern times.)

Of the colonies of Tyre, Gades, now Cadiz, was one of the most ancient and important. It is supposed by M. de St. Croix to have originally been distinguished by the name of Tartessus or Tarshish, mentioned in the sacred writings. (*De l'état et du sort des anciennes Colonies*, p. 14.) Heeren, on the other hand, contends, as in the case of Ophir, that by Tarshish is to be understood the whole southern part of Spain, which was early occupied and settled by Phœnician colonists. (See also Huet, *Commerce des Anciens*, cap. 8.) At all events, it is certain that Cadiz early became the centre of a commerce that extended all along the coasts of Europe as far as Britain, and perhaps the Baltic. There can be no doubt that by the Cassiterides, or Tin Islands, visited by the Phœnicians, are to be understood the Scilly Islands and Cornwall. [Tin.] The navigation of the Phœnicians probably, also, extended a considerable way along the western coast of Africa; of this, however, no details have reached us.

But, of all the colonies founded by Tyre, Carthage has been by far the most celebrated. It was at first only a simple factory; but was materially increased by the arrival of a large body of colonists, forced by dissensions at home to leave their native land, about 883 years before Christ. (*St.-Croix*, p. 20.) Imbued with the enterprising mercantile spirit of their ancestors, the Carthaginians rose, in no very long period, to the highest eminence as a naval and commercial state. The settlements founded by the Phœnicians in Africa, Spain, Sicily &c. gradually fell into their hands; and after the destruction of Tyre by Alexander, Carthage engrossed a large share of the commerce of which it had previously been the centre. The subsequent history of Carthage, and the misfortunes by which she was overwhelmed, are well known. We shall only, therefore, observe, that commerce, instead of being, as some shallow theorists have imagined, the cause of her decline, was the real source of her power and greatness; the means by which she was enabled to wage a lengthened, doubtful, and desperate contest with Rome herself for the empire of the world.

The commerce and navigation of Tyre probably attained their maximum from 650 to 550 years before Christ. At that period the Tyrians were the factors and merchants of the civilised world; and they enjoyed an undisputed pre-eminence in maritime affairs. The prophet Ezekiel (chap. xxvii.) has described in magnificent terms the glory of Tyre; and has enumerated several of the most valuable productions found in her markets, and the countries whence they were brought. The fir trees of Senir (Hermon), the cedars of Lebanon, the oaks of Bashan (the country to the east of Galilee), the ivory of the Indies, the fine linen of Egypt, and the purple and hyacinth of the isles of Elishah (Peloponnesus), are specified among the articles used for her ships. The inhabitants of Sidon, Arvad (Aradus), Gebel (Byblos), served her as mariners and carpenters. Gold, silver, lead, tin, iron, and vessels of brass; slaves, horses,

mules, sheep, and goats; pearls, precious stones, and coral; wheat, balm, honey, oil, spices, and gums; wine, wool, and silk, are mentioned as being brought into the port of Tyre by sea, or to its markets by land, from Syria, Arabia, Damascus, Greece, Tarshish, and other places, the exact site of which it is difficult to determine. There is, in Dr. Vincent's *Commerce and Navigation of the Ancients in the Indian Ocean* (vol. ii. pp. 624—652), an elaborate and (like the other parts of that work) prolix commentary on this chapter of Ezekiel, in which most of the names of the things and places mentioned are satisfactorily explained. (Heeren *On the Phœnicians*, cap. iv.)

Such, according to the inspired writer, was Tyre, the 'Queen of the waters' before she was besieged by Nebuchadnezzar. But, as has been already remarked, the result of that siege did not affect her trade, which was as successfully and advantageously carried on from the new city as from the old. Inasmuch, however, as Carthage soon after began to rival her as a maritime and mercantile state, this may, perhaps, be considered as the era of her greatest celebrity.

It would not be easy to overrate the beneficial influence of that extensive commerce from which the Phœnicians derived such immense wealth. It inspired the people with whom they traded with new wants and desires, at the same time that it gave them the means of gratifying them. It everywhere gave fresh life to industry, and a new and powerful stimulus to invention. The rude uncivilised inhabitants of Greece, Spain, and Northern Africa acquired some knowledge of the arts and sciences practised by the Phœnicians; and the advantages of which they were found to be productive secured their gradual though slow advancement.

Nor were the Phœnicians celebrated only for their wealth, and the extent of their commerce and navigation. Their fame, and their right to be classed amongst those who have conferred the greatest benefits on mankind, rest on a still more unassailable foundation. Antiquity is unanimous in ascribing to them the invention and practice of all those arts, sciences, and contrivances that facilitate the prosecution of commercial undertakings. They are held to be the inventors of arithmetic, weights and measures, of money, of the art of keeping accounts, and, in short, of everything that belongs to the business of a counting-house. They were also famous for the invention of ship-building and navigation; for the discovery of glass [GLASS]; for their manufactures of fine linen and tapestry; for their skill in architecture, and in the art of working metals and ivory; and still more for the incomparable splendour and beauty of their purple dye. (See the learned and invaluable work of the President de Goguet, *Sur l'Origine des Loix etc.* Eng. trans. vol. i. p. 296, and vol. ii. pp. 95—100; see also the chapter of Heeren on the *Manufactures and Land Commerce of the Phœnicians.*)

But the invention and dissemination of these highly useful arts form but a part of what the people of Europe owe to the Phœnicians. It is not possible to say in what degree the religion of the Greeks was borrowed from theirs; but that it was to a pretty large extent seems abundantly certain. Hercules, under the name of Melcarthus, was the tutelar deity of Tyre; and his expeditions along the shores of the Mediterranean, and to the straits connecting it with the ocean, seem to be merely a poetical representation of the progress of the Phœnician navigators, who introduced arts and civilisation, and established the worship of Hercules, wherever they went. The temple erected in honour of the god at Gades was long regarded with peculiar veneration.

The Greeks were, however, indebted to the Phœnicians, not merely for the rudiments of civilisation, but for the great instrument of its future progress—the gift of letters. No fact in ancient history is better established than that a knowledge of alphabetic writing was first carried to Greece by Phœnician adventurers; and it may be safely affirmed that this was the greatest boon any people ever received at the hands of another.

Before quitting this subject, we may briefly advert to the statement of Herodotus with respect to the circumnavigation of Africa by Phœnician sailors. The venerable Father of History mentions, that a fleet fitted out by Necho king of Egypt, but manned and commanded by Phœnicians, took its departure from a port on the Red Sea, at an epoch which is believed to correspond with the year 604 before the Christian era, and that, keeping always to the right, they doubled the southern promontory of Africa; and returned, after a voyage of three years, to Egypt, by the Pillars of Hercules. (Herod. lib. iv. s. 42.) Herodotus further mentions, that they related that, in sailing round Africa, they had the sun on their right hand, or to the north—a circumstance which he frankly acknowledges seemed incredible to him, but which, as everyone is now aware, must have been the case if the voyage was actually performed.

Many learned and able writers, and particularly Gosselin (*Recherches sur la Géographie systématique et positive des Anciens*, tome i. pp. 204–217), have treated this account as fabulous. But the objections of Gosselin have been successfully answered in an elaborate note by Larcher (*Hérodote*, tome iii. pp. 458—464, ed. 1802); and Major Rennel has sufficiently demonstrated the practicability of the voyage. (*Geography of Herodotus*, p. 682 &c.) Without entering upon this discussion, we may observe, that not one of those who question the authenticity of the account given by Herodotus, presumes to doubt that the Phœnicians braved the boisterous seas on the coasts of Spain, Gaul, and Britain; and that they had, partially at least, explored the Indian Ocean. But the ships and seamen that did this much, might, undoubtedly, under favourable circumstances, double the Cape of Good Hope. The relation of Herodotus has, besides, such an appearance of good faith; and the circumstance, which he doubts, of the navigators having the sun on the right, affords so strong a confirmation of its truth, that there really seems no reasonable ground for doubting that the Phœnicians preceded, by 2,000 years, Vasco de Gama in his perilous enterprise.

Present State of Syria.—The principal modern ports on the coast of Syria are Alexandretta, Latakia, Tripoli, Beyrout, Seyde, and Acre. The commerce which they carry on is but inconsiderable compared with the extent and fertility of the countries of which they are the inlets. This, however, is not owing to the badness of the ports, the unsuitableness of the country, or to any natural cause, but wholly to long continued oppression and misgovernment. There is a passage in the dedication to Sandys's *Travels* that describes the state of Syria, Asia Minor, Egypt &c., about 250 years ago, with a force and eloquence which it is not very likely will soon be surpassed:—

'Those countries, once so glorious and famous for their happy estate, are now, through vice and ingratitude, become the most deplored spectacles of extreme misery; the wild beasts of mankinde having broken in upon them and rooted out all

civilitie, and the pride of a sterne and barbarous tyrant possessing the thrones of ancient and just dominion; who, ayming onely at the height of greatnesse and sensualitie, hath in tract of time reduced so great and goodly a part of the world, to that lamentable distresse and servitude under which (to the astonishment of the understanding beholders) it now faints and groneth. Those rich lands at this present remain waste and overgrowne with bushes, receptacles of wild beasts, of theeves and murderers; large territories dispeopled or thinly inhabited; goodly cities made desolate; sumptuous buildings become ruines; glorious temples either subverted, or prostituted to impietie; true religion discountenanced and oppressed; all nobilitie extinguished; no light of learning permitted, nor vertue cherished: violence and rapine insulting over all, and leaving no securitie save to an abject mind and unlookt on povertie.'

Those who compare this beautiful passage with the authentic statements of Volney—incomparably the best of the modern travellers who have visited the countries referred to—will find that it continued down to a comparatively late period to be as accurate as it is eloquent. Latterly, however, thanks to the decay of the Turkish power, some improvement has taken place. And the trade of Beyrout, and the other ports referred to above, has considerably increased.

U

ULTRAMARINE (Ger. ultramarin; Fr. bleu d'outremer; Ital. oltramarino; Span. ultramar; Russ. ultramarin). A very fine blue powder, made from the blue parts of *lapis lazuli*. It has the valuable property of never fading, nor becoming tarnished, on exposure to the air, or a moderate heat; and on this account is highly prized by painters. It was introduced about the end of the fifteenth century. Owing to its great price, artificial marine is now used, and the tint of this is now superior to that of the natural, while its cost is comparatively trifling. Under this general head we give the following extracts from various reports of the United States Government Department just received. (Brande and Cox's *Dictionary of Science and Art*; &c.)

UMBRELLAS. The value of the umbrellas and parasols of British manufacture exported in 1867, chiefly to India, the United States, Brazil, and Australia, was 187,411*l.*

UNITED STATES. [ALBANY; BALTIMORE; BOSTON; CHARLESTON; GALVESTON; MOBILE; NEW ORLEANS; NEW YORK; PHILADELPHIA; SAN FRANCISCO; &c.]

In the *Report* of the Secretary of the Interior, dated Washington, November 30, 1868, which has just reached this country, it is stated that during the last fiscal year public lands were disposed of as follows:—

	acres
Cash sales	911,941·53
Located with military warrants	517,533·01
Taken for homesteads	2,328,925·25
Approved to States as swamp	259,192·85
Grants to railroads	697,257·57
Located with college scrip	1,917,889·09
	6,655,742·50

A quantity less by 385,872 acres than that disposed of the previous year.

Table exhibiting the Number of Banks, with the Amount of Capital, Bonds Deposited, and Circulation, in each State and Territory, September 30, 1868. (From Report of the Comptroller of the Currency, December 7, 1868.)

States and Territories	Organisation: Organised	Organisation: Closed or closing	Organisation: In operation	Capital paid in	Bonds on Deposit	Circulation issued	In actual circulation
				dol. ct.	dol.	dol.	dol.
Maine	61	..	61	9,085,000 00	8,407,350	7,562,166	7,510,066
New Hampshire	40	..	40	4,785,000 00	4,830,000	4,338,195	4,281,695
Vermont	40	..	40	6,260,012 50	6,317,000	5,891,960	5,737,560
Massachusetts	209	2	207	80,076,000 00	64,718,000	58,561,030	57,094,640
Rhode Island	62	..	62	20,364,800 00	14,785,000	12,673,000	12,491,490
Connecticut	85	4	81	24,084,720 00	19,768,000	17,836,925	17,445,793
New York	314	15	299	116,541,911 00	79,442,500	73,873,505	68,855,726
New Jersey	55	1	54	11,583,550 00	10,618,650	9,520,485	9,397,985
Pennsylvania	205	8	197	50,217,390 00	44,905,350	39,940,700	38,772,102
Maryland	34	..	34	12,790,262 50	10,063,250	9,150,800	8,904,800
Delaware	11	..	11	1,428,185 00	1,348,200	1,217,225	1,198,825
District of Columbia	6	2	4	1,560,000 00	1,368,000	1,278,000	1,157,700
Virginia	20	2	18	2,360,000 00	2,423,800	2,157,930	2,116,670
West Virginia	15	..	15	2,216,400 00	2,243,250	2,020,350	1,988,550
Ohio	137	4	133	22,404,700 00	20,763,800	18,667,750	18,410,425
Indiana	71	3	68	14,867,000 00	12,534,500	11,169,055	11,018,255
Illinois	85	..	85	12,010,000 00	11,037,950	9,757,650	9,648,150
Michigan	43	1	42	5,210,010 00	4,357,700	3,872,995	3,826,435
Wisconsin	57	3	54	7,960,000 00	5,769,050	5,065,550	5,051,110
Iowa	48	4	44	4,057,000 00	3,763,750	3,349,805	3,297,228
Minnesota	16	1	15	1,710,000 00	1,712,200	1,501,900	1,476,800
Kansas	5	..	5	400,000 00	392,000	350,000	341,000
Missouri	20	2	18	7,810,500 00	4,774,050	4,305,550	4,120,510
Kentucky	15	..	15	2,885,000 00	2,665,900	2,367,270	2,358,620
Tennessee	13	1	12	2,095,500 00	1,692,500	1,370,220	1,360,755
Louisiana	3	1	2	1,885,000 00	1,588,000	1,378,000	1,134,415
Mississippi	2	2	..	150,000 00	75,000	66,000	64,035
Nebraska	4	..	4	350,000 00	255,000	170,000	170,000
Colorado	3	..	3	350,000 00	297,000	254,500	254,500
Georgia	9	1	8	1,690,000 00	1,285,500	1,235,400	1,234,000
North Carolina	6	..	6	855,700 00	399,500	317,000	316,000
South Carolina	5	..	5	685,000 00	203,000	155,000	135,000
Alabama	3	1	2	500,000 00	370,500	355,925	304,000
Nevada	1	..	1	150,000 00	150,000	134,700	134,700
Oregon	1	..	1	100,000 00	100,000	88,000	88,000
Texas	4	..	4	525,000 00	472,000	417,635	407,335
Arkansas	2	..	2	200,000 00	200,000	179,500	179,500
Utah	1	..	1	150,000 00	150,000	135,000	135,000
Montana	1	..	1	100,000 00	40,000	36,000	36,000
Idaho	1	..	1	100,000 00	75,000	65,500	64,500
Total*	1,685	56	1,629	427,197,111 00	342,019,250	309,915,166	299,806,565

* 56 of these have never completed their organisation, or have gone into liquidation.

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The quantity of lands still undisposed of is 1,405,366,678 acres.

From among other remarks hostile to the existing tariff of the United States contained in the *Report* for 1868 of the Special Commissioner of the Revenue, we extract the following sentence: 'Another characteristic feature of the existing tariff is that it attempts indiscriminate or universal protection; an idea which, if fully carried out, would render all protection a nullity, and to the extent to which it is carried out does more for foreign, as compared with domestic, industry than almost any other one agency. [Tariff under NEW YORK.]

USANCE. A period of *one*, *two*, or *three* months, or of so many days, after the date of a bill of exchange, according to the custom of different places, before the bill becomes due. Double or treble usance is double or treble the usual time; and ½ usance is ½ the time. When a month is divided, the ½ usance, notwithstanding the differences in the lengths of the months, is uniformly 15 days. Usances are calculated exclusively of the date of the bill. Bills of exchange drawn at usance are allowed the usual days of grace, and on the last of the 3 days the bill should be presented for payment. [EXCHANGE.]

USURY. [INTEREST AND ANNUITIES.]

V

VALONIA. A species of acorn, forming a very considerable article of export from the Morea and the Levant. The more substance there is in the husk, or cup of the acorn, the better. It is of a bright drab colour, which it preserves so long as it is kept dry; any dampness injures it; as it then turns black, and loses both its strength and value. It is principally used by tanners, and is always in demand. Though a very bulky article, it is uniformly bought and sold by weight. A ship can only take a small proportion of her registered tonnage of valonia, so that its freight per ton is always high.

Of 19,547 tons of valonia imported in 1867, and valued at 331,264*l.*, 17,279 tons were brought from Turkey, and the residue almost entirely from Greece. The duty, after being reduced in 1842 from 20*s.* to 5*s.* per ton, was wholly repealed in 1845. The price of valonia in London in 1867 varied from 14*l.* to 17*l.* 6*s.* per ton.

VALPARAISO. The principal seaport of Chile, lat. (Fort St. Antonio) 33° 1′ 9″ S., long. 71° 37′ 13″ W. Population 70,438 in 1865. The water in the bay is deep, and it affords secure anchorage, except during northerly gales, to the violence of which it is exposed; but as the holding ground is good, and the pull of the anchor against a steep hill, accidents seldom occur to ships properly found in anchors and cables. The mole is neither strong nor extensive; but the water close to the shore is so deep, that it is customary for the smaller class of vessels to carry out an anchor to the northward, and to moor the ship with the stern ashore by another cable made fast to land. Large ships lie a little farther off, and load and unload by means of lighters. The best shelter is in that part called the Fisherman's Bay, lying between the castle and Fort St. Antonio, where, close to a clear shingle beach, there is 9 fathoms water. In the very worst weather, a landing may be effected in this part of the bay. There is a lighthouse with a fixed and flashing light on Angeles or Playa Ancha Point visible for 20 miles in clear weather. (Miers's *Chili and La Plata*, i. 440, and Admiralty list of lights 1868.) In 1866, 901 vessels of 354,123 tons entered the port.

The harbours of Valdivia and Concepcion are much superior to that of Valparaiso; the former being, indeed, not only the best in Chile, but second to few in any part of the world. But Valparaiso, being near the capital, Santiago, and being the central depôt for the resources of the province, is most frequented. The town is conveniently situated, at the extremity of a mountainous ridge; most part of the houses being built either upon its acclivity or in its breaches. Large quantities of corn and other articles of provision are shipped here for Callao and other ports along the Peruvian coast: the exports from San Francisco have nearly ceased. The principal articles of export are the precious metals, copper, tallow and hides, wheat and flour, wool, saltpetre &c. The produce of the Chilian mines of gold and silver has increased during the last few years, and their average produce may now be taken at about 4,000,000 dols., or 800,000*l.* a-year. But the increase in the production of copper has been much more considerable, having fully trebled since 1845. It would appear from a series of the Produce Reports of Messrs. W. P. Robertson & Co. of Valparaiso, ending with that of January 2, 1869, that, besides copper, considerable quantities of nitrate of soda and breadstuffs are regularly exported from this and adjacent ports. At that date freights were 2*l.* 15*s.* per ton for copper produce to Swansea, and 2*l.* 17*s.* 6*d.* for copper or wheat to Liverpool. In 1864 the entire value of the mineral products exported from Chile was estimated at 18,698,723 dols. The import and export trades of the republic have more than trebled since 1848, when their aggregate amount was 16,954,952 dols. The following were the principal articles of export, with their values, in 1866:—

Copper ore and copper	-	£2,503,917
Corn, wheat, barley and flour	-	1,250,989
Silver	- - - -	612,957

Total value of the exports in 1866, 5,817,978*l.* The total imports in 1866 were valued at 4,171,293*l.* Of these by far the largest portion is supplied by the United Kingdom, the United States, France, the Hanse Towns, Brazil, Peru &c.

The value of our exports of British produce to Chile amounted, in 1867, to 2,524,438*l.* Among other items they comprised, cottons worth 1,311,437*l.*, woollens 286,183*l.*, linens 141,995*l.*, hardware and cutlery 88,604*l.*, iron 125,378*l.*, apparel and haberdashery 45,875*l.*, empty bags 78,047*l.*, coal 44,790*l.* &c. Exclusive of gold and silver, we import from Chile considerable quantities of copper ore and copper, corn, silver ore, saltpetre, hides, wool &c. The value of the whole imports from Chile, chiefly copper and corn, into the United Kingdom in 1867, was 4,417,568*l.*

Chilian Port Regulations. Export Duties.—Chile Guano, 12½ cents per 1,000 lb.; 5 per cent. on the following articles: bar silver, on valuation of 9 dols. per marc; unsmelted silver (pina), do: old plate (chafalonia), do.; copper, in bars, on valuation of 14 dols. per 100 lb.; do. retalla do., 9 dols. do.; do regulus ores, calcined ores, silver ores, mixed ores, and tailings not capable of amalgamation, and tailings, pay 5 per cent. on

proceeds of account sales when received from place of destination. The provincial contribution on export of copper ores is abolished, and in the *Times* of March 3, 1869, it is stated that the total receipts from customs at Valparaiso during the year 1868, amounted to 5,500,000 dols., of which 650,000 dols. appertains to December alone. Never before has the revenue from this source reached so high a figure.

Port Charges.—Tonnage dues, 25 cents per ton; light dues, 3⅛ cents per ton; role and captain of the port's fees, 4 dols.; harbour master's fees, 8 dols. Whale ships, vessels in distress or in ballast, or discharging under 20 packages, are exempt from tonnage and light dues. Tonnage dues paid at one port are not levied in another.

The lading charges which are on account of the owner of the goods, may be calculated at from 125 dols. to 150 dols. per ton, according to the description of merchandise. Consignees charge generally 5 per cent. commission for sales, and 2½ guarantees.

Foreign Flags.—The only ports of entry for foreign flags are Ancud, Valdivia, Talcahuano, Concepcion, Valparaiso, Coquimbo, and Caldera, and Lota and Coronel in ballast; and vessels from abroad entering any other port are liable to seizure. Coasting trade is prohibited to foreign flags, but they may discharge portions of their original cargoes in one or more ports, and load Chilian produce for a foreign port.

All communication with the shore is prohibited until after the visit of the port and revenue officer, who will require a general manifest of the cargo, or the bill of lading, and a list of stores. 24 hours are allowed for correction of errors or omissions. For any mistake discovered afterward, the captain is subjected to fines or seizure. Passengers' luggage free.

In 1866 the ports of Chile were entered by 3,094 vessels (of which 1,496 were British), with a total tonnage of 1,416,816.

Perhaps no part of South America has profited more than Chile by the establishment of independence. The contrast between her present state and that in which she was found by M. de la Perouse is most striking. 'The influence of the Government,' said that accomplished navigator, 'is in constant opposition to that of the climate. The system of prohibition exists at Chile in its fullest extent. This kingdom, of which the productions would, if increased to their maximum, supply all Europe; whose wool would be sufficient for the manufactures of France and England; and whose herds, converted into salt provisions, would yield a vast produce: this kingdom, alas! has no commerce. Four or five small vessels bring, every year, from Lima, tobacco, sugar, and some articles of European manufacture, which the miserable inhabitants can obtain only at second or third hand, after they have been charged with heavy customs duties at Cadiz, at Lima, and lastly, at their arrival at Chile; in exchange they give their tallow, hides, some deals, and their wheat, which, however, is at so low a price, that the cultivator has no inducement to extend his tillage. Thus Chile, with all its gold, and articles of exchange, can scarcely procure sugars, tobacco, snuff, linens, cambrics, and hardware, necessary to the ordinary wants of life.' (Pérouse's *Voyage*, vol. i. p. 50, Eng. ed.)

Instead, however, of 4 or 5 small ships from Lima, Valparaiso is now annually visited by well-nigh a thousand ships of all nations, exclusive of those visiting the other ports. All sorts of European goods are carried direct to Chile, and are admitted at reasonable duties. The advantages resulting from this extensive intercourse with foreigners, and from the settlement of English and American adventurers in the country, have been already immense, and will every day become more visible. It was impossible, considering the ignorance of the mass of the people, that the old system of tyranny and superstition could be pulled to pieces without a good deal of violence and mischief; but the foundations of a better order of things have been laid, and Chile is becoming an opulent and a flourishing country.

Its population in 1865 amounted to 1,819,223. And Rosalis states, in his excellent work on Chile (*Essai sur le Chile*, Hambourg 1857), that in 1855 the consumption of sugar amounted to 32,785,250 lb., being nearly 22 lb. to each individual (p. 428). As a further evidence of its prosperity, we may mention that the public revenue, which in 1817 amounted to 1,752,127 dols., had in 1846 increased to 3,623,918 dols., and in 1864 to 9,274,920 dols.

Moneys, Weights, and Measures.—The quintal of 4 arrobas, or 100 lb., = 101·44 lb. avoirdupois. The fanega, or principal corn measure, contains 3,439 English cubic inches, and is therefore = 1·599 Winchester bushels. Hence 5 fanegas = 1 Winchester quarter very nearly. The vara, or measure of length, = 0·927 English yard.

VANCOUVER'S ISLAND, amalgamated with British Columbia in 1866 (29 & 30 Vict. c. 67), since which time Victoria, its capital, has ceased to be a free port. The latter has about 6,000 inhabitants, and the island about 10,000. [COLONIES.]

VANILLA or VANELLOES. The fruit of the *Epidendrum Vanilla*, a species of vine extensively cultivated in Mexico.

It has a trailing stem, not unlike the common ivy, but not so woody, which attaches itself to any tree that grows near it. The Indians propagate it by planting cuttings at the foot of trees selected for that purpose. It rises to the height of 18 or 20 feet; the flowers are of a greenish yellow colour, mixed with white; the fruit is about 8 or 10 inches long, of a yellow colour when gathered, but dark brown or black when imported into Europe; it is wrinkled on the outside, and full of a vast number of seeds like grains of sand, having, when properly prepared, a peculiar and delicious fragrance. It is principally used for mixing with and perfuming chocolate, and in confectionery; and is, on that account, largely imported into Spain; but as chocolate is little used in England, vanilla is not much known in this country. In 1867, 8,178 lb. of it were imported, of the value of 2,864*l.*, and 5,551 lb. were re-exported.

Vanilla is principally gathered in the intendancy of Vera Cruz, in Mexico, at Misantla, Colipa, Vacuatla, and other places. It is collected by the Indians, who sell it to the whites (*gente de razon*), who prepare it for market. They spread it to dry in the sun for some hours, then wrap it in woollen cloths to sweat. Like pepper, it changes its colour in this operation, becoming almost black. It is finally dried by exposing it to the sun for a day. There are 4 varieties of vanilla, all differing in price and excellence; viz. the *vanilla fina*, the *sacate*, the *rezacate*, and the *vasura*. The best comes from the forests surrounding the village of Zentilla, in the intendancy of Oaxaca. According to Humboldt, the mean exportation of vanilla from Vera Cruz might, at the time he wrote, amount to from 900 to 1,000 millares, worth at Vera Cruz from 30,000 to 40,000 dollars. Vanilla is also imported from Brazil, but it is very inferior. The finest Mexican vanilla is extremely high priced. The British duty of *5s.* 3*d.* per lb. formerly charged on

vanilla was repealed in 1853. (Humboldt, *Nouvelle-Espagne*, 2nd edit. tome iii. pp. 37, 46; Poinsett's *Notes on Mexico*, p. 194 &c.; Brande and Cox's *Dictionary of Science and Art*; &c.)

VEGETABLE WAX. The produce of the berry of a tree (*Rhus succedaneum*) growing in Japan. The tree, which is well known to botanists, is said to be abundant; it varies in height from 15 to 25 feet, and the berries which it produces are found in clusters, not unlike bunches of grapes.

The native method of preparing the wax is of a very primitive description. The berries having been gathered, are washed and bruised after a rude fashion; and being then slowly boiled, the wax is extracted and thrown to the surface. Having been skimmed off, it is moulded into cakes of about 30 lb. each, which, being dried in the sun, are fit for use.

This beautiful wax, one parcel of which varies but little from another, has a bright cream colour, is nearly of the consistence of bees' wax, bears without softening a high degree of atmospheric heat; and as it contains a large percentage of stearine, it is highly suitable for the manufacture of candles, particularly of those known as 'composite,' as well as for other purposes.

Little is as yet known in this country of this valuable commodity. Small lots of it have occasionally been indirectly imported, but the first cargo brought hither direct, was imported into London in April 1859, by the American ship *Florence*, from Nagasaki, the principal seaport of Japan. In 1867, we imported 8,964 cwt., valued at 37,817*l*.

VEGETABLES. In 1867, we imported vegetables (chiefly from France and Holland) of the value of 50,079*l*.

VELLUM. A species of fine parchment. [PARCHMENT.]

VENEERS. Thin plating, or layers of superior used for covering inferior material. They are chiefly of wood. In 1867 we imported, principally from France, 4,976 cwt. of veneers, valued at 44,878*l*.

VENICE. A famous city, now of the kingdom of Italy, formerly the capital of the republic of that name, and previous to 1866 belonging to the Austrian empire, on a cluster of small islands towards the northern extremity of the Adriatic, now joined to the mainland by a railway bridge, part of the line to Padua, in lat. 45° 25′ 53″ N., long. 12° 20′ 31″ E. Population 123,762 in 1862. The commerce of Venice, once the most extensive of any European city, is now comparatively trifling; and the population, down to 1866, gradually diminishing, both in numbers and wealth. Her imports consist of wheat and other sorts of grain, from the adjoining provinces of Lombardy and the Black Sea; olive oil, principally from the Ionian Islands; cotton stuffs and hardware from England; sugar, coffee, and other colonial products from England, the United States, Brazil &c.; dried fish, dye stuffs &c. The exports principally consist of grain, raw and wrought silk, paper, woollen manufactures, fruits, cheese &c., the products of the adjoining provinces of Italy, and of her own industry; but her manufactures, so famous in the middle ages, are now much decayed.

Port.—The islands on which Venice is built lie within a line of long, low, narrow islands, running N. and S., and enclosing what is termed the lagoon, or shallows, that surround the city, and separate it from the mainland. The principal entrance from the sea to the lagoon is at Malamocco, about 1½ league S. from the city; but there are other, though less frequented, entrances, both to the S. and the N. of this one. There is a bar outside Malamocco, on which there are not more than 10 feet at high water at spring tides; but there is a channel between the western point of the bar and the village of San Pietro, which has 16 feet water at springs, and 14 at neaps. Merchant vessels usually moor off the ducal palace; but sometimes they come into the grand canal which intersects the city, and sometimes they moor in the wider channel of the Giudecca. Vessels coming from the south for the most part make Pirano or Rovigno on the coast of Istria, where they take on board pilots, who carry them to the bar opposite to Malamocco. But the employment of Istrian pilots is quite optional with the master, and is not, as is sometimes represented, a compulsory regulation. When one is taken, the usual fee from Pirano or Rovigno to the bar is 20 Austrian dollars, or about 4*l*. On arriving at the bar, ships are conducted across it and into port by pilots, whose duty it is to meet them outside, or on the bar, and of whose services they must avail themselves. (For the charges on account of pilotage, see post.)

Money.—Formerly there were various methods of accounting here; but now accounts are kept, as at Genoa, in lire Italiane, divided into centesimi, or 100th parts. The lira is supposed to be of the same weight, fineness, and, consequently, value as the franc. But the coins *actually in circulation*, denominated lire, are respectively equal in sterling value to about 5*d*. and 4½*d*. The latter were coined by the Austrian Government.

Weights and Measures.—The commercial weights are here, as at Genoa, of two sorts: the *peso sottile* and the *peso grosso*. The French kilogramme, called the libra Italiana, is also sometimes introduced.

100 lb. peso grosso =	105·166	lb. avoirdupois
	127·850	lb. Troy
	47·678	kilogrammes
	98·485	lb. of Hamburg
	96·869	„ Amsterdam
sottile	66·428	lb. avoirdupois
	80·728	lb. Troy
	30·125	kilogrammes
	62·196	lb. of Hamburg
	60·936	„ Amsterdam

The moggio, or measure for corn, is divided into 4 staje, 16 quarte, or 64 quartaroli. The staja = 2·27 Winch. bushels.

The measure for wine, anfora = 4 bigonzi, or 8 mastelli, or 48 secchii, or 192 bozze or 768 quartuzzi. It contains 137 English wine gallons.

The botta = 5 bigonzi. Oil is sold by weight or measure. The botta contains 2 miglinje, or 80 miri of 25 lb. peso grosso. The miro = 4·028 English wine gallons.

The braccio, or long measure, for woollen = 26·6 English inches; the braccio for silks = 24·8 do. The foot of Venice = 13·68 English inches. (Nelkenbrecher and Kelly.)

Historical Notice.—Venice was the earliest, and for a lengthened period the most considerable, commercial city of modern Europe. Her origin dates from the invasion of Italy by Attila in 452. A number of the inhabitants of Aquileia, and the neighbouring territory, flying from the ravages of the barbarians, found a poor but secure asylum in the cluster of small islands opposite the mouth of the Brenta, near the head of the Adriatic Gulf. In this situation they were forced to cultivate commerce and its subsidiary arts, as the only means by which they could maintain themselves. At a very early period they began to trade with Constantinople and the Levant; and notwithstanding the competition of the Genoese and Pisans, they continued to engross the principal trade in Eastern products, till the discovery of a

route to India by the Cape of Good Hope turned this traffic into a totally new channel. The crusades contributed to increase the wealth and to extend the commerce and the possessions of Venice. Towards the middle of the fifteenth century, when the Turkish sultan, Mahomet II., entered Constantinople sword in hand, and placed himself on the throne of Constantine and Justinian, the power of the Venetians had attained its maximum. At that period, besides several extensive, populous, and well-cultivated provinces in Lombardy, the republic was mistress of Crete and Cyprus, of the greater part of the Morea, and most of the isles in the Egean Sea. She had secured a chain of forts and factories that extended along the coasts of Greece from the Morea to Dalmatia; while she monopolised almost the whole foreign trade of Egypt. The preservation of this monopoly, of the absolute dominion she had early usurped over the Adriatic, and of the dependence of her colonies and distant establishments, were amongst the principal objects of the Venetian Government; and the measures it adopted in that view were skilfully devised, and prosecuted with inflexible constancy. With the single exception of Rome, Venice, in the fifteenth century was by far the richest and most magnificent of European cities; and her singular situation in the midst of the sea, on which she seems to float, contributed to impress those who visited her with still higher notions of her wealth and grandeur. Sannazarius is not the only one who has preferred Venice to the ancient capital of the world; but none have so beautifully expressed their preference.

> Viderat Adriacis Venetam Neptunus in undis
> Stare urbem, et toto ponere jura mari.
> Nunc mihi Tarpeias quantumvis, Jupiter, arces
> Objice, et illa tua mœnia Martis, ait:
> Si Tiberim pelago præfers, urbem aspice utramque,
> Illam homines dicas, hanc posuisse Deos.

Though justly regarded as one of the principal bulwarks of Christendom against the Turks, Venice had to contend, in the early part of the sixteenth century, against a combination of the European Powers. The famous league of Cambray, of which Pope Julius II. was the real author, was formed for the avowed purpose of effecting the entire subjugation of the Venetians, and the partition of their territories. The emperor and the kings of France and Spain joined this powerful confederacy. But, owing less to the valour of the Venetians, than to dissensions amongst their enemies, the league was speedily dissolved without materially weakening the power of the republic. From that period the policy of Venice was comparatively pacific and cautious. But notwithstanding her efforts to keep on good terms with the Turks, the latter invaded Cyprus in 1570; and conquered it, after a gallant resistance, continued for 11 years. The Venetians had the principal share in the decisive victory gained over the Turks at Lepanto in 1571: but owing to the discordant views of the confederates, it was not properly followed up, and could not prevent the fall of Cyprus.

The war with the Turks in Candia commenced in 1645, and continued till 1670. The Venetians exerted all their energies in defence of this valuable island; and its acquisition cost the Turks above 200,000 men. The loss of Candia, and the rapid decline of the commerce of the republic, now almost wholly turned into other channels, reduced Venice, at the close of the seventeenth century, to a state of great exhaustion. She may be said, indeed, to have owed the last 100 years of her existence more to the forbearance and jealousies of others than to any strength of her own. Nothing, however, could avert that fate she had seen overwhelm so many once powerful states. In 1797, the 'maiden city' submitted to the yoke of the conqueror; and the last surviving witness of antiquity—the link that united the ancient to the modern world—stripped of independence, of commerce, and of wealth, is now slowly sinking into the waves whence she arose.

The foundation of Venice is described by Gibbon, c. 35; and in his 60th chapter he has eloquently depicted her prosperity in the year 1200. Mr. Hallam, in his work on the *Middle Ages* (vol. i. pp. 470–87), has given a brief account of the changes of the Venetian Government. Her history occupies a considerable space in the voluminous work of M. Sismondi on the *Italian Republics*; but his details as to her trade and commercial policy are singularly meagre and uninteresting. All previous histories of Venice have, however, been thrown into the shade by the valuable work of M. Daru (*Histoire de la République de Venise*, 2nd ed. 8 vols. 8vo. Paris, 1821). Having had access to genuine sources of information, inaccessible to all his predecessors, M. Daru's work is as superior to theirs in accuracy, as it is in most other qualities required in a history.

Trade, Navigation, and Manufactures of the Venetians in the Fifteenth Century.—The Venetian ships of the largest class were denominated galeasses, and were fitted out for the double purpose of war and commerce. Some of them carried 50 pieces of cannon, and crews of 600 men. These vessels were sometimes, also, called argosers or argosies. They had early an intercourse with England; and argosies used to be common in our ports. In 1325, Edward II. entered into a commercial treaty with Venice, in which full liberty is given to the Venetians, for 10 years, to sell their merchandise in England, and to return home in safety, without being made answerable, as was the practice in those days, for the crimes or debts of other strangers. (Anderson's *Chron. Deduction*, Anno 1325.) Sir William Monson mentions, that the last argosie that sailed from Venice for England was lost, with a rich cargo and many passengers, on the coast of the Isle of Wight, in 1587.

In the beginning of the fifteenth century, the annual value of the goods exported from Venice by sea, exclusive of those exported to the states adjoining her provinces in Lombardy, was estimated, by contemporary writers, at 10,000,000 ducats; the profits of the out and home voyage, including freight, being estimated at 4,000,000 ducats. At the period in question, the Venetian shipping consisted of 3,000 vessels of from 100 to 200 tons burden, carrying 17,000 sailors; 300 ships with 8,000 sailors; and 45 galleys of various size, kept afloat by the republic for the protection of her trade &c., having 11,000 men on board. In the dockyard, 16,000 labourers were usually employed. This is the statement of the native authorities; but there can be no doubt that it is greatly exaggerated—1,600 would be a more reasonable number. The trade to Syria and Egypt seems to have been conducted principally by ready money; for 500,000 ducats are said to have been annually exported to these countries; 100,000 were sent to England. (Daru, tome ii. p. 189 &c.) The vessels of Venice visited every port of the Mediterranean, and every coast of Europe; and her maritime commerce was, probably, not much inferior to that of all the rest of Christendom. So late as 1518, 5 Venetian galeasses arrived at Antwerp, laden with spices, drugs, silks &c. for the fair at that city.

The Venetians did not, however, confine them-

selves to the supply of Europe with the commodities of the East, and to the extension and improvement of navigation. They attempted new arts, and prosecuted them with vigour and success, at a period when they were entirely unknown in other European countries. The glass manufacture of Venice was the first, and for a long time the most celebrated, of any in Europe; and her manufactures of silk, cloth of gold, leather, refined sugar &c., were deservedly esteemed. The jealousy of the Government, and their intolerance of anything like free discussion, was unfavourable to the production of great literary works. Every scholar is, however, aware of the fame which Venice early acquired by the perfection to which she carried the art of printing. The classics that issued from the Aldine presses are still universally and justly admired for their beauty and correctness. The Bank of Venice was established in the twelfth century. It continued throughout a bank of deposit merely, and was skilfully conducted.

But the policy of Government, though favourable to the introduction and establishment of manufactures, was fatal to their progressive advancement. The importation of foreign manufactured commodities into the territories of the republic for domestic consumption was forbidden under the severest penalties. The processes to be followed in the manufacture of most articles were regulated by law. 'Dès l'année 1172, un tribunal avoit été créé pour la police des arts et métiers, la qualité et la quantité des matières furent soigneusement déterminées.' (Daru, iii. 153.) Having, in this way, little to fear from foreign competition, and being tied down to a system of routine, there was nothing left to stimulate invention and discovery; and during the last century the manufactures of Venice were chiefly remarkable as evincing the extraordinary perfection to which they had early arrived, and the absence of all recent improvements. An unexceptionable judge, M. Berthollet, employed by the French Government to report on the state of the arts of Venice, observed, 'que l'industrie des Vénitiens, comme celle des Chinois, avoit été précoce, mais étoit restée stationnaire.' (Daru, tome iii. p. 161.)

M. Daru has given the following extract from an article in the statutes of the State Inquisition, which strikingly displays the real character of the Venetian Government, and their jealousy of foreigners: 'If any workman or artisan carry his art to a foreign country, to the prejudice of the republic, he shall be ordered to return; if he do not obey, his nearest relations shall be imprisoned, that his regard for them may induce him to come back. If he return, the past shall be forgiven, and employment shall be provided for him in Venice. If, in despite of the imprisonment of his relations, he persevere in his absence, an *emissary shall be employed to despatch him*; and after his death his relations shall be set at liberty.' (Tom. iii. p. 150.)

The 19th book of M. Daru's history contains a comprehensive and well-digested account of the commerce, manufactures, and navigation of Venice. But it was not possible, in a work on the general history of the republic, to enter so fully into the details as to these subjects as their importance would have justified. The *Storia Civile e Politica del Commercio de' Veneziani*, da Carlo Antonio Marin, in 8 vols. 8vo., published at Venice at different periods, from 1798 to 1808, is unworthy of the title. It contains, indeed, a great many curious statements; but it is exceedingly prolix; and while the most unimportant and trivial subjects are frequently discussed at extreme length, many of great interest are either entirely omitted, or are treated in a very brief and unsatisfactory manner. The commercial history of Venice remains to be written; and were it well executed, it would be a most valuable acquisition.

Present Trade and Manufactures of Venice.—From the period when Venice came into the possession of Austria, down to 1830, it seems to have been the policy of the Government to encourage Trieste in preference to Venice; and the circumstance of the former being a free port, gave her a very decided advantage over the latter. Latterly, however, a more equitable policy has prevailed. In 1830 Venice was made a free port, and down to 1866, when she became part of the kingdom of Italy, fully participated in every privilege conferred on Trieste. But, notwithstanding this circumstance, the latter continued to preserve the ascendency; and the revival of trade that has taken place at Venice has not been so great as might have been anticipated. The truth is, that except in so far as she is the entrepôt of the adjoining provinces of Lombardy, Venice has no considerable natural advantage as a trading city; and her extraordinary prosperity during the middle ages is more to be ascribed to the comparative security enjoyed by the inhabitants, and to their success in engrossing the principal share of the commerce of the Levant, than to any other circumstance. Still, however, her trade is far from inconsiderable, though it was much depressed during 1866 in consequence of the war. The great articles of import are sugar, coffee, tobacco, and other colonial products; indigo and other dye stuffs, olive oil, oil seed, coal, iron, salted fish, various descriptions of cotton, woollen, and other manufactured goods; wheat and other grain, from the Black Sea; tin plates and hardware, raw cotton &c. The exports principally consist of silk and silk goods, wheat and other grain, paper, jewellery, glass, and glass wares, Venetian treacle, books, with a great variety of other articles, including portions of most of those that are imported.

Account of Total Number of Vessels Entered and Cleared at Venice, including Coasting Vessels, with Amount of Tonnage.

	Vessels	Tons
1865	6,179	585,873
1866	5,699	601,643

Total Imports and Exports united.

		Ital. livres
1865		88,342,862
1866		86,667,432
	Decrease	1,675,430 liv. = £67,017

The comparison of the trade by land and river navigation in 1865 and 1866 is as follows:—

	Total Imports	Total Exports
	Italian liv.	Italian liv.
1865	54,806,090	38,156,168
1866	43,777,580	31,116,119
Decrease	11,028,510	7,040,329
Total decrease	18,068,339	

From which it appears the decrease of trade by land and river navigation in 1866 was 18,068,339, which, added to the decrease in the amount of trade by sea, makes the total falling off (attributable entirely to the war, which ended in her transfer from Austria to Italy) 19,744,269 Italian livres, or 789,771*l.* 15*s.*

The following tables show the value of our trade with Venetia.

Digiti

Table showing the Value, in Italian Livres, of Merchandise Imported and Exported by Sea at Venice, in the Year 1866, compared with 1865.

Countries	Imports		Exports	
	1866	1865	1866	1865
	livres	livres	livres	livres
Sicily	183,902	191,980	492,014	453,550
Naples, Puglia, Abruzzi, and Calabria	5,198,482	4,824,522	692,802	1,644,452
Pontifical States, Umbria, the Marches, and Emilia	878,284	980,852	844,637	1,176,090
Tuscany	43,561	50,470	..	..
Genoa and Sardinia	70,420	478,537	240	17,700
Venetia	250,941	293,324	457,341	113,873
Italian ports	6,625,434	6,819,685	2,487,034	3,405,468
United States of America	456,624	976,980	..	..
Hayti, St. Domingo	343,588	343,565	..	..
Barbary States	287,145	187,460	241,947	161,120
Egypt	198,215	146,982	586,722	746,870
Moldavia and Wallachia	65,820	81,200	..	..
Turkey	979,457	736,737	405,515	414,993
Russia	68,456	183,940	..	..
Sweden and Norway	440,400	1,830,890	..	..
Belgium	59,465	210,395	..	..
Holland	1,656,887	1,078,797	129,360	418,125
Malta	46,722	1,460	283,815	427,052
Great Britain	7,709,986	7,956,002	13,151,263	12,324,835
Spain	30,000	17,000	..	..
France	719,799	1,072,437	135,695	227,452
Greece	59,320	60,810	534,494	478,208
Ionian Islands	610,185	900,745	821,511	877,270
Austria	35,178,502	34,147,488	14,543,980	12,179,518
Foreign Ports	48,854,443	49,861,108	28,778,541	28,447,145
Total	55,481,877	56,680,851	31,265,575	31,853,613

Account of the Quantities and Values of the Imports into the United Kingdom from Venetia during each of the 3 Years ending with 1867.

Principal Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Bones of animals nd fish (except whalefins)	tons	713	492	599	5,973	2,517	3,665
Bugles and glass beads	lb.	2,959,544	2,542,268	5,750,592	146,980	127,112	187,528
Corn: wheat	cwt.	2,794	115,491	118,766	1,349	49,178	87,014
barley	"	3,500	7,400	..	933	2,336	..
maize or Indian corn	"	8,900	595	10,796	2,727	96	4,987
wheat flour	"	88	1,502	6,769	56	1,023	6,207
Glass manufactures	value	..	..	..	472	965	5,598
Hemp, dressed	cwt.	7,570	11,631	3,454	21,450	35,292	12,856
undressed	"	147,505	111,076	133,785	274,100	270,216	243,361
Meat preserved otherwise than by salting	"	..	..	3,000	..	..	11,200
Rags and other materials for making paper	tons	150	262	117	2,914	5,432	2,947
Rice, not in the husk	cwt.	..	3,193	2,248	..	5,186	1,791
Seeds, of all sorts	value	..	..	..	1,378	690	4,942
Shumac	tons	210	334	960	1,868	3,200	12,094
Wood: walnut	"	365	92	297	3,730	3,135	2,692
Wool, sheep and lambs'	lb.	50,600	21,773	12,142	1,530	1,084	405
All other articles	value	..	..	..	19,856	22,565	23,805
Total		..	..	..	485,525	538,481	611,372

Account of the Quantities and Values of the Exports to Venetia of the Produce and Manufacture of the United Kingdom in 1865, 1866, and 1867.

Principal Articles		Quantities			Declared Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Alkali, soda	cwt.	4,459	521	4,506	1,941	283	2,273
Apparel and haberdashery	value	..	..	..	2,797	2,130	4,167
Arms: cannon and mortars	cwt.	..	..	2,664	..	..	11,000
Coals, cinders, and culm	tons	33,876	42,576	43,503	16,298	22,176	20,944
Copper, wrought and unwrought	cwt.	369	146	899	1,634	626	3,589
Cotton yarn	lb.	121,639	127,298	114,700	9,127	10,523	7,668
Cottons, entered by the yard	yd.	990,921	1,545,911	2,626,737	24,290	37,495	59,730
at value	value	..	..	..	830	2,127	2,487
Earthenware and porcelain	"	..	..	..	732	748	793
Fish: herrings	barl.	4,135	8,784	7,139	4,516	8,744	7,140
pilchards	hhd.	6,592	4,630	5,915	21,658	14,306	18,278
Hardwares and cutlery, unenumerated	cwt.	92	53	197	473	501	951
Iron, wrought and unwrought	ton	1,381	1,113	2,582	9,664	7,443	15,725
Linen yarn	lb.	14,926	9,588	78,593	1,070	801	5,409
Linens, entered by the yard	yd.	61,943	59,325	41,147	2,575	2,094	1,856
at value	value	..	..	..	271	624	540
Machinery: steam engines	"	..	..	..	170	90	656
all other sorts	"	..	..	..	1,956	217	2,515
Oil, seed	gal.	179,781	135,129	279,040	21,173	23,716	43,500
Saltpetre	cwt.	2,431	1,095	3,970	5,714	1,353	4,615
Tin plates	value	..	..	..	968	2,100	2,486
Woollens, entered by the yard	yd.	413,542	319,140	264,656	21,031	18,138	17,497
at value	value	..	..	..	280	207	425
All other articles	"	..	..	..	4,979	11,295	9,359
Total		..	..	..	153,749	167,697	236,533

The Venetians may now look forward with hope to a new and more prosperous era in their commercial annals, resulting from the advantages they will derive from annexation to the kingdom of Italy under a liberal constitutional Government favourable to the system of free trade and moderate tariffs, and hostile to prohibitory duties.

***Tariff.*—The Italian customs tariff is far more favourable than that of Austria formerly was to the importation of the following important articles of British commerce :—**

	Italian per cwt.	Austrian per cwt.
Fish; salmon, codfish, pilchards, herrings, and stockfish	s. d. s. d. 1 7½ ..	s. d. s. d. 3 6 ..
Linen weft goods according to quality	9 3 to 46 0	20 4 to 532 10
Linen and hemp yarn. On twist and dyed yarns the Italian are much lower		
Cotton yarn, according to quality	6 1 12 2½	8 1½ 26 8
Cotton weft goods	29 4 81 3	73 2 532 10
Woollen weft goods	56 1 121 11	73 2 532 10

Leather.—The Italian admits of the importation of tanned hides and leather, which was precluded by the Austrian tariff.

Iron and Ironwares.—The Italian duties on iron and all sorts of iron and steel, and on all descriptions of metal goods, afford facilities for their importation which the high duties of Austria impeded.

The manufactures of Venice are very various, and more extensive than is generally supposed. The famous glassworks produce magnificent mirrors, with every variety of artificial pearls and gems, coloured beads, enamel and Mosaic works &c. Jewellery, including gold chains, is also extensively produced; as are gold and silver stuffs, velvets, silks, laces, and other expensive goods; and leather, soap, earthenware, wax-lights &c., to a greater or less extent. Printing is more extensively carried on in this than in any other city of Italy, and books form a considerable article of export. Ship-building is also carried on to some extent, both here and at Chiozza. In 1836, the first steam-engine seen in Venice was set up for a sugar refinery.

From the circumstance of Venice being situated nearly opposite the mouth of the Brenta, which brings down large quantities of mud, the probability is that the lagoon, by which she is surrounded, will ultimately be filled up. Under the republic this was a subject of great apprehension, and every device was resorted to that seemed likely to avert a result so pregnant with danger to the independence of the city. But now that there is no particular motive for hindering the mud from accumulating in the lagoon, it is probable that, in the course of time, the shallow will be converted into terra firma, and Venice lose her insular position. The works projected and approved for deepening the entrance to the port of Malamocco, and for deepening and widening the channel from thence to the port and arsenal of Venice, will render the port easy of access to vessels of large tonnage, and afford important advantages to the foreign commerce of the port.

Railway to Venice.—Venice is connected with the mainland, and with the chief towns of Italy, and the rest of Europe, by railway. That part of this important work which passes through the lagoon is supported on arches. It may be expected that this new and easy channel of communication with some of the most fertile districts of Lombardy, will be of considerable service to Venice; and will tend, in some degree, to revive her decaying energies.

Many of the inhabitants depend for their subsistence on fishing in the lagoon, and the contiguous portions of the Adriatic.

Italian Port Charges.—These are considerably lower than those of Austria. Steam-ships, from whencesoever arrived: Health dues, 5 Italian cents per Italian ton; light dues, 50 cents per ton; total, 55 cents per ton, with liberty to touch at any Italian port within the month, on again paying the health dues only.

In steam-ships, the English ton has an advantage of about 10 per cent.; 40 per cent., instead of 30 per cent., being allowed for the engine and coal-room; the charges are, therefore, about 49 Italian cents, equal to 60 Austrian soldi ($4\frac{8}{100}d.$) per ton.

Steamers may also pay the charges for 1 year, on payment of 1·50 Italian livre for light dues, and 50 cents for health dues.

In sailing vessels, the English ton is equal to the Italian, and pays for health dues, 20 cents, and light dues, 50 cents; together 70 cents, or about 28⅓ Austrian soldi ($6\frac{88}{100}d.$).

Banking Establishments.—The old bank of Venice was founded so far back as 1171, being the most ancient establishment of the kind in Europe. It was a bank of deposit; and such was the estimation in which it was held, that its paper continued to bear an agio as compared with coin down to 1797, when the bank fell with the Government by which it had been guaranteed. At present (1869) there are in Venice, besides private bankers, a discount bank, or 'Società Mercantile,' a branch of the 'Banco del Popolo' of Florence, and a new bank called 'Banco Popolare.' The legal and usual rate of interest and discount is 6 per cent. It is not the practice to allow interest on deposits. Bills on London are usually drawn at three months.

Brokers, Commission &c.—The number of brokers is limited, and they are licensed by Government; but the business of commission merchant and factor is open to everyone. Before, however, commencing any trade or profession at Venice, a petition must be presented for leave to the authorities: but this is more a matter of form than anything else; its prayer being rarely, if ever, refused.

The usual rate of commission and factorage on the purchase or sale of colonial produce is 2 per cent., and on manufactured goods 3 per cent., inclusive of broker's commission, 1 per cent. A shipbroker's commission on the freight of a whole cargo is 2 per cent., and on a general cargo 4 per cent. By the custom of the place, merchants charge 2 per cent. on the inward, and 2 per cent. on the outward freight of all ships consigned to them; and this, though they had done no more than recommend the master to a broker. A bill broker's commission is ½ per mille. Merchants and bankers charge a commission on internal bills of ½ per cent., and on foreign ditto of 1 per cent.

Insurances are effected by companies and individuals. The Government charges no duty on the policies.

Communications with Lombardy are effected by flat-bottomed vessels, which, passing through the lagoon, enter the canals and rivers, and make their way through most part of the country watered by the Po and its tributaries. The freight of goods from Milan to Venice, distant about 170 miles, is about 1*l.* per ton. The principal products they bring down are grain, silk, hemp, and flax, cheese, rhubarb &c. The country to the north of Venice affords large quantities of deals, which are shipped for Malta, Sicily, and the Levant.

Quarantine.—Ships coming from without the Straits of Gibraltar, provided there be no infectious disease on board, are admitted to pratique on performing a short quarantine of 7 days in a part of the lagoon, about 1 mile from the city. Long quarantine is performed a little farther off. The lazaretto, and establishments for passengers &c. performing quarantine, are among the best in Europe.

Provisions, Ships' Stores &c.—These articles may all be had at Venice of excellent quality, but not cheap, with, perhaps, the exception of bread. Water is conveyed to the city by lighters, and is, consequently, rather dear; fuel is very scarce, and very high priced.

Tares.—Cases, casks, and other coverings go into the scale with their contents, and the duty is levied on the gross weight. Wine, spirits &c. consumed in this city, being liable to an excise duty to cover the municipal expenses, have an allowance, if in iron-bound casks, of 18 per cent. on the weight; and if not in iron-bound casks, of 12 per

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cent. The tares allowed between merchants are as follow :—

	per cent.
Cotton wool, Pernambuco and Bahia	2
East India &c.	4
Sugar, Brazil	15 to 18
Jamaica, muscovado	14
Bourbon, brown and yellow, and East India of all colours	5
refined, crushed	12
Brimstone	10
Italian hemp	2
Madder root	4
Hungary potash	10

On other articles, real tares are usually taken.

(Exclusive of the authorities already referred to, see Bowring's *Report on the Statistics of Italy*; *Geog. Dict.*; *Consular Reports*; *Commercial Circulars*; &c.)

VERA CRUZ. The principal seaport on the western coast of Mexico; lat. 19° 11′ 52″ N., long. 96° 8′ 45″ W. Population estimated at 10,000 in 1865. Opposite the town, at the distance of about 400 fathoms, is a small island, on which is built the strong castle of St. Juan d'Ulloa, which commands the town. The harbour lies between the town and the castle, and is exceedingly insecure; the anchorage being so very bad, that no vessel is considered safe unless made fast to rings fixed for the purpose in the castle wall; nor is this always a sufficient protection from the fury of the northerly winds (*los nortes*), which sometimes blow with tremendous violence. Humboldt mentions, in proof of what is now stated, that a ship of the line, moored by 9 cables to the castle, tore, during a tempest, the brass rings from the wall, and was dashed to pieces on the opposite shore. (*Nouvelle-Espagne*, 2me éd. iv. 59.) Its extreme unhealthiness is, however, a more serious drawback upon Vera Cruz than the badness of its port. It is said to be the original seat of the yellow fever. The city is well built, and the streets clean; but it is surrounded by sand hills and ponds of stagnant water, which, within the tropics, are quite enough to generate disease. The inhabitants, and those accustomed to the climate, are not subject to this formidable disorder; but all strangers, even those from the Havannah and the West India Islands, are liable to the infection. No precautions can prevent its attack; and many have died at Xalapa, on the road to Mexico, who merely passed through this pestilential spot. During the period that the foreign trade of Mexico was carried on exclusively by the *flota*, which sailed periodically from Cadiz, Vera Cruz was celebrated for its fair, held at the arrival of the ships. It was then crowded with dealers from Mexico and most parts of Spanish America; but the abolition of the system of regular fleets in 1778 proved fatal to this fair, as well as to the still more celebrated fair of Portobello.

A lighthouse has been erected on the north-west angle of the castle of St. Juan. The light, which is a revolving one of great power and brilliancy, is elevated 80 feet above the level of the sea, and is visible 15 miles off in clear weather.

Commerce.—An individual, looking at a map of the world, would be apt to conclude that Mexico is one of the most favourably situated countries for commerce; and, in some respects, this is true. But her trade labours, notwithstanding, under some serious disadvantages. Though washed by the Atlantic and Pacific Oceans, neither of her coasts is accessible for several months of the year. On the east coast, or that bordering on the Gulf of Mexico, there is not a single good harbour; and during the season when the coasts are accessible, they are extremely unhealthy. Owing also to the rapid ascent from the shores to the interior, the construction of roads, and the transport of commodities to and from the inner provinces, is alike difficult and expensive. No doubt, however, an efficient Government and an industrious people would speedily, in a great measure, overcome these obstacles to an extensive intercourse with the foreigner. But Mexico has neither the one nor the other; and, at present, her trade is confined within the narrowest limits. Down to 1778, when the Spanish Government relaxed the old prohibitive system, the foreign goods legally imported into Mexico comprised only a few Chinese and European manufactures; the former brought annually in *one* galleon of about 1,400 tons, and the latter sent *once in three years* exclusively in ships chartered by Government from Seville or Cadiz. On the opening of the trade in 1779, private capitalists engaged in it; and after that period, at an average of 12 years before and after, the returns for exports alone rose from 11,000,000 to 19,000,000 dollars, the difference being chiefly in the quantity of specie, but the trade was fettered with vexatious duties at every step, from the merchant to the consumer. On the breaking out of the civil war, the ports of Tampico, Mazatlan, and San Blas were opened by the new Government; and soon afterwards foreign vessels were admitted into all the ports on the same terms as Spaniards. The Spanish capitalists retired to Cuba or Spain; and their places were supplied by British and American merchants, who established themselves in the interior, and supplied the inhabitants in return for dollars with manufactured goods, the superior quality and cheapness of which has, no doubt, had some influence in depressing native manufactures. The jealousy of the natives, however, and the absurd threats of the Government against foreign artificers and traders, tended to prevent their settling in the country, and engaging in any considerable undertaking, other than the mines; and the depressed state of the latter, which have always furnished the principal article of export, has extended still farther to depress and paralyse commerce. The roads, too, instead of being improved, have been suffered to fall into a state of almost irreparable decay. In this respect, the following extract from one of the letters of M. Chevalier is decisive. 'The splendid road which, during the domination of the Spaniards, was constructed across deserts and precipices, by the merchants of Vera Cruz, to the summit of the upper country, is a melancholy instance of the carelessness with which the public interests of the country are directed. During the war of independence, this road was cut up in various points; and, down to this day, the enfranchised Mexicans have not replaced a single stone, or filled up a single trench, nor even cut down one of the trees, which, in the absence of any considerable traffic, and under the influence of a tropical sun, are rapidly growing up to a magnificent size in the very middle of the road. In the upper country nothing would be more easy than to open noble means of communication. The soil is naturally level; the basaltic rocks, particularly adapted for the construction of roads, are found in great abundance. But even where there are roads, the Mexicans make little use of them. They carry to a yet more extravagant length the inconceivable predilection of the Spanish race in favour of transporting their goods on the backs of animals. You expect to meet with carts and waggons; no such thing: everything is conveyed on the backs of mules or Indians. Troops of little consumptive donkeys bring into the city, in parcels not much bigger than a man's two fists, the charcoal required for the culinary operations of the inhabitants. The price of every bulky article is thus increased to an enormous degree. The interior

districts are as inaccessible as if they were cut off by an enemy's army, and famine frequently ensues.'

In consequence of this wretched state of the roads, of the insecurity consequent to the prevalence of revolutions, and the torpor and indolence of the inhabitants (occasioned partly and principally by physical, but partly, also, by moral causes), industry of all kinds is at an extremely low ebb; and the commerce of the republic is far from being commensurate either with her population, or the number and value of her exportable products. Mr. Secretary of Legation Middleton, in his *Report* of November 29, 1867, states on the authority of an English gentleman employed on the projected railway between the capital and Vera Cruz, that if the line were completed, the deshecho or refuse, now thrown aside as worthless in the important mineral district of Pachuca, might be conveyed (all expenses by land and sea, freight included), at the rate of from 25 to 30 dollars per ton to Swansea, where it would be worth from 45 to 47 dollars per ton for smelting.

For a considerable period after the town of Vera Cruz had thrown off the Spanish yoke, the castle of St. Juan d'Ulloa continued in possession of the Spaniards. During this interval, the commerce of Vera Cruz was almost entirely transferred to the port of Alvarado, 12 leagues to the south-east. Alvarado is built upon the left bank of a river of the same name. The bar at the mouth of the river, about 1½ mile below the town, renders it inaccessible for vessels drawing above 10 or 12 feet water. Large ships are obliged to anchor in the roads, where they are exposed to all the violence of the north winds, loading and unloading by means of lighters. Alvarado is supposed, but probably without much foundation, to be a little healthier than Vera Cruz. The trade has now mostly reverted to its old channel.

For a few years, Tampico rose to considerable importance as a commercial seaport. Thus the value of its exports, which was 266,932*l.* in 1858, rose to 1,609,182*l.* in 1862, but fell to 235,473*l.* in 1864, but the value of its imports has increased steadily though less rapidly from 266,340*l.* in 1858 to 668,404*l.* in 1864. It is situated about 60 leagues N.N.W. of Vera Cruz, in lat. 20° 15′ 30″ N., long. 97° 52′ W., being about 104 leagues from Mexico. Hitherto it is said to have been free from fever. The shifting of the bar at the mouth of the river, and the shallowness of the water on it, which is sometimes under 8, and rarely above 15 feet, are serious obstacles to the growth of the port. Vessels coming in sight are boarded by pilots, who conduct them, provided they do not draw too much water, over the bar. Those that cannot enter the port load and unload by means of lighters; mooring so that they may get readily to sea in the event of a gale coming on from the north.

Exports and Imports.—The precious metals have always formed the principal article of export from Mexico. During the 10 years ending with 1801, the average annual produce of the Mexican mines amounted, according to M. Humboldt, to 23,000,000 dollars (*Nouvelle-Espagne*, iv. 137); and in 1805 the produce was 27,165,888 dollars. (*Id.* iv. 83.) But during the revolutionary war, the old Spanish capitalists, to whom most of the mines belonged, being proscribed, emigrated with all the property they could scrape together: and this withdrawal of capital from the mines, added to the injury several of them sustained by the destruction of their works during the contest, the interruption of all regular pursuits which it occasioned, and the insecurity and anarchy that afterwards prevailed, caused an extraordinary falling off in the produce of the mines. Within these few years, however, a considerable improvement has taken place. The efforts, and the lavish expenditure, of a few of the companies formed in this country for working the mines, assisted in bringing them into good order. Latterly, also, they have been conducted with greater skill and economy, and a considerable increase of produce has taken place. The coinage of gold and silver at the different Mexican mints in 1855 was as follows, viz.:—

	Gold	Silver	Total
	dols.	dols.	dols.
Culiacan	144,208	738,968	883,176
Chihuahua	17,556	475,480	93,036
Durango	73,647	609,171	682,818
Mexico	155,263	4,013,359	4,168,622
Guanajuanto	555,200	4,698,800	5,254,000
Guacalajara	10,368	632,662	643,030
San Luis Potosi	..	1,849,795	1,849,795
Zacatecas	..	3,619,000	3,619,000
Total	..	..	17,595,477

But to this may be added from 8,000,000 to 10,000,000 dollars for those raised and exported without being brought to the mints, and for bullion assayed at the mints, and exported in bars.

And but for the prevalence of insecurity, a large increase of this produce might be expected.

We extract from the very interesting and instructive *Report* of Mr. Secretary of Legation Middleton, of July 10, 1866, a tabular statement, showing the amount of gold and silver coined at the various Mexican mints in the first three months of 1866:—

Mints	Gold	Silver	Total
	dols.	dols.	dols.
Mexico	80,024	1,082,202	1,162,226
Guanaxuato	98,000	857,000	955,000
Zacatecas	16,000	1,064,000	1,080,000
Guadalajara	12,176	131,633	143,809
Durango	12,352	224,000	236,352
Catorce	..	167,960	167,960
San Luis Potosi	..	127,140	123,140
Oajaca	7,360	60,323	67,683
Chihuahua	..	..	..
Culiacan	..	..	..
Hermosillo	..	..	..
Alamos	..	..	..
Total	225,912	3,690,158	3,916,070

It would appear, too, from this *Report*, and from Mr. Middleton's *Reports* of Dec. 31, 1866, and Dec. 31, 1867, the former on the sulphur deposits, and the latter on the soda and salt producing districts of Mexico, that she is rich in minerals of every description.

Besides the precious metals, cochineal, flour, indigo, provisions, leather, sarsaparilla, vanilla, jalap, soap, logwood, and pimento are the principal articles exported from Vera Cruz.

The imports consist principally of cotton, woollen, linen, and silk goods, paper, brandy, quicksilver, iron, steel, wine, wax &c.

According to Humboldt, the imports at Vera Cruz, before the revolutionary struggles, might be estimated, at an average, at about 15,000,000 dollars, and the exports at about 22,000,000 do.

It must, however, be observed, that this statement refers only to the *registered* articles, or to those that paid the duties on importation and exportation. And exclusive of these, the value of the articles clandestinely imported by the ports on the Gulf, previously to the revolution, was estimated at 4,500,000 dollars a-year; and 2,500,000 dollars were supposed to be annually smuggled out of the country in plate and bars, and ingots of gold and silver. A regular contraband trade used to be carried on between Vera Cruz and Jamaica; and notwithstanding all the efforts of Government for their exclusion and the excessive severity of its laws against smuggling, the shops of Mexico

were always 'pretty well supplied with the products of England and Germany. (Humboldt, *Nouvelle-Espagne*, iv. 125; Poinsett's *Notes on Mexico*, p. 133.)

Humboldt states that the total population of Mexico, exclusive of Guatemala, might be estimated at the time he wrote at about 7,000,000. Of this number about ⅛ were Indians, the rest being descendants of Europeans, and mixed races. In 1857, the population amounted to 8,137,853. But notwithstanding their large numbers, the indolence and want of industry of the mass of the people is such that the trade we carry on with them is quite inconsiderable compared with what might be expected. We subjoin in illustration of this remark an

Account of the Quantities and Values of the Principal Articles, Imported into the United Kingdom from Mexico, in each of the 3 Years ending with 1866.

Principal and other Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Brazil wood	tons	1,661	361	280	20,430	10,920	8,400
Cochineal	cwt.	1,369	1,979	1,782	23,347	36,327	32,473
Copper, unwrought and part wrought	tons	72	21	—	5,973	1,991	—
Cotton, raw	cwt.	327,365	5,145	29	2,834,187	28,591	121
Fustic	tons	691	926	396	4,056	5,076	3,240
Hemp	cwt.	3,340	2,132	13,296	5,436	1,766	21,531
Hides, not tanned	,,	1,913	76	83	3,970	213	249
Indigo	lb.	955	587	1,222	25,218	15,113	30,649
Jalap	lb.	156,934	78,254	58,804	35,021	15,208	12,757
Logwood	tons	1,968	1,540	1,012	17,676	13,254	10,535
Mahogany	,,	21,446	18,906	21,218	201,366	170,338	177,445
Nicaragua wood	,,	98	—	379	1,271	—	6,254
Silver ore	,,	113	293	28	24,359	5,392	758
Tobacco, unmanufactured	lb.	14,980	8,222	—	554	308	—
Vanelloes	,,	5,162	—	—	849	—	—
All other articles	value	—	—	—	10,208	8,643	5,776
Total	—	—	—	—	3,216,924	313,178	315,168

Account of the Quantities and Values of the Principal Articles of British Produce Exported from the United Kingdom to Mexico during each of the 3 Years ending with 1866.

Principal and other Articles		Quantities			Computed Real Value		
		1865	1866	1867	1865	1866	1867
					£	£	£
Apparel and haberdashery	value	—	—	—	22,886	11,595	9,194
Arms and ammunition:							
Fire-arms (small)	number	211	406	—	147	619	—
Gunpowder	lb.	60,675	—	—	1,383	—	—
Beer and ale	barrels	1,601	1,334	813	7,018	7,878	5,689
Coals, cinders, and culm	tons	7,937	15,721	5,981	4,182	7,530	4,079
Cotton yarn	lb.	166,018	141,725	125,380	16,839	17,500	8,027
Cottons, entered by the yard	yards	43,483,967	29,859,587	25,845,168	1,028,905	691,190	497,998
at value	value	—	—	—	77,816	49,775	28,670
Drugs and chemical products	,,	—	—	—	9,074	1,778	1,582
Earthenware and porcelain	,,	—	—	—	20,253	7,126	5,463
Hardwares and cutlery, unenumerated	cwt.	13,143	6,789	3,541	60,029	31,607	14,496
Iron, wrought and unwrought	tons	15,060	9,601	565	140,548	100,113	8,377
Leather, wrought and unwrought	value	—	—	—	1,700	546	604
Linens, entered by the yard	yards	5,331,191	3,733,564	3,279,818	215,869	144,198	106,483
at value	value	—	—	—	2,969	970	991
Machinery: steam engines	,,	—	—	—	17,297	26,547	21,672
all other sorts	,,	—	—	—	47,899	35,451	38,501
Saltpetre	cwt.	350	1	—	300	2	—
Silk manufactures	value	—	—	—	22,165	16,099	8,990
Tin plates	,,	—	—	—	8,348	3,068	1,065
Woollens, entered by the yard	yards	1,492,939	1,146,999	457,764	115,879	76,579	31,914
at value	value	—	—	—	6,641	3,076	1,597
All other articles	,,	—	—	—	75,174	51,567	17,456
Total	—	—	—	—	1,896,895	1,283,243	812,948

It should, however, be observed, that the imports of British goods at second hand into Mexico and Colombia from the West Indies is still far from inconsiderable; and a pretty large proportion of the British goods sent to Chili are conveyed thence to Acapulco and other Mexican ports on the Pacific. Formerly the imports into Mexico supplied most part of the demand of Peru and the West coast of South America.

The Mexican Republican Government issued a revised tariff, which came into operation on October 1, 1853. It did credit to those by whom it was prepared. Some of the more oppressive duties were largely reduced; and, on the whole, it must be considered as a great advance towards a liberal system of commercial policy. Much, however, depends on the way in which such a reform is carried out. In a Government so fluctuating as that of Mexico, a policy or tariff in favour to-day may be repudiated to-morrow. In January 1867, the unfortunate Emperor Maximilian issued a decree, reforming the scales of tonnage and light-house dues affecting ships in the coasting and foreign trade, but neither during the existence nor since the dissolution of the empire, has any settled Government, down to 1869, existed capable of preserving order or enforcing its decrees.

VERDIGRIS (Ger. grünspan; Fr. vert-de-gris, verdet; Ital. verderame; Span. cardenillo, verdin, verde-gris; Russ. jar). A kind of rust of copper, of a beautiful bluish-green colour, formed from the corrosion of copper by fermented vegetables.

Its specific gravity is 1·78. Its taste is disagreeably metallic: and, like all the compounds into which copper enters, it is poisonous. It was known to the ancients, and various ways of preparing it are described by Pliny. It is very extensively used by painters, and in dyeing; it is also used to some extent in medicine. The best verdigris is made at Montpelier; the wines of Languedoc being particularly well suited for corroding copper, and forming this substance. It is generally exported in cakes of about 25 lb. weight each. It is also manufactured in this country, by means of the refuse of cider &c. The goodness of verdigris is judged of from the deepness and brightness of its colour, its dryness, and its forming, when rubbed on the hand with a little water or saliva, smooth paste, free from grittiness. (Thomson's *Chemistry*; Rees's *Cyclopædia*.) In

1866 the imports and exports of verdigris were respectively 792 and 226 cwt. In 1853 the ad valorem duty of 10 per cent., with which it was previously burdened, was repealed.

VERJUICE (Ger. agrest; Fr. verjus; Ital. agresto; Span. agraz). A kind of harsh, austere vinegar, made of the expressed juice of the wild apple, or crab. The French give this name to unripe grapes, and to the sour liquor obtained from them.

VERMICELLI (Ger. nudeln; Dutch, meelneepen, proppen; Fr. vermicelle; Ital. vermicelli, tagliolini; Span. aletrias). A species of wheaten paste formed into long, slender, hollow tubes, or threads, used amongst us in soups, broths &c. [MACCARONI.] Mr. Lowe proposes to repeal the duty on vermicelli and maccaroni this year, 1869.

VERMILION. [CINNABAR.] Our imports of vermilion in 1867 were 100,147 lb., valued at 12,867*l.*

VICTORIA. [COLONIES; MELBOURNE; VANCOUVER ISLAND.]

VINEGAR (Ger. essig; Dutch, azijn; Fr. vinaigre; Ital. aceto; Span. and Port. vinagre; Russ. ukzus; Lat. acetum). [See ACID (ACETIC), for a description of vinegar.] A duty of 2*d.* per gallon being formerly imposed on vinegar, its manufacture was placed under the control of the excise. A license, costing 5*l.*, and renewable annually, has to be taken out by every maker of vinegar, or acetous acid. In 1842, the duty on vinegar produced 23,842*l.*, showing that 2,861,040 gallons had been brought to the charge. The manufacture is almost confined to England; the quantities produced in Scotland and Ireland being quite inconsiderable. The duty was repealed in 1844, but in 1856 the present duty of 3*d.* per gallon was imposed on foreign vinegar, of which in 1867 we imported 51,097 gallons, chiefly from France, the price being from 1*s.* 6*d.* to 2*s.* per gallon.

VITRIOL. [COPPERAS.]

VITRIOL, OIL OF. [ACID (SULPHURIC).]

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WALNUTS. The fruit of the *Juglans*, or walnut-tree, of which there are several varieties. The walnut is a large handsome tree, with strong spreading branches. The fruit is a pretty large smooth, ovate nut, containing an oily kernel, divided into four lobes. The nut has been always held in high estimation: it was called by the Romans *Jovis glans*, the acorn or mast of Jove, and hence the name of the tree.

The walnut tree is indigenous to Persia and the countries bordering on the Caspian Sea. It has long been introduced into Great Britain; but the fruit seldom ripens in the more northerly parts of the island. Previously to the very general introduction of mahogany, the wood of the walnut tree was extensively used among us in making of furniture; and it continues to be largely employed for that purpose in many parts of the Continent. It is much used by turners; and is superior to every other sort of wood for the mounting of guns; a circumstance which caused great devastation among our walnut plantations during the latter years of the war. Great numbers of walnut trees are annually consumed in the Haute Vienne and other departments of France, in the manufacture of the wooden shoes or clogs used by the peasantry. The nuts are either gathered when ripe, being served up at desserts without any preparation; or they are plucked green and pickled. (Poiret, *Histoire philosophique des Plantes*, tome vii. p. 213; Rees's *Cyclopædia*; &c.) The duty of 2*s.* 1½*d.* per bushel on walnuts was reduced in 1853 to 1*s.* per bushel, and has since been abolished. The imports in 1852 were only 32,521 bushels, but in 1867 they amounted to 160,129 bushels, coming chiefly from France and Belgium.

WANGHEES, sometimes called JAPAN CANES. A species of cane imported from China. They should be chosen pliable, tough, round, and taper; the knots at regular distances from each other; and the heavier the better. Such as are dark-coloured, badly glazed, and light, should be rejected. (Milburn's *Orient. Com.*)

WAREHOUSING SYSTEM. By this system is meant the provisions made for lodging imported articles in public warehouses, at a reasonable rent, without payment of the duties on importation till they be withdrawn for home consumption. If re-exported, no duty is ever paid.

1. *Expediency and Origin of the Warehousing System.*—It is laid down by Adam Smith, in one of his justly celebrated maxims on the subject of taxation, that 'Every tax ought to be levied at the time and in the manner that is most likely to be convenient for the contributor to pay it.' (*Wealth of Nations*, p. 871.) No one can doubt the soundness of this maxim; and yet it was very strangely neglected, down to 1803, in the management of the customs. Previously to this period, the duties on most goods imported had either to be paid at the moment of their importation, or a *bond*, with sufficient security for their future payment, had to be given to the revenue officers. The hardship and inconvenience of such a system is obvious. It was often very difficult to find sureties; and the merchant, in order to raise funds to pay the duties, was frequently reduced to the ruinous necessity of selling his goods immediately on their arrival, when, perhaps, the market was already glutted. Neither was this the only inconvenience that grew out of this system; for the duties having to be paid all at once, and not by degrees as the goods were sold for consumption, their price was raised by the amount of the profit on the capital advanced in payment of the duties: competition, too, was diminished, in consequence of the greater command of funds required to carry on trade under such disadvantages; and a few rich individuals were enabled to monopolise the importation of those commodities on which heavy duties were payable. The system had, besides an obvious tendency to discourage the carrying trade. It prevented this country from becoming the entrepôt for foreign products, by hindering the importation of such as were not immediately wanted for home consumption; and thus tended to lessen the resort of foreigners to our markets, inasmuch as it rendered it difficult, or rather impossible, for them to complete an assorted cargo. And in addition to all these circumstances, the difficulty of granting a really equivalent drawback to the exporters of such commodities as had paid duty, opened a door for the commission of every species of fraud.

But these disadvantages and drawbacks, obvious

as they may now appear, did not attract the public attention till a comparatively late period. Sir Robert Walpole seems to have been one of the first who had a clear perception of their injurious influence; and it was the principal object of the famous *Excise Scheme*, proposed by him in 1733, to oblige the importers of tobacco and wine to deposit them in public warehouses; relieving them, however, from the necessity of paying the duties chargeable on them till they were withdrawn for home consumption.

No doubt can now remain in the mind of any one, that the adoption of this scheme would have been of the greatest advantage to the commerce and industry of the country. But so powerful was the delusion generated in the public mind with respect to it, that its proposal well nigh caused a rebellion. Most of the merchants of the day had availed themselves of the facilities which the existing system afforded of defrauding the revenue; and they dexterously endeavoured to thwart the success of a scheme which would have given a serious check to such practices, by making the public believe that it would be fatal to the commercial prosperity of the country. The efforts of the merchants were powerfully seconded by the spirit of party, which then ran very high. The political opponents of the ministry, anxious for an opportunity to prejudice them in the public estimation, contended that the scheme was only the first step towards the introduction of such a universal system of excise as would inevitably prove alike subversive of the comfort and liberty of the people. In consequence of these artful misrepresentations, the most violent clamours were everywhere excited against the scheme. On one occasion Sir Robert Walpole narrowly escaped falling a sacrifice to the ungovernable fury of the mob, which beset all the avenues to the House of Commons; and, after many violent and lengthened debates, the scheme was ultimately abandoned.

The disadvantages of the old plan, and the benefits to be derived from the establishment of a voluntary warehousing system, were most ably pointed out by Dean Tucker, in his *Essay on the Comparative Advantages and Disadvantages of Great Britain and France with respect to Trade*, published in 1750. But so powerful was the impression made by the violent opposition to Sir Robert Walpole's scheme, and such is the force of prejudice, that this obvious and signal improvement—the greatest, perhaps, that has been made in our commercial and financial system—could not be safely adopted till 1803.

Regulations as to Warehousing.—The statute 43 Geo. III. c. 132 laid the foundation of the system; but it was much improved and extended by subsequent statutes.

The existing regulations as to warehousing are embodied in the Customs Consolidation Act, the 16 & 17 Vict. c. 107, and subsequent Acts. They empower the Commissioners of the Customs, under the authority and direction of the lords of the Treasury, to nominate the ports at which goods may be warehoused without payment of duty, and the warehouses in which particular descriptions of goods may be deposited. The Act also fixes the time during which goods may be deposited and allowed to remain in the warehouse, the remission of the duties in case of loss by accident, the allowances for waste &c. But being of much importance, we have given a full abstract of the 16 & 17 Vict. c. 107, and subsequent modifications and alterations thereof, under IMPORTATION and EXPORTATION.

Warehousing Ports &c.—Certain ports only are warehousing ports; nor may all sorts of goods be warehoused in every warehousing port. We subjoin a list of the warehousing ports and towns in Great Britain and Ireland. Goods of all sorts may, speaking generally, be warehoused in the principal ports; but the regulations as to those that may be warehoused in the lesser ports are perpetually varying.

England.

Aberystwith	Fowey	Penzance
Alnmouth	Gainsborough	Plymouth
Arundel	Gloucester	Poole
Barnstaple	Goole	Portsmouth
Berwick	Grimsby	Preston
Bideford	Halifax	Ramsey
Boston	Hartlepool	Ramsgate
Bradford	Harwich	Rochester
Bridgewater	Hayle	Runcorn
Bridport	Hull	Rye
Bristol	Ipswich	Scarborough
Cardiff	Lancaster	North Shields
Cardigan	Leeds	Shoreham
Carlisle	Littlehampton	Southampton
Carnarvon	Liverpool	South Shields
Chepstow	Llanelly	Stockton
Chester	London	Sunderland
Colchester	Lowestoft	Swansea
Cowes	Lyme	Teignmouth
Dartmouth	Lynn	Truro
Deal	Maldon	Wevmouth
Douglas	Manchester	Whitby
Dover	Maryport	Whitehaven
Exeter	Middlesborough	Wisbech
Falmouth	Milford	Woodbridge
Faversham	Newcastle	Workington
Fleetwood	Newhaven	Yarmouth
Folkestone	Newport	

Manchester, Halifax, Leeds, and Bradford are warehousing towns under customs regulations.

Scotland.

Aberdeen	Dundee	Leith
Alloa	Glasgow	Montrose
Arbroath	Grangemouth	Perth
Ardrossan	Granton	Peterhead
Ayr	Greenock	Port Glasgow
Banff	Inverness	Troon
Borrowstouness	Kirkcaldy	Wick
Dumfries		

Ireland.

Ballina	Galway	Sligo
Belfast	Limerick	Tralee
Coleraine	Londonderry	Waterford
Cork	Newry	Westport
Drogheda	New Ross	Wexford
Dublin	Shibbereen	Youghal
Dundalk		

WAREHOUSE RATES.

Charges on Goods on Delivery from Warehouse for Home Consumption (23 & 24 Vict. c. 110).

There shall be charged upon goods deposited in any warehouse for security of duties of customs, in addition to such duties and any other charges thereon, for every 100*l.* of such duties of customs payable thereon, the rates following, viz.:—

On delivery for home consumption from any warehouse approved under the 'Customs Consolidation Act, 1853,'

	s.	*d.*
In respect of tobacco - - -	3	6
other goods - - -	5	0

Whether such tobacco or other goods shall have been removed to such warehouse under bond or not.

On delivery for home consumption from any warehouse at any port or place not possessing the privileges of bonding at the time of the passing of this Act, or from any warehouse approved under any Act other than the 'Customs Consolidation Act,' 1853, viz.:—

In respect of tobacco - - -	5*s.*
other goods - - -	10*s.*

WAREHOUSE RENT.

Rates for Warehouse Rent on Goods Deposited in the Queen's Warehouses.

	per week
Packages of baggage, and small packages of presents, such as boxes, kegs, jars &c., empty casks, samples, and wines, spirits, or other liquids, not exceeding 1 gallon - - - - - -	2*d.* per pact.
Packages of wine, spirits, or other liquids, exceeding 1 gallon and not exceeding 20 gallons - -	4*d.* ,,
Exceeding 20 gallons - - - -	6*d.* ,,

The baggage of passengers and surplus stores are allowed to remain a week, exclusive of the

day of receipt and delivery, and other goods 3 days, free of rent, to give the parties time for their examination and clearance.

Stores of naval officers paid off, remain 12 months free. Stores of merchant vessels are charged a low rent according to size or contents. [STORES.]

Abstract Statement showing the Total Quantities of the Principal Articles in the Customs Bonded Warehouses of the United Kingdom on December 31, 1866, and December 31, 1867.

Articles		Quantities in Warehouse	
		Dec. 31, 1866	Dec. 31, 1867
Cocoa - -	lb.	5,633,946	5,328,547
Coffee - -	,,	37,997,883	44,000,745
Currants -	cwt.	511,056	459,595
Raisins -	,,	81,739	91,978
Rum - -	gal.	7,762,932	6,810,676
Brandy -	,,	6,513,721	7,452,563
Geneva -	,,	137,258	128,792
Sugar, refined, and sugar candy -	cwt.	57,850	105,850
Sugar, raw -	,,	3,259,504	2,511,878
Molasses -	,,	141,773	45,273
Tea - -	lb.	100,370,658	84,091,458
Tobacco, unmanufactured	lb.	77,890,291	76,833,674
Tobacco, manufactured, cigars, and snuff	lb.	3,015,196	2,961,795
Wine - -	gal.	13,822,155	13,392,724

WATCH. A division of time on board ship, by which the duties of the crew are regulated. A ship's crew is divided into two watches, the starboard or captain's watch and the port or mate's watch. The first officer has the entire and independent charge of the port watch. The second officer attends to the starboard watch under the orders of the captain. Each watch is on deck for 4 hours or 8 bells, except from 4 to 8 P.M., which is divided into 4 bells each and is termed the dog watch. It is thus divided to equalise the time of the night duty, each watch taking eight hours, and four hours alternately.

WATCHES (Ger. uhren, taschenuhren; Fr. montres; Ital. oriuoli da tasca, o da saccoccia; Span. relojes de faltriquera; Russ. karmannüe tschasü). Portable machines, generally of a small size and round flat shape, that measure and indicate the successive portions of time; having, for the most part, their motions regulated by a spiral spring. When constructed on the most approved principles, and executed in the best manner, a watch is not only an exceedingly useful, but a most admirable piece of mechanism. It has exercised the genius and invention of the most skilful mechanics, as well as of some of the ablest mathematicians, for nearly 3 centuries. And, considering the smallness of its size, its capacity of being carried about uninjured in every variety of position, the number and complexity of its movements, and the extraordinary accuracy with which it represents the successive portions of time as determined by the rotation of the earth on its axis, we need not wonder at Dr. Paley having referred to it as a striking specimen of human ingenuity.

Spring watches are constructed nearly on the same principle as pendulum clocks. Instead of the pendulum in the latter, a spring is used in the former, the isochronism of the vibrations of which corrects the unequal motions of the balance.

Historical Notice.—The invention of spring watches dates from about the middle of the seventeenth century, and has been warmly contested for Huygens and Hooke. The English writers generally incline in favour of the latter. Dr. Hutton says (*Mathematical Dictionary*, art. 'Watch') that the words 'Rob. Hooke invenit, 1658,' were inscribed on the dial plate of a watch presented to Charles II. in 1675. But Montucla affirms (*Histoire des Mathématiques*, tom. ii. p. 413, ed. 1800) that Huygens made this '*belle découverte*' in 1656, and presented a spring watch to the States of Holland in 1657. Comparing these statements, it certainly appears that the claim of Huygens to the priority of the discovery is the better established of the two. We do not, however, believe that either of those distinguished persons owed, in this respect, anything to the other. The probability seems to be, that the happy idea of employing a spring to regulate the motion of watches occurred to them both nearly at the same time.

Improvement of Watches.—Owing to the facility with which the longitude may be determined by the aid of accurately going watches, it is of great importance to have them made as perfect as possible. In this view, liberal premiums have been given to the makers of the best marine watches, or chronometers, by the Governments of England, France, Spain &c. In the reign of Queen Anne, Parliament offered a reward of 20,000*l.* to anyone who should make a watch, or other instrument, capable of determining the longitude at sea, within certain limits. This magnificent premium was awarded, in 1764, to the celebrated John Harrison, for a marine watch, which, being tried in a voyage to Barbadoes, determined its longitude with even more than the required accuracy. Other premiums, though of inferior amount, were subsequently given to Messrs. Mudge, Arnold, Earnshaw &c. Since 1822, two prizes, one of 300*l.* and one of 200*l.*, have been annually given to the makers of the two chronometers adjudged to be the best, after having been submitted to a twelvemonth's trial at the Royal Observatory at Greenwich. And to such perfection has the manufacture attained, that some of the chronometers employed by navigators, though carried into the most opposite climates, have not varied to the extent of two seconds in their mean rate of going throughout the year.

Watch Manufacture.—The watch-making business, though latterly a good deal depressed, is largely carried on in London; the artists of which have attained to a high degree of excellence in this department. In 1866, there were 26,988 gold, and 103,515 silver, and in 1867, 25,437 gold and 98,143 silver watch cases assayed at Goldsmiths' Hall, London, the aggregate value of those for 1867 being, probably, not much under 600,000*l.* The manufacture is also carried on to a considerable extent at Birmingham and Chester, 11,700 silver cases having been assayed and marked at Birmingham, and 12,507 gold and 18,505 silver at Chester, in 1866.

On the Continent, watches are principally manufactured in Paris, Geneva, and in Neufchâtel. Some of the French and Swiss watches, particularly the latter, are excellent; but, generally speaking, they are slight, and inferior to those made in London. Paris and Geneva watches are largely exported to foreign countries; and are everywhere in high estimation, particularly among the ladies. In 1867 we imported 24,380 gold and 95,317 silver watches, chiefly from France.

Watches impressed with any mark or stamp, appearing to be or to represent any legal British assay mark or stamp, or purporting by any mark or appearance to be of the manufacture of the United Kingdom, or not having the name and place of abode of some foreign maker abroad visible on the frame and also on the face, or not being in a complete state, with all the parts properly fixed in the case, may not be imported into the United Kingdom, even for the

purpose of being warehoused. (3 & 4 Wm. IV. c. 52 s. 58. See also Trade Marks Act, 25 & 26 Vict. c. 88.)

Watches in China.—Pretty considerable numbers of European watches are imported into China; and it may be worth mentioning, as a curious instance of the diversity of tastes, that the Chinese, as well as most other Eastern nations, who can afford it, uniformly *wear watches in pairs*! This sort of extravagance is not, however, confined to watches, but extends to a variety of other articles. Shawls, for example, are invariably worn in India in pairs of exactly the same pattern; and it is hardly possible, indeed, to find a native dealer who will sell a single shawl.

WATER. It may be thought unnecessary, perhaps, to say anything in a work of this sort with respect to a fluid so well known and so abundant.

But, besides being an indispensable necessary of life, water is, in most large cities, an *important commercial article*. It is in the latter point of view, principally, that we mean to consider it. Inasmuch, however, as the mode of supplying different places with water, and its price, necessarily vary in every possible way, we shall limit our remarks on these subjects to the metropolis only. The few remarks we intend to offer of a general nature will apply indifferently to any populous place, the supply of which with water occasions a considerable expense.

1. *Quality of Water.*—Dr. Ure has made the following statements with respect to the quality of water:—'Water,' says he, 'is a very transparent fluid, possessing a moderate degree of activity with regard to organised substances, which renders it friendly to animal and vegetable life, for both which it is, indeed, indispensably necessary. Hence it acts but slightly on the organs of sense, and is therefore said to have neither taste nor smell. It appears to possess considerable elasticity, and yields in a perceptible degree to the pressure of air in the condensing machine.

'Native water is seldom, if ever, found perfectly pure. The waters that flow within or upon the surface of the earth contain various earthy, saline, metallic, vegetable, or animal particles, according to the substances over or through which they pass. Rain and snow waters are much purer than these, although they also contain whatever floats in the air, or has been exhaled along with the watery vapours.

'The purity of water may be known by the following marks or properties of pure water:—

'1. Pure water is lighter than water that is not pure.

'2. Pure water is more fluid than water that is not pure.

'3. It has no colour, smell, or taste.

'4. It wets more easily than the waters containing metallic and earthy salts, called hard waters, and feels softer when touched.

'5. Soap, or a solution of soap in alcohol, mixes easily and perfectly with it.

'6. It is not rendered turbid by adding to it a solution of gold in aqua regia; or a solution of silver, or of lead, or of mercury, in nitric acid; or a solution of acetate of lead in water.

'Water was, till modern times, considered as an elementary or simple substance; but it is now ascertained to be a compound of oxygen and hydrogen.'

2. *Supply of Water.*—London was very ill supplied with water previously to the early part of the seventeenth century, when the New River water was introduced into the city. This exceedingly useful work was planned and carried into effect by the famous Sir Hugh Myddelton, who expended his whole fortune on the project; having, like many other public benefactors, entailed poverty on himself and his posterity by embarking in an undertaking productive of vast wealth to others, and of great public utility. The New River has its principal source near Chadwell, between Hertford and Ware, about 20 miles from London; but the artificial channel in which the water is conveyed is about 40 miles in length. Sir Hugh Myddelton encountered innumerable difficulties during the progress of the undertaking, which it is probable would have been abandoned, at least for a time, but for the aid afforded by James I. The New River Company was incorporated in 1619, 6 years after the water had been brought to the reservoir at Islington. The undertaking yielded very little profit for a considerable number of years; but it has since become extremely profitable; so much so, that an original 500*l.* share has been sold for 16,000*l.*

The Chelsea Water-Works Company was formed in 1723, and (with the aid of 3 smaller companies, none of which are now in existence) it, and the New River, supplied all that part of the metropolis north of the Thames with water, down to the year

I.—*Account of the Average Daily Quantity of Water supplied by each of the Metropolitan Companies in* 1866.

Name of the Company	Gross Average Daily Quantity in 1866	Quantity for other than House Supply	Quantity for House Supply	Number of Houses	Quantity per Each House	Population Estimated at about	Quantity per head of Population
River Lea Companies:	gals.	gals.	gals.		gals.		gals.
New River Company	22,899,769	4,561,965	18,337,804	109,198*	169·75	800,000	23·17
East London Waterworks Company	19,380,000	5,000,000	14,380,000	90,174	160 (nearly)	658,570	22 (nearly)
Total drawn from the River Lea and the wells of the New River Company	42,278,769						
Thames Companies:							
Chelsea Waterworks Company	8,000,000	1,193,000	6,807,000	26,900	253	201,000	33·86
West Middlesex	8,208,168	556,000	7,652,168	36,500	210 (nearly)	255,500	30 (nearly)
Grand Junction Waterworks Company (Michaelmas, 1866):							
Supplied to tenants	8,778,205	653,846	8,124,359	26,450	307	238,050	34
Used for sand washing, condensing &c., at the Company's works	538,850	..	..	..	..	..	..
Southwark and Vauxhall Water Company (Michaelmas 1866)	12,502,000	3,076,712	9,425,288	66,550 2,215 2,235	139‡†	449,540	21†
			Total	70,980			
Lambeth Waterworks Company	8,950,000	1,251,000	7,699,000	37,205	207	225,000	34·22
Total drawn from the Thames	46,977,223						
From Wells, Kent Waterworks	6,150,000	366,000	5,784,000	33,861	171	237,058	24·4

* Excluding trade and business premises and public buildings. † For domestic supplies only.

1810. In that year, however, 3 new companies, the East London, West Middlesex, and Grand Junction, were established under the authority of different Acts of Parliament. At present (1869) the metropolis is supplied with water by the following companies:—

New River,
Chelsea,
East London,
West Middlesex,
Grand Junction,
Lambeth,
Vauxhall, Southwark, and Kent Water Works.

The sources whence these companies draw their supplies are stated in Table No. I.

There have been several royal commissions appointed to enquire into the state of the supply of water in the metropolis. The report of that appointed in 1827 contains much useful information, and at present (1869) there is one commission turning its exclusive attention to the supply of London, while another on the pollution of rivers is carefully examining the quality of London water drawn from the Thames and other streams for human use.

Monopoly of the Water Companies.—The sanction of Parliament was given to the 3 new companies formed in 1810, not so much in the view of increasing the actual supply of water, as of checking monopoly, and reducing the rates by their competition. But these expectations have not been realised. For a while, indeed, the competition of the several companies was exceedingly injurious to their interests, and occasioned the total destruction of some of the inferior ones; but no sooner had this happened than the others discovered that their interests were in reality the same, and that the true way to promote them was to concert measures together. In furtherance of this object, the 5 companies for the supply of that part of the metropolis north of the river proceeded to divide the town into as many districts, binding themselves, under heavy penalties, *not to encroach on each other's estates*: and having in this way gone far to secure themselves against any new competitors, their next measure was to add *five-and-twenty* per cent. to the rates established in 1810; and these have, in several instances, been still further augmented. The peculiar benefits that were expected to result from their multiplication have, therefore, proved quite imaginary; and though the supply of water has been increased, it might have been more abundant and cheaper under a different system.

We borrow Tables II. and III. from the evidence taken before the committee of the House of Commons in 1851 and in 1867 on the Metropolis Water Bills:—

Table II.

Water Companies	Imperial Gallons supplied annually	Water Rents per Annum	Cost per Million Gallons to the Company
		£ s. d.	£ s. d.
New River -	5,634,000,000	129,433 17 5	22 6 3
Chelsea -	1,439,458,400	55,917 9 3	34 3 1
Grand Junction -	1,299,184,950	43,387 8 9	34 16 1½
Southwark and Vauxhall -	2,193,706,370	36,309 16 0	15 7 7
Lambeth -	1,123,900,000	22,446 17 9	19 14 0
East London -	3,272,753,876	76,565 14 0	16 19 4
Kent -	933,948,750	14,442 13 3	15 2 9
West Middlesex -	1,216,929,312	65,415 8 6	53 5 4
Hampstead -	156,013,000	7,009 12 10	44 6 4
Total -	16,669,494,658	425,035 17 9	

III.—*Account of the Amount of Capital, Rate of Dividend, and Bonus (if any), of the several Metropolitan Water Companies, for the Years undermentioned, viz.:—*

Name of the Company	1850	1851	1860	1861	1865	1866	Bonus (if any) between 1850 and 1866
New River—	£	£	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Capital -	1,491,671	1,519,958	1,519,958 0 0	1,519,958 0 0	1,519,958 0 0	1,519,958 0 0	In 1866 there was a bonus of 1,400*l.* per share, or 55*l.* 11*s.* 6½*d.* per cent. upon the capital.
Dividend -	4 1-16	4	4 0 7½	4 1 1	5 8 11½	6 2 2½	
East London—							
Capital -	500,000	500,000	975,000 0 0	975,000 0 0	1,133,818 0 0	1,317,560 0 0	Three bonuses of 1 per cent. each on ordinary stock
Dividend -	8	8	5 15 1	6 0 0	5 12 0	6 16 2	
Chelsea—							
Capital -	300,000	300,000	570,000 0 0	570,000 0 0	610,000 0 0	615,600 0 0	
Dividend -	2½	2½	5½	4½	5½	5½	
West Middlesex—							
Capital -	306,300	306,300	704,304 0 0	722,098 0 0	785,746 0 0	794,367 0 0	
Dividend -	£ per share	£ per share	5 0 0 per share of 61*l.*	5 0 0 per share of 61*l.*	5 12 6 per share of 61*l.*	5 15 0 per share of 61*l.*	
Grand Junction (Share Capital)—							
Capital -	331,000	331,000	550,000 0 0	565,746 0 0	631,725 0 0	634,280 0 0	
Dividend -	8	8	7½	7½	8½	8½	
Southwark and Vauxhall (Shares)—							
Capital -	303,218	304,012	386,790 0 0	374,010 0 0	377,700 0 0	377,870 0 0	
	..	..	..	38,500 0 0	126,500 0 0	126,500 0 0	
	..	..	..	..	89,125 0 0	125,160 0 0	
Dividend -	5	5	5½	6	6	6½	
	..	..	..	5	5	5	
	..	..	..	..	4½	4½	
Lambeth (Shares)—							
Capital -	211,681	257,926	361,330 0 0	387,600 0 0	502,992 0 0	538,130 0 0	
Dividend -	5	6	5½	5½	6	6	
Kent Waterworks—							
June							
Capital -	229,500	254,500	327,125 0 0	351,150 0 0	409,750 0 0	428,945 0 0	None
Dividend -	M. 15*s.* per cent. per an.	4*l.* per cent. per an.	5 0 0 per cent. per an.	5 0 0 per cent. per an.	6 0 0 per cent. per an.	6 0 0 per cent. per an.	
December							
Capital -	229,500	254,500	351,150 0 0	351,150 0 0	419,131 0 0	428,945 0 0	
Dividend -	M. 15*s.* per cent. per an.	4*l.* per cent. per an.	5 0 0 per cent. per an.	5 0 0 per cent. per an.	6 0 0 per cent. per an.	6 0 0 per cent. per an.	

The results of this Table tend to confirm the principle we endeavoured to enforce in the article COMPANIES, that certain restrictions should, in almost all cases, be imposed on companies for the supply of water to a large city. These are not undertakings that can be safely trusted to the free principles that may generally be relied upon. If there be only one set of springs adjacent to a town, or if there be certain springs more conveniently situated for supplying it with water

than any other, a company acquiring a right to such springs, and incorporated for the purpose of conveying the water to town, thereby gain an *exclusive advantage*; and if no limits be set to its dividends, its partners may make an enormous profit at the expense of the public, without its being possible materially to reduce them by means of competition. What has happened in the case of the New River Company sufficiently evinces the truth of what has now been stated. Had its dividends been limited to anything like a reasonable profit, the water that is at present supplied by its means might have been furnished for a small part of what it actually costs. But in cases of this sort, priority of occupation, even without any other peculiar advantage, goes far to exclude all regular and wholesome competition. A company that has got pipes laid down in the streets may, if threatened by the competition of another company, lower its rates so as to make the latter withdraw from the field; and as soon as this is done, it may revert to its old, or even to higher charges. It is not, in fact, possible, in cumbrous concerns of this sort, to have anything like competition, in the ordinary sense of the term; and experience shows that whenever it is attempted, it only continues for a limited period, and is sure to be in the end effectually suppressed. We are, therefore, clearly of opinion, that no company should ever be formed for the conveyance of water into a large city, without a maximum being set both to the rates and the dividends; giving the company an option, in the event of the maximum rate yielding more than the maximum dividend, either to reduce the rate, or to apply the surplus to the purchase of the company's stock; so that ultimately the charge on account of the dividends may be got rid of.

We are glad to have to add, that we were supported in what we now and in former editions of this work have stated on this subject by the *Report* of the Select Committee of the House of Commons on the supply of water for the metropolis, printed in 1821. It is there said—'The public is at present without any protection even against a further indefinite extension of demand. In cases of dispute there is no tribunal but the boards of the companies themselves, to which individuals can appeal; there are no regulations but such as the companies may have voluntarily imposed upon themselves, and may therefore at any time revoke, for the continuance of the supply in its present state, or for defining the cases in which it may be withdrawn from the householder. All these points, and some others of the same nature, indispensably require legislative regulation, where the subject-matter is an article of the first necessity, and the supply has, from peculiar circumstances, got into such a course that it is not under the operation of those principles which govern supply and demand in other cases.

'The principle of the Acts under which these companies were instituted, was to encourage competition; and certainly in this, as in other cases, it is only from competition, or the expectation of competition, that a perfect security can be had for a good supply. But your committee are satisfied, that, from the peculiar nature of these undertakings, the principle of competition requires to be guarded by particular checks and limits in its application to them, in order to render it effectual, without the risk of destruction to the competing parties, and thereby, ultimately, of a serious injury to the public.' And the committee proceeds to remark—'The submission of their accounts annually to Parliament, for a few years, would necessarily throw light on this part of the question.'

We think that it would be highly expedient to adopt the suggestions of the committee, by calling upon the companies to lay annually detailed statements of their affairs before Parliament. They should be obliged in these statements to give an account of the rates charged by them, and to make a special report as to every case in which they have withdrawn water from a householder. It is to no purpose to repeat, in opposition to this proposal, the common-places about competition securing for the citizens a sufficient supply of water at the lowest prices, in the same way that the competition of bakers and butchers secures them supplies of beef and bread. The statements already made show that there is no analogy whatever in the circumstances under which these articles are supplied. If a man be dissatisfied with any particular butcher or baker, he may go to another, but *it is not possible for him to change his water merchant*, unless he also change the place of his residence. No water company will encroach upon the district assigned to another; and supposing an individual unlucky enough to quarrel with those who have the absolute *monopoly* of the supply of the district in which he resides, he must either migrate to another, or be without water, unless he can get a supply upon his own premises. Such being the actual state of things, it is quite ludicrous to talk about competition affording any real security against extortion and abuse. Even the publication of the proceedings of the companies would be a very inadequate check on their conduct; but such as it is, it is perhaps the only one that can now be resorted to; and as it would have considerable influence, it ought not to be neglected.

3. *Quality of the London Water.*—All the companies, with the exception of the New River and East London Companies, derive their supplies of water from the Thames; and in consequence of their taking it up to some extent within the limits to which the tide flows, and of the discharge of the sewerage of Oxford, Reading, and other towns on its banks into the river, the water taken from it is necessarily, in the first instance, loaded with many impurities. But the reports that were formerly so very prevalent, with respect to the deleterious quality of the London water, have been shown to have been exaggerated. By far the greater part of the impurities complained of are not chemically combined with it; and they may be separated from it by filtration. Most of the companies have recently made very considerable efforts to improve their water, and the forthcoming Reports of the two commissions will show how far they have been successful. But though the companies may not have done in this respect as much, perhaps, as they might and should have done, a great improvement has, on the whole, been effected: and notwithstanding all that has been said to the contrary, it is quite certain that, though not so pure as it might be, there is not the slightest foundation for the notion that its impurities have been such as to affect, in any serious degree, the health of the inhabitants.

The returns of 1851 are taken from the report by the Government Commission on the chemical quality of the supply of water to the metropolis in 1851; and those of 1856 are taken from the Reports to the Right Hon. William Cowper, M.P., president of the General Board of Health on the metropolis water supply in 1856.

In 1851, the population of London was 2,362,236; consequently there were 19·4 gals. of water supplied per head of the whole population. In 1856,

IV.—*Comparison of the Quality and Quantity of Water supplied by the Metropolitan Water Companies in the Years* 1851, 1856, *and* 1867.

Companies	Solid Matter, per Gallon			Organic and other Volatile Matter, per Gallon			Degree of Hardness			Quantity supplied per Day		
	1851	1856	1867	1851	1856	1867	1851	1856	1867	1851	1856	1867
	gr.	gr.	gr.	gr.	gr.	gr.	deg.	deg.	deg.	gals.	gals.	gals.
New River	19·50	21·71	21·55	2·79	0·96	0·57	14·9	15·6	14·9	15,435,617	25,000,000	22,931,917
East London	23·51	21·45	21·36	4·12	1·14	0·30	15·0	14·5	14·5	9,036,049	16,000,000	19,321,988
Thames Companies: Chelsea	21·28	21·85	18·91	2·38	1·21	0·99	14·4	13·3	13·5	3,940,750	5,323,000	7,918,375
Thames Companies: West Middlesex	22·67	22·58	19·68	2·75	1·47	0·46	14·6	14·0	13·2	3,334,094	6,595,268	8,236,382
Thames Companies: Grand Junction	21·72	22·48	19·97	3·07	1·50	1·19	14·0	15·0	13·0	3,341,717	6,714,232	8,709,090
Thames Companies: Southwark and Vauxhall	21·06	20·85	20·02	1·51	1·51	1·01	15·0	13·3	13·2	6,013,716	10,331,122	12,479,511
Thames Companies: Lambeth	20·40	19·65	18·28	4·59	1·03	1·24	14·2	11·7	13·5	3,977,260	6,109,000	8,950,567
Kent	22·71	20·18	17·12	2·61	1·22	0·16	16·0	11·8	16·0	1,079,311	2,363,750	3,927,200
Total	..	..	..	..	..	..	..	..	..	19,907,477	36,049,782	46,494,125
Average of Thames Companies	21·43	21·04	19·48	2·46	1·31	0·98	14·4	13·5	13·3	..	..	..
Average of New River and East London	21·50	21·57	22·95	3·45	1·05	0·43	14·9	15·9	14·2	24,471,666	41,000,000	42,253,905
Average of all Companies	22·18	21·41	21·20	2·73	1·23	0·74	14·8	13·4	13·9	43,815,925*	78,209,8481	94,675,330

* This total includes 427,168 gallons of water daily, supplied by the Hampstead Company in 1851.
† 665,000 ,, in 1856 by the Hampstead Water Company, and 550,000 gallons supplied in the same year by the Plumstead, Woolwich, and Charlton Water Company.

the population was 2,583,112: and the supply 30·2 gals. In 1867, the population being 3,067,536, the supply was 30·9 gals.

We doubt whether there be at this moment many considerable towns in the empire, or, indeed, in Europe, better supplied with excellent water than London.

According to the return furnished by the several water companies in 1850, it appeared that 270,581 houses were then supplied with water, the gross daily quantity delivered having been 44,383,332 gallons.

It will be observed from the preceding table No. I. that the supply of water to the metropolis by the companies has now reached the enormous quantity of upwards of 95 million gallons per day. Thus the average daily supply of water for all purposes, which in 1850 was 164 gallons per house, was, in 1868, as furnished by the various companies, for domestic purposes alone, from 21 to upwards of 34 gallons per head of the population. Before the passing of the Metropolis Water Act of 1852, considerably more than half the supply was *not* filtered; subsiding reservoirs were in such case the only means of clearing the water of impurities in suspension; but these are now for the most part employed as well as the filter beds, the cost of the entire water works of the metropolis having been considerably *upwards of seven millions sterling*. Even this amount, however, will fall short of the total expenditure; for the intermediate outlays between the former returns and the passing of the new Acts, and the cost of many works in hand, but not yet complete, are not included in this sum.

The subjoined table, No. V., illustrative of the quality of the water supplied to the chief towns of England and Scotland, is taken from the Report of the Commons' Committee of 1867. See also large table in Watts's *Dictionary of Chemistry*.

V.—*Table, showing the Quality of the Water supplied to the following Towns in England and Scotland.*

Name of Town	Appearance of the Water when examined in a Glass Tube 2 ft. in Length	Solid Matter per Gallon	Organic and other Volatile Matter per Gallon	Oxygen required to Oxidize Organic and other Matter	Ammonia per Gallon	Hardness: Before Boiling	Hardness: After Boiling	1861: Population	1861: Mortality per 1,000 of Population
		gr.	gr.	gr.	gr.	deg.	deg.		
Birmingham	Slightly turbid, and pale olive green	37·70	1·65	0·090	0·020	15·5	11·5	212,621	24·4
Leamington	Slightly turbid, and pale greenish yellow	30·79	1·98	0·185	0·045	18·5	9·0	14,768	18·8
Guildford	Bright and colourless	30·80	0·30	0·025	0·002	18·5	7·4	12,330	19·4
Sunderland and S. Shields	ditto ditto	29·75	1·10	0·020	0·001	12·6	8·0	135,135	20·7
Southport	ditto ditto	26·35	2·63	0·075	0·020	19·0	12·5	14,647	19·0
Newcastle and Gateshead	Slightly turbid, and pale greenish yellow	22·55	0·95	0·060	0·019	19·5	5·5	14,646	19·0
Wakefield	Turbid and olive green	22·25	4·34	0·140	0·115	16·0	12·0	25,049	28·8
Dover	Bright and nearly colourless	22·01	1·04	0·045	0·001	17·0	6·5	31,575	24·2
Canterbury	colourless	21·85	1·40	0·007	0·020	18·0	4·5	16,645	21·4
Norwich	nearly colourless	21·49	1·10	0·090	0·025	14·5	5·0	74,440	26·7
Croydon	ditto ditto	20·75	0·80	0·050	0·001	16·4	9·1	27,474	17·4
York	ditto ditto	19·68	0·80	0·080	0·020	14·5	7·0	55,569	24·0
Derby	ditto ditto	19·02	1·96	0·035	0·001	16·4	7·0	41,049	25·3
Lincoln	pale olive green	18·34	1·35	0·078	0·008	13·0	7·5	47,063	20·9
Worcester	pale pearly tint	16·89	1·85	0·105	0·035	10·9	1·6·0	31,956	30·0
Cheltenham	ditto nearly colourless	15·70	1·95	0·087	0·040	12·0	6·0	43,772	18·9
Liverpool and W. Derby	Slightly turbid and pearly	14·64	0·55	0·085	0·030	9·6	3·5	493,387	29·2
Durham	Bright and nearly colourless	13·56	1·01	0·103	0·030	7·5	6·0	76,274	20·7
Leeds	ditto pale olive green	13·37	0·58	0·110	0·020	7·8	6·5	172,266	26·0
Edinburgh	ditto nearly colourless	10·20	0·67	0·090	0·022	7·0	2·0	176,061	27·4
Preston	Turbid and slightly pearly	7·81	0·07	0·145	0·055	5·5	2·5	110,565	28·9
Dundee	Slightly turbid and pearly	7·00	0·50	0·170	0·022	4·3	1·5	..	..
Sheffield	Bright and pearly	5·90	0·50	0·080	0·013	2·0	2·0	129,351	26·2
Glasgow, south of Clyde (Gorbals)	Slightly turbid and pearly	5·94	0·63	0·155	0·028	2·9	1·0	440,979	27·1
Glasgow, north of Clyde (Loch Katrine)	ditto ditto	1·90	0·30	0·110	0·032	1·0	1·0	68,593	22·1
Plymouth	Bright and rather pearly	4·29	0·41	0·055	0·032	3·0	1·0	340,393	25·7
Manchester and Salford	ditto deep olive green	4·17	0·25	0·155	0·036	2·5	2·0	..	..
Towns with water over 10° hardness	Bright and nearly colourless	25·90	1·38	0·068	0·028	14·9	7·1	..	22·2
Towns with water under 10° hardness	Generally slightly turbid and pearly	8·55	0·49	0·102	0·031	4·9	2·6	..	25·1
Metropolitan water	Bright and slightly greenish yellow	20·17	1·18	0·077	0·002	15·0	4·5	..	23·1

The late Dr. Strang, of Glasgow, in a paper on the supply of water to great towns, read in 1858 before the British Association for the Advancement of Science, gave the following table :—

VI.—*Water Supply to Great Towns.—Summary of Results.*

Towns	Population within Bounds of Supply	Daily Supply	Daily Supply for each Inhabitant	Cost of Undertaking	Daily Supply for every £ expended	Prospective Supply daily in addition
		gals.	gals.	£	gals.	gals.
London - - -	2,666,917	81,025,842	30·3	7,102,823	11·4	
Paris - - -	1,100,000	26,350,000	24·	800,000*	33·	20,000,000
Hamburg - - -	160,000	5,000,000	31·25	170,000	29·50	
New York - - -	713,000	28,000,000	39·27	1,800,000	15·5	
Manchester - -	500,000	11,000,000	22·	1,300,000	8·5	14,000,000
Liverpool - - -	500,000	11,000,000	22·	1,640,000	7·	
Leeds - - -	153,000	1,850,000	12·	283,871	7·	
Edinburgh - - -	215,000	4,800,000	22·3	456,000	10·5	2,000,000
Aberdeen - - -	65,000	1,200,000	18·4	80,000	24·	
Dundee - - -	90,000	1,750,000	18·2	139,000	12·5	
Greenock - - -	40,000	2,112,500	52·8	90,000	23·4	
Paisley - - -	48,150	1,021,152	21·	60,000	17·	
Glasgow - - -	420,000	16,710,000	39·8	651,190	26·	20,000,000

* Independent of the cost of Canal de l'Ourcque.

This is a very valuable table, and condenses a great deal of information within the narrowest compass.

But Dr. Strang appears to have underrated the supply of water to each inhabitant in London. A considerable portion of the immense population within the bills of mortality derive their supplies of water from other sources than those specified above.

4. *Water for Ships.*—Various improvements have been made in the art of preserving water on board ships. Of these, the principal are the charring the inside of the casks in which the water is kept, and the substitution of iron tanks for casks. The latter being made of the required shape, may be conveniently stowed into any part of the ship. In men-of-war, the iron tanks serve as ballast; the water being brought up by a forcing pump. Water is found to preserve better in them than in any other sort of vessel. Drip-stones may be employed with much advantage in the purification of water. When water is taken on board from a river into which the tide flows, it should, of course, be raised at low ebb.

WAX, BEES' (Ger. wachs; Fr. cire; Ital. and Span. cera; Russ. wosk). A vegetable product. Several plants contain wax in such abundance as to make it worth while to extract it from them. But all that was known in commerce, down to a comparatively recent period, consisted of bees' wax. The honey is first pressed from the comb, and the wax is then melted into cakes. It has a slight odour of honey, is insipid, and of a bright yellow hue. It is brittle, yet soft, and somewhat unctuous to the touch. It is often adulterated with earth, pea meal, resin &c. The presence of the former may be suspected when the cake is very brittle, or when its colour inclines more to grey than to yellow; and the presence of resin may be suspected when the fracture appears smooth and shining, instead of being granulated. Wax, when bleached or purified, is white, perfectly insipid, inodorous, and somewhat translucent; it is hard not unctuous to the touch, heavier and less fusible than yellow wax, and does not melt under 150°. It is sometimes adulterated with the white oxide of lead to increase its weight, with white tallow, and with potato starch. The first is detected by melting the wax in water, when the oxide falls to the bottom; the presence of tallow is indicated by the wax being of a dull opaque white, and wanting the transparency which distinguishes pure wax; and starch may be detected by applying sulphuric acid to the suspected wax, as the acid carbonises the starch, without acting on the wax. The yellow wax is firm, breaking with granular fracture, of an agreeable, honey-like odour, not unctuous to the touch, and does not melt under 140°. (Thomson's *Chemistry*, and Dr. A. T. Thomson's *Dispensatory*; *British Pharmacopœia* 1867.)

Notwithstanding the large supply of wax produced at home, a considerable quantity is also imported from abroad. The duties on wax, which were formerly quite oppressive, after being greatly reduced in 1842, were wholly repealed in 1845. In 1833 the foreign wax retained for consumption amounted to 1,310 cwt. In 1867 the imports and re-exports of wax were respectively 9,856 and 4,674 cwt. Of 9,856 cwt. wax imported in 1867, and valued at 77,868*l.*, 1,334 cwt. came from Portugal, 1,061 cwt. from Morocco, 1,462 cwt. from the West Coast of Africa, 1,795 cwt. from the United States &c.

WEIGHTS AND MEASURES. Weights are used to ascertain the gravity of bodies—a quality depending partly on their magnitude and partly on their density. Measures are used to determine the magnitude of bodies, or the space which they occupy.

(For an account of the weights and measures used in foreign countries, and their equivalents in English weights and measures, see the notices of the great seaport towns dispersed throughout this work. Thus, for the Russian weights and measures, see PETERSBURG; for those of China, see CANTON; &c.)

Neither the magnitude nor the weight of any one body can be determined, unless by comparing it with some other body selected as a standard. It is impossible, indeed, to form any idea in respect of magnitude or weight, except in relation to some definite space or weight with which we are acquainted. We say that one article weighs 1 pound, another 2 pounds, a third 3 pounds, and so on; meaning not only that these weights are to each other as 1, 2, 3 &c., but also that the weight or specific gravity of the first is equal to the known and determinate weight denominated a pound, that the second is equal to 2 pounds, and so on.

Standards of Weight and Measure.—Standards of lineal measure must have been fixed upon at the earliest period, and appear to have consisted principally of parts of the human body—as the cubit, or length of the arm from the elbow to the tip of the middle finger; the foot; the *ulna*, arm, or yard; the span; the digit, or finger; the fathom, or space from the extremity of one hand to that of the other, when they are both extended in opposite directions; the pace &c. Large spaces were estimated by measures formed out of multiples of the smaller ones; and sometimes in day's journeys, or by the space which it was supposed an ordinary man might travel in a day, using a reasonable degree of diligence.

But lineal measures can only be used to determine the magnitude of solid bodies: the magnitude of bodies in a liquid or fluid state has to be determined by what are called measures of capacity. It is probable that, in the infancy of society, shells, or other hollow instruments afforded by nature, were used as standards. But the inaccuracy of the conclusion drawn from referring to them must soon have become obvious; and it early occurred, that to obtain an accurate measure of liquids nothing more was necessary than to constitute an artificial one, the dimensions, and consequently the capacity, of which should be determined by the lineal measures previously adopted.

The determination of the gravity or weight of different bodies supposes the invention of the balance. Nothing is known of the steps which led to its introduction; but it was used in the remotest antiquity. It seems probable that, at first, cubes of some common lineal measure, as a foot, or the fraction of a foot, formed of copper, iron, or some other metal, were used as standards of weight. When the standard was selected, if it was desired to ascertain the specific gravity or weight of any given article, all that was necessary was to put it into one of the scales of the balance, and as many cubes or parts of cubes on the other as might be necessary to counterpoise it.

Weights have, however, been frequently derived from grains of corn. Hence, in this, and in some other European countries, the lowest denomination of weight is a *grain*; and 32 of these grains are directed, by the ancient statute called *Compositio Mensurarum*, to compose a pennyweight, whereof 20 make an ounce, 12 ounces a pound, and so upwards.

In every country in which commercial transactions are extensively carried on, the importance of having weights and measures determined by some fixed standard becomes obvious to everyone. But as the size of different parts of the human body differs in different individuals, it is necessary to select some durable article—a metallic rod, for example—of the length of an ordinary cubit, foot &c., and to make it a standard with which all the other cubits, feet &c. used in mensuration shall correspond. These standards have always been preserved with the greatest care: at Rome, they were kept in the temple of Jupiter; and among the Jews, their custody was intrusted to the family of Aaron. (Paucton, *Métrologie*, p. 223.)

The principal standards used in the ancient world were, the cubit of the Jews, from which their other measures of length, capacity, and weight were derived; and the foot of the Greeks and Romans.

In England, our ancient historians tell us that a new, or rather a revived, standard of lineal measure was introduced by Henry I., who ordered that the ulna, or ancient ell, which corresponds to the modern yard, should be made of the exact length of his own arm, and that the other measures of length should be raised upon it. This standard has been maintained, without any sensible variation. In 1742 the Royal Society had a yard made, from a very careful comparison of the standard ells or yards of the reigns of Henry VII. and Elizabeth kept at the Exchequer. In 1758 an exact copy was made of the Royal Society's yard; and this copy having been examined by a committee of the House of Commons, and reported by them to be equal to the standard yard, it was marked as such; and this identical yard is declared, by the Act 5 Geo. IV. c. 74, to be the standard of lineal measure in Great Britain. The clause in the Act is as follows:—

'From and after the 1st of May, 1825 (subsequently extended to the 1st of January, 1826), the straight line or distance between the centres of the 2 points in the gold studs in the straight brass rod, now in the custody of the clerk of the House of Commons, whereon the words and figures "STANDARD YARD, 1760," are engraved, shall be the original and genuine standard of that measure of length or lineal extension called a yard; and the same straight line or distance between the centres of the said 2 points in the said gold studs in the said brass rod, the brass being at the temperature of 62° by Fahrenheit's thermometer, shall be and is hereby denominated the "IMPERIAL STANDARD YARD," and shall be and is hereby declared to be the unit or only standard measure of extension, wherefrom or whereby all other measures of extension whatsoever, whether the same be lineal, superficial, or solid, shall be derived, computed, and ascertained; and that all measures of length shall be taken in parts or multiples or certain proportions of the said standard yard; and that $\frac{1}{3}$ of the said standard yard shall be a foot, and $\frac{1}{12}$ of such foot shall be an inch; and that the pole or perch in length shall contain 5½ such yards, the furlong 220 such yards, and the mile 1,760 such yards.' (Sec. 1.)

The superficial measures are formed on the basis of the square of this standard; it being enacted, that

'The rood of land shall contain 1,210 square yards, according to the said standard yard; and that the acre of land shall contain 4,840 such square yards, being 160 square perches, poles, or rods.' (Sec. 2.)

Uniformity of Weights and Measures.—The confusion and inconvenience attending the use of weights and measures of the same denomination, but of different magnitudes, were early remarked; and there is hardly a country in which efforts have not been made to reduce them to the same uniform system. Numerous Acts of Parliament have been passed, having this object in view, and enjoining the use of the same weights and measures, under very severe penalties. But, owing to the inveteracy of ancient customs, and the difficulty of enforcing new regulations, these statutes have always had a very limited influence, and the greatest diversity has continued to prevail, except in lineal measures. The statute of 5 Geo. IV. c. 74 seems to have, at length, effected what former statutes failed of accomplishing. It is, perhaps, indebted for its success in this respect to the moderate nature of the changes which it introduced. We have already seen that it made no alteration in the lineal measures previously in use. Neither did it affect the previously existing system of weights; both the Troy and the Avoirdupois weights having been preserved.

'The Troy weight,' says Mr. Davies Gilbert, late President of the Royal Society, 'appeared to us (the commissioners of weights and measures) to be the ancient weight of this kingdom, having, as we have reason to suppose, existed in the same state from the time of St. Edward the Confessor; and there are reasons, moreover, to believe that the word Troy has no reference to any town in France, but rather to the monkish name given to London, of Troy Novant, founded on the legend of Brute. Troy weight, therefore, according to this etymology, is, in fact, London weight. We were induced, moreover, to preserve the Troy weight, because all the coinage has been uniformly regulated by it; and all medical prescriptions or formulæ now are, and always have been, estimated by Troy weight, under a peculiar sub-

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division which the College of Physicians have expressed themselves most anxious to preserve.'

It was resolved, therefore, to continue the use of Troy weight; and also, on account of the accuracy of the Troy standard, to raise the Avoirdupois weight from this basis.

'We found,' said Mr. Davies Gilbert, 'the Avoirdupois weight, by which all heavy goods have been for a long time weighed (probably derived from Avoirs (Averia), the ancient name for goods or chattels, and Poids, weight), to be universally used throughout the kingdom. This weight, however, seems not to have been preserved with such scrupulous accuracy as Troy weight, by which more precious articles have been weighed; but we had reason to believe that the pound cannot differ by more than 1, 2, or 3 grains, from 7,000 grains Troy; some being in excess, and others, though in a less degree, in defect, but in no case amounting to above 1, 2, or 3 grains. It therefore occurred to us, that we should be offering no violence to this system of weights, if we declared that 7,000 grains Troy should be hereafter considered as the pound Avoirdupois.'

In accordance with these views, it was enacted —'That from and after the 1st day of May, 1825, the standard brass weight of 1 pound Troy weight, made in the year 1758, now in the custody of the clerk of the House of Commons, shall be, and the same is hereby declared to be, the original and genuine standard measure of weight, and that such brass weight shall be, and is hereby denominated, the Imperial Standard Troy pound, and shall be, and the same is hereby declared to be, the unit or only standard measure of weight, from which all other weights shall be derived, computed, and ascertained; and that $\frac{1}{12}$ of the said Troy pound shall be an ounce; and that $\frac{1}{20}$ of such ounce shall be a pennyweight; and that $\frac{1}{24}$ of such pennyweight shall be a grain; so that 5,760 such grains shall be a Troy pound; and that 7,000 such grains shall be, and they are hereby declared to be, a pound Avoirdupois, and that $\frac{1}{16}$ of the said pound Avoirdupois shall be an ounce Avoirdupois, and that $\frac{1}{16}$ of such ounce shall be a dram.'

At the period of passing the statute 5 Geo. IV. c. 74, the measures of capacity were found to be in the greatest confusion; and a considerable change has consequently been made in them. The wine gallon formerly amounted to 231 cubic inches, the corn gallon to 268·8, and the ale gallon to 282. But these are superseded by the Imperial gallon, which contains 277·274 cubic inches, or 277¼ very nearly. It is deduced as follows:—

'The standard measure of capacity, as well for liquids as for dry goods not measured by heaped measure, shall be the GALLON, containing 10 lb. Avoirdupois weight of distilled water weighed in air, at the temperature of 62° of Fahrenheit's thermometer, the barometer being at 30 inches; and a measure shall be forthwith made of brass, of such contents as aforesaid, under the directions of the Lord High Treasurer or the Commissioners of his Majesty's Treasury; and such brass measure shall be, and is hereby declared to be, the Imperial standard gallon, and shall be, and is hereby declared to be, the unit and only standard measure of capacity, from which all other measures of capacity to be used, as well for wine, beer, ale, spirits, and all sorts of liquids, as for dry goods not measured by heaped measure, shall be derived, computed, and ascertained; and all measures shall be taken in parts or multiples or certain proportions of the said Imperial standard gallon; and the quart shall be ¼ of such standard gallon, and the pint shall be ⅛ of such standard gallon, and 2 such gallons shall be a peck, and 8 such gallons shall be a bushel, and 8 such bushels a quarter of corn or other dry goods, not measured by heaped measure.' (Sec. 6.)

We subjoin a Table showing the contents of the different gallons, both in measure and weight.

	Cubic Inches	Avoirdupois Weight			Troy Weight			
		lb.	oz.	dr.	lb.	oz.	dwt.	gr.
Imperial gallon -	277·274	10	0	0	12	1	16	16
Corn gallon -	268·8	9	10	12	11	9	7	12
Wine gallon -	231	8	5	6¾	10	1	9	22
Ale gallon -	282	10	2	11½	12	4	6	8

Heaped Measures.—The greatest blemish, by far, in the Act 5 Geo. IV. c. 74 was the continuance and legitimation of the practice of selling by heaped measure. This practice has since, however, been abolished, along with the use of all local and customary measures, by the Act 5 & 6 Wm. IV. c. 63, which contains several important provisions.

This Act sets out with repealing the 4 & 5 of Wm. IV. c. 49, and the provisions in the Acts 5 Geo. IV. c. 74, and 6 Geo. IV. c. 12, which require that all weights and measures shall be exact models or copies in shape or form of the standards deposited in the exchequer; and those allowing the use of weights and measures, not in conformity with the Imperial standard, established by said Acts; or that allow goods or merchandise to be bought or sold by weights or measures established by local custom, or founded on special agreement. It then goes on to enact as follows:—

Weights and Measures stamped at the Exchequer declared legal.—Weights and measures verified and stamped at the exchequer as copies of standard weights and measures, shall be taken to be legal weights and measures, to be used for comparison as copies of the Imperial standard weights and measures, although not similar in shape to those required under the provisions of the said Acts; and the Comptroller-General, or other duly authorised officer of the exchequer, may compare and verify, and stamp as correct, standard measures of a yard, standard weights and standard measures of capacity, any weights and measures which correspond in length, weight, and capacity with the standards, or parts or multiples thereof, deposited in the exchequer, under the 5 Geo. IV. c. 74, although such weights and measures may not be models or copies in shape or form of the standards so deposited. (Sec. 4.)

Copies of the Standard Weights and Measures worn to be re-verified.—All copies of the Imperial standard weights and measures which have become defective, or have been mended, in consequence of wear or accident, shall forthwith be sent to the exchequer, for the purpose of being again compared and verified, and shall be stamped as re-verified copies of such standard weights and measures, provided the Comptroller-General, or other officer appointed for such verification, deem them fit for the purposes of standards; and every new comparison and verification shall be indorsed upon the original indenture of verification; and such weights and measures shall be stamped upon payment of fees of verification only; and the Comptroller-General, or other officer, shall keep an account of all copies of the Imperial standard weights and measures verified at the exchequer. (Sec. 5.)

Local and Customary Measures abolished.—From and after the passing of this Act, the Win-

chester bushel, the Scotch ell, and all *local or customary* measures, shall be abolished; and every person who shall sell by any measure other than one of the Imperial measures, or some multiple or aliquot part thereof, shall be liable to a penalty not exceeding 40*s.* for every such sale: but nothing therein shall prevent the sale of any articles in any vessel, where such vessel is not represented as containing any amount of Imperial measure, or of any fixed, local, or customary measure heretofore in use. (Sec. 6.)

Heaped Measure abolished.—From and after the passing of this Act, so much of the said Acts as relates to heaped measure is hereby repealed, and the use of heaped measure shall be abolished, and all bargains, sales, and contracts made after the passing of this Act, by heaped measure, shall be null and void; and every person who shall sell any articles by heaped measure shall be liable to a penalty not exceeding 40*s.* for every such sale. (Sec. 7.)

Articles sold by Heaped Measure, how to be sold.—Whereas some articles heretofore sold by heaped measure are incapable of being stricken, and may not be conveniently sold by weight; it is enacted, that all such articles may henceforth be sold by a bushel measure, corresponding in shape with the bushel prescribed by the 5 Geo. IV. c. 74, for the sale of heaped measure, or by any multiple or aliquot part thereof, filled in all parts as nearly to the level of the brim as the size and shape of the articles will admit; but nothing herein shall prevent the sale by weight of any article heretofore sold by heaped measure. (Sec. 8.)

Coals to be sold by Weight.—From and after January 1, 1836, all coals, slack, culm, and cannel, of every description, shall be sold by weight and not by measure, under a penalty of 40*s.* for every sale. (Sec. 9.)

All Articles to be sold by Avoirdupois, except &c.—From and after the passing of this Act, all articles sold by weight shall be sold by Avoirdupois weight, except gold, silver, platina, diamonds, or other precious stones, which may be sold by Troy weight; and drugs, which, *when sold by retail*, may be sold by Apothecaries' weight. (Sec. 10.)

The Stone, Hundred Weight &c.—From and after the passing of this Act, the weight denominated a stone shall, in all cases, consist of 14 standard pounds Avoirdupois, the hundred weight of 8 such stones, and the ton of 20 such hundred weights; but nothing herein shall prevent any bargain, sale, or contract being made by any multiple or aliquot part of the pound weight. (Sec. 11.)

Contents of Weights and Measures to be stamped on them.—All weights made after the passing of this Act of the weight of 1 pound Avoirdupois, or more, shall have the number of pounds contained in them stamped or cast on the top or side thereof in legible figures and letters; and all measures of capacity made after the passing of this Act shall have their contents stamped or marked on the outside thereof in legible figures and letters. (Sec. 12.)

Weights of Lead or Pewter not to be stamped.—The stamping of weights of lead or pewter, or of any mixture thereof, is prohibited after January 1, 1836; but nothing herein shall prevent the use of lead or pewter, or any mixture thereof, in the manufacture of weights wholly and substantially cased with brass, copper, or iron, and legibly stamped or marked 'cased,' or prevent the insertion of such a plug of lead or pewter into weights as shall be bonâ fide necessary for adjusting them and affixing the stamp thereon. (Sec. 13.)

Conversion of Rents, Tolls &c.—Clauses 14 and 15 regulate the proceedings that are to take place in England, Ireland, and Scotland, for the conversion of rents, tolls &c. payable in weights or measures now abolished into Imperial standard weights and measures.

Fiar Prices.—In Scotland, from and after the passing of this Act, the fiar prices of all grain in every county shall be struck by the Imperial quarter, and all other returns of the prices of grain shall be set forth by the same, without any reference to any other measure whatsoever; and any sheriff clerk, clerk of a market, or other person offending against this provision, shall forfeit not exceeding 5*l.* (Sec. 16.)

Copies of Standards, Inspectors &c.—Clauses 17, 18, 19, and 20 prescribe the mode in which copies of the standard weights and measures shall be provided in counties, cities, boroughs &c., the appointment of inspectors of weights and measures &c. Clause 22 orders that the expense of providing copies of standard weights, with the remuneration to inspectors, be defrayed out of the county rate. Clause 23 prohibits any maker or seller of weights or measures from being appointed inspector, and orders all inspectors to enter into a bond of 200*l.* for the due performance of the duties of their office, and the safe custody of the stamps and standard weights and measures committed to their care. Clause 24 orders inspectors to attend at market towns when ordered by justices. The following clauses are of general importance.

Magistrates to procure Stamps for Inspectors for Stamping all Weights &c.—In England the justices in general or quarter sessions assembled, and in Scotland the justices and magistrates at a meeting called by the sheriff, and in Ireland the grand juries, shall provide the inspectors with good and sufficient stamps for stamping or sealing weights and measures; and all weights and measures whatsoever, except as herein excepted, used for buying and selling, or for the collecting of any tolls or duties, or for the making of any charges on the conveyance of any goods or merchandise, shall be examined and compared with one or more copies of the Imperial standard weights and measures provided under authority of this Act for such inspectors, who shall stamp, so as best to prevent fraud, such weights and measures, if they be found to correspond with the said copies; and the fees for such examination, comparison, and stamping shall be those in the schedule at the end of this Act; and every person using any weight or measure other than those authorised by this Act, or some aliquot part thereof, or which has not been stamped as aforesaid, except as herein excepted, or which shall be found light or otherwise unjust, shall forfeit not exceeding 5*l.*; and any contract, bargain, or sale made by such weights or measures shall be wholly null and void; and every light or unjust weight and measure shall, on being discovered by any inspector, be seized, and, on conviction, forfeited; but nothing herein shall require any single weight above 56 lb. to be inspected and stamped, nor any wooden or wicker measure used in the sale of lime, or other articles of the like nature, or any glass or earthenware jug or drinking cup, though represented as containing the amount of any Imperial measure, or of any multiple thereof; but any person buying by any vessel represented as containing the amount of an Imperial measure, or of any multiple thereof, is authorised to require the contents of such vessel to be ascertained by comparison with a stamped measure, such measure to be provided by the person using such wooden or wicker measure, glass, jug, or drinking cup; and in case the person using such last-mentioned mea-

sure or vessel refuse to make such comparison, or if, upon comparison being made, it be found to be deficient in quantity, the person using the same shall be subject to the forfeitures and penalties imposed on those using light or unjust weights or measures. (Sec. 21.)

Weights and Measures once stamped need not be re-stamped.—No weight or measure duly stamped by any inspector appointed under the 4 & 5 Wm. IV. c. 49, or this Act, or by any person or persons authorised to examine and stamp weights or measures, shall be liable to be re-stamped, although the same be used in any other place than that at which it was originally stamped, but shall be considered as a legal weight or measure throughout the United Kingdom, unless found to be defective or unjust. (Sec. 27.)

Power to Justices &c. to enter Shops and inspect Weights and Measures.—Justices, sheriffs, magistrates, and inspectors are authorised to examine weights and measures, and to order such as are light or otherwise unjust to be seized and forfeited; those using such weights and measures are subjected to a penalty of not more than 5*l.*; and a like penalty is imposed on those refusing to produce such weights and measures, or obstructing the magistrates. (Sec. 28.)

Penalties on Inspectors counterfeiting Stamps &c.—Inspectors or other persons authorised to inspect weights or measures, who shall stamp any weight or measure without verifying the same, or who shall otherwise misconduct themselves in their office, shall for every such offence forfeit not more than 5*l.*; persons forging or counterfeiting any stamp or mark used for stamping or marking weights or measures, forfeit for every offence not more than 50*l.* and not less than 10*l.*; and persons knowingly using weights or measures marked with such counterfeit stamps, forfeit for every offence not more than 10*l.* nor less than 2*l.* (Secs. 29, 30.)

Penalty on Price Lists &c.—From and after January 1, 1836, any person printing, or clerk of any market or other person making any return, price list, price current, or any journal or other paper containing price list or price current, in which the weights and measures quoted or referred to denote or imply a greater or less weight or measure than is denoted or implied by the same denomination of Imperial weights and measures under the provisions of this Act, shall forfeit and pay not exceeding 10*s.* for *every copy* of every such return, price list, price current, journal, or other paper which they publish.

The remaining clauses relate to the recovery of penalties; and save the rights of the Founders' Company, and of the Universities of Oxford and Cambridge.

Schedule of Fees to be taken by all Inspectors of Weights and Measures appointed under the Authority of this Act.

For examining, comparing, and stamping all brass weights, within their respective jurisdictions—

	d.
Each half hundred weight	9
quarter of a hundred weight	6
stone	4
weight under a stone to a pound inclusive	1
weight under a pound	0½
set of weights of a pound and under	2

For examining, comparing, and stamping all iron weights, or weights of other descriptions, not made of brass, within their respective jurisdictions—

	d.
Each half hundred weight	3
quarter of a hundred weight	2
stone	1
weight under a stone	0½
set of weights of a pound and under	2

For examining, comparing, and stamping all wooden measures, within their respective jurisdictions—

	d.
Each bushel	3
half bushel	2
peck, and all under	1
yard	0½

For examining, comparing, and stamping all measures of capacity of liquids, made of copper or other metal, within their respective jurisdictions—

	s.	d.
Each five gallon	1	0
four gallon	0	9
three gallon	0	6
two gallon	0	4
gallon	0	2
half gallon	0	1
quarter and under	0	0½

The propriety of allotting a separate office for the preservation and re-adjustment of standards having been considered by the Standard Commission of 1841, and various committees in 1854, 1862, and 1864, an Act was at length passed, 29 & 30 Vict. c. 82, called the Standards of Weights and Measures and Coinage Act of 1866. This Act—1st, transfers from the Exchequer to the Board of Trade all duties in connection with the custody and management of the Parliamentary and secondary standard of weights and measures; 2nd, establishes a standard department; 3rd, provides for the reverification of these standards, and for allowance of errors in the comparison of standards; 4th, abolishes stamp duty and fees taken at the Exchequer on the verification of standards; and 5th, directs an annual Report to the Board of Trade on the proceedings of the Government to be laid before Parliament. It would appear, from the first Report of Mr. Chisholm, Warden of the Standards, that from 1860 down to 1867, 5,542 standards have been verified for the first time, and 11,108 reverified.

The Acts 22 & 23 Vict. c. 56, and 23 & 24 Vict. c. 119 s. 15, provide that no copies of the standard weights shall be legal unless compared or reverified every 5 years, and copies of the standard measures to be compared every 10 years.

Invariable or Natural Standards.—As the standards adopted in most countries have been in a great degree arbitrary, it has long been the opinion of scientific men that to construct a more perfect system of weights and measures, some natural and unchangeable basis should be adopted. It has, indeed, been contended by Paucton and Bailly, that the measures of the ancients were deduced from a basis of this sort; and that the *stadium* always formed an aliquot part of the earth's circumference, that part differing amongst different nations and authors. But no learning or ingenuity can induce anyone to believe what is so obviously incredible. The ancients had no means of determining the earth's circumference with anything like the accuracy required to render it the great unit of a system of measures; and, what is equally decisive, no ancient author ever makes the slightest allusion to any such standard.

In more modern times, however, the idea of seeking for a unit of weight and measure in some unchanging natural object has been practically carried into effect. The standards that have been usually proposed for this object have been some aliquot part of the quadrant of the meridian, or the length of a pendulum vibrating seconds in some given latitude. The latter has been in so far adopted into the existing system of weights and measures established by the Act of 1823, that the length of the standard yard, as compared with that of a pendulum vibrating seconds in the latitude of London, is specified in the Act as follows:—

'Whereas it has been ascertained by the commissioners appointed by his Majesty to enquire into the subject of weights and measures, that the said yard hereby declared to be the Imperial standard yard, when compared with a pendulum vibrating seconds of mean time in the latitude of London, in a vacuum at the level of the sea, is in the proportion of 36 inches to 39 inches and 1,393 ten-thousandth parts of an inch; be it therefore enacted and declared, that if at any time hereafter the said Imperial standard yard shall be lost, or shall be in any manner destroyed, defaced, or otherwise injured, it shall and may be restored by making, under the direction of the Lord High Treasurer, or the commissioners of his Majesty's Treasury of the United Kingdom of Great Britain and Ireland, or any three of them for the time being, a new standard yard, bearing the same proportion to such pendulum, as aforesaid, as the said Imperial standard yard bears to such pendulum.'

Tables of English Weights and Measures, according to the New or Imperial Measure.

Imperial Troy Weight.

The standard pound containing 5,760 grs.

				French Grammes.
			1 Grain	= 0·0648
24 Grains	-	-	1 Pennyweight	= 1·5552
20 Pennyweights	-	-	1 Ounce	= 31·1027
12 Ounces	-	-	1 Pound	= 373·2330

Troy weight is used in the weighing of gold, silver, jewels &c. It is also used in ascertaining the strength of spirituous liquors; in philosophical experiments; and in comparing different weights with each other.

Apothecaries' Weight.

				Fr. Gramm.
			1 Grain	= 0·0648
20 Grains	-	-	1 Scruple	= 1·296
3 Scruples	-	-	1 Dram	= 3·888
8 Drams	-	-	1 Ounce	= 31·102
12 Ounces	-	-	1 Pound	= 373·253

This weight is essentially the same as troy weight, but differently divided. It is chiefly used for medical prescriptions; but drugs are mostly bought and sold by avoirdupois weight.

Diamond Weight.—Diamonds and other precious stones are weighed by carats, the carat being divided into 4 grains, and the grain into 16 parts. The diamond carat weighs $3\frac{1}{6}$ grains troy: thus,

Diamond Weight			Troy Weight		Decigrammes
16 Parts	-	1 Grain	-	$0\frac{16}{16}$ grains	= 51½
4 Grains	-	1 Carat	-	$3\frac{4}{6}$ -	= 205½

Imperial Avoirdupois Weight.

				Fr. Grammes
			1 Dram	= 1·771
16 Drams	-	-	1 Ounce	= 28·346
16 Ounces	-	-	1 Pound	= 453·544
28 Pounds	-	-	1 Quarter	= 12·699 kil.
4 Quarters	-	-	1 Hundredwt.	= 50·796 ,,
20 Hundredweights		-	1 Ton	= 1015·920 ,,

The dram is subdivided into 3 scruples, and each scruple into 10 grains; the pound, or 7,680 grains avoirdupois, equals 7,000 grains troy, and hence 1 grain troy equals 1·097 grains avoirdupois.

Hence also 144 lb. avoirdupois = 175 lb. Troy
and 192 oz. ,, = 175 oz. ,,

The stone is generally 14 lb. avoirdupois weight, but for butcher's meat or fish it is 8 lb. Hence the hundred weight (cwt.) equals 8 stone of 14 lb. or 14 stone of 8 lb.

A stone of glass is 5 lb. A seam of glass is 24 stone, or 120 lb.

Hay and straw are sold by the load of 36 trusses.

The truss of hay weighs 56 lb. and of straw 36 lb. The truss of new hay is 60 lb. until September 1.

The custom of allowing more than 16 ounces to the pound of butter used to be very general in several parts of the country.

Cheese and Butter.

8 Pounds	-	=	1 Clove
32 Cloves	-	=	1 Wey in Essex
42 ,,	-	=	1 ,, Suffolk
56 Pounds	-	=	1 Firkin of butter

Imperial Long Measure.

				Fr. Metres
12 Inches	-	1 Foot	=	0·3048
3 Feet	-	1 Yard	=	0·9144
5½ Yards	-	1 Pole or Rod	=	5·0291
40 Poles	-	1 Furlong	=	201·1632
8 Furlongs	-	1 Mile	=	1609·3059
3 Miles	-	1 League	=	4827·9179
60 Geographical or 69½ English Miles		1 Degree	=	111120·7442

Besides the above, there are the palm, which equals 3 inches; the hand, 4 inches; the span, 9 inches; and the fathom, 6 feet.

Imperial Superficial Measure.

				Fr. Sq. Metres
144 Inches	-	1 Square Foot	=	0·0929
9 Square Feet	-	1 Square Yard	=	0·8316
30¼ Square Yards	-	1 Square Pole	=	25·2961
40 Square Poles	-	1 Rood	=	1011·6642
4 Roods	-	1 Acre	=	4046·6568

The inch is generally divided, on scales, into 10ths, or decimal parts; but in squaring the dimensions of artificers' work, the duodecimal system is adopted; the inch being divided into 12 parts or lines, each part into 12 seconds, and each second into 12 thirds.

Land is usually measured by a chain of 4 poles, or 22 yards, which is divided into 100 links. Ten chains in length and 1 in breadth make an acre, which equals 160 square perches, or 4,840 square yards.

Cubic or Solid Measure.

				Fr. Cubic Metres
1,728 Cubic Inches	-	1 Cubic Foot	=	·0283
27 Cubic Feet	-	1 Cubic Yard	=	·7634
40 Feet of rough timber, or 50 Feet hewn do.	-	1 Load or Ton	=	1·1326 / 1·4157
12 Cubic Feet	-	1 Ton of shipping	=	1·1892

By cubic measure, marble, stone, timber, masonry, and all artificers' works of length, breadth, and thickness, are measured, and also the contents of all measures of capacity, both liquid and dry.

Imperial Liquid and Dry Measure, deduced from the Standard Gallon, containing 10 lb. weight of Distilled Water, temperature 62°, barometer 30 inches.

Weight of Water	Cubic Feet	Cubic Inches	Gills	Pints	Quarts	Pottles	Gallons	Pecks	Bushels	Coombs	Quarters
5 oz.		8·665	1								
lb. 1¼		34·659	4	1							
2½		69·318	8	2	1						
5		138·637	16	4	2	1					
10		277·274	32	8	4	2	1				
20		554·548	64	16	8	4	2	1			
80	1·2857	2219·191	256	64	32	16	8	4	1		
320	5·1347	8877·765	1,024	256	128	64	32	8	4	1	
640	10·2694	17755·546	2,048	512	256	128	64	32	8	2	1 Quart.

The dimensions of the Imperial standard bushel are as follows:—the outer diameter 19½ inches, and the inner diameter 18½. The depth is 8, and the height of the cone, for heaped measure, is 6 inches. The contents of the Imperial heaped bushel were 2815·4887 cubic inches. The subdivisions and multiples are in the same proportion.

Wool Weight.

Like all other bulky articles, wool is weighed

by avoirdupois weight, but the divisions differ; thus :—

7 Pounds	=	1 Clove		6½ Tods	=	1 Wey	
2 Cloves	=	1 Stone		2 Weys	=	1 Sack	
2 Stone	=	1 Tod		12 Sacks	=	1 Last	

A pack of wool contains 240 lb.

OLD MEASURES SUPERSEDED BY THE IMPERIAL SYSTEM.

Old Wine Measure.

			Cubic In.		Fr. Litres
	1 Pint	=	28·875	=	0·4731
2 Pints	1 Quart	=	57·75	=	0·9463
4 Quarts	1 Gallon	=	231	=	3·7855
42 Gallons	1 Tierce	=	5·614 ft.	=	158·9673
2 Tierces	1 Puncheon	=	11·228 „	=	317·9345
63 Gallons	1 Hogshead	=	8·421 „	=	238·4509
2 Hogsheads	1 Pipe or Butt	=	16·842 „	=	476·9018
2 Pipes	1 Tun	=	33·684 „	=	953·8036

The pint is subdivided into halves and quarters; the latter is called a gill. A rundlet is 18 gallons, and an anker 9.

Conversion of Old Wine Measure into Imperial Measure.—The old wine gallon contains 231 cubic inches, and the Imperial gallon 277·274 ditto. Hence, to convert wine gallons into Imperial gallons, multiply by $\frac{231}{277{\cdot}274}$, or by ·83311; and to convert Imperial gallons into wine gallons, multiply by the reciprocal fraction $\frac{277{\cdot}274}{231}$ or by 1·20032. But for most practical purposes, wine measure multiplied by 5 and divided by 6 will give Imperial measure with sufficient accuracy, and conversely.

N.B.—The multipliers and divisors employed to reduce old wine, ale &c. measures to imperial measure, serve also to reduce prices by the former to the latter.

We subjoin, from the very complete and valuable work of Mr. Buchanan, of Edinburgh, *On Weights and Measures*, a

Table of English Wine Gallons, from 1 *to* 100, *with their Equivalents in Imperial Gallons.*

Wine Gals.	Equivalents in Imperial Gals.	Wine Gals.	Equivalents in Imperial Gals.	Wine Gals.	Equivalents in Imperial Gals.	Wine Gals.	Equivalents in Imperial Gals.
1	0·83311	26	21·66088	51	42·48866	76	63·31643
2	1·66622	27	22·49399	52	43·32177	77	64·14954
3	2·49933	28	23·32711	53	44·15488	78	64·98265
4	3·33244	29	24·16022	54	44·98799	79	65·81576
5	4·16555	30	24·99333	55	45·82110	80	66·64887
6	4·99867	31	25·82644	56	46·65421	81	67·48198
7	5·83178	32	26·65955	57	47·48732	82	68·31509
8	6·66489	33	27·49266	58	48·32043	83	69·14820
9	7·49800	34	28·32577	59	49·15354	84	69·98132
10	8·33111	35	29·15888	60	49·98665	85	70·81443
11	9·16422	36	29·99199	61	50·81976	86	71·64754
12	9·99733	37	30·82510	62	51·65288	87	72·48065
13	10·83044	38	31·65821	63	52·48599	88	73·31376
14	11·66355	39	32·49133	64	53·31910	89	74·14687
15	12·49666	40	33·32444	65	54·15221	90	74·97998
16	13·32977	41	34·15755	66	54·98532	91	75·81309
17	14·16289	42	34·99066	67	55·81843	92	76·64620
18	14·99600	43	35·82377	68	56·65155	93	77·47931
19	15·82910	44	36·65688	69	57·48466	94	78·31242
20	16·66222	45	37·48999	70	58·31776	95	79·14554
21	17·49533	46	38·32310	71	59·15087	96	79·97865
22	18·32844	47	39·15626	72	59·98398	97	80·81176
23	19·16155	48	39·98932	73	60·81710	98	81·64487
24	19·99466	49	40·82243	74	61·65021	99	82·47798
25	20·82777	50	41·65555	75	62·48332	100	83·31109

Hence, supposing the former denominations to be preserved, a tierce of wine = 35 Imperial gallons very nearly; a puncheon = 70 ditto very nearly; a hogshead = 52½ ditto very nearly; a pipe or butt = 105 ditto very nearly; and a tun = 210 ditto very nearly.

Old Ale and Beer Measure.

		Cub. In.		Fr. Litres
	1 Pint	34·65	=	0·5676
2 Pints	1 Quart	70·5	=	1·1352
4 Quarts	1 Gallon	282	=	4·6208

Old Ale and Beer Measure—cont.

			Cub. In.		Fr. Litres
8 Gallons	1 Firkin ale		1·305 feet	=	36·9669
9 Gallons	1 „	beer	1·468 „	=	41·5878
2 Firkins	1 Kilderkin		2·937 „	=	83·1746
2 Kilderkins	1 Barrel		5·875 „	=	166·3488
1½ Barrel	1 Hogshead		8·812 „	=	249·5232
2 Barrels	1 Puncheon		10·750 „	=	333·6876
2 Hogsheads	1 Butt		17·624 „	=	499·0464
2 Butts	1 Tun		35·248 „	=	998·0928

Conversion of Old Ale and Beer Measure into Imperial Measure.—The old ale gallon contains 282 cubic inches, and the Imperial standard gallon 277·274 ditto. Hence, to convert ale gallons into Imperial gallons, multiply by $\frac{282}{277{\cdot}274}$, or by 1·0170445; and to convert Imperial gallons into ale gallons, multiply by the reciprocal fraction $\frac{277{\cdot}274}{282}$, or by ·9832411. Unless extreme accuracy be required, the first 3 decimals need only be used. And for most practical purposes, ale measure multiplied by 59 and divided by 60 will give Imperial measure with sufficient accuracy, and conversely.

Table of English Ale Gallons, from 1 *to* 100, *with their Equivalents in Imperial Gallons.*

Ale Gals.	Equivalents in Imperial Gals.	Ale Gals.	Equivalents in Imperial Gals.	Ale Gals.	Equivalents in Imperial Gals.	Ale Gals.	Equivalents in Imperial Gals.
1	1·01704	26	26·44310	51	51·86927	76	77·29538
2	2·03409	27	27·46020	52	52·88631	77	78·31243
3	3·05113	28	28·47725	53	53·90336	78	79·32947
4	4·06818	29	29·49429	54	54·92040	79	80·34652
5	5·08522	30	30·51134	55	55·93745	80	81·36356
6	6·10227	31	31·52838	56	56·95449	81	82·38060
7	7·11931	32	32·54542	57	57·97154	82	83·39765
8	8·13636	33	33·56247	58	58·98858	83	84·41469
9	9·15340	34	34·57951	59	60·00563	84	85·43174
10	10·17045	35	35·59656	60	61·02267	85	86·44878
11	11·18749	36	36·61360	61	62·03971	86	87·46583
12	12·20453	37	37·63065	62	63·05676	87	88·48287
13	13·22158	38	38·64769	63	64·07380	88	89·49992
14	14·23862	39	39·66474	64	65·09085	89	90·51696
15	15·25567	40	40·68178	65	66·10789	90	91·53401
16	16·27271	41	41·69883	66	67·12494	91	92·55105
17	17·28976	42	42·71587	67	68·14198	92	93·56809
18	18·30680	43	43·73291	68	69·15903	93	94·58514
19	19·32385	44	44·74996	69	70·17607	94	95·60218
20	20·34089	45	45·76700	70	71·19312	95	96·61923
21	21·35793	46	46·78405	71	72·21016	96	97·63627
22	22·37498	47	47·80109	72	73·22720	97	98·65332
23	23·39202	48	48·81814	73	74·24425	98	99·67036
24	24·40907	49	49·83518	74	75·26129	99	100·68741
25	25·42611	50	50·85223	75	76·27834	100	101·70445

Old Dry or Winchester Measure.

			Cub. In.		Fr. Litres
4 Gills	1 Pint		33·6	=	0·55053
2 Pints	1 Quart		67·2	=	1·10107
2 Quarts	1 Pottle		134·4	=	2·20214
2 Pottles	1 Gallon		268·8	=	4·40428
2 Gallons	1 Peck		537·6	=	8·80856
4 Pecks	1 Bushel		2150·42	=	35·23430
4 Bushels	1 Coom		4·977	feet =	140·93721
2 Cooms	1 Quarter		9·954	„ =	281·87443
5 Quarters	1 Wey or Load		49·770	„ =	1409·37216
2 Weys	1 Last		99·540	„ =	2818·74432

The Winchester bushel is 18½ inches wide, and 8 inches deep. Corn and seeds are measured by striking the bushel from the brim, with a round piece of light wood, about 2 inches in diameter, and of equal thickness from one end to the other. All other dry goods are heaped.

Conversion of Winchester Bushels into Imperial Bushels.—The Winchester bushel contains 2150·42 cubic inches, and the Imperial standard bushel 2218·192 ditto. Hence, to convert Winchester bushels into Imperial bushels, multiply by $\frac{2150{\cdot}42}{2218{\cdot}192}$, or by ·969447; and to convert Imperial bushels into Winchester bushels, multiply by the reciprocal fraction $\frac{2218{\cdot}192}{2150{\cdot}42}$, or 1·0315157. For practical purposes, multiply Winchester measure by 31 and divide by 32 for Imperial measure, and the contrary.

In some markets, corn is sold by weight, which is the fairest mode of dealing, though not the most convenient in practice. Even where measures are used, it is customary to weigh certain quantities or proportions, and to regulate the prices accordingly. The average bushel of wheat is generally reckoned at 60 lb.; of barley 47 lb.; of oats 38 lb.; peas 64 lb.; beans 63 lb.; clover 68 lb.; rye and canary 53 lb., and rape 48 lb. In some places a load of corn for a man is reckoned 5 bushels, and a cart load 40 bushels.

Table of Winchester Quarters, from 1 to 100, with their Equivalents in Imperial Quarters.

Winchester Qr.	Equivalents in Imperial Qr.	Winchester Qr.	Equivalents in Imperial Qr.	Winchester Qr.	Equivalents in Imperial Qr.	Winchester Qr.	Equivalents in Imperial Qr.
1	0·96915	26	25·20562	51	49·44180	76	73·67797
2	1·93830	27	26·17507	52	50·41124	77	74·64742
3	2·90745	28	27·14452	53	51·38069	78	75·61687
4	3·87779	29	28·11396	54	52·35013	79	76·58631
5	4·84724	30	29·08341	55	53·31959	80	77·55576
6	5·81668	31	30·05286	56	54·28903	81	78·52521
7	6·78613	32	31·02230	57	55·25848	82	79·49465
8	7·75558	33	31·99175	58	56·22793	83	80·46410
9	8·72502	34	32·96120	59	57·19737	84	81·43355
10	9·69447	35	33·93065	60	58·16682	85	82·40300
11	10·66392	36	34·90009	61	59·13627	86	83·37244
12	11·63336	37	35·86954	62	60·10571	87	84·34189
13	12·60281	38	36·83899	63	61·07516	88	85·31134
14	13·57226	39	37·80843	64	62·04461	89	86·28078
15	14·54171	40	38·77788	65	63·01406	90	87·25023
16	15·51115	41	39·74733	66	63·98350	91	88·21968
17	16·48060	42	40·71677	67	64·95295	92	89·18912
18	17·45005	43	41·68622	68	65·92240	93	90·15857
19	18·41949	44	42·65567	69	66·89184	94	91·12802
20	19·38894	45	43·62512	70	67·86129	95	92·09747
21	20·35839	46	44·59456	71	68·83074	96	93·06691
22	21·32783	47	45·56401	72	69·80018	97	94·03636
23	22·29728	48	46·53346	73	70·76963	98	95·00581
24	23·26673	49	47·50290	74	71·73908	99	95·97525
25	24·23618	50	48·47235	75	72·70853	100	96·94470

Coal Measure.

4 Pecks	=	1 Bushel
3 Bushels	=	1 Sack
3 Sacks	=	1 Vat
4 Vats	=	1 Chaldron
21 Chaldrons	=	1 Score

Coal Measure.—Coals were formerly sold by the chaldron, which bears a certain proportion to Winchester measure.

The coal bushel holds 1 Winchester quart more than the Winchester bushel; its contents being 2217·62 cubic inches. It is 19½ inches wide from outside to outside, and 8 inches deep. In measuring coals it was heaped up in the form of a cone, to the height of at least 6 inches above the brim (according to a regulation passed at Guildhall in 1806), the outside of the bushel being the extremity of the cone, so that the bushel should contain at least 2814·9 cubic inches, nearly equal to the Imperial heaped bushel. Hence the chaldron should measure 58·64 cubic feet.

But the sale of coals by measure has, in consequence of the frauds to which it led [COAL], been abolished; and they are now sold by weight.

Of Wood Fuel English Measure.—Wood fuel is assized into shids, billets, faggots, fall wood, and cord wood. A shid is to be 4 feet long, and, according as they are marked and notched, their proportion must be in the girth; viz. if they have but 1 notch, they must be 16 inches in the girth; if 2 notches, 23 inches; if 3 notches, 28 inches; if 4 notches, 33 inches; and if 5 notches, 38 inches about. Billets are to be 3 feet long, of which there should be 3 sorts; viz. a single cask, and a cask of 2; the 1st is 7 inches, the 2nd 10 inches, and the 3rd 14 inches about: they are sold by the 100 of 5 score. Faggots are to be 3 feet long, and at the band 24 inches about, besides the knot of such faggots; 50 go to the load. Bavins and spray wood are sold by the 100, which are accounted a load. Cord wood is the bigger sort of firewood, and it is measured by a cord, or line, whereof there are 2 measures; that of 14 feet in length, 3 feet in breadth, and 3 feet in height. The other is 8 feet in length, 4 feet in height, and 4 feet in breadth.

Measures of Wood.

1,000 billets of wood	=	1 Cord	
10 cwt.	,,	=	1 Cord
1 Cord	,,	=	½ Chaldron of coals
100 lb.	,,	=	1 Quintal of wood

French System of Weights and Measures.—The new metrical system established in France subsequently to the Revolution is founded on the measurement of the quadrant of the meridian, or of the distance from the pole to the equator. This distance having been determined with the greatest care, its ten-millionth part was assumed as the *mètre*, or unit of length, all the other lineal measures being multiples or submultiples of it, in decimal proportion. The mètre corresponds pretty nearly to the ancient French *aune*, or yard, being equal to 3·07844 French feet, or 3·281 English feet, or 39·3708 English inches.

The unit of weight is the *gramme*, which is a cubic centimètre, or the 100th part of a mètre of distilled water of the temperature of melting ice; it weighs 15·434 English troy grains.

In order to express the decimal proportion, the following vocabulary of names has been adopted, in which the terms for multiplying are Greek, and those for dividing Latin:—

For multipliers, the word
- *Deca* prefixed means - - 10 times
- *Hecto* ,, - - 100 ,,
- *Kilo* ,, - - 1,000 ,,
- *Myria* ,, - - 10,000 ,,

On the contrary, for divisors, the word *Deci* expresses the - 10th part
- *Centi* ,, - 100th ,,
- *Milli* ,, - 1,000th ,,

Thus, *Decamètre* means 10 mètres
Décimètre ,, the 10th part of a mètre
Kilogramme ,, 1,000 grammes &c.

The *are* is the element of square measure, being a square decamètre, equal to 3·955 English perches.

The *stère* is the element of cubic measure, and contains 35·317 cubic feet English.

The *litre* is the element of all measures of capacity. It is a cubic decimètre, and equals 2·1135 English pints. 100 litres make the hectolitre, which equals 26·419 wine gallons, or 2·838 Winchester bushels.

Système Usuel, or Binary System.—This new system has the metrical standard for its basis, but their divisions are binary, that is, by 2, 4, 8 &c.; and instead of the new vocabulary, the names of the ancient weights and measures are used, annexing the term *usuel* to each. Thus the half kilogramme is called the livre usuelle, and the double metre the toise usuelle.

The following tables show the proportions between the new or metrical French system and the English system:—

Comparison of French and English Weights and Measures, containing the New or Metrical Weights and Measures of France, with their Proportion to those of England, both according to the Decimal System and the Système usuel.

DECIMAL SYSTEM.

Long Measures.

French		English
Millimètre	=	0·03937 in.
Centimètre	=	0·39371 ,,
Décimètre	=	3·93710 ,,
Mètre	=	39·37100 ,,
Décamètre	=	32·80916 ft.
Hectomètre	=	328·09167 ,,
Kilomètre	=	1093·63890 yds.
Myriamètre	=	10936·38900 ,,

or 6 miles 1 furlong 23 poles

Solid Measures.

Décastère	=	35·3517 cubic ft.
Stere (a cubic mètre)	=	35·3174 ,,
Décastère	=	353·1741 ,,

Measures of Capacity.

Millitre	=	0·06103 cubic in.
Centilitre	=	0·61028 ,,
Décilitre	=	6·10280 ,,
Litre (a cubic decimètre)	=	61·02803 ,, or 2·1135 wine pt.
Décalitre	=	610·28028 cubic in. or 2·642 wine gal.
Hectolitre	=	3·5317 cubic ft. or, 26·419 wine gal. 22 Impl. gal. or 2·839 Winchester bushl.
Kilolitre	=	35·3171 cubic ft. or 1 ton and 12 wine gal.
Myrialitre	=	353·17146 cubic ft.

Superficial Measures.

Centiare	=	1·1960 sq. yd.
Are (a square decamètre)	=	119·6046 ,,
Décare	=	1196·0460 ,,
Hectare	=	11960·4644 ,, or 2 acres 1 rood 35 perches

Weights.

Milligramme	=	0·0514 grains
Centigramme	=	0·1543 ,,
Décigramme	=	1·5434 ,,
Gramme	=	15·4340 ,,
Décagramme	=	154·3402 ,, or 5·64 drams avoirdupois
Hectogramme	=	3·2154 oz. Troy, or 3·527 oz. avoirdupois
Kilogramme	=	2 lbs. 8 oz. 3 dwt. 2 gr. Troy, or 2 lb. 3 oz. 4·652 drams avoirdupois
Myriagramme	=	26·795 lb. Troy, or 22·0480 lb. avoirdupois
Quintal	=	1 cwt. 3 qr. 25 lb. nearly
Millier, or Bar	=	9 tons 16 cwt. 3 qr. 12 lb.

SYSTÈME USUEL.

Comparison of Weight.

	Grammes		Troy Weight lb.	oz.	dwt.	gr.	Avoirdupois lb.	oz.	dr.
Kilogramme	1,000	=	2	8	3	2	2	3	4½
Livre usuelle	500	=	1	4	1	13	1	1	10¼
Half	250	=		8	0	18·5		8	13½
Quarter	125	=		4	0	9·25		4	6¾
Eighth	62·5	=		2	0	4·5		2	3⅜
Once	31·3	=		1	0	2·25		1	1⅝
Half	15·6	=			10	1·125			8½
Quarter	7·8	=			5	0·5			4¼
Gros	3·9	=			2	12·25			2⅛

Comparison of Linear Measure.

Mesures usuelles	English Measures metres		feet	inch	part
Toise usuelle	2	=	6	6	9
Pied, or foot	0 1/3	=	1	1	1½
Inch	0 1/36	=	0	1	1/6
Aune	1 1/3	=	3	11	5
Half	0 2/3	=	1	11	7½
Quarter	0 1/6	=	0	11	9½
Eighth	1/12	=	0	5	10½
Sixteenth	0 1/24	=	0	2	11 1/16
One third of an aune	0 2/9	=	1	3	9
Sixth	0 1/9	=	0	7	10
Twelfth	0 1/18	=	0	3	11½

Comparison of Measures of Capacity.

	Litres		Eng. Winch. Bush.
Boisseau usuel	12·5	=	0·3574

With halves and quarters in proportion.

	Paris Pinte		English Pint.
Litron usuel	1·074	=	2 1/6

With halves and quarters in proportion.

Ancient Weights and Measures.—This subject is involved in considerable difficulty; and to enter fully into it would be quite inconsistent with our objects and limits. But the following details, abstracted from the best authorities, may be useful to such of our readers as have occasion to look into the ancient authors.

TABLE OF VARIOUS ANCIENT WEIGHTS (*according to different Authorities*).

	English Troy Grains	
Attic obolus	8·7	Chrestiani
	9·1	Arbuthnot
Attic drachma	51·2	Chr.
	54·6	Arb.
	69	Paucton
Lesser Mina	5,892	Chr.
Greater Mina	5,189	Chr.
	5,464	Arb.
	6,900	Pauc.
Medical Mina	6,994 gr.	Arb.
Talent = 60 minæ =	1 cwt.	English
Old Greek drachm	144·5	Eng. Troy gr. Arb.
	68·5	= Roman denarius, Arb.
Old Greek mina	6,425	Arb.
Egyptian mina	8,326	Arb.
Ptolemaic mina of Cleopatra	8,985	Arb.
Alexandrian mina of Dioscorides	9,992	Arb.
Roman denarius	51·9	= ½ Rom. oz. Chr.
	62·5	= ½ Rom. oz. Arb.
Denarius of Nero	54	Pauc.
Papyrius	61·7	Pauc.
Ounce	415·1	Chr.
	437·2	Arb.
	431·2	Pauc.
Pound of 10 oz.	4,150	Chr.
12 oz.	4,981	Chr.
	5,246	Arb.
	5,174·4	Pauc.

SCRIPTURE MEASURES OF LENGTH. (*Arbuthnot and Hutton.*)

	Inches
Digit	0·7425
Palm	2·97
Span	8·91
	Eng. Feet
Lesser cubit	1·485
Sacred cubit	1·7325
	Yards
Fathom	2·31
Ezekiel's reed	3·465
Arabian pole	4·62
Schœnus	46·2
Stadium	231
Sabbath day's journey	1,155
	Miles
Eastern mile	1·886
Parasang	4·158
Day's journey	33·264

GRECIAN MEASURES OF LENGTH. (*Arbuthnot and Hutton.*)

	Inches
Dactylus	0·75516
Doron, Dochme	3·02187
Diehas	7·55468
Orthodoron	83·1015
Spithame	9·06562
Pous	12·6875
	Eng. Feet
Pous	1·00729
Pygme	1·13203
Pygon	1·25911
Pechys	1·510913
	Eng. Paces
Orgyia	1·00729
Stadion, Dulos	100·72916
Milion	805·8333

ROMAN MEASURES OF LENGTH. (*Arbuthnot and Hutton.*)

	Eng. Inches
Digitus transversus	0·72525
Uncia, the ounce	0·967
Palmus minor	2·901
Pes, the foot	11·604
	Eng. Feet
Palmipes	1·20875
Cubitus	1·4505
Gradus	2·1175
	Paces
Passus	0·967
Stadium	120·875
Miliare	967

ROMAN DRY MEASURES. (*Arbuthnot and Hutton.*)

	Eng. Pints
Hemina	0·5074
Sextarius	1·0145
	Eng. Peck
Modius	1·0141

ATTIC DRY MEASURES.

	Eng. Pints
Xestes	0·9903
Chenix	1·486
	Winch. bush.
Medimnus	1·0906

JEWISH DRY MEASURES (*according to Josephus*).

	Eng. pints
Gachal	0·1949
Cab	3·874
Gomer	7·0152
	Eng. peck
Seah	1·4615
	Winch. bush.
Ephah	1·0961
Latech	5·4807
	Quarter
Coreen } Chomer }	1·3702

ROMAN MEASURES FOR LIQUIDS. (*Arbuthnot and Hutton.*)

	Eng. pints
Hemina	0·59759
Sextarius	1·19518
Congius	7·1712
	Wine gal.
Urna	3·5857
Amphora	7·1712
	Hhds.
Culeus	2·2766

ATTIC MEASURES FOR LIQUIDS.

	Eng. pints
Cotylus	0·5742
Xestes	1·1483
Chous	6·8900
	Wine gal.
Metretes	10·3350

JEWISH MEASURES FOR LIQUIDS.

	Eng. pints
Caph	0·8612
Log	1·1483
Cab	4·5933
	Wine gal.
Hin	1·7225
Seah	3·4450
Bath	10·3350
	Hhds.
Coron	1·6405

WELD or DYER'S WEED (Ger. wau; Dutch, wouw, wouwe; Fr. gaude; Ital. guadarella; Lat. luteola). An imperfect biennial, with small fusiform roots, and a leafy stem from 1 to 3 feet in height. It is a native of Britain, Italy, and various parts of Europe, and is cultivated for the sake of its stalk, flowers, and leaves, which are employed in the dyeing of yellow, whence its botanical name *Reseda luteola*. Weld requires the growth of nearly two summers before it comes to maturity; and the crop is liable to fail from so many causes, and is besides so exhausting, that its cultivation is by no means profitable, and is only carried on, in this country at least, to a small extent, principally in Essex. Weld is preferred to all other substances in giving the lively green lemon yellow. It is, however, expensive; and it is found, when employed in topical dyeing, to degrade and interfere with madder colours more than other yellows, and to stain the parts wanted to be kept white. Hence quercitron bark is now employed in calico printing, to the almost total exclusion of weld. It is still employed in dyeing silk a golden yellow, and in paper staining. (Loudon's *Ency. of Agriculture*; Bancroft *On Colours*, vol. ii. pp. 95–100; Rees's *Cyclopædia*.)

WESTERN AUSTRALIA. [COLONIES.]

WEST INDIES. [COLONIES.]

WHALEBONE. A substance of the nature of horn, adhering in thin parallel laminæ to the upper jaw of the whale. These vary in size from 3 to 12 feet in length; the breadth of the largest at the thick end, where they are attached to the jaw, is about a foot. They are extremely elastic.

Whalebone bore anciently a very high price, when the rigid stays and the expanded hoops of our grandmothers produced an extensive demand for this commodity. The Dutch have occasionally obtained 700*l.* per ton, and were accustomed to draw 100,000*l.* annually from England for this article. Even in 1763 it brought 500*l.*, but soon after fell, and has never risen again to the same value. During the present century the price has varied between 60*l.* and 300*l.*, seldom falling to the lowest rate, and rarely exceeding 150*l.* Mr. Scoresby reckoned the price, in the five years ending with 1818, at 90*l.*; in 1834 it amounted to from 130*l.* to 145*l.*; and in 1844 it varied from 280*l.* for southern to 350*l.* for northern. This is for what is called *size bone*, or such pieces as measure 6 feet or upwards in length; those below this standard are usually sold at half price. It may appear singular that whalebone should rise, while oil has been so decidedly lowered: but the one change, it is obvious, causes the other. Oil, being the main product of the fishery, regulates its extent; which being diminished by the low price, the quantity of whalebone is lessened, while the demand for it continuing as great as before, the value consequently rises. It is, however, probable that the high price of bone may, in some degree, tend to revive the fishery. In 1867 whale fins alone appear in the list of imports, and of these 137 tons, of the value of 51,286*l.*, came into the United Kingdom, chiefly from the northern ports of the United States; the price per ton of the whole varying from 335*l.* to 440*l.*

It may be worth while to remark, as evincing the ignorance that at one time prevailed with respect to the whale, that, by an old feudal law, the *tail* of all whales belonged to the queen, as a perquisite to furnish her Majesty's wardrobe with whalebone. (Blackstone, vol. i. p. 233.)

WHALE (COMMON). The *Balæna mysticetus* of Linnæus, a marine animal of the cetaceous species, and the largest of all those with which men are acquainted. The whale has sometimes, it is affirmed, been found 160 feet in length; but this is most probably an exaggeration. In the northern seas it is at present seldom found above 60 feet long, being now, however, generally killed before it arrives at its full growth; this is no proof that the animal may not formerly have attained to a much larger size. The bodies of whales are covered, immediately under the skin, with a layer of fat or *blubber*, which, in a large fish, is from 12 to 18 inches thick. In young whales this fatty matter resembles hog's lard, but in old ones it is of a reddish colour. This is the valuable part of the whale, and the desire to possess it has prompted man to attempt the capture of this mighty animal. The blubber yields, by expression, nearly its own weight of a thick viscid oil (train oil). The common whale is now rarely found except within the Arctic circle; but at a former period it was not unfrequently met with on our coasts. There is a good account of the common whale, and of the manner in which the fishery is carried on, in Mr. John Laing's *Voyage to Spitzbergen*, one of the shortest, cheapest, and best of the innumerable books published on this hackneyed subject.

The *Physeter macrocephalus*, or black-headed spermaceti whale, is chiefly found in the Southern Ocean. It usually measures about 60 feet in length, and 30 in circumference at the thickest part. The valuable part of the fish is the spongy, oily mass dug from the cavity of the head; this is crude spermaceti; and of it an ordinary sized whale will yield about 12 large barrels.

WHALE FISHERY (NORTHERN). We do not propose entering, in this article, into any details as to the mode in which the fishery is carried on, but mean to confine ourselves to a brief sketch of its history and value in a commercial point of view.

It is probably true, as has been sometimes contended, that the Norwegians occasionally captured the whale before any other European nation en-

gaged in so perilous an enterprise. But the early efforts of the Norwegians were not conducted on any systematic plan, and should be regarded only in the same point of view as the fishing expeditions of the Esquimaux. The Biscayans were certainly the first people who prosecuted the whale fishery as a regular commercial pursuit. They carried it on with vigour and success in the 12th, 13th, and 14th centuries. In 1388, Edward III. relinquished to Peter de Puyanne a duty of 6*l.* sterling a whale, laid on those brought into the port of Biarritz, to indemnify him for the extraordinary expenses he had incurred in fitting out a fleet for the service of his Majesty. This fact proves beyond dispute that the fishery carried on from Biarritz at the period referred to must have been very considerable indeed; and it was also prosecuted to a greater or less extent from Cibourre, Vieux Boucan, and subsequently from Rochelle and other places. (*Mémoire sur l'Antiquité de la Pêche de la Baleine*, par Noël, 12mo. Paris, 1795.)

The whales captured by the Biscayans were not so large as those that are taken in the Polar seas, and are supposed to have been attracted southward in pursuit of herrings. They were not very productive of oil, but their flesh was used as an article of food, and the whalebone was applied to a variety of useful purposes, and brought a very high price.

This branch of industry ceased long since, and from the same cause that has occasioned the cessation of the whale fishery in many other places—the want of fish. Whether it were that the whales, from a sense of the dangers to which they exposed themselves in coming southwards, no longer left the icy sea, or that the breed had been nearly destroyed, certain it is that they gradually became less numerous in the Bay of Biscay, and at length ceased almost entirely to frequent that sea; and the fishers being obliged to pursue their prey upon the banks of Newfoundland and the coasts of Iceland, the French fishery rapidly fell off.

The voyages of the Dutch and English to the Northern Ocean, in order, if possible, to discover a passage through it to India, though they failed of their main object, laid open the haunts of the whale. The companions of Barentz, who discovered Spitzbergen in 1596, and of Hudson, who soon after explored the same seas, represented to their countrymen the amazing number of whales with which they were crowded. Vessels were in consequence fitted out for the northern whale fishery by the English and Dutch, the harpooners and a part of the crew being Biscayans. They did not, however, confine their efforts to a fair competition with each other as fishers. The Muscovy Company obtained a royal charter, prohibiting the ships of all other nations from fishing in the seas round Spitzbergen, on pretext of its having been first discovered by Sir Hugh Willoughby. There can, however, be no doubt that Barentz, and not Sir Hugh, was its original discoverer; though, supposing that the fact had been otherwise, the attempt to exclude other nations from the surrounding seas on such a ground was not one that could be tolerated. The Dutch, who were at the time prompt to embark in every commercial pursuit that gave any hopes of success, eagerly entered on this new career, and sent out ships fitted out equally for the purposes of fishing and of defence against the attacks of others. The Muscovy Company having attempted to vindicate its pretensions by force, several encounters took place between their ships and those of the Dutch. The conviction at length became general that there was room enough for all parties in the northern seas; and in order to avoid the chance of coming into collision with each other, they parcelled Spitzbergen and the adjacent ocean into districts, which were respectively assigned to the English, Dutch, Hamburghers, French, Danes &c.

The Dutch, being thus left to prosecute the fishery without having their attention diverted by hostile attacks, speedily acquired a decided superiority over all their competitors.

When the Europeans first began to prosecute the fishery on the coast of Spitzbergen, whales were everywhere found in vast numbers. Ignorant of the strength and stratagems of the formidable foe by whom they were now assailed, instead of betraying any symptoms of fear, they surrounded the ships and crowded all the bays. Their capture was in consequence a comparatively easy task, and many were killed which it was afterwards necessary to abandon, from the ships being already full.

While fish were thus easily obtained, it was the practice to boil the blubber on shore in the North, and to fetch home only the oil and whalebone. And, perhaps, nothing can give a more vivid idea of the extent and importance of the Dutch fishery in the middle of the seventeenth century, than the fact, that they constructed a considerable village, the houses of which were all previously prepared in Holland, on the Isle of Amsterdam, on the northern shore of Spitzbergen, to which they gave the appropriate name of *Smeerenberg* (from *smeeren*, to melt, and *berg*, a mountain). This was the grand rendezvous of the Dutch whale ships, and was amply provided with boilers, tanks, and every sort of apparatus required for preparing the oil and the bone. But this was not all. The whale fleets were attended with a number of provision ships, the cargoes of which were landed at Smeerenberg; which abounded during the busy season with well-furnished shops, good inns &c.; so that many of the conveniences and enjoyments of Amsterdam were found within about 11 degrees of the Pole. It is particularly mentioned, that the sailors and others were every morning supplied with what a Dutchman regards as a very great luxury—*hot rolls* for breakfast. Batavia and Smeerenberg were founded nearly at the same period, and it was for a considerable time doubted whether the latter was not the more important establishment. (De Reste, *Histoire des Pêches* &c. tome i. p. 42.)

During the flourishing period of the Dutch fishery, the quantity of oil made in the north was so great that it could not be carried home by the whale ships; and every year vessels were sent out in ballast to assist in importing the produce of the fishery.

But the same cause that had destroyed the fishery of the Biscayans, ruined that which was carried on in the immediate neighbourhood of Spitzbergen. Whales became gradually less common, and more and more timid and difficult to catch. They retreated first to the open seas, and then to the great banks of ice on the eastern coast of Greenland. When the site of the fishery had been thus removed to a very great distance from Spitzbergen, it was found most economical to send the blubber direct to Holland. Smeerenberg was in consequence totally deserted, and its position is now with difficulty discoverable.

But though very extensive, the Dutch whale fishery was not, during the first 30 years of its existence, very profitable. This arose from the circumstance of the right to carry it on having been conceded, in 1614, to an exclusive com-

pany. The expense inseparable from such great associations, the wastefulness and unfaithfulness of their servants, who were much more intent upon advancing their own interests than those of the company, increased the outlays so much, that the returns, great as they were, proved little more than adequate to defray them, and the fishery was confined within far narrower limits than it would otherwise have reached. But after various prolongations of the charter of the first company, and the formation of some new ones, the trade was finally thrown open in 1642. The effects of this measure were most salutary, and afforded one of the most striking examples to be met with of the advantages of free competition. Within a few years the fishery was vastly extended; and though it became progressively more and more difficult from the growing scarcity of fish, it proved, notwithstanding these disadvantages, more profitable to the private adventurers, than it had ever been to the company; and continued for above a century to be prosecuted with equal energy and success. The famous John de Witt has alluded as follows to this change in the mode of conducting the trade:—

'In this respect,' says he, 'it is worthy of observation, that the authorised Greenland Company made heretofore little profit by their fishery, because of the great charge of setting out their ships; and that the train oil, blubber, and whale fins were not well made, handled, or cured; and being brought hither and put into warehouses, were not sold soon enough, nor to the company's best advantage. Whereas now that everyone equips their vessels at the cheapest rate, follow their fishing diligently, and manage all carefully, the blubber, train oil, and whale fins are employed for so many uses in several countries that they can sell them with that conveniency, that though *there are now 15 ships for 1 that formerly sailed out of Holland on that account*, and consequently each of them could not take so many whales as heretofore, and notwithstanding the new prohibition of France and other countries to import these commodities, and though there is greater plenty of them imported by our fishers; yet those commodities are so much raised in the value above what they were whilst there was a company, that the common inhabitants do exercise that fishery with profit, to the much greater benefit of our country than when it was (under the management of a company), carried on but by a few.' (*True Interest of Holland*, p. 63, 8vo. ed. London, 1746.)

The private ships sent by the Dutch to the whale fishery were fitted out on a principle that secured the utmost economy and vigilance on the part of everyone connected with them. The hull of a vessel was furnished by an individual, who commonly took upon himself the office of captain; a sail-maker supplied the sails, a cooper the casks &c. The parties engaged as adventurers in the undertaking. The cargo being brought to Holland and disposed of, each person shared in the produce according to his proportion of the outfit. The crew was hired on the same principle; so that everyone had a motive to exert himself, to see that all unnecessary expenses were avoided, and that those that were necessary were confined within the narrowest limits. This practice has been imitated to some extent in this and some other countries, but in none has it been carried so far as in Holland. It appears to us, that it might be advantageously introduced into other adventures.

When in its most flourishing state, towards the year 1680, the Dutch whale fishery employed about 260 ships, and 14,000 sailors.

The English whale fishery, like that of Holland, was originally carried on by an exclusive association. The Muscovy Company was, indeed, speedily driven from the field; but it was immediately succeeded by others, that did not prove more fortunate. In 1725, the South Sea Company embarked largely in the trade, and prosecuted it for 8 years; at the end of which, having lost a large sum, they gave it up. But the Legislature, having resolved to support the trade, granted, in 1732, a bounty of 20*s.* per ton to every ship of more than 200 tons burden engaged in it: but this premium being insufficient, it was raised, in 1749, to 40*s.* per ton, when a number of ships were fitted out, as much certainly in the intention of catching the bounty as of catching fish. Deceived by the prosperous appearance of the fishery, Parliament imagined that it was firmly established, and in 1777 the bounty was reduced to 30*s.* The effects of this reduction showed the factitious nature of the trade, the vessels engaged in it having fallen off in the course of the next 5 years from 105 to 39. To arrest this alarming decline, the bounty was raised to its old level in 1781, and of course the trade was soon restored to its previous state of apparent prosperity. The hostilities occasioned by the American war reduced the Dutch fishery to less than half its previous amount, and gave a proportional extension to that of England. The bounty, which had in consequence become very heavy, was reduced, in 1787, to 30*s.* per ton; in 1792 it was further reduced to 25*s.*; and in 1795 it was reduced to 20*s.*, at which sum it continued till 1824, when it ceased.

It appears from accounts given in Macpherson's *Annals of Commerce* (vol. iii. p. 511, vol. iv. p. 130), that the total bounties paid for the encouragement of the whale fishery, in the interval between 1750 and 1788, amounted to no less than 1,577,935*l.* It will be seen from the official account which follows that there are no means of furnishing any accurate account of the sums paid as bounties from the year 1789 to 1813 inclusive; but it is, notwithstanding, abundantly certain that the total bounties paid during the period from 1789 to 1824 considerably exceeded 1,000,000*l.* Here, then, we have a sum upwards of TWO MILLIONS AND A HALF laid out since 1750 in promoting the whale fishery. Now we believe that if we estimate the entire average value of the *gross* produce of the northern whale fishery (and it is to it only that the preceding statements apply) during its latter years, at 100,000*l.* a-year, we shall be considerably beyond the mark. But had the 2,500,000*l.* expended in bolstering up this branch of industry been laid out as capital in ordinary employment, it would have produced 125,000*l.* a-year of *nett* profit; being 25,000*l.* a-year more than the total value of the produce of the fishery, without allowing anything for the capital wasted, and ships lost in carrying it on. Whatever, therefore, may be the value of the whale fishery as a nursery for seamen, it is absurd to regard it as contributing anything to the public wealth. The remark of Dr. Franklin, that he who draws a fish out of the sea draws out a piece of silver, is ever in the mouths of those who are clamouring for bounties and protection against competition. But we apprehend that even Franklin himself, sagacious as he was, would have found it rather difficult to show how the wealth of those is to be increased, who, in fishing up one piece of silver, are obliged to throw another of greater value into the sea. We subjoin

An Account of the Number of Ships annually fitted out in Great Britain for the Northern Whale Fishery, of the Tonnage and Crews of such Ships, and of the Bounties paid on their Account, from 1789 *to* 1814.

Years	Ships	Tons	Men	Bounties paid
1789	161	46,699		The documents from which the amount of bounties paid in the years 1789 to 1806 could be shown, were destroyed in the fire at the late custom-house.
1790	116	33,252	4,482	
1791	116	33,906	4,520	
1792	93	26,943	4,667	
1793	82	23,487	3,210	
1794	60	16,386	2,250	
1795	44	11,748	1,601	
1796	51	13,533	1,910	
1797	60	16,371	2,263	
1798	66	18,764	2,633	
1799	67	19,360	2,683	
1800	61	17,729	2,459	
1801	64	18,568	2,544	
1802	79	23,539	3,129	
1803	95	28,608	3,806	
1804	92	28,034	3,597	
1805	91	27,570	3,636	
1806	91	27,697	3,715	
1807 to 1813	There are no documents by which the accounts for these years can be rendered.			
1814	112	36,576	4,703	£ 43,799 11 0

It is not even certain whether the expenditure of 2,500,000*l.* upon bounties would really have had the effect of making the whale fishery be carried on upon a considerable scale, but for the occupation of Holland by the French, and the consequent hostilities in which she was involved with this country. These did more to promote and consolidate the British fishery than anything else. The war entirely annihilated that of the Dutch: and our Government having wisely offered to the fishers of Holland all the immunities enjoyed by the citizens of Great Britain in the event of their settling amongst us, many availed themselves of the invitation, bringing with them their capital, industry, and skill. In consequence of this signal encouragement, the whale fishery of England was prosecuted with greater success than at any previous period; and at the termination of the war, in 1815, there were nearly 150 valuable ships and about 6,000 seamen engaged in the Northern fishery, and about 30 ships and 800 men in that to the South.

After peace was restored, the English capitalists and others became apprehensive lest the Dutch should engage anew with their ancient vigour and success in the whale fishery. But these apprehensions were without any real foundation. The Hollanders, during the 30 years they had been excluded from the sea, had lost all that practical acquaintance with the details of the fishery, for which they had long been so famous, and which is so essential to its success. The Government attempted to rouse their dormant energies by the offer of considerable premiums and other advantages to those who embarked in the trade. Three companies were in consequence formed for carrying it on; 1 at Rotterdam, 1 at Harlingen, and 1 in South Holland. But their efforts were limited, and altogether unfortunate. In 1826, the company of South Holland was dissolved, while that of Harlingen despatched 4 ships, and that of Rotterdam 2. In 1827, Rotterdam sent only 1 ship, and Harlingen 2. In 1828, 1 solitary ship sailed from Holland—a feeble and last effort of the company of Harlingen; and since then a ship or two has been occasionally fitted out by private adventurers, but generally without success.

Such has been the fate of the Dutch whale fishery. The attempts to revive it failed, not because the ships sent out were ill calculated for the service, but because they were manned by unskilful seamen, and fish were deficient. In the early ages of the fishery, the former difficulty would have been got over, because, owing to the fewness of competitors, and the scanty supply of oil and whalebone, even a small cargo brought a high price; but since the fishery has been prosecuted on a large scale and at a very low rate of profit by the English, Americans, and Hamburghers, no new competitor coming into the field could expect to maintain himself unless he had nearly equal advantages. The Dutch have, therefore, done wisely in withdrawing from the trade. Any attempt to establish it by the aid of bounties and other artificial encouragements would be one of which the ultimate success must be very doubtful, and which could lead to no really useful result. During the 20 years preceding the French war ended 1815, the fishery of Holland was gradually declining, and had, in a great measure, ceased to be profitable. It would be folly to endeavour to raise anew, and at a great expense, a branch of industry that had become unproductive at a former period, when there is no ground for supposing that it would be more productive at this moment.

We have already noticed several changes of the localities in which the whale fishery has been carried on at different periods; and within these few years others of the same kind have taken place. The Dutch fishers first began to frequent Davis's Straits in 1719; and as the whales had not hitherto been pursued into this vast recess, they were found in greater numbers than in the seas round Spitzbergen. From about this period it was usually resorted to by about three-tenths of the Dutch ships. It was not till a comparatively late period that Davis's Straits began to be frequented by English whalers; and down to 1820, when Captain Scoresby published his elaborate and valuable work on the whale fishery, that carried on in the Greenland seas was by far the most considerable. But it will be seen from the subjoined account, that from 1826 down to 1837 the Greenland seas were nearly abandoned. This was principally a consequence of the greater abundance of whales in Davis's Straits, but it was, also, in part owing to the various discoveries made by the expeditions fitted out by Government for exploring the seas and inlets to the westward of Davis's Straits and Baffin's Bay having made the fishers acquainted with several new and advantageous situations for the prosecution of their business. Since 1837, however, the few ships that have been sent out have gone mostly to the Greenland seas.

The sea in Davis's Straits is less incommoded with field ice than the Greenland and Spitzbergen sea, but it abounds with icebergs; and the fishery, when carried on in Baffin's Bay and Lancaster Sound, is more dangerous, perhaps, than any that has hitherto been attempted.

The Northern fishery declined rapidly down to 1842, from which period it continued nearly stationary down to 1846, when it revived a little.

It should, however, be observed that the fishery is now rather for seals than for whales; the value of the produce obtained from the former considerably exceeding the value of that obtained from the latter.

During 1867, we imported 3,226 tons spermaceti oil, valued at 373,367*l.* During the same year the imports of train oil were 11,901 tons, of the value of 478,723*l.*

For a long time past the whale fishery has been more allied to a gambling than to an industrious pursuit, so that its decline is not really to be regretted. The extensive use of gas, and the increased imports of vegetable and mineral oils, occasioned in part by the reduction of the oppressive

duties with which the former were formerly affected, have prevented the diminution in the supply of whale oil from having any bad effect.

There has been a singular change in the ports from which the Northern fishery has been carried on. In London were undertaken all the discoveries which led to its establishment; and the great companies formed in this city enjoyed for a lengthened period nearly a complete monopoly of the business. So late as 1780 and 1790, the metropolis sent out 4 times the number of vessels that sailed from any other port; but it was observed that her fishery was, on the whole, less fortunate than that of the new rivals which had sprung up; and her merchants were so much discouraged, that in Mr. Scoresby's time they equipped only 17 or 18 vessels. They have wholly abandoned the trade, and have not sent out a single ship since 1836.

Hull early became a rival to London, having sent out vessels at the very commencement of the fishery. Though checked at first by the monopoly of the great companies, as soon as the trade became free she prosecuted it with distinguished success. Towards the end of last century, she attained, and preserved down to 1837, the character of the first whale-fishing port in Great Britain. In 1819 she sent out 65 ships, and her imports of oil amounted in 1820 to 8,086 tons. But such and so rapid was the decline of the fishery in the interval, that from 1838 to 1845 she only sent out a solitary ship. In 1846, however, the business took a start; and from that year down to the present time, Hull has sent from 10 to 13 or 14 ships. But she is not supposed to have made anything by this pursuit. [Docks; Hull.] At present (1869), Peterhead is one of the ports principally engaged in the fishery.

WHALE FISHERY (SOUTHERN).—This consists of three distinct branches; viz. 1st, the catch of the spermaceti whale, which furnishes the valuable substance called Spermaceti; 2nd, that of the common black whale of the Southern seas; and 3rd, that of the sea elephant, or southern walrus.

The spermaceti whale (*Physeter macrocephalus*) is found in all tropical climates, and especially on the coasts of New Zealand and the adjoining seas. The ordinary duration of the voyage of a ship from England, employed in this department of the fishery, is about 3 years.

The common black whale of the Southern seas (*Physeter microps*) is met with in various places, but principally on the coast of Brazil; in the bays on the west coast of Africa; and in some of the bays of New South Wales, Van Diemen's Land &c.

Sea elephants (intermediate between the walrus of the Northern seas and the seal) are principally met with in the seas round the Islands of Desolation, South Georgia, and South Shetland, the coast of California &c. Vast numbers of these animals are annually captured; vessels frequently load entirely with them; and they are believed to furnish more oil than the common South Sea whale. The oil of the black whale and that of the sea elephant are both known in the market by the name of southern oil, and they are so very similar that those most versed in the trade can with difficulty distinguish the one from the other. Hence ships commonly engage indifferently in either fishing as opportunity offers. The usual duration of the voyage of a ship from England in either of the last two departments, or in the two combined, varies from 12 to 18 months.

The South Sea fishery was not prosecuted by the English till about the beginning of the American war; and as the Americans had already entered on it with vigour and success, 4 American harpooners were sent out in each vessel. In 1791, 75 whale ships were sent to the South Sea; but the number has not been so great since; and latterly it has been unprosperous and declining, in consequence partly of the competition of the colonists in Australia, who are incomparably better situated for the prosecution of this branch of industry, and partly of that of the Americans. The *Macrocephalus*, or spermaceti whale, is particularly abundant in the neighbourhood of the Spice Islands; and the late Mr. Crawfurd, in his valuable work on the *Eastern Archipelago* (iii. 447), entered into some details to show that the fishery carried on there was of greater importance than the spice trade. Unluckily, however, the statements on which Mr. Crawfurd founded his comparisons were entirely erroneous, neither the ships nor the men employed amounting to more than $\frac{1}{5}$ or $\frac{1}{6}$ of what he represented. And the trade has now become quite insignificant. It is sufficient to mention, in proof of this statement, that in 1857 the Southern fishery supplied us with only 291 tons oil, and in 1867 it is not mentioned as having yielded any.

American Whale Fishery.—For a lengthened period, the Americans have prosecuted the whale fishery with greater vigour and success than, perhaps, any other people. They commenced in 1690, and for about 50 years found an ample supply of fish on their own shores. But the whale having abandoned them, the American navigators entered with extraordinary ardour into the fisheries carried on in the Northern and Southern Oceans. From 1758 to 1775, Massachusetts employed annually 183 vessels, carrying 13,820 tons, in the former; and 121 vessels, carrying 14,026 tons, in the latter. Mr. Burke, in his famous speech on American affairs in 1774, adverted to this wonderful display of daring enterprise as follows:—

'As to the wealth,' said he, 'which the colonies have drawn from the sea by their fisheries, you had all that matter fully opened at your bar. You surely thought these acquisitions of value, for they seemed to excite your envy; and yet the spirit by which that enterprising employment has been exercised, ought rather, in my opinion, to have raised esteem and admiration. And pray, sir, what in the world is equal to it? Pass by the other parts, and look at the manner in which the New England people carry on the whale fishery. While we follow them among the trembling oceans of ice, and behold them penetrating into the deepest frozen recesses of Hudson's Bay and Davis's Straits; while we are looking for them beneath the Arctic circle, we hear that they have pierced into the opposite region of polar cold; that they are at the antipodes, and engaged under the frozen serpent of the South. Falkland Island, which seems too remote, and too romantic an object for the grasp of national ambition, is but a stage and resting-place for their victorious industry. Nor is the equinoctial heat more discouraging to them than the accumulated winter of both poles. We learn, that while some of them draw the line or strike the harpoon on the coast of Africa, others run the longitude and pursue their gigantic game along the coast of Brazil. No sea, but what is vexed with their fisheries; no climate that is not witness of their toils. Neither the perseverance of Holland, nor the activity of France, nor the dexterous and firm sagacity of English enterprise, ever carried this most perilous mode of hardy industry to the extent to which it has been pursued by this recent people; a people who are

still in the gristle, and not hardened into manhood.'

The unfortunate war that broke out soon after this speech was delivered, checked for a while the progress of the fishery; but it was resumed with renewed vigour as soon as peace was restored. The American fishery was principally carried on from Nantucket and New Bedford in Massachusetts; and for a considerable time past the ships have mostly resorted to the Southern Seas. 'Although,' says Mr. Pitkin, 'Great Britain has, at various times, given large bounties to her ships employed in this fishery, yet the whalemen of Nantucket and New Bedford, unprotected and unsupported by anything but their own industry and enterprise, have generally been able to meet their competitors in a foreign market.' (*Commerce of the United States*, 2nd ed. p. 46).

In 1858 the American whale fishery was of very great extent and importance. It employed about 660 ships, of the aggregate burden (June 30) of 198,593 tons, principally belonging to New Bedford, Nantucket, and other ports in Massachusetts, Rhode Island, and Connecticut. A very large portion of this immense fleet was employed in the Pacific; and the possession of San Francisco affords facilities for the fitting out and repair of ships for this business. In 1857 there were imported into the United States 78,440 barrels of sperm, and 23,094 barrels of whale oil, and 2,058,580 lb. of whalebone. In 1864 the imports of fish oil into the United States were 1,324,134 gals., worth 1,459,013 dols., while in 1865 they declined to 706,171 gals. Yet in 1867 the whale and fish oil exported from the States amounted to 1,526,287 gals., worth 2,277,655 dols. On the whole, it appears more than probable that the American whale fishery has passed its zenith. The same cause that led to the cessation of the Biscay and Spitzbergen fisheries is operating throughout the wide extent of the Pacific. The supply of whales is everywhere becoming exhausted. And the risks and losses that have always attended the trade, and given to it so much of a gambling character, are being constantly increased. Hence the probability seems to be that the fishery of the United States will eventually experience the fate of that of Holland and England, and no doubt its decline has been somewhat precipitated by the late civil war. However, the petroleum springs in her territory render the great American republic quite independent of whale oil. The Sandwich Islands are at present the resort of the ships engaged in the Southern fishery. And the accounts from thence confirm its decline. There is as much enterprise and energy as ever, but the 'gigantic game' is deficient.

French Whale Fishery.—France, which preceded the other nations of Europe in the whale fishery, can hardly be said, for many years past, to have had much share in it. In 1784, Louis XVI. endeavoured to revive the fishery. With this view he fitted out 6 ships at Dunkirk on his own account, which were furnished with harpooners and a number of experienced seamen brought at a great expense from Nantucket. The adventure was more successful than could have been reasonably expected, considering the auspices under which it was carried on. Several private individuals followed the example of his Majesty, and in 1790 France had about 40 ships employed in the fishery. The revolutionary war destroyed every vestige of this rising trade. But since the peace, Government has made great efforts for its renewal; and high bounties have been granted to all vessels fitted out for the whale fisheries, but especially to those engaged in the sperm fishery. These, however, have not been so successful in forcing ships into this trade as might have been anticipated: for it appears from the official accounts that, in 1857, only 4 ships, of the aggregate burden of 1,867 tons, arrived in the ports of France from the whale fishery, bringing with them 933,388 kilog. of oil. (*Administration des Douanes*, 1857, p. 348.) In 1865, 1,483,487 kilog. of oil, the produce of the fisheries, were imported, and 1,663,048 were entered for home consumption.

WHAMPOA. [CANTON.]

WHARF. A sort of quay, constructed of wood or stone, on the margin of a roadstead or harbour, alongside of which ships or lighters are brought for the sake of being conveniently loaded or unloaded.

There are two denominations of wharves, viz. *legal quays* and *sufferance wharves*. The former are certain wharves in all sea-ports, at which all goods are required by the 1 Eliz. c. 11, to be landed and shipped, and they were set out for that purpose by commission from the Court of Exchequer, in the reign of Charles II. and subsequent sovereigns. Many others have been legalised by Act of Parliament. In some ports, as Chepstow, Gloucester &c., certain wharves are deemed legal quays by immemorial practice, though not set out by commission, or legalised by Act of Parliament.

Sufferance wharves are places where certain goods may be landed and shipped, such as hemp, flax, coal, and other bulky goods, by special sufferance granted by the crown for that purpose.

The goods that may be landed at the different wharves are specified by the Commissioners of Customs, and depend partly on their situation, and partly on the character and capability of the warehouses connected with them.

WHARFAGE. The fee paid for landing goods on a wharf, or for shipping them off. The stat. 22 Ch. II. c. 11 (modified by 1 & 2 Geo. IV. c. 89), after providing for the establishment of wharves and quays, makes it lawful for any person to lade or unlade goods, on paying wharfage and cranage at the rate appointed by the king in council.

WHEAT (Ger. weizen; Dutch, tarw; Dan. hvede; Swed. hvete; Fr. froment, blé; Ital. grano, formento; Span. and Port. trigo; Russ. pschenzia; Pol. pszenica). A species of bread corn (*Triticum* Linn.), by far the most important of any cultivated in Europe. We are totally ignorant of the country whence this valuable grain was first derived; but it was very early cultivated in Sicily. It is raised in almost every part of the temperate zones, and in some places as high as 2,000 feet above the level of the sea.

The kinds of wheat sown are numerous, but they may be classed under 4 heads: viz. cone or bearded wheat, which, however, is now little cultivated; white wheat, of which there are innumerable varieties, the *white Dantzic* being considered one of the best; red wheat, which is seldom sown where the climate is good and early, and the land in proper condition; and spring wheat. A greater number of people are nourished by rice than by wheat; but owing to the greater quantity of gluten which the later contains, it makes by far the best bread. Rye comes nearer to wheat in its bread-making qualities than any other sort of grain; still, however, it is very inferior to it. The finest samples of wheat are small in the berry, thin skinned, fresh, plump, and bright, slipping readily through the fingers.

Being very extensively cultivated on soils of very various qualities, and frequently with very imperfect preparation, the produce of wheat crops in Great Britain varies from about 12 to 56

bushels per acres. According to the agricultural returns for 1868, there were 3,951,018 acres in the United Kingdom devoted to the cultivation of wheat; while France had 17,850,258 acres in 1867; Spain 7,311,892 acres in 1857; Bavaria 1,041,035 in 1863; and Prussia 3,573,253, and the United States 12,304,894 acres in 1867, all growing wheat crops and spelt.

The counties most distinguished for the quantity and quality of their wheat are Kent, Essex, Suffolk, Rutland, Hertfordshire, Berkshire, Hampshire, and Herefordshire, in England; and Berwickshire, and the Lothians, in Scotland. In the northern counties it is, speaking generally, of an inferior quality; being cold to the feel, dark coloured, thick skinned, and yielding comparatively little flour. In the best wheat counties, and in good years, the weight of a Winchester bushel of wheat is from 60 to 62 lb. In the Isle of Sheppey, in Kent (where, perhaps, the best samples of wheat sent to the London market are produced), this grain, in some favourable seasons, weighs 64 lb. a bushel. Where the climate is colder, wetter, or more backward, or in bad seasons, the weight of the bushel of wheat is not more than 56 or 57 lb. It is calculated that the average weight of the bushel of good English wheat is 58½ lb.; and that the average yield of flour is 13 lb. of flour to 14 lb. of grain. (Loudon's *Ency. of Agriculture* &c.) In 1867 we imported 34,645,569 cwt. of wheat, and 3,592,969 cwt. of wheat meal and flour, 34,418,740 cwt. of the first and 3,564,891 cwt. of the last having been entered for home consumption. The average price of British wheat for the week ended April 24, 1869, was 45*s.* 5*d.* per quarter.

For a view of the regulations with respect to the importation and exportation of wheat &c., see CORN LAWS AND CORN TRADE; but as the Chancellor of the Exchequer (Mr. Lowe) proposes this year (1869) to abolish the duties on all descriptions of corn, we have appended his resolutions on this subject with others to TARIFF, BRITISH.

WHISKY. A spirit obtained by distillation from corn, sugar, or molasses, though generally from the former. Whisky is the *national spirit*, if we may so term it, of Scotland and Ireland; but that distilled in the former is generally reckoned superior to that of the latter. [SPIRITS.]

WINE (Ger. wein; Fr. vin; Ital. and Span. vino; Port. vinho; Russ. wino, winogradnoe winoe; Lat. vinum; Gr. *oivos*; Arab. khumr). The fermented juice of the grape, or berries of the vine (*Vitis vinifera*).

The vine is indigenous to Persia and the Levant; but it is now found in most temperate regions. The limits within which it is cultivated in the northern hemisphere of the Old World vary from about 15° to 48° and 52°; but in North America, it is not cultivated farther north than 38° or 40°. It is rarely grown at a greater altitude than 3,000 feet. From Asia the vine was introduced into Greece, and thence into Italy. The Phoceans, who founded Marseilles, carried the vine to the south of France; but it is doubtful whether it was introduced into Burgundy till the age of the Antonines. The ancient writers give the most contradictory accounts with respect to the introduction of the vine into Gaul. See the learned and excellent work of Le Grand d'Aussy, *Vie privée des Français*, tome ii. pp. 329—333.) The statement given above seems the most probable. The species of *Vitis* indigenous to North America is very different from the *Vitis vinifera*. In favourable seasons, the vine ripens in the open air in England; and in the eleventh and twelfth centuries, considerable quantities of inferior wine were made from native grapes. Vineyards are now, however, unknown in this country; but the grapes raised in hothouses, and used at desserts, are excellent.

The vine grows in every sort of soil; but that which is light and gravelly seems best suited for the production of fine wines. It succeeds extremely well in volcanic countries. The best wines of Italy are produced in the neighbourhood of Vesuvius: the famous Tokay wine is also made in a volcanic district, as are several of the best French wines; many parts of the south of France bearing evident marks of extinct volcanoes. Hermitage is grown among the debris of granite rocks. The most favourable situation for a vineyard is upon a rising ground or hill facing the south-east, and the situation should not be too confined;

> ——apertos
> Bacchus amat colles.

The art of expressing and fermenting the juice of the grape appears to have been practised from the remotest antiquity. The sacred writings tell us that Noah planted a vineyard soon after the deluge (Gen. ix. 20); and a modern Latin poet ingeniously represents the vine as a gift from Heaven, to console mankind for the miseries entailed upon them by that grand catastrophe,

> Omnia vastatis ergo quum cerneret arvis
> Desolata Deus, nobis felicia vini
> Dona dedit; tristes hominum quo munere fortè
> Reliquias, mundi solatia vitæ reliquæ!
> Vanierii *Præd. Rustican.*, lib. ii.

Species of Vine.—There are many varieties of vines; and this circumstance, combined with differences of soil, climate, mode of preparation &c., occasions an extreme variety in the species of wine. But between places immediately contiguous to each other, and where even a careful observer would hardly remark any difference, the qualities of the wines, though produced by the same species of grape, and treated in the same way, are often very different. A great deal evidently depends upon the aspect of the vineyard; and it is probable that a good deal depends on peculiarities of soil. But whatever may be the cause, it is certain that there are wines raised in a few limited districts, such as Tokay, Johannisberger, Constantia, the best Burgundy, Champagne, claret &c., that no art or care has hitherto succeeded in producing of equal goodness in other places.

ANCIENT WINES.—The wines of Lesbos and Chios among the Greeks, and the Falernian and Cecuban among the Romans, have acquired an immortality of renown. Great uncertainty, however, prevails as to the nature of these wines. Dr. Henderson thinks that the most celebrated of them all, the Falernian, approached, in its most essential characters, near to Madeira. In preparing their wines, the ancients often inspissated them till they became of the consistence of honey, or even thicker. These were diluted with water previously to their being drunk: and, indeed, the habit of mixing wine with water seems to have prevailed much more in antiquity than in modern times.

MODERN WINES.—The principal wines made use of in this country are Port, Sherry, Claret, Champagne, Madeira, Hock, Marsala &c.

Port.—The produce of a mountainous district situated on the banks of the river Douro, about 70 miles east of Oporto, whence it is shipped and its name derived. This district, not exceeding 30 miles in length and about 4½ in breadth, having been found peculiarly fitted for the production of exportable wine, was marked out in 1756 by the Marquis of Pombal, in a charter granted to the

Oporto Wine Company,' to whom was secured the absolute disposal of all wines produced in this district, with power to fix the prices paid to cultivators, as well as to prepare the wines for export and regulate the prices at which they should be sold to foreigners.

The establishment of this company was a source of great injustice to the British merchants, and gave rise to innumerable abuses, and endless disputes between the British and Portuguese Governments; ceasing to exercise its monopoly in 1834, it existed under varying conditions until 1865, when the wine produce of the whole kingdom was thrown open to free trade. A more particular account of this company and its evil influences in deteriorating the quality and raising the price of port wine, will be found in former editions of this work.

The wines produced in this district and its immediate vicinity, known as the 'Paiz vinhateiro,' possess qualities not shared by those grown in other parts of Portugal; the wines are cultivated in a soil composed of little else than the débris of volcanic rock collected in rude terraces built upon the mountain sides. From a variety of causes port wine contains a large amount of suspended vegetable matter, and great natural alcoholic strength, which however has hitherto been found insufficient to preserve its qualities and avert re-fermentation without the addition of extraneous brandy. The determination of the requisite amount of this spirit is one of the chief difficulties experienced by the producers and shippers; and an anxiety on the part of these to protect themselves from the risk of the deterioration of their property, and in some cases their ignorance, coupled with the expectation of the consumer that port wine can be kept almost any length of time in cask or bottle with advantage, have doubtless led to the use of more brandy than perhaps might be absolutely necessary; hence port wine has been stigmatised as an artificial and adulterated compound.

The almost tropical summer-heat, the dry climate and arid soil of the wine districts, are peculiarly adapted to ripen the grapes to perfection. They are extremely luscious and deep coloured; and the long process of treading in the rough stone wine-press has the effect of extracting all their colouring vegetable matter and astringent qualities, while the great amount of saccharine they contain is converted into alcohol.

In common with other articles of commerce, port wine is subject to adulterations and imitations: bags of dried elder berries trodden in the wine-press were formerly much used to increase the colour of inferior wines, but a modern demand for wines of a lighter colour caused the almost complete discontinuance of their use. The imitations are chiefly the productions of Hamburg, Cette, and Tarragona.

The vine disease, or 'oïdium Tuckeri,' has been severely felt in the port wine district, and has of late years much curtailed the produce, thereby enhancing prices.

For further details see OPORTO. See also a curious controversy on the adulteration of port in *Reports* of Mr. Secretary Lytton and Mr. Consul Crawford, published by the Foreign Office in 1867.

Sherry is of a deep amber colour; when good, it has a fine aromatic odour; its taste is warm, with some degree of the agreeable bitterness of the peach kernel. When new, it tastes harsh and fiery; it is mellowed by being allowed to remain 4 or 5 years or longer in the wood; but it does not attain to its full flavour and perfection until it be kept for 15 or 20 years. It is a very strong wine, containing about 19 per cent. of alcohol. It is principally produced in the vicinity of Xeres, not far from Cadiz, in Spain. It is very extensively used in this country as a dinner wine, and we consume a greater quantity of this than any other wine. Dry sherry, or *amontillado*, when genuine and old, fetches a very high price. Perhaps no wine is so much adulterated as sherry. With the exception of Marsala, the consumption of sherry has been far more influenced than that of any other wine by the reduction of the duties in 1825 and 1866. In 1867, the quantity retained for home consumption amounted to 6,134,475 gallons, being 762,000 gallons *more than five times* the quantity retained for consumption at an average of 1823 and 1824. (See post.)

The province of Valencia, in Spain, produces a great variety of wines. Large quantities of a strong, sweetish, red wine, called Benicarlo, from the port whence it is shipped, is exported to Cette. It is thence conveyed, by the canal of Languedoc, to Bordeaux, where it is mixed up with the poorer sorts of the wines of the Gironde, to which it gives colour, body, and durability.

The *Val de Penas*, a pleasant red wine of La Mancha, said by Swinburne to be 'the most drinkable, for common use, of any in Spain'—(*Travels in Spain*, p. 319, 4to. ed.)—has probably been commended beyonds its deserts. It was reckoned among the best Spanish wines, in 1542, by Lobera de Avila, physician to Charles V. (*Don Quixote*, por Pellicer, iv. 130, 8vo. 1788.) But in whatever estimation it may be held in its native province, we doubt whether it is ever likely to be acceptable to foreigners. When carried to the coast it is conveyed in goat skins, smeared with pitch. This gives it the *olor de bota*, by which it is disagreeably distinguished.

Claret.—The term used in England, though not in France, to designate the red wines, the produce of the Gironde. Of these Château Lafite, Latour and Château Margaux in Medoc, and Haut Brion in the Graves district occupy the first rank, and in a good vintage the three first sell fully 20 per cent. dearer than any other wines in the department. The Lafite is a full bodied wine, with peculiar flavour and character; the Latour has also a good deal of body, but not quite so much flavour as the Lafite. The Château Margaux, on the other hand, is lighter, but extremely delicate.

The Haut Brion is different in character from the above wines, having a great deal of spirit and body, and much less flavour.

The wines most esteemed after the first growths are called *seconds crus* or second growths; such are Rauzan and Durfort in the parish of Margaux and the vineyards of Leoville and Larose in the parish of St. Julien, Mouton in the parish of Pauillac, and Gorsse in the parish of Cantenac. These afford wines of fine quality, which, in favourable years, have much of the excellence of the first growths, and in some instances are fully equal to them. The above-named parishes and that of St. Estephe produce the great majority of the third and fourth class wines as well as those that are sold as ordinary clarets under the generic name, of their parishes. Medoc and Haut Medoc designate the lightest wines of this district, and Bas Medoc the coarser wines in the northern part. St. Emilion is a peculiar wine, with body but without much flavour, and is made on the banks of the Dordogne river.

Clarets are generally bottled after 3 years. The finest wines are sometimes not fully developed for 10 or 15 years, but the lighter and secondary qualities and the wines of light vintages come to perfection much sooner. Wines of fine

vintages, when kept long in bottle, often deposit a crust on the glass, and the same may be said of all fine red wines, particularly when bottled early.

In former times and before the use of claret became as general as it is, Bordeaux wines were rarely exported to the United Kingdom in a state of purity. But it is now quite the reverse, and experience has proved that the pure clarets of a good vintage will last, and keep their colour and flavour much longer when pure than when blended with hotter wines.

The price of claret varies from 12*l.* to 60*l.* and 80*l.* per hogshead, and sometimes as much as 100*l.* and 120*l.* per hogshead are paid for the superior growths of the very finest vintages. Cargo and ordinary clarets can be bought at from 6*l.* to 10*l.* per hogshead. Fine clarets in bottles sell from 36*s.* to 96*s.* per dozen, and there are instances of remarkably old and rare wines having brought in public sales above 50*l.* per dozen.

(See the valuable work of Dr. Henderson, *On Ancient and Modern Wines*, p. 184; and Jullien, *Topographie de Vignobles*, pp. 202—212. See also Mr. Beckwith 'On Fermented Drinks'—*Reports on Paris Exhibition*—who estimates the quantity of Bordeaux wine grown at 85,000,000 of gallons.)

Champagne, so called from the province of France of which it is the produce, is one of the most deservedly esteemed of the French wines.

The wines of Champagne are divided into white and red wines; these last, owing to the recent great extension of the trade in sparkling wines, are now made in but small quantities, and then only in such localities as cannot make good white wines, and these red wines are consumed in the country; the best of them, Bouzy, Clos St. Basle &c., greatly resemble in colour and aroma the wines of Burgundy, but have a peculiar character of Champagne.

The white wines are of two classes; those made of black, and those of white grapes. Of the first, the characteristics are 'elegance,' body and bouquet; the best are those of Ay, Verzenay, Bouzy &c. Of the second, noted for their lightness and exquisite flavour, the best are those of Cramant, Avize, Chouilly &c. In preparing the wines for sparkling, the different growths, such as Ay, Verzenay, and Cramant, are so mixed up as to form a wine possessing the different qualities appropriate to each, thus combining body with nerve, exquisitive flavour and lightness &c.

All sparkling wines are thus made up of different growths, experience having shown that such wines are much more likely to keep in good condition and go on improving.

The still wines are made with the wines of Verzenay and Ay; they are much admired by connoisseurs, but the consumption of them is very limited. These wines are usually called 'Sillery sec' from the fact of all the wines of Verzenay having originally belonged to the 'marquis of Sillery,' who used to call these wines after his name. There are hardly any wines grown at Sillery, the locality being too much exposed, and the few that are there are annually frozen in the spring.

The annual exportation of Champagne amounts to 13,500,000 bottles, of which about 3,000,000 are consumed in France, and the greater part of the rest sent to England and its colonies.

The trade in wines is principally carried on in Reims, Epernay, Ay, and Avize.

The cellars in which the wines are stored are excavated from the rock of chalk, or from a calcareous tufa, the temperature of these being always about 48 degrees Fahrenheit.

In the last edition the produce of the province of Champagne was stated at about 1,000,000 hectolitres, or 22,000,000 of gallons. Mr. Beckwith (*Reports on Paris Exhibition* of 1866) estimates the average quantity of wine produced in the Champagne district at 52,000,000 of gallons, without, however, stating the data on which this estimate is founded.

Burgundy.—The best wines of this province, though not so popular in England as those of Champagne, probably because they are very apt to be injured by a sea-voyage, enjoy the highest reputation. 'In richness of flavour and perfume, and all the more delicate qualities of the juice of the grape, they unquestionably rank as the first in the world; and it was not without reason that the dukes of Burgundy, in former times, were designated as the *princes des bons vins*.' (Henderson, p. 161.) M. Jullien is not less decided:—'Les vins des premiers crus, lorsqu'ils proviennent d'une bonne année, réunissent, dans de justes proportions, *toutes les qualités qui constituent les vins parfaits*; ils n'ont besoin d'aucun mélange, d'aucune préparation pour atteindre leur plus haut degré de perfection. Ces opérations, que l'on qualifie dans certains pays de *soins qui aident à la qualité*, sont toujours nuisibles aux vins de Bourgogne' (p. 104).

Romané-Conti, Chambertin, the Clos Vougeôt, and Richebourg are the most celebrated of the RED wines of Burgundy. Chambertin was the favourite wine of Louis XIV. and of Napoleon. It is the produce of a vineyard of that name, situated 7 miles south from Dijon, and furnishing each year from 130 to 150 puncheons, from an extent of about 65 acres. It has a fuller body and colour, and greater durability, than the Romané, with an aroma nearly as fragrant.

The white wines of Burgundy are less numerous, and, consequently, less generally known, than the others; but they maintain the highest rank among French white wines, and are not inferior to the red either in aroma or flavour.

The entire annual produce of wine in Burgundy and Beaujolais may at present be estimated, at an average, at nearly 75,000,000 of gallons, of which about $\frac{1}{3}$ suffices for the consumption of the inhabitants. Since the Revolution, the cultivation of the vine has been greatly extended in the province. Many of the new vineyards having necessarily been planted in comparatively unfavourable situations, a notion has been gaining ground that the wines of Burgundy are degenerating. This, however, is not the case. On the contrary, the quantity of *bons crus*, instead of being diminished, has increased considerably; though, as the supply of inferior wines has increased in a still greater degree, the fine wines bear a less proportion to the whole than they did previously to the Revolution. (Jullien, p. 90.)

The principal trade in Burgundy is carried on at Dijon, Gevrey, Châlons-sur-Saône &c.

Besides the above, France has a great variety of other excellent wines. Hermitage, Sauterne, St.-Péry &c., are well known in England, and deservedly enjoy, particularly the first, a high degree of reputation.

This makes a total export of 2,868,398 hectolitres, worth 260,330,573 fr., or 10,847,107*l.* About 20 years ago the exports did not exceed 1,500,000 hectolitres, so that there has been a large increase in the interval. The average annual export from Bordeaux alone during the 5 years ending with 1864 was 13,861,976 gallons. And were France still further to liberalise her commercial policy, it is not easy to say to how great an extent her exports of wine, in the pro-

Account of the Quantities and Value of the Wines Exported from France in 1865; *Distinguishing between those of the Gironde and those of other Departments, and between those Exported in Casks and Bottles; and Specifying the Quantities of those sent to each Country consuming largely, and their Total Value.*

Countries to which Exported	Wine in Casks				Wine in Bottles			
	Of the Gironde		Of other Departments		Of the Gironde		Of other Departments	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	hect.	francs	hect.	francs	hect.	francs	hect.	francs
United States	121,536	95,481,711	72,947	99,728,084	13,700	17,548,317	9,345	21,711,804
Belgium	76,690						2,381	
Hanse Towns	128,106							
Uruguay	65,785							
Rio de la Plata	182,451							
Italy			300,421					
Switzerland			328,598					
Algeria			358,176				17,417	
United Kingdom					2,887			
British East Indies					2,158			
Spanish America					2,068			
Mexico					8,952			
Germany							6,355	
Russia							3,450	
Other parts	404,381		551,993		21,729		29,696	
Total	978,830	95,481,711	1,662,135	99,728,084	53,194	17,548,317	68,644	21,711,804

duction of which she is immeasurably superior to every other country, might be increased.

Exclusive of wines, there were exported from France, in 1865, 1,829,422 litres of *vins de liqueurs*, valued at 4,390,613 francs, and in 1867 the total value of the wines exported from France was 195,788,220 francs.

The total average produce of the vineyards of France is estimated by Mr. Beckwith, in his *Essay on Fermented Drinks*, 1866–7, at 831,000,000 of gallons, exclusive of 165,000,000 of gallons annually distilled into brandy. See the article BORDEAUX, for an account of the influence of the improved French commercial policy on this great department of industry.

Dispute as to the comparative Merit of Champagne and Burgundy.—The question, whether the wines of Champagne or Burgundy were entitled to the preference, was agitated during the reign of Louis XIV. with extraordinary keenness. The celebrated Charles Coffin, rector of the University of Beauvais, published, during this controversy, a classical ode, in which Champagne is eulogised, and its superiority vindicated with a spirit, vivacity, and delicacy worthy of the theme. The citizens of Rheims were not ungrateful to the poet; but liberally rewarded him with an appropriate and munificent donation of the wine he had so happily panegyrised. Gréneau wrote an ode in praise of Burgundy; but, unlike its subject, it was flat and insipid, and failed to procure any recompense to its author. The different pieces in this amusing controversy were collected and published in 8vo. at Paris, in 1712. (Le Grand d'Aussy, *Vie privée des Français*, tom. iii. p. 39, and the *Biographie Universelle*, tom. ix. art. 'Coffin' (Charles). Erasmus attributes the restoration of his health to his having drunk liberally of Burgundy; and has eulogised it in the most extravagant terms. An epistle of his, quoted by Le Grand d'Aussy, shows that Falstaff and he would have spent an evening together more agreeably than might have been supposed:—'Le premier qui enseigna l'art de faire ce vin (de Bourgogne), ou qui nous en fit présent, ne doit-il point passer plutôt pour nous avoir donné la vie que pour nous avoir gratifié d'une liqueur?' (*Vie privée des Français*, tom. iii. p. 9.)

Consumption of French Wine in England.—Owing to the intimate connection subsisting between England and France for several centuries after the Conquest, the wines of the latter were long in almost exclusive possession of the English market: but the extension of commerce gradually led to the introduction of other species; and in the reigns of Elizabeth and James I. the dry white wines of Spain seem to have been held in the highest estimation. This, however, was only a temporary preference. Subsequently to the Restoration, the wines of France regained their former ascendancy. In 1687 their importation amounted to 15,518; in 1688, to 14,218; and in 1689, to 11,106 tuns. It is exceedingly doubtful whether so much as a single pipe of port had ever found its way to England previously to this period (Henderson, p. 313); and it is most probable that the wines of France would have continued to preserve their ascendancy in our markets, had not their importation been artificially checked.

The trade with France had occasionally been prohibited previously to the accession of William III.; but it was not until 1693 that any distinction was made between the duties payable on French and other wines. But Louis XIV. having espoused the cause of the exiled family of Stuart, the British Government, in the irritation of the moment, and without reflecting that the blow aimed at the French would infallibly recoil upon themselves, imposed, at the period above mentioned, a discriminating duty of 8*l.* a tun on French wines, and in 1697 increased it to 33*l.* In consequence of this enormous augmentation of duty on French wines, the merchants began to import red wine from Oporto as a substitute for the red wines of Bordeaux, excluded by the high duties. It is probable, however, that these discriminating duties would have been repealed as soon as the excitement which produced them had subsided, and that the trade would have returned to its old channels, had not the stipulations in the famous commercial treaty with Portugal, negotiated by Mr. Methuen in 1703, given them permanence. Such, however, was unluckily the case: for, according to this treaty, we bound ourselves to charge in future 33⅓ per cent. higher duties on the wines of France than on those of Portugal; the Portuguese, by way of compensation, binding themselves to admit our woollens into their markets in preference to those of other countries, at a fixed and invariable rate of duty.

Though very generally regarded at the time as the highest effort of diplomatic skill and address, the Methuen treaty was certainly founded on the narrowest views of national interest, and proved, in no common degree, injurious to both parties, but especially to England. By binding ourselves to receive Portuguese wines for *two-thirds*

of the duty payable on those of France, we, in effect, gave the Portuguese growers a monopoly of the British market, and thereby attracted too great a proportion of the deficient capital of Portugal to the production of wine; while, on the other hand, we not only excluded one of the principal equivalents the French had to offer for our commodities, and proclaimed to the world that we considered it better to deal with *two* millions of poor beggarly customers, than with *thirty* millions of rich ones, but we also provoked the retaliation of the French, who forthwith excluded most part of our articles from their markets.

The injurious effect of the regulations in the Methuen treaty was distinctly pointed out by Dr. Davenant and Mr. Hume. The latter, in his *Essay on the Balance of Trade*, published in 1752, says, 'Our jealousy and hatred of France are without bounds. These passions have occasioned innumerable barriers and obstructions on commerce, where we are commonly accused of being the aggressors. But what have we gained by the bargain? *We lost the French market for our woollen manufactures*, and transferred the commerce of wine to Spain and Portugal, *where we buy much worse liquor at a much higher price*. There are few Englishmen who would not think their country absolutely ruined were French wine sold in England so cheap, and in such abundance, as to supplant ale and other home-brewed liquors. But, would we lay aside prejudice, it would not be difficult to prove that nothing could be more innocent, perhaps more advantageous. Each new acre of vineyard planted in France, in order to supply England with wine, would make it requisite for the French to take an equivalent in English goods, by the sale of which we should be equally benefited.'

In consequence of the preference so unwisely given to the wines of Portugal over those of France—a preference continued, in defiance of every principle of sound policy and common sense, down to 1831—the imports of French wine were for many years reduced to a mere *trifle*; and notwithstanding their increased consumption, occasioned by the reduction of the duties in 1825, the quantity of all sorts retained for consumption in 1852 did not exceed 475,948 gallons; while the consumption of Portuguese wines amounted in the same year to 2,489,350 gallons. This is the most striking example, perhaps, in the history of commerce, of the influence of customs duties in diverting trade into new channels, and altering the taste of a people. All but the most opulent classes having been compelled, for a long series of years, either to renounce red wine, or to use port, the taste for the latter had become apparently firmly rooted; the beverage that was originally forced upon us by necessity having for a time become congenial from habit. It was expected when the discriminating duty in favour of port was abolished in 1831, that the excellence of the French wines would speedily regain for them a large portion of that favour in the English market which they formerly enjoyed. And this, since our commercial treaty with France came into operation, has been fully realised. In 1867 there were entered for home consumption in the United Kingdom, 8,595,598 gallons of French wine, while but 2,828,098 gallons of Portuguese red wine were entered. (See post.)

Madeira, so called from the island of that name, is a wine that has long been in high estimation in this and other countries. Plants of the vine were conveyed from Crete to Madeira in 1421, and have succeeded extremely well. There is a considerable difference in the flavour and other qualities of the wines of Madeira; the best are produced on the south side of the island. Though naturally strong, they receive an addition of brandy when racked from the vessels in which they have been fermented, and another portion is thrown in previously to their exportation. This is said to be required to sustain the wine in the high temperature to which it is subjected in its passage to and from India and China, to which large quantities of it are sent; it being found that it is mellowed, and its flavour materially improved by the voyage. It does not, however, necessarily follow that the wines which have made the longest voyages are always the best. Much must obviously depend on the original quality of the wine; and many of the parcels selected to be sent to India are so inferior, that the wine, when brought to London, does not rank so high as that which has been imported direct. But when the parcel sent out has been well chosen, it is very much matured and improved by the voyage; and it not only fetches a higher price, but is in all respects superior to the direct importations. Most of the adventitious spirit is dissipated in the course of the Indian voyage.

Madeira wines may be kept for a very long period. 'Like the ancient vintages of the Surrentine hills, they are truly *firmissima vina*, retaining their qualities unimpaired in both extremes of climate, suffering no decay, and constantly improving as they advance in age. Indeed, they cannot be pronounced in condition until they have been kept for 10 years in the wood, and afterwards allowed to mellow nearly twice that time in bottle; and even then they will hardly have reached the utmost perfection of which they are susceptible. When of good quality, and matured as above described, they lose all their original harshness, and acquire that agreeable pungency, that bitter sweetishness, which was so highly prized in the choicest wines of antiquity; uniting great strength and richness of flavour with an exceedingly fragrant and diffusible aroma. The nutty taste, which is often very marked, is not communicated, as some have imagined, by means of bitter almonds, but is inherent in the wine.' (Henderson, p. 253.)

The wines of Madeira have latterly fallen into disrepute in England. The growth of the island, when greatest, was very limited, not exceeding 20,000 pipes, of which a considerable quantity went to the West Indies and America. Hence, when Madeira was a fashionable wine in England, every sort of deception was practised with respect to it, and large quantities of spurious trash was disposed of for the genuine vintage of the island. This naturally brought the wine into discredit; so that sherry has been for several years the fashionable white wine. It is difficult, however, to imagine that adulteration was ever practised to a greater extent upon Madeira than it is now practised upon sherry. It is not, therefore, improbable, that a reaction might have taken place in favour of Madeira, had not its growth been nearly extinguished for several years by the vine disease. Hopes were, however, entertained in 1868 of the possibility of restoring it to its former productiveness. [MADEIRA.] The quantity entered for home consumption in 1827 amounted to 308,295 gallons, whereas the quantity entered for home consumption in 1867 amounted to only 19,588 gallons.

Malmsey, a very rich, luscious species of Madeira, is made from grapes grown on rocky grounds, exposed to the full influence of the sun's rays, and allowed to remain on the vine till they are over-ripe.

The trade in Madeira wine is carried on at Funchal, the capital of the island, in lat. 32° 37′ N., long., 17° 6′ W. *Weights and Measures* same as at Lisbon. The island is said to have suffered very severely from the disease that recently attacked the vine.

Teneriffe wine—so called from the island of that name—resembles Madeira, and is not unfrequently substituted in its stead; but it wants the full body and rich flavour of the best growths of Madeira.

German Wines.—The wines of Germany imported into England are principally produced on the banks of the Rhine and Moselle. The Rhine wines constitute a distinct order by themselves. They are drier than the French white wines, and are characterised by a delicate flavour and aroma, which is quite peculiar to them, and of which it would, therefore, be in vain to attempt the description. A notion prevails, that they are naturally acid; and the inferior kinds, no doubt, are so; but this is not the constant character of the Rhine wines, which in good years have no perceptible acidity to the taste, at least not more than is common to them with the growths of warmer regions. Their chief distinction is their extreme durability. The wines made in warm dry years are always in great demand, and fetch very high prices.

The Johannisberger stands at the head of the Rhine wines. It has a very choice flavour and perfume, and is characterised by an almost total want of acidity. The vineyard is the property of Prince Metternich. The Steinberger ranks next to the Johannisberger. It is the strongest of all the Rhenish wines, and in favourable years has much flavour and delicacy.

The produce of certain vineyards on the banks of the Moselle is of superior quality. The better sorts are clear and dry, with a light pleasant flavour and high aroma; but they sometimes contract a slaty taste from the strata on which they grow. They arrive at maturity in 5 or 6 years; though, when made in a favourable season, they will keep twice that time, without experiencing any deterioration. (Henderson, p. 226.) The importation of Rhenish wine has more than doubled in the 10 years down to 1867.

Hungarian Wines.—The finest of all the liqueur wines is *Tokay*, so called from a town in Hungary, near which it is produced, on the Theiss, 44 miles N.N.W. Debreczin. It consists of three varieties: viz. the *Essence*, flowing spontaneously from the ripest grapes, and corresponding with the *Mustum sponte defluens antequam calcentur uvæ* of the ancients; the *Ausbruch*, obtained by pressing the grapes with the hand, a small quantity of good new wine, or must, being at the same time poured over them; and the *Maslas*, or inferior variety, produced by pouring a larger quantity of less choice must over the same berries, and subjecting them to the action of the press. Of these varieties the first, which is made only in very small quantities, is in the highest degree sweet and luscious, and is more sought for as a rarity than as being pleasant to the palate. It is on the Ausbruch that the reputation of Tokay depends. Mr. Paget says, 'It is sweet, rich, but not cloying; strong, full-bodied, but mild, bright, and clear; and has a peculiar flavour of most exquisite delicacy. I never tasted it in perfection but at private tables, and that only twice; I could then have willingly confessed it the finest wine in the world.' The Maslas, or inferior variety, is a much thinner wine, rather sweet, with a preponderating flavour of the dried grape. Mr. Paget estimates the entire produce of the Tokay vineyards in ordinary years at about 250,000 eimers, of about 16 bottles each. The best Ausbruch is very dear; and but little that is genuine is seen in England. (Paget's *Travels in Hungary*, i. 481; Henderson, p. 228; Jullien, p. 446.)

Some other varieties of Hungarian wines are now (1869) sold in London; but they have not as yet displaced, to any appreciable extent, the wines to which the English have long been accustomed.

Italian Wines.—The Sicilian white wine called Marsala, from the town (the ancient Lilybæum) whence it is shipped, and near which it is made, is now pretty largely consumed in England; the entries for home consumption having increased from 79,686 gallons in 1823, to 387,750 in 1852; an extraordinary increase, particularly when it is considered that during the same period the consumption of most sorts of wine had been nearly stationary. Latterly, however, it has been rather declining, though 413,190 gallons of Sicilian wine were entered for consumption in the United Kingdom in 1867. Marsala is a dry wine; the best qualities closely resembling the lighter sorts of Madeira; but the increased demand for it seems to have been owing as much to its cheapness as to any peculiarity of quality. It is, however, when good, an agreeable dinner wine. Marsala has been brought to its present state of perfection and repute by the care and exertions of two Englishmen, the Messrs. Woodhouse, established in Sicily, who have an extensive factory in the neighbourhood of Marsala. The wine is shipped in large quantities for America; whence a considerable quantity is again conveyed to the West Indies, where it is not unfrequently disposed of as real Madeira.

With the exception of Marsala, very little wine either of Sicily or Italy is imported into England. The wines of those countries are, indeed, without, perhaps, a single exception, very inferior to those of France. The natives bestow no care upon the culture of the vine; and their ignorance, obstinacy, and want of skill in the preparation of wine, are said to be almost incredible. In some districts, as in Tuscany and parts of Naples, the art is, no doubt, better understood and practised than in others; the *Montepulciano* of the former, said, by Redi (*Bacco in Toscana*) to be *d' ogni vino il re*, and the *Lacrima Christi* of the latter, being the most celebrated varieties. But the lacrima is better known by name than in reality, it being made in small quantities, and mostly reserved for royal cellars. (Henderson, p. 239.) And, despite the superior quality of those now mentioned, had not the Falernian, Cecuban, and other famous ancient wines, been incomparably better than the best of those that are at present produced, they never would have elicited the glowing panegyrics of Horace.

Wines of Greece and Cyprus.—The soil in most parts of Greece and of the Grecian islands is admirably fitted for the growth of the vine; and, in antiquity, they produced some of the choicest wines. But the rapacity of the Turks, and the insecurity of person and property that has always prevailed under their miserable Government, has effectually prevented the careful cultivation of the vine; and has occasioned, in many places, its total abandonment. It may, however, be fairly presumed, now that Greece has emancipated herself from the iron yoke of her oppressors, that the culture of the vine will attract some portion of that attention to which it is justly entitled; and that, at no distant period, wine will form an important article of export from Greece. At present (1869) Greek wines are sold in London, but have not as yet found much favour with the English.

Nowhere, perhaps, has the destructive influence of Turkish barbarism and misgovernment been so apparent as in Candia and Cyprus. While these two renowned and noble islands were possessed by the Venetians, they supplied all Europe with the choicest dessert wines. Bacci affirms, that towards the end of the 16th century, Candia sent annually 200,000 casks of malmsey to the Adriatic; whereas now-a-days it hardly produces sufficient to supply the wants of its few impoverished inhabitants. (Henderson, p. 243.) The wines of Cyprus, particularly those produced from the vineyard called the Commandery, from its having belonged to the Knights of Malta, were still more highly esteemed than those of Crete. In the earlier part of last century, the total produce of the vintage of the island was supposed to amount to above 2,000,000 gallons, of which nearly ½ was exported; but at present (1869) the wine grown and exported does not amount to $\frac{1}{10}$ of these quantities. The oppression of which they have been the victims has reduced the peasantry to the extreme of indigence. At this time the population of the island is not supposed to exceed 200,000, and small as this number is, it is constantly diminishing by the inhabitants availing themselves of every opportunity of emigrating. (*Geog. Dict.* art. 'Cyprus.')

Cape Wines.—Of the remaining wines imported into England, those of the Cape of Good Hope form the largest portion; the quantity entered for home consumption in 1867 being 25,890 imperial gallons. But the consumption of Cape wine was formerly more considerable, having amounted in 1827 to 698,434 gallons. The famous Constantia wine is the produce of two contiguous farms of that name, at the base of Table Mountain, between 8 and 9 miles from Cape Town. The wine is very rich and luscious; though, according to Henderson, it yields in point of flavour and aroma to the muscadine wines of Languedoc and Roussillon. But, with this exception, most part of the Cape wines brought to England have an earthy, disagreeable taste, are often acid, want flavour and aroma, and are, in fact, altogether execrable. And yet this trash, being the produce of a British possession, enjoyed till lately peculiar advantages in our markets; for while the duty on Cape wine was only 2*s.* 11*d.* per gallon, that on all other wines was 5*s.* 9*d.* The consequences of this unjust preference were doubly mischievous: in the first place, it forced the importation of an article of which little was directly consumed, but which was extensively employed as a convenient menstruum for adulterating and degrading sherry, Madeira, and other good wines; and, in the second place, it prevented the improvement of the wine; for, while the Legislature thought fit to give a bounty on the importation of so inferior an article, was it to be supposed that the colonists would exert themselves to produce anything better? It is not easy to imagine a more preposterous and absurd regulation. The Act enforcing it should have been entitled, an Act for the adulteration of wines in Great Britain, and for encouraging the growth of bad wine in the Cape Colony.

Consumption of Wine in Great Britain. Duties.—We have repeatedly had occasion, in the course of this work, to call the reader's attention to the injurious operation of unequal and exorbitant duties. Perhaps, however, the trade in wine has suffered more from this cause than any other department of commerce. We have already endeavoured to point out some of the effects resulting from the inequality of the duties, or from the preference so long given to the inferior wines of Portugal and Spain over the superior wines of France. But the exorbitancy of the duties was, if possible, still more objectionable than the partial principle on which they were imposed. It appears from the subjoined table, that during the 9 years ending with 1794, when the duty on French wines was 4*s.* 10*d.*, and on Portuguese 3*s.* 1½*d.* per imperial gallon, the consumption in Great Britain amounted, at an average, to 7,021,770 gallons a-year, producing 900,000*l.* of revenue. It is probable, had the increase taken place *gradually*, that these duties might have been greatly increased without any material diminution of consumption. But in 1795 and 1796 they were raised to 10*s.* 6*d.* per gallon on French, and 6*s.* 1*d.* per gallon on Portuguese and Spanish wine; and the consequence of this sudden and inordinate increase, as exhibited in the table, was, that the consumption fell from above 7,000,000 gallons in 1795 to 4,189,710 gallons in 1796, and to 5,449,710 in 1797. But this unanswerable demonstration of the ruinous effect of heavy and sudden additions to the duties did not prevent them being raised, in 1804, to 13*s.* 9*d.* on French, and to 8*s.* 10*d.* on Portuguese and Spanish wine. They continued at this rate till 1825; and such was their influence, that notwithstanding the vast increase of wealth and population since 1790, and the general improvement in the style of living, the total consumption of wine, during the 3 years ending with 1824, amounted, at an average, to only 4,827,383 gallons a-year, being 697,507 gallons under the annual consumption of the 9 years ending with 1794. It may, therefore be truly said, making allowance for the increase of population, that the consumption of wine in Great Britain fell off full 50 per cent. between 1790 and 1824.

On Mr. Robinson (afterwards Lord Ripon) becoming Chancellor of the Exchequer, he resolved upon the effectual reduction of the wine duties; and took, in 1825, nearly 50 per cent. from their amount: and notwithstanding the spirit duties were at the same time reduced in a still greater degree, the consumption of wine in Great Britain increased in ordinary years from about 4,500,000 to about 6,300,000 imperial gallons, while there was no loss of revenue. We are, therefore, justified in affirming that this measure was very successful, and that it afforded a valuable example of the superior productiveness of low duties. An article in the *Edinburgh Review*, No. 80, contributed to bring about this measure. See also an excellent tract on the *Wine Trade*, by Mr. Warre, published in 1824.

The duties, as reduced by Mr. Robinson, were 7*s.* 3*d.* per imperial gallon on French wines, 4*s.* 10*d.* per ditto on all other foreign wines, and 2*s.* 5*d.* on those of the Cape of Good Hope. They continued on this footing till the Equalisation Act (1 & 2 Wm. IV. c. 30), which imposed a duty of 5*s.* 6*d.* per imperial gallon on all foreign wines, and 2*s.* 9*d.* on those of the Cape, to which 5 per cent. was added in 1840.

But the equalisation effected by this Act should not have been brought about by adding anything to the duties on port, sherry &c., but by reducing those on French wines to their level. The subjoined tables show that the consumption of wine in the United Kingdom was about stationary from 1826 to 1831; and the addition of 8*d.* per gallon, that was then made to the duties on all sorts of foreign wine, except French, from which 1*s.* 9*d.* was deducted, appears to have sensibly affected the consumption of 1832. Considering, indeed, the increasing wealth and population of the United Kingdom, and the more generally diffused use of wine, the stationary amount of the quantities retained for consumption is not a little

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surprising. A good deal is, we believe, ascribable to adulteration, and more, probably, to a change of habits. The duties were, also, perhaps, too high. But they were more objectionable from the mode in which they were assessed than from their amount. It is against all principle to impose the same duty on inferior and cheap wines, worth only 10*l.* per hogshead, as on the choicest Burgundy and Champagne, worth 60*l.* or 70*l.* per hogshead. Its injustice would not be exceeded, were the same duty charged on small beer that is charged on gin. The effect of this apparently equal, but really *most unequal* duty, was to exclude low priced wines from the English markets. Commercially speaking, Bordeaux is nearer London than Paris: and but for this system, the cheap wines of the Gironde, Languedoc, and Provence might have been bought here at a less price than in most parts of France. But, how desirable soever, it would be all but impossible to assess an ad valorem duty on wine. It is frequently no easy matter to distinguish between different descriptions of wine, and it is still more difficult to distinguish between different varieties of the same wine, though they may differ greatly in value. There can, in truth, be little doubt that any attempt to lay an ad valorem duty on wine would occasion such an amount of fraud as would greatly overbalance any advantage of which it might be productive.

In the last edition of this work the author remarked as follows: 'A proposal has recently been made, which has met with considerable support, for reducing the duty on all wines to 1*s.* per gallon. It is contended that a reduction of this extent would not occasion any permanent loss of revenue, inasmuch as it would have the effect, in no very lengthened period, of increasing the consumption to 5 or 6 times its present amount. But we greatly doubt whether such would be the case. A reduction of the duty to the extent supposed would not have any considerable influence in reducing the price of the finer descriptions of wine; and it is very questionable whether the inferior and low-priced wines that are now excluded, would, though there were no duty, be very generally introduced into this country. The better opinion seems that beer would continue, as at present, to be preferred by the bulk of the population; and if so, the measure would have little other influence than to occasion a reduction of revenue.

'Besides, if the wine duties were reduced to 1*s.* per gallon, and the consumption to increase to the extent that has been anticipated, there would certainly be a serious decline in the consumption of malt and spirit, and, consequently, in the revenue derived from them. And to do justice to all parties, to the growers of barley and the distillers, as well as the importers of wine, it would be necessary to make a corresponding reduction in the duties on malt and spirits. Unless this were done, a reduction of the wine duties to 1*s.* per gallon would be really equivalent to a bounty or premium on the consumption of wine. But there should be no favouritism in taxation; and, however desirable, the substitution of one sort of stimulus for another is not to be effected by encroaching on that equality of taxation which should be a fundamental principle in every sound system of finance.

'Unless, therefore, some means be discovered of fairly and easily assessing the wine duties on an ad valorem principle, little probably would be gained by disturbing the present arrangement. A reduction of the duties to 3*s.* per gallon, that is, to about 6*d.* per bottle, has been suggested; and if they are to be interfered with, this would seem to be the most judicious plan. A duty of this amount would not be felt on the superior wines; and while it would be no great check to the consumption of the secondary growths, it would not give an undue stimulus to the use of wine.' Since the above was written, the duties have been reduced, and in 1866 the present rates were regulated as follows, viz.:—

On wine containing less than 26 degrees of proof spirit, 1*s.* per gallon; 26 and less than 42 degrees of proof spirit, 2*s.* 6*d.* per gallon; and additional for every degree of strength beyond the highest above specified, 3*d.* per gallon.

Consumption of Wine in Ireland. Duties.—In 1790, the duties on wine consumed in Ireland were considerably below the level of those imposed in Great Britain, and the average annual quantity of all sorts retained for home consumption in that country amounted to about 1,160,000 imperial gallons, producing about 138,000*l.* a-year revenue. Had those to whom the government of Ireland was intrusted possessed any knowledge of the merest elements of finance, or of the condition of the Irish people, they would not have attempted to add to the public revenue by augmenting the duties on wine. Owing to the limited number of the middle classes in Ireland, an increase of duty could not be expected to be productive; and though it had yielded 50,000*l.*, or even 100,000*l.*, a-year additional revenue, that would have been no compensation for the injury it was sure to do in checking the diffusion of that taste for luxuries and enjoyments so essential to the improvement of the people. But those who had to administer the affairs of Ireland were insensible to such considerations, and never doubted that 2 and 2 make 4 in the arithmetic of the customs as well as of Cocker. Such, indeed, was their almost incredible rapacity, that in the interval between 1791 and 1814, they raised the duty on French wine from 33*l.* 7*s.* per tun to 144*l.* 7*s.* 6*d.*; and that on port from 22*l.* 4*s.* 8*d.* to 95*l.* 11*s.* This was a much more rapid increase than had taken place in England; and as the country was far less able to bear even the same increase, the consequences were proportionally mischievous. In 1815, the quantity of wine retained for home consumption in Ireland had declined, notwithstanding the population had doubled, to 608,000 imperial gallons, or to about *half* the quantity consumed in 1790; and in 1824, the consumption had fallen to 467,000 gallons, while the revenue only amounted to 185,000*l.*

The reduction of the duties in 1825 nearly *doubled* the consumption of wine directly imported into Ireland, and added considerably to the revenue; but since 1814, when the duties on wine in Great Britain and Ireland were equalised, it has not been possible to state the consumption of wine in either with accuracy, on account of the transhipments from the former to the latter. It is, however, quite certain that the consumption of wine in Ireland, partly in consequence of the high duties, and partly of a change in the mode of living, did not in 1853 amount, as compared with the population, to half its amount in 1790. In Thom's Irish Almanack for 1869 the consumption in 1790 is stated at 1,117,556 proof gallons, and that in 1853 at 512,693 gallons, while in 1865 it is estimated at 973,901 gallons.

Adulteration of Wine.—We have already alluded to this practice. It was prosecuted to a very great extent previously to the reduction of the duties in 1825, and is still very far from being suppressed. It has been affirmed, but we are inclined to suspect the statement of exaggeration, that at one time more than *a third* part of all the

I. *Account of the Quantities of the different Descriptions of Wine entered for Consumption from 1784 down to 1867, specifying the Rates of Duty levied on each, the Total Amount of Duty &c.*

Years	Years	Portuguese		Spanish		Madeira		Teneriffe		Sicilian		Cape		French		Rhenish		Total Gallons	Revenue
		Gallons	Duty	Gallons	Duty	Gallons	Duty	Gallons	Duty	Gallons	Duty	Gallons	Duty	Gallons	Duty	Gallons	Duty		£ s. d.
1784 to 1785	av. 2	2,602,113	£ s. d. 4 8½	619,920	£ s. d. 4 10	...	£ s. d. ...	...	£ s. d. ...	...	£ s. d. ...	...	£ s. d. ...	97,950	£ s. d. 5 2	51,080	£ s. d. 5 2½	...	425,454 0 0
1786 1794	av. 9	4,180,860	5 1½	921,270	5 1½	196,140	5 1½	20,370	5 1½	5,490	5 1½	...	...	179,270	5 1½	26,780	5 1½	5,521,980	880,951 0 0
1795 ...	...	5,161,350	5 0½	1,610,280	5 0½	122,450	5 0½	27,850	5 0½	2,730	5 5	...	...	96,180	5 5½	1,050	5 1½	7,021,770	1,175,302 0 0
1796 ...	...	2,909,970	6 11	1,163,280	6 11	78,570	6 11	25,410	6 11	18,270	8 5	...	...	54,180	10 2½	400	9 9½	4,180,730	1,158,525 0 0
1797 1802	av. 6	4,136,580	...	1,078,830	...	167,760	...	72,090	...	...	...	...	...	53,760	...	10,710	...	5,640,130	1,725,320 0 0
1803 ...	...	5,016,540	8 4	1,579,010	8 4	211,260	8 4	25,710	8 4	34,800	...	...	...	135,150	12 5½	7,770	10 2	7,447,860	2,141,256 0 0
1804 ...	...	4,821,540	8 10	1,787,510	8 10	168,060	8 10	34,650	8 10	...	...	...	...	18,120	13 9	1,260	10 11	6,847,860	2,814,325 0 0
1805 1814	av. 10	3,773,970	9 1	1,664,120	9 1	354,050	9 1½	200,340	9 1	127,890	9 1	...	...	...	...	9,050	11 3	6,031,050	1,973,102 0 0
1815 1820	av. 10	2,723,450	...	828,240	...	555,240	...	175,770	...	50,020	...	441,630	5 0	148,430	...	21,120	...	4,564,110	1,931,865 0 0
1821	1	2,313,309	...	959,834	...	460,476	...	161,340	...	60,102	...	579,111	...	159,492	...	21,991	...	4,686,585	1,797,491 0 0
1822 ...	...	2,257,710	...	967,149	...	341,976	...	129,690	...	60,025	...	558,817	...	168,752	...	19,360	...	4,903,999	1,761,915 0 0
1823 ...	...	2,492,712	...	1,078,824	...	293,730	...	125,036	...	75,686	...	553,110	...	171,681	...	25,650	...	4,815,060	1,807,466 0 0
1824 ...	...	2,517,345	...	1,217,034	...	292,479	...	117,478	...	77,085	...	565,602	...	187,477	...	21,976	...	5,030,991	1,897,953 0 0
1825 ...	...	4,306,719	4 10	1,830,975	4 1	374,544	4 10	167,108	4 10	154,809	4 10	624,870	4 5	209,570	7 3	107,490	4 10	8,099,542	1,818,263 0 0
1826 ...	...	3,833,588	...	1,622,580	...	286,978	...	134,445	...	140,318	...	630,456	...	343,797	...	66,994	...	6,258,445	1,970,118 0 0
1827 ...	...	3,739,193	...	1,908,331	...	300,295	...	152,938	...	156,721	...	698,434	...	311,289	...	76,161	...	6,893,361	1,926,550 0 0
1828 ...	...	3,347,021	...	2,037,628	...	272,977	...	137,553	...	186,257	...	632,086	...	421,169	...	86,305	...	7,140,376	1,936,122 0 0
1829 ...	...	4,189,994	...	1,904,167	...	309,537	...	101,649	...	219,172	...	559,744	...	365,536	...	76,396	...	6,817,495	1,922,402 0 0
1830 ...	...	3,860,918	...	2,011,423	...	311,153	...	101,892	...	257,515	...	585,227	...	368,264	...	65,352	...	6,854,844	1,931,253 0 0
1831 ...	...	2,707,734	5 6	1,089,552	5 6	209,127	5 6	84,803	5 6	259,916	5 6	539,981	4 9	734,366	5 6	57,888	5 6	6,217,661	1,356,208 0 0
1832 ...	...	2,617,305	...	2,080,099	...	159,598	...	72,803	...	254,251	...	514,202	...	228,027	...	38,197	...	5,965,542	1,519,643 0 0
1833 ...	...	2,596,550	...	2,246,085	...	161,017	...	69,671	...	317,995	...	545,191	...	232,550	...	43,758	...	6,907,770	1,620,219 0 0
1834 ...	...	2,780,303	...	2,279,851	...	150,369	...	62,186	...	372,748	...	524,081	...	260,630	...	50,377	...	6,480,544	1,745,520 0 0
1835 ...	...	2,780,971	...	2,270,187	...	139,422	...	52,564	...	374,349	...	502,841	...	271,681	...	48,696	...	6,620,342	1,691,592 0 0
1836 ...	...	2,878,309	...	2,388,413	...	133,673	...	54,583	...	403,155	...	541,511	...	332,063	...	50,454	...	6,811,751	1,748,965 0 0
1837 ...	...	2,575,157	...	2,297,070	...	119,875	...	42,186	...	372,455	...	503,727	...	410,322	...	44,867	...	6,501,560	1,687,397 0 0
1838 ...	...	2,980,467	...	2,497,538	...	110,294	...	37,979	...	370,610	...	538,528	...	417,281	...	57,584	...	6,960,271	1,848,956 0 0
1839 ...	...	2,921,422	...	2,578,997	...	118,715	...	35,178	...	369,417	...	554,184	...	578,636	...	63,957	...	7,220,456	1,849,699 0 0
1840 ...	...	2,668,514	5 9	2,580,760	5 9	124,555	5 9	29,489	5 9	363,774	5 9	466,713	2 11	541,841	5 9	60,040	5 9	6,835,992	1,872,799 0 0
1841 ...	...	2,387,017	...	2,419,821	...	107,701	...	28,157	...	401,439	...	441,258	...	357,740	...	55,742	...	6,194,260	1,801,127 0 0
1842 ...	...	1,588,955	...	2,261,748	...	65,209	...	21,168	...	393,925	...	353,619	...	360,662	...	57,585	...	4,185,272	1,499,305 0 0
1843 ...	...	2,317,709	...	2,311,839	...	98,589	...	30,567	...	416,615	...	332,369	...	328,195	...	49,243	...	6,085,987	1,701,134 0 0
1844 ...	...	2,887,501	...	2,478,160	...	111,377	...	30,660	...	463,585	...	349,257	...	473,789	...	55,805	...	6,838,684	1,909,738 0 0
1845 ...	...	2,688,984	...	2,344,877	...	102,715	...	29,260	...	506,523	...	357,793	...	413,330	...	62,319	...	6,236,131	1,787,360 0 0
1846 ...	...	2,662,776	...	2,602,490	...	95,512	...	30,580	...	508,785	...	365,867	...	469,566	...	64,785	...	6,740,316	1,887,516 0 0
1847 ...	...	2,760,851	...	2,372,478	...	94,560	...	22,931	...	470,029	...	393,016	...	587,269	...	55,274	...	6,955,847	1,946,193 0 0
1848 ...	...	2,446,815	...	2,435,427	...	76,958	...	20,311	...	488,685	...	367,972	...	555,807	...	44,631	...	6,436,047	1,747,409 0 0
1849 ...	...	2,618,242	...	2,418,107	...	71,997	...	19,935	...	441,541	...	341,845	...	351,690	...	46,495	...	6,261,852	1,767,546 0 0
1850 ...	...	2,814,979	...	2,469,038	...	70,590	...	18,241	...	495,056	...	416,132	...	360,718	...	54,668	...	6,442,272	1,821,457 0 0
1851 ...	...	2,544,775	...	2,345,581	...	76,059	...	16,169	...	594,925	...	434,672	...	447,556	...	58,957	...	6,520,653	1,776,246 13 0
1852 ...	...	2,589,390	...	2,606,857	...	69,136	...	15,274	...	587,759	...	549,619	...	675,918	...	58,553	...	6,552,461	1,795,017 19 0
1853 ...	...	2,688,371	5 9	2,815,100	5 9	56,210	5 9	19,692	5 9	592,514	5 9	851,286	2 11	549,524	5 9	71,897	5 9	7,197,870	2,050,075 0 0
1854 ...	...	2,621,992	5 9	2,740,261	5 9	44,871	5 9	11,516	5 9	593,681	5 9	767,564	2 11	587,855	5 9	88,668	5 9	7,149,612	1,914,378 0 0
1855 ...	...	2,344,766	5 9	2,696,137	5 9	33,346	...	8,624	...	497,504	...	850,811	...	572,653	...	87,499	...	6,660,794	1,777,409 0 0
1856 ...	...	2,559,995	...	2,938,740	...	41,687	...	6,993	...	590,501	...	948,824	...	614,797	...	110,495	...	7,903,955	1,969,167 0 0
1857 ...	...	2,504,850	...	2,776,964	...	35,963	...	5,924	...	630,574	...	839,490	...	692,443	...	149,320	...	6,991,660	1,958,892 0 0
1858 ...	...	1,921,627	...	2,657,131	...	33,145	...	3,359	...	720,940	...	885,895	...	671,993	...	139,918	...	6,539,686	1,740,926 0 0
1859 ...	...	2,091,561	...	2,876,554	...	29,506	...	5,248	...	824,409	...	939,571	...	693,913	...	190,351	...	7,571,113	1,842,163 0 0
1860 ...	...	1,778,179	5 0	2,975,906	5 0	28,941	5 0	4,915	5 0	904,960	5 0	963,089	...	1,125,916	5 0	351,344	5 0	8,713,585	1,953,535 0 0
1861 ...	...	2,266,707	*	3,051,796	...	28,814	...	5,766	...	997,266	...	834,483	...	1,272,928	...	445,654	...	10,683,071	1,994,096 0 0
1862 ...	...	2,120,437	†	3,951,124	...	23,950	...	3,503	...	914,557	...	176,735	...	1,387,930	...	573,015	...	9,863,998	1,781,865 0 0
1863 ...	...	2,009,511	...	4,547,180	...	29,669	...	4,349	...	975,559	...	108,937	...	1,940,193	...	660,427	...	12,475,057	1,974,713 0 0
1864 ...	...	2,857,165	...	4,975,646	...	24,236	...	4,778	...	969,498	...	68,433	...	2,305,256	...	696,916	...	11,846,531	1,919,261 0 0
1865 ...	...	2,889,459	...	5,192,042	...	20,950	...	5,604	...	1,071,672	...	41,691	...	2,611,271	...	794,754	...	12,661,263	1,874,859 0 0
1866 ...	...	2,648,781	‡	5,373,125	...	18,410	...	4,217	...	597,660	...	27,091	...	3,366,073	...	730,282	...	13,326,929	1,410,944 0 0
1867 ...	...	2,857,279	...	5,862,339	...	19,801	...	4,509	...	417,907	...	23,820	...	3,595,598	...	786,511	...	13,767,464	1,425,668 0 0

* In 1861 the duty upon all kinds of wine was altered to—

	£ s. d.	
Containing less proof spirit than 18 degrees	1 0	per gal.
26 "	1 9	"
40 "	2 5	"
42 "	2 15	"

† In April, 1862, the duty upon all kinds of wine was altered to—

	£ s. d.	
Containing less than 26 degrees of proof spirit	1 0	per gal.
26 and less than 42 "	1 6	"
and additional for every degree of strength beyond 42 degrees of proof spirit when in bottles and containing less than 42 "	0 8	"
	9 6	"

‡ In May, 1866, the duty on wine in bottles was made the same as on wine in casks.

II.—*Rates of Duty per Gallon on all Wines, since* 1671, *and Differential Duty per Cent. on French and Foreign Wines.*

Years	French Duty	Portuguese Duty	Spanish Duty	Rhenish Duty	Differential Duty per Cent. on French and Portuguese Wines
	s. d.	*s. d.*	*s. d.*	*s. d.*	
1671	0 4	0 4	No account	No account	Equal
1678	0 8	0 8	No account	No account	Equal
1688	1 4	1 8	1 8	1 8	French 20 per cent. less
1693	2 1	1 8	1 8	1 8	25 per cent. more
1697	4 10	2 0	2 1	2 5	136 ,,
1707	5 3	2 5	2 5	2 11	115 ,,
1745	6 0	2 9	2 9	3 4	113 ,,
1782	9 2	4 8½	4 10	5 2	109 ,,
1786	4 10	3 1	3 1	5 2	55 ,,
1824	13 9	9 1	9 1	11 3	50 ,,
1825	7 3	4 10	4 10	4 10	50 ,,
1831	5 6	5 6	5 6	5 6	Equal
1840	5 9	5 9	5 9	5 9	Equal
1850	5 9	5 9	5 9	5 9	Equal
1860	3 0	3 0	3 0	3 0	Equal

For duty since 1860 see the notes appended to Table I.

III.—*Average Annual Revenue from Wine, with the Number of Gallons Consumed, the Population, and the Consumption per Individual, in the United Kingdom during the* 65 *Years ending with* 1849.

Period	Average of Years	Average of Gallons	Average of Revenue	Average of Population	Bottles per Individual per Annum	Duty on Port		Duty on French	
						Per Gallon	Per Pipe 115 Gals.	Per Gallon	Per Pipe 115 Gals.
			£			*s. d. s. d.*	£ £	*s. d. s. d.*	£ £
1787 to 1790	4	5,933,180	864,950	12,500,000	2 9-10ths	5 6 to 5 0	30 to 27	6 2 to 4 6	35 to 26
1791 to 1800	10	6,513,019	1,412,820	14,500,000	2 5-10ths	4 10 to 6 11	25 to 40	7 1 to 9 1	42 to 60
1801 to 1810	10	6,314,085	2,469,739	16,580,994	2 2-10ths	6 9 to 9 1	35 to 52	10 2 to 13 8	58 to 78
1811 to 1820	10	4,921,139	1,971,095	19,754,618	1 5-10ths	9 1	52	13 8 to 13 9	113 to 59
1821 to 1830	10	5,947,785	1,588,806	22,940,950	1 6-10ths	9 1 to 4 10	52 to 28	13 9 to 7 3	59 to 41
1831 to 1840	10	6,805,188	1,774,873	25,345,775	1 5-10ths	5 5 to 5 9	32 to 33	5 6 to 5 9	32 to 33
1841 to 1845	5	6,128,796	1,716,744	27,530,860	1 3-10ths	5 9	33	5 9	33
1846 to 1848	3	6,310,270	1,776,268	29,050,870	1 3-10ths	5 9	33	5 9	33
1849	1	6,251,852	1,767,516	29,105,822	1 2-10ths	5 9	33	5 9	33
1861	1	10,693,071	1,201,696	28,971,362	2 2-10ths	See notes appended to Table I.			
1867	1	13,752,428	1,425,009	30,157,473	2 7-10ths				

IV.—*Account of the Quantities of the Different Varieties of Wine Imported and Retained for Home Consumption in the United Kingdom in* 1867.

From	Imports			Entries for Consumption		
	White Wine	Red Wine	Total	White Wine	Red Wine	Total
	gallons	gallons	gallons	gallons	gallons	gallons
Produce of British Possessions:						
South Africa	4,621	4,746	9,370	20,321	5,569	25,890
Australia	19,339	5,104	24,443	15,551	3,299	18,850
Other British Possessions	39,631	21,468	61,099	25,110	23,940	49,058
Produce of Foreign Countries:						
France	1,078,451	2,693,350	3,771,801	990,707	2,604,891	3,595,598
Portugal	38,832	2,645,706	2,684,538	29,199	2,828,998	2,857,197
Spain	6,134,475	1,195,730	7,330,205	5,181,963	681,246	5,862,339
Madeira	49,349	236	49,585	19,558	266	19,804
Holland	395,066	26,723	421,789	392,291	24,438	416,729
Canary Islands	20,146	161	20,307	4,263	16	4,309
Italy, Sicily	448,467	1,835	450,302	413,190	4,717	417,907
Germany	331,147	80,212	431,859	281,838	87,912	369,782
Other parts	110,880	37,368	147,253	81,671	33,194	114,865
Total imports	8,690,111	6,752,169	15,442,581	7,454,780	6,297,508	13,752,428

V.—*Account of the Price of Wine in Bond in London, December* 2, 1868, *from the Circular of the eminent Brokers Messrs. Matthew Clark & Sons.*

		£	£			£	£
Port: very superior old	pipe	65 to	80	Claret, cargo	hhd.	5 to	10
good old	,,	50	60	Hermitage, red and white (1st growth)	,,	..	..
fair right	,,	30	40	ordinary quality	,,	..	..
good young	,,	25	28	Maudeu	,,	115	..
common do.	,,	22	24	French, red	pipe	12	16
Lisbon	,,	45	50	white	,,	..	..
White port, fine	,,	..	..	Hock, superior	aum	45	60
Red wines, from Oporto	,,	..	..	other qualities	,,	6	30
Lisbon	,,	..	..	Moselle, fine	,,	20	30
White ,, (fine dry)	,,	28	36	other qualities	,,	6	16
(do. rich)	,,	32	38	Madeira, direct fine old	pipe	105	150
Bucellas	,,	36	44	good young	,,	50	80
Carravellos	,,	38	42	fair ,,	,,	30	40
Figueras	,,	..	..	Marsala	,,	16	17
Sherry: fine	butt	100	140	Cape, white, good and fair	,,	..	..
good	,,	60	80	common	,,	..	..
fair	,,	30	50	red, good	,,	..	..
common	,,	16	23	common and fair	,,	..	..
White wines from Cadiz Bay	,,	12	14	Teneriffe, London particular	,,	34	40
Malaga, 1st quality	pipe	..	..	2nd quality	,,	..	25
2nd ,,	,,	18	20	cargo	,,	..	..
Spanish, red (good and fine)	,,	13	18	Fayal, white, good	,,	..	..
(common and fair)	,,	11	16	cargo	,,	..	..
white	,,	11	11	Hambro' red	,,	12	16
Claret, 1st growths 1865's	hhd.	80	85	white	,,	10	13
2nd ,,	,,	55	60	Hungarian, red	hhd.	7	18
other qualities	,,	19	25	white	,,	7	18

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sherry consumed in London was the produce of the *home presses*. Indeed, wines are every day offered for sale at prices at which everyone conversant with the trade knows they could not be afforded were they genuine. Mr. Fleetwood Williams, in his pamphlet on the *Wine Trade* (1824), gave some curious details on this subject.

The increase of the duties in the reigns of William and Anne first gave birth to this discreditable fraternity (see a paper by Addison in the *Tatler*, No. 131). But though adulteration be promoted by, it does not wholly depend on the duties, but will continue so long as the materials used in adulteration are cheaper than the wine, or article adulterated. See as to adulteration of port wine under *Geropiga*; and see also *Reports* of Mr. Secretary Lytton and Mr. Consul Crauford on the same subject, published by the Government in 1867.

The only security against being imposed upon is to deal with respectable houses largely engaged in the trade, to whom a reputation for selling good wine is of ten times more importance than anything they could expect to make by adulteration.

Measures.—According to the system of wine measures that prevailed down to 1826, the gallon contained 231 cubic inches; the tierce, 42 gallons; the puncheon, 84 gallons; the hogshead, 63 gallons; the pipe or butt, 126 gallons; and the tun, 252 gallons. But in the system of measures introduced by the Act 5 Geo. IV. c. 74, the imperial standard gallon contains 277,274 cubic inches; so that the tierce = 35 (very nearly) imperial gallons; the puncheon = 70 (very nearly) ditto; the hogshead = 52½ (very nearly) ditto; the pipe or butt = 105 (very nearly) ditto; and the tun = 210 (very nearly) ditto. [Weights and Measures.]

A very great quantity of wine is sold to the consumer in dozens; much more, indeed, than is sold in any other way; and yet there is no regulation as to the size of bottles—a defect which has occasioned a great deal of abuse. No one doubts the propriety of making all gallons, bushels, &c. of the same capacity; and why should not similar regulations be enforced in the case of measures so universally used as bottles?

No abatement of duties made on account of any damage received by wine. (16 & 17 Vict. c. 107 s. 110.)

Wine for Officers of Navy.—For the quantity of duty-free wine to be allowed to officers of the navy, and the regulations under which it is to be allowed, see ante, Importation and Exportation, and for similar allowances for the merchant service, see Stores.

Regulations as to Mixing, Bottling &c. in Warehouses.—It shall be lawful, with the sanction of the commissioners of customs, and after notice given by the respective importers or proprietors, to draw off any wine or any spirits into reputed quart or pint bottles for exportation only; and to draw off and mix brandy with any wine, not exceeding the proportion of 10 gallons brandy to 100 gallons wine; and also to fill up any casks of wine or spirits from any other casks of the same respectively secured in the same warehouse; and also to rack off any wine from the lees, and mix any wines of the same sort, erasing from the cask all import brands, unless the whole of the wine so mixed be of the same brand; and also to take such samples as may be allowed by the commissioners of customs, with or without entry, and with or without payment of duty, except as the same may eventually become payable as on a deficiency of the original quantity. (16 & 17 Vict. c. 107 s. 105.) Geropiga may be mixed with other wines under the same regulations, and in the same proportions as brandy.

We have borrowed the first part of the comprehensive Table No. I. (p. 1534) from a valuable circular of Thomas George Shaw, Esq. The latter years are taken from parliamentary papers.

Table showing the Quantities of Wine in the Bonded Warehouses of the United Kingdom on December 31, 1866 and 1867, and the Sources whence these Quantities were Imported.

Countries	In Warehouses	
	Dec. 31, 1866	Dec. 31, 1867
	gals.	gals.
British possessions in S. Africa	47,704	26,546
Other British possessions	19,719	18,917
Holland	143,358	115,589
France	1,351,670	1,190,046
Portugal	4,517,930	4,023,616
Madeira	35,390	38,496
Spain	6,268,301	6,544,122
Canaries	5,138	7,702
Italy, including Naples and Sicily	237,766	209,678
Other countries	490,781	503,598
Mixed in bond	771,398	714,534
Total	13,822,155	13,392,734

WOAD (Ger. waid; Dutch, weede; Fr. pastel, guède, vouède; Ital. *guadone*, guado, glastro; Span. pastel, glasto). The *Isatis tinctoria* of botanists, a biennial plant, with a fusiform fibrous root, and smooth branchy stem, rising from 3 to 5 feet in height. Woad is indigenous to most parts of Europe; and was extensively used from a very remote period, down to the general introduction of indigo, in the dyeing of blue. It is still cultivated to a considerable extent in France; but in this country its cultivation is chiefly restricted to a few districts in Lincolnshire. After being bruised by machinery, to express the watery part, it is formed into balls, which ferment and fall into a dry powder, which is sold to the dyer. Woad is now seldom employed without a mixture of indigo. By itself, it is incapable of giving a bright and deep blue colour; but the colour which it does give is very durable. The best methods of conducting the fermentation and preparation of woad are still so very ill understood that the goodness of any parcel of it can never be ascertained till it be actually used; so that it has the disadvantage of being purchased under the greatest uncertainty as to its true value. At the proper age, indigo plants yield about 30 times as much colouring matter, and of a far superior quality, as an equal weight of woad; so that there is no prospect that any improvement that may be made in its preparation will ever render it either in goodness or cheapness, a rival of the former. (Loudon's *Ency. of Agriculture*; Bancroft *On Colours*, vol. i. p. 167.) We have previously [Indigo] given some account of the efforts made by the woad growers to prevent the use of indigo.

WOOD. [Timber.]

WOOL (Ger. wolle; Dutch, wol; Dan. uld; Swedish, ull; Fr. laine; Ital. and Span. lana; Port. lâa: Russ. wolna, scherst; Pol. welna; Lat. lana). A kind of soft hair or down. The term is not very well defined. It is applied both to the fine hair of animals, as sheep, rabbits, some species of goats, the vicuna &c., and to fine vegetable fibres, as cotton. In this article, however, we refer only to the wool of sheep—an article which has continued, from the earliest period down to the present day, to be of primary importance, having always formed the principal part of the clothing of mankind in most temperate regions.

Species of Wool.—It has been customary in

this country to divide wool into 2 great classes —long and short wools; and these again into subordinate classes, according to the fineness of the fibre.

Short wool is used in the cloth manufacture; and is, therefore, frequently called clothing wool. It may vary in length from 1 to 3 or 4 inches; if it be longer, it requires to be cut or broken to prepare it for the manufacture.

The *felting* property of wool is known to every one. The process of hat-making, for example, depends entirely upon it. The wool of which hats are made is neither spun nor woven; but locks of it being thoroughly intermixed and compressed in warm water, cohere and form a solid tenacious substance.

Cloth and woollen goods are made from wool possessing this property; the wool is carded, spun, woven, and then, being put into the fulling mill, the process of felting takes place. The strokes of the mill make the fibres cohere; the piece subjected to the operation contracts in length and breadth, and its texture becomes more compact and uniform. This process is essential to the beauty and strength of woollen cloth. But the long wool of which stuffs and worsted goods are made is deprived of its felting properties. This is done by passing the wool through heated iron combs, which takes away the laminæ or feathery part of the wool, and approximates it to the nature of silk or cotton.

Long or combing wool may vary in length from 3 to 8 inches. The shorter combing wools are principally used for hose, and are spun softer than the long combing wools; the former being made into what is called hard, and the latter into soft worsted yarn.

The fineness of the hair or fibre can rarely be estimated, at least for any useful purpose, except by the wool sorter or dealer, accustomed by long habit to discern those minute differences that are quite inappreciable by common observers. In sorting wools, there are frequently 8 or 10 different species in a single fleece; and if the best wool of one fleece be not equal to the finer sort, it is thrown to 2nd, 3rd, or 4th, or to a still lower sort, of an equal degree of fineness with it. The best English short native fleeces, such as the fine Norfolk and Southdown, are generally divided by the wool sorter into the following sorts, all varying in fineness from each other:—viz. 1. prime; 2. choice; 3. super; 4. head; 5. downrights; 6. seconds; 7. fine abb; 8. coarse abb; 9. livery; 10. short coarse or breech wool. The relative value of each varies according to the greater demand for coarse, fine, or middle cloths.

The softness of the fibre is a quality of great importance. It is not dependent on the fineness of the fibre; and consists of a peculiar feel, approaching to that of silk or down. The difference in the value of 2 pieces of cloth made of 2 kinds of wool equally fine, but one distinguished for its softness and the other for the opposite quality, is such, that, with the same process and expense of manufacture, the one will be worth from 20 to 25 per cent. more than the other. Mr. Bakewell showed that the degree of softness depends principally on the nature of the soil on which sheep are fed: that sheep pastured on chalk districts, or light calcareous soils, usually produce hard wool: while the wool of those that are pastured on rich, loamy, argillaceous soils, is always distinguished by its softness. Of the foreign wools, the Saxon is generally softer than the Spanish. Hard wools are all defective in their *felting* properties.

In clothing wool, the colour of the fleece should always approach as much as possible to the purest white; because such wool is not only necessary for cloths dressed white, but for all cloths that are to be dyed bright colours, for which a clear white ground is required to give a due degree of richness and lustre. Some of the English fine-woolled sheep, as the Norfolk and Southdown, have black or grey faces and legs. In all such sheep there is a tendency to grow grey wool on some part of the body, or to produce some grey fibres intermixed with the fleece, which renders the wool unfit for many kinds of white goods; for though the black hairs may be too few and minute to be detected by the wool sorter, yet when the cloth is stoved they become visible, forming reddish spots, by which its colour is much injured. The Herefordshire sheep, which have white faces, are entirely free from this defect, and yield a fleece without any admixture of grey hairs.

The cleanness of the wool is an important consideration. The Spanish wool, for example, is always scoured after it is shorn; whereas the English wool is only imperfectly washed on the sheep previously to its being shorn. In consequence, it is said that while a pack of English clothing wool of 240 lb. weight will waste about 70 lb. in the manufacture, the same quantity of Spanish will not waste more than 48 lb. Cleanliness, therefore, is an object of much importance to the buyer.

Before the recent improvements in the spinning of wool by machinery, great length and strength of staple was considered indispensable in most combing wools. The fleeces of the long-woolled sheep fed in the rich marshes of Kent and Lincoln used to be reckoned peculiarly suitable for the purposes of the wool-comber: but the improvements alluded to have effected a very great change in this respect, and have enabled the manufacturer to substitute short wool of 3 inches staple, in the place of long combing wool, in the preparation of most worsted articles. A great alteration has, in consequence, taken place in the proportion of long to short wool since 1800; there having been in the interim, according to Mr. Hubbard's calculations (see post), an increase of 132,053 packs in the quantity of the former produced in England, and a decrease of 72,820 in the quantity of the latter.

Whiteness of fleece is of less importance in the long combing than in clothing wool, provided it be free from grey hairs. Sometimes, however, the fleece has a dingy brown colour, called a *winter stain*, which is a sure indication that the wool is not in a thoroughly sound state. Such fleeces are carefully thrown out by the wool sorter: being suitable only for goods that are to be dyed black. The fineness of heavy combing wool is not of so much consequence as its other qualities.

The Merino or Spanish breed of sheep was introduced into this country about the close of the last century. George III. was a great patron of this breed, which was for several years a very great favourite. But it has been ascertained that, though the fleece does not much degenerate here, the carcase, which is naturally ill formed, and affords comparatively little weight of meat, does not improve; and as the farmer, in the kind of sheep which he keeps, must look not only to the produce of wool, but also to the butcher market, he has found it his interest rather to return to the native breeds of his own country, and to give up the Spanish sheep. They have, however, been of considerable service to the flocks of England; having been judiciously crossed with the Southdown, Ryeland &c.

Deterioration or Change in the Character of British Wool.—It appears to be sufficiently es-

tablished, by the evidence taken before the House of Lords in 1828, and other authorities, that a considerable deterioration, or rather, perhaps, change, had taken place in the quality of British wool, particularly during the 30 preceding years. The great object of the agriculturist has been to increase the weight of the carcase and the quantity of the wool; and it seems very difficult, if not quite impossible, to accomplish this without injuring the fineness of the fleece. Mr. Culley said, that the Herefordshire sheep, that produce the finest wool, are kept lean, and yield 1½ lb. each; he added, 'if they be better kept, they grow large and produce more wool, but of an inferior quality.' This would seem to be universally true. The great extension of the turnip husbandry, and the general introduction of a larger breed of sheep, appear, in every instance, to have lessened the value of the fleece. Speaking of the Norfolk fleeces, Mr. Fison, a wool sorter, said, that 25 years ago the weight was 2½ lb. a fleece, and that now it is 3 lb. or 3½ lb. (*Report*, p. 356.) But according to a table furnished by the same gentleman, containing the results of his experience, it appeared that of 15 tods, or 420 lb., of clothing wool grown in Norfolk in 1790, 200 lb. were *prime*, while, in 1828, the same quantity of Norfolk wool only yielded 14 lb. prime. (*Ibid.* p. 207.) The statements of other witnesses were to the same effect. (*Ibid.* pp. 388, 640, and 644.) According to the estimate in Mr. Luccock's *Treatise on English Wool*, which has always enjoyed the highest reputation, the produce of all sorts of wool in England, in 1800, was 384,000 packs, of 240 lb. a pack. But Mr. Hubbard, a very intelligent and extensive wool-stapler at Leeds, has shown that, supposing Mr. Luccock's estimate of the number of sheep to be correct, the quantity of wool produced in 1828 could not, owing to the greater weight of the fleece, be estimated at less than 463,169 packs; and it is now (1869) believed to amount to more than 500,000 packs. It is, therefore, probable, notwithstanding the decline in the price of wool, that, taking into account the greater weight of the carcase, and the greater weight of the fleece, sheep produce more at present to the farmer than at any former period.

Number of Sheep in Great Britain.—It was not possible till the publication of the statistics of agriculture collected by Government to form any accurate estimate either of the number of sheep or of the quantity of wool annually produced. With the exception of Mr. Luccock's, most of the statements put forth with respect to both these points were much exaggerated. But Mr. L.'s estimate, which was considerably under any that had previously appeared, was drawn up with great care; and, as will be seen, approached near to accuracy. According to Mr. Luccock, the

Number of long-woolled sheep in England and Wales in 1800 was	4,153,308	
Number of short-woolled ditto	14,854,299	
Total number shorn		19,007,607

According to the Government returns, the number in England and Wales in 1868 was 23,599,289.

During the last half century a very decided increase has taken place in the number of sheep in Scotland, and a very great improvement in the breed, particularly in the Highlands. In this district, many of the proprietors have let their estates in large farms to *store farmers*, who have introduced the Cheviot breed of sheep, instead of the small black-faced heath breed that was formerly the only one to be met with. We may remark, by the way, that a good deal of unmerited odium has attached to the patrons of this system; for, though it be true that, in a few instances, the peasantry were rudely ejected from their little possessions, there can be no doubt that it has, on the whole, been decidedly advantageous. Besides rendering large tracts of country more valuable to the proprietors and the public generally, the condition and habits of the peasantry have been materially improved. Instead of loitering away more than half their time, as was their former practice, they have now either become the servants of the large farmers, or have resorted to towns and villages, and been metamorphosed into industrious tradesmen, fishermen &c. A very small proportion of the whole has emigrated; and the country is more populous at present than before the sheep farming system began.

In the *General Report of Scotland*, 1814 (vol. iii. Appen. p. 6), the number of sheep is estimated at 2,850,000; but according to the census for 1868, the number was 7,112,112. And in consequence of the rapid extension of the practice of turnip-feeding, both the weight of the carcase and of the fleece have been largely increased.

According to Mr. Wakefield, there was not a single flock of breeding sheep in the whole province of Ulster. (*Account of Ireland*, 1812, vol. i. p. 341.) But according to the latest agricultural statistics, the whole number of sheep in Ireland in 1868 was 4,822,444.

The total number of sheep in Great Britain and Ireland, and including the Isle of Man and Channel Islands, in 1868, was 35,607,812. This number, though above the average, is more than 6,000,000 under that given by Dr. Colquhoun for 1812; but that learned person assigns no grounds whatever for his estimate, which is utterly inconsistent with all the really authentic information on the subject. It is curious enough to observe the German statistical writers referring to Colquhoun's statements, as if they were of standard authority. They would be about as near the mark, were they to quote the *Arabian Nights* in proof of any disputed historical fact.

1800—Short fleeces		193,475	
Long fleeces		131,794	
		325,269	
Short and long, skin and lambs' wool		58,705	
		383,974	
Part of Wales not included in the above tables		9,952	
Increase from 1800 to 1828		69,433	
		463,169	
1800—Packs of short wool		193,475	
1828—Ditto ditto		120,655	
Decrease		72,820	
1828—Short fleeces		120,655	
Long fleeces		263,847	
		384,502	
Short and long, skin and lambs' wool		69,405	
		453,907	
Wales, taken as before		9,262	
		463,169	
1800—Packs of long wool		131,794	
1828—Ditto ditto		263,847	
Increase		132,053	
1800—Total quantity of short wool		193,475	
long wool		131,794	325 269
1828—Total quantity of short wool		120,655	
long wool		263,847	
		384,502	
Increase of wool			59,233 fleece
Increase of skin and lambs' wool			10,700
Total increase			69,933

N.B.—The wool from slaughtered sheep and carrion not mentioned in this table; but allowed for above.

British Trade in Wool.—From 1660 down to 1825, the export of wool was strictly prohibited. A notion grew up towards the end of the 17th and continued to gain ground during the first half of last century, that the wool of England was superior to that of every other country; that long wool could not be produced anywhere else; and that if

Number of Sheep and Quantity of Sheep's Wool produced in England, according to Mr. Luccock's Tables, revised by Mr. Hubbard, and made applicable to 1828.

County	1800					1828		
	Number of Short Wool Sheep	Weight of Fleece	Number of Packs	Number of Long Wool Sheep	Number of Packs	Weight of Fleece	Number of Packs of Short Wool	Number of Packs of Long Wool
Northumberland	538,162	5½lb.	12,333	..	..	5½lb.	6,167	6,166
Durham	159,585	5	3,320	..	..	5½	..	3,818
Ditto	..	9	..	67,200	2,800	8½	..	2,380
Cumberland	378,400	3½	5,913	..	..	5	7,885	..
Westmoreland	223,725	3½	3,262	..	..	3	4,660	..
York, West Riding	385,122	var.	6,678	..	..	5½	4,590	4,589
East do.	306,440	5	6,380	..	..	6	..	7,656
North do.	365,326	var.	5,939	..	..	5	5,708	1,902
Holderness	..	8½	..	84,000	2,800	8	..	2,800
Other part of Yorkshire	..	8	..	14,310	477	8	..	477
Lancaster	310,000	3	4,532	..	..	4½	5,812	..
Chester	65,000	var.	926	..	..	4½	1,218	..
Derby	364,400	3	4,559	..	..	6	..	9,060
Nottingham	253,147	var.	4,112	..	..	6½	..	6,910
Lincoln	145,648	8½	2,833	..	..	8	..	3,091
Ditto, rich land	..	9	..	1,341,625	46,561	9	..	46,561
Ditto, marshes	..	8	..	87,500	2,916	9	..	3,281
Ditto, miscellaneous land	..	8	..	505,657	16,855	6	..	12,641
Rutland	..	5	..	114,000	2,370	6	..	2,850
Northampton	..	6	..	640,000	16,000	6	..	16,000
Warwick	182,962	3	2,967	..	..	6	..	8,674
Ditto	..	5	..	160,000	3,333			
Leicester	20,000	3½	291	..	..	6	..	10,013
Ditto	..	7	..	380,528	11,100			
Oxford	204,584	var.	5,303	..	..	5	..	6,345
Bucks	222,964	3	2,787	..	..	5	..	4,645
Gloucester	355,000	var.	5,400	..	..	6	..	8,875
Ditto	..	8	..	200,000	6,666	8	..	6,666
Somerset	500,700	4½	9,348	..	..	5	5,215	5,216
Worcester	330,504	3½	4,320	..	..	4½	..	6,561
Monmouth	177,619	var.	1,431	..	..	4	..	2,960
Hereford	500,000	2	4,200	..	..	4	2,778	5,555
Shropshire	422,034	2½	4,397	..	..	4	2,344	4,900
Stafford	183,120	2	1,526	..	..	4½	..	3,503
Ditto	..	7	..	5,720	113			
Bedford	204,000	5	4,250	..	..	5	..	4,250
Berks	300,600	3½	4,151	..	..	3½	4,471	..
Huntingdon	108,000	4½	2,000	..	..	5½	..	4,480
Ditto	..	7	..	87,500	2,592			
Cambridge	67,744	4	1,128	..	..	4½	1,270	..
Ditto	..	8	..	41,688	1,390	8	..	1,390
Suffolk	497,000	2½	5,176	..	..	4½	8,801	..
Norfolk	683,704	2	5,697	..	..	4½	4,273	8,546
Ditto	..	7	..	36,500	1,125	7½	..	1,303
Essex	519,000	3	6,486	..	..	4	8,650	..
Hertford	277,000	4½	5,297	..	..	5	2,885	2,885
Middlesex	45,000	4	750	..	..	5	937	..
Kent	524,475	5½	7,000	..	..	4½	..	10,380
Ditto, Romney market	..	7	..	185,000	5,400	6½	..	5,010
Ditto, the marsh	..	7	..	108,330	3,160	6½	..	2,934
Surrey	283,000	3	3,540	..	..	3½	4,127	..
Sussex, downs	316,800	2	2,540	..	..	3	3,960	..
Ditto, lowlands	547,000	3	6,837	..	..	3	6,837	..
Hampshire	516,600	3	6,457	..	..	3	6,457	..
Isle of Wight	61,089	3½	800	..	..	4	1,016	..
Wilts, downs	765,300	2½	6,684	..	..	2½	6,685	..
Ditto, pasture	117,300	3	1,460	..	..	4	1,956	..
Dorset	632,240	3½	9,880	..	..	3½	9,878	..
Devon	436,850	4	7,280	..	..	5	2,275	6,826
Ditto	..	8	..	193,750	6,458	8	..	6,458
Cornwall	203,000	4	3,382	..	..	7	..	5,940
Total	14,851,299		193,475	4,153,308	131,794		120,655	265,847

we succeeded in keeping the raw material at home, we should infallibly command the market of the world for our woollen manufactures. In consequence, innumerable statutes were passed, the enactments in some of which were the most arbitrary and severe that can be imagined, to prevent the clandestine exportation of wool. Mr. John Smith was one of the first who, in his excellent work, entitled *Memoirs of Wool*, exposed the injustice and absurdity of this system, by proving that whatever advantages the manufacturers might gain by preventing the exportation of wool, were more than lost by the agriculturalists. This learned and accurate work contains a great deal of information with respect to the progress of manufactures and commerce in England. But despite Mr. Smith's reasonings, which were enforced by many later writers, and which experience had proved to be in all respects accurate, the prohibition of the exportation of wool was continued till 1825, when Mr. Huskisson happily succeeded in procuring the abolition of this miserable remnant of a barbarous policy. The improvement of machinery, by enabling short or clothing wool to be applied to most of those purposes for which long or combing wool had been exclusively appropriated, had annihilated the only apparently tenable argument on which the prohibition of exportation had ever been vindicated; and even this, it will be observed, applied only to a small proportion of the whole wool produced in England.

Down to 1802, the importation of foreign wool into Great Britain had been quite free; and, being the raw material of an important manufacture, the policy of allowing it to be imported free of duty is obvious. In 1802, however, a duty of 5*s.* 3*d.* per cwt. was laid on all foreign wool imported. In 1813 this duty was raised to 6*s.* 8*d.*; and in 1819 Mr. Vansittart raised it to the enormous amount of 56*s.* per cwt., or to 6*d.* per lb. Had English wool sufficed for all the purposes of the manufacture, such a duty would have been less objectionable; but the very reverse was the case. The use of foreign wool had become, owing to the deterioration, or rather, perhaps, to the change in the character, of British wool, and other circumstances, quite indispensable to the prosecution of the manufacture; and as our superiority over the foreigner in several departments of the trade was by no means decided, it is plain that the imposition of a duty which amounted to about 50 per cent. upon the price of a considerable quantity of the wool we were obliged to import must, had it been persevered in, have ruined the manufacture. It occasioned, indeed, during the period of its continuance, a considerable decline of the exports of woollens, and was productive of other mischievous

effects, from which the manufacture suffered for a considerable period after it was repealed.

The evidence as to the absolute necessity of employing foreign wool, taken before the Lords' committee, was as decisive as can well be imagined. Mr. Gott of Leeds, one of the most extensive and best informed manufacturers in the empire, stated to the committee that, in his own works, he used only foreign wool. On being asked whether he could carry on an export trade to the same extent as at the then present time, if he manufactured his cloth of British wool, Mr. Gott replied that in certain descriptions of cloth '*he could not make an article that would be merchantable at all for the foreign market, or even for the home market, except of foreign wool.*'

The view taken by Mr. Gott of the effect of the importation of foreign wool on the price of British wool was supported by the concurrent testimony of all the manufacturing witnesses examined by the committee. Blankets, flannels of all sorts, baizes, carpets, bearskins &c. are made principally of English wool; and the command of foreign wool enables the manufacturers to use a considerable quantity of English wool in the manufacture of certain descriptions of cloth, which, if made entirely of it, would be quite unsaleable. On Mr. Goodman, a wool-stapler of Leeds, being asked whether, if a duty were laid on foreign wool, it would force the use of English wool in the manufacture of cloths, from which it was excluded, he answered, 'Certainly not: we could not get people to wear such a cloth; they want a better, finer cloth; it is so much handsomer in its wear, and so much more durable.' (*Report*, p. 241.) Mr. Francis, of Heytesbury, declared that there was no demand for cloth made wholly of British wool; that it was principally applicable to the manufacture of blankets, baizes &c.; and that the exclusion of foreign wool would only injure the manufacture without raising the price of British wool. (P. 268.) Statements to the same effect were made by Mr. Webb (p. 270), Mr. Sheppard (p. 294), Mr. Ireland (p. 319), and, in short, by every one of the witnesses conversant with the manufacture.

The history of the manufacture since 1828 has completely confirmed the accuracy of the statements made by Mr. Gott and the other witnesses. Very large quantities of foreign wool have been imported during the interval; but the price of British wool has, notwithstanding, maintained its proper level; and has, in fact, been at an average considerably higher since the reduction and abolition of the duty on foreign wool than previously.

Foreign Wool imported into England.—A very great change has taken place, within the course of the present century, both as respects the quantity of foreign wool imported, and the countries whence it is derived. Previously to 1800 our average imports of wool did not much exceed 3,000,000 lb., mostly brought from Spain, the wool of which long maintained a high character. In 1800 our imports amounted to near 9,000,000 lb.; and they have since gone on gradually increasing, till in 1867 they amounted to 230,224,467 lb. Instead, however, of being principally derived from Spain, as was the case down to 1814, the greater part by far of this immense supply of foreign wool is at present furnished by our Australian and South African colonies, the South American States, and the East Indies. The late King of Saxony, when Elector, introduced the breed of Merino sheep into his dominions, and exerted himself to promote the growth of this valuable race of animals. His praiseworthy efforts have been crowned with the most signal success. The Merino sheep seem to succeed better in Saxony and other German states than in Spain, and have increased so rapidly that the Spanish wool trade has become insignificant compared with that of Germany. The importations of German wool were quite trifling during the war—amounting in 1812 to only 28 lb.; but since the peace they have increased beyond all precedent. In 1814 they amounted to 3,432,456 lb.; in 1820 they were 5,113,442 lb.; in 1825 they rose to 28,799,661 lb.; but this being a year of overtrading, they declined in 1826 to 10,545,232 lb. Subsequently they recovered from this depression, and in 1836 amounted to 31,766,194 lb. They have since, however, sunk very rapidly, principally in consequence of the quickly increasing imports of colonial wool.

The re-exports of foreign wool amounted in 1866 to 66,573,488 lb. In 1867 the re-exports amounted to 90,832,584 lb., but that was much above the average.

The price of Colonial Wool in London in April 1869 was as follows, viz.:—

			s.	d.	s.	d.
Australian.						
Clothing and combing, superior	per lb.		1	8 to	2	2
Fair and good	"		1	4	1	6
Inferior	"		0	11	1	3
Scoured	"		1	7	2	0
Handwashed	"		0	11	1	2
Lambs	"		1	0	2	0
Locks and pieces	"		0	7	1	2
Grease	"		0	6	0	11
Skin	"		1	0	1	3
Cape, average flocks	"		1	1	1	3
Lambs	"		1	0	1	1
Locks and pieces	"		0	7	0	8
Grease	"		0	5	0	7½
East India	"		0	5	1	0
New Zealand	"		0	9	1	3
Grease	"		0	10	1	4

The breed of sheep that was carried out to New South Wales and Van Diemen's Land has succeeded remarkably well; and Australia is already, perhaps, the principal wool-growing country of the world. The imports into Great Britain have increased with extraordinary rapidity. In 1833 they amounted to 3,516,869 lb., in 1839 to 10,128,774 lb., in 1858 to 51,104,560 lb., and in 1867 to 133,108,176 lb. The imports of wool from India only began in 1833, when they amounted to the inconsiderable quantity of 3,721 lb.; but such has been their increase in the interval, that in 1858 they amounted to 17,333,507 lb., and in 1867 to 15,234,620 lb. Of late years Russia has

Account of the Values of Woollen and Worsted Goods and Yarn Exported in different Years from 1718 to 1867. (Baines *On Woollen Manufactures; and Parl. Papers.*)

Years	Manufactured Goods	Woollen and Worsted Yarn	Total Woollen and Worsted Exports	Years	Manufactured Goods	Woollen and Worsted Yarn	Total Woollen and Worsted Exports
	£	£	£		£	£	£
1718 to 1721 Yearly average	Official value. 2,962,000	..	Official value. 2,962,000	1810	5,773,000 Declared value	..	5,773,000 Declared value
1740	3,036,000	..	3,036,000				
1750	4,320,000	..	4,320,000	1820	5,586,000	..	5,586,000
1760	5,453,300	..	5,453,300	1830	4,728,000	122,430	4,851,000
1770	4,113,000	..	4,113,000	1840	5,337,000	453,000	5,790,000
1780	2,389,000	..	2,389,000	1850	8,585,000	1,451,000	10,040,000
1790	5,180,000	..	5,180,000	1860	14,156,998	3,843,459	18,000,448
1800	6,917,000	..	6,917,000	1867	20,134,080	5,822,737	25,956,807

Return of the Rates of Duty Chargeable on Foreign and Colonial Wool from 1818 *down to their Abolition, the Quantities Imported, and the Prices of Southdown and Kent Long Wool, in each Year from* 1818 *to* 1845.

Years	Rates of Duty	Foreign Wool Imported	Colonial Wool Imported	Price of Southdown	Price of Kent Long
		lb.	lb.	per lb. s. d.	per lb. s. d.
1818	3d. per lb.	21,720,139	..	2 6	2 0
1819	6d. per lb.	6,491,999	..	1 7	1 5
1820	..	9,963,566	122,239	1 5	1 4
1821	..	16,116,806	205,761	1 3	1 1
1822	..	18,359,265	198,815	1 3	1 11
1823	..	18,563,896	502,859	1 3½	1 0
1824	Dec., 1824, 1d. per lb. of 1s. value. 4d. per lb. under 1s. value.	22,147,540	416,945	1 2	1 1
1825	Colonial free.	43,465,282	331,684	1 4	1 4
1826	..	14,747,103	1,242,009	0 10	0 11
1827	..	28,552,742	597,592	0 9	0 10½
1828	..	28,628,121	1,607,958	0 8	1 0
1829	..	19,659,629	1,377,020	0 6	0 9
1830	..	30,303,173	2,002,141	0 10	0 10½
1831	..	29,110,073	2,541,956	1 1	0 10
1832	..	25,681,298	2,461,191	1 0	1 0½
1833	..	34,161,527	3,614,886	1 5	0 10½
1834	..	42,681,932	3,770,580	1 7	1 7½
1835	..	37,172,032	4,702,600	1 6	1 6
1836	..	57,814,771	6,485,206	1 8	1 8½
1837	..	38,945,575	9,451,133	1 5	1 3
1838	..	42,450,102	10,164,253	1 4	1 5
1839	..	41,501,811	12,875,112	1 4	1 5½
1840	..	36,498,164	12,938,116	1 3	1 2½
1841	..	39,672,153	16,498,821	1 0	0 11
1842	..	27,594,990	18,186,719	0 11½	0 10
1843	..	26,633,943	21,151,148	0 11½	0 11
1844	From June 6, free	42,473,228	22,606,296	1 2	1 2
1845	..	44,970,793	31,845,762	1 4	1 5

Prices of Southdown Fleeces in the Month of July in each Year from 1854 *to* 1868, *both inclusive, per Pack of* 240 *lb.*

Years	Ewe and Wether Fleeces	Teg Fleeces	Years	Ewe and Wether Fleeces	Teg Fleeces
	£ s. £ s.	£ s. £ s.		£ s. £ s.	£ s. £ s.
1854	11 0 to 12 0	12 0 to 12 10	1862	17 0 to 17 10	18 0
1855	14 6 14 10	14 0 15 0	1863	19 10 21 0	20 10 to 22 0
1856	15 10 16 15	16 10 17 5	1864	24 0 25 0	26 0 28 0
1857	17 0 18 0	18 0 20 0	1865	20 10 21 10	20 10 21 0
1858	13 10 14 0	14 10 15 0	1866	17 0 17 10	18 0 20 0
1859	16 0 17 10	18 0 19 0	1867	16 0 17 0	17 0 17 10
1860	17 0 18 10	19 0 21 0	1868	15 0 16 0	15 10 to 16 10
1861	15 0 16 0	16 10 17 0			

Account of the Quantities of Wool (Sheep, Lamb, and Alpaca) Imported into the United Kingdom from Various Countries during each Year from 1844 *to* 1867, *specifying the Countries from which it came, and the Quantities brought from each.*

Years	Spain	Germany, viz. Mecklenburg, Hanover, Oldenburg, and Hanse Towns &c.	Other Countries of Europe	British Possessions in South Africa	British Possessions in the East Indies	British Settlements in Australia	South America	Other Countries	Total
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1844	918,853	21,847,684	15,313,087	2,197,143	2,763,855	17,602,217	3,760,063	1,308,831	65,713,761
1845	1,074,440	18,481,736	17,606,515	3,512,924	3,973,566	24,177,517	6,468,538	1,513,619	76,808,855
1846	1,020,176	15,888,703	11,737,011	2,958,457	4,570,581	21,789,346	4,890,573	2,404,023	65,255,162
1847	424,408	12,673,814	7,955,697	3,477,594	5,063,142	26,056,815	7,295,550	1,665,780	64,609,598
1848	106,638	14,149,161	7,021,098	5,497,250	5,897,435	30,034,567	8,851,211	966,487	70,864,847
1849	127,599	12,750,011	11,172,554	5,577,495	4,182,863	35,729,171	6,011,725	1,001,679	76,268,647
1850	440,751	9,166,751	8,703,582	5,709,529	5,473,392	39,018,221	5,796,648	2,518,396	74,326,778
1851	385,150	8,219,236	14,265,156	5,816,591	4,549,520	41,810,117	4,850,048	3,120,157	83,311,925
1852	255,413	12,765,253	13,382,140	6,588,796	7,880,784	43,197,501	6,952,689	3,661,082	97,761,458
1853	154,146	11,581,800	26,861,166	7,221,148	12,160,969	47,076,010	9,740,032	4,357,978	119,599,449
1854	421,360	11,488,518	14,481,483	8,265,598	14,286,101	47,489,650	6,134,334	2,934,921	106,121,995
1855	68,750	6,128,926	8,119,408	11,075,965	14,285,535	49,142,306	7,106,709	3,375,148	99,300,146
1856	55,000	8,687,781	14,480,869	14,301,188	15,586,578	52,054,139	8,076,517	3,167,430	116,411,592
1857	397,238	6,088,092	25,802,420	14,287,328	19,570,741	49,209,655	9,306,886	7,247,028	129,749,898
1858	110,510	10,595,186	17,926,859	16,907,504	17,535,207	51,104,560	10,046,581	3,024,216	126,738,225
1859	151,874	19,820,557	18,659,273	14,269,343	14,762,403	53,700,481	9,711,174	2,606,531	133,281,636
1860	1,000,227	18,458,188	17,454,604	16,574,715	20,214,173	59,165,939	8,890,940	6,657,861	148,396,577
1861	630,551	4,458,856	17,739,392	18,676,256	19,161,404	68,296,223	12,339,151	5,664,396	147,172,841
1862	39,699	10,855,246	28,515,292	18,930,886	17,959,404	71,550,092	12,339,606	11,807,967	171,913,472
1863	256,115	9,004,505	20,012,506	20,166,617	20,670,111	77,173,416	18,141,551	11,078,011	177,577,662
1864	712,141	11,265,020	25,419,684	19,880,905	20,145,555	99,017,459	19,252,537	10,500,044	206,473,045
1865	115,611	8,980,925	21,882,926	29,220,325	17,100,617	109,731,261	17,818,186	7,348,898	212,200,747
1866	123,058	12,886,079	26,841,755	29,249,009	25,679,969	113,772,691	21,048,982	9,757,802	239,558,689
1867	494,049	4,185,077	19,514,190	36,170,099	15,234,680	133,108,176	21,245,768	6,399,565	236,351,544

The re-exports of foreign wool amounted in 1866 to 66,567,913 lb. In 1858 they amounted to 26,587,428 lb.

become of primary importance among the wool-exporting countries, especially from her ports on the Black Sea. We said in a previous edition that provided tranquillity were maintained in South Africa, the probability was that it would in no very lengthened period rival New South Wales as a wool-exporting country. This anticipation has been more than realised, the imports having increased from 2,197,143 lb. in 1844, to 36,170,099 lb. in 1867, while the imports of wool from New South Wales in 1867 were 32,080,437 lb. Alpaca, and other wools of that sort, chiefly come from Peru; goats' wool comes principally from Turkey, but the best is that of Thibet.

WOOLLEN MANUFACTURE. The art of forming wool into cloth and stuffs. This has always ranked as an important branch of national industry; and until surpassed by the cotton manufacture, was decidedly the most important of all the manufactures carried on in England.

Rise and Progress of the British Woollen Manufacture. Exports.—There can be no doubt that the arts of spinning wool, and manufacturing the yarn into cloth, were introduced into England by the Romans, the inhabitants being previously clothed only in skins. From the period of the Romans quitting England down to the tenth century there are no notices of the manu-

facture; and those relating to the period from the tenth to the thirteenth century are but few and imperfect. It is certain, however, that the manufacture of broad cloths was established soon after the year 1200, if not previously. (Smith's *Memoirs of Wool*, i. 17.) But the woollen manufactures of Flanders being at this period, and long afterwards, in a comparatively advanced state, English wool was exported in large quantities to Bruges and other Flemish cities, whence fine cloths and other products were brought back in exchange. Edward III. took the most judicious measures for improving the English manufacture by inviting over Flemish weavers, fullers, dyers, and others, and protecting them from the assaults of the rabble. Shortly after the first immigration of Flemings, or in 1337, an Act was passed, prohibiting the wear of any cloths made beyond sea, and interdicting the export of English wool. (*Ibid.* i. 25.) But in these turbulent times such restraining Acts were little better than a dead letter; and this, indeed, was soon after repealed. (*Ibid.* i. 32, 39.) From this remote period the manufacture has always been regarded as of primary importance, and has been the object of the especial solicitude of the legislature. It may be doubted, however, whether it has derived any real advantage from the numberless statutes that have been passed in the view of contributing to its advancement. With the exception indeed of the prohibition of the export of English wool, which was finally put a stop to in 1660, the other Acts, being mostly intended for the regulation of the manufacture, could not be otherwise than mischievous; and the benefit derived by the manufacturers from the prohibition was more apparent than real; inasmuch as it occasioned a diminished growth of wool, at the same time that it was impossible to prevent its clandestine exportation. Mr. Smith has proved that the manufacture made a far more rapid progress during the reign of Elizabeth, when wool might be freely carried out of the kingdom, than it ever did during any equal period subsequent to the restriction on exportation. Foreign wool began to be imported in small quantities in the thirteenth century.

At first the manufacture seems to have been pretty equally distributed over the country. In an insurrection that took place in 1525, more than 4,000 weavers and other tradesmen are said to have assembled out of Laneham, Sudbury, and other towns in Suffolk. The manufacture had been previously introduced into Yorkshire. In 1533 an Act was passed (34 & 35 Hen. VIII. c. 10), reciting 'that the city of York afore this time had been upholden principally by making and weaving of coverlets, and the poor thereof daily set on work in spinning, carding, dyeing, weaving &c.;' and the manufacture, having spread into other parts, was 'thereby debased and discredited;' and enacting, as a remedy for this evil, that henceforth 'none shall make coverlets in Yorkshire but inhabitants of the city of York!' This may be taken as a fair specimen of the commercial legislation of the time. Indeed, it was enacted, nearly at the same period, that the manufacture should be restricted, in Worcestershire, to Worcester and 4 other towns. Worsted goods, so called from Worsted, now an inconsiderable town in Norfolk, where the manufacture was first set on foot, were produced in the reign of Edward II., or perhaps earlier; but Norwich soon after became, and, notwithstanding the competition and superior advantages of Bradford, is still, a principal seat of this branch of the manufacture. In an Act of Henry VIII. (33 Hen. VIII. c. 16) worsted yarn is described as 'the private commodity of the city of Norwich.' In 1614 a great improvement took place in the woollen manufacture of the West of England by the invention of what is called medley or mixed cloth, for which Gloucestershire is still famous. During the reign of Charles II. there were many, though unfounded, complaints of the decay of the manufacture; and, by way of encouraging it, an Act was passed (30 Ch. II. st. i. c. 3) ordering that all persons should be buried in woollen shrouds. This Act, the provisions of which were subsequently enforced, preserved its place on the statute book for more than 130 years.

Towards the end of the 17th century, Mr. Gregory King and Dr. Davenant (*Davenant's Works*, Whitworth's ed. ii 233) estimated the value of the wool shorn in England at 2,000,000*l.* a-year: and they supposed that the value of the wool (including that imported from abroad) was quadrupled in the manufacture: making the entire value of the woollen articles annually produced in England and Wales 8,000,000*l.*, of which about 2,000,000*l.* were exported. In 1700 and 1701, the official value of the woollens exported amounted to about 3,000,000*l.* a-year. Owing to the vast increase of wealth and population, the manufacture must have been very greatly extended during last century; but the increase in the amount of exports was comparatively inconsiderable. At an average of the 6 years ending with 1789, the official value of the exports was 3,544,160*l.* a-year, being only about 540,000*l.* above the amount exported in 1700. The extraordinary increase of the cotton manufacture soon after 1780, and the extent to which cotton articles then began to be substituted for those of wool, though it did not occasion any absolute decline of the manufacture, no doubt contributed powerfully to check its progress. In 1802 the official value of the exports rose to 7,321,012*l.*, being a larger amount than any to which they attained for several subsequent years. In 1836 the declared value of the exports rose to 7,639,354*l.*, but it again fell back. The exports during the 3 years ending with 1852 were nearly stationary, their average amount being 8,562,688*l.* a-year. Although, therefore, it be not true, as has sometimes been contended, that the manufacture, taken as a whole, had declined, it had not down to that date increased rapidly; and might, indeed, be regarded as being in a nearly stationary state.

Value of the Manufacture. Number of Persons employed.—The most discordant estimates have been given as to both these points. For the most part, however, they have been grossly exaggerated. In a tract published in 1739, entitled *Considerations on the Running* (Smuggling) *of Wool*, the number of persons engaged in the manufacture is stated at 1,500,000, and their wages at 11,737,500*l.* a-year. Dr. Campbell, in his *Political Survey of Great Britain*, published in 1774, observes—'Many computations have been made upon this important subject, and, amongst others, one about 30 years since, which, at that time, was thought to be pretty near the truth. According to the best information that can be obtained, there may be from 10,000,000 to 12,000,000 sheep in England—some think more. The value of their wool may, one year with another, amount to 3,000,000*l.*; the expense of manufacturing this may probably be 9,000,000*l.*, and the total value 12,000,000*l.* We may export annually to the value of 3,000,000*l.*, though one year we exported more than 4,000,000*l.* In reference to the number of persons who are maintained by this manufacture, they are probably upwards of 1,000,000. Sanguine men will judge

these computations too low, and few will believe them too high.' (ii. 158.) But the moderation displayed in this estimate was very soon lost sight of. In 1800 the woollen manufacturers objected strenuously to some of the provisions in the treaty of union between Great Britain and Ireland, and were allowed to urge their objections at the bar of the House of Lords, and to produce evidence in their support. Mr. Law (afterwards Lord Ellenborough), the counsel employed by the manufacturers on this occasion, stated in his address to their Lordships, on information communicated to him by his clients, that 600,000 packs of wool were annually produced in England and Wales, worth, at 11*l.* per pack, 6,600,000*l.*; that the value of the manufactured goods was 3 times as great, or 19,800,000*l.*; that not less than 1,500,000 persons were immediately engaged in the operative branches of the manufacture; and that the trade collaterally employed about the same number of hands. (*Account of the Proceedings of the Merchants, Manufacturers &c.* p. 34.)

It is astonishing that reasonable men, conversant with the manufacture, should have put forth such ludicrously absurd statements. We have already seen that the quantity of wool produced in England and Wales, in 1800, did not really amount to 400,000 packs; and the notion that *three* out of the *nine* millions of people *then* in the country were directly and indirectly employed in the manufacture is too ridiculous to deserve notice, though it was generally acquiesced in at the time. (Middleton's *Survey of Middlesex*, 2nd ed. p. 644; Adolphus's *British Empire*, iii. 236 &c.)

Mr. Stevenson, who is one of the very few writers on British statistics to whose statements much deference is due, gave the following estimate of the value of the woollen manufactured goods annually produced in England and Wales, and of the interest &c. of the capital, and the number of persons employed in the manufacture:

	£	£
Total value of manufactured articles		18,000,000
Value of raw material	£6,000,000	
Interest on capital, sum to replace its wear and tear, and manufacturers' profits	2,100,000	
Wages of workmen	9,900,000	
		18,000,000

Number of people employed, 480,000, or perhaps 500,000.

But even this estimate required to be materially modified. Taking Scotland into account, and allowing for the increase of population and of exportation from the time Mr. Stevenson's estimate was made, the total value of the various descriptions of woollens annually produced in Great Britain might have been moderately estimated in 1858 at from 25,000,000*l.* to 27,000,000*l.*, or 26,000,000*l.* at a medium. We have further been assured by high practical authorities, that Mr. Stevenson's distribution of the items was essentially erroneous; and that, assuming the value of the manufacture to have been 26,000,000*l.*, it was made up nearly as follows:—

	£	£
Total value of manufactured articles		26,000,000
Raw material, 110,000,000 lb. British wool at 1*s.* 3*d.* per lb., and 60,000,000 do. foreign at 2*s.*	12,875,000	
Wages	7,725,000	
Oil, dye stuffs, soap &c.	1,200,000	
Profits, sum to replace wear and tear of capital &c.	4,200,000	
		26,000,000

But this estimate is exclusive of the value of shoddy stuffs, which might perhaps have amounted to about 2,000,000*l.*

The wages of the workpeople amounted to about 30*l.* a-year, making the total number employed (ex those in the shoddy trade) about 257,500.

Mr. Baines, M.P., has, in his valuable account of the woollen manufactures of the United Kingdom (*Statistical Journal*, xxiii. p. 83), given the following elaborate estimate of their value (ex the worsted manufactures) in 1858:—

lb.		£
(1.) Raw Material:—		
75,903,666	Foreign and colonial wool	4,717,492
80,000,000	British wool, at 1*s.* 3*d.* per lb.	5,000,000
45,000,000	Shoddy and mungo:— 30,000,000 lb. shoddy, at 2½*d.* per lb.; 15,000,000 lb. mungo, at 4½*d.* per lb.	609,370
	Cotton and cotton warps, 1-50th of the wool	206,537
200,903,666		
(2.)	Dye wares, oil, and soap	1,500,000
(3.)	Wages—150,000 work-people, at 12*s.* 6*d.* per week	4,875,000
(4.)	Rent, wear and tear of machinery, repairs, coal, interest on capital, and profit, 20 per cent. on the above	3,381,680
	Total	20,290,079

Looking to the vast increase in the exports since 1858, as shown in the subjoined table, the gross value of the woollens annually produced in the United Kingdom may *now* (1869) be set down at from 36,000,000*l.* to 37,000,000*l.*

An Account of the Quantity and Values of the Woollen and Worsted Manufactures and Woollen Yarn of British Produce Exported from the United Kingdom in each of the 8 Years ending with 1867.

	1860	1861	1862	1863	1864	1865	1866	1867
Woollen Manufactures.								
Cloths of all kinds, coatings &c. pcs.	563,738	568,261	832,668	yd. 27,762,256	29,615,556	29,615,689	32,514,558	31,189,209
Mixed stuffs, flannels &c. yd.	87,987,962	74,539,631	76,926,351	16,215,951	16,926,187	13,525,057	13,367,805	11,126,055
Worsted stuffs pieces	2,619,715	2,193,566	3,863,606	yd. 165,818,683	197,287,388	233,077,649	227,275,818	207,043,947
Woollen and worsted yarn lb.	27,533,968	27,512,352	27,821,378	32,542,609	31,821,296	31,671,254	27,400,905	37,434,020
Values.	£	£	£	£	£	£	£	£
Cloths of all kinds, coatings &c.	2,971,596	2,961,402	4,475,122	5,964,910	4,533,519	4,023,954	5,303,602	5,327,378
Mixed stuffs, flannels &c.	3,536,566	3,712,697	415,281	1,318,801	1,396,715	1,074,818	1,039,204	859,519
Worsted stuffs	4,101,918	3,406,311	5,877,278	8,335,285	10,797,865	13,360,607	13,295,791	12,144,998
Other kinds	1,548,918	1,035,352	2,450,750	1,870,180	1,805,400	1,645,551	2,159,620	1,769,040
Total	12,156,998	11,118,762	13,248,431	15,489,174	18,533,497	20,104,730	21,796,217	20,120,932
Woollen and worsted yarn	3,843,451	3,552,976	3,852,998	5,087,295	5,117,377	5,429,501	4,744,102	5,822,996

The United States, the Hanse Towns, Holland and Belgium, but especially the first, are by far the largest markets for our woollen and worsted goods. British North America, Australia, and China also, take considerable quantities. Yarn is principally sent to the Hanse Towns, Holland, Russia, Hanover, and Belgium.

In 1820 the total exports of yarn amounted to only 3,924 lb., and in 1825 to 76,961 lb., whereas in 1867 they amounted to no fewer than 37,436,487 lb. of woollen and worsted yarn—an increase all but unparalleled in the history of industry.

Account of the Declared Value of the Woollen Manufactures, exclusive of Woollen and Worsted Yarn, Exported from the United Kingdom in the under-mentioned Years, ending with 1867.

Years	Value	Years	Value
	£		£
1820	5,586,139	1850	8,588,690
1825	6,185,648	1851	8,377,183
1830	4,728,666	1856	7,718,374
1835	6,810,511	1860	12,156,998
1840	5,347,883	1865	20,104,730
1845	7,698,118	1867	20,134,090

The different progress of the exports of manufactured goods and yarn depends, no doubt, on various causes; but principally, we believe, on the change, previously noticed, that has taken place in the character of our wool, which fits it much better than formerly for being made into worsted yarn, which is almost the only description of yarn that is exported. The operation of this change is evinced in a still more striking manner by comparing the export of cloth, properly so called, with that of stuffs, in the undermentioned years.

		1816	1826	1840	1857
Exports of cloth	pieces	636,761	384,348	215,716	605,963
stuffs	yds.	595,308	1,138,588	1,218,617	2,568,102

While in 1867, the return being given in yards, 31,189,209 yards of cloth, and 200,467,067 yards of stuffs, were exported.

It is obvious that this declining or stationary amount on the one hand, and continued and rapid increase on the other, must have been occasioned by the operation of some powerful and permanent cause; and none such can be assigned other than the decreasing suitableness of British wool *for* being made into cloth, and its increasing suitableness for being made into worsted yarn and stuffs. We do not think that the duty on wool had, when it existed, much influence either one way or the other.

Latterly the stuff trade has made great progress. This has been mainly occasioned by the change of fashion in this and other countries, by which stuffs made of a mixture of cotton and worsted, and cotton and silk, have been largely substituted for cloths, and the home and foreign demand for them proportionally increased. In so far, indeed, as the extraordinary extension of the stuff trade depends on this change, it cannot, perhaps, be regarded as resting on any very solid foundation. But it is on the whole abundantly obvious that the export trade in cloth has declined; and that it is only in the stuff trade and in the production of yarn that we have decided superiority over foreigners. For an account of the recent history of the woollen trade, see the 2nd vol. of Bischoff's *History of the Woollen and Worsted Manufactures*, a useful work formed on the plan of Smith's *Memoirs of Wool*, but neither so learned nor so able.

Shoddy and Mungo Trade.—The greater number, perhaps, of our readers may never have heard of that branch of the woollen manufacture called the ***shoddy and mungo trade***, which has grown up of late years, and is now of very considerable value and importance. It is principally carried on at Batley, where it originated, and at Dewsbury, which has become the head-quarters of the business. Cloths, whether of shoddy or mungo, are made either wholly or in part of old, or worn, wool; the former, or those called shoddy, consisting of the wool of soft goods, such as stockings, flannels &c.; and the latter, or those called mungo, consisting of the wool of hard goods, that is of the different descriptions of cloth. The latter is more valuable than the former, the price of shoddy averaging about 2½*d.* per lb., whereas the mean price of mungo is about 5*d.* per lb. The old cloths or rags having been collected, and subjected to various processes, are torn to pieces by the aid of powerful machinery, and reduced to their original state of wool; and this wool, being respun, either with or without an admixture of fresh wool, is again made into cloth. Formerly this sort of cloth was used only for padding and such like purposes: but now it is made into blankets, flushings, druggets, carpets and table covers, cloth for pilot and Petersham great coats &c. The clothing of the army, and the greater proportion of that of the navy, consist in part of the same material, which in fact is occasionally worn by everybody. Large quantities of shoddy cloth are exported. Great improvements have been effected of late years, not only in the fabric of the cloth, but also in the dyes: this is especially seen in the cloth for soldiers' uniforms, which is no longer of a brick-dust colour, but makes a much nearer approach to scarlet. The beautiful woollen table covers are made wholly of old wool, being printed by *aqua fortis* from designs drawn in London and Manchester, and cut on holly and other blocks on the spot.

It must, however, be observed that, though the cloth made from old, may look as well as that made from new wool, it has neither the strength nor tenacity of the latter. It is seldom that old wool is used singly; generally it is mixed up with new wool in proportions varying from 10 to 50 or 60 per cent., according to the purposes to which it is to be applied; and if the old wool be not in excess, the capacity of the cloth for wear is but little affected.

No honest manufacturer will, of course, substitute old for new wool in the manufacture of any sort of goods without apprising his customers of the fact. But this is all that he is required to do; and there cannot be a doubt that, speaking generally, the substitution of old for new wool is, in very many cases, highly advantageous.

The analogy between this manufacture and that of paper is so striking, that it must force itself on the attention of every one: the vilest and most worthless materials being converted in both into the most beautiful and useful fabrics. The shoddy trade is, in fact, one of the triumphs of art and civilisation.

'The manufacture,' says Mr. Baines, 'has forced its way, and made Batley, Dewsbury, and the neighbourhood the most prosperous parts of the woollen district. There are now in Batley *alone* 50 rag machines in 35 mills, producing no less than 12,000,000 lb. of rag-wool *per annum*; and I am assured, on good authority, that 3 times this quantity is made in the district. The rags are gathered from all parts of the kingdom, as well as imported regularly from the Continent, America, and Australia. There is now, also, a considerable manufacture of the shoddy, or rag-wool, in Germany, and it is believed that no less than 9 or 10 million lb. weight were imported last year.'

WRECK. In Navigation, is usually understood to mean any ship or goods driven ashore, or found floating at sea in a deserted or unmanageable condition. But in the legal sense of the word in England, *wreck* must have come to land; when at sea, it is distinguished by the barbarous appellations of *flotsam*, *jetsam*, and *lagan*. [FLOTSAM.]

In nothing, perhaps, has the beneficial influence of the advance of society in civilisation been more apparent than in the regulations with respect to the persons and property of shipwrecked individuals. In most rude and uncivilised countries their treatment has been cruel in the extreme. Amongst the early Greeks and Romans, strangers and enemies were regarded in the same point of view. (Hostis apud antiquos, peregrinus dicebatur. Pomp. *Festus*; see also Cicero *de Offic.* lib. i. c. 12.) Where such inhospitable sentiments prevailed, the conduct observed towards those who were shipwrecked could not be otherwise than barbarous; and in fact they were, in most in-

stances, either put to death or sold as slaves. But as law and good order grew up, and commerce and navigation were extended, those who escaped from the perils of the sea were treated in a way less repugnant to the dictates of humanity; and at length the Roman law made it a capital offence to destroy persons shipwrecked, or to prevent their saving the ship; and the stealing even of a plank from a vessel shipwrecked or in distress made the party liable to answer for the whole ship and cargo. (*Pand.* 47, 9, 3.)

During the gloomy period which followed the subversion of the Roman empire, and the establishment of the northern nations in the southern parts of Europe, the ancient barbarous practices with respect to shipwreck were everywhere renewed. Those who survived were in most countries reduced to servitude: and their goods were everywhere confiscated for the use of the lord on whose manor they had been thrown. (Robertson's *Charles V.*, i. note 29.) But nothing, perhaps, can so strongly evince the prevalence and nature of the enormities, as the efforts that were made, as soon as governments began to acquire authority, for their suppression. The regulations as to shipwreck in the Laws of Oleron are, in this respect, most remarkable. The 35th and 38th articles state, that 'pilots, in order to ingratiate themselves with their lords, did, like faithless and treacherous villains, sometimes willingly run the ship upon the rocks &c.;' for which offence they are held to be accursed and excommunicated, and punished as thieves and robbers. The fate of the lord is still more severe. 'He is to be apprehended, his goods confiscated and sold, and himself fastened to a post or stake in the midst of his own mansion-house, which being fired at the four corners, all shall be burned together: the walls thereof be demolished; the stones pulled down; and the site converted into a market place, for the sale only of hogs and swine, to all posterity.' The 31st article recites, that when a vessel was lost by running on shore, and the mariners had landed, they often, instead of meeting with help, 'were attacked by people more barbarous, cruel, and inhuman than mad dogs; who, to gain their moneys, apparel, and other goods, did sometimes murder and destroy these poor distressed seamen. In this case, the lord of the country is to execute justice by punishing them in their persons and their estates; and is commanded to plunge them in the sea till they be half dead, and then to have them drawn forth out of the sea and stoned to death.'

Such were the dreadful severities by which it was attempted to put a stop to the crimes against which they were directed. The violence of the remedy shows better than anything else how inveterate the disease had become.

But the fact that divines did not scruple to prostitute religious worship by praying that the adjacent coasts might be enriched with shipwrecks, affords, perhaps, the most striking proof of the barbarism of the times referred to. And incredible as it may seem, this practice was continued down to a comparatively recent epoch. 'Cependant il y a encore en Allemagne des pays où la coutume de confisquer les biens naufragés n'est point encore abolie. Il y a même des endroits où les ministres prédicateurs ne font pas difficulté de prier Dieu en chaire qu'il se fasse bien des naufragés sur leurs côtes. Et ces prières Thomasius a entrepris sérieusement de les justifier; mais par des raisons si singulières, qu'elles ne valoient pas la peine que Barbeyrac a prise de les refuter.' (Valin, *Commentaire sur l'Ordonnance de* 1681, ii. 586. See also Puffendorf, '*Droit de la Nature et des Gens*,' *par Barbeyrac*, ii. 706.)

The law of England, like that of other modern countries, adjudged wrecks to belong to the king. But the rigour and injustice of this law were modified so early as the reign of Henry I., when it was ruled that if any person escaped alive out of the ship, it should be no wreck. And after various modifications, it was decided, in the reign of Henry III, that if goods were cast on shore, having any marks by which they could be identified, they were to revert to the owners, if claimed any time within a year and a day. By the statute 27 Ed. III. c. 13, if a ship be lost and the goods come to land, they are to be delivered to the merchants, paying only a reasonable reward or SALVAGE to those who saved or preserved them. But these ancient statutes, owing to the confusion and disorder of the times, were very ill enforced; and the disgraceful practices previously alluded to continued to the middle of last century.

A statute of Anne (12 Anne st. 2 c. 18), confirmed by the 4 Geo. I. c. 12, in the view of putting a stop to the atrocities in question, orders all head officers and others of the towns near the sea, upon application made to them, to summon as many hands as are necessary, and send them to the relief of any ship in distress, on forfeiture of 100*l.*; and in case of any assistance given, salvage is to be assessed by 3 justices, and paid by the owners. Persons secreting any goods cast ashore are to forfeit treble their value; and if they wilfully do any act by which the ship is lost or destroyed, they are guilty of felony without benefit of clergy. But even this statute seems not to have been sufficient to accomplish the end in view; and in 1753 a new statute (26 Geo. II. c. 19) was enacted, the preamble of which is as follows: 'Whereas, notwithstanding the good and salutary laws now in being against plundering and destroying vessels in distress, and against taking away shipwrecked, lost, or stranded goods, many wicked enormities have been committed, to the disgrace of the nation, and the grievous damage of merchants and mariners of our own and other countries, be it' &c.: and it is then enacted, that the preventing of the escape of any person endeavouring to save his life, or wounding him with intent to destroy him, or putting out false lights in order to bring any vessel into danger, shall be capital felony. By the same statute, the pilfering of any goods cast ashore is made petty larceny.

We regret, however, to have to state that the plunder of shipwrecked property is still by no means uncommon on the British coasts. The Committee on Shipwrecks in 1843 stated that 'there is on many parts of the coast a want of that moral principle which should inculcate a just regard for the rights of such property. It is looked upon as a chance gift, which every one has a right to scramble for as he can, notwithstanding the laws which have been passed, from the earliest period, to prevent or punish such depredations. The plunder of shipwrecked property on the coasts has been carried on to an enormous extent, and this seems to have arisen from there having been no persons on the spot, when a wreck had taken place, to look after the property.' The Committee state that the establishment of the coast-guard has done much to repress these abuses. The latter, however, cannot legally interfere, except when the cast-away articles are subject to Customs' duties; and the Committee suggest that all abandoned property should be vested in the Government in trust for those to

whom it may belong, as is done in France and Holland. (*Report of Committee* of 1843, p. viii.)

Since this report was published the law in regard to shipwreck and salvage has been twice consolidated and embodied; first in the Act 9 & 10 Vict. c. 99, and more recently in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104, the latter being slightly modified by the 49th sec. of 25 & 26 Vict. c. 63. The reader will find in the art. SALVAGE a full account of the rules and regulations laid down in the 3 last-mentioned statutes in regard to that important subject; and we now beg to subjoin those which have reference to the conduct to be pursued in regard to wrecks.

Inquiries to be instituted in Cases of Wreck and Casualty.—In any of the cases following, viz.:—

Whenever any ship is lost, abandoned, or materially damaged on or near the coasts of the United Kingdom:

Whenever any ship causes loss or material damage to any other ship on or near such coasts:

Whenever by reason of any casualty happening to or on board of any ship on or near such coasts loss of life ensues:

Whenever any such loss, abandonment, damage, or casualty happens elsewhere, and any competent witnesses thereof arrive or are found at any place in the United Kingdom:

It shall be lawful for the inspecting officer of the coast-guard or the principal officer of Customs residing at or near the place where such loss, abandonment, damage, or casualty occurred, if the same occurred on or near the coasts of the United Kingdom, but if elsewhere at or near the place where such witnesses as aforesaid arrive or are found or can be conveniently examined, or for any other person appointed for the purpose by the Board of Trade, to make inquiry respecting such loss, abandonment, damage, or casualty; and he shall for that purpose have all the powers given by this Act to inspectors appointed by the said Board. (Sec. 432.)

Formal Investigation before Justices.—If it appear to such officer or person as aforesaid, either upon or without any such preliminary inquiry, that a formal investigation is necessary or expedient, or if the Board of Trade so directs, he shall apply to any 2 justices or to a stipendiary magistrate to hear the case; and such justices or magistrate shall thereupon proceed to hear and try the same, and shall for that purpose, so far as relates to the summoning of parties, compelling the attendance of witnesses, and the regulation of the proceedings, have the same powers as if the same were a proceeding relating to an offence or cause of complaint upon which they or he have power to make a summary conviction or order, or as near thereto as circumstances permit; and it shall be the duty of such officer or person to superintend the management of the case, and to render such assistance to the said justices or magistrate as is in his power; and, upon the conclusion of the case, the said justices or magistrate shall send a report to the Board of Trade, containing a full statement of the case and of their or his opinion thereon, accompanied by such report of or extracts from the evidence, and such observations (if any) as they or he may think fit. (Sec. 433.)

Power to appoint Nautical Assessor.—In cases where nautical skill and knowledge are required, the Board of Trade shall have the power, either at the request of such justices or magistrate, or at its own discretion, to appoint some person of nautical skill and knowledge to act as assessor to such justices or magistrate; and such assessor shall, upon the conclusion of the case, either signify his concurrence in their report by signing the same, or if he dissent therefrom shall signify such dissent and his reasons therefor to the Board of Trade. (Sec. 434.)

Stipendiary Magistrate to be Member of Local Marine Board, and to be paid.—In places where there is a Local Marine Board, and where a stipendiary magistrate is a member of such Board, all such investigations shall, whenever he happens to be present, be made before such magistrate; and there shall be paid to such magistrate in respect of his services under this Act such remuneration, whether by way of annual increase of salary or otherwise, as her Majesty's Secretary of State for the Home Department, with the consent of the Board of Trade, may direct; and such remuneration shall be paid out of the Mercantile Marine Fund. (Sec. 435.)

Costs of such Investigations.—The said justices or magistrate may make such order with respect to the costs of any such investigation or any portion thereof as they or he may deem just, and such costs shall be paid accordingly, and shall be recoverable in the same manner as other costs incurred in summary proceedings before them or him; and the Board of Trade may, if in any case it thinks fit so to do, pay the expense of any such investigation, and may pay to such assessor such remuneration as it thinks fit. (Sec. 436.)

Investigations in Scotland.—In the case of any such investigation being held in Scotland, the Board of Trade may remit the same to the Lord Advocate to be prosecuted in such manner as he may direct, and in case he so requires, with the assistance of such persons of nautical skill and knowledge as the Board of Trade may appoint for the purpose. (Sec. 437.)

Master or Mate may be required to deliver Certificate &c.—Such justices or magistrate as aforesaid may, or in Scotland such person or persons as is or are directed by the Lord Advocate to conduct the investigation may, if they or he think fit, require any master or mate possessing a certificate of competency or service whose conduct is called in question or appears to them or him likely to be called in question in the course of such investigation, to deliver such certificate to them or him, and they or he shall hold the certificate so delivered until the conclusion of the investigation, and shall then either return the same to such master or mate, or, if their report is such as to enable the Board of Trade to cancel or suspend such certificate under the powers given to such Board by this Act, shall forward the same to the Board of Trade, to be dealt with as such Board thinks fit; and if any master or mate fail so to deliver his certificate when so required, he shall incur a penalty not exceeding 50*l*. (Sec. 438.)

Board of Trade Superintendents of Wreck, with power to appoint Receivers.—The Board of Trade shall throughout the United Kingdom have the general superintendence of all matters relating to wreck; and it may, with the consent of the Commissioners of her Majesty's Treasury, appoint any officer of Customs, or of the coast-guard, or of the inland revenue, or, when it appears to such Board to be more convenient, any other person, to be a receiver of wreck in any district, and to perform such duties as are herein mentioned, and shall give due notice of every such appointment. (Sec. 439.)

Admiral not to interfere with Wreck.—No admiral, vice-admiral, or other person, under whatever denomination, exercising admiralty jurisdiction, shall as such, by himself or his

agents, receive, take, or interfere with any wreck except as herein mentioned. (Sec. 440.)

Duty of Receiver when any Ship is Stranded or in Distress.—Whenever any ship or boat is stranded or in distress at any place on the shore of the sea or of any tidal water within the limits of the United Kingdom, the receiver of the district within which such place is situate shall, upon being made acquainted with such accident, forthwith proceed to such place, and upon his arrival there he shall take the command of all persons present, and assign such duties to each person, and issue such directions, as he may think fit with a view to the preservation of such ship or boat, and the lives of the persons belonging thereto, and the cargo and apparel thereof; and if any person wilfully disobeys such directions, he shall forfeit a sum not exceeding 50*l.*; but it shall not be lawful for such receiver to interfere between the master of such ship or boat and his crew in matters relating to the management thereof, unless he is requested so to do by such master. (Sec. 441.)

Powers of Receiver in Case of Accident to any Ship or Boat.—The receiver may, with a view to such preservation as aforesaid of the ship or boat, persons, cargo, and apparel, do the following things (that is to say):—

1. Summon such number of men as he thinks necessary to assist him:

2. Require the master or other person having the charge of any ship or boat near at hand to give such aid with his men, ship, or boats, as may be in his power:

3. Demand the use of any waggon, cart, or horses that may be near at hand;

And any person refusing without reasonable cause to comply with any summons, requisition, or demand so made, shall for every such refusal incur a penalty not exceeding 100*l.*; but no person shall be liable to pay any duty of assessed taxes in respect of any such waggon, cart, or horses by reason of the user of the same under this section. (Sec. 442.)

Articles washed on Shore, or lost &c. to be delivered to Receiver.—All cargo and other articles belonging to such ship or boat, that may be washed on shore, or otherwise be lost or taken from such ship or boat, shall be delivered to the receiver; and any person, whether he is the owner or not, who secretes or keeps possession of any such cargo or article, or refuses to deliver the same to the receiver or to any person authorized by him to demand the same, shall incur a penalty not exceeding 100*l.*; and it shall be lawful for such receiver or other person as aforesaid to take such cargo or article by force from the person so refusing to deliver the same. (Sec. 443.)

Receiver to suppress Plunder and Disorder by Force.—Whenever any such accident occurs to any ship or boat, and any person plunders, creates disorder, or obstructs the preservation of such ship, boat, lives, or cargo, it shall be lawful for the receiver to cause such person to be apprehended, and to use force for the suppression of any such plundering, disorder, or obstruction, with power to command all her Majesty's subjects to assist him in the use of such force; and if any person is killed, maimed, or hurt by reason of his resisting the receiver in the execution of the duties hereby committed to him, or any person acting under his orders, such receiver or other person shall be free and fully indemnified as well against the Queen's Majesty, her heirs and successors, as against all persons so killed, maimed, or hurt. (Sec. 444.)

Certain Officers to exercise Power of Receiver.—During the absence of the receiver from the place where any such accident as aforesaid occurs, or in places where no receiver has been appointed under this Act, the following officers in succession, each in the absence of the other, in the order in which they are named, viz. any principal officer of Customs or of the coast-guard, or of inland revenue, and also any sheriff, justice of the peace, commissioned officer on full pay in the naval service of her Majesty, or commissioned officer on full pay in the military service of her Majesty, may do all matters and things hereby authorized to be done by the receiver, with this exception, that with respect to any goods or articles belonging to any such ship or boat, the delivery up of which to the receiver is herein required, any officer so acting shall be considered as the agent of the receiver, and shall place the same in the custody of the receiver; and no person so acting as substitute for any receiver shall be entitled to any fees payable to receivers, or be deprived by reason of his so acting of any right to salvage to which he would otherwise be entitled. (Sec. 445.)

Power, in Case of a Ship being in Distress, to pass over adjoining Lands with Carriages.—Whenever any accident as aforesaid occurs to any ship or boat, all persons may, for the purpose of rendering assistance to such ship or boat, or saving the lives of the persons on board the same, or the cargo or apparel thereof, unless there be some public road equally convenient, pass and repass either with or without carriages or horses over any adjoining lands, without being subject to interruption by the owner or occupier, so that they do as little damage as possible, and may also, on the like condition, deposit on such lands any cargo or other article recovered from such ship or boat; and all damage that may be sustained by any owner or occupier in consequence of any such passing or repassing or deposit as aforesaid shall be a charge on the ship, boat, cargo, or articles in respect of or by which such damage was occasioned, and shall, in default of payment, be recoverable in the same manner as salvage is hereby made recoverable; and the amount payable in respect thereof, if disputed, shall be determined in the same manner as the amount of salvage is hereby in case of dispute directed to be determined. (Sec. 446.)

Penalty on Owners &c. o Land refusing to allow Carriages &c. to pass over their Land.—If the owner or occupier of any land over which any person is hereby authorised to pass or repass for any of the purposes hereinbefore mentioned does any of the following things (that is to say):—

1. Impedes or hinders any such person from so passing or repassing, with or without carriages, horses, and servants, by locking his gates, refusing, upon request, to open the same, or otherwise however:

2. Impedes or hinders the deposit of any cargo or other article recovered from any such ship or boat as hereinbefore mentioned:

3. Prevents such cargo or other article from remaining so deposited for a reasonable time, until the same can be removed to a safe place of public deposit:

He shall for every such offence incur a penalty not exceeding 100*l.* (Sec. 447.)

Power of Receiver to institute Examination &c.—Any receiver, or in his absence any justice of the peace, shall, as soon as conveniently may be, examine upon oath (which oath they are hereby respectively empowered to administer) any person belonging to any ship which may be or may have been in distress on the coasts of the United

Kingdom, or any other person who may be able to give any account thereof or of the cargo or stores thereof, as to the following matters; viz.:

1. The name and description of the ship.
2. The names of the master and of the owners.
3. The names of the owners of the cargo.
4. The ports or places from and to which the ship was bound.
5. The occasion of the distress of the ship.
6. The services rendered.
7. Such other matters or circumstances relating to such ship, or to the cargo on board the same, as the receiver or justice thinks necessary.

And such receiver or justice shall take the examination down in writing, and shall make two copies of the same, of which he shall send one to the Board of Trade, and the other to the Secretary of the Committee of Lloyd's in London, and such last-mentioned copy shall be placed by the said secretary in some conspicuous situation for the inspection of persons desirous of examining the same; and for the purposes of such examination every receiver or justice as aforesaid shall have all the powers given by this Act to inspectors appointed by the Board of Trade. (Sec. 448.)

Original or certified Copy of Examination to be primâ facie Evidence.—An examination so taken in writing as aforesaid, or a copy thereof, purporting to be certified under the hand of the receiver or justice before whom such examination was taken, shall be admitted in evidence in any court of justice, or before any person having by law or by consent of parties authority to hear, receive, and examine evidence, as primâ facie proof of all matters contained in such written examination. (Sec. 449.)

Rules to be observed by Persons finding Wreck.—The following rules shall be observed by any person finding or taking possession of wreck within the United Kingdom; viz.:

1. If the person so finding or taking possession of the same is the owner, he shall as soon as possible give notice to the receiver of the district within which such wreck is found, stating that he has so found or taken possession of the same; and he shall describe in such notice the marks by which such wreck is distinguished.

2. If any person not being the owner finds or takes possession of any wreck, he shall as soon as possible deliver the same to such receiver as aforesaid.

And any person making default in obeying the provisions of this section shall incur the following penalties; (that is to say)

3. If he is the owner and makes default in performing the several things, the performance of which is hereby imposed on an owner,

He shall incur a penalty not exceeding 100*l.*

4. If he is not the owner and makes default in performing the several things, the performance of which is hereby imposed on any person not being an owner,

He shall forfeit all claim to salvage.

He shall pay to the owner of such wreck, if the same is claimed, but if the same is unclaimed then to the person entitled to such unclaimed wreck, double the value of such wreck (such value to be recovered in the same way as a penalty of like amount); and

He shall incur a penalty not exceeding 100*l.* (Sec. 450.)

Receivers to seize concealed Wreck.—If any receiver suspects or receives information that any wreck is secreted or in the possession of some person who is not the owner thereof, or otherwise improperly dealt with, he may apply to any justice of the peace for a warrant, and such justice shall have power to grant a warrant, by virtue whereof it shall be lawful for the receiver to enter into any house or other place wherever situate, and also into any ship or boat, and to search for, and to seize and detain any such wreck as aforesaid there found; and if any such seizure is made in consequence of information that may have been given by any person to the receiver, the informer shall be entitled by way of salvage to such sum, not exceeding in any case 5*l.*, as the receiver may allow. (Sec. 451.)

Notice of Wreck to be given by Receiver.—Every receiver shall within 48 hours after taking possession of any wreck cause to be posted up in the custom-house of the port nearest to the place where such wreck was found or seized a description of the same and of any marks by which it is distinguished, and shall also, if the value of such wreck exceeds 20*l.*, but not otherwise, transmit a similar description to the Secretary of Lloyd's aforesaid; and such secretary shall post up the description so sent, or a copy thereof, in some conspicuous place, for the inspection of all persons desirous of examining the same. (Sec. 452.)

Goods perishable or of small Value may be sold immediately.—In cases where any wreck in the custody of any receiver is under the value of 5*l.*, or is of so perishable a nature or so much damaged that the same cannot, in his opinion, be advantageously kept, or if the value thereof is not sufficient to defray the charge of warehousing, the receiver may sell the same before the expiration of the period after mentioned, and the money raised by such sale, after defraying the expenses thereof, shall be held by the receiver for the same purposes and subject to the same claims for and to which the article sold would have been held and liable if it had remained unsold. (Sec. 453.)

Where any Lord of the Manor or other Person is entitled to unclaimed Wreck, Receiver to give him Notice.—In cases where any admiral, vice-admiral, lord of the manor, or other person is entitled for his own use to unclaimed wreck found on any place situate within a district for which a receiver is appointed, such admiral, vice-admiral, lord of the manor, or other person shall deliver to such receiver a statement containing the particulars of his title, and the address to which notices are to be sent; and upon such statement being so delivered, and proof made to the satisfaction of the receiver of the validity of such title, it shall be his duty, whenever he takes possession of any wreck found at any such place, to send within 48 hours thereafter a description of the same and of any marks by which it is distinguished, directed to such address as aforesaid. (Sec. 454.)

Payments to be made to Receiver.—There shall be paid to all receivers appointed under this Act the expenses properly incurred by them in the performance of their duties, and also in respect of the several matters specified in the table annexed to this Act, such fees not exceeding the amounts therein mentioned, as may from time to time be directed by the Board of Trade; and the receiver shall have the same lien and be entitled to the same remedies for the recovery of such expenses and fees as a salvor has or is entitled to in respect of salvage due to him; but, save as aforesaid, no receiver appointed under this Act shall, as such, be entitled to any remuneration whatsoever. (Sec. 455.)

Sums payable to Receiver to be determined by Board of Trade.—Whenever any dispute arises in any part of the United Kingdom as to the amount payable to any receiver in respect of expenses or fees, such dispute shall be determined

by the Board of Trade, whose decision shall be final. (Sec. 456.)

Application of Fees.—All fees received by any receiver appointed under this Act, in respect of any services performed by him as receiver, shall be carried to and form part of the Mercantile Marine Fund, and a separate account thereof shall be kept, and the moneys arising therefrom shall be applied in defraying any expenses duly incurred in carrying into effect the purposes of this Act, and in such manner as the Board of Trade directs. (Sec. 457.)

For the regulations as to salvage see SALVAGE.

In case of Shipwrecked Property being plundered by a tumultuous Assemblage, Hundred to be liable in Damages.—Whenever any ship or boat is stranded or otherwise in distress on or near the shore of any sea or tidal water in the United Kingdom, and such ship or boat, or any part of the cargo or apparel thereof, is plundered, damaged, or destroyed by any persons riotously and tumultuously assembled together, whether on shore or afloat, full compensation shall be made to the owner of such ship, boat, cargo, or apparel, as follows:—

In England, by the inhabitants of the hundred, wapentake, ward, or district in the nature of a hundred, by whatever name denominated, in or nearest to which the said offence is committed, in manner provided by the 7 & 8 Geo. IV. c. 31, in case of the destruction of churches and other buildings by a riotous assemblage, or as near thereto as circumstances permit:

In Ireland, by the inhabitants of the county, county of a city or town, barony, town or towns, parish or parishes, in or nearest to which such offence is committed, in manner provided by the 3 & 4 Wm. IV. c. 37 s. 72, for the recovery of satisfaction and amends for the malicious demolition of or injury to churches, chapels, and other buildings used for religious worship, according to the usage of the United Church of England and Ireland, or as near thereto as circumstances permit.

In Scotland, by the inhabitants of the county, city, or borough in or nearest to which such offence is committed, in manner provided by the 1 Geo. I. st. 2 c. 5 with respect to prosecutions for repairing the damages of any churches and other buildings, or as near thereto as circumstances permit.

Penalty for plundering in Cases of Shipwreck &c.—Every person who does any of the following acts, viz.:

1. Wrongfully carries away or removes any part of any ship or boat stranded or in danger of being stranded or otherwise in distress on or near the shore of any sea or tidal water, or any part of the cargo, or apparel thereof, or any wreck; or

2. Endeavours in any way to impede or hinder the saving of such ship, boat, cargo, apparel, or wreck; or

3. Secretes any wreck, or obliterates or defaces any marks thereon:

Shall, in addition to any other penalty or punishment he may be subject to under this or any other Act or law, for each such offence incur a penalty not exceeding 50*l.*; and every person, not being a receiver or a person hereinbefore authorised to take the command in cases of ships being stranded or in distress, or not acting under the orders of such receiver or person, who, without the leave of the master, endeavours to board any such ship or boat as aforesaid, shall for each offence incur a penalty not exceeding 50*l.*; and it shall be lawful for the master of such ship or boat to repel by force any such person so attempting to board the same. (Sec. 478.)

Penalty for selling Wreck in Foreign Ports.—If any person takes into any foreign port or place any ship or boat stranded, derelict, or otherwise in distress on or near the shore of the sea or of any tidal water situate within the limits of the United Kingdom, or any part of the cargo or apparel thereof, or anything belonging thereto, or any wreck found within such limits as aforesaid, and there sells the same, he shall be guilty of felony, and be subject to penal servitude for a term not exceeding 4 years. (Sec. 479.)

Regulations to be observed by Dealers in Marine Stores.—Every person dealing in buying and selling anchors, cables, sails, or old junk, old iron, or marine stores of any description, shall conform to the following regulations, viz.:

1. He shall have his name, together with the words 'Dealer in Marine Stores,' painted distinctly in letters of not less than 6 inches in length on every warehouse or other place of deposit belonging to him.

If he does not, he shall incur a penalty not exceeding 20*l.*

2. He shall keep a book or books fairly written, and shall enter therein an account of all such marine stores as he may from time to time become possessed of, stating, in respect of each article, the time at which and the person from whom he purchased or received the same, adding, in the case of every such last-mentioned person, a description of his business and place of abode.

If he does not, he shall incur for the first offence a penalty not exceeding 20*l.*, and for every subsequent offence a penalty not exceeding 50*l.*

3. He shall not, by himself or his agents, purchase marine stores of any description from any person apparently under the age of sixteen years.

If he does so, he shall incur for the first offence a penalty not exceeding 5*l.*, and for every subsequent offence a penalty not exceeding 20*l.*

4. He shall not cut up any cable, or any similar article, exceeding 5 fathoms in length, or unlay the same into twine or paper stuff, on any pretence whatever, without obtaining such permit and publishing such notice of his having so obtained the same as is after mentioned.

If he does so, he shall incur for the first offence a penalty not exceeding 20*l.*, and for every subsequent offence a penalty not exceeding 50*l.*

Manner of obtaining Permit to cut up Cables.—In order to obtain such permit as aforesaid, a dealer in marine stores shall make a declaration before some justice of the peace having jurisdiction over the place where such dealer resides containing the following particulars, viz.:

1. A statement of the quality and description of the cable or other like article about to be cut up or unlaid.

2. A statement that he purchased or otherwise acquired the same bonâ fide and without fraud, and without any knowledge or suspicion that the same had been come by dishonestly.

3. A statement of the name and description of the person from whom he purchased or received the same.

And it shall be lawful for the justice before whom any such declaration is made, or for the receiver of the district in which such dealer in marine stores resides, upon the production of any such declaration as aforesaid, to grant a permit authorising him to cut up or unlay such cable or other like article. (Sec. 481.)

Permit to be advertised before Dealer proceeds to act thereon.—No dealer in marine stores who has obtained permit as aforesaid shall proceed to cut up or unlay any cable or other like article until

be has for the space of one week at the least before doing any such act published in some newspaper published nearest to the place where he resides one or more advertisements notifying the fact of his having obtained a permit, and specifying the nature of the cable or other article mentioned in the permit, and the place where the same is deposited, and the time at which the same is intended to be cut up or unlaid; and if any person suspects or believes that such cable or other article is his property, he may apply to any justice of the peace for a warrant; and such justice of the peace may, on the applicant making oath, or, if a person entitled to make an affirmation, making an affirmation in support of such his suspicion or belief, grant a warrant by virtue whereof the applicant shall be entitled to require the production by such dealer as aforesaid of the cable or other article mentioned in the permit, and also of the book of entries before directed to be kept by every dealer in marine stores; and, upon such cable or other article and book of entries being produced, to inspect and examine the same; and if any dealer in marine stores makes default in complying with any of the provisions of this section, he shall for the first offence incur a penalty not exceeding 20*l.*, and for every subsequent offence a penalty not exceeding 50*l.* (Sec. 482.)

Manufacturers to place Marks on Anchors.—Every manufacturer of anchors shall, in case of each anchor which he manufactures, mark in legible characters on the crown and also on the shank under the stock his name or initials, with the addition of a progressive number and the weight of such anchor; and if he makes default in doing so, he shall for each offence incur a penalty not exceeding 5*l.* (Sec. 483.) [ANCHORS.]

Foreign Goods found derelict to be subject to the same Duties as on Importation.—All wreck, being foreign goods brought or coming into the United Kingdom, or the Isle of Man, shall be subject to the same duties as if the same were imported into the United Kingdom or the Isle of Man respectively; and if any question arises as to the origin of such goods, they shall be deemed to be the produce of such country as the Commissioners of Customs may upon investigation determine. (Sec. 499.)

Goods saved from Ships wrecked to be forwarded to their original Destination.—The Commissioners of Customs and Excise shall permit all goods, wares, and merchandise saved from any ship stranded or wrecked on its homeward voyage to be forwarded to the port of its original destination, and all goods, wares, and merchandise saved from any ship stranded or wrecked on its outward voyage to be returned to the port at which the same were shipped; but such commissioners are to take security for the due protection of the revenue in respect of such goods, wares, and merchandise. (Sec. 500.)

Number of Shipwrecks.—The loss of property by shipwreck is very great. It appears from an examination of *Lloyd's List* from 1793 to 1829, that the losses in the British mercantile navy only, amounted, at an average of that period, to about 577 vessels a-year, of the aggregate burden of about 66,000 tons, or to above $\frac{1}{40}$ of its entire amount in ships and tonnage. The following accounts contain notices of late disasters:—

The abstract published by the Government furnishes the following details with regard to losses at sea in some late years. During the 5 years ending with 1867, the wrecks and casualties were:—

Years	Wrecks	Collisions	Total	Total Lives Lost
1863	1,660	331	2,001	620
1864	1,590	351	1,701	516
1865	1,656	384	2,012	696
1866	1,260	422	2,279	296
1867	1,676	414	2,090	1,333

The number of casualties in each month of 1867 was:—

	vessels.		vessels.
January -	- 548	Brought forward	- 1,390
February -	- 164	August -	- 49
March -	- 299	September -	- 150
April -	- 137	October -	- 222
May -	- 102	November -	- 253
June -	- 59	December -	- 490
July -	- 61	Total -	- 2,513
	1,390		

Representing 464,212 tons, and employing 19,974 hands, of whom 1,333 perished.

In 1867 the wrecks and casualties were:—

	vessels.
Totally wrecked - - - -	- 656
Partially damaged, more or less seriously	- 1,020
Total - - - -	- 1,676

The number of 1,676 wrecks, other than collisions, is in excess of the wrecks and casualties of any former year, and is at the rate of more than 4 per diem.

The number of wrecks in each month of 1866 is thus given:—

	vessels.		vessels.
January -	- 382	Brought forward	- 1,161
February -	- 227	August -	- 61
March -	- 113	September -	- 139
April -	- 92	October -	- 113
May -	- 60	November -	- 245
June -	- 68	December -	- 211
July -	- 51	Total -	- 1,990
	1,161		

In this year 896 hands perished.

In 1858 there were 1,170 wrecks, of which 404, including 50 sunk by collision, were total losses. Happily only 840 lives were lost.

Estimating the vessels totally lost, with those that have been abandoned and broken up, at 600 a-year, and 200 tons burden at an average, and their value, including that of their cargoes, at 20*l.* a ton, the entire loss would amount to 2,400,000*l.*, to which a further and considerable sum must be added to repair the damage done to those ships which have escaped with less, though still serious injury. Hence, apart from the loss of life, which varies from about 500 to 800 and 1,200 hands a-year, the avoidance or diminution of wrecks is a matter of no little importance.

This result might, in some degree, be effected by building better and stronger ships, supplying them with improved compasses &c., and by opening harbours of refuge on the parts of the coast where these disasters mostly occur. No doubt, however, the abuse of insurance, with the carelessness, ignorance, and drunkenness of the masters and crews, are the great sources of loss; and nothing will do so much to obviate these as the plan now adopted of making the grant of a certificate of fitness, after undergoing an examination by a public board, indispensable to enable any individual to be appointed to the command of a ship (ante: MASTER). Provided always that the examination be properly conducted; if not, it will be worse than useless.

During the last war with France, 32 ships of the line went to the bottom, beside 7 fifty-gun ships, 86 frigates, and a vast number of smaller vessels. And the losses sustained by the navies of France, Spain, Holland, Denmark &c., must have very greatly exceeded those of ours. Hence, as Sir Charles Lyell has observed, it is probable that a greater number of monuments of the skill and industry of man will, in the course of ages, be collected together in the bed of the ocean, than will be seen at one time on the surface of the continents. (*Principles of Geology*, 7th ed. p. 728.)

Y

YARD. A long measure used in England, of 3 feet, or 36 inches. [WEIGHTS AND MEASURES.]

YARN (Ger. garn; Dutch, garen; Fr. fil; Ital. filato; Span. hilo; Port. fio; Russ. prasha). Wool, cotton, flax, &c., spun into thread. We export very large quantities of yarn. [COTTON; LINEN; &c.]

Z

ZAFFER or ZAFRE. After the sulphur, arsenic, and other volatile parts of cobalt, have been expelled by calcination, the residuum is sold, mixed or unmixed with fine sand, under the above name. When the residuum is melted with siliceous earth and potash, it forms a kind of blue glass, known by the name of smaltz [SMALTZ], of great importance in the arts. When smaltz is ground very fine, it receives in commerce the name of *powder blue*. Zaffer, like smaltz, is employed in the manufacture of earthenware and china, for painting the surface of the pieces a blue colour. It suffers no change from the most violent fire. It is also employed to tinge the crystal glasses, made in imitation of opaque and transparent precious stones, of a blue colour. It is almost wholly brought from Germany. In 1867 the imports of zaffer amounted to 223 cwt., the exports being only 13 cwt. A duty of 1*s.* per cwt. on its being imported was repealed in 1846.

ZEA, INDIAN CORN or MAIZE. [MAIZE.]

ZEALAND, NEW. [AUCKLAND; COLONIES.]

ZEDOARY (Ger. zittwer; Fr. zédoaire; Ital. zedoaria; Span. cedoaria; Arab. judwar; Hin. nirbisi). The root of a plant which grows in Malabar, Ceylon, Cochin-China &c., of which there are three distinct species. It is brought home in pieces of various sizes, externally wrinkled, and of an ash colour, but internally of a brownish red. Those roots which are heavy and free from worms are to be chosen; rejecting those which are decayed and broken. The odour of zedoary is fragrant, and somewhat like that of camphor; the taste biting, aromatic, and bitterish, with some degree of acrimony. It was formerly employed in medicine, but is scarcely ever used by modern practitioners. (Milburn's *Orient. Com.*)

ZINC or SPELTER (Ger. zink; Fr. zinc; Span. zinco, cinck; Russ. schpianter; Lat. zincum). A metal of a brilliant white colour, with a shade of blue, composed of a number of thin plates adhering together. When this metal is rubbed for some time between the fingers, they acquire a peculiar taste, and emit a very perceptible smell. It is rather soft; tinging the fingers, when rubbed upon them, with a black colour. The specific gravity of melted zinc varies from 6·861 to 7·1, the lightest being esteemed the purest. When hammered, it becomes as high as 7·1908. This metal forms, as it were, the limit between the brittle and the malleable metals. Its malleability is by no means to be compared with that of copper, lead, or tin; yet it is not brittle, like antimony or arsenic. When struck with a hammer, it does not break, but yields, and becomes somewhat flatter; and by a cautious and equal pressure, it may be reduced to pretty thin plates, which are supple and elastic, but cannot be folded without breaking. When heated to about 400°, it becomes so brittle that it may be reduced to powder in a mortar. It possesses a certain degree of ductility, and may, with care, be drawn out into wire. Its tenacity is such that a wire whose diameter is equal to $\frac{1}{10}$ inch is capable of supporting a weight of about 26 lb. Zinc has never been found in a state of purity. The word zinc occurs for the first time in the writings of Paracelsus, who died in 1541; but the method of extracting it from its ores was not known till the early part of last century. (Thomson's *Chemistry*; see also Ure's *Dictionary* by Hunt.) The compounds of zinc and copper are of great importance. [BRASS.]

Manufacture of Zinc &c.—The material used by the English manufacturer is blende, or black jack (sulphuret of zinc); it is commonly found with lead, and is procured of the best quality in Flintshire and the Isle of Man. Besides its employment in the manufacture of brass, bell metal, and other important compounds, zinc has of late years been formed into plates, and applied to many purposes for which lead was formerly used, such as the roofing of buildings, the manufacture of water-spouts, dairy pans &c. Foreign zinc, being less brittle, is better fitted for rolling than that of England.

The duties on spelter, which were formerly prohibitory, were reduced in 1832 to 2*l.* per ton on that formed into plates or cakes, and to 10*s.* on what is crude. The duty on the latter, after being farther reduced in 1842 to 1*s.* per ton, was repealed in 1845. In consequence of these reductions, considerable quantities are now imported, partly for home use, and partly for re-exportation to India and other countries. Foreign zinc is principally made in Upper Silesia, whence it is conveyed by internal navigation to Dantzic, Stettin, and Hamburg. The freight from the latter to Hull and London is nominal merely; the wool-ships being glad to take it as ballast. Hainault, near Namur, has also some part of the spelter trade. A good deal of spelter is shipped from Hamburg for France and America.

Zinc is produced in the province of Yunan in China; and previously to 1820 large quantities of it were exported from that empire to India, the Malay Archipelago &c. But about that time the free traders began to convey European spelter (principally German) to India; and being, though less pure, decidedly cheaper than the Chinese article, it has entirely supplanted the latter in the Calcutta market. In 1867 the exports of foreign and native spelter from this country for India amounted respectively to 421 and 4,940 tons; in addition to which considerable quantities were exported from Amsterdam, Rotterdam &c.

In 1867 we imported 24,332 tons crude, and 9,486 tons rolled spelter. By far the largest portion was brought from Prussia by the channel

of the Hanse Towns, and partly also from Belgium. The exports during the same year amounted to 6,782 tons, principally to the East Indies.

ZOLLVEREIN (literally Customs' Union). As a compound word, it means the association of a number of states for the establishment of a common customs law and customs line with regard to foreign countries, and the suppression of both for the intercourse of the states with each other within the border line. The compound word, however, has gained the meaning of a proper name for the German Customs' League; this customs' union having obtained a great political importance through its having been for many years the only tie holding together the scattered parts of the Fatherland.

Next to the efforts of the Prussian Government to diffuse the blessings of education, their efforts to introduce a free commercial system into Germany constitute their best claim to the gratitude and esteem of their own subjects and of the world. Germany, as everyone knows, is divided into a vast number of independent, and mostly petty, states. Until a very recent period, everyone of these states had its own custom-houses, and its own tariff and revenue laws; which frequently differed very widely indeed from those of its neighbours. The internal trade of the country was, in consequence, subjected to all those vexatious and ruinous restrictions that are usually laid on the intercourse between distant and independent states. Each petty state endeavoured either to procure a revenue for itself, or to advance its own industry, by taxing or prohibiting the productions of those by which it was surrounded; and customs officers and lines of custom-houses were spread all over the country. Instead of being reciprocal and dependent, everything was separate, independent, and hostile: the commodities admitted into Hesse were prohibited in Baden, and those prohibited in Wirtemberg were admitted into Bavaria. It is admitted on all hands that nothing has contributed so much to the growth of industry and wealth in Great Britain as the perfect freedom of internal industry we have so long enjoyed, and that intimate correspondence among the various parts of the empire which has rendered each the best market for the products of the other. How different would have been our present condition had each county been an independent state, jealous of those around it, and anxious to exalt itself at their expense! But, until within these few years, this was the exact condition of Germany; and, considering the extraordinary obstacles such a state of things opposes to the progress of manufactures, commerce, and civilisation, the wonder is, not that they are comparatively backward in that country, but that they should be so far advanced as they really are.

But, thanks to the intelligence and perseverance of Prussia, this anti-social system has been well nigh suppressed, and the most perfect freedom of commerce established among the great bulk of the Germanic nations. The disadvantages of the old system had long been seen and deplored by well-informed men; but so many interests had grown up under its protection, and so many deep-rooted prejudices were enlisted in its favour, that its overthrow seemed to be hopeless, or, at all events, exceedingly distant. The address and resolution of the Prussian Government, however, triumphed over every obstacle. Being fully impressed with a strong sense of the many advantages that would result to Prussia and Germany from the introduction of a free system of internal intercourse, they pursued the measures necessary to bring it about with an earnestness that produced conviction, and with a determination, *coûte qui coûte*, to carry their point.

The first treaties in furtherance of this object were negotiated by Prussia with the principalities of Schwarzburg-Sondershausen and Schwarzburg-Rudolstadt, in 1818 and 1819, on the principle that there should be a perfect freedom of commerce between these countries and Prussia; that the duties on importation, exportation, and transit, in Prussia and the principalities, should be identical; that these should be charged along the frontier of the dominions of the contracting parties; and that each should participate in the produce of such duties, in proportion to its population. All the treaties subsequently entered into have been founded on this fair and equitable principle; the only exceptions to the perfect freedom of trade in all the countries comprised within the league or tariff alliance being confined, 1st, to articles constituting state monopolies, as salt and cards, in Prussia; 2nd, to articles of native produce, burdened with a different rate of duty on consumption in one state from what they pay in another; and, 3rd, to articles produced under patents conferring on the patentees certain privileges in the dominions of the states granting the patents. With these exceptions, which are not very important, the most perfect freedom of commerce exists among the allied states.

Since 1818, when the foundations of the alliance were laid, it has progressively extended, till it now comprises more than three-fourths of the Germanic states, exclusive of Austria. Ducal Hesse joined the alliance in 1828, and Electoral Hesse in 1831; the kingdoms of Bavaria, Saxony, and Wirtemberg joined it afterwards, as have Baden, Nassau, and almost all the smaller states which have since been annexed to or are still nominally independent of Prussia, with the exception of Mecklenburg-Schwerin and Mecklenburg-Strelitz.

In 1865 the Zollverein or tariff alliance comprised—

	German sq. miles	Population in 1864
Prussia	5,158	19,312,954
Bavaria	1,536	4,515,076
Saxony	272	2,315,294
Hanover	..	1,923,772
Wirtemberg	384	1,748,328
Baden (Duchy of)	270	1,429,218
Hesse (Electoral)	208	745,849
Hesse (Duchy)	136	871,839
The Thuringian States	237	1,103,530
Brunswick (Duchy of)	65	298,525
Oldenburg	..	314,007
Nassau	85	469,571
Frankfort	2	91,241
Luxemburg	47	194,237
Total	8,397	35,887,992

Throughout the whole extent of this immense country, from Aix-la-Chapelle on the eastern confines of the Netherlands, eastward to Tilsit on the confines of Russia, and from Stettin and Dantzic southwards to Switzerland and Bohemia, there is nothing to interrupt the freedom of commerce. A commodity, whether for consumption or transit, that has once passed the frontier of the league, may be subsequently conveyed, without let or hindrance, throughout its whole extent. Instead of being confined within the narrow precincts of their own territories, the products of each separate country of the alliance may be sent to every one else; so that each may apply itself in preference to those departments in which it has some natural or acquired advantage; and each has to depend for its success, not on the miserable resource of customs regulations, but on its skill

and industry. The competition thence arising is most salutary; and, should the peace of Europe be preserved, we run little risk in saying that all sorts of industry will make more progress among the states comprised within the tariff alliance, during the next ten years, than they did during the half century previous to its being organised.

An assembly of representatives from the allied states meets annually, to hear complaints, adjust difficulties, and make such new enactments as may seem to be required. The Prussian tariff has been adopted, with certain modifications. The duties are received into a common treasury, and are apportioned according to the population of each of the allied states. In addition to its other advantages, the new system has reduced the cost of collecting the duties to a mere trifle, compared with its former amount; and has enabled hundreds of custom-houses, and thousands of customs officers, to be employed in the different departments of industry.

The discrepancy in weights and measures used in different parts of Germany occasioned considerable inconvenience; and it is important that the equalisation of weights and measures, and their reduction to a common standard in all the allied states, is declared to be one of the objects of the League.

It is also expressly provided that the tolls, or other charges in lieu thereof, shall, in all cases, whether they belong to the public or to private individuals, be limited to the sums *required to keep the roads in a proper state of repair*; and that the tolls existing in Prussia shall be considered as the highest that are to be levied, and shall not in any case be exceeded.

It was at first supposed by many persons in this country, and the opinion is not yet entirely abandoned, that the Prussian league was in some degree directed against us, and that, at all events, it threatened to be very injurious to our trade with Germany: we do not, however, believe that there is any foundation whatever for either of these opinions. The alliance was planned, and brought to its present advanced state, in the view, and with the intention, of putting down the galling and innumerable restraints by which the intercourse of the German states with each other was formerly interrupted; and not with the intention of throwing any obstacles in the way of the trade of the alliance with foreign countries: it is, indeed, quite absurd to suppose that it should have this effect. The freedom of internal commerce will do ten times more to promote the industry and prosperity of the allied states than any other measure, or system of measures, that their governments could have adopted; and, as population increases, and the inhabitants become more industrious and wealthy, there will, no doubt, be an augmented demand for foreign products. The league is now no new thing. It originated half a century ago, and has been progressively augmented; but, hitherto, it has not had the slightest influence in diminishing our intercourse with Germany; our exports to it, including Holland and Belgium, having been greater on an average of the last five years than at any former period. [Imports and Exports.] Generally speaking, the duties on imports are reasonable—at least, on all the finer goods. It never, in fact, can be the policy of the alliance to make them oppressive; for, though certain states may erroneously suppose that their interests would be promoted by such means, others would undoubtedly be of a different opinion, and would resist any attempt to carry them beyond a reasonable amount. It is a mistake to suppose that in such matters Prussia has such an overwhelming influence. She must conciliate the other states, and carry them along with her; and this can only be done by acting on fair principles, and with a view to the common interests of the alliance.

Besides, if any of the existing duties be exorbitant, or if any of them, that are at present moderate, should be subsequently raised to an exorbitant pitch, does any one suppose that the over-taxed articles would not be immediately smuggled into all parts of the league? We, who occupy an island, and have revenue cruisers and coast guards on all the seas and shores most accessible to the smuggler, know from experience that it is not possible to hinder over-taxed commodities from making their way into our markets. But the facilities for smuggling into the territories of the league are incomparably greater. It has a land frontier of several thousand miles; and though the whole Prussian army were employed for that purpose, it would be found that it was utterly impotent to prevent the territories of the league from being deluged with such over-taxed commodities as were in demand by the inhabitants.

We are glad to be able to strengthen our view of the influence and objects of the Prussian commercial league by laying before the reader the following extract from a work printed by order of the House of Representatives of the American States. 'Prussia,' it is there said, 'has evidently taken the lead in this wise and important measure, to which the smaller states have gradually acceded. The whole commercial policy of this enlightened power has been distinguished for its liberality, being founded on the desire of placing her intercourse with all nations on the basis of reciprocity. The commercial league of Germany is intended to carry out this principle, and not to be directed, as has been supposed, against any particular nation, as it is well known that Prussia, in her treaties with maritime powers, has invariably adopted the system of reciprocity, to whatever extent those with whom she negotiates are willing to carry it. The establishment of this community of commercial interests forms a part of the fundamental compact, by which the new Germanic Confederation was created, after the dissolution of the Confederation of the Rhine: to be subsequently adopted, however, at the option of such of the co-states as should choose to accede to it. Its effects cannot fail to promote commerce, and every other branch of industry, as it removes all those vexatious and endless difficulties which previously obstructed the freedom of intercourse. Navigable rivers and highways are now opened to the unfettered use of the German people: the customs and toll-houses, with their officers and barriers, have been withdrawn from the interior, and the whole intercommunication resembles that of the subjects of any one of the states within its own territories. To these benefits may be added the assured prospect of improvement in the finances of the great and smaller sovereignties composing the league. This advantage will grow out of the simplicity or unity of the new system, a saving in the cost of collection, and from the increased consumption which renovated industry and progressive prosperity so invariably cause.' (*Digest of Customs Laws*, vol. iii. p. 227.)

Prussian Duty on Cottons.—The duty on cotton goods being that in which we are most interested, we took (prior to the late alterations in the Zollverein tariff) some pains to ascertain its real influence. This duty amounted to 50 rix-dollars per Prussian quintal on all cotton goods, without respect to quality or price; and, taking the quin-

tal at 113 lb. avoirdupois, and the rix-dollar at 3*s*., it was equal to 7*l*. 10*s*. per 113 lb. Now we learn from statements obligingly furnished to us by a large wholesale house in the City—

1. That a quintal (113 lb.) of *coarse shirting*, worth 4*d*. per yard, contained 497 yards; it consequently cost 8*l*. 6*s*., and the Prussian or tariff alliance duty of 7*l*. 10*s*. on it was, therefore, equivalent to an ad valorem duty of 90 per cent.

2. That a quintal of *superior shirting*, worth 1*s*. per yard, contained 457·65 yards; it consequently cost 22*l*. 17*s*. 7*d*., making the Prussian duty on such goods 32½ per cent.

3. That a quintal of *printed cottons*, worth 1*s*. 6*d*. per yard, contained 633 yards; it consequently cost 47*l*. 9*s*., making the Prussian duty on such goods 15¾ per cent.

4. That a quintal of *fine printed cottons*, worth 2*s*. 6*d*. per yard, contained 678 yards; it consequently cost 84*l*. 15*s*., making the Prussian duty on such goods 8¾ per cent.

It is plain, therefore, that, except on the coarsest and cheapest species of goods, the Prussian or tariff alliance duty was very far from being oppressive; and, as the value of coarse goods is principally dependent on the cost of the raw cotton and the wages of labour, being but little influenced by superiority of machinery, it is not very probable that we should export them largely to Prussia, even were the duty materially reduced. No doubt, however, it would conduce greatly to the interests of the people comprised within the league, though we do not know that it would sensibly affect us, were the duty assessed on an ad valorem principle, and made 20 or 30 per cent. on all goods; and we should think that this might be done without any material difficulty.

The subjoined translation of the more important clauses of the Customs Treaty of March 22, 1833, sets the principles on which the alliance is founded in a clear point of view.

Customs Treaty, concluded March 22, 1833, between the Kings of Bavaria and Wirtemberg, on the one part; and the King of Prussia, the Prince Electoral Co-Regent of Hesse, and the Grand Duke of Hesse on the other part.

I. The existing Customs' Union between the states above named shall henceforth constitute a General Union, united by a common system of customs and commerce, embracing all the countries comprised therein.

II. In this general re-union are also comprised the states which have already adhered, either for the whole of their territory or for a part, to the system of customs and commerce of one or other of the contracting states, having regard to their special relations, founded upon the conventions of adhesion concluded with the states which have intervened.

III. But there will remain excluded from the general re-union the parts separated from the countries of the contracting states which, because of their situation, are not yet included either in the re-union of the Bavarian or Wirtemberg customs, nor in those of Prussia and Hesse. Nevertheless, the regulations now in force to facilitate the commerce of these territories with the principal country will be maintained. Other favours of this kind cannot be accorded without the unanimous consent of the contracting states.

IV. In the contracting states there shall be established uniform laws for the duties of import, of export, and of transit, except such modifications as, without injury to the common object, result necessarily from the particular legislation of each contracting state, or from local interests.

Thus, exceptions and modifications to the common tariff may take place, as to rates of duties of entry, of export, and of transit (according as the direction of the routes of commerce may require) established upon articles recognised as of minor consequence in extensive commerce; provided always that these modifications be preferred by separate states, and that they shall not be disadvantageous to the general interests of the Association.

The administration of the duties of import, export, and transit, as well as the organisation of the authorities which are engaged therein, in all the states of the Association, shall be established upon a uniform footing, having regard, however, to the particular relations existing in those countries. The laws and ordinances which, according to those principles, ought to be uniform in the contracting states, and which are to constitute the law of the tariff and the regulations of the customs, shall be considered as an integral part of the present treaty, and shall be published at the same time.

V. There can neither be alterations, nor additions, nor exceptions, to the Acts above mentioned (Art. IV.), but by the unanimous consent of all the contracting parties, and in the form required for the making (*confection*) of the laws.

The preceding applies equally to all the ordinances which would establish, for the administration of the customs, dispositions entirely different.

VI. Liberty of commerce, and community of the receipts of customs, as regulated by the following article, will commence simultaneously with the operation of the present treaty.

VII. Dating from this epoch, all duties of import, of export, and of transit shall cease on the common frontier of the Bavaro-Wirtemberg and Prusso-Hessian customs re-unions. All articles of free commerce in one of those territories may be imported freely and without duty into all the others, except only as follows:—

A. Articles monopolised by the states (playing cards and salt) conformable to Articles IX. and X.

B. Indigenous articles, now subject in the interior of the contracting states to different duties, or excepted from all duty in one state, and imported into another, and which according to Article II. ought consequently to be subject to a duty of compensation.

Finally, C. Articles which, without prejudice to patent rights or conceded privileges in one of the contracting states, cannot be imitated or imported, and ought consequently to be excluded during the existence of the patents and privileges from importation into the state which has granted them.

VIII. Notwithstanding the freedom of commerce, and the exemption from duties, established by Article VII., the transport of articles of commerce, subject by the common tariff to duties of import or export on the frontiers of the Association, cannot take place between the states of Bavaria and Wirtemberg, and the states of Prussia, of Electoral Hesse, or of Grand Ducal Hesse, and reciprocally, except by the public roads, military routes, and navigable rivers. For this purpose there shall be established on the interior frontiers common bureaus of verification, to which the conductors of merchandise must, on exhibiting their licenses, declare what are the articles which they are employed to transport from one territory to another.

This disposition will not be applicable to retail commerce in raw materials, nor to the petty commerce of the frontiers or the fairs, nor to the effects of travellers. Process for the verification of merchandise will go no further than is required

for security of the duties of compensation. (See Art. VII. B.)

XIII. The contracting parties reciprocally renew their adhesion to the principle that the tolls, or other charges in lieu thereof, shall only be sufficient to defray the expense of maintenance and repairs of the roads; whether the tax be for the state or for private rights. It was thus that has been approved the supplement to the duty of customs, created in Bavaria and Wirtemberg, to replace the duty of tolls, paving, causeways, bridges, and generally of all analogous taxes.

The tolls &c. now existing in Prussia, according to the general tariff of 1828, shall be considered as the *highest rates*, and shall not be exceeded in any of the contracting states.

In accordance with the principle thus announced, the individual duty for closing the gates of cities shall be abolished; as also the duty of paving of causeways, where it still exists; and all paved roads will be considered as causeways of a description liable only to the duty on causeways established by the general tariff.

XIV. The contracting Governments agree to unite their efforts to introduce into the states a uniform system of coins, weights, and measures, to commence immediately after the requisite negotiations for this purpose; and, subsequently, to direct their efforts towards the adoption of uniform custom-house weights.

The contracting states, in the impossibility of establishing this uniformity before this treaty goes into operation, agree, for facilitating the forwarding of merchandise where it has not already been done, to revise their tariff as to weights and measures, assuming for a basis the tariffs of the other contracting states. They will cause such modifications to be published, for the government of the public and of their custom-house bureaus.

The common tariff (Art. IV.) shall be divided into two principal divisions, according to the system of weights, measures, and moneys of Bavaria, and that of Prussia.

The declaration of the weights and measures of articles subject to duty shall, in Prussia, be according to Prussian weights and measures; in Bavaria and Wirtemberg, according to those of Bavaria; and in the two Hesses, according to the weights and measures there legally established.

In expediting custom-house Acts, the quantity of merchandise must be expressed according to the two principal divisions of the common tariff.

Until the contracting states agree upon a system of common money, the payment of duties in each state shall be made in the same currency as in use for payment of its other taxes.

But from the present time, the gold and silver coins of all the contracting states, with the exception of small money (*sheidemunze*), shall be received in all the bureaus of receipt of the Association; and for this purpose tables of value shall be published.

XV. The duties of navigation upon the rivers, comprising therein those which apply to vessels, shall always be mutually acquitted according to the Acts of the Congress of Vienna, or of special conventions, upon all the rivers to which these regulations apply, unless other determinations be adopted in this respect.

The contracting states agree to enter, without delay, into negotiations for that which particularly regards the navigation upon the Rhine and the neighbouring streams, in order to effect an arrangement by which the import, export, and transit of the productions of all the states of the Union upon said streams shall be, if not absolutely free, at least relieved as far as possible from duties of navigation, under the reserve of charges of reconnoissance.

All the advantages granted by one state of the Union to its subjects, in the exercise of the navigation upon said streams, shall extend equally to the navigation of the other associated states.

Upon the other streams to which neither the Acts of the Congress of Vienna nor any other treaties apply, the duties of navigation shall be according to the special regulations of the Governments interested. Nevertheless the subjects of the contracting states, their merchandise and vessels, shall throughout be treated on those streams with perfect equality.

XVI. Dating from the day on which the general custom-house regulations of the Union shall come into operation, the duties of public stores (*étapes*) and of transhipments (*umschlagrechte*), which still exist in the territories belonging to the Association, shall cease, and no one shall be liable to forced delay, nor to the discharging and storage of his merchandise, except in cases authorised by the common regulations of the customs or navigation.

XVII. No duties shall be claimed for canals, locks, bridges, ferries, cranes, weighing and storage; and the establishments destined to facilitate commerce shall not be allowed rent, except when actually used. Charges cannot be increased; and the subjects of the other contracting states shall be on a perfect equality with the subjects of the countries having those establishments.

If the establishments for weighing and cranes are only used by the custom-houses, no charge shall be made, if the articles have been previously weighed at a custom-house.

XVIII. The contracting states engage to continue their common efforts for the encouragement of industry by the adoption of uniform regulations, so that the subjects of each state may enjoy, as extensively as possible, the privilege of seeking work and occupation in every other state.

From the coming into operation of the present treaty, the subjects of any one of the contracting states, trading or seeking employ in the territory of any other of those states, shall not be subject to any impost which does not equally affect the native similarly employed. Manufacturers and merchants who are only making purchases for their trade, or travellers who have not goods with them, but simply patterns for the purpose of soliciting commissions, shall not, when thus employed, have any duty to pay in another state, if authorised to carry on such commerce in the state where they have their domicile; or if employed in the service of native manufacturers or merchants.

When trading in the markets and fairs, or when they are selling the produce of the soil and fabrics, in any one of the states of the Association, the subjects of the other contracting states shall be treated in all respects as subjects of the same state.

XIX. The seaports of Prussia shall be open for commerce to all the subjects of the states of the Union, on payment of the same duties as are paid by Prussian subjects, and the consuls of the several states in the seaports or places of foreign commerce shall be bound, in cases of need, to assist with their advice and support the subjects of the other contracting states.

XX. To protect against contraband their common custom-house system, and to insure the regular payment of the duty of consumption in the interior, the contracting states have concluded a reciprocal cartel, which shall be enforced as soon as possible, but, at the furthest, at the same time with the present treaty.

XXI. The community of receipts of the contracting states, stipulated by the present treaty, shall comprehend the product of duties of entry, of export, and of transit, in the Prussian states, the kingdoms of Bavaria and Wirtemberg, the Electorate, and the Grand Duchy of Hesse, comprising therein those countries which have down to the present time acceded to the custom-house system of the contracting states.

The following are excluded from the community of receipts, and remain reserved for the particular benefit of the respective Governments:—

1. The imposts collected in the interior of each state on indigenous products, comprising therein the compensatory duties reserved in Article XI.

2. The toll on rivers, to which are applicable the regulations of the Acts of the Congress of Vienna, or special conventions. (Article XV.)

3. Duties of paving, of causeways, of bridges, of ferries, of canals, of locks and ports, charges of weighing and storage, as well as similar receipts, whatever may be their name.

4. The fines and confiscations which, beyond the part allowed to informers, remain the property of each Government throughout its territory.

XXII. The produce of the duties received into the common treasury shall be divided among the states of the Association, in proportion to the population which may be found in the Union, subject to deduction, 1st, of the expenses specified in Article XXX.; 2nd, of the restitution of erroneous receipts; 3rd, of the restoration of duties and diminutions made in consequence of special common conventions.

The population of every state which has entered or may enter into the Association, by treaty with one or other of the contracting states, under the engagement made by the latter, to make an annual contribution, for the participation of the former to the common revenue of the customs, shall be added to the population of the states which make this contribution.

There shall be made every 3 years, dating from a period to be hereafter fixed, an exact enumeration of the population of the associated states: the states shall reciprocally communicate the results thereof.

XXIII. All restitutions of duties not authorised by the legislation of the customs shall remain charged to the treasury of the Government which shall have granted it.

Conventions, hereafter to be concluded, will regulate in what cases similar restitution may be accorded.

XXIV. In conformity with the object of this Association of Customs tending to facilitate a freer and more natural commercial intercourse, the favours accorded for the payment of custom-house duties at certain places in which fairs are held, especially the privileges of abatement (*rabat privilegien*), cannot be extended to those states of the Association where they do not exist; on the contrary, they shall be restricted and abolished as far as possible, regard being had to the means of subsistence of the places heretofore favoured, and to the commercial relations which they have with foreigners; but others can on no account be granted without the general consent of the contracting parties.

XXXIII. There shall every year, on June 1, be an assembly of plenipotentiaries of the Governments of the Union empowered generally to deliberate; and each state may send thither a duly authorised representative.

The plenipotentiaries will choose from among themselves a president, who, however, shall have no pre-eminence over the other members.

The first assembly shall be held at Munich.

At the close of each annual assembly, the place of next meeting will be determined, having reference to the nature of those subjects which will then come under discussion.

XXXIV. The assembly of plenipotentiaries will have under its consideration the following subjects:—

A. To consider the complaints which may have arisen in any of the states of the Association concerning the execution of the general treaty, of special conventions, of the law, and of custom-house regulations; also of the tariff, when these shall not have been adjusted during the year by correspondence between the different ministers.

B. The definitive reparation among the states of the Union of the total common receipts, based upon the observations made by the superior authorities, and verified by the central bureau, as may be rendered necessary by the common interest.

C. To deliberate upon propositions and suggestions made by the Governments for the perfection of the administration.

D. Discussions upon alterations, demanded by any of the contracting states, in the laws, tariffs, and custom-house regulations, as well as in the organisation of the administration, and in general upon the development and perfection of the general system of customs and commerce.

XXXV. If, in the course of the year, when the plenipotentiaries are not in session, extraordinary incidents should occur, which require prompt decision on the part of the states of the Union, the contracting parties will consult upon these through their diplomatic agents, or they will order an extra sitting of their plenipotentiaries.

Recent Changes in the German Customs' Union.—The discussions in the assemblies of the League were, especially of late years, a good deal influenced by political considerations. A league denominated the *Steuerverein* had been formed in opposition to, or in rivalry with, the Prussian league, by Hanover, Oldenburg, and Brunswick. It was evident, however, inasmuch as the interests of these and the other German states were identical, that it would be a great public advantage were these associations merged into one. But owing to political, commercial, and financial jealousies, this desirable object was of very difficult attainment. At length these difficulties were surmounted; and a treaty negotiated between Hanover and Prussia, on September 7, 1851, provided for the incorporation, from January 1, 1854, of the former, and the other states included in the Steuerverein, with the Prussian Union. Some modifications were introduced by the treaty into the basis of the League, but they are of little importance, except to the parties immediately interested.

Treaties with Austria.—More recently a great deal of discussion took place between Prussia and the subordinate German states on the one hand, and Austria on the other, in regard to the formation of a Customs' Association which should include the latter; and in order to pave the way for this desirable consummation, Austria issued a new tariff on November 25, 1851, in which she made many important modifications in the prohibitive system on which she had previously acted, at the same time that she established a free commercial intercourse between Hungary (which had previously a separate customs establishment) and the other states of the empire. And though this wise and liberal measure has not yet led to

the incorporation of Austria into the Customs' Union, it has led to the conclusion by her of several important commercial treaties: the first of these, with Prussia, was dated February 19, 1853.

The contracting parties engaged to suppress, with a few specified exceptions, *all* prohibitions against importing the products of the one into the territories of the other; they next established a complete freedom of trade between the two countries in all articles of raw produce; and they further stipulated that the duties to be imposed on manufactured products should be moderate and reasonable. It had a variety of other clauses, all of a liberal character. The duration of the treaty was limited to 12 years, so that it had expired and was renewed before hostilities broke out between Prussia and Austria. The war of 1866 affected the trade of Germany most injuriously, and by way of illustration we subjoin a statement referring to 1865 and 1866.

An Account showing the Proportion of the Revenues of the German Customs' Union Raised in the different States in 1865 *and* 1866, *and the Distribution thereof, according to their Population, from Mr. Secretary of Legation Lowther's Reports of July* 28, 1866, *and July* 29, 1867.

States of the Verein	Import Dues		Export Dues		Total	
	1865	1866	1865	1866	1865	1866
	rixt.	rixt.	rixt.	rixt.	rixt.	rixt.
1. Prussia	13,684,186	11,608,470	28,955	34,289	13,713,141	11,642,759
Hanover	1,916,719	1,884,533	2,591	4,832	1,919,310	1,889,365
Electoral Hesse	375,014	357,584	299	..	375,313	357,584
Nassau	98,677	91,745	82	..	98,759	91,745
Frankfort-on-the-Maine	822,207	745,713	16,813	882	839,020	746,594
Luxemburg	123,165	118,014	1,010	202	124,205	118,217
2. Bavaria	1,364,998	1,366,561	7,209	299	1,372,207	1,366,860
3. Saxony	2,669,631	2,585,512	3,881	21	2,673,512	2,585,533
4. Wirtemberg	499,845	507,523	344	..	496,189	507,523
5. Baden	1,001,158	997,481	4,941	3,498	1,006,122	1,001,379
6. Grand Ducal Hesse	516,559	487,648	1,040	4	517,599	487,652
7. Thuringia	312,202	305,256	159	11	312,111	305,267
8. Brunswick	255,657	241,719	16	..	255,673	241,719
9. Oldenburg	259,139	206,116	107	1,563	259,246	207,679
Total	23,965,565	21,301,155	67,720	45,796	23,921,285	21,346,758

Renewal of the Zollverein.—The German States lying to the south of the river Maine having preserved their independence after the war of 1866, were not under any obligation to unite themselves either politically or commercially with Prussia, or even to renew the Zollverein which the war had dissolved. However, a sense of their own interest subsequently induced the Southern States not only to enter into military conventions with the Prussian Crown, but to continue members of the Zollverein upon an enlarged basis. On July 8, 1867, a new Zollverein treaty for a further term of years was concluded between the states of the North German Confederation and the South German States, viz.—Bavaria, Wirtemberg, Baden, and Hesse-Darmstadt—the scope of which extends to the whole of Germany, except Austria, inasmuch as the two Mecklenburgs, and the three Hanse Towns, as members of the Northern Confederation, are parties to the last-mentioned treaty, and are represented in the Zollverein councils. Under the old system, questions were settled in the Zollverein conferences, in which unanimity was required; whereas, under the new treaty, the legislative power is given to a federal council of 58 members, in conjunction with a Customs Parliament. In the council, Prussia has 17 votes, and a veto upon all alterations of existing laws; in other cases the majority of the council decides, Prussia having a casting vote. The Customs Parliament (which met for the first time in Berlin on April 27, 1868) is chosen upon the principle of universal suffrage by the people of the Southern States, as well as of the States of the North German Confederation, and in it all resolutions are passed by an absolute majority. There is, therefore, every reason to believe that Prussia and the commercial States of the North will enjoy their due influence in the council of the new Customs' Union, and that the public opinion of the nation will be fully and fairly represented in the Customs Parliament.

A difficulty in the way of the accession of the two Mecklenburgs to the Zollverein system was found to exist in their treaty of 1865 with France, by the 18th Article of which the Mecklenburgs had engaged not to raise their customs duties above the rate of 1 dollar per centner, and not to introduce any new duties whatever. This difficulty has been removed. Prussia has consented to a reduction of the customs tariff on French wines, and some other articles; and the two Mecklenburgs are left at liberty to enter the customs frontier of the North German Confederation, and to fulfil all their engagements as members of that alliance. The arrangements for that purpose are expected to be soon completed by the Federal Council, and the early admission of the two Mecklenburgs within the customs line may now be anticipated.

Schleswig and Holstein retained their old tariff for some time after their annexation to the Prussian Monarchy, but towards the end of April 1867 a royal ordinance put the Zollverein tariff into force within both Duchies; and on November 15 they were formally included within the limits of the Zollverein itself. The town of Altona was, however, excepted, and has been allowed for the present to remain a free port, with similar privileges to those enjoyed by the neighbouring territory of Hamburg. The transit duties formerly levied on goods passing through these Duchies are now entirely abolished.

The tariff and regulations of the Zollverein were likewise applied to the Duchy of Lauenburg as a part of the Prussian Monarchy on January 5, 1868, and the transit duties long charged on the passage of goods through that Duchy were then abolished. By these several extensions the Zollverein frontier has been brought down to the Elbe, subject to the exemptions temporarily granted to Hamburg and Altona as ports of free importation.

Commercial Treaties.—Among the commercial treaties lately concluded by the Zollverein, that with Austria, dated March 9, 1868, stands prominent on account of the reductions of duties and the increased facilities of traffic, for which it stipulates. The provisions of the former commercial treaty between the same parties of April 11, 1865, are much enlarged; and in return for numerous reductions to be made by Austria the Zollverein pledges itself to lower its customs tariff as regards the importation of pig iron, linen yarn, wine, horses, and various other articles. The export duties (with 2 or 3 exceptions), as well as the

transit duties, are on both sides abolished. Of the advantages of the last treaty with the Zollverein, the United Kingdom will partake in consequence of the 'most favoured nation clause' in our treaty with Austria. [TREATIES (AUSTRIA).] A treaty of navigation with Italy had been previously concluded on October 14, 1867; and more recently, March 30, 1868, a treaty of commerce and navigation with Spain has been announced, whereby the Zollverein has the right of trading on the most favoured footing with the European portion of the Spanish monarchy, and has conceded reciprocal privileges to Spain in the states of the Union. The differential duties which have hitherto existed in Spain in favour of certain articles of French produce and manufacture have likewise been abolished in favour of the Zollverein.

In consequence of these and other changes, the duties in the tariff of the German Customs' Union have undergone many modifications. But except on coarse and heavy goods, they continue, speaking generally, to be moderate. A declaration of April 1, 1869, for the admission duty free into Great Britain and the Zollverein of patterns and samples imported by commercial travellers, has been published in the *London Gazette*.

The overtures made to Russia on behalf of the Zollverein have hitherto been unsuccessful. (*Report of* Mr. Ward, minister resident at Hamburg, of May 15, 1868.)

We have little doubt, should peace be preserved, that the advantages of which the Zollverein must be productive will be so many and so great, that it will lay the foundations of a lasting intercourse, of which we can neither foresee the extent nor the beneficial influence.

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LONDON: PRINTED BY
SPOTTISWOODE AND CO., NEW-STREET SQUARE
AND PARLIAMENT STREET

SUPPLEMENT.

ADMIRALTY COURT JURISDICTION. [COUNTY COURTS.]

ALE AND BEER. By the Wine and Beer-house Act of 1869, 32 & 33 Vict. c. 27, the licensing of refreshment houses in England, and of the retailing of beer, cider, and wine, is transferred from the excise to the justices assembled at the general annual licensing meeting, and the provisions of 9 Geo. IV. c. 61 are declared to be applicable to grants of certificates under the new Act; stipulating, however, that such certificates are not, except under extraordinary circumstances, to be refused where the liquors are *not* to be consumed on the premises.

The 32 & 33 Vict. c. 14 substitutes for the customs' duties chargeable on beer and ale in the tariff, on importation into the United Kingdom, the following duties after June 1, 1869, viz.:—

	£	s.	d.
Beer and ale, namely—			
Mum, the barrel of thirty-six gallons	1	1	0
Spruce, the worts of which were, before fermentation, of a specific gravity not exceeding one thousand one hundred and ninety degrees, the barrel of thirty-six gallons	1	1	0
Exceeding one thousand one hundred and ninety degrees, the barrel of thirty-six gallons	1	4	0
Of other sorts, viz.—			
Beer, the worts of which were, before fermentation, of a specific gravity not exceeding one thousand and sixty-five degrees, the barrel of thirty-six gallons	0	8	0
Exceeding one thousand and sixty-five degrees, and not exceeding one thousand and ninety degrees, the barrel of thirty-six gallons	0	11	0
Exceeding one thousand and ninety degrees, the barrel of thirty-six gallons	0	16	0

And in charging the above rates of duty upon the importation of beer, the specific gravity of the worts from which the same was made shall be ascertained and determined in the manner prescribed by 19 & 20 Vict. c. 34 s. 16, for ascertaining and determining the rates of drawback on the exportation of beer.

ALEXANDRIA. [SUEZ CANAL.]

ALICANTE. The values of imports and exports in British vessels at Alicante in 1867 and 1868 were :—

Years	Ships	Tons	Value of Imports	Value of Exports
			£	£
1867	108	24,039	34,833	43,344
1868	86	21,869	84,631	47,081

The increase in the value of imports was caused by the arrival of some British vessels with wheat from the Black Sea. During 1868 the trade at this port did not increase, but the duties on goods imported, and port duties, which in 1867 amounted to 70,752*l.*, were, in 1868, 88,283*l.*, exclusive of railway material and fuel, imported free.

The exportation of esparto grass, chiefly to England, has largely increased, 10,425 tons having been shipped in 1868 against 2,513 in 1867. The system is now generally adopted of pressing the esparto to reduce its bulk. The average price of this article, free on board, has been 4*l.* per ton. (Report by Mr. Consul Barrie of March 16, 1869.) [SPAIN.]

AMSTERDAM. The following statistics in relation to the trade of this port and of the Netherlands are extracted, the first table from the Report of Mr. Consul Newnham of May 27, 1869, and the last two from that of January 7, 1869, by Mr. Thurlow, second secretary to our Legation at the Hague :—

I.—*Account of the Arrivals and Departures of Netherlands and Foreign Vessels at Amsterdam during* 1867 *and* 1868.

	Arrivals			
	1867		1868	
	Vessels	Tons	Vessels	Tons
Netherlands	770	199,150	727	206,335
Foreign	696	193,825	738	224,264
Totals	1,466	392,975	1,465	430,599
	Departures			
Netherlands	827	208,053	759	207,126
Foreign	733	196,064	749	214,140
Totals	1,560	404,717	1,508	421,266

Of the 738 foreign arrivals in 1868, 200 were steamers of 78,000 tons, and of these 189 were British of 71,965 tons.

II.—*Table showing General Imports and Exports of the Netherlands from* 1864 *to* 1867.

Years	General Importation	Import for Consumption	General Exportation	Duty-free Exports	In Transit
	florins	florins	florins	florins	florins
1864	474,377,773	300,876,561	435,410,570	344,162,216	89,254,721
1865	500,528,578	305,053,287	438,991,127	344,781,050	94,210,077
1866	528,971,709	422,149,121	436,590,752	338,597,296	98,035,456
1867	592,084,793	439,025,679	449,217,611	340,087,304	109,130,307

Referring to the convention for the free navigation of the Rhine entered into in 1868 by the Netherlands, Prussia, France, Bavaria, Baden &c., Mr. Thurlow gives the following among other particulars, showing the extent of commerce passing Lobith, on the Dutch portion of the Rhine, at different periods from 1832 downwards, and in the 3 years ending with 1867.

III.

Years	Up Rhine	Down Rhine	Total
	cwt.	cwt.	cwt.
1832 to 1834	1,662,304	5,435,455	7,097,759
1835 1839	2,048,608	6,965,469	9,014,077
1840 1844	3,527,391	5,881,550	9,408,941
1845 1849	4,174,375	6,661,730	10,836,105
1850 1854	5,040,628	9,567,240	14,607,868
1855 1859	6,074,513	10,958,169	17,032,682
1860 1864	6,082,868	18,027,948	24,110,816
1865	5,792,224	21,945,681	27,737,905
1866	5,488,715	26,007,304	31,496,019
1867	6,618,657	30,004,410	36,623,067

ARCHANGEL. The following table, taken from Mr. Consul Renny's Report of March 31, 1869, exhibits the values of the exports from Archangel in each of the five years ending with

1868, and the proportion of these to Great Britain :—

Values of Exports.

	1864	1865	1866	1867	1868
	£	£	£	£	£
Total - -	928,358	1,019,002	1,206,641	1,240,952	1,501,211
To Great Britain -	681,848	669,704	857,129	725,608	960,938

ARROWROOT. Customs' duty on, repealed, 1869.

AUSTRIA. See article TRIESTE in Dictionary, edition 1869.

BALTIMORE. In illustration of the rapid growth of this port, Mr. Consul Rainals, in his Report of April 10, 1869, mentions that the population, which was 212,000 in 1860, had increased to 352,000 in 1868. The following table exhibits the increase of our trade with Baltimore since 1866 :—

British Shipping.

Years	Entered			Cleared		
	Number of Vessels	Tons	Value of Cargoes	Number of Vessels	Tons	Value of Cargoes
			dols.			dols.
1866	188	43,425	2,278,000	194	49,796	803,000
1867	210	60,128	2,908,140	209	60,504	2,019,562
1868	260	63,631	2,957,000	257	64,119	2,525,741

BANGKOK. The following is an abridgment of a table given by Mr. Knox, our Consul-General for Siam, in his Report of March 25, 1869 :—

Account of British and Foreign Shipping Entered and Cleared at the Port of Bangkok in 1868, and of the Values of their Cargoes.

Nationality of Vessels	Entered			Cleared		
	Vessels	Tons	Invoice Value of Cargoes	Vessels	Tons	Invoice Value of Cargoes
			£			£
British - -	107	47,257	64,266	96	44,360	293,411
French - -	7	2,013	3,500	8	1,621	12,112
American - -	14	9,201	1,854	13	8,711	42,110
North German -	63	25,391	39,137	60	24,725	156,915
Portuguese - -	6	1,197	2,540	5	750	3,500
Sweden and Norway	3	1,178	..	3	1,178	7,495
Dutch - -	16	4,508	31,000	14	4,204	22,482
South American -	1	1,100	..	..	..	..
Hawaiian - -	..	..	..	2	1,076	6,396
Danish - -	4	994	300	4	994	5,700
Russian - -	1	557	..	1	557	2,400
Siamese - -	126	47,017	550,391	114	45,479	397,778
Junks to China -	..	..	..	..	..	50, 00
Total - -	346	149,373	719,538	317	133,655	999,817

It would appear from the same Report that since 1867 the export of rice, formerly our principal trade from this port, had ceased in great measure, but that new markets have been found, and that in 1868 sixty-nine vessels cleared thence with full cargoes for Europe, and others sailed for Mauritius, California, and Australia.

BANK OF ENGLAND. An Act (32 & 33 Vict. c. 104) for facilitating the payments of dividends on the public stocks, passed in 1869, makes the following regulations with respect thereto, viz. :—

2. *Power to send dividend warrants by post.*—It shall be lawful for the governor and company of the Bank of England, hereinafter called the Bank, from time to time, with the sanction of the Commissioners of the Treasury, to make arrangements for payment of dividends on any stocks by sending warrants through the post. Every such warrant shall be deemed to be a cheque on the said governor and company within the intent and meaning of the statute of 21 & 22 Vict. c. 79.

3. *Effect of posting a warrant.*—Every stockholder desirous of having his dividend warrants sent to him by post shall make a request accordingly in writing to the Bank, such writing to be signed by him, and to be in a form approved by the Bank and by the said commissioners, and shall give to the Bank an address in the United Kingdom to which the letters containing such warrants are from time to time to be sent, and the posting by the Bank of any letter addressed to a stockholder at his request at the address given by him to the Bank, and containing a dividend warrant, shall, as respects the liability of the Bank, be equivalent to the delivery of such warrant to the stockholder himself.

4. *Change of day on which dividends on stocks fall due.*—The half-yearly dividends due on any public stocks which at the time of the passing of this Act fall due on October 10 in each year, shall from and after the passing of this Act become due on October 5, instead of October 10.

5. *Audit of dividends.*—The Treasury may from time to time make regulations as to the mode in which the audit of the accounts relating to dividends on public stocks is to be held by the commissioners for auditing the public accounts, and may, if they think fit, dispense with such audit altogether.

6. *Definition of terms.*—In this Act 'public stocks' shall mean and include any stock forming part of the national debt, and transferable in the books of the Bank :

'Stockholder' shall mean the proprietor of any share in the public stocks :

'Person' shall include corporation :

'United Kingdom' shall include the Channel Islands, the Isle of Man, and any other islands adjacent to any part of the United Kingdom :

'Warrant' shall include draft, order, cheque, or any other document used as a medium for payment of dividends.

BANKRUPTCY. In the articles BANKRUPT AND BANKRUPTCY, and INSOLVENCY AND BANKRUPTCY, in this Dictionary, the history and policy of the laws affecting bankrupts in the United Kingdom, and the progress of opinion and legislation on the subject, have been shortly traced, down to the session of 1868. We have now, by way of supplement, to give a short abstract of the more important clauses of the Bankruptcy Act of 1869 (32 & 33 Vict. c. 71), entitled An Act to consolidate and amend the Law of Bankruptcy.

The Act is divided into a preliminary and eight other parts.

In the preliminary portion the 2nd clause declares it inapplicable to Scotland or Ireland, except when expressly provided.

The 3rd dates its operation from January 1, 1870.

The 4th defines various terms used in its provisions; and

The 5th excludes from its operation companies or partnerships registered under the Companies Act of 1862.

In Part I., relating to the adjudication and vesting of property, clause 6 provides for the adjudication of a bankrupt owing 50*l.* to one or more creditors, and defines six acts of bankruptcy, on any one of which that may have occurred within the previous six months, his or their petition must be founded.

7-9 refer to the proceedings on debtors' summons and petition, proof of debt and of trading when necessary, and act of bankruptcy, and to contested debts.

10 to the advertisement of adjudication.

12 binds creditors not holding securities.

13 empowers the court to restrain suits and appoint receiver.

14, 17, and 18 provide for the appointment, by

the creditors or by their committee of inspection, not exceeding five in number, of a trustee (paid or unpaid, but giving security) to manage the bankrupt's property, and that the registrar of the court shall act as trustee till the appointment be made.

15 describes the property of a bankrupt divisible among his creditors, and specially exempts—1st, property held in trust; and 2nd, tools of trade, and family wearing apparel and bedding, to the value in all of 20*l.*

16 lays down regulations as to the first meeting of creditors.

In Part II., regulating the administration of the property, clause 19 relates to the conduct of the bankrupt in aiding or impeding its realisation, and his punishment in the latter case.

20 lays down rules for the conduct of the trustee.

21 regulates general meetings of creditors after the first.

22–24 vest the property in the trustee, and enable him to disclaim that which is onerous.

25–29 define his powers; *inter alia*, authorising him, if the creditors approve, to receive and decide on proof of debts, and to administer oaths.

To carry on bankrupt's business, and to employ him to superintend it.

To sell the property, or mortgage or pledge any part of it.

To bring or defend suits, refer disputes to arbitration, compromise debts or claims.

To divide property which cannot be sold among the creditors, and to accept composition, or general scheme of arrangement offered by the bankrupt.

30 binds the trustee, under penalties, to pay sums into the Bank of England, or other bank chosen by creditors.

31–40 describe debts, distinguishing as preferential, certain local rates, assessed and other taxes, and wages of clerks and servants, and deal with allowance to debtors, set off and secured debts.

41–50 apply to the distribution of dividends, appropriation of the surplus, if any, by the bankrupt after payment of creditors and costs, the close of the bankruptcy, discharge of the bankrupt (mainly depending on the payment of 10s. in the pound), and effect of the discharge.

51–53 relate to the release of the trustee and its effects.

54 explains the status of an undischarged bankrupt.

55–58 provide for the appointment of a comptroller or auditor of trustee's accounts, and define his duties and powers.

Part III.—Clauses 59–72 constitute the Court of Bankruptcy and Court of Appeal, and specify their general powers.

73–77 provide for the enforcement of warrants and orders of the court, and enjoin that the Bankruptcy Courts in England, Scotland, and Ireland, and every British court elsewhere, shall be auxiliary to each other in bankruptcy cases.

78, 79 empower the Lord Chancellor to revoke or alter rules of court, and to effect change of jurisdiction in county courts.

In Part IV., consisting of supplemental provisions, clause 80 makes additional regulations as to proceedings in bankruptcy.

81, 82 state the consequences of annulling of adjudication.

83, 84 lay down rules as to the trustee and committee of inspection.

85, 86 relate to the power over the bankrupt.

87–95 to the property devolving on the trustee.

96–99 to the discovery and seizure of the bankrupt's property.

100–105 refer to joint and separate estates.

106–109 specify the nature of the evidence necessary in proceedings in bankruptcy.

110–119 are of a miscellaneous kind, 118 enacting that no person not being a trader shall be adjudged a bankrupt in respect of a debt contracted prior to the Bankruptcy Act of 1861.

In Part V., relating to persons having privilege of Parliament, 120–124 enact that this privilege is not to prevent adjudication on bankruptcy; that the seat of a bankrupt member of the House of Commons shall be vacated; and that the Speaker shall issue a new writ.

Part VI.—Clause 125 makes regulations for the liquidation by arrangement of the affairs of the debtor.

Part VII.—Clauses 126, 127 contain regulations for the payment by a debtor to his creditors of a composition, without any proceedings in bankruptcy.

Part VIII.—Clauses 128–136 make temporary provision for transfer of officers from old to new Court of Bankruptcy, the abolition of the County District Courts, compensation to, and reappointment of officers &c.

Schedule 1 appended to the Act gives the following list of, and description of Traders:—

Alum makers, apothecaries, auctioneers, bankers, bleachers, brokers, brickmakers, builders, calenderers, carpenters, carriers, cattle or sheep salesmen, coach proprietors, cowkeepers, dyers, fullers, keepers of inns, taverns, hotels, or coffee houses, lime-burners, livery stable keepers, market gardeners, millers, packers, printers, sharebrokers, shipowners, shipwrights, stockbrockers, stockjobbers, victuallers, warehousemen, wharfingers, persons using the trade or profession of a scrivener, receiving other men's moneys or estates into their trust or custody, persons insuring ships or their freight or other matters against perils of the sea, persons using the trade of merchandise by way of bargaining, exchange, bartering, commission, consignment, or otherwise, in gross or by retail, and persons who, either for themselves or as agents or factors for others, seek their living by buying and selling or buying and letting for hire goods or commodities, or by the workmanship or the conversion of goods or commodities; but a farmer, grazier, common labourer, or workman for hire shall not, nor shall a member of any partnership, association, or company which cannot be adjudged bankrupt under this Act, be deemed as such a trader for the purposes of this Act.

In the article BANKRUPT AND BANKRUPTCY in this Dictionary the author expressed an opinion on the impolicy of imprisonment for debt where the debtor had acted honestly and had done all that should be required of him. By Act 32 & 33 Vict. c. 62 the Legislature have adopted this view, and may be said to have abolished imprisonment for debt in England, except for the punishment of fraudulent debtors and of contempt of court.

The 32 & 33 Vict. c. 83 provides for the winding up of the business of the late Insolvent Debtors' Court in England, and repeals a number of enactments relating to insolvency, bankruptcy, imprisonment for debt &c.

BARLEY AND BARLEY MEAL, and BARLEY PEARLED. Import duty on, repealed, 1869.

BEANS AND BEAN MEAL. Customs' duty on, repealed, 1869.

BEAR or BIGG. Customs' duty on, repealed, 1869.

BEER. [ALE AND BEER.]

BELGIUM. See article on ANTWERP in the Dictionary, edition 1869.

BIGG. [BEAR.]

BIRDS. [SEA BIRDS.]

BISCUIT AND BREAD. Customs' duty on, repealed, 1869.

BOSTON. The rocks called Touser and Corwin in the main channel near Fort Warren, which caused much trouble to the shipping, have been removed to the depth of twenty-three feet at low water, and these and other operations for widening and deepening the approaches to this harbour have rendered it one of the most secure on the coast, and will soon make it one of the most accessible. — Consul Lousada's Report of February 8, 1869.

BRAZIL. [SLAVES AND SLAVE TRADE.]

In the Dictionary of 1869 will be found articles on the undermentioned Brazilian ports; viz. BAHIA, PARA, PERNAMBUCO, and RIO DE JANEIRO.

BRISTOL. For an account of the harbour, docks &c., of this port, see the article DOCKS in the Dictionary, edition of 1869; sub-head *Bristol Docks, Shipping*, &c.

BUCKWHEAT AND MEAL. Customs' duty on, repealed, 1869.

CANADA. COLONIES; HUDSON'S BAY COMPANY, in this Supplement. See also articles HALIFAX and QUEBEC, in the Dictionary, ed. 1869.

CANAL. [SUEZ CANAL.]

CARDIFF. For an account of this port and its docks, see the article DOCKS in the Dictionary, edition 1869. Sub-head *Cardiff*.

CARRIAGES. The 32 & 33 Vict. c. 14 abolishes (from January 1, 1870): 1. The duties upon licenses to keep, use, and let to hire hackney carriages in the metropolis, and the weekly duties payable in respect of them; and 2, the duties upon licenses to keep, use, and employ stage carriages in Great Britain, and also the mileage duty in respect of the same, and imposes the following duties:—

	£	s.	d.
For every male servant	0	15	0
For every carriage—			
If such carriage shall have four or more wheels, and shall be of the weight of four hundredweight or upwards	2	2	0
If such carriage shall have less than four wheels, or, having four or more wheels, shall be of a less weight than four hundredweight	0	15	0
For every horse or mule	0	10	6
For armorial bearings—			
If such armorial bearings shall be painted, marked, or affixed on or to any carriage	2	2	0
If such armorial bearings shall not be so painted, marked, or affixed, but shall be otherwise worn or used	1	1	0
For every horse dealer	12	10	0

[HACKNEY CARRIAGES.]

CASSAVA POWDER. Customs' duty on, repealed, 1869.

CATTLE. An Act passed in 1869 (32 & 33 Vict. c. 70) consolidates, amends, and makes perpetual the Acts for preventing the introduction or spreading of contagious or infectious diseases among cattle and other animals in Great Britain. It is divided into 10 parts: the 1st preliminary, the 2nd referring to local authorities, the 3rd to the import of foreign animals, the 4th to the discovery and prevention of disease, the 5th to slaughter of cattle &c. in cattle plague, and compensation to be awarded to the owners, the 6th to Orders in Council &c., the 7th to the acquisition &c. of land for the burying or slaughtering of animals &c., the 8th to the expenses of local authorities, the 9th to offences and legal proceedings, and the 10th to Scotland; and appended to the Act are 9 Schedules, chiefly containing regulations; the 5th stating the maximum tolls, dues, and payments in the Metropolitan market after the opening of the Foreign Cattle market; viz.

	d.
Sheep	1½ per head
Beasts	6 "
Calves	3 "
Pigs	1½ "

An Order in Council of August 10, 1869, applicable to the Metropolis, revokes all previous orders on the subject of contagious and infectious diseases of cattle, and regulates the import of cattle into the port of London, the moving of cattle, and their sale, exhibition, slaughter &c.

CHILE. See VALPARAISO in Dictionary, edition 1869.

CHINA. The following tables, and that given under Shanghai, are extracted from the Returns of Trade printed at the Customs' Press of Shanghai in 1869. See also articles AMOY, CANTON, FOOCHOW, HONG KONG, MACAO, NINGPO, SHANGHAI &c. in the Dictionary, edition 1869.

Shipping at Chinese Ports in the following Years.

Flag	1864		1865		1866		1867		1868	
	Vessels (entered and cleared)	Tons	Vessels (entered and cleared)	Tons	Vessels (entered and cleared)	Tons	Vessels (entered and cleared)	Tons	Vessels (entered and cleared)	Tons
American	5,056	2,609,300	4,731	2,645,906	3,602	1,957,687	2,926	1,673,774	3,625	2,237,347
Austrian	33	12,926	19	5,681	10	2,944	8	2,920	..	..
Belgian	22	5,520	8	2,262	2	622	2	1,600	2	1,936
British	7,915	2,562,214	7,798	3,467,980	8,276	3,941,881	7,964	3,711,080	7,165	3,358,078
Chinese	1,661	64,588	574	30,548	516	33,724	561	34,689	571	38,732
Danish	767	164,892	670	141,047	216	37,058	139	25,870	135	25,737
Dutch	197	59,471	176	56,080	194	60,883	252	82,078	179	55,406
French	247	95,020	295	91,687	234	108,918	217	112,587	249	130,165
Hawaiian	2	912	23	8,660	29	9,940	8	1,980	12	1,980
Italian	2	859	15	9,217	5	3,097	13	11,595	4	1,544
Japanese	2	756	..	..	4	1,066	1	809	12	4,164
North German	..	..	..	..	2,343	620,522	2,252	611,861	1,771	467,097
Bremen	292	83,324	428	132,860	..	..	..	..	..	..
Hamburg	1,409	346,135	1,020	284,102	..	..	..	..	..	..
Hanover	197	30,096	174	21,893	..	..	..	..	..	..
Lübeck	21	7,452	14	5,751	..	..	..	..	..	..
Mecklenburg	53	10,518	20	3,704	..	..	..	..	..	..
Oldenburg	79	24,972	51	11,611	..	..	..	..	..	..
Prussian	187	46,143	205	45,228	..	..	..	..	..	..
Norway and Sweden	140	38,197	118	26,877	62	13,927	62	22,171	106	26,163
New Granadian	1	466	..	..	..	..	..	..	..	..
Portuguese	24	1,952	24	4,742	30	5,679	6	400	..	..
Peruvian	8	6,986	2	1,008	..	..	..	..	..	..
Russian	21	9,198	22	11,472	19	6,178	51	5,987	32	12,098
Siamese	156	68,365	145	64,177	157	67,662	166	71,924	217	91,512
Spanish	69	20,559	85	21,691	18	23,591	74	21,863	60	11,147
San Salvador	102	34,867	54	21,994	..	..	2	986	7	1,659
Total	17,966	6,635,385	16,648	7,158,301	15,672	6,877,982	14,704	6,396,815	14,075	6,618,302

Annual Value of the whole Trade of each of the undermentioned Chinese Ports in Foreign Goods and in Chinese Produce, Carried in Foreign Vessels—1865 to 1868.

		1865		1866		1867		1868	
		Taels	Total of each Port Taels	Taels	Total of each Port Taels	Taels	Total of each Port Taels	Taels	Total of each Port Taels
Shanghai*	Foreign Goods imported	10,817,405		11,864,505		12,870,275		12,451,880	
	Chinese " "	5,643,295		5,887,092		5,226,617		6,667,876	
	Exports	21,826,581	38,286,981	17,317,169	35,265,036	10,993,991	54,993,101	27,710,516	46,823,471
Hankow	Foreign Goods imported	8,445,945		11,956,880		10,294,656		9,892,797	
	Chinese " "	2,178,080		4,801,008		7,870,078		5,135,817	
	Exports	12,621,039	23,245,273	14,153,280	30,911,218	12,406,592	30,557,926	15,481,567	30,470,181
Canton	Foreign Goods imported	6,778,928		9,593,836		7,812,934		6,946,711	
	Chinese " "	919,547		647,968		2,060,071		2,672,888	
	Exports	13,485,207	21,180,182	14,060,223	24,502,027	13,787,171	24,296,156	13,841,116	23,460,665
Foochow	Foreign Goods imported	2,900,176		4,520,985		4,027,118		3,902,091	
	Chinese " "	3,106,913		5,820,640		3,856,718		2,848,526	
	Exports	15,984,351	21,991,421	14,182,347	22,521,972	15,619,906	23,457,792	16,117,730	22,538,997
Tientsin	Foreign Goods imported	7,721,871		12,099,222		9,737,155		11,651,871	
	Chinese " "	1,127,866		4,071,635		4,841,942		4,700,267	
	Exports	1,697,158	13,549,595	2,687,605	19,271,062	1,225,197	14,720,294	944,751	17,296,889
Ningpo	Foreign Goods imported	3,947,270		3,893,145		4,746,215		4,720,063	
	Chinese " "	2,324,563		2,264,479		1,984,541		1,805,661	
	Exports	5,081,157	11,271,090	6,432,297	12,586,162	5,832,385	12,563,541	6,070,721	12,599,445
Swatow	Foreign Goods imported	4,978,788		4,071,018		4,746,047		3,955,513	
	Chinese " "	3,110,119		4,120,090		4,185,995		1,778,389	
	Exports	2,961,885	10,150,792	3,663,557	12,763,265	2,934,709	11,826,941	2,593,668	8,327,570
Amoy	Foreign Goods imported	6,289,689		4,744,343		4,654,581		3,901,763	
	Chinese " "	3,570,126		3,221,273		2,706,027		1,664,549	
	Exports	2,911,086	10,822,901	2,961,617	10,925,193	2,697,795	10,058,401	2,373,819	7,940,131
Kiukiang	Foreign Goods imported	2,645,555		2,078,159		2,626,381		2,869,545	
	Chinese " "	630,079		1,116,306		585,488		591,514	
	Exports	6,275,557	9,551,541	6,170,302	9,365,967	4,568,740	7,860,609	7,683,993	11,117,852
Chefoo	Foreign Goods imported	3,372,009		1,178,948		3,293,188		4,662,641	
	Chinese " "	1,178,182		1,795,291		1,141,176		2,372,354	
	Exports	2,927,530	7,018,720	2,658,299	5,610,541	1,967,769	6,268,373	1,523,611	8,558,706
Chinkiang	Foreign Goods imported	3,293,290		3,459,925		3,336,618		3,666,865	
	Chinese " "	3,024,785		2,407,813		2,081,256		2,037,117	
	Exports	992,147	7,269,822	592,861	6,439,599	585,928	5,866,802	441,919	6,135,899
Newchwang	Foreign Goods imported	1,477,473		2,027,209		2,264,474		2,784,887	
	Chinese " "	383,386		297,108		796,169		2,130,951	
	Exports	2,167,314	3,928,573	1,919,930	4,244,337	2,393,587	5,444,230	1,591,619	6,507,457
Takow	Foreign Goods imported	611 9.7		779,066		867,128		648,099	
	Chinese " "	448,210		411,576		300,008		99,680	
	Exports	751,276	1,811,413	869,046	2,059,688	899,812	2,022,948	704,124	1,442,903
Tamsui	Foreign Goods imported	472,153		640,903		664,016		551,511	
	Chinese " "	71,905		84,885		49,599		36,662	
	Exports	236,942	781,000	252,814	958,602	156,683	870,298	308,834	897,007
Total Value of Produce exported Abroad and to Chinese Ports		55,578,083		88,421,647		83,774,273		97,587,988	
Of which the Value exported Abroad was		60,054,634		56,161,807		57,895,713		69,114,733	
Leaving as an Approximation to the Value of the Home Trade		28,523,449		32,259,840		25,878,560		28,473,255	

The Goods Re-exported from these Ports, with the exception perhaps of Amoy, are not sufficiently important to be noticed. The Value of Foreign Goods Re-exported from Amoy, chiefly to the Formosa Ports, was in 1865, Tls. 854,650, in 1866, Tls. 805,024, in 1867, Tls. 694,353, in 1868, Tls. 625,801.

* For fuller information concerning Shanghai, see the Special Table on the following page.

** The term Home Trade here is applied only to Chinese Produce carried from port to port in Foreign vessels for Chinese consumption.
A still greater amount of carrying trade is done by Foreign vessels in distributing the Foreign Imports from Shanghai to Hankow, Kiukiang, Chinkiang, Tientsin, Chefoo, Newchwang, and Ningpo, and in bringing teas from Hankow, Kiukiang, and Ningpo, to Shanghai for exportation.

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Revenue of each Port—1868 *and* 1867.

Ports	Import	Export	Tonnage Dues	Coast Trade Duty	Total 1868	Total 1867
	Tls. m. c. c.	Tls. m. c. c.	Tls. m. c. c.	Tls. m. c. c.	Tls. m. c. c.	Tls. m. c. c.
Shanghai - -	1,451,709,254.3	284,000,858.5	100,666,710.7	142,197,514.9	2,501,676,338.5	2,201,340,817.1
Canton - -	247,011,153.9	586,913,352.6	17,716,500.0	18,563,318.8	860,204,325.1	951,774,913.7
Swatow - -	187,150,460.0	154,040,599.8	12,809,100.0	20,376,020.50	374,375,180.3	470,887,146.5
Amoy - -	236,671,048.4	158,597,467.9	14,562,300.0	17,913,904.5	427,744,720.8	527,527,304.1
Foochow - -	214,020,444.3	1,537,747,453.7	18,145,700.0	23,947,453.0	1,813,861,051.0	1,708,470,120.3
Tukow - -	9,288,624.2	39,865,008.0	1,001,400.0	1,331,856.4	51,186,928.6	58,171,188.8
Taiwan - -	25,824,909.3	11,766,566.3	1,284,200.0	174,700.5	39,049,376.1	42,037,134.7
Ningpo - -	152,197,531.2	377,980,037.6	7,766,600.0	30,145,862.3	567,908,831.1	952,601,713.1
Chinkiang - -	1,020,013.9	17,910,541.1	3,136,500.8	10,527,917.5	32,594,513.3	23,814,825.5
Kiukiang - -	278,414.3	529,225,909.5	2,952,300.0	21,542,656.6	553,999,299.4	426,507,147.5
Hankow - -	901,742.5	1,104,595,940.9	5,569,740.0	43,749,861.5	1,154,817,084.7	943,887,077.5
Chefoo - -	135,450,210.6	73,442,762.2	13,003,600.0	42,080,861.8	264,083,434.6	258,961,134.0
Tientsin - -	981,612,963.5	54,088,212.3	5,858,500.0	68,458,650.0	390,617,825.8	411,197,858.9
Newchwang - -	103,934,465.5	81,542,664.7	5,092,100.0	27,258,830.0	225,736,772.4	231,972,841.7
Total Haikwan Tls. -	5,287,679,955.5	5,541,960,814.8	203,766,553.5	474,301,654.8	9,307,347,477.6	8,718,444,473.8
Add Transit Dues, at Shanghai -	..	..	..	..	6,728,311.6	6,558,956.7
Do. do. Foochow -	..	..	..	..	5,739,561.7	5,771,475.5
Do. do. Swatow -	..	..	..	..	12,071.4	..
Do. do. Chinkiang -	..	..	..	..	5,541,771.6	439,664.2
Do. do. Kiukiang -	..	..	..	..	196,256.0	94,190.0
Do. do. Hankow -	..	..	..	..	100,021,540.8	86,047,653.2
Total, 1868 H. Tls.	..	..	..	..	9,425,633,813.7	..
In 1867 H. Tls.	5,197,442,000.1	4,579,015,500.2	203,655,555.6	478,500,654.4	..	8,185,336,253.9

CHOCOLATE. [Licenses; Tea.]

CHRISTIANIA. In Consul-General Crowe's Report of March 31, 1869, on the Spring Herring Fishery on the South-West Coast of Norway, he gives the annexed table, showing the catch for the last six years ending with 1869, and the exports for the five years ended 1868:—

Years	Catch	Exported
	Brls.	Brls.
1864	687,000	550,000
1865	789,000	631,324
1866	747,000	598,215
1867	599,000	479,442
1868	612,000	489,494
1869	681,000	..

The above figures merely refer to the spring herring fishery, and not to what is caught during the season to the north, and exported from the northern provinces.

CIDER. [Ale and Beer.]

COASTING TRADE. The Merchant Shipping (Colonial) Act of 1869 (32 Vict. c. 11) places, on certain conditions, the regulation of the coasting trade of our colonial possessions under their respective Legislatures, and empowers them to grant, after due examination, certificates of qualification to persons intending to act as masters, mates, or engineers on board British ships.

COCOA NUTS. [Licenses; Tea.]

COFFEE. [Licenses; Tea.]

COINS. By Order in Council of August 7, 1869, gold coins made at the branch mint of Melbourne, Victoria, are declared legal tender in all parts of the empire.

Considerable discussion has been excited by the proposal of Mr. Lowe (Chancellor of the Exchequer) to levy seignorage on our gold coinage by giving in return for every 123·274 grains of bullion delivered at the Mint a sovereign of the reduced weight of 122·274 grains. As the views of the author of the Commercial Dictionary on the subject of seignorage are given in the article on Coins, p. 332, edition 1869, they need not be repeated here.

COLLISION. The County Courts Admiralty jurisdiction is extended by 32 & 33 Vict. c. 51 to all claims not exceeding 300*l.* each on account of damage to ships, whether by collision or otherwise.

COLONIES. The Canada Rupert's Land Loan Act of 1869 guarantees a loan of 300,000*l.* by the Canadian Government for payment to the Hudson's Bay Company of the price of the surrender of Rupert's Land to the Canadian Dominion.

The Merchant Shipping Colonial Act of 1869 gives power to Colonial Legislatures to regulate their coasting trade, and to grant, after examination, certificates of qualification to persons intending to act as masters, mates, or engineers in British ships.

196,325 persons emigrated from the United Kingdom in 1868, of whom 155,532 went to the United States, 21,206 to our North American colonies, and 12,809 to the Australian colonies and New Zealand.

COMPANIES. The 32 & 33 Vict. c. 19, passed 1869, regulates partnerships for working mines in the stannaries of Devon and Cornwall. [Partnerships; Railways; Stocks.]

CORK. See account of its dock in article Docks in the Dictionary, edition 1869, sub-head *Cork*.

CORN LAWS AND CORN TRADE. Mr. Lowe (Chancellor of the Exchequer) carried out his intention referred to under Wheat Tariff &c. in this Dictionary, and on June 1, 1869, by 32 & 33 Vict. c. 14, the customs' duties ceased on the import of corn, grain, meal and flour, and articles of the like character, viz.,

Wheat, barley, oats, rye, pease, beans, maize or Indian corn, buck wheat, bear or bigg, wheat meal and flour, barley meal, oat meal and groats, rye meal and flour, pea meal, bean meal, maize or Indian corn meal, buckwheat meal, meal not otherwise enumerated or described, arrowroot, barley, pearled, biscuit and bread, cassava powder, maccaroni, mandioca flour, manna croup, potato flour, powder, viz. hair, powder perfumed, powder not otherwise enumerated or described, that will serve the same purpose as starch, rice dust and meal, sago, semolina, starch, starch gum of, torrified or calcined, tapioca, vermicelli.

COUNTY COURTS. The Admiralty jurisdiction of the county courts is extended by 32 & 33 Vict. c. 51 to any claims not exceeding 300*l.* each, relating to the use or hire of any ship, or the carriage of goods in any ship, or any claim in tort in respect of goods carried in any ship, and to all claims for damage to ships whether by collision or otherwise, and also, if the parties agree, to claims of higher amount referring to all the above claims except those for damage. It provides, too, that the judge may be assisted by two mercantile assessors. (See also Bankruptcy in this Supplement.)

CUSTOMS. The 32 & 33 Vict. c. 103 empowers the commissioners of customs to dispense with the attendance of the master of a vessel at the Custom-house to verify the contents of his ship, and to accept a like declaration from any person authorised by the master in writing under his hand, to make it on his behalf. See TARIFF for list of duties abolished and altered.

DEBENTURES. [STOCKS.]

DEBT, imprisonment for, is abolished in England by 32 & 33 Vict. c. 62, except in the case of fraud or contempt of court.

See also 32 & 33 Vict. c. 83 for winding up the business of the late Insolvent Debtors' Court.

DEBTS. The Act 32 & 33 Vict. c. 46 abolishes the distinction between specialty and simple contract debts of a deceased person in England and Ireland. We quote the enactment:

'*All specialty and simple contract debts of deceased persons to stand in equal degree after January* 1, 1870.—In the administration of the estate of every person who shall die on or after the first day of January, one thousand eight hundred and seventy, no debt or liability of such person shall be entitled to any priority or preference by reason merely that the same is secured by or arises under a bond, deed, or other instrument under seal, or is otherwise made or constituted a specialty debt; but all the creditors of such person, as well specialty as simple contract, shall be treated as standing in equal degree, and be paid accordingly out of the assets of such deceased person, whether such assets are legal or equitable, any statute or other law to the contrary notwithstanding: Provided always, that this Act shall not prejudice or affect any lien, charge, or other security which any creditor may hold or be entitled to for the payment of his debt.'

Extent of Act.—This Act shall not extend to Scotland.

DENMARK. See COPENHAGEN and ELSINEUR in Dictionary, edition 1869.

DIVIDENDS. [BANK OF ENGLAND; FUNDS.]

DUNDEE. For account of this port in the Dictionary, edition 1869, see DOCKS, sub-head *Dundee.*

EAST INDIES. Two Acts, passed in 1869, affect the government of India: the first (32 & 33 Vict. c. 97) enacts that vacancies in the Council of India shall be filled up by the Secretary of State; that members are in future to be appointed for 10 years, being eligible for an additional term of 5 years, and may have retiring pensions of 500*l.* a year after 10 years' service; and the appointments of ordinary members of the Governor General's Council and of the Councils of the Presidencies are to be made by royal warrant without the consent of the Council of India. The 32 & 33 Vict. c. 98 gives the Governor General in Council power to make laws for native subjects beyond as well as within our Indian territories.

EAU DE COLOGNE. The duty of customs upon all Cologne water brought into the United Kingdom is, by 32 & 33 Vict. c. 14 *s.* 3, fixed at 14*s.* per gallon, whether imported in flasks or otherwise. [WAREHOUSING.]

ECUADOR. See article GUAYAQUIL in Dictionary, edition 1869.

ENGINEERS. Colonial Legislatures have power, under 32 Vict. c. 11, to grant, after examination, certificates of qualification to persons intending to act as masters, mates, or engineers on board British ships.

EXCISE. See LICENSES; TARIFF; WAREHOUSING.

FIRE INSURANCE. Stamp duty on, abolished, 1869. [INSURANCE.]

FISH. [OYSTERS; SALMON.]

The 32 & 33 Vict. c. 92, the Fisheries (Ireland) Act, gives the inspectors of Irish fisheries power to make bylaws as to these fisheries, and regulations as to voluntary agreements between owners of fishing vessels and their crews, and provides for the recovery of fishing boats and gear picked up at sea.

FLOUR. [CORN.]

FRANCE. The following statement of the total values of the import and export trade of France in each of the eight years ending with 1868 is extracted from the Report, dated July 1, 1869, of Mr. West, secretary of the British Embassy at Paris:—

Years	Imports	Exports
	£	£
1861	97,693,120	77,050,400
1862	87,942,200	89,707,240
1863	97,055,160	105,702,560
1864	101,126,000	116,966,720
1865	105,672,240	123,555,000
1866	111,759,360	127,121,360
1867	121,060,561	113,036,400
1868	135,914,880	116,271,600

In the Dictionary, edition 1869, will be found articles on the following French ports, viz. BORDEAUX, HAVRE, MARSEILLES, and NANTES.

FREIGHT. [SHIPS.]

FUNDS. By the 32 & 33 Vict. c. 104, holders of stock may now have their dividend warrants sent through the post. See clauses of the Act quoted under BANK OF ENGLAND.

GALATZ. New regulations of the European commission of the Danube, modifying the dues for river pilotage, and concerning towage between Isaktcha and the Sulina Mouth, the anchorage in the port of Sulina, and the Seamen's Hospital there, have, with a prefatory notice of the Board of Trade of July 8, 1869, been published in the *London Gazette.*

GLASGOW. For an account of her docks and shipping, see article DOCKS, sub-head *Glasgow*, in the Dictionary, edition 1869.

GLYCERINE is produced through the saponification of fat oils, and is obtained in large quantities, especially from palm oil, in soap and candle manufactories. It is used in the arts by modellers, printers &c., also for preserving fruit, food &c., and in pharmaceutical preparations, both for internal use and for ointments. It is made into glycerine soap, and is also used for greasing delicate machinery.

Glycerine when treated with nitric acid becomes nitro-glycerine or glonoine oil, a highly inflammable substance, discovered by M. Sobrero in 1847, and more recently used for blasting. The carriage of this explosive material has been attended with so much danger that the Legislature have, by 32 & 33 Vict. c. 113 *s.* 8, prohibited, under heavy penalties, the importation and exportation of it, or of any substance having nitro-glycerine in any form as one of its component parts. Sec. 4 provides that the manufacture, sale, and carriage of it in the United Kingdom are to be regulated by license by one of her Majesty's Secretaries of State; sec. 5 provides that persons having any in their possession at the passing of the Act must give notice to the Secretary of State; and sec. 6 enacts that nitro-glycerine may be searched for in the same way as gunpowder, under 23 & 24 Vict. c. 139.

For a fuller notice of glycerine, and nitro-glycerine, reference is made to Ure's *Dictionary of Manufactures* by Hunt.

GREAT GRIMSBY. For an account of this port see article Docks, sub-head *Grimsby*, in the Dictionary, edition 1869.

GREECE. See articles Ionian Islands, Patras, and Syra in the Dictionary, edition 1869.

GROATS. [Oats and Oatmeal.]

HACKNEY CARRIAGES. The 32 & 33 Vict. c. 14 s. 17 (to operate from January 1, 1870) repealed the duties on licenses to keep, use, and let hackney carriages within the limits of the metropolitan district and the City of London, and also the weekly duties payable in respect of such hackney carriages; the duties on licenses to keep, use, and employ stage carriages in Great Britain, and also the mileage duty payable in respect of such stage carriages. [Carriages; Horses.]

HAIR POWDER. [Powder.]

HAYTI. [Port au Prince in Dictionary.]

HOLLAND. [See Amsterdam in this Supplement, and Amsterdam; Batavia; Rotterdam; in the Dictionary, edition 1869.]

HORSES. The duties on licenses to be taken out by persons who shall let horses for hire in Great Britain, and the duties on licenses to let to hire horses for travelling post by the mile, or from stage to stage, in Ireland, were repealed, from January 1, 1870, by 32 & 33 Vict. c. 14 s. 17; and the same Act imposes a license duty of 10*s.* 6*d.* after that date for every horse or mule kept in Great Britain and used for draught or riding.

HUDSON'S BAY COMPANY. The Canada Rupert's Land Loan Act, 32 & 33 Vict. c. 101, guarantees a loan to be raised by the Government of Canada for payment of 300,000*l.* to the Hudson's Bay Company for the surrender of Rupert's Land to the Dominion of Canada.

HULL. For an account of her docks, shipping, &c., see article Docks, sub-head *Hull*, in the Dictionary, edition 1869.

IMPORTS AND EXPORTS. (See pp. 9, 10, and 11 of this Supplement.)

INDIA. [East Indies.]

INDIAN CORN. [Maize.]

INSURANCE. On June 25, 1869, the stamp duty at the rate of 1*s.* 6*d.* per cent. per annum on insurances against loss or damage by fire ceased in terms of sec. 12 of 32 & 33 Vict. c. 14.

ITALY. Embodied in the Report of January 30, 1869, by Mr. Herries, our Secretary of Legation at Florence, is the following table, showing the extent of the navigation for 1867 in each of the maritime districts into which the coasts of the kingdom of Italy are divided :—

Maritime Districts	Entered inwards		Cleared outwards	
	Foreign Trade		Coasting Trade	
	Ships	Tons	Ships	Tons
Genoa - -	5,663	1,269,005	18,657	1,337,377
Messina - -	2,249	935,165	15,827	1,023,690
Leghorn - -	2,844	617,661	17,214	1,257,219
Naples - -	2,879	672,510	11,397	907,709
Palermo - -	977	369,159	7,529	465,911
Venice - -	3,367	672,140	2,518	135,718
Catania - -	1,766	197,624	11,035	605,516
Taranto - -	1,054	264,781	7,052	456,699
Porto Empedocle -	2,383	293,975	6,070	339,782
Cagliari - -	1,511	241,242	5,786	329,565
Castel ammare -	1,207	216,210	11,283	379,365
Ancona - -	2,623	338,847	5,397	161,447
Bari - -	1,610	135,483	1,918	332,731
Spezia - -	1,125	86,150	10,221	369,674
Trapani - -	937	98,161	6,788	280,250
Pizzo - -	60	6,309	6,005	339,605
La Maddalena -	1,033	121,161	2,538	291,307
Porto Maurizio -	2,550	182,398	2,476	143,682
Portoferraio -	783	66,772	5,613	156,168
Rimini - -	1,567	84,670	6,118	123,871
Gaeta - -	98	8,393	3,557	109,541
Total - -	42,657	6,926,211	169,919	9,264,070

See articles Civita Vecchia, Gallipoli, Genoa, Leghorn, Messina, Naples, Palermo, and Venice, in Dictionary, edition 1869.

LEITH. For an account of this port see article Docks in the Dictionary, edition 1869, sub-head *Leith*.

LICENSES. The 32 & 33 Vict. c. 14 s. 17 (to operate from January 1, 1870) repealed—

The duties on licenses to keep, use, and let hackney carriages within the limits of the Metropolitan district and the City of London, and also the weekly duties payable in respect of such hackney carriages.

The duties on licenses to keep, use, and employ stage carriages in Great Britain, and also the mileage duty payable in respect of such stage carriages. [Carriages; Horses.]

The excise licenses for selling tea, coffee, cocoa nuts, chocolate, or pepper.

The duties on licenses to be taken out by persons who shall let horses for hire in Great Britain; and the duties on licenses to let to hire horses for the purpose of travelling post by the mile, or from stage to stage, in Ireland; and the same Act imposes a license duty of 10*s.* 6*d.* after that date for every horse or mule kept in Great Britain and used for draught or riding, as well as other license duties for male servants, carriages, and armorial bearings.

LIGHTHOUSE. The 32 & 33 Vict. c. 77 provides for the erection of a lighthouse on the Great Basses Rock in Ceylon.

LIQUEURS, BRITISH. [Warehousing.]

LIVERPOOL. For an account of her port, docks &c., see article Docks, sub-head *Liverpool*, in Dictionary, edition 1869.

LONDON. For a description of the various docks on the Thames, see article Docks in the Dictionary.

MACCARONI. Customs' duty on, repealed, 1869.

MAIZE or INDIAN CORN, and MEAL. Customs' duty on, repealed, 1869.

MALT. Extracts and essences or other concentrations of malt may now be imported into the United Kingdom, in transit or to be warehoused for exportation only, under 32 & 33 Vict. c. 14 s. 8. [Ale and Beer.]

MANDIOCA FLOUR. Customs' duty on, repealed, 1869.

MANILLA. The Board of Trade gave notice (July 5, 1869) in the *London Gazette*, that the Spanish Government has issued two decrees, of which translations are published, the one reforming the customs' duties in the Philippines, and the other relating to the introduction and repairs of vessels in those islands.

MANNA CROUP. Customs' duty on, repealed, 1869.

MASTERS. Colonial Legislatures have, under 32 Vict. c. 11, power to grant, after examination, certificates of qualification to persons intending to act as masters, mates, or engineers, on board British ships.

MATES. [Masters.]

MEAL, of all kinds. Customs' duty on, repealed, 1869.

MECKLENBURG. See article Rostock, in Dictionary, edition 1869.

METHYLATED SPIRIT. The 32 & 33 Vict. c. 103 explains the 18 & 19 Vict. c. 38 as to the excess or deficiency in the stocks of makers of this spirit which would be forfeited or charged with duty under this Act.

MEXICO. See articles Acapulco, and Vera Cruz, in Dictionary, edition 1869.

I.—*Account of the Real or Declared Value of the various Articles of the Manufacture and Produce of the United Kingdom Exported to Foreign Countries during each of the 5 Years ending with 1868, specifying the Countries to which they were Exported, and the Value of those Annually Shipped for each; and showing also the Average Amount of Exports during the said 5 Years to each Country and to each of the 5 great Divisions of the Globe; and the Average Proportion Exported to each, supposing the whole Exports to be* 1,000.

Countries	1864	1865	1866	1867	1868	Average Annual Amount of Exports 1864-68	Average Annual Proportion Exported to each Country, supposing the whole Exports to be 1,000
Europe	£	£	£	£	£	£	
Russia	2,846,409	2,923,006	3,176,636	3,944,035	4,250,140	3,428,049	19·570
Sweden	731,294	903,307	823,488	647,318	617,683	744,618	4·251
Norway	772,097	677,007	854,318	848,845	774,930	785,449	4·484
Denmark	1,158,767	1,264,432	1,302,811	1,282,359	1,450,359	1,270,546	7·253
Prussia	1,134,599	2,095,320	1,800,499	2,879,380	3,069,237	2,195,767	12·535
Germany	14,338,284	15,800,354	15,967,193	17,663,273	19,705,180	16,294,857	93·024
Holland	6,884,937	8,137,753	8,999,713	9,422,742	10,395,098	8,768,048	50·055
Belgium	2,301,291	2,935,833	2,861,665	2,816,681	3,150,105	2,813,075	16·059
France	8,187,361	9,062,093	11,700,140	12,121,010	10,652,754	10,344,668	59·055
Portugal Proper	2,091,314	2,066,037	2,091,101	1,823,382	1,554,619	1,907,296	10·888
Azores	106,967	82,211	129,786	108,221	95,108	104,459	·596
Madeira	71,500	64,592	82,575	74,136	71,959	73,012	·417
Spain	3,084,778	2,177,446	2,093,829	2,237,962	2,208,892	2,360,581	13·476
Gibraltar	1,205,168	1,120,847	1,134,697	723,318	706,298	978,266	5·585
Italy	5,809,591	5,474,440	5,852,875	4,881,553	5,016,786	5,403,049	30·845
Austrian Territories	792,119	724,618	912,058	963,952	1,077,159	893,987	5·104
Malta	753,113	631,504	653,304	498,796	501,952	607,814	3·470
Ionian Islands	420,333	436,191	434,004	434,158	428,044	430,602	2·458
Greece	433,887	582,299	417,615	514,086	518,823	499,468	2·852
Turkey	6,137,380	5,810,068	6,530,603	5,914,518	6,947,389	6,274,031	35·817
Channel Islands	1,016,000	756,593	490,951	469,525	555,120	656,838	3·750
Total	60,271,989	63,752,383	66,099,941	70,270,026	73,777,865	66,834,441	381·544
Asia							
Syria and Palestine	1,366,609	1,534,902	1,559,362	1,143,345	1,243,753	1,369,394	7·820
Arabia and Persia	33,093	62,167	94,079	90,834	98,441	77,525	·443
East Indies and Ceylon	21,959,650	20,387,720	25,079,265	24,615,916	23,619,437	22,738,797	129·809
China and Japan	5,353,991	6,763,941	8,926,606	9,018,520	9,614,454	7,935,501	45·302
Java and Sumatra	796,550	927,755	1,726,857	1,529,485	831,874	1,125,564	6·424
Philippine Islands	765,719	955,300	917,841	1,042,468	956,140	927,493	5·295
Total	30,275,913	30,431,785	36,304,010	37,279,568	36,369,099	34,132,075	194·853
Africa							
Egypt	6,055,564	6,093,090	7,698,172	8,765,315	6,103,855	6,828,745	38·984
Morocco	167,532	270,474	191,236	189,367	195,748	201,472	1·152
Western Coast of Africa	1,009,128	1,212,465	1,413,576	1,741,116	1,766,367	1,434,531	8·189
Cape of Good Hope and Natal	2,271,616	1,701,060	1,599,004	1,893,011	1,591,171	1,771,176	10·111
Eastern Coast of Africa	56,031	60,328	67,122	39,574	38,842	52,439	·299
St. Helena and Ascension	45,574	53,887	51,080	42,046	35,570	45,231	·261
Mauritius	655,830	597,364	869,385	377,140	383,690	516,782	2·950
Algeria	14,229	12,563	15,763	22,623	23,697	17,375	·100
Total	10,265,524	10,030,951	11,335,642	12,574,101	10,136,870	10,868,578	62·046
America							
British North American Colonies	5,595,691	4,707,727	6,824,060	5,862,402	4,847,688	5,567,894	31·785
West Indies	3,511,209	2,169,300	2,140,300	1,855,261	1,968,666	2,329,547	13·300
Guiana	828,996	775,668	769,534	651,429	707,502	746,706	4·263
Hayti	440,811	335,514	447,381	291,623	220,806	349,147	1·994
Foreign West Indies	3,889,190	2,987,875	3,179,284	3,020,331	2,954,990	3,206,246	18·304
United States of America	16,708,705	21,927,956	28,499,511	21,825,703	24,431,632	21,978,662	125·514
Mexico	1,809,753	1,896,895	1,283,213	814,985	848,588	1,330,279	7·595
Central America	221,791	138,142	153,264	243,560	160,049	183,362	1·047
Columbia	2,511,577	2,785,452	3,402,032	2,695,739	2,809,108	2,848,181	16·260
Brazil	6,249,260	5,651,980	7,221,733	6,693,557	5,351,989	6,035,092	34·453
States of La Plata and Uruguay	2,772,599	2,763,818	4,235,739	4,259,652	2,857,880	3,379,528	19·293
Chili	1,683,691	1,641,987	1,854,982	2,324,438	1,902,714	1,925,140	10·991
Peru	1,335,502	1,186,753	1,368,868	1,425,964	1,135,788	1,290,515	7·362
Falkland Islands	12,832	9,282	17,027	7,611	13,111	12,033	·069
Total	47,593,799	48,215,089	61,396,791	51,104,598	47,270,381	51,142,132	291·960
Australia							
West and South Australia, Victoria, New South Wales, Queensland, Tasmania, and New Zealand	11,857,213	13,339,241	13,643,316	9,613,739	12,075,610	12,105,826	69·110
South Sea Islands	184,815	36,276	137,836	19,888	47,987	85,358	·487
Total	12,042,028	13,375,517	13,781,152	9,633,627	12,123,597	12,191,184	69·597

Recapitulation.

Europe	60,271,989	63,752,383	66,099,941	70,270,026	73,777,865	66,834,441	381·544
Asia	30,275,913	30,431,785	36,304,010	37,279,568	36,369,099	34,132,075	194·853
Africa	10,265,524	10,030,951	11,335,642	12,574,101	10,136,870	10,868,578	62·046
America	47,593,799	48,215,089	61,396,791	51,104,598	47,270,381	51,142,132	291·960
Australia	12,042,028	13,375,517	13,781,152	9,633,627	12,123,597	12,191,184	69·597
Grand Total	160,449,053	165,805,725	188,917,536	180,961,925	179,677,812	175,168,410	1,000·000

II.—*Account of the Real or Declared Value of the various Articles of the Manufacture and Produce of the United Kingdom Exported to Foreign Countries during each of the 5 Years ending with 1867, specifying the Countries to which they were Exported, and the Value of those Annually Shipped for each; and showing also the Average Amount of Exports during the said 5 Years to each Country and to each of the 5 great Divisions of the Globe; and the Average Proportion Exported to each, supposing the whole Exports to be* 1,000.

Countries	1863	1864	1865	1866	1867	Average Annual Amount of Exports 1863-67	Average Annual Proportion Exported to each Country, supposing the whole Exports to be 1,000
EUROPE	£	£	£	£	£	£	
Russia	2,695,276	2,546,109	2,923,006	3,176,656	3,944,035	3,117,076	19·493
Sweden	666,987	730,294	803,307	823,188	617,318	742,479	4·605
Norway	536,979	772,097	677,007	854,348	848,943	741,854	4·601
Denmark	880,667	1,152,767	1,284,132	1,392,811	1,282,559	1,156,611	6·862
Prussia	1,917,345	1,134,309	2,095,320	1,801,499	2,879,340	1,965,389	11·060
Germany	11,826,913	14,338,284	15,809,354	13,967,193	17,665,273	14,679,003	87·968
Holland	6,324,696	6,884,937	8,137,753	8,999,713	9,422,712	7,953,968	47·190
Belgium	2,107,532	2,501,291	2,953,833	2,861,665	2,816,480	2,604,360	15·452
France	8,673,309	8,187,561	9,062,095	11,709,140	12,121,011	9,948,782	59·025
Portugal Proper	2,225,777	2,091,514	2,066,037	2,001,101	1,823,582	2,041,522	12·112
Azores	85,288	106,967	82,211	129,786	108,221	102,494	·608
Madeira	65,924	71,500	64,592	82,575	74,436	71,405	·424
Spain	3,309,556	3,084,778	2,177,446	2,093,829	2,237,962	2,620,513	15·547
Gibraltar	1,267,909	1,206,165	1,120,847	1,134,697	723,318	1,090,586	6·470
Italy	6,005,173	5,809,591	5,474,440	5,838,875	4,881,353	5,601,686	33·230
Austrian Territories	894,738	792,119	721,643	912,058	963,052	851,903	5·052
Malta	622,608	753,113	631,904	653,304	498,796	631,945	3·749
Ionian Islands	405,118	422,533	436,191	451,004	451,458	426,016	2·527
Greece	341,991	433,587	584,299	417,645	514,686	458,042	2·718
Turkey	5,872,430	6,157,580	5,860,068	6,550,605	5,914,518	6,059,040	35·947
Channel Islands	867,776	1,016,000	758,595	490,951	469,523	719,369	4·268
Total	57,579,806	60,271,989	63,752,383	66,099,941	70,270,026	63,594,829	377·296
ASIA							
Syria and Palestine	1,026,562	1,366,608	1,334,902	1,559,362	1,143,345	1,286,156	7·628
Arabia and Persia	46,206	33,095	62,167	94,079	99,834	67,076	·398
East Indies and Ceylon	22,564,944	21,959,650	20,347,720	23,078,264	24,665,916	22,527,499	133·653
China and Japan	4,047,105	5,353,991	6,765,961	8,926,606	9,018,520	6,822,093	40·475
Java and Sumatra	650,424	796,850	927,755	1,329,837	1,329,485	1,006,274	6·045
Philippine Islands	564,058	765,719	953,300	917,841	1,042,168	849,078	5·038
Total	28,899,599	30,275,913	30,431,785	36,304,010	37,279,568	32,638,176	193·637
AFRICA							
Egypt	4,411,719	6,053,364	6,023,020	7,628,172	8,265,315	6,490,918	38·508
Morocco	174,551	162,532	270,474	191,238	189,367	197,632	1·173
Western Coast of Africa	1,129,863	1,008,128	1,212,165	1,413,578	1,744,116	1,307,970	7·758
Cape of Good Hope and Natal	1,523,285	2,271,616	1,701,060	1,399,024	1,893,011	1,757,599	10·427
Eastern Coast of Africa	28,574	56,031	60,328	67,122	39,574	50,346	·299
St. Helena and Ascension	40,610	45,474	53,387	51,080	42,646	46,759	·277
Mauritius	811,813	655,850	897,354	869,385	877,450	862,370	5·117
Algeria	13,732	12,220	12,363	15,743	22,685	15,549	·091
Total	7,853,427	10,265,384	10,030,951	11,335,642	12,574,101	10,407,889	61·748
AMERICA							
British North American Colonies	4,813,482	5,595,691	4,707,727	6,824,900	5,862,402	5,560,892	32·992
West Indies	3,392,657	3,511,209	2,169,300	2,140,300	1,858,261	2,614,345	15·511
Guiana	541,049	828,996	775,668	769,534	651,829	713,415	4·232
Hayti	528,614	450,611	335,314	447,581	291,625	410,749	2·436
Foreign West Indies	2,959,521	3,889,190	2,987,575	3,179,244	3,020,331	3,203,232	19·005
United States of America	15,511,390	16,708,505	21,227,956	28,499,514	21,825,705	20,721,214	122·935
Mexico	1,675,772	1,509,753	1,896,895	1,233,215	812,988	1,496,276	8·877
Central America	140,609	221,794	138,142	153,284	283,560	179,474	1·065
Columbia	1,970,313	2,541,477	2,789,452	3,402,032	2,695,739	2,680,403	15·903
Brazil	5,264,661	6,249,260	5,651,980	7,224,733	5,694,557	5,757,546	34·156
States of La Plata and Uruguay	1,865,932	2,752,599	2,763,818	4,253,739	4,289,632	3,181,144	18·873
Chili	1,431,514	1,683,580	1,911,987	1,852,982	2,324,438	1,818,900	10·791
Peru	1,027,515	1,335,902	1,186,753	1,368,868	1,428,964	1,268,800	7·528
Falkland Islands	11,503	12,832	9,282	17,027	7,611	11,611	·069
Total	39,649,860	47,593,799	48,815,089	61,396,791	51,904,598	49,618,017	294·376
AUSTRALIA							
West and South Australia, Victoria, New South Wales, Queensland, Tasmania, and New Zealand	12,498,534	11,857,213	13,539,241	13,645,598	9,613,739	12,190,431	72·332
South Sea Islands	141,116	184,815	36,276	137,826	19,888	104,984	·619
Total	12,639,650	12,042,028	13,575,517	13,781,152	9,633,627	12,294,395	72·951

RECAPITULATION.

Europe	57,579,806	60,271,989	63,752,383	66,099,941	70,270,026	63,594,829	377·296
Asia	28,899,599	30,275,913	30,431,785	36,304,010	37,279,568	32,638,176	193·637
Africa	7,853,427	10,265,384	10,030,951	11,335,642	12,574,101	10,407,889	61·748
America	39,649,860	47,593,799	48,815,089	61,396,791	51,904,598	49,618,017	294·376
Australia	12,639,650	12,042,028	13,575,517	13,781,152	9,633,627	12,294,395	72·941
Grand Total	146,602,342	160,449,063	166,605,725	188,917,536	180,961,925	168,535,316	1,000·000

III.—*Account of the Real Value of the various Articles Imported from Foreign Countries into the United Kingdom during each of the 5 Years ending with 1867, specifying the Countries from which they were Imported, and the Value of those Annually received from each; and showing also the Average Amount of our Imports during the said 5 Years from each Country and from each of the 5 great Divisions of the Globe; and the Average Proportion Imported from each, supposing the whole Imports to be 1,000.*

Countries	1863	1864	1865	1866	1867	Average Annual Amount of Imports, 1863-67	Average Annual Proportion Imported from each County, supposing the whole Imports to be 1,000
Europe	£	£	£	£	£	£	
Russia	13,619,263	14,712,630	17,383,697	19,621,680	22,286,926	17,285,139	63·297
Sweden	3,232,079	3,[illegible],86	4,199,794	4,001,856	4,[illegible],503	3,945,363	14·441
Norway	1,231,083	1,378,754	1,854,962	1,611,359	1,721,362	1,518,104	5·560
Denmark	1,925,291	1,728,203	2,284,287	2,291,909	2,588,921	2,103,725	7·703
Prussia	6,251,305	5,862,919	6,126,205	6,866,751	7,383,619	6,494,199	23·781
Germany	8,190,704	9,286,961	10,185,662	12,221,536	11,525,494	10,541,691	38·610
Holland	8,661,218	11,660,180	12,413,401	11,768,913	10,[illegible],328	11,065,209	40·520
Belgium	5,171,221	6,110,931	7,354,845	7,906,867	7,[illegible],203	6,880,418	25·195
France	24,025,717	25,630,775	31,625,231	37,016,754	35,734,803	30,408,648	111·353
Portugal Proper	2,335,809	2,[illegible],506	2,471,801	2,517,828	2,521,611	2,370,097	8·679
Azores	318,641	342,052	357,764	368,571	327,551	342,916	1·256
Madeira	20,279	17,261	20,669	32,030	48,096	27,667	·101
Spain	4,841,324	5,870,705	4,706,277	5,563,133	6,088,389	5,426,966	19·873
Gibraltar	69,130	117,059	149,729	102,017	67,739	101,131	·370
Italy	2,783,617	2,693,182	2,994,235	3,825,355	3,106,714	3,080,616	11·281
Austrian Territories	454,048	569,225	677,421	1,369,831	1,[illegible],460	814,847	2·984
Malta	158,563	128,013	83,995	115,038	80,471	114,136	·418
Ionian Islands	192,879	149,259	276,176	295,635	360,890	241,968	·887
Greece	980,435	740,535	795,469	673,963	885,793	815,239	2·985
Turkey	4,905,057	6,014,745	5,754,073	5,718,375	4,577,414	5,599,833	20·506
Channel Islands	648,508	837,258	411,391	430,790	404,083	546,588	2·003
Total	89,800,575	99,962,730	112,092,483	124,223,981	121,852,281	109,526,368	401·073
Asia							
Syria and Palestine	121,873	260,569	74,212	137,908	150,841	149,087	·546
Arabia and Persia	34,586	76	17,955	25,257	35,892	22,353	·086
East Indies and Ceylon	31,041,623	37,687,214	45,302,733	41,818,117	30,169,606	45,405,951	166·271
China and Japan	16,536,742	17,178,805	12,150,616	11,443,733	9,895,027	13,236,589	48·472
Java and Sumatra	22,417	16,749	226	8,152	15,773	12,063	·045
Philippine Islands	1,392,198	854,435	1,253,904	1,196,557	760,214	1,091,161	3·996
Total	71,188,939	75,987,878	86,779,676	54,633,074	41,025,353	59,918,984	219·416
Africa							
Egypt	16,505,896	19,607,300	21,778,742	15,568,824	15,512,486	17,734,667	65·016
Morocco	427,834	272,243	412,880	366,092	241,702	344,088	1·260
West Coast of Africa	1,750,891	1,486,906	1,969,085	2,564,586	2,439,797	2,008,972	7·357
Cape of Good Hope and Natal	1,919,443	1,975,853	2,415,185	2,719,323	2,741,285	2,354,618	8·623
East Coast of Africa	84,405	73,455	121,857	106,480	71,148	81,413	·298
St. Helena and Ascension	16,267	10,685	47,518	13,250	97,403	37,025	·135
Mauritius	1,986,270	1,389,769	1,216,299	1,350,218	889,812	1,406,873	5·158
Algeria	104,304	137,467	90,503	48,405	33,357	82,788	·303
Total	22,745,613	25,153,658	28,132,380	22,317,108	22,026,580	24,075,088	88·160
America							
British North American Colonies	8,241,564	6,830,508	6,484,050	6,992,667	6,864,925	7,102,743	26·009
West Indies	7,092,758	9,161,963	5,422,024	4,685,980	4,575,858	6,147,715	22·512
Guiana	1,019,790	1,985,270	1,769,485	1,752,629	1,580,767	1,741,474	6·377
Hayti	226,610	251,210	230,287	248,158	243,669	239,987	·913
Foreign West Indies	4,171,919	6,411,915	5,229,541	3,105,257	4,175,051	4,742,749	17·366
United States of America	19,572,033	11,923,678	21,021,091	16,571,515	41,015,272	29,403,918	107·674
Mexico	2,294,337	3,120,534	3,216,924	515,478	315,168	1,892,488	6·929
Central America	783,791	800,617	938,801	800,258	984,697	861,633	3·156
Columbia	866,686	1,892,059	1,820,019	1,865,589	1,176,878	1,524,162	5·580
Brazil	4,491,080	7,021,121	6,797,241	7,457,793	5,902,011	6,280,853	23·003
La Plata and Uruguay	2,462,532	2,255,486	2,263,540	2,613,263	2,134,979	2,381,760	8·722
Chili	2,284,262	3,162,241	3,788,543	2,913,242	4,117,568	3,324,091	12·165
Peru	3,824,544	2,800,475	4,155,176	3,129,572	3,841,105	3,564,890	13·054
Falkland Islands	17,114	14,587	21,081	23,838	10,699	17,516	·064
Total	58,303,160	63,810,374	65,767,903	52,650,521	77,367,977	69,176,027	253·318
Australia							
West and South Australia, Victoria, New South Wales, Queensland, Tasmania, and New Zealand	7,160,666	10,039,332	10,273,113	11,463,268	12,834,311	10,356,158	37·923
South Sea Islands	19,967	18,210	26,230	62,321	76,535	30,773	·113
Total	7,180,633	10,057,542	10,299,343	11,485,589	12,910,846	10,386,911	38·036

Recapitulation.

Europe	89,800,575	99,962,730	112,092,483	124,223,981	121,852,281	109,526,368	401·073
Asia	71,188,939	75,987,878	86,779,676	54,633,074	41,025,353	59,918,984	219·416
Africa	22,745,613	25,153,658	28,132,380	22,317,108	22,026,580	24,075,088	88·160
America	58,303,160	63,810,374	65,767,903	52,650,521	77,367,977	69,176,027	253·318
Australia	7,180,633	10,057,542	10,299,343	11,485,589	12,910,846	10,386,911	38·036
Grand Total	249,219,020	274,972,182	303,071,785	265,310,274	275,183,137	273,083,378	1,000·000

MOROCCO. See article MOGADORE, in Dictionary, edition 1869.

MUM. [ALE AND BEER.]

NEWCASTLE. For an account of this port see the article DOCKS in the Dictionary, sub-head *Newcastle*.

NITRO-GLYCERINE. On account of its dangerously explosive nature, its importation and exportation have been forbidden by 32 & 33 Vict. c. 113 s. 3. [GLYCERINE.]

NORWAY. See articles BERGEN and CHRISTIANIA, in the Dictionary, edition 1869.

OATS and OATMEAL, and GROATS. Customs' duty on, repealed, 1869.

OYSTERS. Power to make oyster beds, on written license of the inspectors of Irish fisheries, is granted to certain persons by 32 & 33 Vict. c. 92.

PARTNERSHIPS. The 32 & 33 Vict. c. 39, passed 1869, is for regulating the proceedings of companies for working mines in the stannaries of Devon or Cornwall, and refers to the calls, accounts &c. connected with them.

PEASE, and PEA MEAL. Customs' duty on, repealed, 1869.

PEPPER. [LICENSES; TEA.]

PORTUGAL. See separate articles in the Dictionary, edition 1869, on LISBON, MACAO, and OPORTO.

POTATO FLOUR. Customs' duty on, repealed, 1869.

POWDER, Hair, powder perfumed, and any powder suitable for starch, Customs' duty on import of and assessed tax on the use of both, abolished, 1869.

PRUSSIA. See separate articles in the Dictionary, edition 1869, on the undermentioned Prussian ports, viz. DANTZIC, KÖNIGSBERG, MEMEL, and STETTIN.

RAILWAYS. The 32 & 33 Vict. c. 6 (Railways Companies Meetings Act 1869) repeals so much of the Regulation of Railways Act of 1868 as relates to the approval, by meeting of incorporated Railway Companies, of bills and certificates for conferring further powers on those companies. The Railways Abandonment Act of 1869 (32 & 33 Vict. c. 114) makes special provision for the abandonment of Railways and the dissolution of Railway Companies.

By the Telegraphs Act of 1869 it would appear that the estimated cost to the public of buying the interest of our Railway Companies in telegraphic business will not exceed 700,000*l.* The interest of the Telegraph Companies will cost a much larger sum.

According to the *Railway News*, the traffic receipts of the railways of the United Kingdom on a mileage of 13,544 amount to 815,736*l.*, or 60*l.* 5*s.* per mile for the week ended October 29, 1869; and for the corresponding week of 1868 the receipts were 789,966*l.* on 13,335 miles, or 59*l.* 5*s.* per mile.

RICE. [BANGKOK.]

RICE DUST AND MEAL. Customs' duty on, repealed, 1869.

RUPERT'S LAND. [COLONIES; HUDSON'S BAY COMPANY.]

RUSSIA. See separate articles ARCHANGEL, ODESSA, PETERSBURG, RIGA, TAGANROG, in the Dictionary, edition 1869.

RYE AND RYE MEAL, AND FLOUR. Duty on, repealed, 1869.

SAGO. Customs' duty on, repealed, 1869.

SALMON. The appointment by the Lord Lieutenant of 2 inspectors of salmon fisheries in Ireland is sanctioned by the 32 Vict. c. 9, and certain powers are conferred on them by 32 & 33 Vict. c. 92.

SALT. [SPAIN.]

SALVADOR. [TALLOW.]

SEA BIRDS. An Act, 32 & 33 Vict. c. 17, has been passed for the preservation of sea birds during the breeding season, April 1 to August 1.

SEAMEN. The Seamen's Clothing Act of 32 & 33 Vict. c. 57, for the protection of seamen's clothing and property, refers exclusively to seamen belonging to her Majesty's navy, or borne on the books of any of her Majesty's ships in commission, or any hired vessels in her Majesty's service in time of war.

SEEDS. In consequence of the growing practice of adulterating seeds, the Government have, by 32 & 33 Vict. c. 112 (coming into force on May 1, 1870), imposed penalties, not exceeding 5*l.* for the first, and 50*l.* for any subsequent offence, on every person who, with intent to defraud, or to enable another person to defraud—

1. 'Kills or causes to be killed any seeds' (destroying by artificial means their vitality or germinating power);

2. 'Dyes or causes to be dyed any seeds' (giving to them, by any process of colouring, dyeing, sulphur-smoking, or other artificial means, the appearance of seeds of another kind):

3. Sells or causes to be sold any killed or dyed seeds.

SEIGNORAGE. [COINS.]

SEMOLINA. Customs' duty on, repealed, 1869.

SHANGHAI. (See Table, p. 13 of this Supplement.)

SHIPS, SHIPPING. The Merchant Shipping Colonial Act of 1869 places the regulation of our colonial coasting trade under the Colonial Legislatures, and empowers them to grant, after due examination, certificates of qualification to persons intending to act as masters, mates, or engineers on board British ships.

By 32 and 33 Vict. c. 51, the Admiralty jurisdiction of the County Courts is extended to any claims not exceeding 300*l.* each, relating to the use or hire of any ship, or the carriage of goods in any ship, or any claim in tort in respect of goods carried in any ship, and to all claims for damage to ships whether by collision or otherwise, and also, if the parties agree, to claims of higher amount referring to all the above claims except those for damage. It provides, too, that the judge may be assisted by two mercantile assessors.

SIAM. [BANGKOK.]

SLAVES AND SLAVE TRADE. The good feeling that formerly existed between Brazil and this country having been sensibly weakened by our mode of carrying out, under 8 & 9 Vict. c. 122, a convention between the two countries for the final abolition of the African Slave Trade, this Act has been repealed by the 32 Vict. c. 2, on the ground that the circumstances which led to the passing of the first-mentioned Act no longer exist, by reason of the cessation of the importation of slaves into Brazil from Africa. See ZANZIBAR for notice of jurisdiction in slave trade cases given by 32 & 33 Vict. c. 75 to British consul there.

SOUTHAMPTON. See, for account of this port, article DOCKS, sub-head *Southampton*, in Dictionary, edition 1869.

SOUTH SHIELDS. See article DOCKS in Dictionary, edition 1869.

SPAIN. As intimated by Board of Trade notices of July 28 and August 25, 1869, the Spanish Government have abolished their mo-

***Special Table for Shanghai.—Annual Value of the whole Trade in Foreign Goods and in Chinese Produce Carried in Foreign Vessels*—1865 to 1868.**

	1865		1866		1867		1868	
	Taels	Re-exported Taels	Taels	Re-exported Taels	Taels	Re-exported Taels	Taels	Re-exported Taels
Foreign Goods								
Imported	38,387,777	..	47,022,995	..	46,570,531	..	50,207,443	..
Re-exported to Foreign Countries, chiefly to Japan	..	3,171,812	..	2,251,479	..	2,239,461	..	2,086,796
Re-exported to Chinese Ports, chiefly to Ningpo, the Northern, and the Yangtsze Ports	..	24,991,620	..	33,293,050	..	31,805,137	..	35,665,767
		28,163,432		35,549,529		34,044,598		37,752,563
Chinese Produce:								
Imported, chiefly from Hankow, Kiukiang, and Ningpo	25,846,378	..	27,080,252	..	30,870,731	..	34,597,482	..
Re-exported to Foreign Countries	..	15,435,795	..	14,255,793	..	16,916,854	..	19,256,253
Re-exported to Chinese Ports	..	4,766,988	..	6,941,397	..	8,327,222	..	8,413,354
		20,202,783		21,197,190		25,244,076		27,669,607
Chinese Produce of local origin Exported to Foreign Countries	14,123,827	..	11,068,877	..	12,311,220	..	19,897,076	..
Chinese Produce of local origin Exported to Chinese Ports	7,702,554	..	6,448,592	..	7,282,951	..	7,815,440	..
Gross Value of the Trade of the Port	86,060,536		91,620,716		97,035,439		112,245,411	
Approximate Net Value—								
Foreign Goods — less Re-exported Abroad and to Chinese Ports	10,617,005		11,889,505		12,872,525		12,454,880	
Chinese Goods received — less Re-exported Abroad and to Chinese Ports	5,643,595		5,883,062		5,626,075		6,657,875	
Chinese Goods of Local Origin Exported Abroad	14,123,827		11,068,877		12,311,220		19,897,076	
Do. do. do. to Chinese Ports	7,702,554		6,448,592		7,282,951		7,815,440	
Total	38,086,981		35,263,036		38,093,101		46,825,271	

Extracts from Spanish Tariff of Aug. 1, 1869.—Import Duties levied in the Peninsula and Balearic Islands on Foreign and Colonial Merchandise.

	Unit	Duties in Escds.	Mils.	Pests.	Cts.
Coal and coke, per ton of	1,000 kilos.	0	500	1	25
Tar, pitch, asphalt, bituminous shale, bitumen, and raw petroleum	100 kilos.	0	100	0	25
Petroleum and other mineral oils, refined; and benzine	1,000 " kilos.	2	200	5	50
Ores, per ton of	100 kilos.	0	100	0	25
Common or ordinary hollow glass	"	3	200	8	00
Crystal, and glass imitations thereof	"	18	000	45	00
Plate glass and crystal quick-silvered, and crystals for spectacles and watches	"	7	000	17	50
Glazed tiles, large and small, fine square tiles for floors, bricks, tiles for roofs, tubes, and similar articles	"	32	000	80	00
Flint china, and fine earthenware	"	0	600	1	50
Porcelain	"	15	000	37	50
Gold jewels, even if containing pearls or stones	hectos.	21	000	52	50
Silver do. do. do.	"	10	000	25	00
Gold, silver, or platinum, made into other articles	"	1	400	3	50
Steel in bars, plates, and carriage springs	100 kilos.	0	800	2	00
Iron, in bars	"	6	000	15	00
Do. in tubes of all kinds	"	1	000	2	50
Do. made into common articles	"	1	875	4	70
Do. made into fine articles, that is to say, polished goods, with a coating enamelled, and with ornaments of other metals	"	3	000	7	50
Do. in rails (barras-carriles)	"	7	000	17	50
Do. in plates, 6 'millimetros' and above in thickness, and backings (redobliones)	"	3	200	8	00
Do. hammered or rolled, and iron puddled, in bars of whatever shape, from 144 'millimetros' and above in section	"	3	600	9	00
Do. in bars of whatever shape, up to 144 'milimetros' in section; do. in plates, up to 6 'milimetros' in thickness; and hoops for casks	"	4	400	11	00
Do. wire	"	5	200	13	00
Do. in nails and screws, even if brass-headed	"	3	200	8	00
Do. in tubes	"	8	000	20	00
Do. made into common articles, even if coated with lead, tin, or zinc, or if painted or varnished; and in tubes with a covering of brass	"	5	200	13	00
Do. made into fine articles, that is to say, polished ones, with a covering of enamel, and with ornaments of other metals, and fine steel articles not otherwise specified	100 kilos.	11	000	27	50
Iron and steel in useless pieces, including rails (barras carriles)	"	2	000	5	00
Tin plate	"	7	500	18	75
manufactured	"	25	000	62	50
Needles, pens, pieces for watches, and other similar articles of iron or steel	kilo.	1	200	3	00
Knives, large do., razors, and penknives	"	0	400	1	00
Scissors	"	0	900	2	25
Side-arms, and blades for the same	"	0	800	2	00
Fire-arms, and barrels and other finished pieces for the same	"	2	000	5	00
Copper of the first casting, and old copper	100 kilos.	5	000	12	50
Copper and brass in bars and lumps	"	9	000	22	50
Do. do. in sheets and nails, and copper wire	"	20	000	50	00
Do. do. in tubes, large pieces half-finished, such as coarse parts of chafing-dishes, &c., and the bottoms of boilers	"	28	000	70	00
Brass wire	"	12	00	30	00
Bronze not manufactured	"	4	000	10	00
The same metals when manufactured, and all mixtures of common metals with copper and tin	"	50	000	125	00
Gold plating, in sheets	kilo.	3	500	8	75
in manufactured articles	"	14	000	35	00
Silver plating, in sheets	"	0	450	1	10
in manufactured articles	"	3	700	9	25
Tin, in lumps	100 kilos.	5	000	12	50
manufactured	"	20	000	50	00
Pig-lead, or lead in lumps, sheets, plates, tubes, balls, or small shot	"	0	600	1	50
Do. manufactured	"	3	200	8	00
Zinc, in bars, lumps, or cakes	"	2	400	6	00
in sheets, nails, or wire	"	6	000	15	00
manufactured	"	10	000	25	00
All other metals and mixtures not mentioned, in sheets, lumps, nails, &c.	"	0	600	1	50
Do. manufactured	"	15	000	37	50
Wire gauze	kilo.	0	200	0	50
in manufactured articles	"	0	400	1	00
Common salt	100 kilos.	1	500	3	25
Glue and albumen	"	4	000	10	00
Phosphorus	kilo.	0	200	0	50
Nitrate of potash (saltpetre)	100 kilos.	1	500	3	75
soda	"	0	400	1	00
Oxide of lead	"	2	000	5	00
Sulphate and pyrolignite of iron	"	0	600	1	50
Chemical articles not mentioned	kilo.	0	040	0	10
Pharmaceutical articles for medicinal use exclusively	ad val.	20 p.c.		20 p.c.	

Tariff.—Import Duties &c.—continued.

	Unit	Duties in	
		Reals Vn.	Pesetas Cts.
Starch	100 kilos.	4 000	10 00
Paints for industrial purposes, dextrine, and sugar not made from the sugar cane	,,	0 500	1 25
Soaps	,,	7 500	18 75
Paraffine, stearine, and whale sperm in masses	,,	10 000	25 00
Do. do. do. manufactured	,,	20 000	50 00
Perfumery and essences	kilo.	0 600	1 50
Blasting powder	,,	0 125	0 50
Powder for sporting, and matches for blasting	,,	0 500	1 25
Explosive mixtures used in the same way as powder	,,	0 060	0 15
Raw cotton	100 kilos.	0 600	1 50
Spun cotton and cotton twisted in one or two strands for weaving, unbleached, white, or dyed, up to No. 35 inclusive	kilo.	0 500	1 25
Do. do. do. do. from No. 36 upwards	,,	0 700	1 75
Do. twisted in 3 or more strands for sewing or embroidering, unbleached, white, or dyed	,,	1 000	2 50
Plain close pressed woven goods, unbleached, white, or dyed, in pieces or handkerchiefs, up to 25 threads inclusive, counted on the woof and warp, in a square of 4 'millimetros'	,,	1 200	3 00
Do. do. of 26 threads and upwards	,,	1 075	2 70
Do. printed and twilled and figured in the loom, up to 25 threads inclusive in the woof and warp	,,	1 600	4 00
Do. do. do. of 26 threads and upwards	,,	1 475	3 70
Do. do. transparent, such as muslin, cambric, lawn, and gauze of all kinds	,,	1 200	3 00
Quilted stuffs, and 'piqué'	,,	1 800	4 50
Shag, pearls, and other double fabrics for making clothes	,,	1 400	3 50
Tulle	,,	2 000	5 00
Crochet in any form, including crochet lace	,,	1 200	3 00
Lace of all sorts, except crochet lace	,,	2 500	6 25
Knitted wares (tejidos de punto) in the piece, in shirts, or trousers	,,	1 050	2 60
Do. in stockings, socks, gloves, &c.	,,	2 100	5 25
'Abacá,' sloes, and jute	100 kilos.	0 400	1 00
Raw hemp, and dressed do.	,,	4 000	10 00
Raw and dressed flax	,,	1 000	2 50
Yarn of 'abacá,' sloes, and jute	,,	3 000	7 50
hemp or flax	,,	11 000	27 50
Thread twisted in two or more strands	,,	49 000	122 50
Rigging and cordage	,,	8 000	20 00
Plain woven articles up to 10 threads inclusive	kilo.	0 500	1 25
Do. from 11 to 24 inclusive	,,	1 000	2 50
Do. of 25 and upwards	,,	1 700	4 25
Do. twilled and worked	,,	0 800	2 00
Lacework	,,	5 000	12 50
Knitted wares (tejidos de punto)	,,	2 000	5 00
Carpets	,,	0 100	0 25
Common wool	100 kilos.	11 200	28 00
Wool of other kinds, and long wool for twisting	,,	5 000	12 50
Do. combed and prepared for do.	,,	12 000	30 00
Worsted, spun and twisted in the rough, or in the grease	kilo.	0 750	1 85
Do. cleansed or bleached	,,	1 050	2 60
Do. dyed	,,	1 200	3 00
Carpets	100 kilos.	70 000	175 00
Blankets	kilo.	0 900	2 25
Woven goods of pure wool, or mixed with cotton, plain and twilled, even if with pile, such as baizes and flannels, plushes or velvets	,,	2 000	5 00
Thin cloths, barraganes, and soft wool and combed shawls	,,	3 200	8 00
Thick common cloths, and other woven articles of clothwork	,,	2 500	6 25
Coarse, napped goods, containing or not a mixture of cotton	,,	0 600	1 50
Do. do. of printed and bordered	,,	1 000	2 50
Knitted goods (tejidos de punto)	,,	1 600	4 00
Silk, raw or spun, but unthrowsted or twisted, up to 4 strands inclusive	,,	0 600	1 50
Do. do. beyond 4 strands	,,	2 500	6 25
Waste silk, spun, but unwasted	,,	3 000	7 75
Waste silk, spun, but unwasted	,,	0 200	0 50
Do. twisted up to 4 strands, inclusive	,,	0 600	1 50
Do. do. beyond 4 strands	,,	1 800	4 50
Plain or twilled woven goods	,,	7 000	17 50
Veivets and pluches	,,	10 000	25 00
Woven goods mixed with silk and worsted, waste silk, raw silk, or floss silk and waste silk	,,	3 600	9 00
Taste of silk or waste silk	,,	9 000	22 50
Lace and point do. do.	,,	11 000	27 50
Knitted goods (tejidos de punto) do. do.	,,	6 000	15 00

Tariff.—Import Duties &c.—continued.

	Unit	Duties in	
		Reals Vn.	Pesetas Cts.
Common paper, without size, or half-sized, for printing	100 kilos.	4 000	10 00
Do. for writing, lithographing, and for prints	,,	10 000	25 00
Cut paper, paper made by hand, ruled paper, and cardboard	,,	20 000	50 00
Books, bound or unbound, or other printed papers in Spanish	,,	16 000	40 00
Do. do. in foreign languages	,,	4 000	10 00
Engravings, maps, and designs	kilo.	0 500	1 25
Paper, stamped on a natural ground	100 kilos.	11 000	27 50
Do. on a dull or lustrous ground	,,	20 000	50 00
Do. with gold, silver, wool, and crystal	,,	80 000	200 00
Brown, blotting, and common packing paper, shagreen, and pasteboard	,,	5 000	12 50
Others not mentioned in the Tariff	,,	16 000	40 00
Staves	per 1,000	3 000	7 50
Large and small planks and beams	per cubic metre	0 600	1 50
Rounded poles and shaped wood for ship-building	,,	1 p.c. ad val.	1 p.c. ad val.
Joiners' wood, in trunks or pieces	100 kilos.	0 200	0 50
sawn into planks	,,	1 000	2 50
Casks, made up or not	,,	4 000	10 00
Common wood, made into all sorts of articles, whether turned, painted, or varnished, or not, and laths, moulded or varnished, or prepared for gilding	,,	7 000	17 50
Fine wood, made into furniture and other articles, turned, carved, polished, and varnished, articles of ordinary wood veneered with finer sorts; upholstery, except articles covered with silk, and gilded laths	,,	14 000	35 00
Do. in the same articles gilded, those inlaid with mother-of-pearl or other fine materials, and with mouldings of metal, and those covered with silk	,,	40 000	100 00
Untanned hides and skins	,,	3 000	7 50
Tanned do.	kilo.	0 500	1 25
Patent leathers	,,	1 000	2 50
Skins for covering and for ornament	,,	0 200	0 50
Gloves	,,	8 000	20 00
Boots and shoes	,,	3 500	8 75
Articles used by saddlers, &c.	,,	1 000	2 50
Pianos	each	100 000	250 00
Gold watches	,,	3 000	7 50
Watches of silver or other metals	,,	0 800	2 00
Clocks of all other sorts	,,	20 p.c. ad val.	20 p.c. ad val.
Instruments of science and art	,,	10 p.c. ad val.	10 p.c. ad val.
Agricultural machines	100 kilos.	1 p.c. ad val.	1 p.c. ad val.
Locomotive engines	,,	2 p.c. ad val.	2 p.c. ad val.
Other machinery complete for manufactures	,,	6 p.c. ad val.	6 p.c. ad val.
Detached parts of machines	,,	10 p.c. ad val.	10 p.c. ad val.
Insulating apparatus, stretchers, wires, posts, and other articles for the electric telegraph	,,	3 p.c. ad val.	3 p.c. ad val.
Carriages and clarences, with two 'tableros,' with or without hoods, new, second-hand, or mended	each	400 000	1000 00
Broughams, with or without a folding seat, omnibuses holding more than 15 persons, diligences, new, second-hand, or mended	,,	300 000	750 00
Two or four wheeled carriages, without fiorboards, 'tableros,' with or without hoods, whatever may be the number of seats, omnibuses up to 15 seats inclusive, and carriages unenumerated, new, second-hand, or mended	,,	125 000	312 50
Railway carriages, trucks or vans for railways, and carts and waggons for merchandise, &c.	,,	25 p.c. ad val.	25 p.c. ad val.
Wooden ships, up to 100 tons of a cubic metre each	metrical ton	15 000	37 50
Ships from 101 to 300 tons	,,	10 000	25 00
301 upwards	,,	5 000	12 50
Do. from, no matter of what tonnage	,,	5 000	12 50
Timbers, &c. (despojos) from wrecks	100 kilos.	8 p.c. ad val.	8 p.c. ad val.
Salt cod and stockfish	,,	7 000	17 50
Fish, fresh, or with the salt indispensable for its preservation	,,	0 400	1 00

Tariff.—Import Duties &c.—continued.

	Unit	Duties in Pesetas	Duties in Cts
Salted, smoked, and pickled fish	100 kilos.	5 000	5 00
Shellfish	"	1 000	2 50
Unrefined sugar, produced in, or coming directly from, the Spanish Provinces in America	"	7 600	19 00
Do. from any foreign port	"	9 450	23 65
Do. refined, and candy, produced in, and coming directly from, the Spanish Provinces in America	"	10 800	27 00
The same, from foreign countries	"	12 900	32 25
Caracas cocoa, and those similar thereto	"	22 600	56 25
Guayaquil do. do. do.	"	24 500	61 25
Coffee, produced in, and proceeding directly from, the Spanish Provinces in America	"	7 400	18 50
Do. from foreign countries	"	10 000	25 00
The so-called Cingalese cinnamon, and those similar thereto	kilo.	0 500	1 25
Cinnamon of other sorts	"	0 240	0 60
Cloves	"	0 200	0 50
Pepper	"	0 100	0 25
Tea	"	0 600	1 50
Spirits (aguardiente), made in, and proceeding directly from, the Spanish Provinces in America	hecto.	3 000	7 50
Do. from foreign countries	"	7 500	18 75
Liqueurs	litre	0 400	1 00
Beer and cyder	hecto.	5 000	12 50
Effervescing wines	litre	0 400	1 00
All other wines	"	0 200	0 50
Chocolate	kilo.	0 400	1 00
Sweets	"	0 200	0 50
Eggs	100 kilos.	1 500	3 75
Pastes for soups, alimentary plants, bread, and biscuits	"	5 600	14 00
Cheese	kilo.	0 100	0 25
Honey	100 kilos.	1 990	4 75
Ammunition or caps for fire-arms allowed to be used	"	70 000	175 00
Brushes of fine and coarse hair	kilo.	0 800	2 00
Felts of all sorts	"	0 300	0 75
India rubber and gutta percha, raw	100 kilos.	2 000	5 00
Do. in slabs, threads, and tubes	kilo.	0 400	1 00
Do. made into articles of any shape	"	0 750	1 85
Oil cloth and waxed cloths for floors and packing	100 kilos.	13 000	32 50
Do. of all other sorts	kilo.	0 400	1 00
Games and toys, except those of tortoise shell, ivory, mother-of-pearl, gold and silver	"	0 600	1 50
Ivory, amber, jet, tortoise-shell, and coral, worked into any shape not hitherto mentioned	"	5 000	12 50
Paste imitations of the foregoing articles, articles of meerschaum, and of similar substances	"	1 000	2 50
Silk covered umbrellas and parasols	each	1 000	2 50
Parasols and umbrellas covered with other textures	"	0 600	1 50
Silk haberdashery	kilo.	5 000	12 50
Haberdashery of other sorts	"	1 800	4 50
Hats and caps:			
Of straw	"	6 000	15 00
Hats of other sorts	each	0 800	2 00
Caps do. do.	"	0 400	1 00
Hats and caps of all sorts, worked and trimmed by a milliner	"	3 000	7 50
India rubber textures, with a mixture of other materials	kilo.	1 200	3 00
Straw textures	"	0 800	2 00
All articles of hardware and mercery not mentioned	"	20 p.c. ad val.	20 p.c. ad val.
EXPORTATION TARIFF.			
Lumps of cork, or cork sheets from the province of Gerona	100 kilos.	3 000	7 50
Old rags of linen, cotton, or hemp, and other second hand articles of the same materials	"	1 800	4 00
Galena (sulphide of lead)	"	0 500	1 25
Argentiferous lead ores	"	0 400	1 00
litharge	"	0 320	0 80

nopoly of salt after January 1, 1870. A new Spanish Customs' Tariff of import duties &c. came into operation on August 1, 1869; and the prefixed are its chief features. (See pp. 13–15 of this Supplement.) [ALICANTE; MANILLA.]

SPIRITS. [EAU DE COLOGNE; METHYLATED SPIRIT; WAREHOUSING.]

SPRUCE. [ALE AND BEER.]

STARCH, and GUM OF, TORRIFIED OR CALCINED. Customs' duty on, repealed, 1869.

STOCKS. The Companies Clauses Amendment Act of 1869 removes certain limitations on the interest to be paid on debenture stock, and gives facilities for borrowing money to meet debentures falling due, and for issuing shares or stock at discount. See also BANK OF ENGLAND, for facilities now given to holders of Government stock for receipt of their dividends.

SUEZ CANAL. M. de Lesseps having brought his great work well nigh to completion, the canal was formally opened on Wednesday, November 17, 1869, and fleets from the Mediterranean and the Gulf of Suez met and saluted on Lake Timsah. The length of the canal from Port Said on the Mediterranean to Suez is about 87 miles, the major part lying within the Menzaleh, Ballah, Timsah, and Bitter Lakes.

The surface or waterline width of the maritime canal is for the most part 328 feet, a reduced width of 196 feet being adopted for cuttings where the channel traverses certain elevations. The depth of water will be 26 feet.

Until it be in thorough working order and completely at the service of commerce, and has stood the test of use by practical seamen for a year or two, it would be premature to pronounce the canal a complete success, or to attempt any precise calculation of the saving to be effected by the adoption of this route to India in lieu of that by the Cape. But when it is recollected that the length of voyage from this country to Bombay viâ Suez is little more than 6,000 miles, while that by the Cape is nearly 10,900, the economy in navigation to be effected by an efficient canal, with moderate tolls, between Port Said and Suez, must be very great.

The passing tolls, as fixed for the present, seem to be moderate for passengers at ten francs per head, and somewhat heavy on shipping at ten francs per ton measurement. This charge is exclusive, 1. Of pilotage, which varies with the ships' draft of water; 2. Of towage, which is two francs per ton, and is exclusive also of port charges if a vessel passing through chances to touch at any of the three ports, viz. Port Said, Ismailia, in Lake Timsah, or opposite the new embankment near Suez. The charge for berthing and anchoring at any of these after twenty-four hours' stay is five centimes per ton per day.

For a history and description of the canal, and of the operations requisite to complete it, we beg to refer to two articles by Captain Clerk in the numbers of the *Fortnightly Review* for January and February 1869; the 204th number of *Engineering*, November 26, 1869; and the Notice to Mariners in the *London Gazette*, December 17, 1869. The last, embodying the information received from Commander G. S. Nares, of H. M. surveying vessel *Newport*, which passed through at the opening of the canal, describes shortly the outer anchorage, approach to, lights, and harbour of Port Said; the current off the coast, and in the canal at the north end; the depth of water at various points (18 ft. being the minimum, and 29 the maximum); the lights at the entrance of Suez Lagoon; the Suez dock; the tidal influence at the Suez end of the canal; the effect of sand drifts, &c. Commander Nares states that a single ship could pass through in from 14 to 16 hours, but that it is impossible to carry a train of large ships through in one day.

SWEDEN. See articles GOTTENBURG and STOCKHOLM, in Dictionary, edition 1869.

TALLOW. By Board of Trade notice of July 5, 1869, it would appear that the Government of Salvador has abolished the duty of 20 per cent. hitherto levied upon leaf and cake tallow.

TAPIOCA. Customs' duty on, repealed, 1869.

TARIFF. The 32 & 33 Vict. c. 14 abolishes the Customs' duties on corn, grain, meal and flour, and articles of the like character (for list of them see CORN). It provides that the Customs' duty on Eau de Cologne shall be 14*s.* per gallon, whether imported in flasks or otherwise. It admits extracts and essences of malt in transit or to be warehoused for exportation only, and alters the Customs' duties on beer and ale. [ALE.]

The same Act abolishes the excise licenses for selling tea, coffee, chocolate &c., and for letting horses and hackney carriages for hire, the stamp duty of 1*s.* 6*d.* per cent. per annum on fire insurance, and assessed tax for hair powder, and substitutes licenses for assessed taxes on male servants, carriages, horses and mules, and armorial bearings. [SPAIN.]

TEA. The duty on licenses for trading in or selling tea, coffee, cocoa nuts, chocolate, or pepper, abolished from July 5, 1869, by 32 & 33 Vict. c. 14.

TELEGRAPHS. The Telegraph Act of 1868 has been amended by the 32 & 33 Vict. c. 73, which, after defining a *telegraph* as 'any apparatus for transmitting messages or other communications by means of electric signals,' and a *telegram* as 'any message or other communication transmitted or intended for transmission by a telegraph,' gives the Postmaster General the exclusive privilege, with certain exceptions, of sending messages; with power to purchase undertakings of telegraph companies within the United Kingdom; to transmit and make arrangements for foreign messages, and to raise 7,000,000*l.* on terminable annuities. Annual accounts, and copies of all regulations, in relation to the Government Telegraphic system, are to be laid before Parliament, and messages are to be deemed post letters in the meaning of the Act 1 Vict. c. 36. [RAILWAYS.]

TIMBER. An export duty of 1 cent per cubic foot has been imposed by the Costa Rican Government on timber the natural production of Limon on the Atlantic. See Board of Trade notice of June 17, 1869.

Estimated Import of Wood into the United Kingdom in 1869, *from Messrs. Churchill & Sim's Circular of January* 4, 1870.

		Loads
Colonial Sawn Wood (Deals, Battens &c.)	-	735,000
Hewn „ (Timber and Hardwoods)	-	437,000
Foreign Sawn „ (Deals, Battens, Boards &c.)	-	1,546,000
Hewn „ (Timber and Hardwoods)	-	786,000
Colonial and Foreign Staves - - -	-	62,000
Total - - -	-	3,566,000

TRADERS. See, for definition of a trader, the article BANKRUPTCY in this Supplement.

TREATIES. In this article in the Dictionary, edition 1869, under the sub-head *Japan*, it should have been stated that a summary of our treaty with the Emperor of Japan of August 26, 1858, would be found embodied in the article on NAGASAKI.

TURKEY. See articles in Dictionary, edition 1869, viz. CONSTANTINOPLE, SALONICA, SMYRNA, and TREBIZOND.

TYNE. See article DOCKS, in Dictionary, edition 1869.

VERMICELLI. Customs' duty on, repealed, 1869.

WAREHOUSING. The Customs and Excise Warehousing Act of 1869 (32 & 33 Vict. c. 103), after explaining the terms 'foreign spirits,' 'wine,' and 'British spirits,' and distinguishing 'Excise warehouses' from 'Customs warehouses,' provides, by clause 4, for the warehousing of foreign spirits, and wine in bond in Excise warehouses, and for the moving the same from one Customs or Excise warehouse to another, or for exportation, or for ships' stores, or on payment of customs for home consumption.

The following is a new scale of charges on delivery of goods for home consumption, the old scale having been repealed, viz.:—

Scale of Charges on Delivery of Goods for Home Consumption from Customs and Excise Warehouses.—There shall be charged upon the goods hereinafter mentioned upon the delivery of the same for home consumption from any customs or excise warehouse, in addition to the duties of customs or excise payable in respect of such goods, and any other charges thereon, the rates following for every full sum of one hundred pounds, and in proportion for any fractional part of one hundred pounds of the amount of such duties, namely:—

For Goods liable to Duties of Customs.

	£	*s.*	*d.*
In respect of tobacco - -	0	2	6
In respect of other goods - -	0	5	0

For Goods liable to Duties of Excise.

	£	*s.*	*d.*
In respect of British compounded spirits	0	5	0

and such rates shall be deemed to be duties of customs or excise according as the same become payable in respect of goods delivered from a customs or excise warehouse.

Clause 13 makes special provision for the warehousing and testing of British liqueurs, whereof the strength cannot be ascertained by the hydrometer.

WHEAT. Duty on, repealed, 1869.

WINE. The Wine and Beerhouse Act of 1869 transfers the granting or renewing of licenses for the sale, by retail, of beer, cider, or wine, and the regulation of refreshment houses, from the Excise to the justices at their licensing meetings. [ALE AND BEER.]

See also, under WAREHOUSING, the provisions of the Customs and Excise Warehousing Act of 1869, for the warehousing of foreign wine in Customs or Excise warehouses, and moving the same from one to the other, for exportation, or as ships' stores, or for home consumption.

ZANZIBAR. By the Slave Trade Jurisdiction (Zanzibar) Act of 1869, the British consul at Zanzibar is granted such jurisdiction as ordinarily belongs to our Colonial Vice-Admiralty Courts in regard to vessels captured on suspicion of being engaged in or equipped for the slave trade, in the following cases, viz.:—

1. When a Zanzibar vessel shall have been captured, in pursuance of any treaty with the Sultan of Zanzibar, either within or beyond the dominions of Zanzibar; and

2. When the vessel captured shall not be entitled to claim the protection of the flag of any state or nation.

Printed by Spottiswoode & Co., New Street Square and Westminster.

SUPPLEMENT, No. II.

ALE AND BEER

ALE AND BEER. The Wine and Beerhouse Act of 1869 is amended by the 33 & 34 Vict. c. 29. The more important enactments are, that the certificates, instead of being signed by the majority of the justices, may bear their official seal or stamp, verified by the signature of their clerk; that houses licensed to sell sweets may be entered by constables in the same way as houses or places of public resort for the sale of fermented or distilled liquors (the term 'sweets' includes sweets, made wines, mead, and metheglin); that those portions of previous Acts which authorise the grant, to brewers of beer, of brewers' licenses to retail beer not to be consumed on the premises, be repealed; and no such license after the passing of 33 & 34 Vict. c. 29 is to be granted, whether to a new applicant or by way of renewal.

The following provisions in relation to sugar to be used by brewers of beer for sale in the brewing and making of beer, are incorporated in the Customs and Inland Revenue Act of 1870, 33 & 34 Vict. c. 32 s. 8:—

Sugar used in Brewing.—In addition to any enactments now in force in relation to sugar to be used by brewers of beer for sale in the brewing and making of beer, the following provisions shall have effect in relation to sugar so to be used:—

1. The brewer shall on the first day of October one thousand eight hundred and seventy enter in a book or paper to be provided by the Commissioners of Inland Revenue an account in pounds weight avoirdupois of the quantity of sugar then in his possession, and from time to time a like account of every quantity of sugar subsequently received by him, and he shall make such entry on the day on which he shall receive the sugar:

2. The brewer shall keep the said book or paper at all times in some public and open part of his entered premises ready for the inspection of the officers of excise, and he shall permit any officer of excise at any time to inspect the said book or paper, and to make any entry therein or extract therefrom, and also to take away the said book or paper, upon leaving another for the use of the brewer:

3. The brewer shall not receive any sugar except in a package containing two hundredweight of sugar at the least, unless the sugar shall be contained in the package in which it shall have been imported into the United Kingdom, and shall be in the same state as when imported:

4. The brewer shall not receive any sugar unless accompanied by an invoice or delivery note specifying the quantity and the true name and address of the person from whom the sugar shall have been purchased:

5. The brewer shall produce and deliver to the officer of excise who shall first survey or visit his brewery after the receipt of any sugar, the invoice or delivery note which shall have accompanied such sugar, and he shall allow the officer to retain the said invoice or delivery note so long as may be necessary to enable him to compare the same with the book or paper in which the account of the sugar is required to be entered:

6. The brewer shall deposit all sugar received by him, immediately upon the receipt thereof, in the proper place entered by him for keeping or storing sugar, and shall keep the same therein, separate and apart from all other sugar, for the period of twenty-four hours from the time when such sugar shall have been so deposited, unless such sugar shall have been previously examined by an officer of excise:

7. The brewer shall permit an officer of excise at any time to take an account of the sugar in his possession, or any part thereof, and shall furnish the officer taking such account with proper scales and weights, and with such assistance as may be necessary to enable him conveniently to take such account:

8. The brewer shall not remove any sugar from his brewery, nor dispose thereof in any manner other than by dissolving the same in the mash tun or other vessel duly entered with the proper officer of excise for that purpose:

9. The brewer shall permit any officer of excise to gauge any wort or solution made from sugar, and also to take a sample or samples from such wort or solution; and if upon examination of the sample or samples it shall be found that the wort or solution contained an amount of sugar exceeding the quantity used in making such wort or solution, according to the entry made by the brewer in the proper book or paper provided for that purpose, such amount to be ascertained according to a table to be approved by the Commissioners of Inland Revenue for showing the quantity of sugar contained in any given quantity of wort or solution, according to the specific gravity thereof as ascertained by any saccharometer ordered to be used by the said Commissioners, the brewer shall be deemed to have committed an offence against this section; provided that it shall not be necessary on the trial of any information or other proceeding, to produce or give in evidence any order of the said Commissioners approving such table, or ordering the use of any saccharometer.

For any offence against this section the brewer shall forfeit the penalty of one hundred pounds.

Sec. 9 of the same Act declares that a penalty of double duty shall be paid by the brewer on any deficiency over 2 per cent. found on taking stock of sugar at his brewery, and sec. 10 enacts that every brewer shall enter in his book the quantity of malt and sugar intended to be

used in brewing, two hours before making and dissolving the same.

ALEXANDRIA. The following 'Notice to the Maritime Trade' has been received from our consul-general in Egypt and published in the *London Gazette* of August 26, 1870:—

The Egyptian Government having lately established at Rosette, Brulos, Damiette, and Port-Said, lighthouses intended, in conjunction with the one which has for many years existed at Alexandria, to light up the Mediterranean shore, and being about also to erect lighthouses at Souakim and Ras-Garib, on the coast of the Red Sea, where are already established the lighthouses at Zapharan, Aboukizân, and Achrafi, Egyptian and foreign commerce is hereby informed that the light dues to be paid in the ports of Egypt are fixed as follows:—

1. Every merchant vessel, sailing or steam, entering into one or more Egyptian ports of the Mediterranean Sea, shall pay, on entering each of the first two ports only, thirty paras, Egyptian Tariff, per Turkish ton, and fifteen paras for every ton exceeding 800 Turkish tons.

2. Every merchant vessel, sailing or steam, entering into one or more Egyptian ports of the Red Sea, shall pay, at the entrance into each port, a duty of two Egyptian piastres per Turkish ton, and of one Egyptian piastre for every ton exceeding 800 Turkish tons.

3. Every merchant vessel, sailing or steam, going from the Mediterranean Sea into the Red Sea, or from the Red Sea into the Mediterranean Sea, is bound to discharge, in the former case, on entering into Port-Said, and in the latter case, on entering into the Port of Suez, the light dues fixed in article 2 concerning the Red Sea.

However, every merchant vessel, sailing or steam, which, arriving by the Maritime Canal, stops at Suez and, without going beyond, returns into the Mediterranean Sea, shall only pay the dues fixed in article 1 concerning that sea.

4. Every merchant vessel, sailing or steam, entering into an Egyptian port, is bound after having obtained a clean bill of health to discharge the light dues at the office of the Capitainerie at the port at the same time when she reports her arrival, and a receipt thereof shall be delivered.

5. Every new entry into the same port of a merchant vessel involves the payment of the same dues.

6. Any merchant vessel which having sailed from a port and without having touched any other port or transacted commercial operations should be obliged to return to anchor either by stress of weather, or by reason of damage sustained, which must be stated in a written deposition signed by the principal officers on board, shall be exempt from a new payment of the light dues.

7. The signatures of the deposition must be legalised at the consulate of the nation of the vessel thus returned. The document must then be submitted to the captain of the port.

8. Vessels of war will always be exempt from light dues; also all merchant vessels measuring ten tons Turkish, or less.

9. The amount of dues to be discharged by each vessel is calculated according to her legal and official measurement, converted into Turkish tons of 792 okka each.

10. A reduction of five per cent. upon the amount of light dues will be allowed to vessels engaged in a regular postal service. Independently of what is said in article 8, coasting vessels shall pay once per month, fishing vessels once a year, the lighthouse dues fixed for vessels of 100 tons.

11. In consideration of the space required in steam vessels for stores or coal rooms, 40 per cent. will be deducted from the tonnage.

It is, however, well understood that if such a deduction has already been effected in their documents of nationality, they shall not be entitled to any further deduction.

12. The present tariff shall be subject to be increased or lowered according to the state of the budget of lighthouses to be drawn up by the Government every year.

To come into force on and from September 1, 1870.

Alexandria, July 30, 1870.

ALIENS.—Pursuing the liberal policy recommended by the author of the *Commercial Dictionary* under the head ALIENS, the Legislature have by the Naturalisation Act of 1870 (33 Vict. c. 14) improved the status of aliens in the United Kingdom by conferring on them the capacity to take, acquire, hold, and dispose of real and personal property of every description in the same manner, in all respects, as a natural-born British subject, and a title to such property may be derived through, from, or in succession to an alien, in the same manner as through, from, or in succession to a natural-born British subject.

Clause 3 of the Act provides, that when this country has entered into a convention with any foreign state for the purpose, a naturalised alien may divest himself of his status by a declaration of alienage, if in this country, before a justice of the peace, if elsewhere in her Majesty's dominions, before any judge of any court, civil or criminal, or officer, who can administer an oath, and if out of her Majesty's dominions, in the presence of any officer in the British diplomatic or consular service.

Clause 4 authorises a similar declaration of alienage on the part of any person of full age, who, though a natural-born British subject, became, at the time of his birth, under the law of any foreign state a subject of such state.

Clause 5 provides, that an alien shall, in future, not be tried by a jury *de medietate linguæ*, but in the same manner as a natural-born subject.

This Act deals, too, with that sort of mixed nationality now so often vested in one and the same person, a difficulty which has arisen mainly from the extensive emigration from this country to the United States, and the constant and immense commercial intercourse between these two kindred nations, speaking the same language, and from the facilities of acquiring the nationality of that great republic. The following are the clauses devoted to the object in question:—

EXPATRIATION.

6. *Capacity of British subject to renounce allegiance to her Majesty.*—Any British subject who has at any time before, or may at any time after the passing of this Act, when in any foreign state and not under any disability voluntarily become naturalised in such state, shall, from and after the time of his so having become naturalised in such foreign state, be deemed to have ceased to be a British subject and be regarded as an alien; provided,—

1. That where any British subject has before the passing of this Act voluntarily become naturalised in a foreign state and yet is desirous of remaining a British subject, he may, at any time within two years after the passing of this Act, make a declaration that he is desirous of remaining a British subject, and upon such declaration hereinafter referred to as a declaration of British nationality being made, and upon his taking the

oath of allegiance, the declarant shall be deemed to be and to have been continually a British subject; with this qualification, that he shall not, when within the limits of the foreign state in which he has been naturalised, be deemed to be a British subject, unless he has ceased to be a subject of that state in pursuance of the laws thereof, or in pursuance of a treaty to that effect.

2. A declaration of British nationality may be made, and the oath of allegiance be taken as follows; that is to say,—if the declarant be in the United Kingdom, in the presence of a justice of the peace; if elsewhere in her Majesty's dominions, in the presence of any judge of any court of civil or criminal jurisdiction, of any justice of the peace, or of any other officer for the time being authorised by law in the place in which the declarant is to administer an oath for any judicial or other legal purpose. If out of her Majesty's dominions, in the presence of any officer in the diplomatic or consular service of her Majesty.

Naturalisation and Resumption of British Nationality.

7. *Certificate of Naturalisation.*—An alien who, within such limited time before making the application hereinafter mentioned as may be allowed by one of her Majesty's Principal Secretaries of State, either by general order or on any special occasion, has resided in the United Kingdom for a term of not less than five years, or has been in the service of the Crown for a term of not less than five years, and intends, when naturalised, either to reside in the United Kingdom, or to serve under the Crown, may apply to one of her Majesty's principal Secretaries of State for a certificate of naturalisation.

The applicant shall adduce in support of his application such evidence of his residence or service, and intention to reside or serve, as such Secretary of State may require. The said Secretary of State, if satisfied with the evidence adduced, shall take the case of the applicant into consideration, and may, with or without assigning any reason, give or withhold a certificate as he thinks most conducive to the public good, and no appeal shall lie from his decision, but such certificate shall not take effect until the applicant has taken the oath of allegiance.

An alien to whom a certificate of naturalisation is granted shall in the United Kingdom be entitled to all political and other rights, powers, and privileges, and be subject to all obligations, to which a natural-born British subject is entitled or subject in the United Kingdom, with this qualification, that he shall not, when within the limits of the foreign state of which he was a subject previously to obtaining his certificate of naturalisation, be deemed to be a British subject unless he has ceased to be a subject of that state in pursuance of the laws thereof, or in pursuance of a treaty to that effect.

The said Secretary of State may in manner aforesaid grant a special certificate of naturalisation to any person with respect to whose nationality as a British subject a doubt exists, and he may specify in such certificate that the grant thereof is made for the purpose of quieting doubts as to the right of such person to be a British subject, and the grant of such special certificate shall not be deemed to be any admission that the person to whom it was granted was not previously a British subject.

An alien who has been naturalised previously to the passing of this Act may apply to the Secretary of State for a certificate of naturalisation under this Act, and it shall be lawful for the said Secretary of State to grant such certificate to such naturalised alien upon the same terms and subject to the same conditions in and upon which such certificate might have been granted if such alien had not been previously naturalised in the United Kingdom.

Certificate of re-admission to British nationality.—A natural-born British subject who has become an alien in pursuance of this Act, and is in this Act referred to as a statutory alien, may, on performing the same conditions and adducing the same evidence as is required in the case of an alien applying for a certificate of nationality, apply to one of her Majesty's Principal Secretaries of State for a certificate hereinafter referred to as a certificate of re-admission to British nationality, re-admitting him to the status of a British subject. The said Secretary of State shall have the same discretion as to the giving or withholding of the certificate as in the case of a certificate of naturalisation, and an oath of allegiance shall in like manner be required previously to the issuing of the certificate.

A statutory alien to whom a certificate of re-admission to British nationality has been granted shall, from the date of the certificate of re-admission, but not in respect of any previous transaction, resume his position as a British subject; with this qualification, that within the limits of the foreign state of which he became a subject he shall not be deemed to be a British subject unless he has ceased to be a subject of that foreign state according to the laws thereof, or in pursuance of a treaty to that effect.

The jurisdiction by this Act conferred on the Secretary of State in the United Kingdom in respect of the grant of a certificate of re-admission to British nationality, in the case of any statutory alien being in any British possession, may be exercised by the governor of such possession; and residence in such possession shall, in the case of such person, be deemed equivalent to residence in the United Kingdom.

Clause 10 settles the national status of married women and infant children in the following terms:—

1. A married woman shall be deemed to be a subject of the state of which her husband is for the time being a subject.

2. A widow being a natural-born British subject, who has become an alien by or in consequence of her marriage, shall be deemed to be a statutory alien, and may as such at any time during widowhood obtain a certificate of re-admission to British nationality in manner provided by this Act.

3. Where the father being a British subject, or the mother being a British subject and a widow, becomes an alien in pursuance of this Act, every child of such father or mother who during infancy has become resident in the country where the father or mother is naturalised, and has, according to the laws of such country, become naturalised therein, shall be deemed to be a subject of the state of which the father or mother has become a subject, and not a British subject.

4. Where the father, or the mother being a widow, has obtained a certificate of re-admission to British nationality, every child of such father or mother who during infancy has become resident in the British dominions with such father or mother, shall be deemed to have resumed the position of a British subject to all intents.

5. Where the father, or the mother being a widow, has obtained a certificate of naturalisation in the United Kingdom, every child of such

father or mother who during infancy has become resident with such father or mother in any part of the United Kingdom, shall be deemed to be a naturalised British subject.

The Secretary of State is empowered by 33 & 34 Vict. c. 102 to make regulations as to the taking of oaths of allegiance on naturalisation, and regulations have accordingly been issued by the Home Office as to the necessary oaths and declarations to be made, with a relative scale of fees approved by the Treasury.

ALMOND PASTE, customs duty on, reduced by 33 & 34 Vict. c. 32 to 4*s.* 8*d.* per cwt.

AMERICA. [Tariff.]

ASSURANCE. [Insurance.]

AUCTIONEER. An auctioneer's license is declared unnecessary by 33 & 34 Vict. c. 32, for the sale of fish on the seashore where the same shall have been first landed.

BANGKOK. The Siam and Straits Settlements Jurisdiction Act of 1870, in confirmation of an Order in Council of July 28, 1856, and of the Act 20 & 21 Vict. c. 75, vests jurisdiction in matters arising within the dominions of the King of Siam, in the Supreme Court of the Straits Settlements.

BANK, BANKING, &c. The Stamp Act of 1870 gives, for the purposes of that Act, the following definition of the terms *banker* and *bank note*.

Interpretation of Terms.—The term *banker* means and includes any corporation, society, partnership, and persons, and every individual person carrying on the business of banking in the United Kingdom.

The term *bank note* means and includes—

1. Any bill of exchange or promissory note issued by any banker, other than the Governor and Company of the Bank of England, for the payment of money not exceeding one hundred pounds to the bearer on demand:

2. Any bill of exchange or promissory note so issued which entitles or is intended to entitle the bearer or holder thereof, without indorsement, or without any further or other indorsement than may be thereon at the time of the issuing thereof, to the payment of money not exceeding one hundred pounds on demand, whether the same be so expressed or not, and in whatever form, and by whomsoever such bill or note is drawn or made.

The following is the scale of stamp duties on bank notes provided under the same Act:—

					s.	*d.*
For money not exceeding 1*l.*	-	-	-	-	0	5
Exceeding 1*l.* and not exceeding 2*l.*	-	-	-	-	0	10
2*l.*	"	5*l.*	-	-	1	3
5*l.*	"	10*l.*	-	-	1	9
10*l.*	"	20*l.*	-	-	2	0
20*l.*	"	30*l.*	-	-	3	0
30*l.*	"	50*l.*	-	-	5	0
50*l.*	"	100*l.*	-	-	8	6

BANK OF ENGLAND. The National Debt Act of 1870 consolidates, with amendments, certain enactments relating to the National Debt.

The most important novelty embodied in this statute is the issue to stockholders on application of stock certificates applicable to the various 3 per cent. stocks, with coupons attached, which shall compose the relative dividends for not less than 5 years. The Act also provides for the transfer of stock from the books of the Bank of England to those of the Bank of Ireland and vice versâ. The regulations in regard to these and the transfer of stock will be found at length under Funds.

BANKRUPTCY. The provisions of the Bankruptcy Act of 1869 have been extended by 33 & 34 Vict. c. 76, so as to facilitate the arrest of absconding debtors.

BEER. [Ale and Beer.]

BILL OF SALE. The Stamp Act of 1870 enacts, sec. 57, that a copy of a bill of sale is not to be filed in any court, unless the original duly stamped is produced to the proper officer.

BILLS OF EXCHANGE. The following definitions of Bill of Exchange and Promissory Note are given, for the purposes of that Act, in secs. 48 and 49 of the Stamp Act of 1870, 33 & 34 Vict. c. 97.

Interpretation of Term 'Bill of Exchange.'—1. The term *bill of exchange* for the purposes of this Act includes also draft, order, cheque, and letter of credit, and any document or writing (except a bank note) entitling or purporting to entitle any person, whether named therein or not, to payment by any other person of, or to draw upon any other person for, any sum of money therein mentioned.

2. An order for the payment of any sum of money by a bill of exchange or promissory note, or for the delivery of any bill of exchange or promissory note in satisfaction of any sum of money, or for the payment of any sum of money out of any particular fund which may or may not be available, or upon any condition or contingency which may or may not be performed or happen, is to be deemed for the purposes of this Act a bill of exchange for the payment of money on demand.

3. An order for the payment of any sum of money weekly, monthly, or at any other stated periods, and also any order for the payment by any person at any time after the date thereof of any sum of money, and sent or delivered by the person making the same to the person by whom the payment is to be made, and not to the person to whom the payment is to be made, or to any person on his behalf, is to be deemed for the purposes of this Act a bill of exchange for the payment of money on demand.

Interpretation of Term 'Promissory Note.'—1. The term *promissory note* means and includes any document or writing (except a bank note) containing a promise to pay any sum of money.

2. A note promising the payment of any sum of money out of any particular fund which may or may not be available, or upon any condition or contingency which may or may not be performed or happen, is to be deemed for the purposes of this Act a promissory note for the said sum of money.

The following is the table of stamp duties applicable to bills of exchange under the Stamp Act of 1870:—

Payable on demand - - - - -	1*d.*

Bill of Exchange of any other kind whatsoever (*except a bank note*) and promissory note of any kind whatsoever (*except a bank note*), drawn, or expressed to be payable, or actually paid, or indorsed, or in any manner negotiated in the United Kingdom—

					s.	*d.*
Where the amount or value of the money for which the bill or note is drawn or made does not exceed 5*l.*				-	0	1
Exceeds 5*l.* and does not exceed 10*l.*	-	-	-	-	0	2
10*l.*	"	25*l.*	-	-	0	3
25*l.*	"	50*l.*	-	-	0	6
50*l.*	"	75*l.*	-	-	0	9
75*l.*	"	100*l.*	-	-	1	0
100*l.*—						
For every 100*l.*, and also for any fractional part of 100*l.*, of such amount or value -				-	1	0

BILLS OF LADING. Sec. 56 of the Stamp Act of 1870 declares, 1st, That a bill of lading is not to be stamped after the execution thereof; and 2nd, That every person who makes or executes any bill of lading not duly stamped shall forfeit 50*l.* The stamp duty is 6*d.*

BOOKS. The following is the new scale of charges on book packets sent per post, after September 30, 1870.

On a book packet or pattern or sample packet:—	
If not exceeding two ounces in weight - - - -	½d.
If exceeding two ounces in weight, for the first two ounces and for every additional two ounces or fractional part of two ounces - - - - -	½d.

BREWERS. [Ale and Beer.]

BROKERS. The brokers of the City of London are, by 33 & 34 Vict. c. 60, relieved from the supervision of the Court of Mayor and Aldermen of the City of London, though the Act reserves the right of the Court to require brokers to be admitted and to receive from them the usual annual payments of 40*s.* and 3*l.* Any brokers committing fraud are to be disqualified from acting in that capacity.

The penny stamp duty on contract notes for the sale or purchase of any stock or marketable security of the value of 5*l.* and upwards, may, under the Stamp Act of 1870, be denoted by an adhesive stamp, to be cancelled by the person who first signs the note.

BRONZE. [Coin.]

BULLION. [Gold.]

CARDS or PLAYING CARDS. 33 & 34 Vict. c. 32 abolishes the duty of 2*s.* 6*d.* on a license for any person to sell playing cards, not being the maker thereof.

CATTLE. By the Cattle Diseases (Ireland) Amendment Act of 1870 the Lord-Lieutenant is empowered to issue such orders as he may think expedient for insuring cattle, sheep, swine, or other animals on board ship a proper supply of food and water, for protecting them from unnecessary suffering by sea or inland transit, for prohibiting or regulating the removal of animals alive or dead, and for cleaning and disinfecting yards, sheds, stables, &c., for regulating the disposal of animals dying of a contagious or infectious disease, for requiring notice of the appearance of any such disease among such animals, and for prohibiting or regulating the holding of markets, fairs, exhibitions, or sales of animals.

CHARTER PARTY. Clauses 66–68 of the Stamp Act of 1870 enact that the duty on a charter party may be denoted by an adhesive stamp to be cancelled by the person last signing it, and that when a charter party is first executed abroad, an adhesive stamp of the proper amount may be affixed to it within ten days after its arrival and before its execution in the United Kingdom, and that an impressed stamp may be affixed to charter parties not duly stamped within seven days after execution on payment of duty and 4*s.* 6*d.* penalty, or after seven days but within a month on payment of duty and a 10*l.* penalty.

CHERRIES. The duty on dried cherries in the British Tariff of 1870 is 4*s.* 8*d.* per cwt.

COIN. Appended to the Coinage Act of 1870 is the following schedule, exhibiting the standard weight and fineness of the undermentioned gold, silver, and bronze coins.

Denomination of Coin	Standard Weight		Least Current Weight		Standard Fineness	Remedy Allowance		
						Weight per piece		Millesimal Fineness
	Imperial Weight	Metric Weight	Imperial Weight	Metric Weight		Imperial	Metric	
Gold:	grains	grams.	grains	grams.		grains	grams.	
Five pound	616·57239	39·94028	612·[illegible]000	39·68935	Eleven-twelfths fine gold, one-twelfth alloy; or millesimal fineness 916·66	[illegible]·00000	0·06179	0·002
Two pound	246·62895	15·97611	243·[illegible]000	15·87574		0·40000	0·02592	
Sovereign	123·27447	7·98805	122·[illegible]000	7·93787		0·20000	0·01296	
Half sovereign	61·63723	3·99402	61·12500	3·96085		0·10000	0·00648	
Silver:								
Crown	436·36363	28·27500	..	..	Thirty-seven-fortieths fine silver, three-fortieths alloy; or millesimal fineness 925	1·61818	0·11781	0·00
Half crown	218·18181	14·13295	..	..		0·80909	0·05890	
Florin	174·54 45	11·31036	..	..		0·72727	0·04712	
Shilling	87·27272	5·65518	..	..		0·36363	0·02356	
Sixpence	43·63636	2·82759	..	..		0·18181	0·01178	
Groat or fourpence	29·09090	1·88506	..	..		0·12121	0·00785	
Threepence	21·81818	1·41379	..	..		0·08080	0·00539	
Twopence	14·54545	0·94253	..	..		0·05050	0·00327	
Penny	7·27272	0·47126	..	..		0·03030	0·00196	
Bronze:								
Penny	145·83333	9·44984	..	..	Mixed metal, copper, tin, and zinc	2·91666	0·18899	None
Halfpenny	87·50000	5·66990	..	..		1·75000	0·11339	
Farthing	43·75000	2·83495	..	..		0·87500	0·05669	

The weight and fineness of the coins specified in this schedule are according to what is provided by the Act 56 George III. c. 68, that the gold coin of the United Kingdom of Great Britain and Ireland should hold such weight and fineness as were prescribed in the then existing mint indenture (that is to say), that there should be 934 sovereigns and one ten shilling piece contained in twenty pounds weight troy of standard gold, of the fineness at the trial of the same of twenty-two carats fine gold and two carats of alloy in the pound weight troy; and further, as regards silver coin, that there should be 66*s.* in every pound troy of standard silver of the fineness of eleven ounces two pennyweights of fine silver and eighteen pennyweights of alloy in every pound weight troy.

The same Act defines legal tender, prohibits the use or issue of coin other than that made at the mint, and the defacing of coin, &c., provides for the coining of gold bullion taken to the mint, the purchase of bullion for the supplies of coin, vests in her Majesty and the Privy Council the power of settling by proclamation the dimensions, design, denominations, &c., of coin, and of giving currency to foreign coins, and of establishing branches of the mint in any British possession. It also provides for an annual trial of the pyx, gives the Treasury the power of fixing the number and duties of the officers, and the regulation of the general management of the mint, vests the office of master of the mint in the Chancellor of the Exchequer, and entrusts the custody of standard trial plates and standard weights for coin to the standard department of the Board of Trade. [Gold.]

COLOGNE WATER. [Spirits.]

COMFITS. The duty on these is fixed in the Tariff of 1870 at 4*s.* 8*d.* per cwt.

COMPANIES. The Joint Stock Companies Arrangement Act of 1870, 33 & 34 Vict. c. 104, empowers the Court of Chancery to order a meeting of the creditors of any joint stock or other company in liquidation, to decide as to any compromise or arrangement that may have been proposed between the company and its creditors.

CONFECTIONERY. The duty on confectionery not otherwise enumerated is set down in the Tariff of 1870 at 4*s.* 8*d.* per cwt.

CONTRACT NOTES. [Brokers and Funds.]

CONTRACTS. The Coinage Act of 1870, 33 Vict. c. 10 s. 6, provides as follows:—

Contracts, &c. to be made in currency.—Every contract, sale, payment, bill, note, instrument, and security for money, and every transaction, dealing, matter, and thing whatever relating to money, or involving the payment of or the liability to pay any money, which is made, executed, or entered into, done or had, shall be made, executed, entered into, done and had according to the coins which are current and legal tender in pursuance of this Act, and not otherwise, unless the same be made, executed, entered into, done or had according to the currency of some British possession or some foreign state.

CORN. The customs duties on corn imported into the Isle of Man were repealed by 33 Vict. c. 12. [GRAIN.]

COTTON MANUFACTURES. [FACTORIES.]

CUSTOMS. Sec. 58 of the Stamp Act of 1870, 33 and 34 Vict. c. 97, provides—

Bonds not to include goods, &c. belonging to more than one person. Penalty 50l.—If any person required by any Act of Parliament, or by the direction of the Commissioners of Customs or Inland Revenue, or any of their officers, to give or enter into any bond for or in respect of any duties of customs or excise, or for preventing frauds or evasions thereof, or for any matter or thing relating thereto, includes in one and the same bond any goods or things belonging to more persons than one, not being co-partners or joint tenants, or tenants in common, he shall for every such offence forfeit the sum of 50*l.*

The following definitions of 'Delivery Order,' and 'Warrants for Goods,' are given in secs. 87 and 88 of the same Act:—

Interpretation of Term.—The term *delivery order* means any document or writing entitling, or intended to entitle, any person therein named, or his assigns, or the holder thereof, to the delivery of any goods, wares, or merchandise of the value of 40*s.* or upwards lying in any dock or port, or in any warehouse in which goods are stored or deposited on rent or hire, or upon any wharf, such document or writing being signed by or on behalf of the owner of such goods, wares, or merchandise, upon the sale or transfer of the property therein.

Interpretation of Term.—The term *warrant for goods* means any document or writing, being evidence of the title of any person therein named, or his assigns, or the holder thereof, to the property in any goods, wares, or merchandise lying in any warehouse or dock, or upon any wharf, and signed or certified by or on behalf of the person having the custody of such goods, wares, or merchandise.

The duty on either of these documents (1*d.* in the case of a 'delivery order,' and 3*d.* on a 'warrant for goods') may be denoted by an adhesive stamp, and anyone who makes, executes, or issues, or receives, or uses, either of these documents except duly stamped, shall forfeit 20*l.* (Secs. 89–92.)

By the Customs and Inland Revenue Act of 1870 considerable reductions are effected in the duties on sugar [SUGAR], besides a change in the duty on perfumed spirits and Cologne water. [SPIRITS.]

The following drawbacks on sugar are authorised by the same Act.

On and after the under-mentioned dates, in lieu of the drawbacks now allowed on the undermentioned descriptions of sugar refined in Great Britain or Ireland on the exportation thereof to foreign parts, or on removal to the Isle of Man for consumption there, or on deposit in any approved warehouse, upon such terms and subject to such regulations as the Commissioners of Customs may direct for delivery from such warehouse as ships' stores only, or for the purpose of sweetening British spirits in bond, the following drawbacks shall be paid and allowed; (that is to say,)

On and after May 2, 1870:—

	s.	*d.*
Upon refined sugar in loaf, complete and whole, or lumps duly refined, having been perfectly clarified and thoroughly dried in the stove, and being of an uniform whiteness throughout, and upon such sugar pounded, crushed, or broken in a warehouse approved by the Commissioners of Customs, such sugar having been there first inspected by the officers of customs in lumps or loaves as if for immediate shipment, and then packed for exportation in the presence of such officers, and at the expense of the exporter; and upon candy, per cwt.	6	0
Upon refined sugar unstoved, pounded, crushed, or broken, and not in any way inferior to the export standard sample No. 2, approved by the Lords of the Treasury, and which shall not contain more than five per centum of moisture over and above what the same would contain if thoroughly dried in the stove, per cwt.	5	9

And on and after April 13, 1870:—

	s.	*d.*
Upon sugar refined by the centrifugal or by any other process, and not in any way inferior to the export standard sample No. 1, approved by the Lords of the Treasury, per cwt.	6	0
Upon other refined sugar unstoved, being bastards or pieces, ground, powdered, or crushed:		
Not in any way inferior to the export standard sample No. 3, approved by the Lords of the Treasury, per cwt.	5	6
Not in any way inferior to the export standard sample No. 4, approved by the Lords of the Treasury, per cwt.	5	3
Not in any way inferior to the export standard sample No. 5, approved by the Lords of the Treasury, per cwt.	4	9
Inferior to the above last-mentioned standard sample, per cwt.	4	0

DEBTORS. The provisions of the Bankruptcy Act of 1869 have been extended by 33 & 34 Vict. c. 76 so as to facilitate the arrest of absconding debtors.

DESIGNS. [PATENTS.]

DIVIDENDS. The preamble of the Apportionment Act of 1870 commences thus: 'Whereas rents and some other periodical payments are not at Common Law apportionable (like interest on money lent) in respect of time;' and then sec. 2 enacts that 'from and after the passing of this Act all rents, annuities, dividends and other periodical payments in the nature of income (whether reserved or made payable under an instrument in writing or otherwise) shall, like interest on money lent, be considered as accruing from day to day, and shall be apportionable in respect of time accordingly.'

Sec. 5, after interpreting the term 'rent,' declares that 'the word *annuities* includes salaries and pensions,' and 'the word *dividends* includes (besides dividends strictly so called) all payments made by the name of dividend, bonus, or otherwise, out of the revenue of trading or other public companies, divisible between all or any of the members of such respective companies, whether such payments shall be usually made or declared at any fixed times or otherwise; and all such divisible revenue shall, for the purposes of this Act, be deemed to have accrued by equal daily increment during and within the period for or in respect of which the payment of the same revenue shall be declared or expressed to be made, but the said word *dividend* does not include payments in the nature of a return or reimbursement of capital.'

Sec. 6 excepts any annual sums payable in policies of insurance of any sort, and sec. 7 provides that the Act shall not apply when stipulated that no apportionment shall take place. [FUNDS.]

DRAWBACKS. For new drawbacks on sugar see CUSTOMS.

EAST INDIES. Power is conferred on the Governor-General of India by 33 Vict. c. 3 to make regulations for the peace and good govern-

ment of certain territories in India, otherwise than under the provisions of the Indian Councils Act of 1861. Lieutenant-Governors and Chief Commissioners are constituted members ex officio of the Governor-General's Council for Making Laws and Regulations, and power is given by the same Act of 1870 to appoint natives of India to certain offices without certificates from the Civil Service Commissioners.

ELBE TOLLS. [HAMBURG.]

FACTORIES. The Factory and Workshop Act of 1870, 33 & 34 Vict. c. 62, modifies the operation of the Act of 1867, inasmuch as it empowers the Secretary of State, by order published in the *Gazette*, to extend under certain conditions to fifteen hours the work-hours of young persons of 16 years and upwards engaged in print works or bleaching or dyeing works, and to extend the work-hours of young persons engaged in certain sorts of bleaching and dyeing from ten to ten and a half, and he may authorise the employment of persons engaged in preserving fruit or fish for fourteen hours per day for ninety-six days between June 1 and December 24.

FISH. 33 & 34 Vict. c. 32 s. 5 renders an excise license for an auctioneer unnecessary for the sale of fish by auction on the seashore where the same shall have been first landed.

FUNDS. The National Debt Act of 1870 contains the following clauses as to the transfer of stock, the issue of stock certificates, and the transfer of stock between England and Ireland:—

Mode of Transfer.—In the offices of the respective accountants-general of the Banks of England and Ireland books shall continue to be kept wherein all transfers of stocks shall be entered.

Every such entry shall be conceived in proper words for the purpose of transfer, and shall be signed by the party making the transfer, or, if he is absent, by his attorney thereunto lawfully authorised by writing under his hand and seal, attested by two or more credible witnesses.

The person to whom a transfer is so made may, if he thinks fit, underwrite his acceptance thereof.

Except as otherwise provided by Act of Parliament, no other mode of transferring stock shall be good in law.

Transfer by Executors, &c.—The interest of a stockholder dying (before or after the passing of this Act) in stock shall be transferable by his executors or administrators, notwithstanding any specific bequest thereof.

The Bank of England or of Ireland shall not be required to allow any executors or administrators to transfer any stock until the probate of the will of or the letters of administration to the deceased has or have been left with the Bank for registration, and may require all the executors who have proved the will to join in the transfer.

Evidence of Title on Transfer.—The Banks of England and Ireland respectively before allowing any transfer of stock may, if the circumstances of the case appear to them to make it expedient, require evidence of the title of any person claiming a right to make the transfer.

That evidence shall be the declaration of competent persons under the Act described in the second schedule to this Act, part 1., or of such other nature as the Banks respectively require.

Closing of Transfer Books for Dividend.—The Banks of England and Ireland respectively may close their books for the transfer of stock on any day in the month next preceding that in which the dividends on that stock are payable; but so that the books be not at any time so closed for more than fifteen days.

The persons who on the day of such closing are inscribed as stockholders shall as between them and their transferees of stock be entitled to the then current half-year's dividend thereon.

Certificate of Title to Stock.—A stockholder may obtain a stock certificate, that is to say, a certificate of title to his stock or any part thereof, with coupons annexed, entitling the bearer of the coupons to the dividends on the stock.

Descriptions of Stock for which Certificates may be issued.—Stock certificates shall be issued only in respect of consolidated three pounds per centum annuities, reduced three pounds per centum annuities, and new three pounds per centum annuities.

But the Treasury may by warrant declare that any other stock specified in the warrant shall be subject to this part of this Act, and thereupon stock certificates may be issued in respect of that stock also.

Limitation of Amount of Certificate.—A stock certificate shall not be issued in respect of any sum of stock not being fifty pounds or a multiple of fifty pounds, or exceeding one thousand pounds.

Restriction on Trustees taking Stock Certificates.—A trustee of stock shall not apply for or hold a stock certificate unless authorised to do so by the terms of his trust; and any contravention of this section by a trustee shall be deemed a breach of trust.

But this section shall not impose on the Bank of England or of Ireland any obligation to enquire whether a person applying for a stock certificate is or is not a trustee, or subject either Bank to any liability in the event of their issuing a stock certificate to a trustee, or invalidate any stock certificate issued.

No Notice of Trust.—No notice of any trust in respect of any stock certificate or coupon shall be receivable by the Bank of England or of Ireland.

Stock in Certificate Outstanding not Transferable.—Where a stock certificate is outstanding the stock represented thereby shall cease to be transferable in the books of the Bank of England or of Ireland.

Distinction between Stock Certificates to Bearer and Nominal Certificates.—A stock certificate, unless a name is inscribed therein, shall entitle the bearer to the stock therein described, and shall be transferable by delivery.

The bearer of a stock certificate may convert the same into a nominal certificate by inserting therein, in manner prescribed by any regulation made in pursuance of this part of this Act, the name, address, and quality of some person.

A stock certificate when it becomes nominal shall not be transferable, and the person named therein (in this part of this Act called the nominee), or some person deriving title from him by devolution in law, as in this part of this Act mentioned, shall alone be recognised by the Bank of England or of Ireland as entitled to the stock described in the certificate.

On the death of the nominee, his personal representative, and on his bankruptcy his assignee, and on the marriage of the nominee, being a female, her husband, shall alone be recognised by the Bank of England or of Ireland as entitled to the stock described in the certificate, and shall be deemed the nominee in that certificate.

Nominee in a Nominal Certificate not entitled to have it renewed as nominal.—The nominee in a nominal stock certificate shall not be entitled to have the same renewed as nominal, but he shall,

on delivery up of his certificate, and of all unpaid coupons belonging thereto, to the Bank of England or of Ireland by whom the certificate was issued, and on compliance with any regulation made in pursuance of this part of this Act, be entitled to receive in exchange from that Bank a stock certificate to bearer.

The nominee in a nominal stock certificate, and the bearer of a stock certificate to bearer, may, on the like delivery, and on compliance with any regulation made in pursuance of this part of this Act, require to be registered in the books of the Bank of England or of Ireland as a holder of the stock described in the certificate under which he derives title, and thereupon the stock shall be re-entered in the books kept by that Bank for the entry of transferable stock, and shall become transferable, and the dividends thereon shall be payable, as if no certificate had been issued in respect of such stock.

Rules as to Coupons.—The coupons annexed to a stock certificate shall comprise the dividends to be payable in respect of the stock therein described, for not less than five years from the date of the certificate.

At the expiration of that period fresh coupons shall be issued for a further period of not less than five years, and so for successive periods of not less than five years each, during the continuance in force of the stock certificate.

But the Bank of England or of Ireland may, if they think fit, in lieu of issuing fresh coupons in respect of a stock certificate, give in exchange a fresh stock certificate with coupons annexed.

Payment of Coupons.—Coupons payable by the Bank of England or of Ireland shall be payable at the chief establishment of the respective Bank at the expiration of three clear days from the day of presentation, and at any branch establishment of the same Bank, situate more than ten miles from the chief establishment, at the expiration of five clear days from the day of presentation.

The payment to the bearer of a coupon of the amount expressed therein shall be a full discharge to the Bank of England or of Ireland from all liability in respect of that coupon and the dividend represented thereby.

Income Tax.—Income tax shall be deducted from coupons in the same manner and subject to the same regulations in and subject to which it may by law be deducted from dividends payable by the Bank of England or of Ireland in respect of stock of stockholders inscribed in the books of that Bank; save only that income tax shall be deducted from a coupon, although the dividend represented thereby does not amount to fifty shillings.

Fees in respect of dealing with Stock under this part.—No fee shall be charged on the issue of a stock certificate to bearer, in exchange for a like certificate, but there shall be charged with respect to the several other proceedings in relation to stock authorised by this part of this Act the fees specified in the third schedule to this Act, or such less fees as may be determined by the Treasury.

All fees received in pursuance of this part of this Act shall be paid into the receipt of her Majesty's Exchequer.

Loss or Destruction of Certificate or Coupon.—If a stock certificate or coupon is lost or destroyed, the Bank of England or of Ireland (as the case requires) shall issue a new certificate or coupon, on receiving indemnity to their satisfaction against the claims of all persons deriving title under the certificate or coupon lost or destroyed.

General Regulations with respect to Stock Certificates and Coupons.—The Banks of England and Ireland respectively, with the sanction of the Treasury, may from time to time issue any forms that may be required for carrying into effect this part of this Act, and may from time to time make any regulations not inconsistent with this part of this Act relative to the following things:

1. The time for which coupons are to be given:
2. The conversion of a stock certificate to bearer into a nominal certificate:
3. The authority under which and the mode in which the Bank are to act in issuing stock certificates or exchanging nominal certificates for certificates to bearer, or registering in their books the holders of stock certificates, or taking any other proceedings in relation to stock authorised to be taken under this part of this Act:
4. The mode of proving the title of or identifying any person applying for a stock certificate or deriving any title under a stock certificate:
5. The mode of proof of the death or bankruptcy of the nominee or of the marriage of the nominee being a female:
6. The mode of proof of the loss or destruction of a stock certificate or coupon:
7. Any other matter necessary to carry this part of this Act into effect.

Regulations so made before the passing of this Act shall continue in force unless and until altered by regulations made after the passing of this Act under this part thereof.

Any regulation so made before or after the passing of this Act shall be deemed to be part of this Act in the same manner as if it were enacted in this part of this Act.

Remuneration to Banks.—There shall be paid to the Banks of England and Ireland respectively out of the consolidated fund, on account of the additional trouble, expense, and responsibility, if any, imposed on them by this part of this Act, in addition to the remuneration otherwise payable to them in respect of the management of the National Debt, such remuneration as the Treasury and they agree on.

Stock in Certificate to have Incidents of other Stock, except as to Transfer, &c.—Stock described in a stock certificate shall be charged on the same securities, and be subject to the same powers of redemption, and save as relates to the mode of transfer and payment of dividends thereon, shall be subject to the same incidents in all respects, including the remuneration payable to the Bank of England or of Ireland, as if it had continued registered in the books of that Bank as stock transferable therein.

Application of this part to Stock Certificates already Issued, &c.—Where a stock certificate has been issued under any former Act, this part of this Act shall have effect in relation thereto, and to the coupons annexed thereto and to the stock and dividends represented thereby respectively, in like manner, as nearly as may be, as if the certificate were issued after the passing of this Act under this part thereof.

Application for Transfer between England and Ireland.—A stockholder holding stock transferable in the books of the Bank of England or of Ireland may make application in writing to that Bank for permission to transfer the same for the purpose of having the same amount of stock of the same denomination written into the books of the other Bank.

Thereupon, and on the applicant transferring the stock to which the application relates to the National Debt Commissioners, the Bank from whose books the transfer is to be made shall grant

to the transferor a certificate of the facts of and connected with the transfer, directed to the other Bank.

Every application for permission to transfer, and every certificate of transfer, under this section, shall be according to a form established by the Bank of England in concurrence with the Bank of Ireland.

The operation of the 32 & 33 Vict. c. 104 by which facilities were given for the payment by warrants through the post of dividends on the public stocks transferable in the books of the Governor and Company of the Bank of England, is by the Dividends and Stock Act 1870, made applicable to the dividends on the public stocks transferable in the books of the Governor and Company of the Bank of Ireland. [DIVIDENDS.]

GALATZ. The following particulars referring to Sulina are extracted from a statement published by the Board of Trade in the *London Gazette* of August 23, 1870.

Navigation Dues levied at Sulina.—These dues are levied by the European Commission by virtue of Article 16 of the Treaty of Paris of March 30, 1856, to cover the expenditure devoted to the improvement of the mouths of the Danube.

The collection is effected on the basis of the tariff joined to the Public Act, signed at Galatz on November 2, 1865, and in part modified by the provisions enacted on April 27, 1867.

It also includes the dues imposed on the navigation for the pilotage and lighthouses at the mouth of the river.

The nett produce of these dues in the following years was as follows:—

	francs	cts.
1861	738,653	37
1862	747,703	80
1863	931,817	48
1864	1,105,341	51
1865	859,145	76
1866	785,229	00
1867	786,805	97
1868	1,487,102	54
1869	1,540,323	77
Average	995,491	47

GAS. The Gas and Water Facilities Act of 1870, 33 & 34 Vict. c. 70, empowers the Board of Trade, after certain preliminaries, to issue provisional orders to any local authority described in the Act for all or any of the following purposes:—

1. To construct or to maintain and continue gasworks and works connected therewith, or to manufacture and supply gas in any district within which there is not an existing company, corporation, body of commissioners, or person empowered by Act of Parliament to construct such works or to manufacture and supply gas:

3. To raise additional capital necessary for any of the purposes aforesaid:

4. To enable two or more companies or persons duly authorised to supply gas or water in any district or in adjoining districts to enter into agreements jointly to furnish such supply, or to amalgamate their undertakings:

5. To authorise two or more companies or persons supplying gas or water in any district or in adjoining districts to manufacture and supply gas or to supply water, and to enter into agreements jointly to furnish such supply and to amalgamate their undertakings.

GINGER. The duty on Preserved Ginger was reduced by 33 & 34 Vict. c. 32 to 4*s.* 8*d.* per cwt.

GOLD. The following regulations as to the coining of gold bullion taken to the Mint, and as to the purchase of bullion for the public service, are embodied in secs. 8 and 9 of the Coinage Act of 1870, 33 Vict. c. 10.

Coining of Bullion taken to the Mint.—Where any person brings to the Mint any gold bullion, such bullion shall be assayed and coined, and delivered out to such person, without any charge for such assay or coining, or for waste in coinage:

Provided that—

1. If the fineness of the whole of the bullion so brought to the Mint is such that it cannot be brought to the standard fineness under this Act of the coin to be coined thereout, without refining some portion of it, the master of the Mint may refuse to receive, assay, or coin such bullion:

2. Where the bullion so brought to the Mint is finer than the standard fineness under this Act of the coin to be coined thereout, there shall be delivered to the person bringing the same such additional amount of coin as is proportionate to such superior fineness.

No undue preference shall be shown to any person under this section, and every person shall have priority according to the time at which he brought such bullion to the Mint.

Purchase of Bullion.—The Treasury may from time to time issue to the master of the Mint, out of the growing produce of the Consolidated Fund, such sums as may be necessary to enable him to purchase bullion in order to provide supplies of coin for the public service. [COIN.]

GRAIN. Farmers are permitted by the 33 & 34 Vict. c. 32 to steep and germinate grain to be consumed by animals, under certain conditions, the infringement of which will involve a penalty.

The duty on grain imported into the Isle of Man is repealed by 33 Vict. c. 12. [CORN.]

GUN. [LICENSES.]

HAMBURG. A Board of Trade notice of September 12, 1870, in the *London Gazette*, intimates that a despatch has been received from her Majesty's ambassador at Vienna, inclosing the text of the convention concluded on June 22, 1870, between Austro-Hungary and the North German Confederation, relative to the abolition of the Elbe tolls:—

Art. 1. Abolishes all tolls hitherto levied upon vessels and their cargoes, and upon rafts; and provides that such dues only shall be levied in future, as shall be found necessary for the facilitation of traffic.

Art. 2. Abrogates from July 1, 1870, all conventions concluded between the German States, which imposed dues upon vessels navigating the Elbe, or in any other way affected the navigation of that river.

HAWKERS ON FOOT. Licenses abolished by 33 & 34 Vict. c. 32, but under the 33 & 34 Vict. c. 72 it is provided that no person shall act as a pedlar without such certificate as the Act requires, or in any district where he is not authorised by his certificate so to act. Such certificates to be issued by the chief officer of police of the police district in which the applicant lives, on such officer being satisfied that the applicant is a person of good character. The fee for the certificate must not exceed 6*d.*, and it remains in force for one year from the date of issue and no longer, when it must be renewed. A register of pedlars is to be kept by the police.

HORSES. [LICENSES.]

INDIA. [EAST INDIES.]

INLAND REVENUE. [EXCISE LICENSES.]

INSURANCE. The stamp duty is reduced to 1*d.* by 33 & 34 Vict. c. 32 on every policy of insurance for any payment agreed to be made upon the death of any person only from accident

or violence or otherwise than from a natural cause, or as compensation for personal injury, or by way of indemnity against loss or damage of or to any property.

By the Stamp Act of 1870, 33 & 34 Vict. c. 97 s. 117, the terms 'insurance' and 'policy' are thus explained:

Interpretation of Terms, &c.—The term *insurance* includes assurance, and the term *policy* includes every writing whereby any contract of insurance is made, or agreed to be made, or is evidenced; and, except as hereinafter mentioned, this Act does not apply to policies of sea insurance.

In consequence of the growing distrust of Life Insurance Companies engendered in the public mind by the late failures or embarrassments of certain companies, the Legislature, by the Life Assurance Companies Act of 1870, has passed some stringent regulations for the protection of insurers and shareholders. Thus Clause 3 provides that every company commencing Life Insurance business within the United Kingdom after the passing of this Act must deposit 20,000*l.* with the Accountant-General of the Court of Chancery till its Life Assurance fund accumulated out of premiums shall have amounted to 40,000*l.* Sec. 4 provides that any new company transacting business other than that of Life Assurance must keep a separate account and form a separate fund of all its receipts in respect of its Life Assurance and annuity contracts. Companies are to furnish certain annual accounts, printed and duly signed, to the Board of Trade in the forms appended to the Act, besides Actuarial Reports and abstracts every five years from new companies and every ten years from the old ones, and a copy of the printed statement, abstract, or other document is to be sent, by post or otherwise, by the company on application to every shareholder and policy holder. *Amalgamations of companies* or transfers of business by purchase from one company to another are to be conducted after due publication in the *Gazette*, with the approval of the Board of Trade, but not against the will of one-tenth of the policy holders, and must be confirmed by the Court of Chancery in England or Ireland or Court of Session in Scotland as the situation of the company may require. Penalties for non-compliance with the Act are also provided, and the companies may, in consequence of obstinate disobedience or insolvency, be wound up. The Board of Trade, by sec. 24, to lay annually before Parliament the statements and abstracts of reports deposited with them under the Act during the preceding year.

INVENTIONS. [Patents.]

JOINT-STOCK COMPANIES. [Companies.]

LEGAL TENDER is defined in the following terms by sec. 4 of the Coinage Act of 1870, 33 Vict. c. 10:—

Legal Tender.—A tender of payment of money, if made in coins which have been issued by the Mint in accordance with the provisions of this Act, and have not been called in by any proclamation made in pursuance of this Act, and have not become diminished in weight, by wear or otherwise, so as to be of less weight than the current weight; that is to say, than the weight (if any) specified as the least current weight in the first schedule to this Act, or less than such weight as may be declared by any proclamation made in pursuance of this Act, shall be a legal tender,—

In the case of gold coins for a payment of any amount:

In the case of silver coins for a payment of an amount not exceeding forty shillings, but for no greater amount:

In the case of bronze coins for a payment of an amount not exceeding one shilling, but for no greater amount.

Nothing in this Act shall prevent any paper currency which under any Act or otherwise is a legal tender from being a legal tender.

LICENSES. The duties on the following licenses are repealed by 33 & 34 Vict. c. 32, viz.:

Foot hawkers in Great Britain and Ireland.
Paper makers.
Soap makers.
Still makers in Scotland and Ireland.
Vendors of playing cards.

And the same Act declares a plate license to be unnecessary for the sale of watch cases by the maker, and that an auctioneer's license is not necessary for the sale of fish on the sea-shore where the same shall have been first landed. It also provides that no person shall be required to take out a license under 32 & 33 Vict. c. 14 for any horse or mule kept by him solely for the purposes of husbandry, on account of such horse or mule being used or employed in drawing materials for the repair of roads and highways of the parish of which he is a rated occupier, and whether for hire or otherwise.

The 33 & 34 Vict. c. 57 imposes a yearly license duty of 10*s.* to be paid by every person who shall use or carry a gun in the United Kingdom except those in the naval, military, or volunteer services, those having licenses to kill game, or persons carrying the guns of those having licenses, occupiers of land carrying guns to scare birds or kill vermin, or any gunsmith or his servant, or any carrier carrying a gun in the ordinary course of his business or trade.

MAN, ISLE OF. The Customs duties on corn imported into the Isle of Man are repealed by 33 Vict. c. 12 and by 33 & 34 Vict. c. 43. The Customs duty on sugar candy (white or brown), refined sugar, or sugar rendered by any process equal to refined, foreign or British, is reduced from 6*s.* to 4*s.* per cwt.

MINT. [Coin.]
MONEY. [Coin.]

NATIONAL DEBT. [Funds.]

NATURALISATION. See articles Aliens, in the *Commercial Dictionary* and this *Supplement*.

NEUTRALITY. Acting mainly on the recommendation of the Royal Commissioners of 1867, quoted in the article on this subject in the *Commercial Dictionary*, the Legislature have by the Foreign Enlistment Act of 1870, 33 & 34 Vict. c. 90, while repealing 59 Geo. III. c. 69 enacted as follows:

Penalty on Enlistment in Service of Foreign State.—If any person, without the license of her Majesty, being a British subject, within or without her Majesty's dominions, accepts or agrees to accept any commission or engagement in the military or naval service of any foreign state at war with any foreign state at peace with her Majesty, and in this Act referred to as a friendly state, or whether a British subject or not within her Majesty's dominions, induces any other person to accept or agree to accept any commission or engagement in the military or naval service of any such foreign state as aforesaid—

He shall be guilty of an offence against this Act, and shall be punishable by fine and imprisonment, or either of such punishments, at the dis-

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cretion of the court before which the offender is convicted; and imprisonment, if awarded, may be either with or without hard labour.

Penalty on Leaving her Majesty's Dominions with intent to serve a Foreign State.—If any person, without the license of her Majesty, being a British subject, quits or goes on board any ship with a view of quitting her Majesty's dominions, with intent to accept any commission or engagement in the military or naval service of any foreign state at war with a friendly state, or, whether a British subject or not, within her Majesty's dominions, induces any other person to quit or to go on board any ship with a view of quitting her Majesty's dominions with the like intent—

He shall be guilty of an offence against this Act, and shall be punishable by fine and imprisonment, or either of such punishments, at the discretion of the court before which the offender is convicted; and imprisonment, if awarded, may be either with or without hard labour.

Penalty on Embarking Persons under False Representations as to Service.—If any person induces any other person to quit her Majesty's dominions or to embark on any ship within her Majesty's dominions under a misrepresentation or false representation of the service in which such person is to be engaged, with the intent or in order that such person may accept or agree to accept any commission or engagement in the military or naval service of any foreign state at war with a friendly state—

He shall be guilty of an offence against this Act, and shall be punishable by fine and imprisonment, or either of such punishments, at the discretion of the court before which the offender is convicted; and imprisonment, if awarded, may be either with or without hard labour.

Penalty on taking illegally Enlisted Persons on Board Ship.—If the master or owner of any ship, without the license of her Majesty, knowingly either takes on board, or engages to take on board, or has on board such ship within her Majesty's dominions any of the following persons, in this Act referred to as illegally enlisted persons; that is to say,

1. Any person who, being a British subject within or without the dominions of her Majesty, has, without the license of her Majesty, accepted or agreed to accept any commission or engagement in the military or naval service of any foreign state at war with any friendly state:

2. Any person, being a British subject, who, without the license of her Majesty, is about to quit her Majesty's dominions with intent to accept any commission or engagement in the military or naval service of any foreign state at war with a friendly state:

3. Any person who has been induced to embark under a misrepresentation or false representation of the service in which such person is to be engaged, with the intent or in order that such person may accept or agree to accept any commission or engagement in the military or naval service of any foreign state at war with a friendly state:

Such master or owner shall be guilty of an offence against this Act, and the following consequences shall ensue; that is to say,

1. The offender shall be punishable by fine and imprisonment, or either of such punishments, at the discretion of the court before which the offender is convicted; and imprisonment, if awarded, may be either with or without hard labour: and

2. Such ship shall be detained until the trial and conviction or acquittal of the master or owner, and until all penalties inflicted on the master or owner have been paid, or the master or owner has given security for the payment of such penalties to the satisfaction of two justices of the peace, or other magistrate or magistrates having the authority of two justices of the peace: and

3. All illegally enlisted persons shall immediately on the discovery of the offence be taken on shore, and shall not be allowed to return to the ship.

Penalty on Illegal Ship-building and Illegal Expeditions.—If any person within her Majesty's dominions, without the license of her Majesty, does any of the following acts; that is to say,

1. Builds or agrees to build, or causes to be built, any ship with intent or knowledge, or having reasonable cause to believe that the same shall or will be employed in the military or naval service of any foreign state at war with any friendly state: or

2. Issues or delivers any commission for any ship with intent or knowledge, or having reasonable cause to believe that the same shall or will be employed in the military or naval service of any foreign state at war with any friendly state: or

3. Equips any ship with intent or knowledge, or having reasonable cause to believe that the same shall or will be employed in the military or naval service of any foreign state at war with any friendly state: or

4. Despatches, or causes or allows to be despatched, any ship with intent or knowledge, or having reasonable cause to believe that the same shall or will be employed in the military or naval service of any foreign state at war with any friendly state:

Such person shall be deemed to have committed an offence against this Act, and the following consequences shall ensue:

1. The offender shall be punishable by fine and imprisonment, or either of such punishments, at the discretion of the court before which the offender is convicted; and imprisonment, if awarded, may be either with or without hard labour:

2. The ship in respect of which any such offence is committed, and her equipment, shall be forfeited to her Majesty:

Provided that a person building, causing to be built, or equipping a ship in any of the cases aforesaid, in pursuance of a contract made before the commencement of such war as aforesaid, shall not be liable to any of the penalties imposed by this section in respect of such building or equipping if he satisfies the conditions following; (that is to say),

1. If forthwith upon a proclamation of neutrality being issued by her Majesty he gives notice to the Secretary of State that he is so building, causing to be built, or equipping such ship, and furnishes such particulars of the contract and of any matters relating to, or done, or to be done under the contract as may be required by the Secretary of State:

2. If he gives such security, and takes and permits to be taken such other measures, if any, as the Secretary of State may prescribe for ensuring that such ship shall not be despatched, delivered, or removed without the license of her Majesty until the termination of such war as aforesaid.

Presumption as to Evidence in Case of Illegal Ship.—Where any ship is built by order of or on behalf of any foreign state when at war with a friendly state, or is delivered to or to the order of such foreign state, or any person who to the

knowledge of the person building is an agent of such foreign state, or is paid for by such foreign state or such agent, and is employed in the military or naval service of such foreign state, such ship shall, until the contrary is proved, be deemed to have been built with a view to being so employed, and the burden shall lie on the builder of such ship of proving that he did not know that the ship was intended to be so employed in the military or naval service of such foreign state.

Penalty on aiding the Warlike Equipment of Foreign Ships.—If any person within the dominions of her Majesty, and without the license of her Majesty,—

By adding to the number of the guns, or by changing those on board for other guns, or by the addition of any equipment for war, increases or augments, or procures to be increased or augmented, or is knowingly concerned in increasing or augmenting the warlike force of any ship which at the time of her being within the dominions of her Majesty was a ship in the military or naval service of any foreign state at war with any friendly state,—

Such person shall be guilty of an offence against this Act, and shall be punishable by fine and imprisonment, or either of such punishments, at the discretion of the court before which the offender is convicted; and imprisonment, if awarded, may be either with or without hard labour.

Penalty on Fitting out Naval or Military Expeditions without License.—If any person within the limits of her Majesty's dominions, and without the license of her Majesty,—

Prepares or fits out any naval or military expedition to proceed against the dominions of any friendly state, the following consequences shall ensue:

1. Every person engaged in such preparation or fitting out, or assisting therein, or employed in any capacity in such expedition, shall be guilty of an offence against this Act, and shall be punishable by fine and imprisonment, or either of such punishments, at the discretion of the court before which the offender is convicted; and imprisonment, if awarded, may be either with or without hard labour:

2. All ships, and their equipments, and all arms and munitions of war, used in or forming part of such expedition, shall be forfeited to her Majesty.

Punishment of Accessaries.—Any person who aids, abets, counsels, or procures the commission of any offence against this Act shall be liable to be tried and punished as a principal offender.

Limitation of Term of Imprisonment.—The term of imprisonment to be awarded in respect of any offence against this Act shall not exceed two years.

Illegal Prize brought into British Ports restored.—If, during the continuance of any war in which her Majesty may be neutral, any ship, goods, or merchandise captured as prize of war within the territorial jurisdiction of her Majesty, in violation of the neutrality of this realm, or captured by any ship which may have been built, equipped, commissioned, or despatched, or the force of which may have been augmented, contrary to the provisions of this Act, are brought within the limits of her Majesty's dominions by the captor, or any agent of the captor, or by any person having come into possession thereof, with knowledge that the same was prize of war so captured as aforesaid, it shall be lawful for the original owner of such prize, or his agent, or for any person authorised in that behalf by the Government of the foreign state to which such owner belongs, to make application to the Court of Admiralty for seizure and detention of such prize, and the court shall, on due proof of the facts, order such prize to be restored.

Every such order shall be executed and carried into effect in the same manner, and subject to the same right of appeal, as in case of any order made in the exercise of the ordinary jurisdiction of such court; and in the meantime and until a final order has been made on such application the court shall have power to make all such provisional and other orders as to the care or custody of such captured ship, goods, or merchandise, and (if the same be of perishable nature, or incurring risk of deterioration) for the sale thereof, and with respect to the deposit or investment of the proceeds of any such sale, as may be made by such court in the exercise of its ordinary jurisdiction.

License by her Majesty how granted.—For the purposes of this Act, a license by her Majesty shall be under the sign manual of her Majesty, or be signified by Order in Council or by proclamation of her Majesty.

The legal procedure in regard to offences under the Act is settled by clauses 16 to 29, sec. 19 vesting the exclusive jurisdiction in respect to the forfeiture of ships in the Court of Admiralty, s. 21 authorising Customs officers in the United Kingdom, Customs or public officers in any British possession, or any commissioned officer on full pay in the Military or Naval Service of the Crown to seize or detain any ship liable to be seized or detained in pursuance of this Act. The powers of the officers and the Secretary of State and local authorities are thus defined by secs. 22 to 27.

Powers of Officers authorised to seize Ships.—Any officer authorised to seize or detain any ship in respect of any offence against this Act may, for the purpose of enforcing such seizure or detention, call to his aid any constable or officers of police, or any officers of her Majesty's army or navy or marines, or any excise officers or officers of customs, or any harbour-master or dock-master, or any officers having authority by law to make seizures of ships, and may put on board any ship so seized or detained any one or more of such officers to take charge of the same, and to enforce the provisions of this Act; and any officer seizing or detaining any ship under this Act may use force if necessary, for the purpose of enforcing seizure or detention, and if any person is killed or maimed by reason of his resisting such officer in the execution of his duties, or any person acting under his orders, such officer so seizing or detaining the ship, or other person, shall be freely and fully indemnified as well against the Queen's Majesty, her heirs and successors, as against all persons so killed, maimed or hurt.

Special Power of Secretary of State or Chief Executive Authority to detain Ship.—If the Secretary of State or the chief executive authority is satisfied that there is a reasonable and probable cause for believing that a ship within her Majesty's dominions has been or is being built, commissioned, or equipped contrary to this Act, and is about to be taken beyond the limits of such dominions, or that a ship is about to be despatched contrary to this Act, such Secretary of State or chief executive authority shall have power to issue a warrant stating that there is reasonable and probable cause for believing as aforesaid, and upon such warrant the local authority shall have power

to seize and search such ship, and to detain the same until it has been either condemned or released by process of law, in manner hereinafter mentioned.

The owner of the ship so detained, or his agent, may apply to the Court of Admiralty for its release, and the court shall as soon as possible put the matter of such seizure and detention in course of trial between the applicant and the Crown.

If the applicant establish, to the satisfaction of the court, that the ship was not and is not being built, commissioned, or equipped, or intended to be despatched contrary to this Act, the ship shall be released and restored.

If the applicant fail to establish, to the satisfaction of the court, that the ship was not and is not being built, commissioned, or equipped, or intended to be dispatched contrary to this Act, then the ship shall be detained till released by order of the Secretary of State or chief executive authority.

The court may, in cases where no proceedings are pending for its condemnation, release any ship detained under this section on the owner giving security to the satisfaction of the court that the ship shall not be employed contrary to this Act, notwithstanding that the applicant may have failed to establish, to the satisfaction of the court, that the ship was not and is not being built, commissioned, or intended to be despatched contrary to this Act. The Secretary of State or the chief executive authority may likewise release any ship detained under this section on the owner giving security to the satisfaction of such Secretary of State or chief executive authority that the ship shall not be employed contrary to this Act, or may release the ship without such security if the Secretary of State or chief executive authority think fit so to release the same.

If the court be of opinion that there was not reasonable and probable cause for the detention, and if no such cause appear in the course of the proceedings, the court shall have power to declare that the owner is to be indemnified by the payment of costs and damages in respect of the detention, the amount thereof to be assessed by the court, and any amount so assessed shall be payable by the Commissioners of the Treasury out of any moneys legally applicable for that purpose. The Court of Admiralty shall also have power to make a like order for the indemnity of the owner, on the application of such owner to the court, in a summary way, in cases where the ship is released by the order of the Secretary of State or the chief executive authority, before any application is made by the owner or his agent to the court for such release.

Nothing in this section contained shall affect any proceedings instituted or to be instituted for the condemnation of any ship detained under this section where such ship is liable to forfeiture, subject to this provision, that if such ship is restored in pursuance of this section all proceedings for such condemnation shall be stayed; and where the court declares that the owner is to be indemnified by the payment of costs and damages for the detainer, all costs, charges, and expenses incurred by such owner in or about any proceedings for the condemnation of such ship shall be added to the costs and damages payable to him in respect of the detention of the ship.

Nothing in this section contained shall apply to any foreign non-commissioned ship despatched from any part of her Majesty's dominions after having come within them under stress of weather or in the course of a peaceful voyage, and upon which ship no fitting out or equipping of a warlike character has taken place in this country.

Special Power of Local Authority to detain Ship.—Where it is represented to any local authority, as defined by this Act, and such local authority believes the representation, that there is a reasonable and probable cause for believing that a ship within her Majesty's dominions has been or is being built, commissioned, or equipped contrary to this Act, and is about to be taken beyond the limits of such dominions, or that a ship is about to be despatched contrary to this Act, it shall be the duty of such local authority to detain such ship, and forthwith to communicate the fact of such detention to the Secretary of State or chief executive authority.

Upon the receipt of such communication the Secretary of State or chief executive authority may order the ship to be released if he thinks there is no cause for detaining her, but if satisfied that there is reasonable and probable cause for believing that such ship was built, commissioned, or equipped, or intended to be despatched in contravention of this Act, he shall issue his warrant stating that there is reasonable and probable cause for believing as aforesaid, and upon such warrant being issued further proceedings shall be had as in cases where the seizure or detention has taken place on a warrant issued by the Secretary of State without any communication from the local authority.

Where the Secretary of State or chief executive authority orders the ship to be released on the receipt of a communication from the local authority without issuing his warrant, the owner of the ship shall be indemnified by the payment of costs and damages in respect of the detention upon application to the Court of Admiralty in a summary way in like manner as he is entitled to be indemnified where the Secretary of State having issued his warrant under this Act releases the ship before any application is made by the owner or his agent to the court for such release.

Power of Secretary of State or Executive Authority to grant Search Warrant.—The Secretary of State or the chief executive authority may, by warrant, empower any person to enter any dockyard or other place within her Majesty's dominions and enquire as to the destination of any ship which may appear to him to be intended to be employed in the naval or military service of any foreign state at war with a friendly state, and to search such ship.

Exercise of Powers of Secretary of State or Chief Executive Authority.—Any powers or jurisdiction by this Act given to the Secretary of State may be exercised by him throughout the dominions of her Majesty, and such powers and jurisdiction may also be exercised by any of the following officers, in this Act referred to as the chief executive authority, within their respective jurisdictions; that is to say,

1. In Ireland by the Lord Lieutenant or other the chief governor or governors of Ireland for the time being, or the chief secretary to the Lord Lieutenant:
2. In Jersey by the Lieutenant Governor:
3. In Guernsey, Alderney, and Sark, and the dependent islands, by the Lieutenant Governor:
4. In the Isle of Man by the Lieutenant Governor:
5. In any British possession by the Governor:

A copy of any warrant issued by a Secretary of State or by any officer authorised in pursuance of this Act to issue such warrant in Ireland, the Channel Islands, or the Isle of Man shall be laid before Parliament.

Appeal from Court of Admiralty.—An appeal may be had from any decision of a Court of Admiralty under this Act to the same tribunal and in the same manner to and in which an appeal may be had in cases within the ordinary jurisdiction of the court as a Court of Admiralty.

Secs. 28 and 29 grant indemnity to officers and to the Secretary of State or chief executive authority in respect to the seizure or detention of any ship.

NEWSPAPERS. Under the 33 & 34 Vict. c. 32 the stamp duties on newspapers ceased on October 1, 1870.

The following is the new scale of postage on and from September 30, 1870, on registered newspapers, &c., as fixed by the Post Office Act of 1870, 33 & 34 Vict. c. 79 :—

On a registered newspaper, with or without a supplement or supplements	½d.
On each registered newspaper in a packet of two or more, with or without a supplement or supplements	½d.

This Act thus defines a newspaper and the supplement to a newspaper :—

Certain Publications to be deemed Newspapers.—Any publication coming within the following description shall for the purposes of this Act be deemed a newspaper (that is to say), any publication consisting wholly or in great part of political or other news, or of articles relating thereto, or to other current topics, with or without advertisement ; subject to these conditions—

That it be printed and published in the United Kingdom ;

That it be published in numbers at intervals of not more than seven days ;

That it be printed on a sheet or sheets unstitched ;

That it have the full title and date of publication printed at the top of the first page, and the whole or part of the title and the date of publication printed at the top of every subsequent page.

And the following shall, for the purposes of this Act, be deemed a supplement to a newspaper (that is to say), a publication consisting wholly or in great part of matter like that of a newspaper or of advertisements, printed on a sheet or sheets or a piece or pieces of paper, unstitched, or consisting wholly or in part of engravings, prints or lithographs illustrative of articles in the newspaper ; such publication in every case being published with the newspaper, and having the title and date of publication of the newspaper printed at the top of every page, or at the top of every sheet or side on which any such engraving, print, or lithograph appears.

Clause 7 provides for the registration of newspapers at the Post Office.

PAPER MAKERS. The duty on a license to a maker of paper, pasteboard or scaleboard repealed by 33 & 34 Vict. c. 32.

PARTNERSHIPS. [Companies.]

PASSENGERS. The Secretary of State is empowered by 33 & 34 Vict. c. 95 to authorise the carriage of naval and military stores in passenger ships, his order being addressed to the emigration officer at the port of clearance, by whom after countersignature it should be delivered to the master of the ship, and by him delivered to the chief officer of Customs at the port where the stores are discharged.

PATENTS. The Protection of Inventions Act of 1870 provides that the exhibition of any new invention at any international exhibition shall not prejudice patent rights, and that the exhibition of designs shall not prejudice right to registration.

PATTERNS. See Samples in this *Supplement* and Patterns in *Dictionary*.

PEDLAR. [Hawker.]

PLATE. License not necessary for the sale of watch cases by the maker, 33 & 34 Vict. c. 32 s. 4.

POSTAGE AND POST OFFICE. The Post Office Act of 1870 appoints a register of newspapers to be kept at the General Post Office in London, and reduces the rate of postage as follows :

On a registered newspaper, with or without a supplement or supplements	½d.
On each registered newspaper in a packet of two or more, with or without a supplement or supplements	½d.

The Postmaster General is authorised by this Act to make from time to time, with the approval of the Treasury, such regulations as he thinks fit as to the posting and delivery, prepayment, dimensions and weight, and the covers of registered newspapers, book packets, patterns, or sample packets and post cards.

See also the article on this subject in *Dictionary*.

POWERS OF ATTORNEY. The Stamp Act of 1870 provides that a power of attorney duly stamped for the sale, transfer, or acceptance of Government stocks is not chargeable with any farther duty though containing an authority for the receipt of dividends. It also declares that an order, request, or direction by the owner of funds to a company or banker to pay dividends to any person therein named is not chargeable with duty as a letter or power of attorney, secs. 103, 104.

PROMISSORY NOTES. [Bills of Exchange.]

PUBLICANS. [Ale and Beer.]

PYX. [Coins.]

RAILROAD, TRAM or WAGGON ROADS. Previous legislation in regard to railways has been amended by the Railways (Powers and Construction) Act (1864) Amendment Act of 1870, which defines the powers and functions of the Board of Trade when notice of opposition is lodged, as to the issue of provisional certificates and their subsequent confirmation by Act of Parliament, 33 & 34 Vict. c. 19.

The Tramways Act of 1870 enacts that provisional orders authorising the construction of tramways in any district may be obtained from the Board of Trade by or with the consent of the local authority of such district. It settles as to the preliminary notices to be given, and the necessary deposit of documents, &c., and vests in the Board of Trade power to determine on applications and objections. The provisional orders after due publication may be confirmed by Act of Parliament. The Act embodies regulations as to the gauge of the tramways, the carriages to be used, &c., 33 & 34 Vict. c. 78.

See also Railroad, Tramways, &c.

RECEIPTS. The Stamp Act of 1870, s. 120, gives the following definition of the term Receipt for the Purposes of Revenue, viz. : the term *receipt* means and includes any note, memorandum, or writing whatsoever whereby any money amounting to 2*l.* or upwards, or any bill of exchange or promissory note for money amounting to 2*l.* or upwards, is acknowledged or expressed to have been received or deposited or paid, or whereby any debt or demand, or any part of a debt or demand, of the amount of 2*l.* or upwards, is acknowledged to have been settled, satisfied, or discharged, or which signifies or imports any such acknowledgment, and whether the same is or is not signed with the name of any person.

ROADS. The conversion of turnpike roads and relative bridges into highways and the mode of maintaining them after such conversion are pointed out in clauses 10 to 13 of the annual Turnpike Acts Continuance Act of 1870.

SALMON. In order to prevent still farther the export of unseasonable salmon from the United Kingdom, the period during which it is prohibited is extended by the Salmon Acts Amendment Act of 1870, 33 & 34 Vict. c. 33; the close season, so far as export is concerned, being now from September 3 to April 30. [FISH.]

SAMPLES. The Post Office Act of 1870, 33 & 34 Vict. c. 79, provides for the transmission of sample packets per post at the following reduced rate, viz.:—

On a book packet or pattern or sample packet:—	
If not exceeding two ounces in weight	½d.
If exceeding two ounces in weight, for the first two ounces and for every additional two ounces or fractional part of two ounces	½d.
On a post card	½d.

See SAMPLE in *Commercial Dictionary*.

SILVER. [COINS.]

SINGAPORE. The 33 & 34 Vict. c. 55 confirming an Order in Council of July 28, 1856, and 20 & 21 Vict. c. 75 vests jurisdiction in matters arising within the dominion of the Kings of Siam in the Supreme Court of the Straits Settlements.

SOAP. The duty on a license to a maker of soap for sale repealed by 33 & 34 Vict. c. 32.

SPIRITS. The following new Customs duty is granted by the Customs and Inland Revenue Act of 1870 in lieu of that previously levied.

Perfumed spirits and Cologne water being mixed with any article, so that the degree of strength cannot be ascertained by Sikes' hydrometer, the gallon, 16*s.* 6*d.*

STANDARD. [COINS.]

STILL MAKERS. The duty on a license to a maker of stills in Scotland and Ireland repealed by 33 & 34 Vict. c. 32.

STRAITS SETTLEMENTS. [SINGAPORE.]

SUCCADES. The duty on succades (including all fruits and vegetables preserved in sugar not otherwise enumerated) was reduced by 33 & 34 Vict. c. 32 to 4*s.* 8*d.* per cwt.

SUEZ CANAL. [ALEXANDRIA.]

SUGAR. The duties on sugar granted by the Customs and Inland Revenue Act of 1870 are on the following reduced scale.

On and after the undermentioned dates, in lieu of the duties of Customs now charged on the articles undermentioned, the following duties of Customs shall be charged thereon on importation into Great Britain or Ireland, viz.:—

On and after May 2, 1870:—

Sugar, viz.:—

		s.	*d.*
Candy, brown or white, refined sugar, or sugar rendered by any process equal in quality thereto, and manufactures of refined sugar	per cwt.	6	0

On and after April 13, 1870:—

		s.	*d.*
Sugar not equal to refined:—			
First class	per cwt.	5	8
Second class	„	5	3
Third class	„	4	9
Fourth class	„	4	0
Molasses	„	1	9
Almonds, paste of	„	4	8
Cherries, dried	„	1	8
Combits, dry	„	4	8
Confectionery, not otherwise enumerated	„	4	8
Ginger, preserved	„	4	8
Marmalade	„	4	8
Succades, including all fruits and vegetables preserved in sugar, not otherwise enumerated	„	4	8

And the said duties shall be paid on the weights ascertained at landing.

In lieu of the duties of excise now chargeable on sugar made in the United Kingdom, the following duties of excise shall be charged thereon; that is to say,

On and after May 2, 1870:—

		s.	*d.*
Candy, brown or white, refined sugar, or sugar rendered by any process equal in quality thereto, and manufactures of refined sugar	per cwt.	6	0

On and after April 13, 1870:—

		s.	*d.*
Sugar not equal to refined:—			
First class	per cwt.	5	8
Second class	„	5	3
Third class	„	4	9
Fourth class	„	4	0
Molasses	„	1	9

In lieu of the duty of excise now chargeable upon sugar used in brewing, there shall be charged, on and after the thirteenth day of April, one thousand eight hundred and seventy, upon every hundredweight, and in proportion for any fractional part of a hundredweight, of all sugar which shall be used by any brewer of beer for sale in the brewing or making of beer, the excise duty of 7*s.* 6*d.*

The regulations as to the use of sugar in brewing which are embodied in secs. 8, 9, and 10 of the same Act will be found under ALE AND BEER.

For drawbacks on sugar, see CUSTOMS.

SULINA. [GALATZ.]

TARIFFS. For alteration and reduction effected by the Customs and Inland Revenue Act of 1870 in the British Tariff, see LICENSES, SUGAR, &c.

We extract from the *Times* of August 4, 1870, the following portion of a statement given therein, showing by contrast the extent of the recent modifications in the Tariff of the United States (the figures have been verified by the Tariff itself, published in the *London Gazette* of October 7, 1870):—

'Congress at its late Session passed a Tariff Bill, which changed the rates of duties on a large number of imported articles. The following list will show the present and the new rates of duty on the leading articles of European production, and also some other important articles in which changes were made by the Bill. The new rates are to take effect January 1, 1871.

Absinthe, per gallon.—Present duty, 2 dol. 50 c.; new duty, 2 dol.

Acid, nitric, not chemically pure.—Present duty, 10 per cent.; free. Ditto, muriatic.—Present duty, 10 per cent.; free.

Aniline dyes and colours.—Present duty, 1 dol. per lb. and 35 per cent.; new duty, 50 c. per lb. and 35 per cent.

Antimony, ore of or crude sulphuret of.—Present duty, 10 per cent.; free.

Arsenic.—Present duty, 20 per cent.; free.

Books which have been printed or manufactured more than 30 years.—Present duty, 25 per cent.; free.

Brandy and spirits, per gallon.—Present duty, 3 dol. to 4 dol. 20 c.; new duty, 2 dol.

Brimstone, crude.—Present duty, 6 dol. per ton; free.

Buttons and dress ornaments made of silk, or of which silk is the chief component material.—Present duty, buttons 40 per cent., ornaments 60 per cent; new duty, 50 per cent.

Cassia, per lb.—Present duty, 20 c.; new duty, 10 c.

Cassia buds and ground cassia, per lb.—Present duty, 35 c.; new duty, 20 c.

Chalk, unmanufactured, also cliff stone.—Present duty, 10 dol. per ton; free.

Champagne and sparkling wines in bottles (quarts).—Present duty, 6 dol. per dozen; new duty, 6 dol. per dozen. Ditto, pints.—Present duty, 3 dol. per dozen; new duty, 3 dol. per dozen. Ditto, half-pints.—Present duty, 3 dol. per dozen; new duty, 1 dol. 50 c. per dozen.

Cinnamon, per lb.—Present duty, 30 c.; new duty, 20 c.

Cloves, per lb.—Present duty, 20 c.; new duty, 5 c.

Coal, anthracite.—Present duty, 40 c. per ton; free.

Cocoa, per lb.—Present duty, 5 c.; new duty, 2 c.

Chocolate, per lb.—Present duty, 7 c.; new duty, 7 c.

Coffee, per lb.—Present duty, 5 c.; new duty, 5 c.

Cordials, per gallon.—Present duty, 2 dol. 50 c.; new duty, 2 dol.

Cork, wood, and bark, unmanufactured.—Present duty, 30 per cent.; free.

Corsets, or manufactured corset cloths, valued at 6 dol. per dozen or less.—Present duty, 35 per cent.; new duty, 2 dol. per dozen. Ditto, valued over 6 dol. per dozen.—Present duty, 35 per cent.; new duty, 35 dol. per cent.

Cotton bagging of hemp, jute, flax, gunny bags, or cloth, or other material, valued at 7c. or less per square yard, per lb.—Present duty, 5 c.; new duty, 2 c. Ditto valued over 7 c. per square yard, per lb.—Present duty, 5 c.; new duty, 5 c.

Cotton threads, warps, or warp yarn, not wound on spools, whether

single or advanced beyond single, valued at not exceeding 40c. per lb. Present duty, 4c. per skein and 50 per cent.; new duty, 10 c. per lb. and 20 per cent. Ditto, valued between 40c. and 60c.—Present duty, 4 c. per skein and 50 per cent.; new duty, 20 c. per lb. and 20 per cent. Ditto, valued between 60 c. and 80 c.—Present duty, 4 c. per skein and 50 per cent.; new duty, 30 c. per lb. and 20 per cent. Ditto, valued over 80 c.—Present duty, 4 c. per skein and 50 per cent.; new duty, 40 c. per lb. and 20 per cent.

Currants, per lb.—Present duty, 5 c.; new duty, 2½ c.

Emery ore not pulverized.—Present duty, 6 dol. per ton; free.

Eyelets.—Not mentioned, new duty, 60 c. per 1,000.

Fashion plates engraved on steel or wood.—Present duty, 45 per cent.; free.

Flaxseed or linseed, per bushel.—Present duty, 16 c.; new duty, 20 c.

Flax, unhackled, per ton.—Present duty, 15 dol.; new duty, 20 dol. Ditto, hackled, per ton.—Present duty, 15 dol.; new duty, 40 dol. Ditto, tow, per ton.—Present duty, 5 dol.; new duty, 10 dol.

Flax straw.—Not mentioned, new duty, 5 dol. per ton.

Flint and ground flint stones.—Present duty, 10 per cent.; free.

Fur skins, not dressed.—Present duty, 10 per cent.; free.

German silver manufactures.—Present duty, 35 per cent.; new duty, 45 per cent.

Ginger root, per lb.—Present duty, 5 c.; new duty, 2 c. Ditto, ground, per lb.—Present duty, 8 c.; new duty, 5 c.

Grindstones, rough.—Present duty, 10 per cent.; new duty, 1 dol. 50 c. per ton. Ditto, finished.—Present duty, 20 per cent.; new duty, 2 dol. per ton.

Gums, Arabic, &c.—Present duty, 10 to 20 per cent. ad val.; free.

Gutta Percha, crude.—Present duty, 10 per cent.; free.

Hair cloth, 18 inches wide or over.—Present duty, 30 per cent.; new duty, 40 c. per square yard. Ditto, less than 18 inches wide.—Present duty, 30 per cent.; new duty, 30 c. per square yard. All other hair cloths.—Present duty, 30 per cent.; new duty, 30 per cent.

Hair manufactures.—Present duty, 30 per cent.; new duty, 30 per cent.

Hair-pins.—Present duty, 35 per cent.; new duty, 30 per cent.

Hemp, manilla, and other substitutes for hemp, unmanufactured, per ton.—Present duty, 25 dol.; new duty, 25 dol.

Henbane leaf.—Present duty, 20 per cent.; free.

Indiarubber, crude and milk of.—Present duty, 20 per cent.; free.

Iodine, crude.—Present duty, 50 c. per lb.; free.

Iron, pig, per ton.—Present duty, 9 dol.; new duty, 7 dol. Ditto, cast scrap, per ton.—Present duty, 8 dol.; new duty, 6 dol. Ditto, wrought scrap, per ton.—Present duty, 8 dol.; new duty, 8 dol.

Ivory, unmanufactured.—Present duty, 10 per cent.; free.

Jet, unmanufactured.—Present duty, 35 per cent., ad val.; free.

Lemons, oranges, and pine apples.—Present duty, 20 per cent.; new duty, 20 per cent.

Limes.—Present duty, 25 per cent.; new duty, 10 per cent.

Mace, per lb.—Present duty, 40 c.; new duty, 25 c.

Nickel.—Present duty, 15 per cent.; new duty, 30 c. per lb. Ditto, alloy of.—Present duty, 15 per cent.; new duty, 30 c. per lb. Ditto, oxide.—Present duty, 15 per cent.; new duty, 20 c. per lb.

Nitrate of soda, or cubic nitre.—Present duty, 20 per cent.; free.

Nutmegs, per lb.—Present duty, 50 c.; new duty, 20 c.

Oils, sesame seed, cernse and cotton seed.—Not mentioned; new duty, 30 c. per gallon. *Ditto, aniline.*—Present duty, 30 per cent.; new duty, 20 c. per gallon. Ditto, linseed, per gallon.—Present duty, 25 c., new duty 30 c.

Opium, per lb.—Present duty, 2 dol. 50 c.; new duty, 1 dol. Ditto, prepared for smoking, and all preparations if not otherwise provided for.—Present duty, 100 per cent.; new duty, 6 dol. per lb.

Palm nuts and palm kernels.—Present duty, 2 c. per lb.; free.

Pepper, per lb. Present duty, 15 c.; new duty, 5 c. Ditto, ground, per lb.—Present duty, 18 c.; new duty, 10 c.

Phosphates for fertilizers and all manures.—Present duty, 20 per cent.; free.

Prunes, per lb.—Present duty, 5 c.; new duty, 2 c.

Resins, crude, not otherwise provided for.—Present duty, 20 per cent.; free.

Spices, all not otherwise provided for.—Present duty, 20 per cent.; new duty, 20 c. per lb. Ditto, when ground.—Present duty, 20 per cent.; new duty, 30 c. per lb.

Spirits.—Present duty, 100 per cent.; new duty, 9 dol. per gal.

Steel wire, commercially known as crinoline, corset, or hat steel wire.—Present duty, 15 per cent.; new duty, 9 c. per lb. and 10 per cent.

Steel railway bars.—Present duty, 45 per cent.; new duty, 1½ c. per lb. Railway bars, part steel.—Present duty, 45 per cent.; new duty, 1 c. per lb. Steel Bessemer railway bars.—Present duty, 45 per cent.; new duty, 1½ c. per lb.

Sub-acetate of copper.—Present duty, 6 c. per lb.; free.

Sugar, raw, according to class, per lb. Present duty, 3c. to 4 c.; new duty, 1¾ c. to 3½ c. Ditto, refined, loaf lump, crushed, powdered, and granulated, per lb.—Present duty, 5 c.; new duty, 4 c.

Sword blades.—Present duty, 45 per cent.; new duty, 35 per cent.

Swords.—Present duty, 35 per cent.; new duty, 45 per cent.

Tapioca.—Present duty, 20 per cent.; free.

Tea, per lb.—Present duty, 25 c.; new duty, 15 c.

Tea plants.—Present duty, 30 per cent.; free.

Timber, round, unmanufactured, not otherwise provided for.—Present duty, 20 per cent.; free. Ditto, ship.—Present duty, 20 per cent.; free.

Ultramarine.—Present duty, 25 per cent.; new duty, 6 c. per lb.

Verdigris.—Present duty, 6 c. per lb.; free.

Watch cases, materials, movements, and parts of watches.—Present duty, 20 per cent.; new duty, 25 per cent.

Watch jewels.—Present duty, 25 per cent.; new duty, 10 per cent.

Watches.—Present duty, 25 per cent.; new duty, 25 per cent.

Wines, imported in casks, when valued not over 40 c. per gallon.—Present duty, 30 c. per gallon, and 25 per cent.; new duty, 25 c. per gallon. Ditto, valued over 40 c. and not over 1 dol. per gallon.—Present duty, 50 c. per gallon, and, in addition, 25 per cent.; new duty, 60 c. per gallon.

Wines imported in casks, valued over 1 dol. per gallon.—Present duty, 1 dol. per gallon and, in addition, 25 per cent.; new duty, 1 dol. per gallon and 25 per cent.

Wines imported in bottles (not otherwise provided for) same rate as wines imported in casks.—Present duty, 1 dol. and 25 per cent.; new duty, 1 dol. and 25 per cent.

Woods, viz. poplar and other woods for the manufacture of paper.—Present duty, 20 per cent. ad val.; free.

'All these duties are payable in American gold. The above-given iron and steel duties are all the changes that the new Bill makes in these classes, excepting that it provides that "iron, round, in coils 3-16th of an inch, or less, in diameter, whether coated with metal or not so coated, and all descriptions of iron wire, and wire of which iron is a component part, not otherwise specifically enumerated and provided for, shall pay the same duty as iron wire, bright, coppered, or tinned," which is 2c. to 3½c. per lb. and 15 per cent. The new Bill also provides that "nothing shall be deemed scrap iron except waste or refuse iron, that has been in actual use and fit only to be remanufactured." Wool imported on the skin is to pay, under the new tariff, the same duties that are at present imposed on wool. The above are all the changes made in iron and all metals, cottons, woollens, linens, hemp, books, brandy, spirits, and wines, tea, coffee, spices, hair, and oils, so that in the cases of articles in these classes not mentioned, the rates of duty will remain as at present. The new Tariff Bill provides that the interior cities may import their goods direct, instead of having them examined at the seaboard custom-houses, and that duties may be paid at the place of destination of the package. This is a point for which the people of the interior have long been working, and when put into operation it will materially lessen the labours of the New York Custom-house. The reduction in the revenues to be effected by this new tariff and by the new inland Tax Bill which accompanied it, is estimated at 77,000,000 dol. a year. The new tariff, while professing to be a reduction of taxation, is ingeniously devised to increase the duties on a large number of manufactured articles for which there has been a clamour for more protection; and in three-fourths of the items the rates fixed are such as Congress would never have adopted had they been submitted to a direct vote.'

A Board of Trade notice, July 23, 1870, published in the *London Gazette*, intimates that the Secretary of State for Foreign Affairs has received a despatch from her Majesty's ambassador at Vienna, enclosing translation of two articles of a treaty recently signed and ratified between Austria and the North German Confederation, for the abolition of the Elbe dues.

The following is the translation of the articles:

Art. 1. On and after July 1, 1870, tolls shall be levied on the Elbe upon ships and their cargoes, and upon rafts only for use of certain special appliances designed for the facilitation of traffic.

Art. 2. The convention of April 4, 1863, between Prussia, Austria, Saxony, Hanover, Denmark, Mecklenburg-Schwerin, Anhalt-Dessau-Köthen, Anholt-Bernburg, Lubeck, and Hamburg, respecting a readjustment of the Elbe dues, the regulations imposed by existing treaties, compacts affecting the navigation of the Elbe, which were suspended in virtue of Art. 14 of that convention, and the compact of April 4, 1863, between Prussia, Austria, Saxony, Anhalt-Dessau-Köthen, Anholt-Bernburg, and Hamburg, concerning the administration and imposition at Wittenburg of the Elbe dues, held in common, will cease to have force on and after July 1870. [HAMBURG.]

TELEGRAPHS. The Telegraph Acts of 1868 and 1869 are extended by 33 & 34 Vict. c. 88 to the Channel Islands and the Isle of Man, and the purchase of telegraph undertakings connected with them is sanctioned by the said Act.

The postal telegraph department have issued the following instructions and regulations for the guidance of its own officers and the public:—

1. Instructions for the use of those learning the Morse Alphabet, or a series of signs or signals by

which communications are made along the telegraph wires.

2. Instructions to persons engaged in receiving telegrams from the public, or in despatching or receiving those telegrams by wire, or in delivering them, or in bringing to account the charges for their transmission and delivery.

3. Regulations with respect to the tariff for and transmission of inland messages:—

From one part of the United Kingdom to another the charge is 1*s.* for the first 20 words, and 3*d.* for each additional 5 words or part of 5 words; but no charge is made in the case of such messages for the transmission of the names and addresses of the sender and receiver of the message. The charges are as far as possible to be paid by affixing postage stamps to the form of message. But for further particulars we must refer to the printed instructions, which are voluminous.

4. Instructions for the treatment of Continental, Indian, or American messages, and statement of the tariff or charges for the same.

In the case of messages to the continent of Europe, the addresses of the sender and receiver must be counted in the minimum number of words (20) which constitutes a single rated message, and while the charge for the minimum number of words varies, half the minimum charge for a single message is charged for every additional 10 words. Thus, while the cost of a single message to Denmark is 5*s.*, and to Portugal 8*s.*, the entire charge for every additional 10 words is in the former case 2*s.* 6*d.* and in the latter 4*s.* Subjoined is a tariff of charges (chiefly applicable to the continent of Europe) for a single message of 20 words, including names and addresses, with half rates for every additional 10 words.

Country or Locality	From London			From the Country		
	£	s.	d.	£	s.	d.
Austria and Hungary	0	6	0	0	7	0
Austria and Trieste	0	8	0	0	9	8
Alexandria (via Malta)	1	10	0	1	11	0
Alexandria and Suez (viâ Turkey)	1	5	6	1	6	6
Baden	0	6	0	0	7	0
Bavaria	0	6	0	0	7	0
Belgium	0	2	6	0	4	2
Bergen	1	5	6	1	6	6
Corfu	0	13	0	0	14	0
Cairo and Suez (viâ Malta)	1	14	0	1	15	6
Cairo (viâ Turkey)	1	5	10	1	6	10
Stations on Suez Canal (viâ Malta)	1	16	0	1	17	0
Stations on Suez Canal (viâ Turkey)	1	11	6	1	12	6
Canada	0	4	2	0	5	10
Denmark	0	5	0	0	5	0
France	0	3	4	0	3	6
Greece (viâ Turkey)	0	9	0	0	10	0
Greece (viâ Corfu)	0	13	4	0	14	4
Greek Islands:						
Ithaca (viâ Volo)	0	10	6	0	11	6
Ithaca (viâ Corfu)	0	14	6	0	15	6
Cephalonia (viâ Volo)	0	10	6	0	11	6
Cephalonia (viâ Corfu)	0	14	6	0	15	6
Zante (viâ Volo)	0	10	6	0	11	6
Zante (viâ Corfu)	0	14	6	0	15	6
Holland	0	3	5	0	4	9
Italy	0	7	6	0	8	6
Jersey	0	6	8	0	7	8
Luxemburg	0	6	0	0	7	0
Malta	0	10	0	0	11	0
North Germany	0	6	0	0	7	0
Norway	0	5	0	0	5	0
Papal States	0	8	4	0	9	4
Portugal	0	8	0	0	9	0
Principalities Roumania	0	7	6	0	8	6
Russia (to Europe)	0	10	0	0	11	0
Russia (Caucasus)	0	12	0	0	13	0
Russia (West of Tomsk, Siberia)	0	15	0	0	17	0
Russia (East of Tomsk, Siberia)	1	2	6	1	3	6
Principality of Servia	0	6	6	0	7	6
Spain	0	7	0	0	8	0
Sweden	0	7	0	0	8	0
Switzerland	0	5	10	0	6	10
Tripoli	0	17	0	0	18	0
Turkey in Europe	0	9	0	0	10	0
Turkey in Asia	0	15	6	0	16	6
Wurtemburg and Hohenzollern	0	6	0	0	7	0

* The 5*s.* rate to Denmark and Norway will be maintained so long as the communication through the Danish and Norwegian cables is kept up. If that communication were interrupted the charge would be 2*s.* 6*d.* from London and 2*s.* 1*d.* from the country to Norway, and 7*s.* from London and 5*s.* from the country to Denmark.

The charges for messages to telegraph stations in India are as follow:

To telegraph stations in India, west of Chittagong, the charge is from London — 10 words, 1*l.* 17*s.*; 20 words, 2*l.* 17*s.*; from the provinces—10 words, 1*l.* 18*s.*; 20 words, 2*l.* 18*s.* *The addresses must be charged for.*

To telegraph stations east of Chittagong and Ceylon, the charge is from London — 10 words, 2*l.* 1*s.*; 20 words, 3*l.* 1*s.*; from the provinces—10 words, 2*l.* 2*s.*; 20 words, 3*l.* 2*s.* *The addresses must be charged for.*

The charge to the undermentioned stations is, from London—10 words, 1*l.* 12*s.* 9*d.*; 20 words, 2*l.* 9*s.* 6*d.* From provinces—10 words, 1*l.* 13*s.* 9*d.*; 20 words, 2*l.* 10*s.* 6*d.* *The addresses must be charged for*:—Benjaum, Jask, Gwadur, Kurrachee.

For every additional 10 or fraction of 10 words above 20 words to any of the above places one-half of the charge for 20 words must be made.

The charge to Bushire is — 20 words from London, 1*l.* 6*s.* 6*d.*; from the provinces, 1*l.* 10*s.* 6*d.* Half that rate must be added for every subsequent 10 or fraction of 10 words.

The rates charged by the Anglo-American Telegraph Company (Limited) are—

Telegraph Tariff to States and Countries in United States and Canada.

Great Britain and Ireland to	Ten Words			Each additional Word	
	£	s.	d.	s.	d.
Alabama	1	17	6	3	9
Arizona	2	5	0	4	6
Arkansas	2	5	0	4	6
California	2	5	0	4	6
Canada East	1	10	0	3	0
Canada West	1	10	0	3	0
Cape Breton	1	10	0	3	0
Colorado Territory	2	5	0	4	6
Columbia, District of	1	12	6	3	3
Columbia, British	2	12	6	5	5
Connecticut	1	10	0	3	0
Cuba, Island of	3	2	6	6	7
Dakotah Territory	2	5	0	4	6
Delaware	1	12	6	3	3
Florida	2	10	0	5	0
Georgia	1	17	6	3	9
Idaho Territory	2	5	0	4	6
Illinois	1	17	6	3	9
Indiana	1	17	6	3	9
Iowa	2	5	0	4	6
Kansas Territory	2	5	0	4	6
Kentucky	1	17	6	3	9
Louisiana	1	17	6	3	9
Maine	1	10	0	3	0
Maryland	1	12	6	3	3
Massachusetts	1	10	0	3	0
Michigan	1	17	6	3	9
Minnesota	2	5	0	4	6
Mississippi	1	17	6	3	9
Missouri	2	5	0	4	6
Montana Territory	2	5	0	4	6
Nebraska Territory	2	5	0	4	6
Nevada Territory	2	5	0	4	6
New Brunswick	1	10	0	3	0
Newfoundland	1	10	0	3	0
New Hampshire	1	10	0	3	0
New Jersey	1	12	6	3	3
New Mexico	2	5	0	4	6
New York	1	12	6	3	3
North Carolina	1	17	6	3	9
Nova Scotia	1	10	0	3	0
Ohio	1	17	6	3	9
Oregon	2	12	6	5	5
Pennsylvania	1	12	6	3	3
Prince Edward's Island	1	10	0	3	0
Rhode Island	1	10	0	3	0
South Carolina	1	17	6	3	9
Tennessee	1	17	6	3	9
Texas	2	5	0	4	6
Utah Territory	2	5	0	4	6
Vancouver's Island	2	12	6	5	5
Vermont	1	10	0	3	0
Virginia	1	17	6	3	9
Washington Territory	2	12	6	5	5
Wisconsin	1	17	6	3	9
Wyoming	2	5	0	4	6

And those of the Société du Cable Transatlantique Française are much the same.

TENDER. [LEGAL TENDER.]

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TRADE.—*Statement of the Real Value of the Total Annual Imports into and Exports from the United Kingdom (exclusive of Bullion) from 1855 to 1869, with Proportion thereof per Head of Total Population.*

Years	Imports		Exports				Total of Imports and Exports	
			British Produce		Foreign and Colonial Produce	Total Value of British and Foreign and Colonial Produce		
	Total Value	Proportion per Head of Population of United Kingdom	Total Value	Proportion per Head of Population of United Kingdom			Total Value	Proportion per Head of Population of United Kingdom
	£	£ s. d.	£	£ s. d.	£	£	£	£ s. d.
1855	143,542,850	5 3 2	95,684,085	3 8 10	21,003,215	116,691,300	260,234,150	9 7 0
1856	178,544,154	6 5 2	115,826,948	4 2 10	23,393,105	139,220,353	311,761,507	11 2 7
1857	187,841,611	6 13 5	122,056,107	4 6 7	24,108,191	146,174,301	334,018,712	11 17 0
1858	164,583,852	5 16 0	110,998,256	4 2 5	23,174,423	134,782,779	304,566,611	10 14 5
1859	179,182,765	6 5 5	150,111,520	4 11 2	27,281,146	155,696,375	334,879,130	11 11 2
1860	210,550,873	7 7 0	135,811,247	4 18 7	28,650,144	164,541,551	375,352,224	13 0 7
1861	217,185,024	7 10 2	125,102,814	4 6 5	31,529,684	156,632,498	377,117,522	13 0 5
1862	225,316,976	7 14 7	123,102,251	4 5 7	42,175,870	166,168,134	391,885,110	13 8 5
1863	248,949,020	8 9 5	146,602,514	5 0 0	50,300,067	196,902,409	445,851,429	15 3 5
1864	274,932,172	9 6 0	160,449,953	5 8 7	52,170,661	212,619,614	487,551,786	16 9 10
1865	271,072,285	9 2 2	163,855,725	5 11 5	52,995,851	216,851,576	488,923,861	16 9 2
1866	295,293,274	9 17 2	188,917,545	6 6 2	49,988,146	238,905,682	534,199,056	17 16 10
1867	275,183,137	9 2 6	180,951,943	6 0 0	44,840,606	225,802,549	501,085,666	16 12 3
1868	291,695,598	9 14 0	179,677,812	5 18 3	48,100,342	227,778,154	522,472,062	17 3 11
1869	295,128,967	9 12 1	191,015,250	6 3 7	47,061,095	237,106,525	532,535,292	17 6 3

TRAMWAYS. [Railroad Tram and Waggon Road.]

UNITED STATES. [Tariffs.]

WAGES. The attachment of wages is abolished in England by the Wages Attachment Abolition Act of 1870; and the Wages Arrestment Limitation (Scotland) Act of 1870 provides that only that portion of the wages of labourers, farm servants, manufacturers, artificers, and work-people, which is in excess of 20*s.* per week, shall be liable to arrestment for debt.

WATCHES. Plate license unnecessary for the sale of watch-cases by the maker, 33 & 34 Vict. c. 32 s. 4.

WATER. By the Gas and Water Facilities Act of 1870 the Board of Trade is authorised, after certain preliminaries, to issue provisional order, to any local authority, such as described in the Act, for all or any of the following purposes:—

2. To construct or to maintain and continue waterworks and works connected therewith, or to supply water in any district within which there is not an existing company, corporation, body of commissioners, or persons empowered by Act of Parliament to construct such works and to supply water:

3. To raise additional capital necessary for any of the purposes aforesaid:

4. To enable two or more companies or persons duly authorised to supply gas or water in any district or in adjoining districts to enter into agreements jointly to furnish such supply, or to amalgamate their undertakings:

5. To authorise two or more companies or persons supplying gas or water in any district or in adjoining districts to manufacture and supply gas or to supply water, and to enter into agreements jointly to furnish such supply, and to amalgamate their undertakings.

WEIGHTS AND MEASURES. See article Coin for statement of the standard weight of each denomination of coin as fixed by the Coinage Act of 1870.

LONDON: PRINTED BY
SPOTTISWOODE AND CO., NEW-STREET SQUARE
AND PARLIAMENT STREET

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